Zoning for Votes:

How Local Politicians Use Land-Use Regulations for Political Gain

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Abstract †

Across many levels of governments, elected officials are often observed to engage in opportunistic behavior, such as targeted 'pork-barrel' spending in their districts, or increases in spending, transfers, or employment on election years. What about local policymakers? Local policymakers tend to be limited in their ability to manipulate spending or pass popular policies due to federalism-related budget constraints and state policy preemption. In the face of these constraints, I argue that local politicians in federalist systems use the tools at their disposal, particularly land-use regulations, treating *zoning as pork*. I show, using both lot-level zoning changes in New York City and data on the timing of historic districts in over 200 cities and towns, that land-use changes occur disproportionately on municipal election years. This effect is driven entirely by those with the strongest electoral incentives: politicians not facing a term-limit and representing the most competitive districts, evidence of strategic behavior. Additionally, I find that rezoning budget cycle effects are larger for density-restricting regulations, consistent with anti-density public opinion, and tend to geographically target lots where politically active local voters live. Together, these findings may help explain why so many cities have restricted new development in the face of a housing affordability crisis.

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Introduction

Many nations delegate substantial responsibilities to subnational governments (Rodden 2004). In the United States, some of the most visible and consequential policies – including police, fire, roads, primary education, sanitation, water, and housing – are delegated to local officials. These responsibilities are substantial: in 2022, local governments spent $2.3 trillion, accounting for about one-quarter of total government spending nationwide.[1]

Despite these vast responsibilities and budgets, local elected officials face considerable constraints. Cities and towns must compete for residents and businesses, creating competitive pressure to minimize taxes and prioritize spending on economic growth (Peterson 1981; Tiebout 1956). Furthermore, states often impose considerable barriers to raising revenue by limiting local taxing capacity (Stallmann et al. 2017), and have increasingly preempted local policymaking in a number of politically salient policy domains (Riverstone-Newell 2017; Goodman et al. 2021).

At the same time, local policymakers must win elections. At higher levels of government, policymakers often engage in particularistic – or 'pork barrel' – politics to credit claim and maximize their reelection odds (Mayhew 1974). For example, congressional representatives often redirect federal spending towards particularistic goods that are geographically targeted to their districts (Lee 2003). Relatedly, politicians in many nations often increase spending on election years to help win re-election, a phenomenon known as the political budget cycle (Dubois 2016; Nordhaus 1975). Local officials, on the other hand, face federalism-related constraints that limit their ability to increase particularistic spending and engage in credit claiming.

In the absence of these fiscal tools, I argue that local politicians in federalist systems engage in the same tactics – providing particularistic benefits to voters to improve reelection prospects – but using the policy tools available to them. In the United

[1] Of this, $1.6 trillion was financed by own-source – meaning not state or federal – tax dollars. See: US Census Bureau Annual Survey of State and Local Government Finances, 1977-2022 (compiled by the Urban Institute via State and Local Finance Data: Exploring the Census of Governments; accessed 22-Nov-2025 02:51), https://state-local-finance-data.taxpolicycenter.org.

States, a core function of local government is developing land-use – or zoning – regulations. I develop a theory of opportunistic land-use regulatory behavior, arguing that local policymakers treat *zoning as pork*, strategically timing land-use changes, tuning their direction (pro or anti density), and targeting relevant voters to help win reelection.

To test this theory, I collect data on the timing of land-use regulatory changes. I present a case study of zoning changes (rezonings) in New York City, where I construct a panel of lots (parcels) complete with lot-level regulatory data from 2001 to 2025 with about 21 million lot-year observations. In addition to timing, the panel structure allows me to identify the direction of regulatory changes. I also enrich this dataset with characteristics of the voters who inhabit each lot using voter file data and estimate if lots likely are renter or owner occupied, developing a technique that draws on administrative tax data and classification of building owner names.

First, I show that local politicians strategically time rezonings. I find rezonings occur at over double the rate on election years relative to non-election years. I replicate this pattern in a sample of over 200 municipalities using national data on the adoption of new historic districts, suggesting this phenomenon is not New York City specific. I find that the rezoning political budget cycle is only present for politicians with the strongest electoral incentives: those eligible for re-election (not facing a term limit) and those in the most competitive districts, strong evidence of strategic behavior. Furthermore, while land-use changes show political budget cycle effects, spending, revenue, and city employment levels do not, consistent with fiscal constraint. Neither do building permits, suggesting these results cannot be explained by election years being coincidentally timed with patterns in the economic business cycle.

Next, I show that politicians strategically tune the direction of rezonings. Public opinion scholarship has shown that new development is often unpopular, even in already dense cities (Einstein, Glick, et al. 2019; Hankinson 2018; Larsen and Nyholt 2024; Marble and Nall 2021; Trounstine 2023). Given this, I expect that in most cases, land-use regulations which restrict density would prove most electorally expedient. Indeed, I find this to be the case. Density-restricting rezonings (downzonings and

contextual rezonings) were most common on reelection years. Conversely, density-increasing rezonings (upzonings) show more muted political budget cycle effects. Furthermore, the intensity of upzonings increases substantially on a politicians' final year in office, as do building-specific rezonings initiated by private developers (variances), suggesting that the most consequential and potentially unpopular upzonings are strategically withheld until electoral pressures ease.

Additionally, I find that local politicians strategically target electorally relevant lots for downzoning or upzoning. Prior scholars have documented how a small subset of particularly vocal residents, often called *neighborhood defenders*, harbor anti-density views (Einstein, Glick, et al. 2019). In addition to harboring anti-density preferences, these residents are disproportionately likely to vote in local politics (Einstein et al. 2025; Einstein, Palmer, et al. 2019; Hall and Yoder 2022; Sahn 2024; Yoder 2020), which may be particularly consequential in low-salience, low turnout races (Anzia 2024). I find that neighborhood defender traits (owner occupancy, older age, and active political participation) are associated with a higher likelihood of a lot being downzoned or contextually rezoned. Conversely, renter-occupied, non-residential, younger, and less politically active lots are more likely to get upzoned for additional density.

Finally, I find that local politicians take credit for their actions. In statements sent to all voters ahead of their reelection campaigns, I find about three quarters of Councilmembers claimed credit for rezoning, a rate which is higher for rezonings passed in an election year. Qualitative analysis of these statements also provides further evidence of directional tuning, with Councilmembers providing reasons for or against new housing density that echo common housing considerations among voters.

Together, these findings suggest local politicians manipulate land-use regulation strategically by *timing*, *tuning* the direction of, and geographically *targeting* rezonings. Given the disproportionate share of zoning changes which restrict new development, these strategic electoral incentives could help explain why land-use regulations have grown in stringency over time (Gyourko et al. 2021), worsening the housing affordability crisis (Glaeser et al. 2005; Glaeser and Gyourko 2002; Glaeser and Ward 2009).

Local Politicians, Federalism, and Land-Use Regulation

Re-election seeking politicians often engage in politically opportunistic behavior, such as targeting spending towards their constituents. This spending, sometimes called pork-barrel spending, can provide opportunities for credit claiming (Mayhew 1974). Evidence for such behavior exists at multiple levels of government, including by U.S. House and Senate members (Ferejohn 1974; Lee 1998, 2003, 2004), Presidents (Berry et al. 2010; Kriner and Reeves 2015), politically aligned bureaucrats (Bertelli and Grose 2009), and by state legislators (Wu and Williams 2015). Such opportunistic behavior can fend off challengers (Bickers and Stein 1996) and generate electoral benefits from voters (Clemens et al. 2025), even if spending in absolute dollar terms is small (Grimmer et al. 2012).

A separate line of scholarship examines cyclicality in spending around elections, a concept known as the political budget cycle (Nordhaus 1975). While evidence for its prevalence is mixed and context-dependent (Alt and Rose 2009; Dubois 2016), many governments have nevertheless been observed to increase spending (Blais and Nadeau 1992), redistributive transfers (Akhmedov and Zhuravskaya 2004), or employment (Cahan 2019) immediately before elections. Like targeted pork-barrel spending, political budget cycles appear to be driven by politicians desire to engage in credit claiming before elections (Bueno 2023).

How about local politicians? While evidence for political budget cycles at the local level exists in other nations (e.g. Alesina and Paradisi 2017; Bracco et al. 2024), this effect appears to be largely absent in the United States. Bee and Moulton (2015) find that municipal spending, regardless of type, does not change on or near election years. These results hold for close elections, different electoral calendars, and incumbency status. The authors only find small effects of election year timing on some types of hiring, with municipalities hiring slightly more police officers and sanitation workers on election years.[2] While recent evidence does find that Mayors are influential in municipal

[2] However, the authors note this effect could be driven by increased layoffs in non-election years, particularly during economic crises, rather than direct hiring. Additionally, Cahan (2019) also finds political budget cycle effects for municipal hiring around gubernatorial elections. However, these effects do not

spending decisions (de Benedictis-Kessner and Warshaw 2016), no direct evidence suggests that American local elected officials strategically time or target such spending for electoral gain.

The lack of direct evidence for opportunistic manipulation of local spending may be due to developments that have constrained local elected officials. In the past, political machines were known to engage in opportunistic spending to win votes, including direct spending on food or rent, engaging in patronage hiring, or providing legal and regulatory aid (Gosnell 1968, 71). Over time, machines unraveled and progressive reforms, such as civil-service reforms, limited the ability of such opportunistic behavior (Erie 1988). In the 1970s and 80s, homeowner-led backlash to property taxes led to the proliferation of laws limiting property tax revenues – severely constraining growth in municipal governments' main form of revenue (Sears and Citrin 1982; Stallmann et al. 2017). Indeed, strict budget rules have been shown to limit political budget cycle effects at the state level (Rose 2006). Increasingly, states have preempted local governments, with a recent wave of 'new preemption' laws aimed to "intentionally bar local efforts to address problems" (Briffault 2018; Goodman et al. 2021). These include preempting highly popular and politically salient policies, such as minimum wage or rent control (Fowler and Witt 2019; Riverstone-Newell 2017).

In addition to these developments, structural forces resulting from federalism pose considerable constraints. Voters and businesses can threaten to move depending on local tax levels and service quality (Tiebout 1956). These dynamics creates horizontal (across space) competitive pressures, causing local governments to sometimes engage in "tax competition" with other municipalities to avoid human and capital flight (Brueckner and Saavedra 2001; Hendrick et al. 2007). These competitive pressures harden budget constraints by inducing lower overall levels of local taxation, a concept known as *fiscal federalism* (Oates 1999). Furthermore, municipal bond markets can constrain local government spending in setting interest rates (Adelino et al. 2017), and markets have been shown to penalize political uncertainty and reward less

account for often staggered local election cycles along with the impact of state-to-local government transfers.

democratically responsive politicians (Ambrose et al. 2025; Basu et al. 2024; Smith 2025). These budget constraints can refocus local spending away from popular redistributive spending towards spending aimed at promoting economic growth such as infrastructure or tax credits to attract/retain businesses (Peterson 1981).

Together, these constraints considerably limit local politicians' ability to engage in geographically targeted pork-barrel spending, opportunistically timed election year spending, and pass politically salient and popular policies. These constraints may therefore reduce opportunities for credit-claiming.

However, I argue that local politicians still engage in such opportunistic behavior using the tools available to them. My argument builds on Alt and Rose's (2009) concept of *context-conditional political budget cycles.* I adapt their concept to contexts where federalist constraints considerably limit local discretion over municipal finance and some types of policymaking. In these contexts, I argue that politicians lean heavily on the remaining tools available to them. In the United States, one tool in the local policy toolkit is land-use regulation. Drawing zoning maps is perhaps *the* core function of local government (Puentes et al. 2006).[3] In many places, land-use changes are decided by local councilmembers, who often have final say over all proposed land-use changes in their district, a norm known as councilmember deference (sometimes called prerogative or privilege) (Louthen 2020; Mast 2024; Hankinson and Magazinnik 2023). This allows land-use changes to be spatially targeted within the small scales of their districts (such as at the lot-level), akin to pork-barrel spending, maximizing the visibility of changes locally and providing opportunities for credit claiming.

In addition to being an available tool, it is an effective one. Zoning changes are a powerful and effective hammer to stop or encourage new development, and their adoption can have immediate impacts on local housing prices, construction levels, and the socioeconomic makeup of neighborhoods (Freemark 2023; McCabe and Ellen 2016; Rollet 2025; Shertzer et al. 2018). Furthermore, many local government functions

[3] Puentes et al. (2006) find that 91% of jurisdictions in the 50 largest metropolitan areas have zoning ordinances. While no estimates exist, some jurisdictions doing little more than draw zoning maps. Whether municipalities or counties are responsible varies both across and within states (Lo 2019).

such as district-based schooling or sanitation services, are spatially dependent. Given that zoning regulations dictate what can be built where, they can be used to manipulate access to and the quality of local public goods, potentially creating or reinforcing urban inequality (Lens 2022; Rothwell and Massey 2009; Trounstine 2018). Moreover, the consequences of land-use regulation are politically salient, especially for those most likely to vote in local elections (Yoder 2020), and housing is frequently at the top of the list of concerns by voters (Gallup 2025).

Therefore, I theorize that local politicians treat *zoning as pork*, opportunistically manipulating land-use regulations for electoral gain. For these electoral gains to be realized, I expect that local politicians strategically time zoning changes. I anticipate that zoning changes (rezonings) will occur more frequently on municipal election years. This is because voters are myopic and typically most attuned to changes occurring just before elections (Bartels and Achens 2017). Second, not all local politicians will engage in such behavior, only those who need to reap the benefits of credit-claiming to win reelection. Therefore, I expect that rezonings occur more frequently among politicians with the strongest electoral incentives: those up for re-election (not facing a term limit) and in competitive districts.

In addition to strategic timing, local politicians should tune the direction of the rezonings towards the preferences of their voters. While preferences can and do change (as evidence by the recent rise of the 'yes-in-my-backyard' movement (Brouwer and Trounstine 2024)), historically, many voters across many demographic and socioeconomic cleavages have opposed new housing development (Hankinson 2018; Marble and Nall 2021; Trounstine 2023). This is true for renters and homeowners, both of whom are skeptical of the ability of new housing to lower housing prices (Elmendorf et al. 2025; Trounstine 2023). Many voters also value preserving the 'look-and-feel' of their neighborhood and prefer new development that 'fits' the surrounding context (Larsen and Nyholt 2024; Pietrzak and Mendelberg 2025). Policies that enforce this development pattern are very popular, even among people who support more housing in principle. For example, Pietrzak and Mendelberg (2025) find that 82% of respondents support contextual zoning regulations, in contrast to just 41% who support upzoning for

tall buildings.[4] Therefore, I theorize that density-restricting regulations (downzonings, contextual rezoning, and historic districting), should *on average* prove more politically expedient and thereby show stronger political budget cycle effects.

Finally, while density-restricting regulations should generally prove more popular, anti-density views are particularly salient among a highly vocal, politically active subset of residents who show up to meetings about housing and vote in local elections (Einstein, Glick, et al. 2019). Often called *neighborhood defenders* (or more narrowly, *homevoters*), these meeting attendees and local voters largely consist of older homeowners (Einstein, Palmer, et al. 2019; Einstein et al. 2025; Fischel 2005; Hall and Yoder 2022; Sahn 2024; Yoder 2020). Due to their high participation in local politics specifically, local politicians should stand the most to gain from enacting density-restricting regulations in areas where neighborhood defenders live. Therefore, I theorize that savvy local politicians strategically target density-restricting regulations to areas with neighborhood defender associated characteristics, such as high rates of homeownership, older voters, or more active local voters.

Fiscal Constraints and Land-Use Regulations in New York City

To test these hypotheses, I study the case of New York City. New York satisfies the first condition of my theory: that local politicians are constrained in their ability to manipulate spending and pass policies to engage in traditional forms of credit claiming. New York City's spending constraints grew out of the fiscal crisis of the 1970s (Shefter 1992). To avoid default, State intervention significantly constrained local fiscal authority, such as through the creation of the now called New York State Financial Control Board (NYSFCB), which directly managed city finances through 1986. Even today the NYSFCB may still recommend to reinstate State control over City finances if the City fails to meet its debt service obligations or passes an unbalanced budget.[5] Other constraints, such as property tax assessment limits, State preemption over new

[4] And 68% who support gentle "missing middle" upzoning for small and medium sized buildings, see Appendix Table B2.
[5] Among other possible criteria, such as the State and City Comptrollers not jointly certifying the budget. While direct ability to order a new "control period" expired in 2008, the Board can still threaten State intervention, although this would require legislative action (Financ. Controls Board, n.d.).

municipal taxes, and State-imposed debt caps limit the ability of City politicians to raise new revenues without State approval (Berg 2007). State approval itself is often slow, as it involves many veto players. Finally, collective bargaining agreements, the bond market, and oversight by various fiscal watchdogs serve as further constraints on local spending decisions.

Due to these constraints, it's highly unlikely New York City politicians can opportunistically increase election year spending (which would require a commensurate increase in revenues levied). To verify if this is the case, I examined if city expenditures, revenues, and employment levels follow a political budget cycle. I examine real city spending (in 2022 dollars) between fiscal years 1980 and 2022 using data provided by the Citizens Budget Commission and obtained from the NYC Independent Budget Office.[6] I follow the model used by Bee and Moulton (2015), where spending is first differenced from the year prior. The estimated coefficients therefore represent the average additional rate of growth on municipal election years relative to non-election years. Table 1, column 1 shows that growth in total expenditures does not meaningfully differ on election years versus non-election years.[7] These patterns repeat in 3 revenue categories that City politicians have the *most* discretion over: property and sales taxes along with fees, fines, and forfeitures (columns 2-4). Finally, I recover similarly null effects on capital expenditures (5) and total full-time employment (6). These results are also null if the dependent variable is measured as levels or per capita (See Appendix B).

[6] Total expenditures represent actual, not budgeted, spending adjusted for pre-payments. Pre-payments are the practice of "rolling over" prior year revenue into the next fiscal year if there is a surplus. This adjustment is needed to recover total expenditures in any given year, as drawing down a prior year surplus represents an increase in spending.

[7] Based on the standard deviation in total expenditures, power 0.8, and alpha 0.05, the minimum detectable effect size is 0.0133. A 1.3% increase in the growth rate would be equivalent to an increase of $950 million based on the average annual expenditures over the period in 2022 dollars. The analysis is not sufficiently powered to detect changes in spending less than this amount.

Table 1. Growth in Expenditures, Taxes, and Headcount on Election Years, Fiscal Years 1980-2022

	(1) Total Spending	(2) Property Taxes	(3) Sales Taxes	(4) Fees and Fines	(5) Capital Spending	(6) FT Employees
Election	-0.011	-0.004	0.011	-0.019	0.001	-0.004
	(0.011)	(0.018)	(0.021)	(0.027)	(0.038)	(0.009)
Constant	0.022***	0.024*	0.015	0.033*	0.022	0.010*
	(0.005)	(0.009)	(0.011)	(0.014)	(0.020)	(0.005)
N	42	42	42	42	37	42

Note: Standard errors in parentheses. Dependent variables take the form of $\ln(Y_t) - \ln(Y_{t-1})$. Expenditures and revenues adjusted to 2022 dollars. The constant therefore represents the average inflation adjusted (for dollar outcomes) growth rate. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

In contrast to being constrained in their ability to engage in traditional forms politically opportunistic spending, local politicians in New York City have considerable autonomy over land-use regulations, satisfying the second condition of my theory. In 1989, City Council obtained land-use powers after the Board of Estimate was declared unconstitutional.[8] Consequently, Councilmembers became the chief land-use decisionmakers, and soon began a tradition of Councilmember deference where all proposed land-use changes are deferred to the member who represents the area.[9] While the Mayor controls the Department of City Planning (DCP), which can initiate and must study proposals for zoning changes, it's widely understood that Councilmembers have an effective veto over proposed land-use changes in their district. Consequently, all proposed rezonings require their blessing. This leads to most rezoning proposals occurring at the small scales of the neighborhood level, otherwise known as neighborhood rezonings, in order to avoid multiple veto players. This means that land-use regulatory changes can be highly spatially targeted, potentially increasing the visibility of changes locally and providing opportunities for credit claiming.

[8] The Board of Estimate was comprised of citywide and borough interests: the Mayor, Comptroller, President of the City Council, and the 5 Borough Presidents.

[9] To speak to the power of this norm, there was only one reported case of a Councilmember being bucked by their peers during my study period. In 2021, Council voted 43-5 against Councilmember Kallos' objection of a proposed Blood Center on the Upper East Side (Poblete and Coltin 2021). Prior promises to reform the practice have failed, leading to a 2025 City Charter amendment initiated by the Mayor and approved by the public that seeks to curb the practice (NYC Charter Revision Commission 2025).

Finally, rezonings can be timed strategically. While planning and environmental reviews vary in time, the City's formal rezoning procedure, the Uniform Land-Use Review Procedure (ULURP) operates on a strict clock. Once formally entered into ULURP, rezonings must be completed within 7 months (Campion 2022). This leaves open the possibility that Councilmembers may strategically time the introduction of land-use regulations for political gain. Furthermore, the ULURP review period is the most politically visible part of the rezoning process, involving public comment and vote by Community Boards (where neighborhood-level meetings occur), providing ample opportunity for credit claiming.

Data and Research Design

In addition to satisfying the conditions necessary for my theory to apply, New York City's selection as a case study is bolstered by the availability of rich lot (parcel) level regulatory data. Outside of New York City, longitudinal data on land-use regulations is scarce. I use the Property Land Use Tax Output (PLUTO) dataset. This dataset provides information about lot and property characteristics, zoning district codes, and the maximum density allowable under law for each lot. Appendix C details the data in greater length. I construct a panel of all lots between 2001 and 2025, for about 21 million lot-year observations. For each lot-year, I identify the Councilmember representing it. For each Councilmember, I collect information about their party affiliation, prior election vote share, and if they are term limited.[10]

To identify land-use regulatory changes, I join this panel to shapefiles of adopted rezonings. This identifies about 410,000 lots which were part of a rezoning area. Rezonings can be initiated by politicians (generally called *neighborhood rezonings*) or by private actors seeking an exception from current zoning law (called *spot rezonings* in

[10] Term limits in New York City changed in the period of my study. A 2008 charter revision allowed the Mayor and Councilmembers to seek a third consecutive term. My coding considers Councilmembers who would otherwise have been term-limited as not term-limited in the 2009 election. While the endogeneity of term-limits poses a threat to my analysis, notably the push to amend the City Charter originated from the Mayor's Office and occurred over a year before the 2009 municipal elections, providing ample time for members to prepare for reelection. Council was split, passing the measure by a bare majority. Of the 32 members who otherwise would have been term limited, 23 voted to extend their term and 12 voted against (Chan and Hicks 2008).

New York City, or variances elsewhere).[11] I hand-code the actor responsible for each rezonings. In total, my data contains the universe of neighborhood rezonings covering about 405,000 lots (about 46% percent of all lots in the city) and private spot rezonings covering about 5,000 lots (See Appendix Table C1).

Among rezoned lots, I then identify the direction of the rezoning. These come in three general forms: (1) upzoning, or an increase in allowable density; (2) downzoning, or a decrease in allowable density; and (3) contextual rezoning, a zoning change which does not alter allowable density, but instead alters other regulatory factors (e.g. setback requirements, parking minimums). In New York City, allowable density is regulated primarily through the maximum floor-to-area ratio (FAR). For example, an FAR of 3 means a developer can build 3 square feet of building area for every 1 square foot of lot area. To identify the direction of the rezoning, I first identify if the lot experiences a change in its zoning category (e.g. “R2” in year t-1 and “R2A” in year t).[12] Among those lots with a regulatory change, I take the within-lot difference in FAR. Lots with an increase are upzoned and lots with a decrease are downzoned, following the method outlined in Been and McDonnell (2010).[13] Lots without a change in FAR are contextually rezoned, so long as they also see a change in their zoning category. Appendix C details in greater length the methodology.

I consider both downzonings and contextual rezonings to be *density-restricting regulations* and analyze them together (disaggregated results reported in the Appendix). Contextual zoning regulations grew out of the City’s Quality Housing Program of 1989, and were explicitly created to "maintain the scale and form of the city's … neighborhoods” (Sinel 2017, 518). While contextual districts do not explicitly reduce the FAR, they often change other zoning regulations that effectively discourage denser

[11] These are typically for-profit developers. However, my coding does not distinguish between actors within this category and contains some government agencies, non-profits, educational institutions, etc.
[12] A zoning categorical change is a necessary condition to identifying FAR changes as some technical changes to FAR appear in the PLUTO dataset despite no major rezoning actions occurring. An additional 25,000 lots were in rezoning areas but had no change in zoning category or FAR and are not considered rezoned for analysis purposes.
[13] Following their method, I consider lots upzoned only if the upzoning increases allowable density by at least 10% over the existing density on the lot. This avoids counting upzonings for changes which are simply brining existing grandfathered buildings up to code but not effectively increasing density.

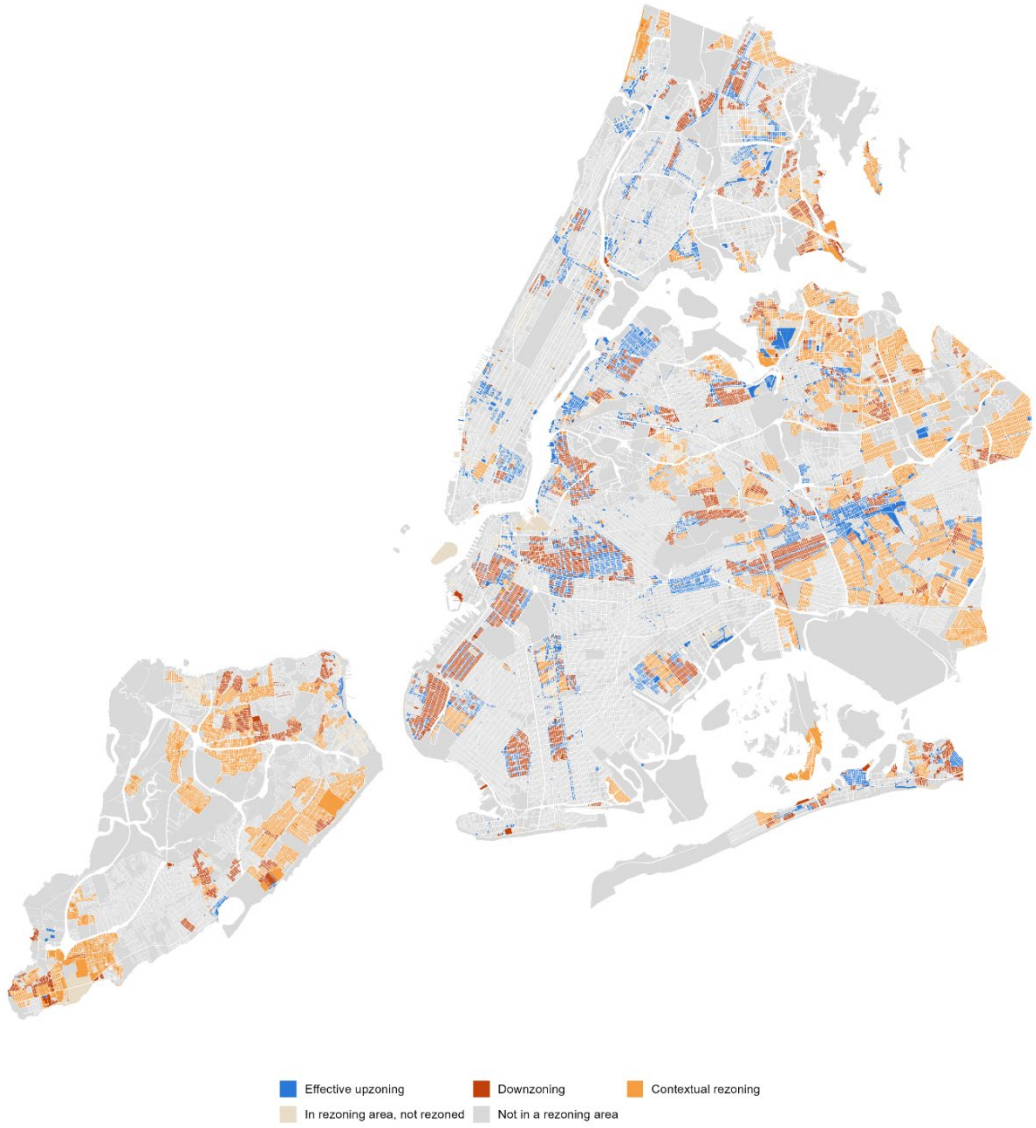
development, such as by imposing height limits or dictating the required setback from the street. Therefore, many view contextual zoning regulations as similar to downzonings (Been and McDonnell 2010, 5). Moreover, they have similar effects, such as being associated with neighborhood change and an influx of higher socioeconomic status residents (Dublin-Boc 2023).

In total, I identify just over 65,000 upzoned lots (plus just under 5,000 private 'spot' rezonings, which are primarily upzonings), 113,000 downzoned lots, and 184,000 contextually rezoned lots (Table 2). Figure 1 maps each lot citywide, displaying if the lot was rezoned, by direction, over the period. Upzonings are concentrated in some neighborhoods in Manhattan, commercial avenues in the Bronx, and the Brooklyn-Queens waterfront. Downzonings are concentrated in residential Brooklyn neighborhoods, while contextual rezonings predominate in outer lying neighborhoods in Queens and Staten Island. Still, even within each neighborhood rezoning, the direction of each lots rezoning varies substantially (Appendix Figure F1 shows an example).

Table 2. Number of Rezonings, by Type and Direction

	Number of lots	% of rezoned lots
Neighborhood rezonings	405,487	99%
Upzoned	*65,498*	16%
Downzoned	*113,510*	28%
Contextually rezoned	*184,698*	45%
Not rezoned/cannot identify	*41,781*	10%
Private rezonings	4,953	1%
Total rezonings	**410,440**	100%

Figure 1. Map of Rezonings, 2002-2025



Note: Lots as of 2025. Any rezoned lots which were merged or divided over the period are missing (10,232 lots inside a rezoning area). For lots with multiple rezoning actions over the period, the most recent rezoning action shown.

For most analyses (unless otherwise noted), I estimate the predicted probability of a rezoning in any given year on any given lot. To formalize this estimation, let y_{it} indicate if a lot i was rezoned in year t. Let α_i denote the lot-level fixed effect. This fixed effect absorbs all time invariant lot-level factors, such as its location or area. EY_t indicates a municipal election year, and TL_{dt} indicates if the Councilmember representing the lot in district d is term limited. β_3 represents the interaction term by

election year and term limit status. Standard errors are two-way clustered at the council district and lot levels, accounting for spatial correlation among lots in the same district and serial correlation within lot over time. I compute predicted probabilities (linear combinations of estimated coefficients) after estimation.[14]

$$y_{it} = \beta_1 EY_t + \beta_2 TL_{dt} + \beta_3 EY_t \times TL_{dt} + \alpha_i + \varepsilon_{it} \quad (1)$$

The Timing of Land-Use Changes

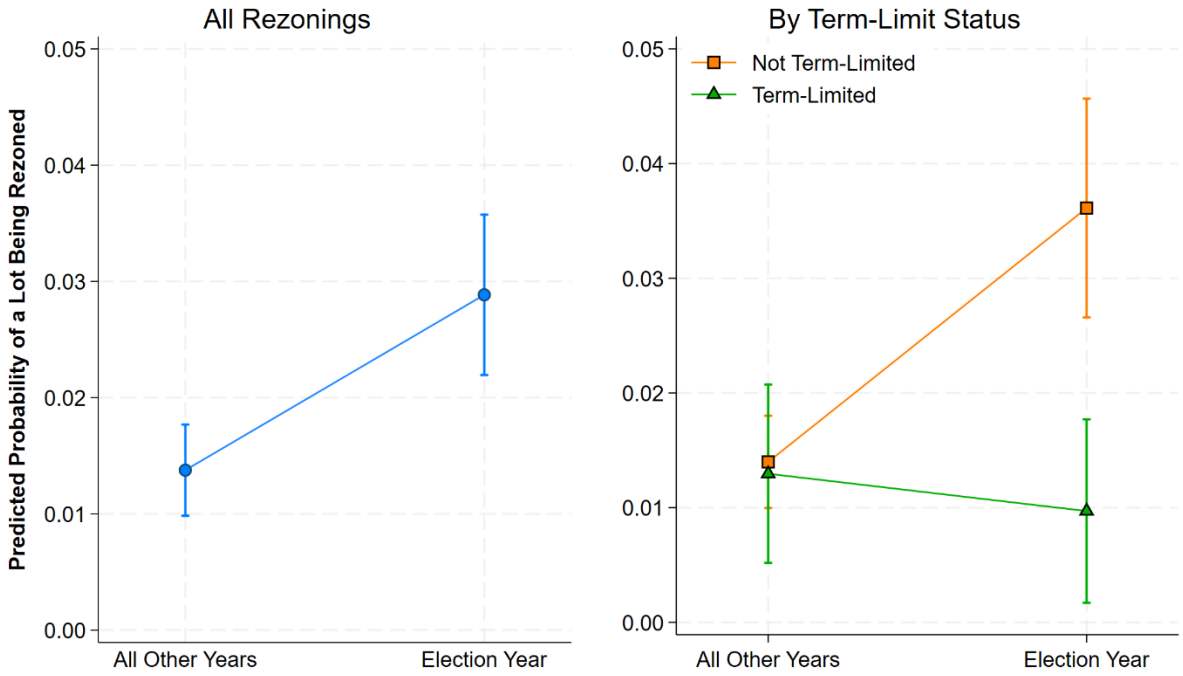
First, I test if the frequency of land-use differs in municipal election years. If local elected officials behave strategically and manipulate land-use regulations for political gain, then rezonings should follow a political budget cycle, occurring disproportionately on election years.

Figure 1 shows that this is the case. The left panel shows the predicted probability of any given lot (parcel) being rezoned, broken down by if the year is a municipal election year or not. On non-election years, the probability is 1.4 percentage points. On election years, that probability more than doubles, by 1.5 percentage points, to 2.9 percentage points. To contextualize this effect, of the 410,000 lots rezoned between 2001 and 2025, over half were rezoned on election years (54 percent). This is much higher than one would expect by chance alone – as only one-third of years in the panel are municipal election years.[15]

Moreover, these effects are robust to several modeling specifications, including fixed effects for mayoral administration, years since the lot was last rezoned, assessed value, and the existing number of units in the building(s) on the lot, as well as alternative standard error clustering at the district-year or rezoning project area levels (See Appendix Tables D1 and D2).

[14] Note that this strategy yields small predicted probabilities. Despite about 46% of all lots being rezoned over the period, the 24-year period means just under 2% of lots are rezoned in any given year. I present predicted probabilities as these figures incorporate information both about base rate frequencies *and* relative increases. Increased frequencies should maximize visibility and credit-claiming opportunities.
[15] Where Councilmembers are up for election. While typically this is every four years, elections are held for City Council only for a two-year term after every other Decennial Census and redistricting. This adds 2003 and 2023 as election years. The mayor was not on the ballot these years.

Figure 1. Predicted Probability of Rezoning, by Election Year and Term-Limit Status



Note: 95% confidence intervals in caps. Clustered standard errors at the lot and city council district levels. Fixed effects at the lot level. Estimated using the **`reghdfe`** package (Correia and Constantine [2014] 2026). For regression output, see Appendix Table D1.

My theory predicts that local politicians manipulate zoning regulations for political gain, bolstering their reelection prospects. Therefore, I expect that politicians who stand the most to gain from treating zoning as pork do so disproportionately. First, I operationalize this electoral incentive using term limits. Reelection eligible politicians should behave most opportunistically, due to their stronger electoral incentives vis-à-vis term-limited politicians.[16]

I find strong evidence for this hypothesis. The right panel of figure 1 shows the predicted probability by if the Councilmember representing the lot is term-limited (also see Appendix Table D1). The political budget cycle is only present among reelection eligible, non-term-limited politicians, supporting my theory. The predicted probability of a lot being rezoned on an election year in a district represented by a non-term-limited

[16] To be sure, term-limited members may still have electoral incentives, especially if they are running for higher office in an overlapping state or federal legislative district. However, their incentives should be lessened due to the larger geographies of higher office along with higher turnout from on-cycle elections.

politician is 3.6 percent, compared to just under 1 percent for term-limited politicians. This strongly suggests councilmembers are engaging in politically opportunistic behavior.

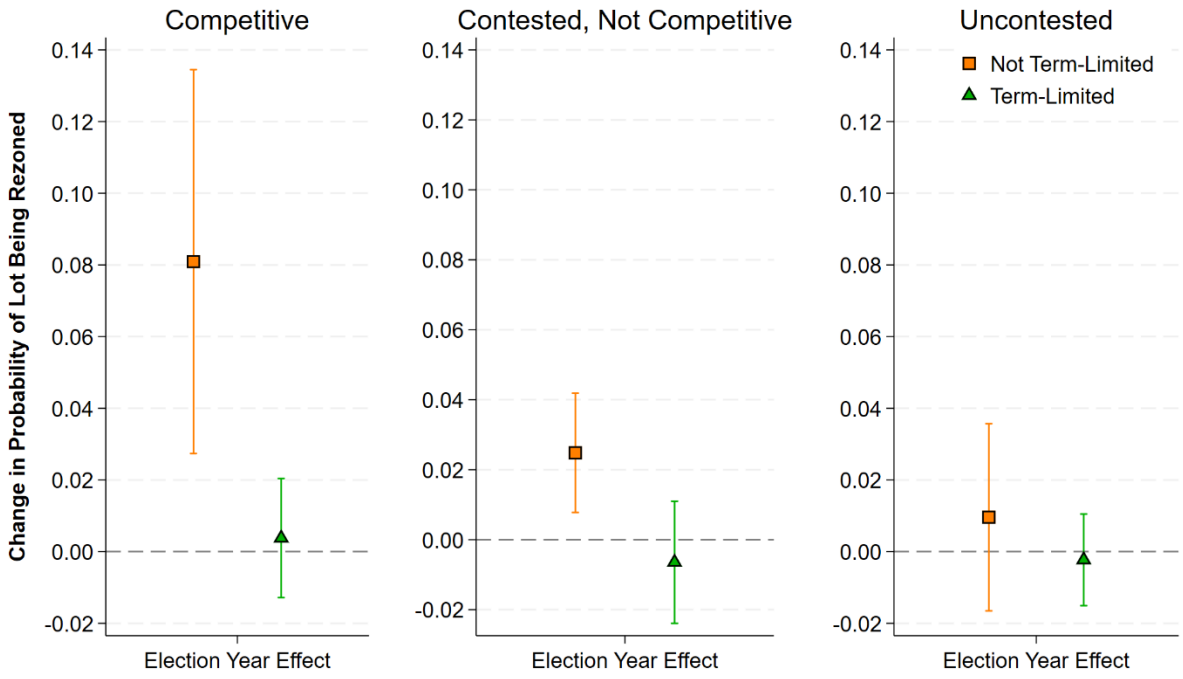
As an alternative measure of electoral incentives, I decompose the political budget cycle and term-limit effect by how competitive the last municipal election was in that council district. Here, prior election year competitiveness serves as a proxy for future year competitiveness. If my theory is correct, more electorally vulnerable politicians should behave more strategically.

To test this, I split districts based on the interquartile range of the incumbents vote share in the last general election. I code districts as “competitive” if vote share was below Q1 (67% and below), “contested, not competitive” if vote share was between Q1 and Q3 (mean 82% vote share), and “uncontested” if vote share was above Q3 (93% and above).

Figure 2 plots the results. The left-hand panel shows that the rezoning political budget cycle is largest for reelection-eligible politicians in competitive districts. For lots represented in these districts, the predicted probability of rezoning is 8 percentage points higher on election years, nearly 8 times the baseline rate of rezoning. This effect attenuates as districts become less competitive, with uncontested districts showing no political budget cycle effect (right-hand panel). These patterns are similar if applying the same method to prior primary election outcomes (See Appendix Figure D1).[17] Together, these results support the notion that the rezoning political budget cycle is due to strategic, electoral calculations. Politicians who have the strongest electoral incentives to opportunistically manipulate land-use regulations do so at much higher rates.

[17] Although effects are slightly smaller. This is perhaps because first-election primaries tend to be very competitive (on average 5 challengers), but this is not indicative that future primaries will be as competitive. Compare this to districts which have competitive general elections, a more typical two-party race that is less common in Democrat-dominated New York City, where prior general election competitiveness more likely reflect the underlying electoral dynamics of the district.

Figure 2. Predicted Probability of Rezoning, by Election Year, Term-Limit Status, and Prior Election Competitiveness



Note: 95% confidence intervals in caps. Clustered standard errors at the lot and city council district levels. Fixed effects at the lot level. Estimated using the **reghdfe** package (Correia and Constantine [2014] 2026). Competitive elections defined as the vote share in the prior general election being 67% or below, contested, not competitive elections as between 67 and 93%, and uncontested elections being above 93% vote share. For regression output, see Appendix Table D3.

These heterogenous effects by term-limit and district competitiveness also help to rule out an alternative explanation: that the length of the rezoning process simply aligns with election years by coincidence. Indeed, the rezoning process can be long, typically around two years for private rezonings (Campion 2022).[18] However, if the entire political budget cycle was driven by the length of the rezoning process, we should expect that rezonings increase in frequency on all election years, not just reelection

[18] We do not know the average length of the rezoning process for City-initiated, neighborhood rezonings as studies are internal to the DCP. However, evidence suggests it is possible for neighborhood rezonings to be completed within two years. For example, the Bay Ridge rezoning process began sometime in late 2003 after newly elected Councilmember Vincent Gentile announced a task force to study a downzoning (Shelby 2003), and was the rezoning was adopted in April 2005, a year and a half later (CityLand 2005).

eligible years in competitive districts. Additionally, as mentioned before, these effects are robust to a series of time-variant controls (See Appendix Table D1).

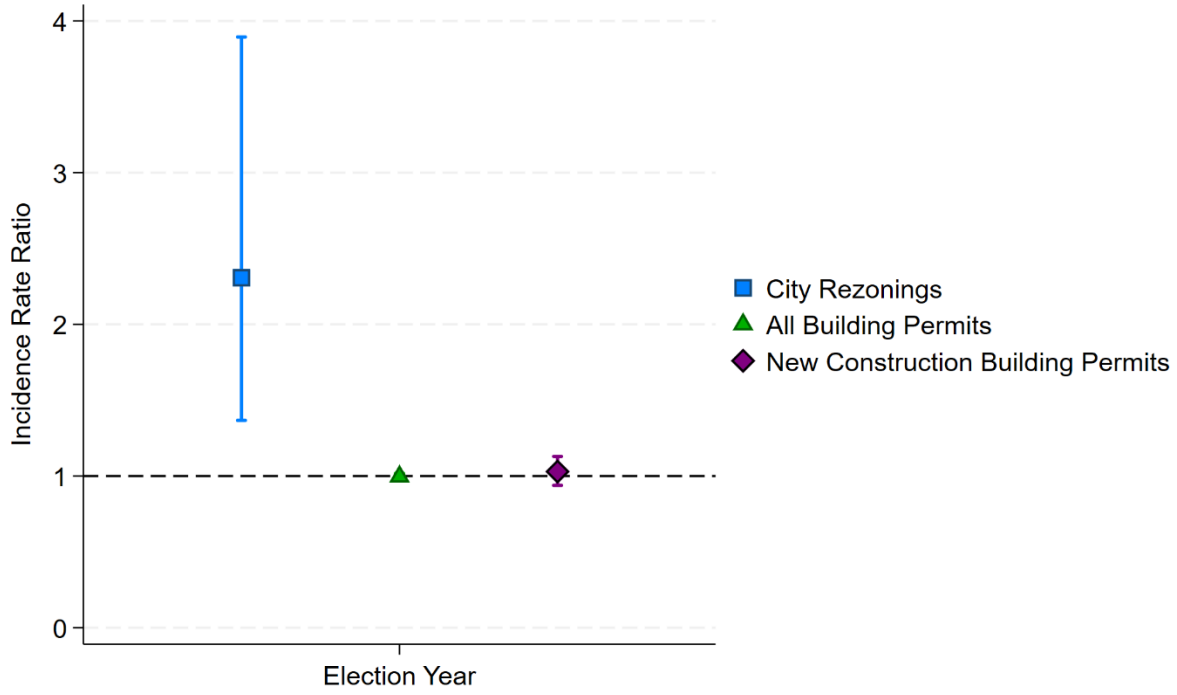
Still, one may worry that elections are coterminous with other factors which may influence the decision to rezone a lot. One factor is market forces. Indeed, a long line of literature in urban economics centers the role of non-political market factors in determining land-use outcomes, such as the availability of land or distance to the city center (Duranton and Puga 2015; Saiz 2010). Additionally, elite-structural theories of urban politics, such as Logan and Moloch's (1987) conception of the city as a "growth machine" argue that politicians behavior is a direct response to the demands of business interests, not strategic political considerations responsive to voters (Altshuler and Luberoff 2003). While my within-lot analysis should address most of these concerns by holding time-invariant lot-level characteristics fixed (such as distance to the city center), it is possible that the effects are driven by other time-variant factors associated with the business cycle or the demands of real-estate interests.

To address this, I construct a placebo test for political budget cycles, testing for their presence among the issuance of building permits. As nearly all construction in New York City is 'by right,' meaning receiving a permit is subject to ministerial rather than discretionary approval, permitting should follow the business cycle: influenced by factors such as interest rates, material construction costs, or overall demand to live in the city. If the rezoning budget cycle effects are spurious with economic factors that coincide with the election years in the sample, permitting should follow the same trends. On the other hand, if these effects are indeed due to political opportunism, we should expect election year effects on permitting to be small or null.

To test this, I collect data on building permits from the New York City Department of Buildings between 2002-2022. Over 2 million new permits were issued during this period. I aggregate the count of new permits at the council district-year level. For comparability, I collapse my data on rezoned lots into the same structure. As dependent variables are counts which differ substantially across datasets, I fit a Poisson regression model with fixed effects for council district and mayoral administration. This modeling approach allows for comparability across the two datasets using the same scale (King

1988). Figure 3 plots the incidence rate ratio for each outcome on an election year relative to non-election years. A value of 1 indicates that the outcome is no more or less likely on an election year, whereas positive values indicate they are more likely, and negative less likely.

Figure 3. Predicted Incidence Rate Ratio, Rezonings and Building Permits



Note: 95% confidence intervals in caps. Clustered standard errors at the council district level. Includes fixed effects for council district and mayoral administration. Estimated using the **`ppmlhdfe`** package (Correia et al. 2020).

As shown in Figure 3, city-initiated rezonings are far more likely to occur on election years, with an incidence ratio of 2.3, meaning election years see more than double the number of rezonings to non-election years, replicating effects from the main specification in Figure 1. Building permits, on the other hand, do not follow the same political budget cycle. Effects are precisely null, including construction permits.[19] This

[19] This is notable as all permits include a variety of idiosyncratic permits likely less correlated with the business cycle, such as city mandated scaffolding and sidewalk sheds.

suggests that strategic political considerations are driving the effect rather than current year market conditions or the demands of real-estate interests.

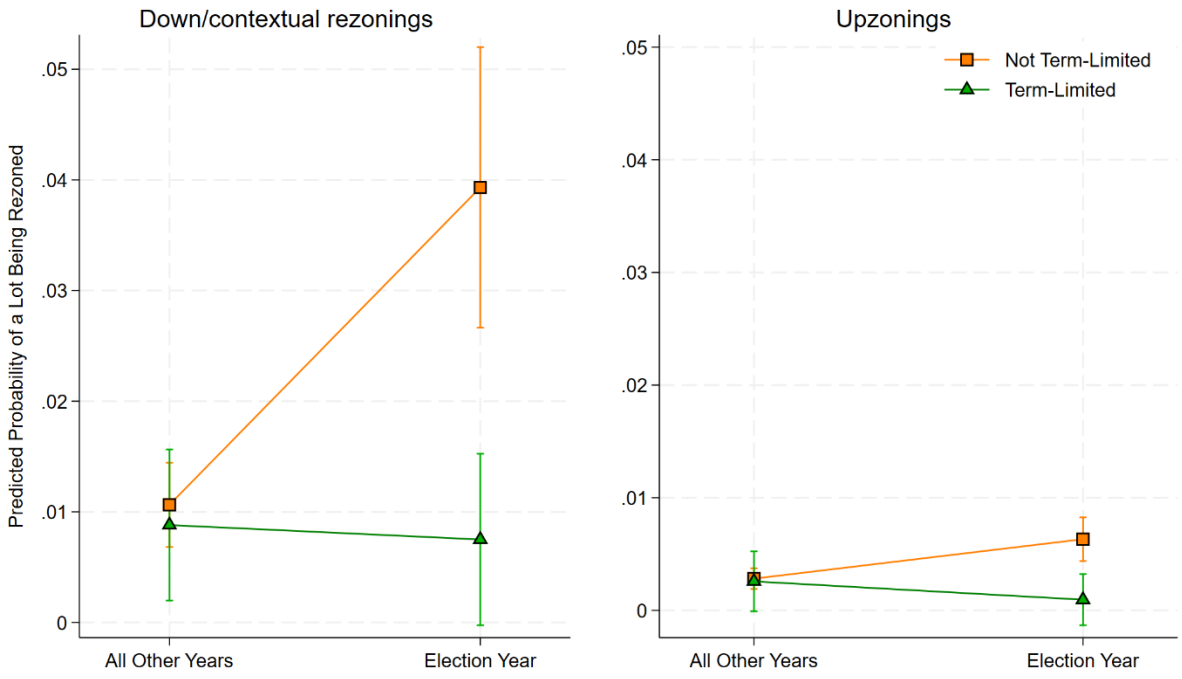
Tuning the Direction and Intensity of Land-Use Changes

So far, I have shown that land-use changes follow a political budget cycle, substantially increasing in frequency on election years. These effects are limited to reelection eligible politicians and those in competitive districts, evidence of strategic behavior. Moreover, these effects are not explained by other time-associated confounders such as the business cycle.

However, I argue that local politicians tune the direction of the rezonings towards the preferences of their voters. In most places, I expect that the most politically expedient zoning changes are those which restrict new housing development. This is not to say that all voters favor density restrictions. However, density-restricting policies such as contextual zoning and historic districting receive robust support, while density-increasing policies such as upzoning for large multifamily buildings, while still popular, are often more controversial. That is, for many local politicians, density-preserving rezonings are likely a politically safer bet when facing a competitive reelection. On average, political budget cycles should be stronger for such density-restricting policies.

To test this, I decompose the political budget cycle effect by term-limit status separately by the direction of land-use changes. Stronger political budget cycle effects for density-reducing rezonings would support my hypothesis. Indeed, I find this to be the case. Density-restricting rezonings follow a strong electoral budget cycle. The left panel of Figure 4 shows that the probability of a down-or-contextual rezoning spikes substantially on a re-election eligible election year, being 5.2 times more likely to occur (see Appendix Figure D2 for the disaggregated effect). 54 percent of all downzoning and contextual rezonings occurred during re-election years.

Figure 4. Predicted Probability of Rezoning, by Election Year, Term-Limit Status, and Direction



Note: 95% confidence intervals in caps. Clustered standard errors at the lot and city council district levels. Fixed effects at the lot level. Estimated using the **`reghdfe`** package (Correia and Constantine [2014] 2026). Both plots only show neighborhood rezonings.

Density-increasing rezonings, or upzonings, on the other hand, show more muted effects. While the probability of an upzoning does increase on reelection years, by about 0.4 percentage points, these effects are less pronounced (the right panel of Figure 4). Moreover, 44% of these upzonings encourage non-residential uses.[20] Prior research shows that when denser development is accompanied with retail space, it is less controversial (Wicki and Kaufmann 2022), and the public views new retail as a major positive benefit from new development (reanalysis of Pietrzak and Mendelberg (2025), see Appendix E). Indeed, some rezonings in my sample explicitly coupled

[20] Of the 65,498 neighborhood upzonings I identify, 9,789 (15%) are rezoned to a non-residential primary zoning category ("C" or "M" zones). An additional 18,783 (29%) are rezoned to a primarily residential zoning category and are accompanied by a commercial overlay. That is, 44% of neighborhood upzonings encourage higher density for commercial or industrial uses.

neighborhood preservation with bonuses to encourage grocery stores and other retail development.[21]

That is, many upzonings which do occur on reelection years are for non-residential purposes, such as additional density for retail. The upzoning election cycle effect being driven in part by commercial, not residential, upzoning supports the view that this type is less controversial. Together, this evidence suggests that reelection-oriented politicians tune the direction of rezonings towards anti-density public opinion.

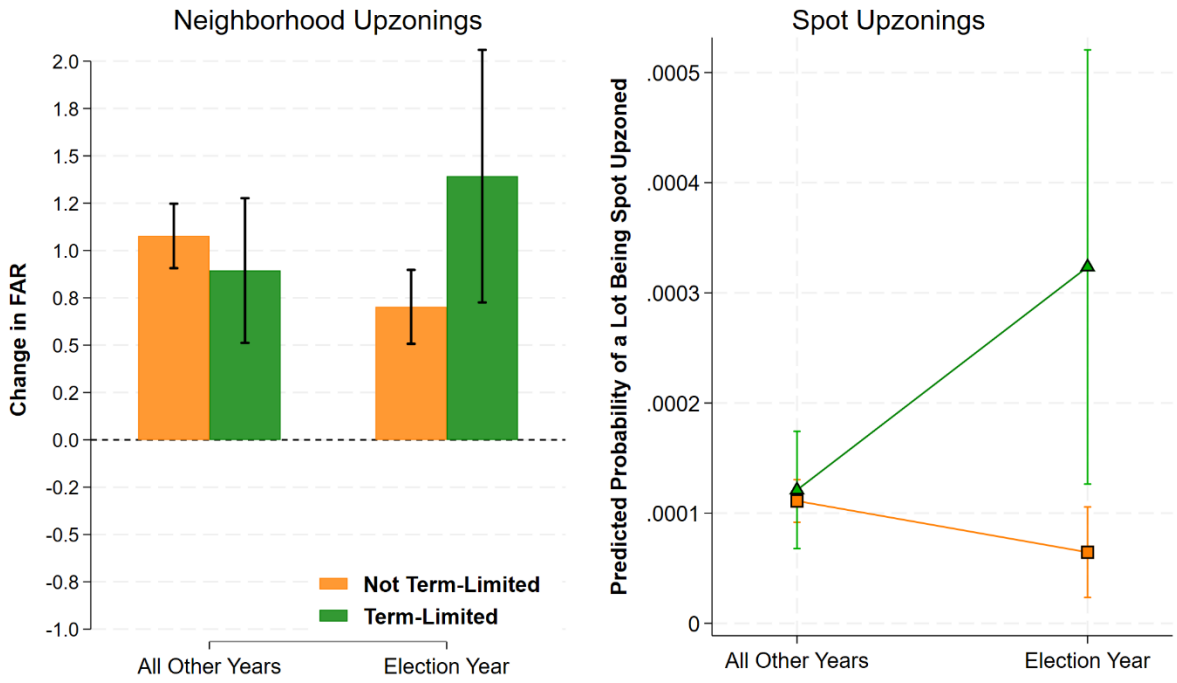
As a further test if local politicians strategically tune the direction of rezonings, I examine if the intensity of upzonings (how much the FAR changed) follow a political budget cycle. Unlike downzonings, where marginal decreases in allowable density can discourage new development, the intensity of upzonings determines if the regulatory change can induce new development. Research shows upzonings often require significant increases in allowable density to spur new development - on average, an increase in allowable FAR of 3.4 (Rollet 2025). This is because most lots already have buildings. To justify the significant expense of demolition, the additional density must be substantially larger than what already exists.

If politicians tune the direction of rezonings for strategic political considerations, and new development is seen as politically risky, then we should expect less intense upzonings on reelection years. Indeed, this is what I find. The left panel of Figure 5 decomposes the increase in FAR among upzoned lots by election year and term-limit status. On re-election years, the average increase in allowable density is lowest, with an average increase in FAR of 0.7. Meanwhile, on the final year of a Councilmembers tenure, the increase in FAR is the largest, 1.4.[22]

[21] For example, one rezoning in 2011, which was adopted explicitly to prevent new housing "inconsistent with the prevailing scale and built character" of the neighborhood also included an expansion of the city's Food Retail Expansion to Support Health (FRESH) program, which provides zoning bonuses and tax benefits to encourage the development of new grocery stores that stock fresh produce (NYC Department of City Planning 2011). Councilmember Leroy Comrie, who represented the district impacted, criticized prior zoning as "not really large enough to encompass a real opportunity" for restaurants and grocery stores in his speech before City Council (Comrie Jr. 2011).

[22] To contextualize this change in FAR, this change would allow typical sized lot to build an additional 11,000 more square feet (roughly 15 new apartment units).

Figure 5. Predicted Change in FAR (left) and Predicted Probability of Spot Rezonings (right), by Election Year and Term-Limit Status



Note: 95% confidence intervals in caps. Clustered standard errors at the lot and city council district levels. Fixed effects at the lot level. Estimated using the **reghdfe** package (Correia and Constantine [2014] 2026). The left panel plots the change in FAR among upzoned lots, by election-year term-limit status. The right panel plots the predicted probability of a non-neighborhood, 'spot' rezoning (variance) by election-year term-limit status.

Consistent with this lame-duck upzoning intensity effect, I find corroborating evidence by examining the frequency "spot" rezonings (variances) brought forth by private developers. These rezonings are typically to request an increase in density on one or a handful of lots for a single development project. The decision of private rezonings to submit these applications is likely highly strategic, as most successful approvals require informal negotiations with the Councilmember representing the project (Campion 2022). The right panel of Figure 5 shows that these private upzonings are more than three times as likely to occur on a term-limited election, that is, a Councilmembers final year in office. This reversal of the political budget cycle effect suggests that either politicians may strategically delay such rezonings, perhaps by requesting developers hold off, or that developers perceive their chances of approval to be higher. This is consistent with reporting that these private upzonings are highly

controversial (Honan 2022; Velsey 2024), along with evidence finding strong anti-developer public opinion (Broockman et al. 2025; Mendelberg et al. 2026; Monkkonen and Manville 2019).

Together, these findings strongly suggest that politicians strategically tune the direction of rezonings as a function of the election cycle. The frequency of density-restricting rezonings increases in reelection years. Conversely, when electoral pressures ease, the intensity of upzonings and frequency of approvals of rezonings initiated by private actors increases. This suggests local politicians may strategically avoid less popular density-increases ahead of reelection.

The Geographic Targeting of Land-Use Changes

However, if local politicians are strategically rezoning for political gain, we'd expect them not only to tune the direction of rezonings, but also to geographically target their rezonings. The logic is akin to geographically targeted pork-barrel spending, where district-based politicians 'bring home' dollars to spend on local priorities. Doing so may be politically advantageous, creating opportunities for credit-claiming.

Local elections are unique as they are lower salience and low voter turnout, especially in off-cycle cities (Anzia 2024). Consequently, the views of the minority of residents who do participate in local politics may be especially consequential. Prior research has documented how 'neighborhood defenders' mobilize at local meetings to stop new development projects or pro-housing reforms. In addition to being more likely to hold anti-density preferences, these residents are disproportionately older homeowners and vote at much higher rates in local elections (Einstein et al. 2025; Sahn 2024). As neighborhood defender types make up a disproportionate share of local voters, and many local elected officials rely on local meetings and constituent contact to glean the preferences of their voters (Einstein et al. 2017; Hankinson and Pietrzak 2026), local politicians may be particularly responsive to their preferences. Therefore, I expect density-restricting rezonings to target lots with attributes corresponding to these residents: higher rates of homeownership, older residents, and more local voters.

To test if this is the case, I use a variety of approaches to predict if these attributes predict a higher probability of a lot being downzoned or contextually rezoned. For this analysis, lot-level characteristics are ideal. As demonstrated in Figure 1 and further demonstrated through an example rezoning in Appendix Figure F1, if and in what direction a lot is rezoned can vary even within a city block. As a result, demographics at higher-level geographies such as census tracts are less equipped to answer which lots are selected for down-and-contextual rezonings over upzonings.

Instead, I construct a variety of lot-level characteristics associated with neighborhood defender traits. For homeownership, I use each lots building class to match it to its property tax class. Some property tax classes allow properties to be directly identified as owner-or-renter occupied or as non-residential (see Appendix C2 for details). For ambiguous tax classes, I use the property owner's name to categorize if the lot is likely used as a rental (such as owned by a corporate entity). I validate this method against tract-level homeownership rates (Appendix Table C2 and Figure C1). For age and local voting, I use annual voter file snapshots between 2009 and 2023 (see Appendix C3). For each lot, I tally up the number of active registered voters, voters by age, the average age, and the number of voters who voted in the last municipal election. As lots contain differing numbers of buildings and units, I normalize these figures by dividing each count by the number of residential units on the lot.

To model which lots are selected, I predict the direction of rezoning (where downzoned or contextually rezoned = 1, upzoned = 0) among rezoned lots. I subset to rezoned lots to avoid posttreatment bias. As discussed earlier, rezoning can change neighborhood-level characteristics (Freemark 2023), including plausibly impacting homeownership rates or age.[23] By focusing my analyses on lot-level characteristics within rezoned areas *at the time of rezoning*, I avoid capturing posttreatment effects of the rezonings themselves, which would bias my estimates.

[23] This is particularly an issue given many density-restricting rezonings are concentrated earlier in the study period. However, once a lot is rezoned, it is unlikely to be rezoned for some time. If density-restricting rezonings increase the homeownership rate, then modeling which lots are selected for density-restrictions among all lots (including those already rezoned) would be subject to posttreatment bias.

I also add fixed effects at the *city block, year, and council district* levels. I add city block fixed effects for two reasons. First, rezoning is a complex process, and the planning process theoretically uses a myriad of factors to determine new zoning regulations, including access to transit, existing capacity of local infrastructure, or trends in property value appreciation (for a more detailed discussion and tests of these factors, see Been et al. (2014)). Rather than modeling all these factors, which would still be subject to omitted-variable bias, I net out most confounding unobservable neighborhood and small-area characteristics by focusing on within-block differences. Second, many city blocks show similar development patterns. Lots facing side streets (known as 'midblocks') tend to have lower-density residential uses such as single-family homes, townhouses, or brownstones, whereas lots in the same block abutting avenues tend to have higher-density mixed-uses. Block-level fixed effects allow me to identify if lots are targeted for density-restrictions based on this within-block variation.

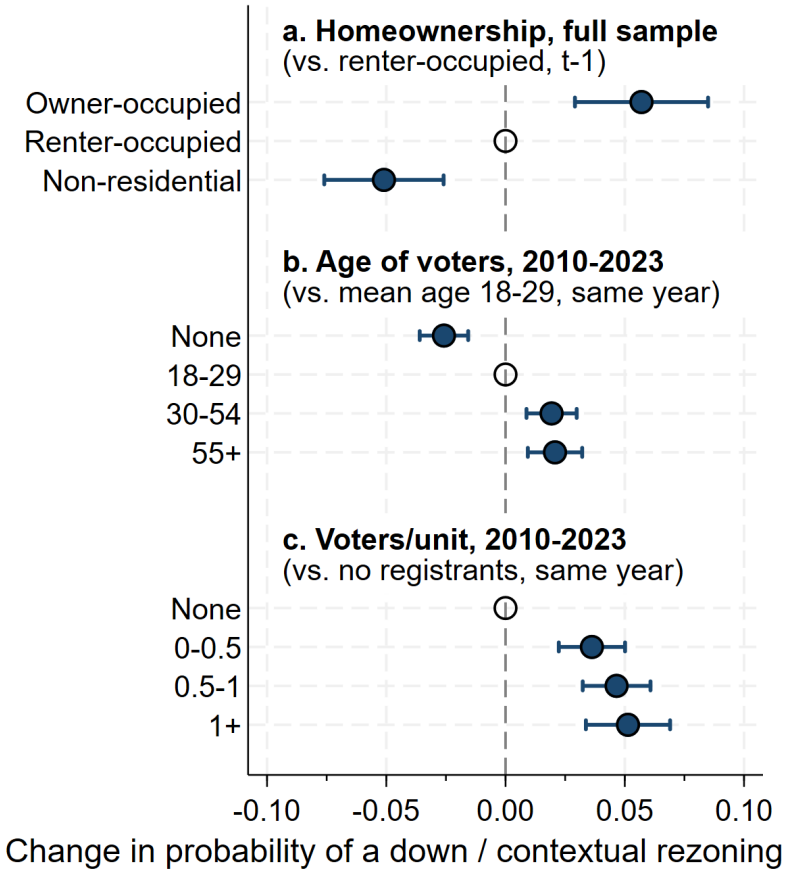
If local politicians strategically target density-restricting rezonings to lots which are occupied by neighborhood defenders, we should see higher probabilities for lots which are homeowner-occupied, older, and more politically active. Figure 6 shows this to be the case. Panel (a) shows that the homeowner-occupied lots are about 5 percentage points more likely to be downzoned or contextually rezoned vis-à-vis renter-occupied lots. Likewise, panel (b) shows that relative to lots occupied by younger voters, lots with older voters are slightly more likely to be downzoned or contextually rezoned. Finally, panel (c) shows that as the number of registered voters per residential unit increases, the probability of downzoning increases relative to lots without any registered voters. The pattern replicates when using lot-level votes cast in the last municipal election (Appendix Figure D3).[24] That is, neighborhood defender attributes all positively predict that a lot will be selected for density-restricting rezonings.

Moreover, these findings are consistent with Been et al. (2014), who in their analysis of New York City rezonings from 2002 to 2009, find that downzonings target census tracts with higher homeownership rates, more single-family and low-rise

[24] Omitted from the main analysis as earlier voter histories provided by CUNY are less accurate than registered vote totals when compared to official sources. See Appendix Table C3.

residential buildings, higher shares white residents, and more votes cast in municipal elections per housing unit. My analysis builds on these findings through a more precise lot-level analysis that nets out much of the unobserved confounding in the rezoning process, better isolating the effect of politically-relevant variables.

Figure 6. Predicted Probability of Down/Contextual Rezoning (vs. Upzoning), Selected Lot-Level Neighborhood Defender Characteristics



Note: 95% confidence intervals in caps. Fixed effects for borough-block and council district-year. Clustered standard errors at the borough-block and council district-year levels. Estimated using the **reghdfe** package (Correia and Constantine [2014] 2026).

Credit Claiming

So far, I have presented evidence consistent with my theory of local politicians treating *rezoning as pork*: strategically timing, tuning the direction of, and targeting rezonings. Critically, I argue that local politicians employ such tactics for strategic electoral reasons, such as to engage in credit claiming.

To see if this is the case, I collected candidate statements made by all reelection-seeking Councilmembers who oversaw a neighborhood rezoning as part of the city's Voter Guide.[25] The Voter Guide is a brochure sent in the mail (and accessible online) to all registered voters, and contains short statements made by all candidates on the ballot in each district. While statements in these Voter Guides do not provide a full accounting of all credit claiming (which can also be observed in newspaper reporting or press releases), they have the benefit of being comparable in length and format, as well as near complete responses across candidates seeking reelection. Of the 179 neighborhood rezonings over the period, I collected Voter Guide statements from the politicians representing 112 of these rezonings.[26]

For each statement, I identified if the incumbent explicitly or implicitly claimed credit for the neighborhood rezoning. Explicit credit claiming involves directly naming the rezoning or regulatory reforms. Implicit credit claiming involves references to the rezonings' impacts (e.g. stopping overdevelopment, creating affordable housing units).

Table 3 shows the frequency of credit claiming for each neighborhood rezoning. Nearly three quarters were accompanied by credit claiming. This is especially notable when considering that each candidate's space in the Voter Guide is limited to just a few key sentences. Examples include Councilmember Vincent Gentile, who explicitly claimed credit for the "new Bay Ridge Zoning Laws that [he] helped draft and pass;" Councilmember James Sanders Jr., who claimed he "initiated the most far reaching down-zoning efforts ever attempted in this city; or Councilmember Tony Avella, who

[25] I code the primary Councilmember responsible who represents the largest number of affected lots.
[26] 146 neighborhood rezonings were represented primarily by Councilmembers eligible for reelection, 112 rezonings were represented by Councilmembers who were eligible for reelection and submitted a statement to the Voter Guide. The remaining 34 represent candidates who either failed to submit a statement, resigned before reelection, or ran for a higher office rather than reelection.

specifically claimed credit for the development of “a new zoning category, R2A, which eliminates loopholes that allow for the huge ‘McMansions’ to be built.” Additionally, Table 3 reveals that the rate of credit claiming is higher for rezonings which were adopted during municipal election years.

Table 3. Credit Claiming for Rezonings by Councilmembers Seeking Reelection

	Timing of Neighborhood Rezoning		
	Before Election Year	**On Election Year**	**Total**
Explicitly Credit Claimed	17 *31%*	26 *45%*	**43** ***38%***
Explicitly or Implicitly Credit Claimed	34 *63%*	46 *79%*	**80** ***71%***
Total Statements	**54**	**58**	**112**

Note: Statements are duplicated in cases where multiple rezonings were passed by the same Councilmember in the same reelection cycle.

Qualitative analysis provides additional evidence about the reason undergirding the direction of each rezoning. Members who passed density-restricting rezonings often cited overdevelopment and evoked common reasons for opposing new housing, such as aesthetic concern for neighborhood preservation, fear of congestion-related externalities, or negative sentiments towards developers. For example, Councilmember Oliver Koppell, who helped adopt the 2004 down-and-contextual rezoning of North Riverdale in The Bronx, claimed his actions would help protect “the attractiveness of the neighborhood” and “natural features in the community.” Councilmember Vincent Gentile alleged that new “box-like” development has “choked our streetscape and stressed our infrastructure.” Finally, Councilmember James Sanders Jr claimed that his measures will protect his district from “unscrupulous” and “sleazy” developers, while Councilmember James Vacca similarly evoked negative sentiment towards “irresponsible builders issued permits as a matter of right.”

Other members’ rezoning efforts represented blends of density-restrictions and upzoning. Statements by these members frequently thread the needle between neighborhood preservation, economic growth, and housing affordability. For example, Councilmember Rosie Mendez, who helped pass the East Village and Lower East Side rezoning of 2008, which included both upzoned (1,370) and downzoned (500) lots, cited

“dramatic overdevelopment” and “luxury housing” as changing the character of those neighborhoods. She claimed her rezoning will simultaneously “restrict high-rise construction and create affordable housing.” Similarly, Councilmember Christine Quinn, who passed a small downzoning of Manhattan’s West Village cites her “fight against massive overdevelopment which the community opposes” while also claiming credit for one of the most consequential upzonings and megadevelopments in recent history, Hudson Yards. Finally, Councilmember Domenic Recchia, who upzoned portions of Coney Island in 2009, cited how a “revitalized” commercial district will bring “entertainment, revenue, year-round jobs and affordable housing to the community.”

Finally, members who upzoned their districts especially highlighted the potential of their actions to spur affordable housing development. Councilmember David Yassky, who passed the Downtown Brooklyn and the Greenpoint Williamsburg rezonings of 2004 and 2005, which would lead to dramatic redevelopment in those neighborhoods, cited that his rezonings will “produce more than 3,000 apartments for middle-income and working families” “at [his] insistence.” Councilmember Helen Dianne Foster, who passed two upzonings of Morrisania and Port Morris in The Bronx, claimed that “there is a substantial need for affordable housing,” which she links to homelessness and poor school attendance in her district. Finally, Councilmember Julie Won, who upzoned sections of Long Island City in Queens, similarly cited homelessness as reason for more “deeply affordable housing,” linked affordability as a cause of other citywide issues such as crime or mental health problems, and evoked her status as a renter, saying she personally “feel[s] the effects of rising rents.”

Together, these statements provide evidence that Councilmembers indeed credit claim for their rezoning activities, especially those they enact on reelection years. Their statements echo common reasons brought up by citizens in opposition to new housing, such as aesthetic concerns (Pietrzak and Mendelberg 2025), fear of congestion and negative externalities (Trounstine 2023), or dislike of developers (Broockman et al. 2025; Monkkonen and Manville 2019). Similarly, density-increasing upzonings are accompanied by common reasons for support, including deep affordability (Mendelberg et al. 2026), support for addressing homelessness (Brown et al. 2026), and economic

development including retail space (See Appendix E). These statements further suggest Councilmembers tune the direction of rezonings towards the direction of rezonings towards the preferences of their voters. Finally, these statements provide evidence about how voters may be learning about their Councilmembers' rezoning efforts.

Generalizability

One might be concerned that this phenomenon is limited to New York City. However, Councilmember-initiated downzonings in particular have been observed across many large U.S. cities, including Chicago, where downzonings have targeted areas with higher property values (Freemark and Kisiel 2025), or more recently in Philadelphia and San Diego (Blumgart 2017; Bowen 2026). Unfortunately, high-quality longitudinal data about municipal rezonings is scarce, making it difficult to assess how frequent such practices are across space.

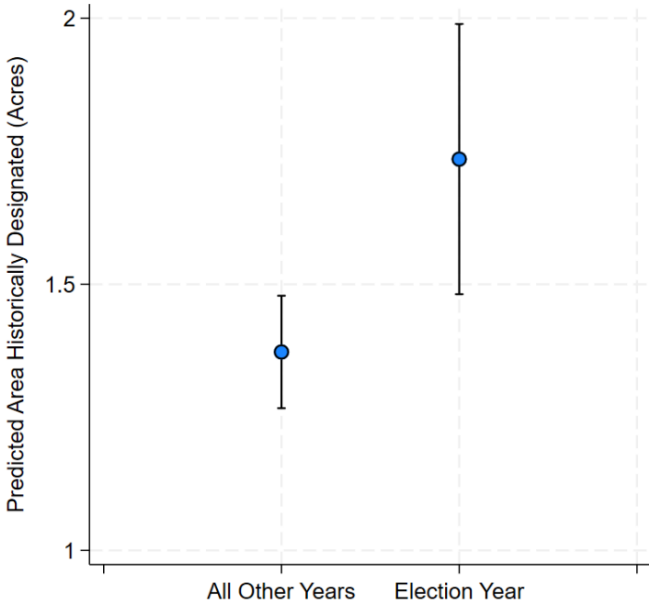
To address generalizability, I use a national dataset on the timing of the adoption of historic districts, allowing me to test for political budget cycles in historic districting. While not commonly thought of as such, historic districting is a form of land-use regulation in large part aimed at reducing density. The effects of historic districting are akin to downzoning, with historic districts often causing property value appreciation and neighborhood demographic change (Bologna Pavlik and Zhou 2023; Been et al. 2016). I use the National Park Service's National Register of Historic Places (NRHP). This dataset provides information about the name, size (measures in square acres), type, and date historic districts were registered at the municipality level.[27] I create a panel of municipality-district-years, and I merge this dataset to mayoral elections in the American Local Government Elections Database (de Benedictis-Kessner et al. 2023) to identify municipal election years, supplemented with hand-coded election dates where elections

[27] I subset this dataset to historic districts listed as "locally significant" to best isolate historic districts created by local governments. To identify political budget cycles at the municipality level, I subset my analysis to cities where at least two historic districts are present, allowing me to study within-city changes and to avoid categorizing rare, one-off regulatory actions.

were missing.[28] In total, the final dataset includes about 200 cities and towns nationwide adopting over 2,800 historic districts.

Figure 6 shows the predicted number of acres designated on municipal election years relative to all other years. As I do not have the number of lots affected by each historic district, the acreage allows is the most comparable dependent variable to the New York City number of lots rezoned analysis. On non-election years, the number of acres of land designated historic in any given year is about 1.37 acres. On municipal election years, 0.36 additional acres are historically designated, to 1.74 on average (a 26 percent increase). While these differences are smaller than the New York City analysis, they are still substantively meaningful. Of the 212,000 acres of land historically districted, about one-third, 34%, occur on municipal election years. This again suggests that local elected officials strategically time changes in land-use regulations.

Figure 6. Predicted Area Historically Designated, by Election Year



[28] Among cities where I have merged in an election year, I subset to cities which have at least two elections in the period. I hand inspect the data to identify gaps in election dates using a variety of sources including Ballotpedia, Wikipedia, news articles, and local government websites with information about prior mayors. I focus just on mayors due to the completeness of the data, and because many council races in the database contained special elections. While it would be preferable to include these races, as many cities hold council races every 2 years and mayoral every 4, this omission if anything should attenuate my estimates towards zero, making them a conservative test.

Note: 95% confidence intervals in caps. Clustered standard errors at municipality level. Fixed effects at the municipality level.

A second concern about generalizability relates to the ability of other actors to constrain local officials, specifically citywide elected officials (such as Mayors) or state governments. Indeed, readers familiar with New York City may wonder why my analysis centers Councilmembers rather than the Mayor, especially considering the colloquial use of the term the "Bloomberg downzonings" (Garber 2024; Laskow 2014). Indeed, the Mayor plays an integral role in the rezoning process (See Appendix A). The Mayor can constrain Councilmembers by both refusing to study a rezoning or by threatening to veto a rezoning passed by City Council.[29] While my effects are robust to mayoral administration fixed effects and an alternative specification that tests the effect of both mayoral and councilmember term limits (See Appendix Tables D1 and D4), mayoral control has indeed constrained Councilmembers. The De Blasio administration, for example, refused to consider a neighborhood rezoning of Bushwick requested by Councilmember Antonio Reynoso, which Deputy Mayor Been called "fundamentally a downzoning" (Offenhartz 2020). Consequently, neighborhood rezonings – particularly downzonings – fell in the De Blasio and Adams administration (although not to zero, see Appendix Table C1). In this way, my results reflect how local politicians opportunistically manipulate land-use regulations if given the opportunity.

Relatedly, that the frequency of neighborhood rezonings decreases over the study period may also reflect how the policy tool differs from fiscal or employment policies. Once a lot is rezoned, it's unlikely to be rezoned for some time. A downzoning, for example, should achieve its aim of stopping new development once enacted. This may limit the opportunity for future credit-claiming in passing additional land-use policies that restrict development, as new development is not occurring and will not credibly occur.[30] Neighborhood rezonings are in this way a 'one shot' policy lever, at least in the

[29] The Mayor appoints the head of the DCP, which studies rezonings. However, Councilmembers may commission their own study.

[30] That said, layering multiple density-restricting regulations has occurred during the study period. For example, some neighborhoods were historically districted in addition to being downzoned. Others, such as parts of Staten Island and the Bronx received special 'Low Density Growth Management Area' (LDGMA) regulations on top of neighborhood rezonings which imposed even more onerous requirements on new development (Savitch-Lew 2017).

short-to-medium term. However, politicians still can strategically manipulate land-use regulations in the form of variances initiated by private actors. Indeed, I find that the rezoning political budget cycle effect is reversed for these private 'spot' upzonings. This is consistent with Heddesheimer (2026), who finds that permitting approvals (which are discretionary in many cities) increase on term-limited years. These private applications are often flashpoints of debate in local housing politics (Einstein, Glick, et al. 2019). Strategically employing discretionary veto power over new private development proposals may provide ample opportunities for local politicians to credit claim even absent the more powerful blanket tool of neighborhood rezonings.

Finally, there are other contexts where my theory of *rezoning as pork* may not generalize. For example, it may be that these effects would be less strong in places where councilmembers are elected at large, as politicians representing larger geographies may benefit less from the hyper-local lot-level zoning changes (consistent with Hankinson and Magazinnik 2023; Mast 2024). Similarly, incentives for density-restricting rezonings may be muted in cities with on-cycle elections. In such contexts, the electorate may be less skewed towards anti-density voices, potentially limiting the ability of neighborhood defender types of voters to capture local policymakers' attention. However, these conditions highlight that my historic districting analysis is conservative test. The municipalities in this sample constitute a wide variety of governance structures, including contexts which likely do not satisfy the conditions of my theory.

Discussion

I show that land-use regulatory changes follow a political budget cycle. In both New York City rezonings and local historic district designation in over 200 cities nationwide, I find evidence that land-use regulatory changes occur more frequently on municipal election years. In New York City, these changes are limited to re-election seeking, non-term limited politicians in the most competitive districts, evidence of strategic behavior. Furthermore, while rezonings follow a political budget cycle, permitting does not, meaning it is unlikely that these effects are explained by other time variant factors such as economic conditions. These findings suggest local politicians may strategically time land-use changes for electoral reasons.

Politicians also appear to strategically tune the direction of rezonings. On reelection years, they are more likely to restrict new density. This is consistent with a large literature that finds many citizens dislike new housing, especially those who disproportionately participate in local politics and vote at higher rates. Indeed, in a sample of regulatory documents and press statements for 20 of the largest downzonings over the period (by number of lots), every single one explicitly mentioned that the rezonings were undertaken in response to public backlash to "overdevelopment" at the helm of were local elected officials. For example, a June 2009 City press release identified the hard work of "Community Board 6, local community groups and Council Member Bill de Blasio" in championing and passing a downzoning. De Blasio, who was up for reelection that November, argued that "preserving our neighborhoods means preventing development that is out of scale and out of touch." This is despite the fact that de Blasio would later go on to restrict downzonings as Mayor. Strategic electoral incentives may therefore help explain why, in the face of a housing affordability crisis, so many cities have opted to adopt regulations which restrict the development of new housing (Gyourko et al. 2021).

However, it may be the case that these directional findings simply reflect the anti-housing public opinion of their time. While longitudinal studies on public opinion about housing do not exist (to my knowledge), the recent growth of the 'Yes-in-my-backyard' (YIMBY) movement appears to suggest support for new housing may be increasing (Brouwer and Trounstine 2024). Indeed, particularly towards the end of my study period, a few notable neighborhood upzonings passed. While some, such as the SoHo/NoHo and the Gowanus rezonings (passed in 2021), were championed by term-limited politicians, others, such as the Atlantic Avenue Mixed-Use Plan (AAMUP, passed in 2025), were passed on a reelection year. Notably, the AAMUP's sponsor, Councilmember Crystal Hudson, campaigned and won on a pro-housing platform in a very competitive prior election (Hamm 2021).[31] My theory argues that local politicians tune land-use changes in the direction of their voters. If public opinion continues to trend

[31] Additionally, while not a neighborhood rezoning, in 2025 the city passed a comprehensive upzoning, the City of Yes, which is projected to create over 80,000 new homes. However, some Councilmembers extracted significant anti-density concessions for their districts (Spauster 2025).

pro-housing, it may indeed become the case that local politicians stand more to gain from upzoning than downzoning.

My findings also speak to current debates about fiscal and policy preemption at the local level. Local politicians are political creatures and must win reelection. I argue that, absent the ability to engage in more typical forms of credit-claiming, local politicians use other tools available at their disposal, such as manipulating land-use regulations. My theory is consistent with Krimmel (2022), who finds that after California passed laws equalizing school finance (practically eliminating all local discretion over school spending), land-use restrictions increased.[32] Indeed, neighborhood rezonings in New York City were not common until the late 1980s and early 1990s. Perhaps not coincidentally, the increased frequency aligns with both increased fiscal preemption by the State, expanded City Council land-use powers, and the creation of the norm of member deference. Currently, in an effort to improve housing affordability, many States are considering or have passed reforms limiting local land-use discretion (Armlovich and Justus 2023). It remains an open question how local politicians will react to these new constraints, and what methods they will employ next to help win elections.

Conclusion

This paper presents and tests a theory of *zoning as pork*. In the face of federalist-related fiscal and policy constraints, I argue local politicians strategically time land-use changes for electoral gain. I find evidence that both New York City rezonings and historic district adoption in a sample of over 200 municipalities follow a political budget cycle. These effects are limited only to politicians with the strongest electoral incentives. Furthermore, local politicians strategically tune the direction of rezonings and target locally politically active residents. These strategic electoral considerations favor density-restricting regulations and help explain why many cities have opted to restrict new housing development in the midst of a housing affordability crisis.

[32] Although his analysis is more focused on differences across space, showing that wealthier towns were more likely to adopt these restrictions.

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Appendix A. The Rezoning Process in New York City

There are two types of rezonings that rezonings that go through a discretionary review process: City-initiated neighborhood rezonings and private "spot" rezonings for individual projects.[33] Neighborhood rezonings make up the vast majority of rezonings, over 95 percent, as New York City has "by-right" zoning, meaning developers do not need special approval for new construction as long as the project is complies with existing regulations.

Before the formal rezoning procedures begin, rezonings go through informal vetting and reviews. Proposed projects are discussed with local elected officials, particularly the local Councilmember, who traditionally has been granted deference over land-use decisions in their districts per long-standing City Council norms.[34] For City-initiated neighborhood rezonings, these conversations are among DCP staff along with members of the Mayoral Administration and local elected officials. Before even entering the public eye, many rezonings are abandoned at this stage due to opposition from local

[33] There are other types of land-use changes not focused on here, such as Citywide map amendments, changes initiated by other parties (for example, a State Senator pushed for a neighborhood rezoning once, rather than the City; for simplicity I consider this case equivalent to City-initiated rezonings), or State-initiated projects which circumvent local land-use law.
[34] The norm has been historically very strong. During the study period, there has only been one documented instance of deference not being respected, in 2022 concerning the rezoning of the New York Blood Center.

elected officials, although the exact number is rezonings ever considered is unknown as this an informal procedure.[35]

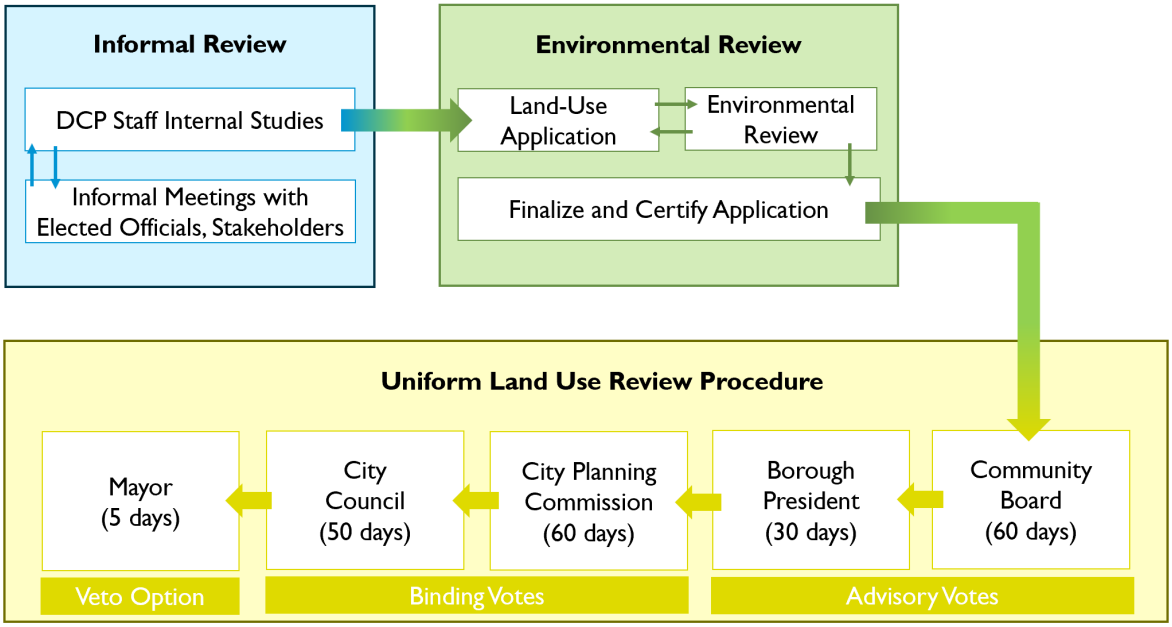
Given these informal reviews, it is safe to assume that City-initiated rezonings which enter the formal review procedure are favored by local Councilmembers, due to the long tradition to Councilmember deference over land-use decisions. The formal review procedure begins with a land-use application that triggers environmental review. The City Environmental Quality Review (CEQR) requires the completion of an Environmental Assessment Statement (EAS), assessing the extent to which a project will have negative impacts. Projects without significant impacts receive a "negative declaration," allowing them to skip the full environmental review, whereas other projects receive a "positive declaration," as determined by the CPC. For those projects an comprehensive Environmental Impact Statement (EIS) must be completed, which includes detailed analysis on the impacts a rezoning will have on many factors such as new development, traffic impacts, demographic changes, changes in neighborhood character, shadows, flooding impacts, etc. The EIS has many chapters, and some of which are also reviewed by other City Departments. Following the EIS, DCP certifies the statement, allowing the project to move forward to the Uniform Land Use Review Procedure (ULURP).

Entering a project into ULURP triggers a 7-month clock, beginning the public-facing portion of the rezoning process. Projects are first referred to the local Community Board affected by the rezoning. Community Boards are local bodies of community representatives and active citizens appointed by the Borough President and City Council Members representing the district. This process takes a maximum of 60 days and is typically subject to considerable community debate as the Community Boards are required to hold local meetings discussing the proposed changes (see Einstein, Glick and Palmer 2020 for a discussion of how such meetings can become a vehicle of opposition for land-use changes and housing construction). Following these meetings, the Community Board(s) issue an advisory vote to approve or reject the proposal. The project then continues to the Borough President, taking no longer than 30 days, who also issues

[35] For a discussion on the analogous process for private spot rezonings, see: Campion, S. (September 6, 2022). "Improving New York City's Land Use Decision-Making Process." *The Citizens Budget Commission*.

an advisory vote. Then, the CPC considers the proposal, taking no longer than 60 days, issuing a binding vote. If approved, the proposal continues to a full vote by the City Council, where a simple majority is needed for approval. The Mayor then has 5 days to veto the rezoning if passed by the Council (See Figure 1). At each step of ULURP (other than potential Mayoral veto), public hearings and meetings are held for citizens to voice their opinions on the project, often leading changes to the rezoning. The changes might involve changes to the permitted density on some lots, types of uses allowed, or promises by the City to provide certain public goods or capital improvements.

Appendix Figure A1. Land-Use Change Procedure



Note: Adapted from Campion, S. (September 6, 2022). "Improving New York City's Land Use Decision-Making Process." The Citizens Budget Commission to reflect the City-initiated neighborhood rezoning process.

Appendix B. Fiscal Budget Cycles Analysis

To test for political budget cycles in city spending, revenue, and employment, I rely on data from the Citizens Budget Commission and NYC Independent Budget Office. Total expenditures represent actual, not budgeted, spending adjusted for pre-payments. Pre-payments are the practice of “rolling over” prior year revenue into the next fiscal year if there is a surplus. This adjustment is needed to recover total expenditures in any given year, as drawing down a prior year surplus represents an increase in spending. Figures are also inflation adjusted using the United States Bureau of Labor Statistics CPI-U average annual inflation rate, indexed to 2022 dollars. Election years represent mayoral reelection years (this omits one Council-only election year, results are similar if this year is included and available upon request). Fiscal years begin on July 1. Therefore, if an election is on November 2025, I use the next fiscal year, 2026, to best represent spending on or around November. Results are similar if using the prior fiscal year (available upon request).

As alternative specifications, Appendix Table B1 shows the results from Table 1 as logged levels, rather than as growth rates. Here all results are similarly null. Appendix Table B2 repeats the specification from Table 1 but as per capita rates. Note that this drops two additional years of observations, 2021 and 2022, as decennial censuses were used and interim years were interpolated linearly. This is because of a high degree of uncertainty in recent population estimates program by the Census Bureau for the city, which were highly inaccurate compared to the 2020 decennial census (Gordon 2023). Similarly, these estimates are null.

Appendix Table B1. Logged Levels of Expenditures, Taxes, and Headcount on Election Years, Fiscal Years 1980-2022

	(1) Total Spending	(2) Property Taxes	(3) Sales Taxes	(4) Fees and Fines	(5) Capital Spending	(6) FT Employees
Election	0.017	0.023	0.019	0.003	0.004	0.012
	(0.094)	(0.124)	(0.080)	(0.116)	(0.105)	(0.040)
Constant	18.063***	16.663***	15.611***	13.653***	15.995***	12.436***
	(0.047)	(0.063)	(0.040)	(0.059)	(0.054)	(0.020)
N	43	43	43	43	38	43
R^2	0.001	0.001	0.001	0.000	0.000	0.002

Note: Standard errors in parentheses. Dependent variables take the form of $\ln(Y_t)$. Expenditures and revenues adjusted to 2022 dollars. The constant therefore represents the average logged inflation adjusted (for dollar outcomes) level. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Appendix Table B2. Growth in Per-Capita Expenditures, Taxes, and Headcount on Election Years, Fiscal Years 1980-2020

	(1) Total Spending	(2) Property Taxes	(3) Sales Taxes	(4) Fees and Fines	(5) Capital Spending	(6) FT Employees
Election	-0.008	0.012	-0.011	-0.030	-0.003	-0.001
	(0.011)	(0.017)	(0.017)	(0.027)	(0.040)	(0.009)
Constant	0.017**	0.019*	0.015	0.032*	0.020	0.006
	(0.006)	(0.008)	(0.009)	(0.014)	(0.020)	(0.005)
N	40	40	40	40	35	40
R^2	0.012	0.013	0.010	0.031	0.000	0.000

Note: Standard errors in parentheses. Dependent variables take the form of $\ln(Y_t/Population_t) - \ln(Y_{t-1}/Population_t)$. Expenditures and revenues adjusted to 2022 dollars. The constant therefore represents the per-capita average inflation adjusted (for dollar outcomes) growth rate. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

These analyses does not mean that city elected officials engage in no politically opportunistic election year spending increases. Rather, it precludes large increases, the types that would be most visible to voters. Based on the standard deviation in total expenditures, power 0.8, and alpha 0.05, the minimum detectable effect size is 0.0133 (for Table 1, column 1). A 1.3% increase in the growth rate would be equivalent to an increase of $950 million, or $116 per resident, based on the average annual expenditures over the period. It is possible that smaller manipulations do occur, but the analysis is not sufficiently powered to detect them.

Appendix C. Data

Appendix C1. PLUTO data

The primary dataset for this project is the Property Land Use and Tax Output (PLUTO) dataset, a dataset which provides geospatial information about every lot (parcel of land) in the city, updated annually by DCP. Key information about each lot includes: a detailed building classification code (e.g. “A1: One Family Dwellings, Two Stories – Detached SM or MID”), the zoning district(s) covering the lot (including overlays, such as commercial districts), the maximum allowable floor-to-area (FAR) ratio (a measure of maximum density allowed under that zoning district), the current built FAR, the current total floor area of the building (by type: residential, office, commercial, retail, garage, storage, factory, and other), the total number of residential units, the building and land assessed and market values, and if the building is historically designated. Each lot has a unique identifier (Borough-Block-Lot, or BBL), allowing it to be tracked over time. I assemble a panel dataset of each lot between 2002 and 2025.[36]

As lots represent fixed parcels of land, the panel is approximately strongly balanced, with most lots having an observation across every year of the study period.[37] However, lots are sometimes merged or subdivided, leading to new lots or the elimination of old lots. To address this, I strongly balance the panel by creating missing entries for each BBL-year where they do not exist. This is used to identify if a lot falls into or out of the dataset, but these missing lots are not used for analysis.

PLUTO includes geographic identifiers, such as census blocks or council districts. However, due to missingness, particularly for older files, I merge the following to each BBL: 2000, 2010, and 2020 census lots and blocks; city council districts; 2005, 2009, 2013, 2017, 2021, 2023, and 2025 election districts (precincts), and community board districts. A lot is assigned to these if their centroid falls within the polygon.

[36] I duplicate the earliest version of the 2002 lot-level data for 2001. This is to identify the direction of some rezonings for 2002. I do not include 2001 in directional analyses.
[37] One-year gaps in the panel are likely erroneous administrative errors, and I fill these missing observations using the next year’s data.

To identify rezoning areas, I use a shapefile of Zoning Map Amendments (NYZMA), which includes the month and year when rezonings were made effective, corresponding to City Council approval. I filter these shapefiles by year and spatial join them to the shapefile for each year of PLUTO data, matching rezoning polygons the centroid of each BBL. This generates an indicator for if a lot was part of a rezoning area. For each rezoning area, I also identify which are neighborhood rezonings or private spot rezonings by hand using the name of the rezoning provided in NYZMA. Neighborhood rezonings typically have the neighborhood name in the title. These are confirmed against the City Register and the DCP website. All others are assumed to be private spot rezonings.

This shapefile process is necessary over simply relying on year over year changes in zoning information as the PLUTO dataset is updated at irregular times throughout the year. For lots which appear as rezoned in one year of PLUTO but their rezoning date is in another year, I reassign those rezonings to the correct year. I also reassign relevant lot-level characteristics, such as the zoning category and maximum allowable FAR, needed to identify the rezoning direction.

Then, to identify the direction of each lots rezoning, I encode the zoning category of each lot and create a difference variable year over year for categorial changes (e.g. a change from “R6” to “R7” would be coded as a categorial change). Of those with a categorial change, I then generate a difference variable in their maximum allowable FAR) taken from the year before the rezoning and the year after.[38] I code negative differences as downzonings, positive as upzonings, and zeros as contextual rezonings. Following Been and McDonnell (2010), I also require upzonings to increase allowable density by at least 10% over previous levels. This is to exclude upzonings which are bringing previously grandfathered lots up to code, as these upzonings cannot generate higher densities. Finally, I code if a rezoning is primarily residential based on the land-use of the primary zoning designation, using the DCP coding scheme.

[38] This helps to avoid erroneously coding small administrative changes in the data’s maximum FAR variable as rezonings. For example, in 2019, over 300,000 lots would have been coded as rezoned due to a technical change in the maximum FAR variable to reflect bonuses for attics.

In sum, to be coded as rezoned, lots must satisfy three conditions: (1) being part of a rezoning catchment area; (2) having a categorial zoning code change; and (3) having a non-missing FAR change. Appendix Table C1 shows how many lots were rezoned by year, broken down by if the rezoning was primarily residential or non-residential (commercial, industrial, or other use) in nature.

I also harmonize the maximum allowable FAR variable as its reporting changed in 2012. After 2012, PLUTO switches to three distinct maximum FAR variables: residential, facility, and commercial. I back into the original variable by replicating the process described in the PLUTO data dictionary from earlier files. This takes the maximum of the residential, facility, or commercial FAR depending on the primary zoning of the lot, accounting for commercial overlays.

Appendix Table C1 shows the number of lots rezoned by year, including indicators for mayoral administration and election year, by direction and actor responsible. Over the period, 48% of all lots in the city were in a rezoning area.

Appendix Table C1. Number of Lots Rezoned by Year

		Neighborhood Rezonings				Spot	In Rezoning Area	
Administration	Year	Upzone	Downzone	Contextual	Neither	**Rezonings**	Total	% Lots
Guiliani	2001*	N/A	N/A	N/A	N/A	210	**5,826**	***0.7%***
Bloomberg	2002	21	846	4,084	393	314	**5,658**	***0.7%***
	2003*	3,957	10,518	39,733	3,317	173	**57,698**	***6.8%***
	2004	649	4,576	7,102	398	174	**12,899**	***1.5%***
	2005*	9,535	21,963	27,701	4,529	311	**64,039**	***7.5%***
	2006	2,097	10,430	10,972	4,211	92	**27,802**	***3.3%***
	2007	11,147	12,612	18,670	4,400	228	**47,057**	***5.5%***
	2008	4,567	5,304	7,445	3,152	457	**20,925**	***2.4%***
	2009*	9,749	20,584	13,621	6,123	149	**50,226**	***5.8%***
	2010	5,750	4,323	13,640	2,818	132	**26,663**	***3.1%***
	2011	3,059	6,312	13,897	1,488	286	**25,042**	***2.9%***
	2012	3,811	7,765	1,575	1,541	95	**14,787**	***1.7%***
	2013*	2,978	6,656	18,769	1,902	299	**30,604**	***3.6%***
De Blasio	2014	0	0	0	0	127	**127**	***0.0%***
	2015	0	0	0	9	99	**108**	***0.0%***
	2016	2,979	63	127	806	124	**4,099**	***0.5%***
	2017*	182	1,149	2,949	118	166	**4,564**	***0.5%***
	2018	643	53	28	284	169	**1,177**	***0.1%***
	2019	460	17	0	55	214	**746**	***0.1%***
	2020	0	0	0	0	86	**86**	***0.0%***
	2021*	372	25	4,108	194	292	**4,991**	***0.6%***
Adams	2022	57	195	239	35	297	**823**	***0.1%***
	2023*	0	0	0	0	141	**141**	***0.0%***
	2024	164	86	4	34	153	**441**	***0.1%***
	2025*	3,321	9	34	382	185	**3,931**	***0.5%***
Grand Total		**65,498**	**113,486**	**184,698**	**41,805**	**4,973**	**410,460**	***48.0%***

Note: Municipal election years denoted with *. Direction of rezonings cannot be identified in 2001, as direction uses prior year differences in regulatory features. 2001 is consequently omitted in all directional analyses. Lots denoted as 'neither' were either not rezoned or upzoned, but the additional allowable density increased by less than 10%.

Appendix C2. *Estimating Lot-Level Homeownership*

Occupancy tenure is not recorded in PLUTO. I estimate it using three steps. First, I use the building class field. I map the building class to the tax class for the final fiscal year 2026 assessment roll. The vast majority of building classes cleanly map to a tax class. For the few that do not, I use the tax class which has the highest share of building classes of that type. DOF has four general tax classes: 1 (most residential property up to three units), 2 (all other property that is not class 1 and is primarily residential), 3 (most utilities), and 4 (all commercial and industrial properties). Class 3 and 4 I classify as non-residential. Within tax class 1 and 2, a few subclasses directly indicate lot-level occupancy characteristics. 2a and 2b are rentals, and 2c are owner-occupied cooperatives and condominiums. Additionally, all “R” class buildings indicate condominiums. These tax subclasses allow me to classify about one-third of all lots.

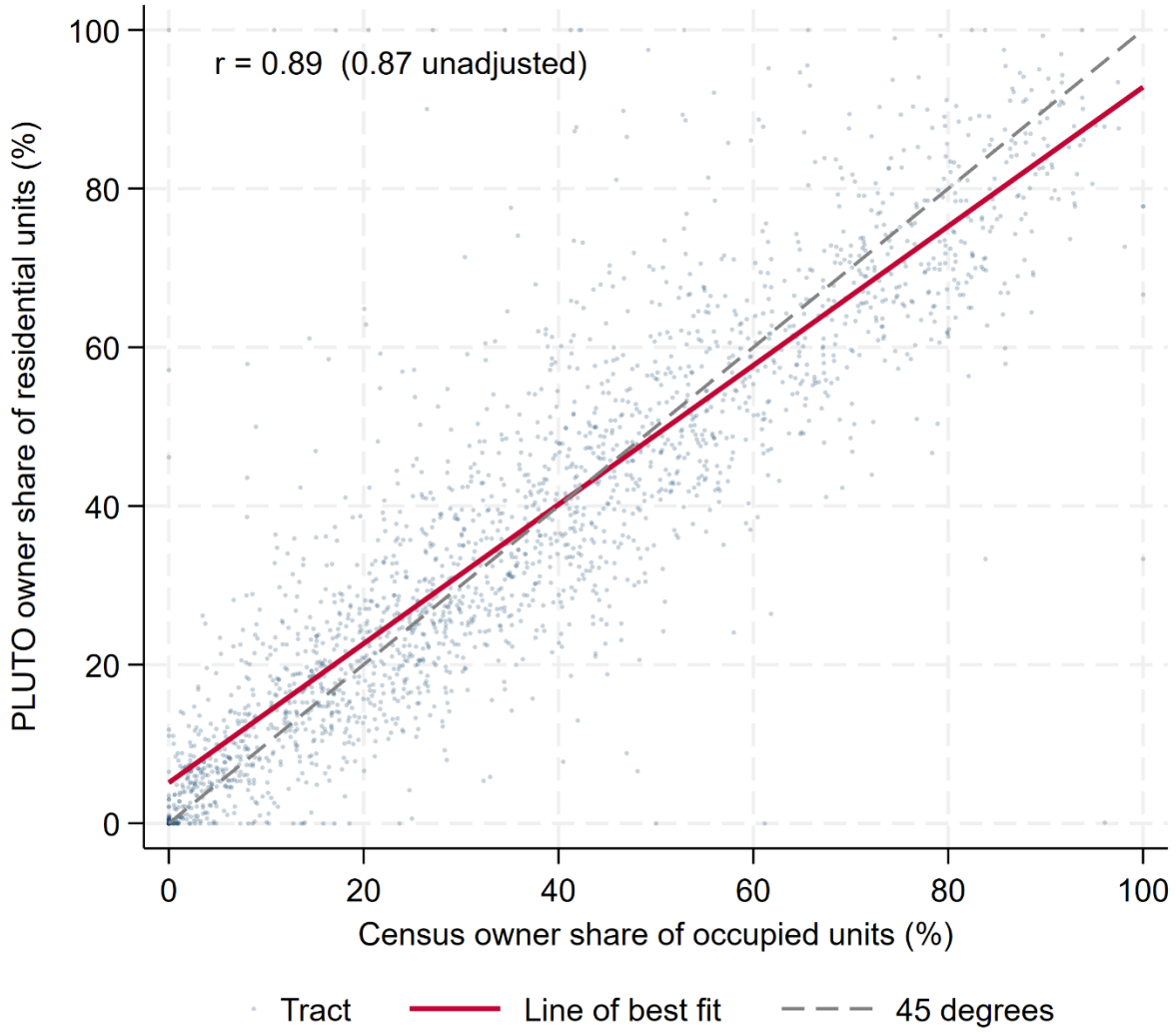
For the remainder of lots, I use the owner name. I classify them into five types: (1) government, (2) co-operative or condominium association, (3) corporate, (4) individual, and (5) unclassified. I develop a dictionary of legal suffixes and entity stems. Short tokens (`LLC`, `CO`, `INC`) are matched as whole words only. Non-classified residential lots held by a corporation or government are re-coded as renter occupied. Where possible, I use the owner-type codes from PLUTO (which indicates if a lot is government owned), which overrides the owner name dictionary method.

Finally, for validation I account for the number of residential units on a lot. Assigning a lots tenure to all of its units assumes every unit in the building shares the owners tenure, which is unlikely to be the case in two-to-three family buildings in tax class 1. A non-condo owner-occupied two-family house likely only contains one owner-occupied household and one renter-occupied household. I adjust these cases by only assigning one residential unit as owner-occupied. Note, however, that analyses consider a lot to be owner-occupied if *any* of its residential units are likely to be occupied by a homeowner.

To validate the approach, I aggregate the predicted tenure of each residential unit at the lot-level up to the census tract level and compare against the corresponding linearly interpolated decennial (between 2002 and 2009) or annual ACS estimate

(between 2010 and 2024) downloaded from NHGIS. Because the NHGIS series holds each measurement on its own years census boundaries, I aggregate each panel year to the tract from which its covariates are drawn: 2000 boundaries through 2009, 2010 boundaries through 2019, and 2020 boundaries thereafter. Appendix Figure C1 shows the correlation between the estimated lot-level homeownership measure and tract-level homeownership shares using 2020 data. The correlation coefficient is high, at 0.89. Appendix Table C2 details these correlations by year.

Appendix Figure C1. Correlation Between Estimated Lot-Level Homeownership and Census Tract-Level Homeownership Rates, 2020



Appendix Table C2. Diagnostics of Estimated Lot-Level Homeownership and Census Tract-Level Homeownership Rates, by Year

Year	N tracts	Corr. Coef.	β	R^2	Est. owner %	Census owner %	Diff. (pp)	RMSE
2002	2149	0.91	0.98	0.82	40.49	35.58	4.90	12.11
2003	2149	0.91	0.98	0.82	40.36	35.88	4.48	11.94
2004	2148	0.91	0.98	0.83	40.21	36.20	4.01	11.50
2005	2148	0.91	0.96	0.82	40.25	36.50	3.76	11.72
2006	2148	0.91	0.95	0.82	39.98	36.80	3.18	11.56
2007	2148	0.90	0.94	0.82	39.69	37.10	2.59	11.58
2008	2148	0.90	0.93	0.81	39.85	37.40	2.45	11.72
2009	2148	0.90	0.91	0.80	39.96	37.70	2.26	11.97
2010	2103	0.89	0.89	0.79	39.59	37.64	1.95	12.25
2011	2105	0.89	0.89	0.79	39.57	37.07	2.50	12.35
2012	2106	0.89	0.90	0.80	39.58	36.89	2.69	12.21
2013	2108	0.90	0.91	0.80	39.68	36.70	2.98	12.02
2014	2111	0.90	0.91	0.80	39.55	36.49	3.05	12.02
2015	2111	0.90	0.91	0.81	39.47	36.36	3.11	11.94
2016	2111	0.90	0.91	0.81	39.27	36.56	2.71	11.81
2017	2110	0.90	0.90	0.80	39.13	37.26	1.88	11.78
2018	2107	0.89	0.90	0.80	38.77	37.32	1.45	11.78
2019	2107	0.89	0.89	0.80	38.41	37.54	0.87	11.68
2020	2215	0.89	0.88	0.78	37.91	37.40	0.51	12.22
2021	2215	0.88	0.87	0.77	37.99	37.62	0.37	12.50
2022	2215	0.88	0.87	0.77	37.80	37.56	0.24	12.42
2023	2215	0.88	0.87	0.78	37.45	37.31	0.15	12.26
2024	2215	0.88	0.87	0.78	37.10	37.31	-0.21	12.23
2025	2215	0.88	0.86	0.77	36.70	37.31	-0.61	12.40

Appendix C3. *Voter File Data*

I assemble annual New York City voter files from 2009 to 2023 from four sources: the City University of New York (CUNY) from 2009 to 2014, the NYC Campaign Finance Board (NYCFCB) from 2015 to 2021, a FOIL request of the New York State Board of Elections for 2022, and a FOIL request of the New York City Board of Elections for 2023. CUNY and NYCFCB files were graciously provided by Jamie Anno.

For each file, I geocode each voter using the NYC DCP Geosupport Desktop Edition (GDE) batch geocoding application. This application is able to geocode high rates of New York City addresses, including common aliases often unrecognized by common geocoding software, and directly match them to City administrative data and indicators, including the unique BBL number.

I retain only active registered voters. For each voter, I calculate their age against the date of the November general election that year. I also indicate if they voted in each years general election, and add primary turnout for municipal years. Then, I aggregate the following totals up to the BBL level: total registered voters, the mean age of registered voters, total registered voters by 4 age bins (18-29, 30-49, 50-64, and 65+), and total general and primary votes cast.

Appendix Table C3 shows the match rate of voters to a valid BBL. It also compares the total voters in each voter file to the official New York State Board of Elections registration totals as of November of each year. These differences are likely due to voters being purged from the voter roll in between the November election and the date of each voter file (unfortunately, I do not know the exact date of each file as they are compiled from multiple sources). The majority of years come within one percent of official totals, with a few exceptions (2010, 2011, 2015, and 2019).

Appendix Table C3. Total Registered Voters, by Source, Differences, and Geocoding to BBL Match Rate

	Voter File Totals			NYS Totals	NYS – Voter File	
Year	Matched to BBL	Total Voters	Match Rate	Total Voters	Diff. Voters	% Diff.
2009	4,098,850	4,111,758	99.7%	4,095,561	16,197	0.4%
2010	3,747,481	3,756,735	99.8%	4,081,567	(324,832)	-8.0%
2011	3,868,931	3,878,648	99.7%	4,044,152	(165,504)	-4.1%
2012	4,249,926	4,263,274	99.7%	4,224,811	38,463	0.9%
2013	4,243,037	4,267,525	99.4%	4,275,813	(8,288)	-0.2%
2014	4,124,004	4,184,304	98.6%	4,160,000	24,304	0.6%
2015	3,860,614	3,868,352	99.8%	4,107,700	(239,348)	-5.8%
2016	4,535,820	4,548,163	99.7%	4,477,091	71,072	1.6%
2017	4,592,010	4,604,839	99.7%	4,596,813	8,026	0.2%
2018	4,614,022	4,625,616	99.7%	4,613,320	12,296	0.3%
2019	4,598,208	4,610,482	99.7%	4,772,225	(161,743)	-3.4%
2020	4,964,754	4,978,138	99.7%	4,948,186	29,952	0.6%
2021	4,917,714	4,930,778	99.7%	4,949,386	(18,608)	-0.4%
2022	4,631,665	4,722,484	98.1%	4,735,711	(13,227)	-0.3%
2023	4,547,291	4,553,659	99.9%	4,643,366	(89,707)	-1.9%

Appendix D. Additional Analyses

Appendix Table D1 shows results from Figure 1, with additional controls. Models (1) and (3) cluster standard errors at the lot level, whereas (2) and (4) cluster standard errors at the lot and council district level. (2) represents the main specification in the paper.

Appendix Table D1. Impact of Electoral Cycles and Term Limits on Land-Use Changes

	(1)	(2)	(3)	(4)
Election Year	0.015***	0.022***	0.019***	0.019***
	(0.006)	(0.007)	(0.006)	(0.006)
Term Limit		-0.001	0.006	0.006
		(0.004)	(0.005)	(0.005)
Election Year x Term Limit		-0.026***	-0.025***	-0.025***
		(0.007)	(0.006)	(0.006)
Bloomberg			0.056***	0.056***
			(0.005)	(0.005)
De Blasio			0.025***	0.025***
			(0.003)	(0.003)
Years Since Rezoning			0.004***	0.004***
			(0.000)	(0.000)
Units Residential (t-1)			-0.000*	-0.000
			(0.000)	(0.000)
Units Residential Sq. (t-1)			0.000*	0.000
			(0.000)	(0.000)
Number of Floors (t-1)			0.000	0.000
			(0.000)	(0.000)
Number of Floors Sq. (t-1)			-0.000	-0.000
			(0.000)	(0.000)
Land Value (log)			0.002	0.002
			(0.004)	(0.004)
Market Value (log)			-0.001	-0.001
			(0.003)	(0.003)
Constant	0.014***	0.014***	-0.154***	-0.155***
	(0.002)	(0.002)	(0.016)	(0.016)
Lot FE	Yes	Yes	Yes	Yes
Council FE	No	No	No	Yes
Observations	21,080,204	20,193,065	20,152,101	20,152,101
Within R^2	0.003	0.006	0.118	0.118

Note: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Clustered standard errors at the lot level. Fixed effects at the lot level. Estimated using the **reghdfe** package (Correia and Constantine [2014] 2026). Model (1) N is higher as it includes 2001.

Appendix Table D2 shows the same model specification in column (2) of Appendix Table D1 with alternative clustering at the rezoning project, district-year, and election cycle levels. Column 4 allows for a common shock to the whole city in an electoral cycle and produces noisier effects due to the small number of clusters.

Appendix Table D2. Main Specification, Alternative Clustering

	(1) Baseline	(2) Project	(3) District-year	(4) Election Cycle
Election Year	0.0223***	0.0223***	0.0223***	0.0223*
	(0.0067)	(0.0065)	(0.0078)	(0.0112)
Term Limit	-0.0011	-0.0011	-0.0011	-0.0011
	(0.0041)	(0.0052)	(0.0054)	(0.0124)
Election Year x Term Limit	-0.0256***	-0.0256***	-0.0256***	-0.0256
	(0.0067)	(0.0083)	(0.0099)	(0.0163)
Clustered on	District + lot	Rezoning project	District x year	Electoral cycle
Clusters	51	21,293	1,224	8
Observations	20,193,065	20,193,065	20,193,065	20,193,065

Note: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Clustered standard errors at the lot level. Fixed effects at the lot level. Estimated using the **reghdfe** package (Correia and Constantine [2014] 2026). With 8 cycle clusters the asymptotic standard errors in column 4 are unreliable.

Appendix Table D3 shows the regression output from Figure 2. Columns 1 and 2 show the results for competitive prior general elections, by term-limit (TL) status. Columns 3 and 4 show the results by contested but not competitive prior elections. Columns 5 and 6 show the results from uncontested prior elections.

Appendix Table D3. Impact of Electoral Competitiveness and Term Limits on Land-Use Changes

	(1) Comp., not TL	(2) Comp., TL	(3) Cont., not TL	(4) Cont., TL	(5) Uncon., not TL	(6) Uncon., TL
Election year	0.081***	0.004	0.025***	-0.006	0.010	-0.002
	(0.026)	(0.008)	(0.008)	(0.008)	(0.013)	(0.006)
Observations	3,587,194	927,830	6,661,429	2,095,873	3,262,478	1,254,561

Note: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Clustered standard errors at the lot level. Fixed effects at the lot level. Estimated using the **reghdfe** package (Correia and Constantine [2014] 2026).

Appendix Table D4 show a series of models which test if the political budget cycle is more strongly predicted by Councilmember or Mayoral reelection years. Here, the binary variable 'Council Re-election' indicates if the year is a municipal election year where the Councilmember representing the log is eligible for re-election (not term-limited), and 'Mayor Re-election' the same for the mayor. These variables differ slightly not only due to staggered Councilmember and mayoral term-limits, but also because two additional years (2003 and 2023) are Council only municipal election years, where the mayor is not on the ballot. Columns (1) and (2) show that both produce a political budget cycle effect, and (3) shows that the effect is only produced by a Councilmember being eligible for re-election. Columns (4) and (5) add mayoral administration fixed effects and lot-level attributes, respectively.

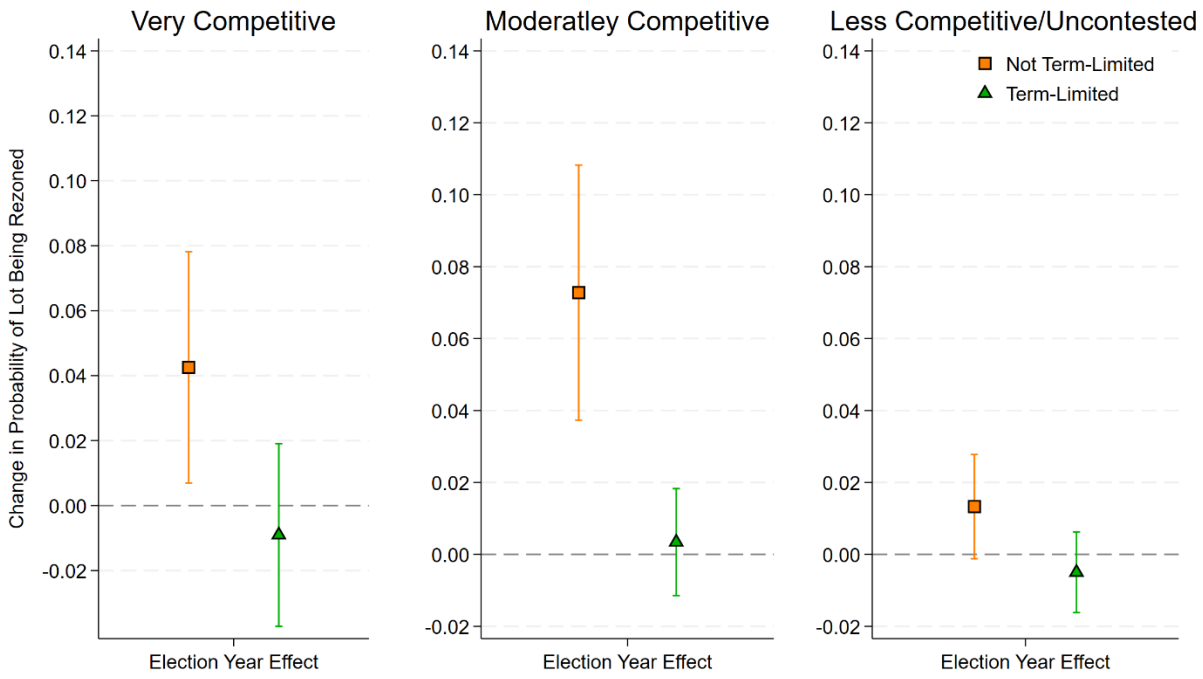
Appendix Table D4. Impact of Council and/or Mayoral Re-election Years on Land-Use Changes

	(1) Council	(2) Mayor	(3) Both	(4) + Admin FE	(5) + Controls
Council Re-election	0.0373***		0.0398***	0.0267*	0.0215
	(0.0089)		(0.0130)	(0.0144)	(0.0137)
Mayor Re-election		0.0198**	-0.0046	0.0028	0.0028
		(0.0080)	(0.0123)	(0.0135)	(0.0126)
Mayor FE	No	No	No	Yes	Yes
Lot controls	No	No	No	No	Yes
Observations	21,389,524	21,389,524	21,389,524	21,389,524	20,495,121
Within R^2	0.012	0.003	0.012	0.006	0.104

Note: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Estimated using the **reghdfe** package (Correia and Constantine [2014] 2026). Lot controls are years since last rezoning, historic-district status, and lagged units, floors, land value and total value.

Appendix Figure D1 shows the results of the competitiveness analysis, using prior election primary outcomes. I replicate the same method in the main body of the paper, using the IQR of vote share. Primary elections, however, are typically much more competitive and see many more challengers, changing the interpretation. The left-hand panel shows the political budget cycle effect for the most competitive races, where the incumbent received less than 41% vote share. The middle panel shows the effect for moderately competitive races, between 41 and 74% vote share. The right-hand panel shows the effect for the least competitive or uncontested races (coded at 100% vote share, even if a primary was not held). Competitive districts show stronger political budget cycle effects than the least competitive districts.

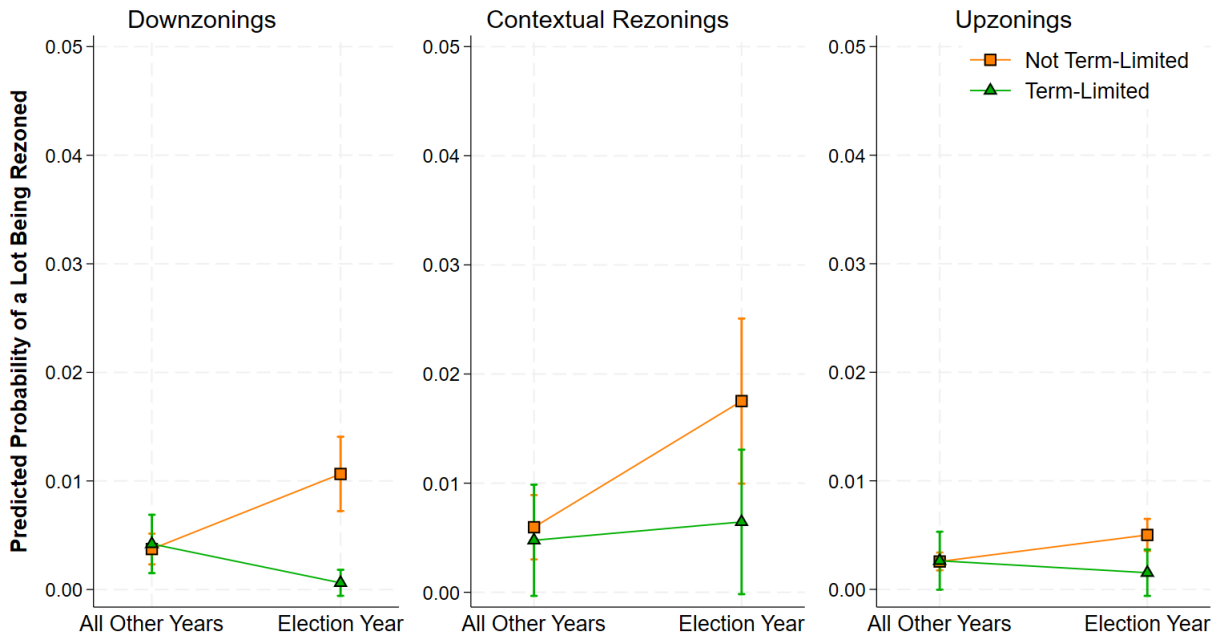
Appendix Figure D1. Predicted Probability of Rezoning, by Election Year, Term-Limit Status, and Prior Primary Election Competitiveness



Note: 95% confidence intervals in caps. Clustered standard errors at the lot and city council district levels. Fixed effects at the lot level. Estimated using the **reghdfe** package (Correia and Constantine [2014] 2026). Competitive elections defined as the vote share in the prior general election being 41% or below, contested, not competitive elections as between 41 and 74%, and uncontested elections being above 74% vote share.

Appendix Figure D2 shows the disaggregated effect of contextual and downzonings from Figure 3. Both contextual and downzonings show stronger political budget cycle effects than upzonings, although contextual rezonings effects are less precise (the election year effect is statistically significant at the p<0.05 level, however, the term-limit effect is not (p=0.07)).

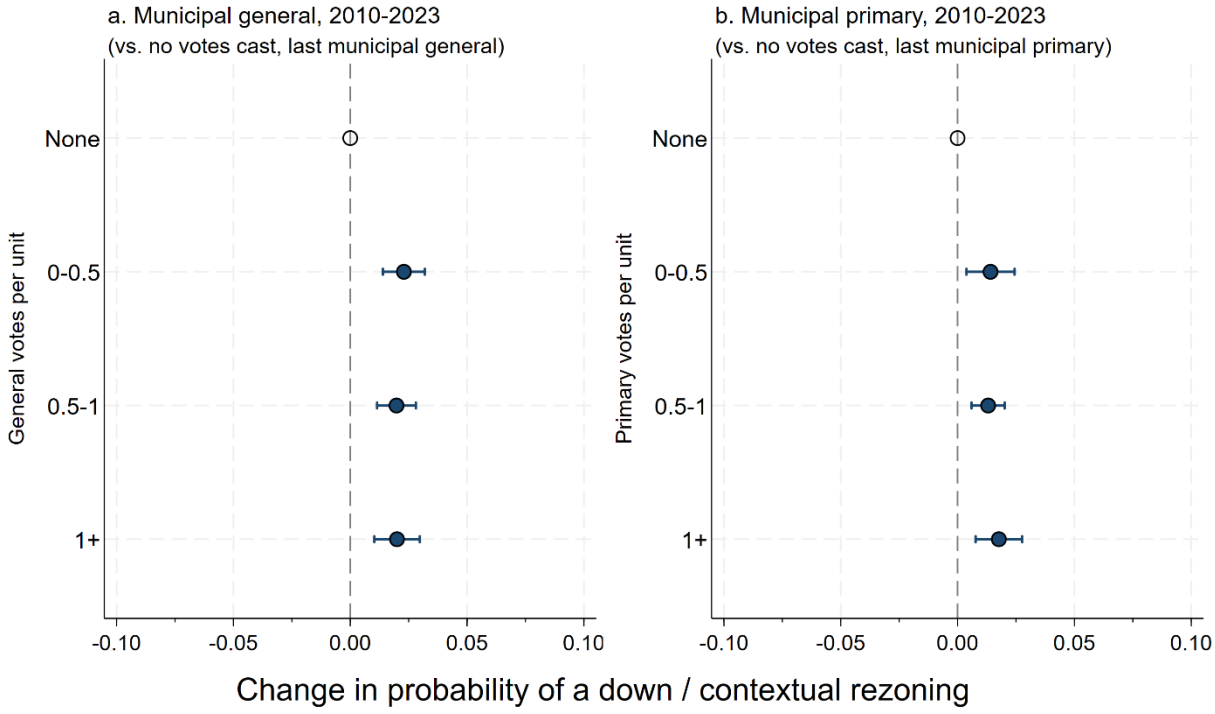
Appendix Figure D2. Predicted Probability of Rezoning, by Election Year, Term-Limit Status, and Direction



Note: 95% confidence intervals in caps. Clustered standard errors at the lot level. Fixed effects at the lot level. Estimated using the **reghdfe** package (Correia and Constantine [2014] 2026).

Appendix Figure D3 shows the same analysis as panel (c) in Figure 6, except using the number of votes cast per residential unit in the previous municipal general or primary elections. Lots with votes cast in municipal elections are more likely to be downzoned relative to lots which had no votes cast. However, the total votes cast in 2009 do not reconcile with official election totals (whereas registration totals do), hence the figure should be interpreted with caution.

Appendix Figure D3. Predicted Probability of Down/Contextual Rezoning (vs. Upzoning), by Votes Cast in Prior Municipal Election



Note: 95% confidence intervals in caps. Fixed effects for borough-block and council district-year. Clustered standard errors at the borough-block and council district-year levels. Estimated using the **reghdfe** package (Correia and Constantine [2014] 2026).

Appendix E. Reanalysis of Open-Ended Data

To further examine the positive and negative sentiments people have about development, I reanalyze open-ended data from Pietrzak and Mendelberg (2025). I use data from their first (N=900), which includes three open-ended questions. First, respondents were asked what thoughts come to mind when thinking about building new apartment buildings. Then, respondents were asked describe possible positive and negative impacts from new development. I analyze the frequency of the stems of single words (n-grams) and two-word phrases (bigrams) and categorize them into one of twelve general topics.[39] Appendix Table E2 shows the dictionary for this coding scheme.

Appendix Table B1 shows the frequency of various topics by question. Concerns about density and building height and prices appear frequently in the general prompt and the positive and negative impacts prompt. Mention of the economy and retail disproportionately appears as a positive possible externality from new housing. Concern about safety and congestion disproportionately appears as a possible negative externality from new housing.

Appendix Table B1. Top 10 Topics - New Development, Positives, and Negatives (% of Comments)

General	Positive	Negative
Prices (53%)	Density & Height (48%)	Density & Height (48%)
Density & Height (41%)	Economy & Retail (35%)	Congestion (41%)
Housing Quality (21%)	Prices (33%)	Prices (34%)
Demographics (17%)	Demographics (16%)	Safety (19%)
Style & Fit (14%)	Public Services (14%)	Demographics (16%)
Congestion (12%)	Environment (13%)	Environment (16%)
Environment (12%)	Housing Quality (12%)	Public Services (13%)
Economy & Retail (9%)	Congestion (8%)	Externalities (12%)
Location (9%)	Style & Fit (7%)	Housing Quality (8%)
Public Services (7%)	Location (4%)	Economy & Retail (6%)

[39] I remove stop words, and isolate word stems using R package **tidytext**.

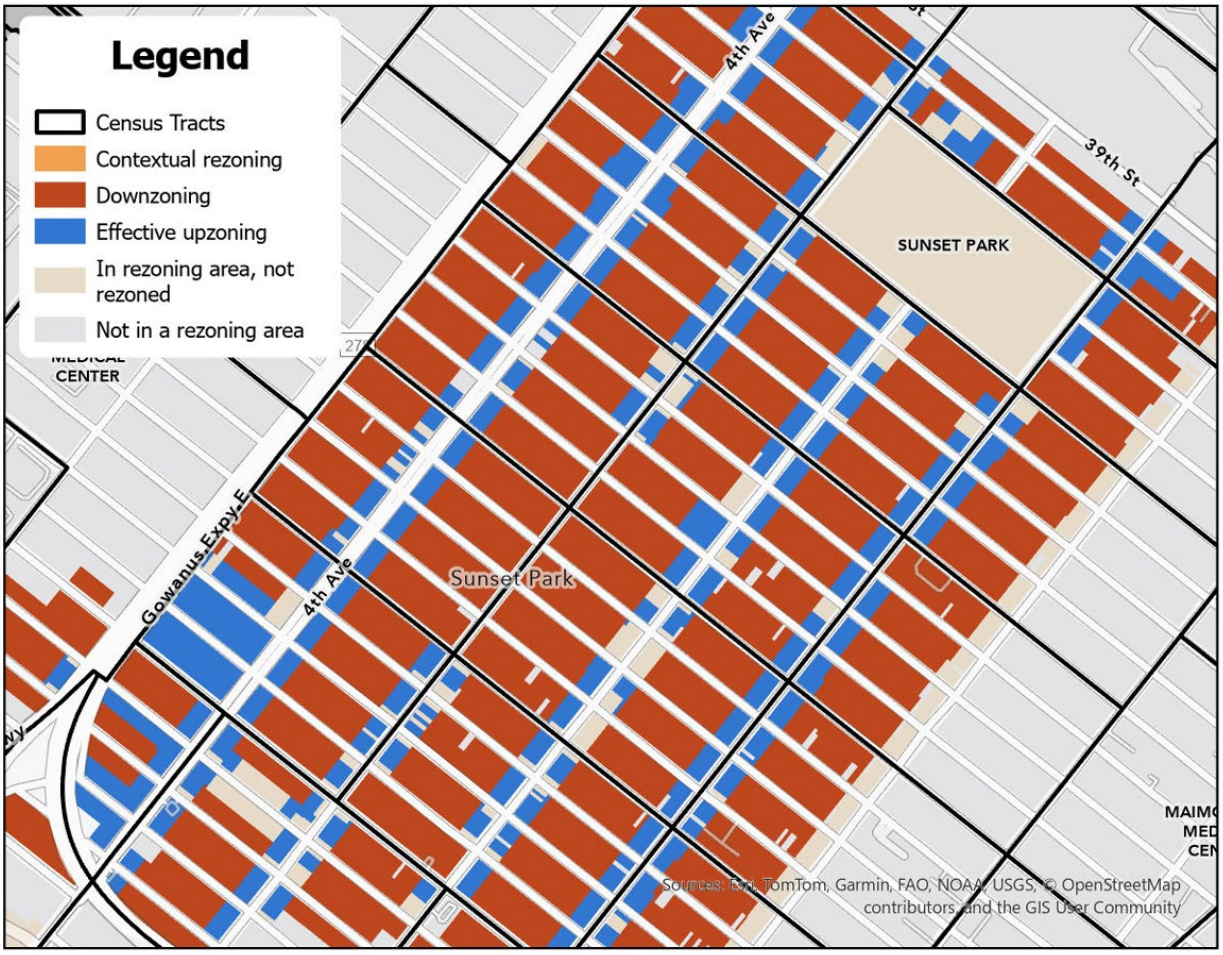
Appendix Table B2. Open-Ended Coding Scheme

concept	terms (n-gram and bigram word stems)
architecture	design, modern, materi, aesthet, fit, style, architectur, beauti, histori, moder, aesthet pleas, build materi, architectur design, exist build
congestion	traffic, park, congest, street, car, traffic congest, increas traffic, suffici park, park space, park spot
demographics	resid, famili, homeless, gentrif, tenant, displac, senior, gentrifi, demograph, ghetto, immigr, poverti, shelter, peopl move, homeless peopl, incom famili, famili home, middl class, peopl live, residenti commun, 8 hous, current resid, futur homeown, peopl homeless
density	peopl, unit, popul, densiti, floor, size, crowd, stori, rise, influx, tall, overcrowd, dens, huge, light, apart complex, addit hous, stori build, urban develop, 3 stori, apart unit, densiti hous
economy and retail	job, economi, busi, growth, store, econom, groceri, shop, industri, labor, retail, job opportun, groceri store, construct worker, grow popul, local economi
environment	environment, environ, sustain, natur, green, tree, flood, eco, pollut, environment friendli, energi effici, environment impact, green space, eco friendli, environment protect, solar panel, sustain develop
externalities	nois, disrupt, noisi, construct process
location	locat, urban, close, conveni surround
prices	afford, rent, incom, cost, low, expens, price, luxuri, market, section, unafford, overpr, cheaper, greed, mortgag, low incom, afford hous, incom peopl, lower incom, luxuri apart, afford apart, incom apart, rent price, build afford, low cost, incom resid, properti valu, apart afford, apart cost, hous price, rent control, rental price, section 8, incom hous
public services	infrastructur, transport, tax, school, servic, public transport, transport conveni, public facil, public transit
quality	space, amen, nice, qualiti, bedroom, cheapli, pool, applianc, comfort, cheap, dryer, adequ, laundri, spaciou, carpet, gym, window, bathroom, decent, nicer, live space, comfort live, live condit, squar footag, washer dryer, build code, cheap materi, modern amen
safety	safe, safeti, crime, safe neighborhood, crime rate, secur system

Appendix F. Additional Maps

Appendix Figure F1 shows an example rezoning in greater detail. Specifically, the map shows the lots from the 2009 Sunset Park Rezoning (and any subsequent spot rezonings in the area through 2025). The map also overlays 2010 Census Tracts. As demonstrated, which lots are upzoned, downzoned, contextually rezoned, or not rezoned varies even within city block. Upzonings targeted commercial corridors on avenues, while downzonings targeted residential midblocks on streets.

Appendix Figure F1. Example Rezoning, Sunset Park, Brooklyn



Note: Lots as of 2025. Any rezoned lots which were merged or divided over the period are missing. For lots with multiple rezoning actions over the period, the most recent rezoning action shown.