Does Local Control Affect Density? Evidence from Chicago's Aldermanic Privilege

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1 Introduction

Housing Prices are skyrocketing in major US cities and across the globe. Given the scarcity of vacant lots in dense urban areas, the primary way to add more housing supply is to construct taller and denser buildings that allow more people to live on the same-sized parcel of land. Density not only makes housing more affordable, but cities have long-known positive agglomeration spillovers from having people and firms in close proximity, implying indirect benefits on top of the direct benefits of lower housing prices (Rossi-Hansberg et al., 2010; Ahlfeldt and Pietrostefani, 2019; Baum-Snow et al., 2024).

However, recent research in economics and other fields has highlighted that local land-use regulations, which raise the cost of building denser housing, make housing more expensive and drive people out of neighborhoods they have lived in for generations (Duranton and Puga, 2023).

Due to the ubiquitous nature of these regulations, this research has explored how these regulations come to be and the political economy surrounding them. A large strand of literature, pioneered by Fischel (2009), discussed how local homeowners have incentives to lobby for restrictive zoning policies to protect their property values. Additional research building on this idea has explored how local politics and the fragmentation of decision-making across municipalities can lead to under-provision of housing and other public goods with positive externalities (Hilber and Robert-Nicoud, 2013; Ortalo-Magné and Prat, 2014; Mast, 2024; Bordeu, 2025).

While the majority of this research has focused on fragmentation across municipalities Kulka et al. (2022); Monarrez and Schönholzer (2023), there is very little research on fragmentation within municipalities themselves. This mechanism can be equally as important as fragmentation across municipalities, especially in large cities where local political representation is often broken down into small districts or wards.

In this paper, I will study the effect on within-municipality political fragmentation on housing supply in the context of the City of Chicago. While many cities have fragmented decision-making, no major city in the United States gives us much power to its city council members (Aldermen) as Chicago. Importantly, Chicago lacks a city charter that clearly lays out the powers and restrictions of various elected offices of the city, so much of the power of the Aldermen is derived from tradition and informal norms. This unique level of power is often called "Aldermanic Privilege," and it allows Aldermen to exert significant control over land-use decisions in their wards (Thale, 2005). This privilege is so strong, in fact, that aldermen have been referred to as "little mayors" ruling their Wards as fiefdoms Einhorn (1991).

While this power has existed for many decades, it only recently has come under scrutiny as Chicago has faced a housing affordability crisis similar to many other major cities, with the department of Housing and Urban Development alleging that the power has been used to ensure affordable housing is not built in certain affluent wards Chase (2023). In response to these allegations, Mayor Lightfoot signed an executive order attempting to limit the power of aldermanic privilege as part of a larger ethics reform package Mayor's Press Office (2019), but in practice not much has changed in the years since Cherone (2025). As a result, the debate continues on today as to whether this power should be curtailed, or whether aldermen are still the best suited to make land-use decisions in their wards. [1]

To my knowledge, only one other paper has studied the effect of aldermanic privilege on housing supply in the city. Khan (2021) uses FOIA-requested rezoning data to look at the intensive-margin of aldermanic privilege, examining a specific function of the office where aldermen can personally approve or deny requests for zoning modifications on a specific lot. He finds that within 250 feet of a ward boundary, rezonings are $\approx 10\%$ smaller in terms of floor-area ratio (FAR), suggesting that aldermen are less willing to approve large rezonings when the benefits spill over into another ward, since the congestion costs are still likely to be internalized by the alderman's constituents even though the benefits are diffuse.

I am attempting to expand on the work of Khan (2021) by looking at the extensive-margin effects of aldermanic privilege, looking at the density of all new construction in Chicago between 2006 and 2025 and not just specific rezoned properties. In addition, I want to use my empirical results to investigate the fiscal impacts of this fragmentation, as it is possible that the aggregate effects of this under-provision of housing could have significant implications for city finances through lost property tax revenue and other channels. Given the city's structural budget deficit and stagnant population growth, examining policy levers by which policymakers can increase housing supply and tax revenue is of utmost importance.

2 Data and Institutional Background

I use various publicly-accessible datasets from the Cook County Assessor's Office in this project. In order to measure the density and frequency of new construction, I first use data on Single and Multi-Family Improvement Characteristics which allows me to observe every "improvement" for each parcel in Cook County. I merge this with the "Parcel Universe" dataset which gives me precise location coordinates. This allows me to limit my sample

[1] See this link, where each city council candidate was asked specifically about their stance on "aldermanic prerogative": https://news.wttw.com/elections/voters-guide/2023/races/city-council

to just parcels within the City of Chicago, and to assign each parcel to its respective ward using shapefiles from the City of Chicago's data portal.[2] I then collapse this data to the first date I observe the parcel and consider that to be the construction date of the property, and create a cross-section of properties constructed between 2006 and 2025. Since this data is limited to parcels that have at most 6 units of housing, I then use the Commerical Valuation dataset from Cook County to infer multifamily housing density for buildings with more than 6 units and merge this with my residential conversion dataset to get the universe of new construction in Chicago between 2006 and 2025.

Other data products I use are the census and American Community Survey (ACS) data to create my independent variable, homeownership rate, at the ward level, and to control for various ward-level demographic characteristics in my regressions. I use zoning code data from 2nd city zoning [3] to include zoning code fixed effects in my regressions as well to ensure that changes in density at political borders do not come from mechanical changes in zoning.

In addition, I have cleaned parcel-level sales data, parcel-level property valuation data, and have scraped the publicly available building permits dataset from the City of Chicago for details on the proposed units, square footage, and other characteristics of all permits in the city. I also have unit level detailed rental posting data from RentHub which I want to look at as an outcome variable. While I do not have results today using any of that data, my plan is to incorporate those datasets into my analysis in the near future.

3 Toy Model

To illustrate the mechanism through which local political control restricts housing supply, I present a stylized model of housing development in a city divided into two wards, A and B. This framework adapts the infrastructure misallocation model of Bordeu (2025) to the context of housing supply.

[2] https://data.cityofchicago.org/
[3] https://secondcityzoning.org/zones/

The core tension in this model is between concentrated local costs and diffuse citywide benefits. While new housing creates positive spillovers for the city (lower prices, higher tax revenue, agglomeration effects), the "nuisance" costs (construction noise, parking congestion, change in neighborhood character) are borne almost entirely by the immediate neighbors.

3.1 Setup and Variable Definitions

The total housing stock in the city is $H = h_A + h_B$, where h_g is the housing built in ward $g \in \{A, B\}$. The welfare of the city and the local wards is determined by the following components:

- $A(H)$ **- Citywide Agglomeration Benefits:** This function represents the total value created by housing density, including increased property tax revenue, labor market pooling, and aggregate affordability. We assume $A'(H) > 0$ and $A''(H) < 0$ (diminishing marginal returns to density). Importantly, these benefits are **diffuse**; they are shared by the city as a whole.

- $C(h_g)$ **- Local Congestion Costs:** This represents the "NIMBY" costs associated with density—traffic, loss of light, or strain on local amenities. We assume these costs are concentrated entirely within the ward where construction occurs, with $C'(h_g) > 0$ and $C''(h_g) > 0$ (convex costs).

- κ **- Private Construction Costs:** The marginal cost of construction borne by developers.

- λ **- The "Local Capture" Parameter:** This parameter, where $0 < \lambda < 1$, represents the fraction of citywide benefits ($A(H)$) that the local Alderman internalizes. Because an Alderman only answers to constituents within their specific ward boundaries, they heavily discount benefits that spill over into the rest of the city (such as citywide tax revenue or regional affordability).

3.2 The Decentralized Problem (The Alderman)

Under "Aldermanic Privilege," the Alderman in ward g has the de facto power to determine the level of housing h_g. They maximize a local welfare function that accounts for the full local costs (C) but only their specific share (λ) of the citywide benefits (A).

Taking the other ward's housing decision (h_{-g}) as given, the Alderman solves:

$$\max_{h_g \geq 0} \quad V_g(h_g; h_{-g}) = \lambda A(h_g + h_{-g}) - C(h_g) - \kappa h_g \tag{1}$$

The Alderman's first-order condition (FOC) equates the *local share* of the marginal benefit to the full marginal cost:

$$\underbrace{\lambda A'(H)}_{\text{Perceived Local Benefit}} = \underbrace{C'(h_g) + \kappa}_{\text{Full Marginal Cost}} \tag{2}$$

3.3 The Planner's Problem

Conversely, a citywide social planner (e.g., a "Strong Mayor" or central planning board) seeks to maximize total city welfare. They internalize that benefits generated in Ward A help residents in Ward B (and vice versa). The Planner solves:

$$\max_{h_A, h_B \geq 0} \quad W = A(H) - \sum_{g \in \{A,B\}} [C(h_g) + \kappa h_g] \tag{3}$$

The Planner's FOC equates the *full* marginal benefit to the marginal cost:

$$\underbrace{A'(H)}_{\text{True Citywide Benefit}} = \underbrace{C'(h_g) + \kappa}_{\text{Full Marginal Cost}} \tag{4}$$

3.4 The Under-Provision Result

Comparing the two first-order conditions reveals the structural inefficiency of decentralized control. Because $\lambda < 1$, the Alderman perceives a lower marginal benefit curve than the

Planner. Since the benefit function $A(\cdot)$ exhibits diminishing returns, the Alderman's optimal quantity intersects the cost curve at a lower level of housing supply:

$$h^{\text{Decentralized}} < h^{\text{Social Planner}} \tag{5}$$

The intuition is straightforward: The Alderman stops approving housing once the *local* annoyances (congestion) outweigh the *local* share of the benefits (tax revenue/amenities). The Planner would continue building until the *total* citywide benefits are exhausted. The wedge $(1 - \lambda)$ represents the positive externalities of housing that are left on the table due to political fragmentation.

3.5 Comparative Statics: Frictions vs. Preferences

The equilibrium level of housing in the alderman's ward, h_g^*, is implicitly defined by the Alderman's first-order condition (Equation 2): $\lambda A'(H) = C'(h_g) + \kappa$. By differentiating with respect to our parameters of interest, we can see that housing supply is decreasing in the bureaucratic friction parameter κ and increasing in the local capture parameter λ:

$$\frac{\partial h_g^*}{\partial \kappa} < 0 \quad \text{and} \quad \frac{\partial h_g^*}{\partial \lambda} > 0 \tag{6}$$

Empirically, this implies that observing lower density in a ward could result from either an Alderman who heavily discounts citywide benefits (low λ) or one who imposes high private costs on developers (high κ). While local control is typically viewed as a preference parameter (λ), heterogeneity in bureaucratic frictions (κ) can generate similar outcomes, motivating the empirical strategy outlined in Section 4 where I directly create a measure of bureaucratic frictions induced by each Alderman.

4 Empirical Results

4.1 Measuring Aldermanic Frictions

In order to examine the effects of aldermanic privilege I need a way to measure how much each alderman uses their privilege to influence development in their ward. I use publicly available building permits data to construct this measure by measuring how long average processing times for *high-discretion* permits only. High-discretion permits are those designated as "New Construction, Renovation, Demolition, Porch Construction[4]" permits and permits that were reinstated after being previously revoked. I have excluded permits in the easy permit process and express permit program, along with signs and scaffolding permits. The goal is to target the specific permit types that tend to draw community opposition and are more likely to face delays due to community meetings and aldermanic discretion on behalf of their constituents.

Once I have my sample of permits, I construct the "aldermen strictness score" as follows. First, I attempt to residualize out ward-specific characteristics by regressing the raw permit processing times on ward-level fundamentals such as median incomes, demographic characteristics, distance to the CBD and various other amenities, and month fixed-effects. I then estimate aldermen fixed effects on these residualized processing times. Finally, since these estimates are a noisy signal of the "true" bureaucratic frictions caused by each alderman, I use empirical Bayes methods Kline et al. (2024) to shrink these estimates towards zero based on how noisy each one is. Formally, the "two-stage" regression I run is:

$$\text{Processing Time}_i = \alpha + \mathbf{X}_w\beta + \gamma_m + \epsilon_i \tag{7}$$

$$\hat{\epsilon}_i = \mu + \delta_a + \eta_i \tag{8}$$

Where Processing Time_i is the processing time of permit i, $\mathbf{X}_w$ is a vector of ward-level characteristics for the ward w that permit i is located in, and γ_m are month fixed effects. γ_a

[4] While these may seem minor, they have received extra scrutiny since the 2003 balcony collapse.

are the aldermen fixed effects that I use as my dependent variable in my regressions. The scores are standardized to have mean zero and standard deviation one, and the results of my regressions can be found in Figure 1. In addition, a map of the aldermanic strictness scores can be found in Figure 2. There are strict and lenient aldermen all over the city, confirming I am not just picking up geographic patterns or neighborhood characteristics, but am actually capturing differences in the bureaucratic frictions created by each alderman. In the context of the model in Section 3, I interpret alderman who have high strictness scores as having a lower λ (local capture parameter) leading to lower housing supply in their wards.

4.2 Do Stricter Aldermen Reduce Development Density?

Armed with these "strictness scores", I turn now to my main empirical question: do stricter aldermen reduce development density in their wards?

To answer this question I run regressions of the following form:

$$\ln(Y_{iwbt}) = \beta \cdot \text{Strictness}_w + \gamma \cdot |D_i| + \mathbf{X}_w' \Theta + \alpha_z + \mu_{bt} + \varepsilon_{iwbt} \tag{9}$$

where Y_{iwbt} represents the density outcome for parcel i located in ward w along border-pair b, constructed in year t.

My three density outcomes of interest are common in the literature: Dwelling Units Per Acre (DUPAC), which is defined as the number of dwelling units on the parcel divided by the parcel's acreage; Floor Area Ratio (FAR), defined as the total building square footage on the parcel divided by the parcel's land area; and Units in the building.

The variable of interest is Strictness_w, which denotes the standardized bureaucratic friction score for the alderman of ward w. To control for spatial trends, we include $|D_i|$, the absolute distance of the parcel to the ward boundary. The vector $\mathbf{X}_w$ includes time-varying ward-level controls, including median household income, racial composition, and education levels.

Critically, I include a stringent set of fixed effects to isolate the causal effect of aldermanic strictness on development density. α_z are zoning classification fixed effects, which ensure that comparisons are only made within the same zoning classification on each side of the border. For example, if one side of the border is zoned for RT-3.5, which allows a maximum FAR of 1.05, and the other side is zoned for RM-5.5, which allows for a maximum FAR of 2.5, there will be a mechanical difference in densities at the border that is not the result of aldermanic influence.

In addition, following Black (1999); Bayer et al. (2007); Kulka et al. (2022), I include border-pair by construction-year fixed effects μ_{bt}, which require that comparisons are only made between parcels that are located along the same border-pair and were constructed in the same year. While this is very strict and limits the amount of variation in my sample, differential trends in development density across different parts of the city (i.e. the west loop boom) could otherwise confound my estimates.

And finally, I limit the sample to parcels with between 2 and 50 units to focus on mid-size multifamily housing. Single family housing is the vast majority of new construction and does not have significant differences across political borders, and large developments (50+ units) are relatively rare and typically go through a more complicated planned development (PD) process with more oversight from the city and alderman.

The main results are presented in Table 1. I limit the sample to parcels within 250 feet of a ward border to specifically test if different aldermen effect density at a very fine scale where local demand shocks and neighborhood characteristics are likely to be very similar on either side of the border. The results are quite substantial and consistent across all three density measures. A one standard deviation increase in my aldermen strictness measure is associated with a 19% decrease in DUPAC, a 12% decrease in FAR, and a 13% decrease in the number of units in the building, among new construction built in the same year and zoned the same on either side of the border.

In addition, to show that these differences are not driven by area characteristics and appear to be hyper-localized to the border where alderman differences are likely to have the most effect, I also run the same regressions but limit the sample to parcels within 1000 feet of a ward border. There is still some effect of aldermen strictness on DUPAC, but the magnitude is substantially smaller and I can reject that it is the same as in the 250 ft. bandwidth specification. The other coefficents are still negative but much smaller and not significantly different from zero, as shown in Table A.1. As a result, I interpret these results as strong evidence that aldermanic privilege and the bureaucratic frictions they create have a significant effect on development density in their wards.

I also remove the demographic controls from my regressions and run the same specifications, but with demographics as the outcome variables, in Table A.2 to see if aldermen strictness is correlated with changes in ward demographics that could be driving my results. I find null results across the share of residents that are white, avarage household income, and the share of residents with a bachelor's degree or higher, suggesting that the differences in density at the ward borders are partly being driven by aldermenn behavior and not purely by demographic sorting.

References

Ahlfeldt, Gabriel M. and Elisabetta Pietrostefani, "The economic effects of density: A synthesis," *Journal of Urban Economics*, May 2019, *111*, 93–107.

Baum-Snow, Nathaniel, Nicolas Gendron-Carrier, and Ronni Pavan, "Local Productivity Spillovers," *American Economic Review*, April 2024, *114* (4), 1030–1069.

Bayer, Patrick, Fernando Ferreira, and Robert McMillan, "A Unified Framework for Measuring Preferences for Schools and Neighborhoods," *Journal of Political Economy*, August 2007, *115* (4), 588–638.

Black, S. E., "Do Better Schools Matter? Parental Valuation of Elementary Education," *The Quarterly Journal of Economics*, May 1999, *114* (2), 577–599.

Bordeu, Olivia, "Commuting Infrastructure in Fragmented Cities," *R&R Restud*, 2025.

Chase, Brett, "Chicago wrongly limited affordable housing with aldermanic prerogative, HUD says," *Chicago Sun Times*, November 2023.

Cherone, Heather, "Developer Moves Forward With Lincoln Park Apartment Complex, Setting Stage for Fight Over Aldermanic Prerogative," *WTTW News*, January 2025.

Duranton, Gilles and Diego Puga, "Urban Growth and Its Aggregate Implications," *Econometrica*, 2023, *91* (6), 2219–2259.

Einhorn, R.L., *Property Rules: Political Economy in Chicago, 1833-1872*, University of Chicago Press, 1991.

Fischel, William A., *The Homevoter Hypothesis: How Home Values Influence Local Government Taxation, School Finance, and Land-Use Policies*, Harvard University Press, July 2009.

Hilber, Christian A.L. and Frédéric Robert-Nicoud, "On the origins of land use regulations: Theory and evidence from US metro areas," *Journal of Urban Economics*, May 2013, *75*, 29–43.

Khan, Asad R, "Decentralized Land-Use Regulation with Agglomeration Spillovers: Evidence from Aldermanic Privilege in Chicago," *Job Market Paper*, 2021.

Kline, Patrick, Evan K. Rose, and Christopher R. Walters, "A Discrimination Report Card," *American Economic Review*, August 2024, *114* (8), 2472–2525.

Kulka, Amrita, Aradhya Sood, and Nicholas Chiumenti, "How to Increase Housing Affordability? Understanding Local Deterrents to Building Multifamily Housing," *SSRN Electronic Journal*, 2022.

Mast, Evan, "Warding off Development: Local Control, Housing Supply, and NIMBYs," *Review of Economics and Statistics*, May 2024, *106* (3), 671–680.

Mayor's Press Office, "Mayor Lightfoot Signs First Executive Order to Limit Aldermanic Prerogative," Press Release May 2019.

Monarrez, Tomás and David Schönholzer, "Dividing Lines: Racial Segregation across Local Government Boundaries," *Journal of Economic Literature*, September 2023, *61* (3), 863–887.

Ortalo-Magné, François and Andrea Prat, "On the Political Economy of Urban Growth: Homeownership versus Affordability," *American Economic Journal: Microeconomics*, February 2014, *6* (1), 154–181.

Rossi-Hansberg, Esteban, Pierre-Daniel Sarte, and Raymond Owens, "Housing Externalities," *Journal of Political Economy*, June 2010, *118* (3), 485–535.

Thale, Christopher, "Aldermanic Privilege," 2005.

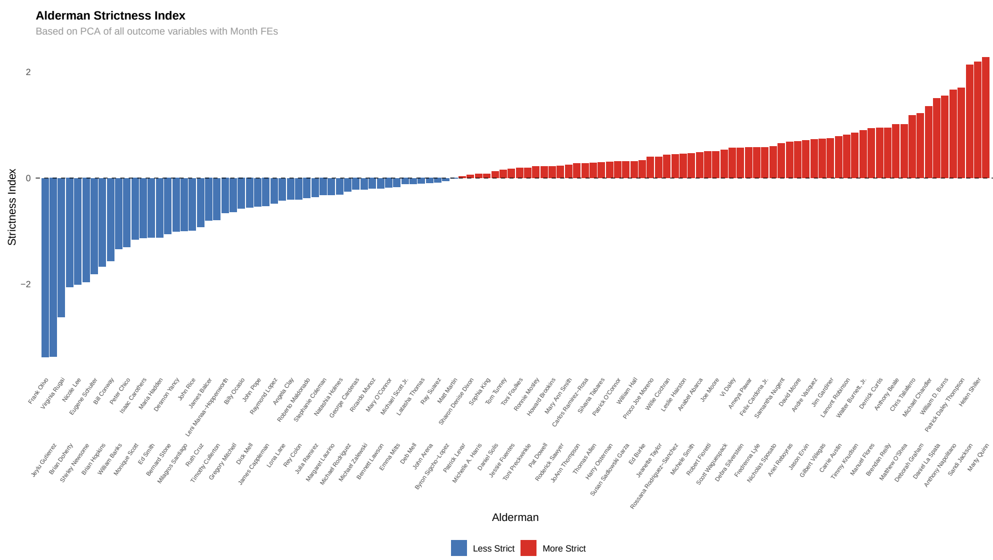

Figure 1: Aldermanic Strictness Scores

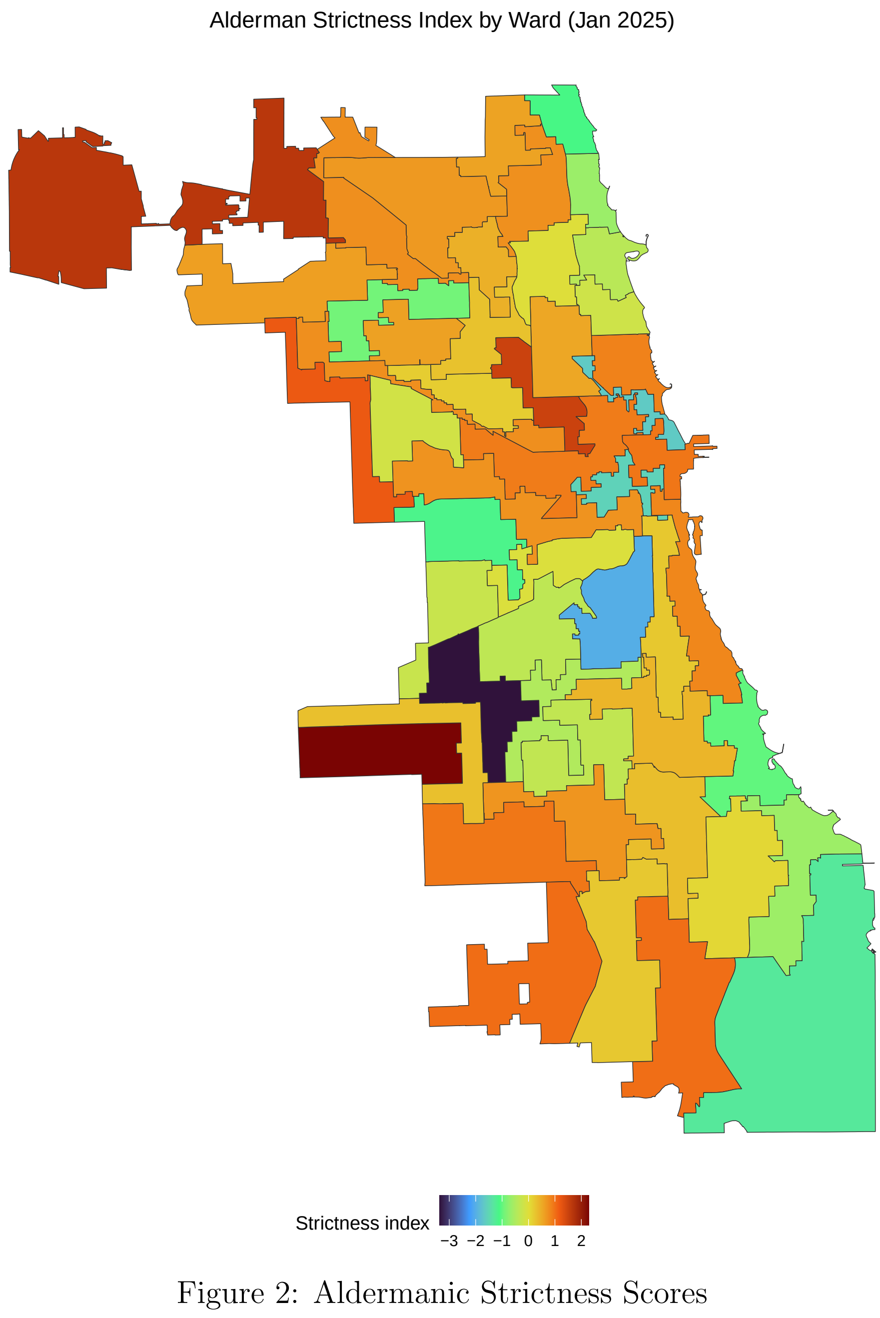

Figure 2: Aldermanic Strictness Scores

Table 1: Border-Pair FE Estimates (bw = 250 ft)

	ln(DUPAC) (1)	ln(FAR) (2)	ln(Units) (3)
Strictness Score	-0.19***	-0.12*	-0.13***
	(0.05)	(0.07)	(0.03)
Observations	347	347	347
Dep. Var. Mean	56.80	1.90	6.82
Ward Pairs	88	88	88
Zoning Code fixed effects	✓	✓	✓
Year-Ward Pair fixed effects	✓	✓	✓

Notes: Standard errors clustered at the ward-pair level.

A Robustness Checks

Table A.1: Border-Pair FE Estimates (bw = 1000 ft)

	ln(DUPAC) (1)	ln(FAR) (2)	ln(Units) (3)
Strictness Score	-0.04***	-0.02	-0.02
	(0.02)	(0.02)	(0.03)
Observations	1,034	1,034	1,034
Dep. Var. Mean	50.60	1.69	6.23
Ward Pairs	117	117	117
Zoning Code fixed effects	✓	✓	✓
Year-Ward Pair fixed effects	✓	✓	✓

Notes: Standard errors clustered at the ward-pair level.

Table A.2: Identification Check: Covariate Balance (bw = 250 ft)

	Share White (1)	Avg. HH Income (2)	Share Bachelor's+ (3)
Strictness Score	0.026	945.4	0.008
	(0.026)	(4,547.6)	(0.022)
Observations	347	347	347
Dep. Var. Mean	0.46	78940.68	0.30
Ward Pairs	88	88	88
zone_code fixed effects	✓	✓	✓
construction_year-ward_pair fixed effects	✓	✓	✓

Notes: Standard errors clustered at the ward-pair level.