Does Political Partisanship Affect Housing Supply? Evidence from US Cities

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Abstract

We study the relationship between housing supply and political partisanship in US cities using a new database of mayoral elections combined with local housing permits since 1980. Endogeneity of which party holds the mayoral office is addressed via a regression discontinuity design that relies on closely contested races between Republicans and Democrats. We find that partisanship has no effect on the supply of single and multifamily housing despite recent increases in extreme partisanship, corroborating that US cities follow the median voter. This indicates that solutions to housing affordability will not be dependent upon the political party in power at the local level.

Keywords: Housing supply, political partisanship, local politics

JEL Codes: H7, P4, R3

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I. Introduction

The median price of a home in San Francisco in August 2023 was $1.38 million, and many other cities report median prices upwards of one-half million dollars.[1] Among housing economists, there is an understanding that home prices so high as to be unaffordable for a typical household is the result of restrictions on residential building activity in the face of growing demand for homes (e.g., see Gyourko and Malloy (2015) and Glaeser and Gyourko (2018)). While the overwhelming majority of regulations that limit housing supply are locally determined in the United States (Gyourko, Hartley and Krimmel, 2021), growing concerns about housing affordability have triggered reactions in the political sphere at all levels of government.[2]

In this paper, we investigate whether local political partisanship can account for differences in new housing supply across cities in the US. There is an expanding literature showing that partisanship matters for various policy outcomes at the federal and state levels (Lee, Moretti and Butler (2004) and Carlino, et. al. (2023)). The evidence is much less clear at the local level, with Ferreira and Gyourko (2009) reporting no impact of partisanship at the city level for the scale of municipal spending, its allocation across functions or crime rates. More recently, Anzia's (2021) review of research into local outcomes shows no consensus about the role of partisanship among political scientists. Boxell, Gentzkow and Shapiro's (2021) data indicating that political partisanship has intensified in the United States (and around the globe) also suggests that economists and policy makers would benefit from more research into its potential influence.

To test for the effect of party affiliation on housing supply, we first update the mayoral elections data introduced in Ferreira and Gyourko (2009) that has been widely used in the literature. Thousands of new elections have been added, primarily from the period 2005 to 2017. The data includes the name of the mayor and second-place candidate, vote totals for each candidate, and party affiliation when available. We then match local elections with detailed

[1] See www.redfin.com for updated numbers.

[2] Both the Trump and Biden Administrations established councils to address affordability concerns – see The White House (2019, 2021). At the state level, the California legislature recently debated whether to limit a locality's ability to restrict housing development around transit nodes, but decided not to intervene (Dougherty, 2020). Across the country, the governor of New York proposed legislation to restrict localities' rights to stop housing development, but it did not become law either. See Bellafante (2023) for more on this effort. These are but two examples of increasingly widespread efforts to address the affordability issue that range from reimposing rent control to relaxing zoning rules to allow for more density.

home permitting data from the roughly 20,000 permit-issuing places based on the Census Bureau's Building Permit Survey.

Unconditional averages show that Republican-led cities provide 16% more housing permits on a yearly basis than Democrat-led ones. That difference obviously could be caused by factors such as geography or differential local demand growth rather than political partisanship. We deal with the endogeneity of political partisanship by relying on a regression discontinuity (RD) design based on close mayoral elections (Lee, 2001, 2008), which we argue provides quasi-random variation in the party, Republican or Democrat, that controls city government. Our RD estimates reveal that partisanship does not play an economically or statistically meaningful role in local permitting intensity. The same conclusion holds if we estimate an alternative RD based on the local randomization model (Cattaneo, et. al., 2023).

We then test if different sources of heterogeneity across cities could lead to some type of partisan effect. For example, partisanship could be relevant when the number of potentially competitive nearby jurisdictions within the local labor market area is low. In that environment, mayors may be more likely to indulge their policy preferences since voters have fewer options to vote with their feet (Ferreira and Gyourko (2009)). We do find in some, but not all, specifications that Democrat mayors who win close elections permit more housing than a Republican mayor in cities with little Tiebout competition. We also investigated whether there was heterogeneity by the population size or growth rate of the locality, but found no evidence in favor of either. This is also the case when we split the sample by time of the election. There is no evidence of a differentially larger partisan impact in more recent decades. Hence, the growing partisanship of recent years does not appear to have influenced house permitting intensity at the local level.

Our results are noteworthy in a number of respects. First, they confirm that not every public sector outcome is determined by partisanship, with what goes on at the local level in the United States being a prime example. It corroborates our early work showing that US cities follow the median voter as postulated in Hotelling (1929) and Downs (1957). Second, it indicates that there is not a straightforward political solution, say in terms of one party winning more mayoral elections, that would result in substantially more housing permit issuance. Third and related, our findings suggest that we need to look beyond partisanship in the American political system to better understand the underlying cause of unaffordably high home prices. We have

more to say on this matter in the concluding section of the paper where we discuss a path for future research.

Our work contributes to many literatures. The first one studies political partisanship, both its measurement and impact. As noted above, Boxell, Gentzkow and Shapiro (2021) provides a recent analysis of the international data on how people feel about their political party and that of their opponent, and document heightening feelings of partisan intensity. Anzia (2021) provides a recent overview of the debate in political science about whether partisanship matters at the local government level. On one side is the so-called 'traditional view' prominently associated with Paul Peterson's (1981) argument that cities should not be viewed as miniature nations or states for a couple of reasons: (a) local issues tended to be distinct from national ones; and (b) there is a never-ending competitive pressure to preserve a mobile local tax base. On the other side is newer research arguing that ideology or party are increasingly important for local government outcomes, at least partly because polarization itself has increased across the United States and possibly because racial and civil rights issues are quite different from those associated with spending categories facing hard budget constraints. Anzia's (2021) conclusion is that more careful measurement and analysis (both theoretical and empirical) is needed before one casts aside Peterson's (1981) traditional view. She also explicitly encourages the study of potential impacts on housing development and zoning in this respect.

The second literature is about the nature of housing supply and how it affects housing affordability across local markets. Glaeser & Gyourko (2018) provides a recent overview and analysis, arguing that limitations on supply have economically meaningful impacts on prices and affordability conditions in certain markets. Gyourko & Molloy (2015) provide a detailed literature review on how local residential land use regulation mediates this relationship. There is an international component to this literature, too, with Anagol, Ferreira & Rexer (2023) providing an analysis of the welfare and economic consequences of a zoning reform in Brazil.

The third literature is about the impact of different aspects of local politics on housing supply. Yu (2022) estimates the impact of local campaign political contributions on housing supply, and Ouasbaa, Solé-Ollé, and Viladecans-Marsal (2022) look at the effect of electing developers to city councils. The two papers most closely related to ours report conflicting evidence of partisan impacts. Kahn (2011) investigated the role of local resident political ideology in affecting permitting approval rates, using a 2000-2008 panel of 317 California cities

that were within 35 miles of each metropolitan area's urban core. His measure of 'liberal' ideology was based on the combined local vote share in the 2000 Presidential election for the Democrat, Peace and Freedom or Green parties. Kahn finds that a 10% increase in liberal vote share was associated with about a 20-30% decline in housing permits. De Benedictis-Kessner, Jones and Warshaw (2023) reach a very different conclusion. Focusing on larger jurisdictions across the country with at least 75,000 residents, they find that electing a Democrat as mayor in a close election leads to an 80% increase in multifamily housing permits being issued over a 2-3 year period, but only small and statistically insignificant impacts on single family permitting activity as well as total permitting activity. In short, there is no consensus in the empirical literature on the question of whether local political partisanship affects housing supply in a systematic manner.

The plan of the paper is as follows. The next section presents the new elections data merged with the housing permits data. That is followed by a brief explanation of our regression discontinuity approach and the validity of the research design. Section IV presents the main results. There is a brief conclusion.

II. Data

Mayoral Elections

The mayoral election data used in this paper is derived from several sources. The starting point is the primary survey data described in Ferreira and Gyourko (2009), which contains detailed information on mayoral elections from 1945 to 2004, including the name of the mayor and second-place candidate, aggregate vote totals and votes for each candidate, party affiliation, type of election, and some additional information pertaining to specific events such as runoffs and special elections. We improved upon this data by conducting online searches for similar local election results from 2005 to 2017. Information was collected from a variety of sources such as state, county, and city election boards, as well as local newspapers. As with the original survey data, many elections do not report information on party affiliation because there is a large fraction of cities that is institutionally non-partisan in the sense they prohibit party labels from being printed on election ballots. This does not mean that all those mayoral races literally had no partisan content, so it is still likely that most candidates are associated with a party. In these situations, we searched for partisan information in local newspapers using the NewsBank data

source. In practice, we systematically used textual analysis to search for partisan content associated with the names of mayors and second place-candidates in their city newspapers.

Figure 1 presents a histogram with the number of observations by year, which generally grows over time, reaching more than 300 elections per year in the mid-1990s. Table 1 reports the number of observations associated with select data characteristics for several subsamples. Column 1 contains all elections in our sample. Column 2 restricts the data to elections with non-missing data for mayoral votes and vote totals, and with elections term lengths of two, three or four years.[3] Column 3 only shows data since 1980 because our housing permit data begin in that year. Column 4 then restricts the sample to elections matched with the permit data and that have non-missing information on the average number of permits during the winner's initial term of office. Column 5 further restricts the data to elections with information on the party affiliation of the mayor, and column 6 displays data with information about the party affiliation of the runner up, which in practice also removes unopposed elections. Finally, column 7 focuses on elections where a Democrat ran against a Republican. The sample from column 7 is used in the regression discontinuity estimates. On average, those elections are in slightly more populated cities with more voters (16,125 votes for 1st place candidate and 10,337 votes for the 2nd place candidate), where Democrats hold 56% of the mayoral offices, with an average number of yearly permits that is approximately 1% of the housing stock.

Residential Permits

We use housing permit data collected and maintained by the United States Census Bureau. These are based on responses to the Census Bureau's *Building Permits Survey* (*BPS*), which is conducted monthly across thousands of permit-issue places throughout the nation.[4] We use data from 1980-2022 that includes the total number of housing units permitted, along with breakdowns into whether the permit is for a single unit (which can be attached or detached) or is for more than a 1-unit structure, which we colloquially term multifamily units.[5] We always

[3] Raw election data do not include the length of the mayoral term, but we are generally able to infer term length based on the stability of frequency of elections in a city.
[4] In the first year of our data (1980), there were approximately 16,000 such places. This grew to 20,100 in 2014. Most permit-issuing places are municipalities, with the remainder being counties, townships or special New England-type towns.
[5] In our analysis, this second category is the sum of the units permitted in 2-unit structures, 3-4 unit structures and 5+ unit structures. Breakdowns into these finer categories are available on the Census website.

report results for single-family and multifamily permitting, with the sum equaling total house permits.

Figure 2 plots single- and multifamily permits as a share of the total number of housing units in a given year. Total permits averaged at least 1% of the stock from the start of our data in 1980 until the Great Recession, when it fell precipitously and had only partially recovered by the end of our series in 2022. The dominance of the single unit structure in American housing is evident in its consistently higher permitting intensity over time. It also is more volatile than the multifamily series on average.

The panels in Figure 3 report heat maps of multiyear averages of total permits divided by the overall housing stock at the county level across decades. These plots highlight the degree of heterogeneity across space, and confirm the decline in permitting intensity over time, especially since the Great Recession.

Using the regression sample from column 7, we can calculate unconditional differences by political party. In levels, Republican-led cities issue a bit over 0.0105 permits per housing unit, while Democrat-led cities issue just over 0.009 permits per housing unit. Of course, those unconditional differences may occur simply because Republican cities are different than Democrat cities in many dimensions that influence permitting intensity (e.g., not being coastal and, thus, having less severe geographic constraints; experiencing higher in-migration rates, and, thus, a greater demand for housing, etc.). In the next section, we describe our empirical strategy to distinguish the role of partisanship from other determinants of housing supply.

III. Regression Discontinuity

The fundamental identification problem in generating unbiased estimates of a pure party effect on a policy outcome arises from the likelihood that whether or not a Democrat or Republican leads a given city is determined by local traits that are unobserved by the econometrician. To deal with this endogeneity issue, we compare cities where Democrats barely won an election with cities where Democrats barely lost (and a Republican won). Lee (2001, 2008) demonstrates that this strategy provides quasi-random variation in party winners because, for narrowly decided races, which party wins is likely to be determined by pure chance as long as there is some unpredictable component of the ultimate vote.

This leads us to estimate the following model of housing supply outcome *S* in city *c* and mayoral term *t*:

$$(1)\ S_{c,t} = \beta_0 + \beta_1 D_{c,t} + \beta_2 MV_{c,t} + \beta_3 D_{c,t} MV_{c,t} + \delta_t + \gamma_r + \eta_{c,t}$$

where *D* is a dummy variable that takes on a value of one if a Democrat won the mayor's race in election *t* in city *c*, *MV* refers to the margin of victory defined as the difference between the percentage of votes received by the winner and the percentage of votes received by the runner-up, δ_t is a time fixed effect controlling for the year of the election, and γ_r is a census region fixed effect. Thus, the pure party effect, β_1, is estimated controlling for the margin of victory in linear form and interacted with whether a Democrat won the mayor's race, always controlling for time and region. We also estimate models with a more complex functional form that includes quadratic and cubic terms to verify that our conclusions are robust to such changes.

The validity of this research design relies on the similarity of cities close to the margin of victory threshold. We investigate the robustness of this assumption in two ways. First, Figure 4 plots the histogram of the number of elections by margin of victory. We find no visible differences in the number of elections around the threshold, indicating that neither Republicans nor Democrats disproportionately win close elections (which could indicate the ability to manipulate close results). Second, Figure 5 plots averages and the linear fit for four city characteristics: total population, total number of housing units, total number of votes, and voter turnout. There is no discernable discontinuity around the margin of victory threshold for any of those characteristics.

IV. Results

IV.A. Main Results

Table 2 reports our main estimates of partisan influence on local housing supply. Results are reported for the three permit variables (total, single-family, multifamily), with the first panel using the average across all years of the underlying mayoral term. The first column presents the mean and standard deviation of each of those variables in our final sample. Average total permits represent almost 1% of the housing stock (0.978%), with two-thirds of that aggregate being single-family permits. Column 2 then reports unconditional differences in outcomes based

on whether a city has a Democrat rather than a Republican mayor. A positive (negative) coefficient always signifies that there is more (less) housing supply in a Democrat-led city. On average, cities with a Democrat mayor provide 0.165 percentage point fewer permits than cities with a Republican mayor, with virtually all of that difference being due to lower single-family unit permitting. In aggregate, this translates into about a 16% smaller housing supply increase than the average city. The next two columns in Table 2 report results based on RD specifications. The third column reports estimates of a pure party effect on local housing supply based on the specification in equation (1) that includes a linear control for margin of victory and an interaction of that term with a dummy for whether a Democrat is mayor. The fourth column includes an expanded version of (1) that controls for quadratic and cubic terms.

In the linear RD specification (column 3), the estimated partisan impact on single-family and total permitting intensity is positive, but economically small and insignificant statistically. In addition, there is virtually a zero partisan impact found on multifamily permitting. Estimates from the cubic specification are larger in absolute value, but never approach significance at standard confidence levels.

Figure 6 depicts our main result visually from the linear RD in the top panel for total permits per existing housing unit for the average of the mayoral term. Each dot corresponds to the average outcome that follows election *t*, given the margin of victory obtained by Democrats in election *t*. The solid line in the figure represents the predicted values for the linear model in Column 3 of the top panel in Table 2, with the dashed region representing 95% confidence intervals. Visual inspection confirms that there is a small positive relationship between housing supply and having a Republican mayor, but there is no significant discontinuity around the close election threshold. Figure 7 shows the analogous results for single-family and multifamily unit permitting, respectively.

We also estimated an alternative RD based on the local randomization model - see Cattaneo et al. (2023). We first estimate an optimal window around the democratic margin of victory between -5.5 and +5.5 percentage points. Estimating this window requires the construction of predetermined covariates that are correlated with margin of victory. We follow Cattaneo et al.'s (2023) strategy of using past political outcomes to create three predetermined covariates: Democratic margin of victory in the previous election, whether the previous mayor was a Democrat, and the share of Democratic mayors in the same state in the previous election.

The optimal window is chosen when the estimated p-value of the covariate balance test drops below 0.15 – see Figure 8.

Then we compare averages between Democratic and Republic cities around that window. Figure 9 shows this comparison for all permit data in bins of 0.5 percentage points Democratic margin of victory around the optimal window. There is no evidence of a discontinuity in outcomes. Column 5 of Table 2 displays all estimates and confidence intervals. None of them are statistically different from zero, which is not a surprise given the previous RD results and that this alternative test uses a smaller number of observations.

The three other panels in Table 2 document that our baseline result of there being no meaningful difference in permitting activity based on the party affiliation of the mayor, either in aggregate or by single- versus multifamily category, is robust to alternative measures. For example, if it takes time for a new mayor to change permitting conditions, then one might expect to see a partisan impact only later in the term. However, the results in the second panel, which use information only from the final year of a mayoral term, show this is not the case. The bottom two panels of Table 2 provide further confirmation of there being no partisan influence. The third panel's results use the difference between the final and initial year of a mayoral term to measure the permitting outcome, with the fourth panel using the difference between the current and previous term. In no case do we find any evidence that political partisanship drives permitting outcomes on average. The relevant coefficients remain small in magnitude and never approach standard levels of statistical significance.

Finally, the results do not change if we allow for even more time to pass. In this particular analysis, we start by testing whether there is a strong so-called incumbent effect that raises the probability of being reelected. Figure 10 shows that the answer is 'yes', with a Democrat who won a close election being about 20 percentage points more likely to win the subsequent election compared to an otherwise equivalent Democrat candidate who barely lost the previous election. Lee, Moretti and Butler (2004) argue that this incumbent effect conveys significant political advantage. If so, such power could translate into more housing permits in a second term. However, Figure 11's plot of linear RD results shows no such impact in term $t+1$.

IV.B. Heterogeneity

While our main result that the party affiliation of a mayor who won a close election has no impact on permitting activity is quite robust, it still could be masking interesting heterogeneity along different dimensions. We investigate this possibility with the caveat that our sample and econometric strategy leave us with limited statistical power with which to test for differential effects. We begin by following our 2009 work in asking what could be mediating the impact of political partisanship at the local level. The classic Tiebout (1956) model from urban economics suggests that sufficient competition among jurisdictions within a metropolitan area can allow residents to sort based on their preferences (for more or less housing in our case). Effectively, this ability to 'vote with one's feet' could prevent a mayor from indulging any partisan preference regarding permitting activity she might have. We begin by creating a Herfindahl index (HHI) based on the number of jurisdictions in each underlying metropolitan area, where a small index number indicates a large number of jurisdictions with little concentration and a high index number indicates high concentration due to relatively few jurisdictions in the labor market area. We then created a dummy variable based on whether each underlying locality was in a metro area with a HHI value above the sample median. That was then used in an expanded version of equation (1) as described immediately below:

$$(2)\ S_{c,t} = \beta_0 + \beta_1 D_{c,t} + \beta_2 MV_{c,t} + \beta_3 D_{c,t} MV_{c,t} + \beta_4 HHI_{c,t} + \beta_5 D_{c,t} HHI_{c,t} + \beta_6 MV_{c,t} HHI_{c,t} + \beta_7 D_{c,t} MV_{c,t} HHI_{c,t} + \delta_t + \gamma_r + \eta_{c,t}$$

where the coefficient of interest is β_5.

Its marginally significant coefficient value of 0.304 in the first row of the first column of Table 3 indicates that a Democrat mayor who won a close election permits 0.304 percentage points more housing units on average throughout her term than would a Republican mayor who also won a close election *if* the mayor's locality is in a metropolitan area with a Herfindahl index value above the sample median. The estimated impact is modestly larger and becomes statistically significant at conventional levels using data from the last year of mayoral term (second row, column 1). In column 2, the Herfindahl index dummy equals one only if the mayor is from a city in a metro area in the top quartile the distribution. Those point estimates go up a bit as expected if competition across jurisdictions is an important factor. However, these results do not survive the measures of differences in permitting activity in the bottom two rows of Table 3.

At best, there is modest evidence that, if the number of competitive jurisdictions is relatively small, Democrat mayors are able to indulge a partisan preference for more homebuilding in total.

We next estimated the analogous specifications for heterogeneity based on the population of the underlying jurisdictions. No statistically significant partisan impacts were found, with the point estimates being of different signs depending upon the permitting intensity measure being used. Hence, there is no evidence that partisanship is more important in more populous jurisdictions.

The fifth and sixth columns of Table 3 find no impact of the mayor being in a city that is growing more or less rapidly. Once again, we created dummies for whether the underlying jurisdiction grew above the median and 75th percentile of the population growth distribution for our sample. No coefficient ever reaches standard levels of statistical significance, and coefficient signs again vary across how permitting intensity is measured.

The final two columns report results based on whether the underlying election is from a more recent time period—since 2000 or 2010. Because scholars consistently have measured partisanship as having increased or become more intense in recent decades, we might well expect its impact to be greater now than in the past. Estimate impacts are not stable across samples or time periods, and none are statistically significant. Hence, we can find no evidence that partisanship affects permitting in more recent decades, a time when other research tells us that partisan intensity is greater.

V. Conclusion

Our analysis of the impact of political parties on housing supply in the United States uses a new and improved database of mayoral elections combined with comprehensive data on local housing supply based on housing permits. Using a regression discontinuity design that relies on the quasi-experimental variation from closely contested races between Democrats and Republicans, we find no evidence of partisan influence on local housing supply. There is some heterogeneity about this average result that appears driven by the underlying nature of multi-jurisdiction labor market areas that allows for people to vote with their feet and sort based on preferences for public outcomes. In previous work (Ferreira & Gyourko (2009)), we found this helped discipline potential partisan preferences regarding overall spending and its allocation across functions. The same holds here with respect to housing permitting intensity in many of

our specifications. But this result should not be misinterpreted. The main finding is the absence of partisan impact on average. Economic issues related to public spending and housing supply outcomes in cities across the U.S. receive a different partisan treatment from what is observed at the state and federal levels in our age of rising partisanship.

It certainly appears that localities can restrict housing development by not issuing permits if they so desire, and this paper concludes that pattern is not due to political partisanship as reflected in being a Democrat or Republican. That then begs the question of what else can account for the growing affordability problems seen across various U.S. markets. Economists naturally presume that locally elected officials such as mayors respond to the wishes of their constituent voters. New construction always generates some negative effects for current residents, ranging from very localized pollution to longer-run potential crowding of key infrastructure such as roads or schools to changing the socio-demographic make-up of neighborhoods (e.g., see Krimmel (2022) and Cui (2023)). Hence, the costs certainly could outweigh the benefits for existing residents. Of course, this does not take into account the utility of nonresidents who might want to live in one of those new housing units. Because they are not part of the mayor's constituency, their 'votes' do not matter.

This reflects an uninternalized externality that might be best addressed via the intervention of a higher level of government. For example, Anagol, Ferreira & Rexer (2023) show that a large city such as Sao Paulo was able to increase densification around transportation corridors – and help new residents – by centralizing zoning decisions that were previously delegated to neighborhoods. As noted in the Introduction, various U.S. state governments have also considered intervening to restrict localities' ability to constrain new housing development, but they have not been successful in producing large changes in housing construction as yet. One way to help that process along might be to provide resources to compensate communities for allowing more building that takes into account demand by nonresidents. Duranton and Puga (2023) suggest that the transfers needed to compensate incumbent residents are likely to be much lower than the cost of the distortion that is created by housing unit permitting shortfalls that leave productive labor market areas inefficiently small. Given that there does not seem to be a political path by which one party at the local level will allow substantially more building than occurs at present, it seems fruitful for future research to start analyzing the costs and benefits of

potential policy solutions that try to internalize the externality arising from mayors not needing to care about the preferences of nonresidents who might want to move to their community.

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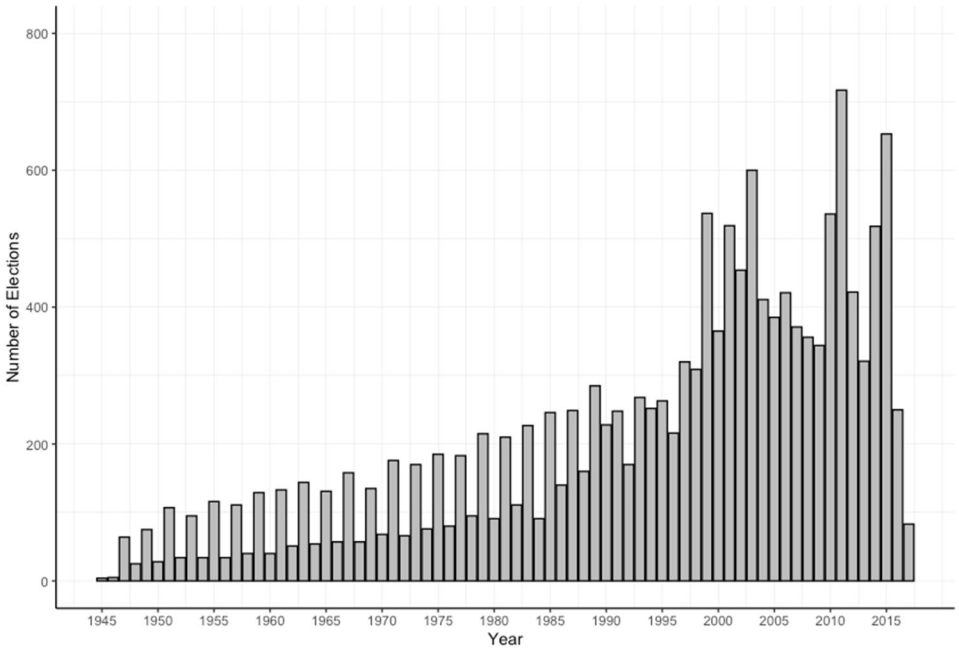

Figure 1: Number of Elections by Year

Notes: Number of elections by year using the updated elections data described in the text.

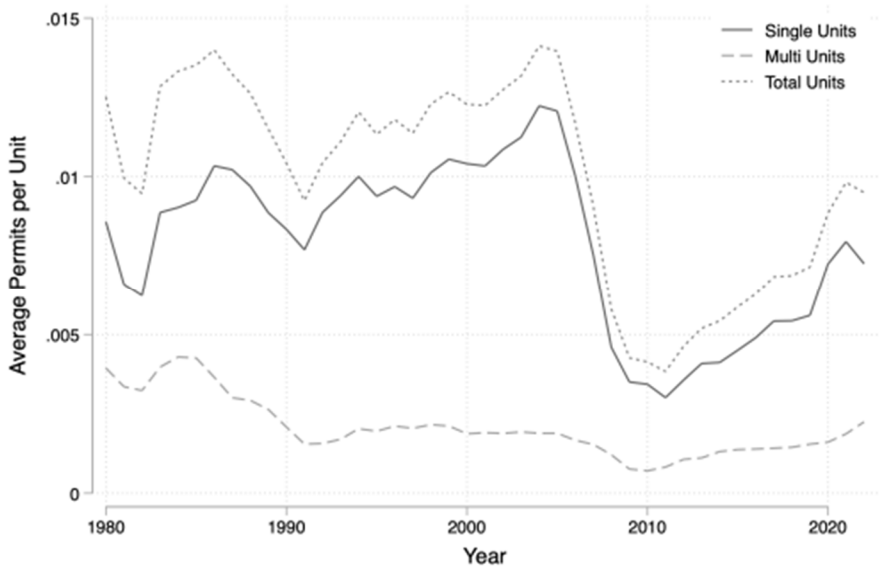

Figure 2: Average Number of Permits by Year and Type

Notes: New housing permit data from Census Bureau's Building Permits Survey – see text for more details. All permit variables are divided by the stock of housing units in that year.

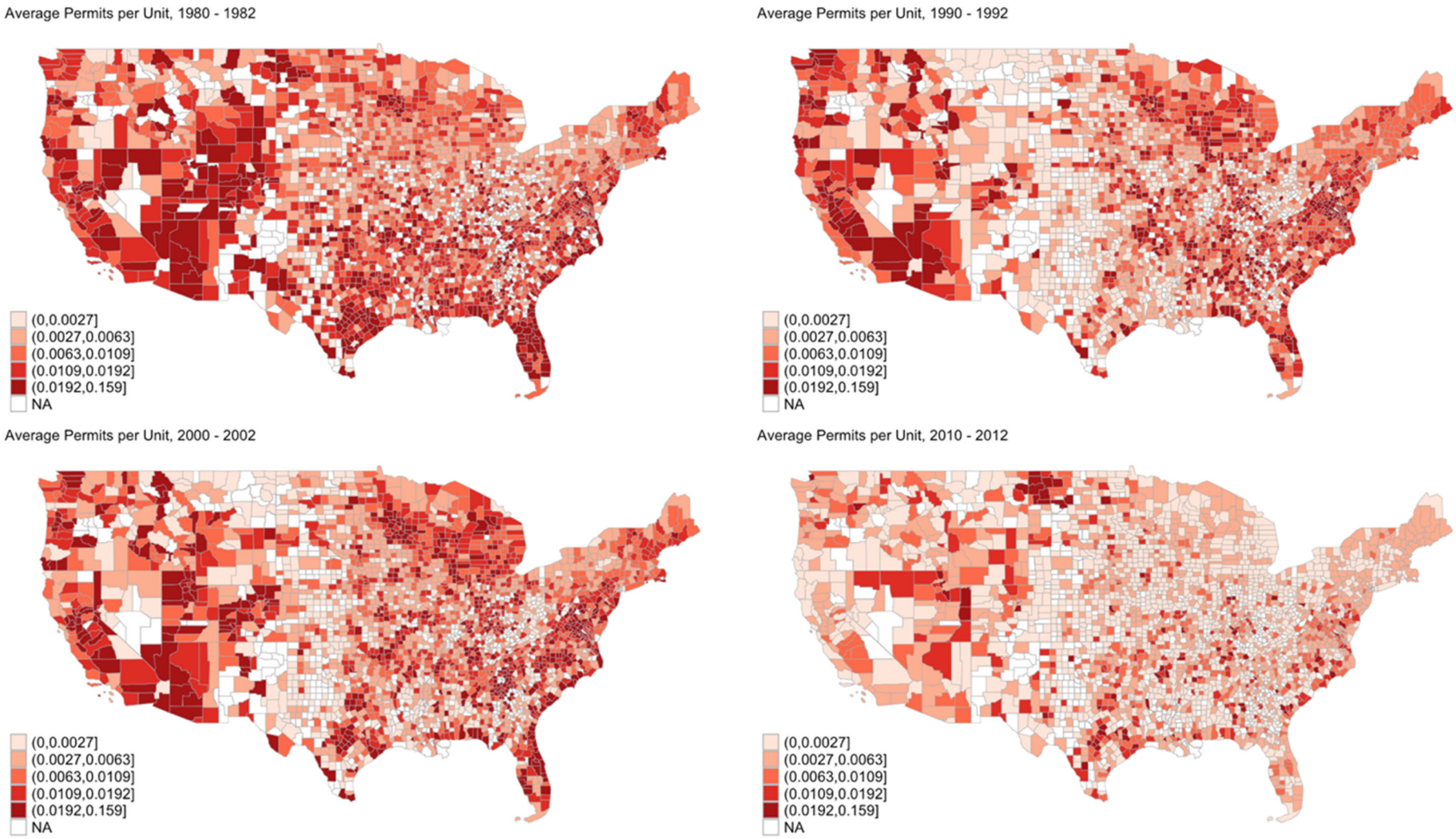

Figure 3: Heatmap, 3-Year Average of Total Permits

Notes: Heatmaps represent the weighted mean of the total number of permits per unit issued in each county (weighted by the number of housing units in the respective counties).

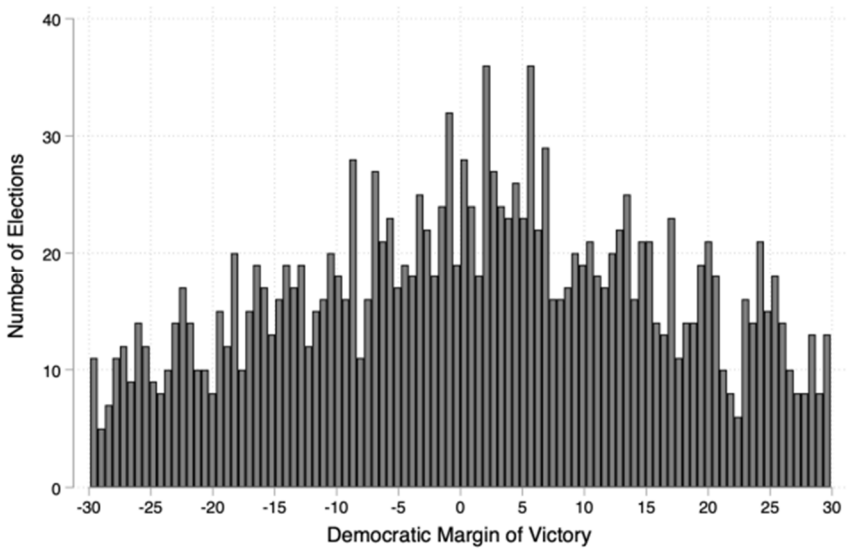

Figure 4: Number of Elections by Democratic Margin of Victory

Notes: Data based on Column 7 of Table 1 – see text for details.

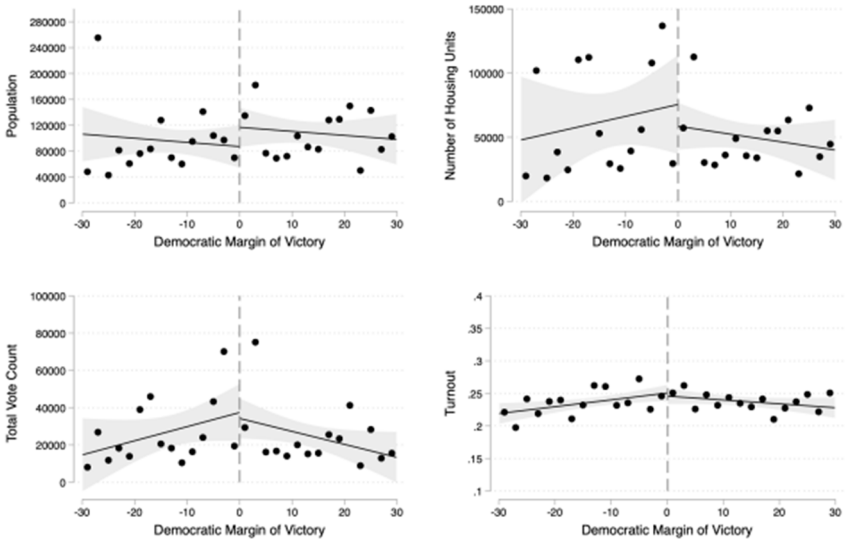

Figure 5: Covariates

Notes: Regression-discontinuity plots for each of four covariates. Each dot corresponds to 2 ppts of the victory margin. The 95% C.I. is showcased by the shaded areas, while the fitted lines use a linear polynomial model. Population (top-left) and housing units use estimates from the Census Bureau. Vote count (bottom-left) uses the final sample from the updated elections data, while turnout (bottom-right) shows the vote count divided by the Census population estimates.

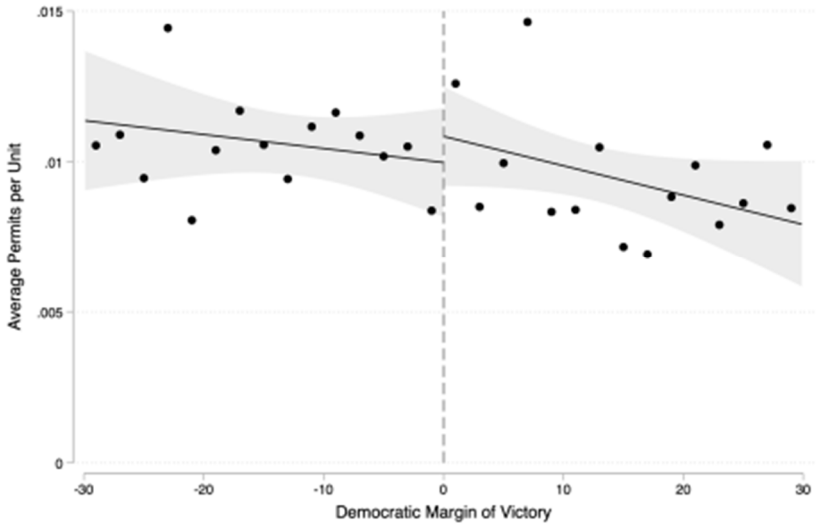

Figure 6: Average Total Permits per Housing Unit During Mayoral Term

Notes: Average number of total permits (single- and multi-family) issued per housing unit, using the final sample. Each dot corresponds to 2 ppts of the victory margin. The 95% C.I. is showcased by the shaded areas, while the fitted lines use a linear polynomial model.

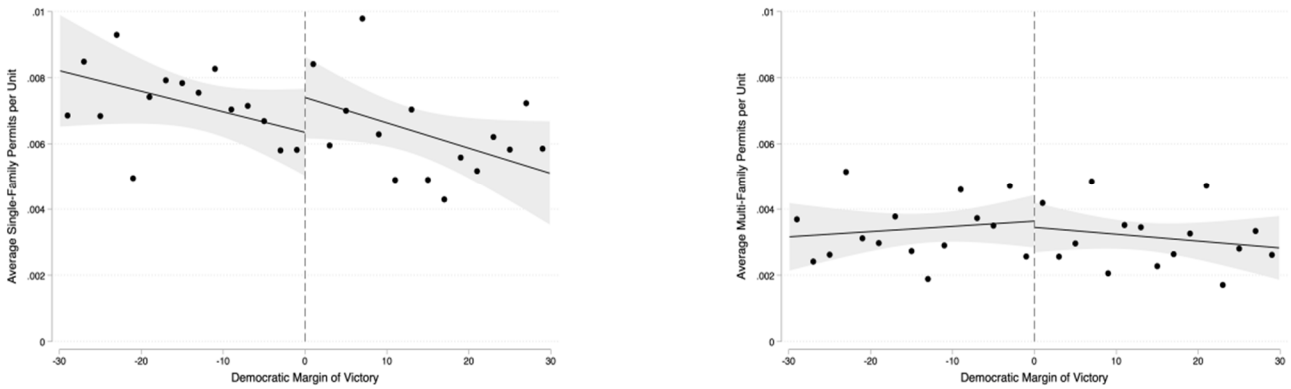

Figure 7: Average Single and Multi-Family Permits per Housing Unit During Mayoral Term

Notes: Average number of single-family permits (left) and multi-family permits (right) per unit, using the final data. Each dot corresponds to 2 ppts of the victory margin. The 95% C.I. is showcased by the shaded areas, while the fitted lines use a linear polynomial model.

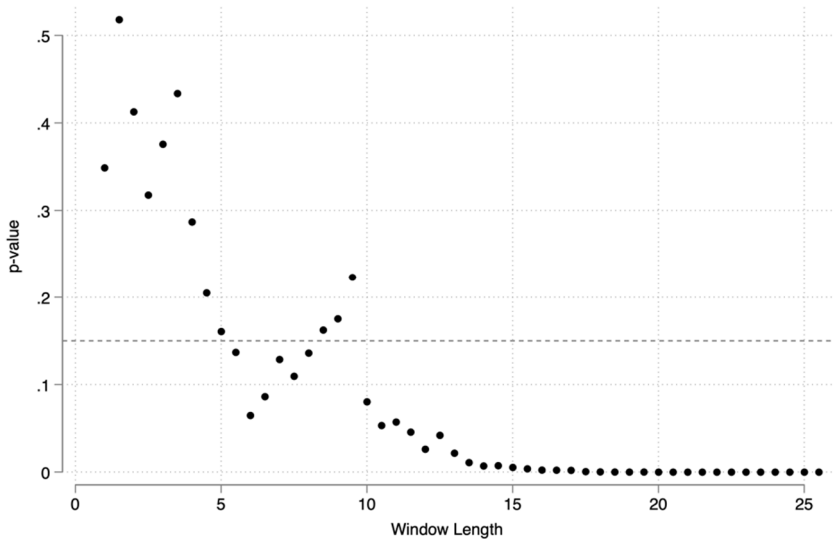

Figure 8: Optimal Window P-values

Notes: P-values from covariate test, as described in Cattaneo et al. (2023). See text for more details.

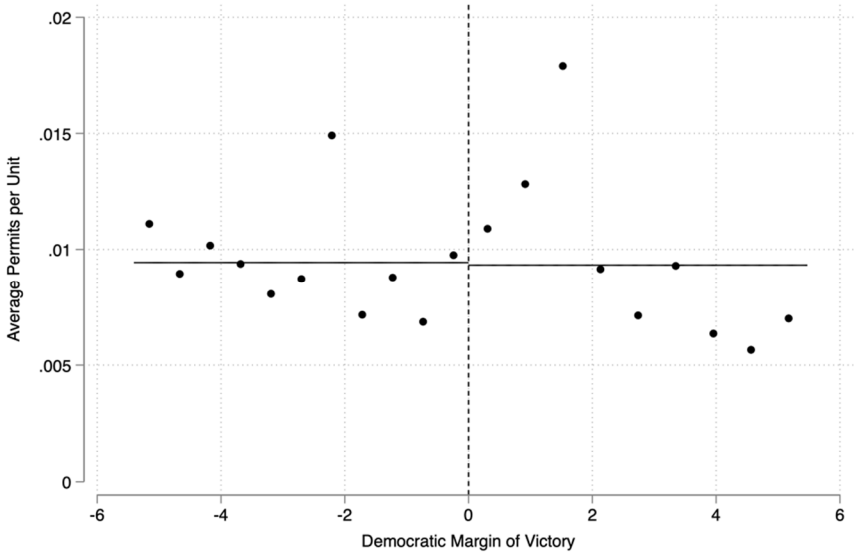

Figure 9: Average Permits per Housing Unit, Local Randomization Approach

Notes: Regression-discontinuity plot displaying the average number of permits per unit as the outcome variable. Each dot corresponds to 0.5 ppts of the victory margin, and the straight lines are unconditional average outcomes in each side of the discontinuity.

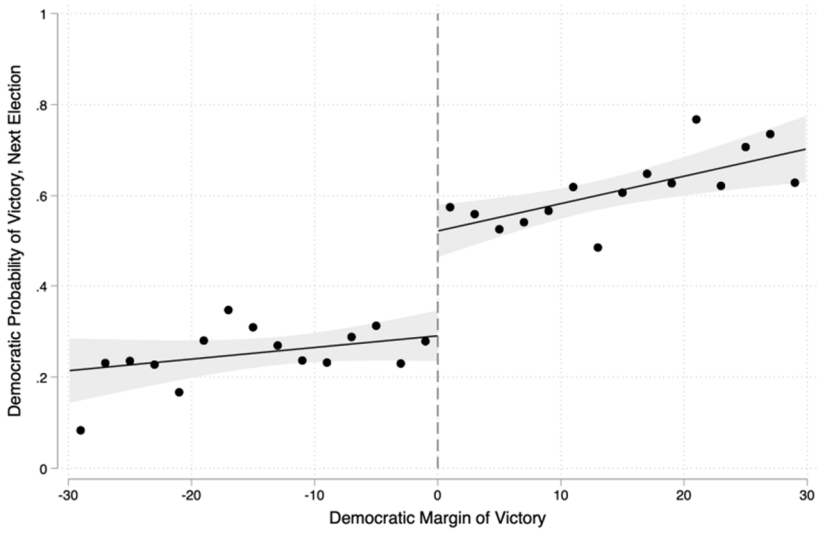

Figure 10: Incumbent Effect

Notes: Democratic probability of victory in the following election, calculated using the final sample. Each dot corresponds to 2 ppts of the victory margin. The 95% C.I. is showcased by the shaded areas, while the fitted lines use a linear polynomial model.

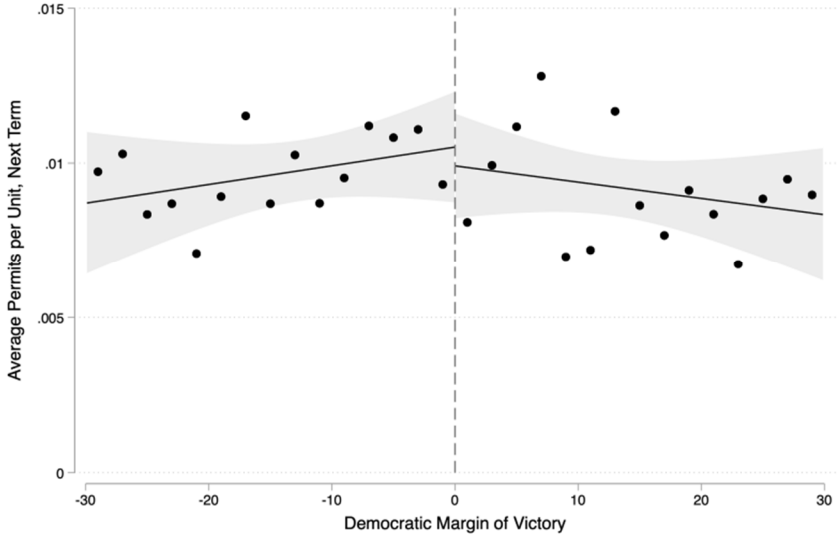

Figure 11: Average Permits per Housing Unit, Next Term

Notes: Average number of total permits (single- and multi-family) issued per housing unit during the following mayoral term, calculated using the final data. Each dot corresponds to 2 ppts of the victory margin. The 95% C.I. is showcased by the shaded areas, while the fitted lines use a linear polynomial model.

Variables	All Data (1)	Non-Missing (2)	Since 1980 (3)	With Permits (4)	With Mayor Party (5)	With Runner-Up Party (6)	Only Opposing Parties (7)
Mayor Votes	11,146	11,477	8,852	10,482	13,051	15,785	16,125
Runner-up Votes	7,167	7,307	5,370	5761	7,215	9,826	10,337
Share of Democratic Mayors	53.7%	53.9%	53.3%	56.9%	60.1%	64.7%	56.4%
Share of Republican Mayors	36.2%	35.3%	34.5%	37.9%	39.9%	35.3%	44.6%
Total Family Permits (p.p.)	-	-	-	1.21	1.13	0.96	0.98
Single-Family Permits (p.p.)	-	-	-	0.83	0.74	0.65	0.66
Multi-Family Permits (p.p.)	-	-	-	0.38	0.39	0.31	0.31
Observations	15,490	13,635	10,939	8,722	6,323	3,457	2,111

Table 1: Summary Statistics for Different Samples

Notes: Column (1) presents averages of the "raw" election dataset, prior to any merge or restrictions. Column (2) are averages from observations where the total number of votes and mayor votes are available; the term's length is 2, 3, or 4 years; and the mayor's name is present. Column (3) includes the same restrictions from (2), further limiting it to post-1980 elections. Column (4) further restricts the data to observations where permit information is available. Column (5) are averages of the data where, on top of the previous restrictions, we subset the data to observations where the political parties of the mayors are Democratic or Republican. Column (6) restricts the data to elections where the runner-up candidate's parties are also either Republican or Democratic, as opposed to missing party data or mayors running unopposed. Lastly, the restrictions on Column (7), on top of the ones above, include mayor and runner-up being of opposite political parties.

	Diff. Between Dem. and Rep. Mayor				
	Average	OLS	RD Linear	RD Cubic	Local
	(Std)	-	-	-	Randomization
Dependent Variables	(1)	(2)	(3)	(4)	(5)
Term Average:					
Total Permits per Unit	0.98	-0.165***	0.018	0.065	-0.011
	(1.27)	(0.056)	(0.076)	(0.123)	[-0.22, 0.23]
Single-Family Permits per Unit	0.66	-0.168***	0.015	0.071	0.054
	(0.99)	(0.045)	(0.061)	(0.103)	[-0.11, 0.25]
Multi-Family Permits per Unit	0.31	0.003	0.003	-0.006	-0.065
	(0.56)	(0.023)	(0.035)	(0.046)	[-0.16, 0.04]
N	2111	2111	2111	2111	383
Last Year of Term:					
Total Permits per Unit	0.93	-0.156***	-0.020	0.040	0.011
	(1.26)	(0.058)	(0.081)	(0.134)	[-0.20, 0.25]
Single-Family Permits per Unit	0.63	-0.138***	0.021	0.063	0.065
	(0.97)	(0.045)	(0.064)	(0.118)	[-0.10, 0.26]
Multi-Family Permits per Unit	0.30	-0.017	-0.041	-0.023	-0.053
	(0.62)	(0.027)	(0.043)	(0.058)	[-0.18, 0.06]
N	2105	2105	2105	2105	383
Diff. Between Last Year and Election Year:					
Total Permits per Unit	-0.09	0.057	0.017	0.007	0.084
	(1.26)	(0.051)	(0.082)	(0.130)	[-0.09, 0.27]
Single-Family Permits per Unit	-0.06	0.042	0.018	0.021	0.056
	(0.76)	(0.032)	(0.052)	(0.096)	[-0.05, 0.16]
Multi-Family Permits per Unit	-0.04	0.015	-0.001	-0.014	-0.028
	(0.90)	(0.036)	(0.062)	(0.084)	[-0.09, 0.15]
N	2105	2105	2105	2105	383
Diff. Between Curr. and Prev. Avg:					
Total Permits per Unit	-0.07	0.008	-0.024	0.031	-0.053
	(0.86)	(0.035)	(0.057)	(0.092)	[-0.23, 0.10]
Single-Family Permits per Unit	-0.04	-0.002	-0.014	0.025	-0.007
	(0.59)	(0.025)	(0.038)	(0.069)	[-0.11, 0.11]
Multi-Family Permits per Unit	-0.03	0.010	-0.011	0.006	-0.046
	(0.54)	(0.022)	(0.037)	(0.050)	[-0.15, 0.05]
N	2050	2050	2050	2050	372
Region FE	✓	✓	✓	✓	X
Year FE	✓	✓	✓	✓	X

Table 2: Estimates of the Impact of a Democratic Mayor on Housing Supply

Notes: Standard deviations in parentheses. Column (1) presents the averages of all dependent variable used in the paper, while Columns (2)-(4) report the coefficients from OLS and RD regressions of each dependent variable on the Democratic margin of victory. Models (2)-(4) include clustered standard errors, as well as region and year fixed effects. Column (5) presents the coefficients of the "Local Randomization" approach, as described in Cattaneo et al., using the optimal window of [-5.5, 5.5] and the 95% C.I. in brackets. See text for a more detailed explanation of the permit variable, election data, models, and panel construction.

	Heterogeneity Measures, RD Linear, Treat x Dummy							
	Above Median HHI	Above 75th HHI	Above Median Pop.	Above 75th Pop.	Above Median Pop. Growth	Above 75th Pop. Growth	Post 2000 -	Post 2010 -
Total Permits per Unit	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Average of the Term	0.304**	0.436**	-0.184	0.004	-0.117	-0.231	0.188	-0.301
	(0.150)	(0.194)	(0.160)	(0.195)	(0.123)	(0.162)	(0.168)	(0.204)
Last Year of the Term	0.379**	0.513**	-0.231	-0.079	-0.041	-0.143	0.248	-0.131
	(0.159)	(0.214)	(0.164)	(0.196)	(0.131)	(0.169)	(0.172)	(0.228)
Diff, Last Year and Election Year	0.031	0.077	0.169	-0.014	0.003	0.126	0.028	0.159
	(0.167)	(0.173)	(0.179)	(0.199)	(0.146)	(0.191)	(0.178)	(0.193)
Diff Btw. Curr. and Prev. Avg.	-0.029	0.020	0.179	0.158	0.009	0.002	0.052	-0.001
	(0.113)	(0.140)	(0.116)	(0.149)	(0.100)	(0.133)	(0.126)	(0.129)

Table 3: Heterogeneity Measures, RD Linear

Notes: Standard deviations in parentheses. Columns (1)-(2) include interaction terms of the independent variable with an indicator of whether the city has a Herfindahl–Hirschman Index at the 50th and 75th percentile respectively. Similarly, columns (3)-(4) include interaction terms for the population size being at the 50th and 75th percentile. The interaction terms in Columns (5)-(6) refer to a city-level population growth between 1980 and 2017 at the same percentiles. Lastly, Columns (7)-(8) include elections that took place in years after 2000 and 2010 respectively.