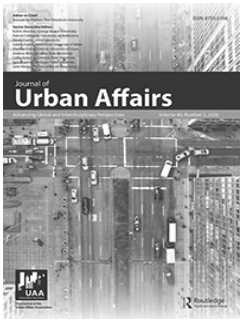

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Why cities resist new housing: NIMBYism, institutions, and permitting relative to need

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ABSTRACT

California's Fifth Regional Housing Needs Allocation provides forecasts of new housing units needed across four household income levels in cities for the periods 2013–2015 to 2021–2023 to address the state's housing shortage, along with the permits issued for these units. Using regression analysis, we examine how local factors related to potential "Not in My Back Yard" (NIMBY) demographics and motivations, as well as housing allocation and approval processes, may influence a city's number of permitted housing units. Our analysis shows that many of these factors exert the expected correlation with the number of housing units permitted. Cities with a higher percentage of young adults and adults who voted in the 2016 presidential election and who voted Republican are more likely to permit additional housing units than needed. Fewer than needed permits are issued in cities with a greater proportion of long-term residents and a local comprehensive plan that does not adequately accommodate the housing needed in a city. These findings highlight two important policy considerations for regions experiencing a shortage of affordable housing: (1) local jurisdictions often resist measures to increase housing supply, and (2) effective institutional interventions from a higher level of government are required to improve housing affordability.

KEYWORDS

Affordable housing; cities; public policy; California

Introduction

As shown in Figure 1, every U.S. state contains counties where over 30% of owner-occupied households spend more than 30% of their income on housing (Kures, 2022). This widespread affordability gap is well documented in scholarship and practice and undermines a lower-income household's ability to meet other basic needs and relocate for economic opportunity (Dougherty, 2020; Kahlenberg, 2023; Klein & Thompson, 2025; Phillips, 2020; Schuetz, 2022). Housing unaffordability also constrains the economic vitality of the nation's most productive regions (Wassmer, 2021). This study provides empirical evidence on factors associated with a California city's shortfall in affordable housing across income categories. We examine the correlations between permitting outcomes and variables capturing demographics, motivations, and institutional features commonly associated with "Not in My Backyard" (NIMBY) opposition to new development. Specifically, we compare the number of units that the Regional Councils of Governments (COGs) or the state identify as needed in a jurisdiction with the number of new units permitted.

For this study, we utilize data obtained from California's Department of Housing and Community Development (n.d.-a) for the Fifth Regional Housing Needs Allocation (RHNA), which documents the projected total number of housing units required to increase housing affordability for four household income categories within a city over a period of 8 years, beginning as early as 2013 and ending as late as 2024. Additionally, the data include the number of building permits issued for these units within each

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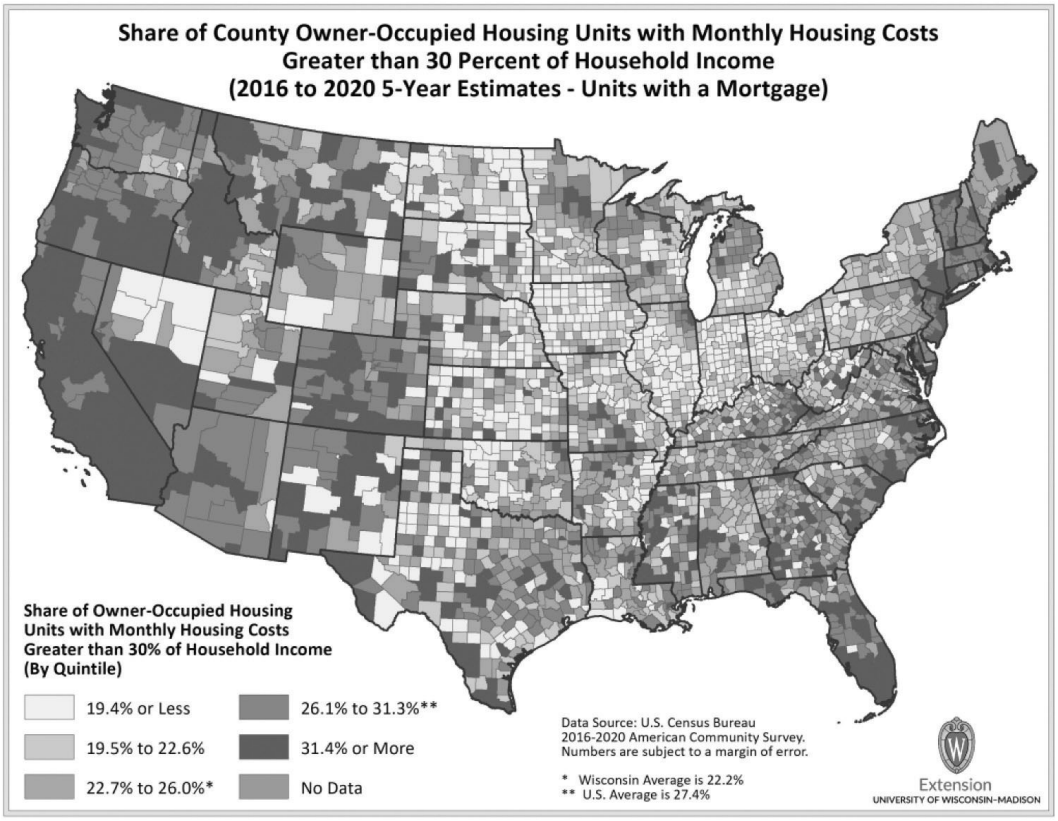

Figure 1. The lack of "affordable" housing in U.S. counties. Note: Figure drawn from Kures (2022).

category during this period. While both California and Oregon mandate that local governments obtain state approval for their housing production plans and maintain regular monitoring of their implementation (Schuetz, 2022), this analysis concentrates on California due to its elevated housing costs and a history spanning over 50 years of promoting local affordable housing through the RHNA process (Ramsey-Musolf, 2016).[1] For this fifth RHNA, Figure 2 depicts the extent to which California cities met state allocations for housing units affordable to very-low-income households (defined as those earning zero to half of the area median household income). Notably, nearly 80% of these cities issued fewer than half the permits required by the RHNA for this income group, highlighting the severity of housing affordability challenges in California.

We next review California's affordable housing shortage and its policy response. Following that, Section 3 covers prior literature on the causes of housing unaffordability, the motivations behind NIMBYism, and the institutional actors—such as local planning agencies and zoning boards—that can facilitate local resistance to new housing, as well as prior empirical evidence linking NIMBY dynamics to housing shortages. Section 4 describes our methods, including model specification and data choices. In Section 5, we present findings on how resident characteristics and institutional features associated with NIMBYism relate to both California's housing allocation process and the number of permits cities issue for new units. We conclude by synthesizing lessons from the academic literature and policy practice, and by offering recommendations to reduce the influence of NIMBY opposition on housing development in California, which are relevant to all states facing such challenges.

California's affordable housing shortage and its policy response

Up For Growth (2023) estimates a U.S. shortage of approximately 4 million housing units, with California facing the largest shortage of nearly 1 million units. The California Department of Housing

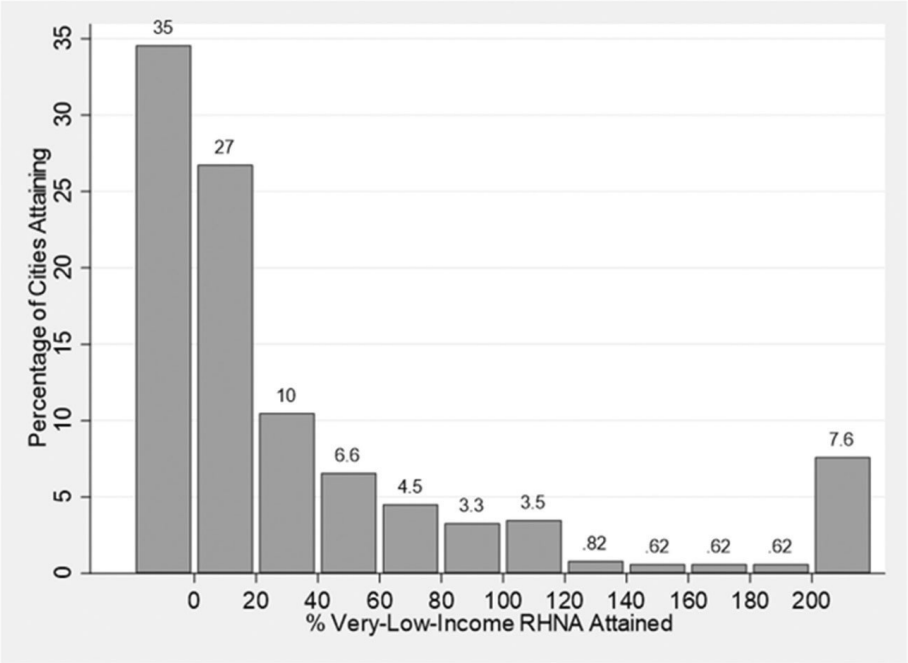

Figure 2. Percentage of California cities meeting very-low-income affordable housing goals. Data drawn from HCD (n.d.-a). Note that the bar to the left of zero represents the percentage of cities issuing zero building permits for very-low-income housing, and the bar above 200 represents the percentage recording twice or more the number of assigned units.

and Community Development (HCD, 2022) projects a need for 2.5 million homes before 2030 to resolve the state's housing shortage. Similarly, McKinsey and Company (2016) approximate that California must construct 3.5 million homes by 2025 to align its home-to-resident ratio with the rest of the country.

Since 1969, California has recognized its need to produce more affordable housing through a Housing Element Law requiring its executive branch to impress upon localities that housing (a) is of vital statewide importance, (b) requires the participation of the public and private sectors, and (c) must meet a region's needs at all income levels (Housing Elements, 1969). Every 8 years, the California HCD (n.d.-f) assigns a Regional Housing Needs Allocation that projects the number of new units needed to address the housing shortage in the COG. These assignments are provided separately for units affordable to very-low-income households (with less than 50% of the COG's median income), low-income households (50% to 80%), moderate-income households (80% to 120%), and above-moderate-income households (120-plus percent) (California HCD, n.d.-f). For cities and unincorporated portions of California counties not within a COG, HCD directly assigns the number of new housing units expected to be permitted. In jurisdictions within a COG, an RHNA allocation committee of local elected officials, with assistance from the city, county, and the COG's planning staff, decides how to allocate the COG's total RHNA allocation to its member jurisdictions. In half of the 24 California COGs, the allocation committee contains a representative from each jurisdiction, while in the other half, it does not.

After a California local government receives its specific RHNAs for each of the four types of housing units that the state-mandated process determines are needed over the next 8 years, it must draft an updated "Housing Element" for its general plan that specifies where the newly assigned units can feasibly be permitted. This Housing Element is then sent back to HCD for review and rejected if it does not account for the full RHNAs, if proposed sites are inadequate, if fair housing goals are ignored, if missing timelines, if incomplete data are provided, if inadequate analysis of constraints, or if there is inconsistency with the city's overall general plan (California HCD, n.d.-b). If rejected, the city must continue revising its Housing Element until it is approved. Based on a January 2011 start date for the

Fifth Element's planning cycle, the average number of days before California cities' Housing Elements were approved was 2,088 (5.7 years), with just over 10% of California cities never obtaining approval. Following the completion of the fifth cycle in 2024, California HCD data (n.d.-a) show that across the state, only 20.7% of California's total very-low-income RHNA was satisfied through permits taken out, 30.8% for low-income housing, and 56.1% for moderate-income housing. Overachievement occurred only for above-moderate housing, with a permitting rate of 144%.

Previous literature on a lack of affordable housing and NIMBYism

To help develop a model of the reasons likely to influence local housing development, we summarize research on the broad factors identified as influential. One key factor is local opposition to housing construction. Here, we use the term "NIMBYism" to describe the individual preference not to have new housing built near them, or at least certain types of new housing. Often, these undesirable types of housing are the most affordable for lower-income households. We recognize that measuring the prevalence of this opinion across an entire city is challenging. Therefore, we use the following review to identify which demographic characteristics are associated with individuals who are more likely to hold NIMBY-like views. We then discuss the motivations behind such opinions and review studies that identify the demographic variables associated with them. Finally, we summarize previous evidence on how housing allocation and approval systems may influence the extent to which NIMBYs affect the permitting of new housing in a city.

Factors that affect local housing development

When assessing the amount of new housing that could reasonably be built in a jurisdiction over a designated future period, it is important to account for the various factors that can hinder housing development. Zoning and regulatory restrictions, as identified by Gyourko and Molloy (2015), limit housing supply by increasing development costs and decreasing new construction. Saiz (2010) discusses how topography and land scarcity directly constrain the available buildable land area and influence the long-term elasticity of housing supply. Gonzalez and Lejano (2019) highlight that limited local infrastructure capacity, such as water and sewer lines, can also serve as a binding constraint on housing development. Gyourko et al. (2013) point out that construction costs, land prices, and financing conditions determine the economic viability of new housing projects. An additional factor, which is the focus of this research, is community opposition to new housing.

What motivates local opposition to housing construction?

Scholars, practitioners, politicians, activists, and the public have used the term NIMBY since at least the 1980s (Schively, 2007) to describe opposition to neighborhood change as a reason a jurisdiction fails to build affordable housing. Self-interest and a broader community desire to preserve a neighborhood's existing character are drivers of NIMBYism. Fischel (2001) suggests that a NIMBY is motivated by self-interest and opposes new developments that they see as lowering their home value. Dougherty (2022) argues that, since homeowners cannot insure against a loss in property value due to neighborhood change, they try to influence local land-use decisions to reduce risk. Record (2021) notes that many U.S. households' long-term financial plans depend on home value appreciation. This reliance is growing due to the decline in pensions and rising college costs. The wish to protect rising home values provides a rational, self-interested reason for NIMBYism. In addition, some researchers believe these motives go beyond economic interests. Einstein et al. (2020) prefer the term "Neighborhood Defenders" for a type of residential-construction NIMBY because changes they see as undesirably altering the character of their community drive their resistance.

In a meta-analysis of research on what motivates low-income housing stigma, Ramzanpour et al. (2023) find that fear of new residents' lower socio-economic status is a greater inducement than the development's physical characteristics. Using survey data, Tighe (2012) reports that racial prejudice and anti-poverty sentiment were strong predictors of a resident's NIMBY attitude toward affordable

housing. Kahlenberg (2023) documents the preponderance of snob zoning and class bias that lessen affordable housing opportunities in the most desirable U.S. neighborhoods. Many qualitative studies find that NIMBYs tend to be wealthier, educated, older, white, male, and homeowners (Dear, 1992; Dougherty, 2022; McNee & Pojani, 2021; Record, 2021).[2] In observing the proceedings of the San Francisco Planning Commission, Sahn (2024) found that public commenters on proposed housing projects tend to be whiter and older than the median resident. Whittemore and BenDor (2019) investigate the roles of demographics and politics among survey respondents from 38 states regarding denser residential construction in their neighborhoods. They find that NIMBY opinions toward this likely more affordable housing are more prevalent among respondents who are not college graduates, older, very liberal in political ideology, or residing in a single-family housing neighborhood.

Dear (1992) concludes that NIMBYs strategically choose to voice their opposition at public hearings where a local body has the power to deny a proposed project. Such tactics can successfully persuade local officials to vote against a housing project even if it does not represent the community's majority opinion. Neighborhood opposition often centers on the expected decline in residential property values caused by increased crime, traffic, and street parking. A NIMBY approach is to threaten litigation based on the expected delays and increased costs for development. Wassmer and Wahid (2018) note that the California Environmental Quality Act (CEQA) facilitates this tactic through a requirement for housing developments to submit an Environmental Impact Report (EIR) that NIMBYs often challenge for less than pure environmental reasons (Einstein et al., 2020; Klein & Thompson, 2025; Schuetz, 2022). Scally and Tighe (2015) interviewed New York City housing developers, who reported that 70% experienced local opposition to their affordable housing projects. Further descriptive evidence abounds in recent book-length examinations of this topic (Dougherty, 2020; Einstein et al., 2020; Fischel, 2015; Kahlenberg, 2023; Schuetz, 2022).

Other local factors reducing housing production

Local planning and zoning practices hinder affordable housing construction in the U.S., particularly in California. Longtin (1999) notes that California court decisions from the 1970s to the 1990s expanded local zoning's exclusionary power. This expansion resulted in new housing growth during that period slowing to two thirds of the national pace, and the median home value then grew nearly 80% faster than the national median (Romem, 2018). Garde and Song (2022) reveal a divide between exclusive cities—resistant to multifamily rental housing and dominated by single-family homes occupied by white and affluent households—and high-density cities with more Latino/a and Black residents and more multifamily housing over time.

Local discretionary housing approval processes impact housing development. Maneville et al. (2023) reveal that housing projects undergoing standard discretionary review in Los Angeles County had a median approval timeline of over 700 days, while those with "By-Right" approval process had a median approval timeline of closer to 450 days. McNee and Pojani (2022) document that NIMBY opinions expressed by white, older, and more financially stable residents dominated public comments at San Francisco housing development hearings. Finnigan and Manji (2023) find that affordable housing construction increased after 2018, when California mandated limits on such public hearings. The prohibitive cost of construction also constrains the production of affordable housing. Reid (2020) reports that affordable housing developers have higher costs because they must apply for and manage multiple funding sources. Dillon and Poston (2022) note that it is not unusual for the construction cost of a rental apartment in Los Angeles to reach $1 million.

NIMBYism is also related to informal and formal segregation practices (Slater, 2021). Widely recognized redlining practices by the Homeowners' Loan Corporation (HOLC) and the Federal Housing Administration (FHA) created exclusive enclaves for the affluent and white in most large U.S. cities. Enjoying higher property values because of this (Wassmer, 2023), NIMBYs may wish to preserve this exclusivity by resisting new multifamily housing. Because of segregation and the large amount of land they use, single-family homes have inflated prices and are difficult for low-income households to purchase (Rothwell, 2019). Aside from historical redlining practices, other forms of

segregation also impact housing production. California's Voting Rights Act of 2001 required jurisdictions with at-large city council elections to adopt district-based elections, thereby further facilitating NIMBYism (Hankinson & Magazinnik, 2023).

As described above, NIMBYs (or Neighborhood Defenders) are a recognized group that can hinder the development of new affordable housing. Factors within state and local government control also contribute to California's affordable housing shortage. We next offer a multiple regression analysis that considers measurable factors affecting both the allocation and permitting of new housing in California cities.

Methods and data

California's Regional Housing Needs Allocation (RHNA) process has yielded results that fall short of achieving the state's affordable housing goals.[3] Prior to reforms made for the Sixth Housing Element Cycle (2023–2031), Arena et al. (2023) find that the RHNA process set a low statewide target for housing development, an infeasible allocation of that target across local jurisdictions, and a Housing Element process that allowed local jurisdictions to submit impractical housing development plans. Cities with lower housing demand received a higher new housing allocation than more affluent cities near jobs. The likely reason is due to an opaque RHNA process that allowed affluent cities to use their political influence to limit the RHNA assigned to them for very- low- and low-income households (Monkkonen et al., 2019). During the Fourth Housing Element Cycle (2006–2014), Ramsey-Musolf (2020) found an inequitable housing assignment to the City of Los Angeles and some outlying cities, with less allocated to central and coastal cities. Ramsey-Musolf (2016), using data from California cities whose Second and Third Housing Element cycles complied with their RHNA allocation, found that these cities produced more affordable housing for low-income households. This finding contrasts with Lewis (2005), who reports no significant difference in the number of homes between California cities whose Housing Elements were or were not compliant with their RHNA.

Method

Our regression analysis uses two types of dependent variables: (1) the jurisdiction's allocation of new housing units through the RHNA process at the start of 2015 or 2016, and (2) the issuance of building permits to fulfill these allocations over the 8-year time given to a city during the Fifth Cycle. We measure each dependent variable as the total for a California city and the subtotals for the units deemed affordable across four household income types. Following Monkkonen et al. (2019) argument that RHNA allocations are not unbiased measures of housing needs and that politics may influence such allocations, we isolate the separate effects of NIMBYism on allocations and on the number of permitted housing units.[4]

As previously explained, a California city receives its RHNA allocations from its COG's Allocation Committee, or directly from the state's Office of Housing and Community Development (HCD). After obtaining these allocation numbers, the city updates the Housing Element in its general plan to meet these targets. Over the past 8 years, HCD reports the number of permits issued for each housing category, affordable to households in four income groups. Equations (1) and (2) provide a model of the main factors expected to influence the allocation and achievement of housing-unit goals set for each city, based on earlier literature. The number of housing units allocated or permitted in a California city from 2015 to 2023 includes new houses, apartments, mobile homes, groups of rooms, or individual rooms used as separate living quarters.

$$\text{Allocated}_{i\ \text{Income Category}},\ \text{or}\ \text{Permitted}_{i\ \text{Income Category}} = f\ (\text{NIMBY Demographics}_i,\ \text{NIMBY Motivations}_i,\ \text{Housing Allocation and Approval Institutions}_i,\ \text{Housing Demand Factors}_i,\ \text{Existing Housing Supply Factors}_i,\ \text{Scale Factors}_i) \quad (1)$$

Where
$i = 1, 2, \ldots, 478$ California cities,
Income Category = Very Low (0–50% of Area Median Income), Low (50–80%), Moderate (80–120%), Above Moderate (120%+), or All (2)

NIMBY Demographics = f (% College Educated, % Age 25–34, % Age 55+, HH Index of Race/Ethnic Similarity), (3)

NIMBY Motivations = f (% Voting for Trump, % Adults Voting, Households Owner Occupied, % Reside Prior 2000, Median Home Value, Median Household Income, Median Home Value, Local Expenditure Per Capita) (4)

Housing Allocation and Approval Institutions$_{\mathbf{Allocated}}$ = f (Council of Governments Member Dummy, RHNA Committee Representative Dummy) (5)

Housing Allocation and Approval Institutions$_{\mathbf{Permitted}}$ = f (Allocated, Council of Government Member Dummy, Charter City Dummy, Strong Mayor Dummy, [General Law City Dummy Excluded], Days Until Housing Element Approved, Housing Element Never Approved Dummy), (6)

Housing Demand Factors = f (Years Since Incorporated, Central City Dummy, Large City Dummy, Town Dummy, Rural Dummy, [Suburb Excluded], County GDP Per Capita, % Change in County GDP Per Capita) (7)

Existing Housing Supply Factors = f (Housing Units, % Housing Units Occupied) (8)

Scale Factors = f (Population, Square Miles) (9)

The dependent variables represent the count of housing units allocated or permitted. The distributions of these variables are skewed toward zero across all income levels (as shown in Figure 2 for the very-low-income category) and overall. Because of this, we employ the recommended negative binomial Poisson regression, which provides robust standard errors despite the skewness. Note that among the expected factors influencing allocated and permitted housing units, only variables related to housing allocation and approval institutions differ. As previously explained, we expect that a city's allocation will be affected by whether it is determined by the COG's allocation committee or by HCD, and if the city has a representative on the COG's allocation committee. While the number of units permitted would not be affected by RHNA committee representation, it could depend on whether a jurisdiction is a COG member, as housing demand varies by region size.

Additionally, housing approval institutions are relevant, especially the RHNA allocation assigned to a city. According to this model, this allocation, as an explanatory variable for permits, should be considered endogenous and is treated as such in our analysis. The instrumental variable enabling this is the Council of Governments Member Dummy, which we appropriately exclude from the permitted regression.

Table 1 offers descriptive statistics for the variables used in this analysis. We measure nearly all explanatory variables from 2010 (at least 4 years before the Fifth Cycle RHNA period started) to mitigate endogeneity concerns. The only exceptions are data from the 2016 presidential election, which offer a clearer distinction between political ideologies than previous elections and the change in county GDP per capita calculated from the decade preceding 2010. During the period examined, California contained 482 cities. We use only 478 of these in the regression samples. The reason is that HCD did not record RHNA allocations for the cities of Jurupa Valley and Eastvale because they were

Table 1. Descriptive statistics[a].

Variable	#	Mean	Std Dev	Min[b]	Max
Dependent					
RHNA Allocated Very-Low- Income Housing	478	490.0	1,606.8	0 (1)	21,977
RHNA Allocated Low-Income Housing	478	326.3	1,903.8	0 (8)	16,703
RHNA Allocated Moderate-Income Housing	478	351.5	1,125.4	0 (17)	15,462
RHNA Allocated Above- Moderate-Income Housing	478	835.1	267.9	0 (17)	35,412
RHNA Allocated All Housing	478	2,002.9	6,478.7	0 (1)	88,096
Permitted Very-Low-Income Housing	478	111.7	526.8	0 (164)	9,855
Permitted Low-Income Housing	478	104.0	344.7	0 (113)	5,184
Permitted Moderate-Income Housing	478	227.7	825.9	0 (77)	13,243
Permitted Above- Moderate-Income Housing	478	1,326.7	6,427.9	0 (27)	128,408
Permitted All Housing	478	1,770.2	7.469.6	0 (8)	144,603
Explanatory[c]					
NIMBY Demographics					
% College Educated	478	24.7	20.2	0	97.4
% Age 25–34	478	12.8	3.8	0.95	32.5
% Age 55+	478	23.1	9.1	7.4	95.1
HH Index of Race/Ethnic Similarity (*100)	478	40.2	14.3	19.1	83.7
NIMBY Motivations					
% 2016 Voting for Trump	478	34.3	15.8	3.2	87.0
% 2016 Adults Voting	478	51.0	14.6	10.0	99.3
% Houses Owner-Occupied	478	60.8	14.1	17.9	98.9
% Households Reside Before Year 2000	478	40.3	9.7	3.1	72.5
Real Median Home Value 100k	478	7.41	4.99	1.24	21.36
Real Median Household Income 1k	478	95.35	43.30	29.06	356.00
Real City Expenditure Per Capita 1k	478	2.55	6.58	0.18	139.07
Housing Allocation and Approval Institutions					
Council of Governments Member Dummy	478	0.89	0.31	0	1
RHNA Committee Representation Dummy	478	0.38	0.49	0	1
Charter City Dummy	478	0.26	0.44	0	1
Strong Mayor Dummy	478	0.13	0.11	0	1
Days Until Housing Approved 100s	478	20.93	13.28	6.20	47.48
Housing Element Never Approved Dummy	478	7.45	17.29	0	47.48
Housing Demand					
Years Since Incorporation Decades	478	9.62	3.92	1.4	17.4
Central City Dummy	478	0.08	0.27	0	1
Large City Dummy	478	0.02	0.14	0	1
Town Dummy	478	0.29	0.45	0	1
Rural Dummy	478	0.03	0.16	0	1
Real County GDP Per Capita 1k	478	64.05	20.46	31.17	153.17
% Change in Real County GDP Per Capita (2001–2010)	478	9.92	10.66	−9.52	49.91
Existing Housing Supply Factors					
Housing Units 1k	478	23.23	74.31	0.091	1,408.8
% Housing Units Occupied	478	90.78	10.12	6.29	100.0
Scale Factors					
Square Miles	478	17.20	33.04	0.31	469.49
Population 1k	478	64.46	198.81	0.19	3,792.62

[a]Sources for all variables used are in the Variable Data Sources section of the reference list.
[b]The value in parentheses is the number of zero observations.
[c]Except where called out in the variable name, all explanatory variable values are drawn from 2010 and are in 2023 real dollar values.

incorporated after the baseline date and for Amador City and Vernon because their populations were less than 200.

Data choices

Previous literature (Kahlenberg, 2023; McNee & Pojani, 2021; Record, 2021; Schuetz, 2022) determined, through qualitative observation, that NIMBYs may be more likely to be higher educated, older, homeowners, long-time residents, and to have higher household incomes and home values. Pendall (1999), using a case-study approach to examine 182 housing projects proposed in the San Francisco Bay Area, found that those generating NIMBY resistance were

larger, denser, multifamily with affordable units, and adjacent to single-family housing. While "Homevoters" may be more likely to practice self-interested NIMBYism, this likelihood could be even greater the higher their home value and the greater the value of per-capita city services they receive (Fischel, 2001, 2015; Phillips, 2020). As found by Whittemore and BenDor (2019), an individual's political party identification can influence their support for denser, potentially more affordable housing in their neighborhood. Expanding this to the city level, we include as a potential driver of citywide NIMBYism the percentage of the 2016 presidential vote for the Republican candidate, Donald Trump. We also chose to proxy for the level of political activism in a city, and therefore the extent to which resident attitudes toward more affordable housing are reflected in actual outcomes, by measuring the percentage of all adults—not just those eligible to vote—in the 2016 election. Thus, we include these NIMBY-based demographics and motivations as potential correlates of a city's allocated and permitted housing units.[5]

As the California Department of Housing and Community Development (HCD, n.d.-a) points out, the historical context of residential land use planning, zoning, and housing construction in a California city, which Wassmer (2023) documents as including various forms of structural and institutional racism, influences the current racial and ethnic compositions of the locality. Numerous studies have also shown that same-race-ethnicity preferences are a consistent mechanism contributing to residential patterns in the United States (Charles, 2000; Havekes et al., 2016; Davis et al., 2024). Thus, we wish to test whether the similarity of the declared racial/ethnic identity of a city's residents, in the form of white, Black, Asian, Latino, Native American, and two or more races, correlates with outcomes observed in California cities for RHNA allocation and local permitting for new houses.[6]

We also consider institutional factors that vary across California cities and influence the number of new local housing permits, but not the amount allocated to a city (Einstein et al., 2020, p. 5). A General Law City in California must follow state laws regarding its government structure, which includes no mayor and five equal council members. A city manager, whose specific role is state-specified, can be hired if the council approves. About three fourths of the cities in this sample follow this General Law model, which serves as the baseline for comparison in the regression analysis. Voters in a California city may choose to adopt their own charter, establishing local governance through a mayor, council members, and a professional city manager. In most of California's charter cities, the mayor is the political leader on the council, sets policy direction, has equal voting power as council members, and does not manage departments. Charter cities also have more freedom to opt out of certain state laws (Zasloff, 2023). An extension of local power occurs through a charter that includes a "Strong Mayor" provision, under which the mayor oversees more of the city's daily operations by appointing and managing department heads, preparing and allocating budgets, and supervising executive departments. Six cities (Fresno, Los Angeles, Oakland, San Diego, and San Francisco) have adopted this strong mayor form, which is included here as an additional dummy variable. The relative influence of a city's manager, mayor, and council is important because these bodies set, administer, and enforce local housing policies. Since the California Department of Housing and Community Development (n.d.-c, n.d.-d, n.d.-e) must approve the viability of a California city's Housing Element, it is also useful to examine whether the number of days before receiving approval impacts the number of housing permits issued, and additionally, to distinguish between cities that completed the Fifth Cycle without approval.

The explanatory variable measuring years since incorporation reflects the vintage of the city's land use and residential construction and may influence both the demand for and the type of housing supply in a city. The economic strength of the surrounding county and its growth rate may also significantly impact housing demand in a California city, thereby affecting the allocation and permitting of new housing units. Hence, this regression includes explanatory variables that control for city type (central city, large city, suburb, town, and rural) and the county's GDP per capita and growth rate. It is also appropriate to include measures of city type as a proxy for permitted local land use. Simultaneously, we include the number of housing units and the percentage of occupied units to

account for scale effects and measure unused housing capacity that could influence the number of units allocated and permitted. Two additional scale effects are the city's population and land area.

Results

Regional housing needs allocation to a city

Based on the negative binomial regression results shown in Table 2, we begin by discussing our findings on explanatory variables related to the number of housing units allocated to a city through the previously described RHNA process. Note that these results, presented as Incidence Rate Ratios (IRRs), are shown in columns labeled "Allocated." This analysis should not be considered the focus of this work. However, it provides valuable insight into the endogeneity between a California city's RHNA value given to it and the number of permits ultimately issued by that city, as well as the likely influence of lobbying and politics in determining a specific city's RHNA value (Arena et al., 2023; Monkkonen et al., 2019; Ramsey-Musolf, 2020).

Cities with a higher percentage of residents aged 55+, a greater proportion of households that lived there before 2000, or a higher HH Index of Race/Ethnic Similarity tend to receive lower RHNA allocations across all affordable housing types for different income levels. Since this similarity index only correlates positively with the percentage of white residents in California and negatively correlates with other racial and ethnic groups, these results do not rule out the possibility that lower RHNA allocations are partly influenced by NIMBY-related demographics and motivations, as discussed earlier. It is also notable that all types of RHNA housing allocations are positively associated with a city being part of a COG (roughly 100%–120% higher than if it were not). Additionally, if that city has an elected official on its COG's RHNA allocation committee, the allocation increases even more, around 70% to 80% compared to cities without representation. It is worth considering why this might be the case. Are these cities more motivated to develop housing and thus appoint a representative to advocate for that goal? Or do these representatives become more aware of their cities' housing needs through the knowledge-building process inherent in their role?

Permitted housing in city

A key objective of this regression analysis is to provide quantitative evidence on whether the presence of NIMBY characteristics and motivations, and housing allocation and approval institutions, correlates with the permitting of local housing units in a California city. Regarding what drives the achievement of this goal of desired permitting, look down on each column in Table 2 labeled "Permitted," and, while doing so, remember that we calculate these IRR findings after controlling for the endogenous RHNA amounts allocated to each city in California. Thus, a statistically significant positive (negative) correlation indicates that a variable correlates with an increase in housing permits above (below) the city's RHNA expectation. We do this next for each category expected to influence the actual permitted housing units, examining the effects within each type of affordable housing household-income category and the total number of housing-unit permits issued over the eight-year Fifth Element cycle that ended in 2024.

NIMBY demographics

As described earlier, other studies have indicated that older adults are more likely to express a NIMBY attitude toward the construction of new homes in both private surveys and public settings. The attitude of younger adults, who are less likely to own a home but still aspire to do so, tends toward a more "YIMBY" (Yes in My Backyard) perspective. Our results support such a characterization at the city level, with a one-percentage-point increase in a city's % Age 55+ residents resulting in around a 3% to 5% decrease in very-low-, low-, and moderate-income housing permitted. In contrast, a similar

Table 2. Negative binomial regression results reported as incident rate ratios for the dependent variables of RHNA allocated and city permitted housing for various affordability levels[a,b].

	Very-Low Income Housing		Low-Income Housing		Moderate-Income Housing		Above-Moderate-Income Housing		All Housing	
	Allocated	Permitted	Allocated	Permitted	Allocated	Permitted	Allocated	Permitted	Allocated	Permitted
NIMBY Demographics										
% College Educated	0.992	0.992	0.994	0.994	0.994	1.015**	0.989**	0.996	0.991	0.999
% Age 25–34	1.028	1.069**	1.029	1.019	1.030	1.010	1.039	1.187***	1.034	1.114***
% Age 55+	0.970***	0.970*	0.970***	0.958***	0.970***	0.946***	0.972**	1.014	0.970***	0.995
HH Index of Race/Ethnic Similarity (*100)	0.983**	0.999	0.984**	1.007	0.983*	1.009	0.982**	0.987	0.983**	0.997
NIMBY Motivations										
% 2016 Voting for Trump	1.007	0.987**	1.008	0.991	1.008	1.007	1.006	1.022***	1.007	1.009*
% 2016 Adults Voting	0.994	1.016*	0.994	1.015**	0.994	1.023***	0.999	1.041***	0.996	1.027***
% Houses Owner-Occupied	1.016***	1.020***	1.015***	1.016**	1.016***	1.014*	1.019***	1.019***	1.017***	1.016***
% Households Reside Before Year 2000	0.981***	0.993	0.981**	1.001	0.981**	0.981*	0.981***	0.983**	0.981**	0.984**
Real Median Home Value 100k	1.017	0.996	1.018	0.974	1.016	0.932***	1.013	1.025	1.018	1.004
Real Median Household Income 1k	1.005	0.997	1.003	0.993*	1.003	0.993*	0.999	0.998	1.001	0.997
Real City Expenditure Per Capita 1k	0.999	1.015***	0.999	0.842***	0.998	0.964***	0.997	1.006*	0.998	1.003
Housing Allocation and Approval Institutions										
RHNA Housing Units (Endogenous)	—	1.001***	—	1.001**	—	1.002***	—	1.001***	—	1.000***
Council of Governments Member Dummy	2.120***	1.757	2.150***	0.920	2.064***	1.607*	2.289***	1.665**	2.188***	1.734**
RHNA Committee Representation Dummy[d]	1.727***	—	1.816***	—	1.765***	—	1.765***	—	1.757***	—
Charter City Dummy	—	1.773***	—	1.888***	—	0.922	—	1.411**	—	1.320**
Strong Mayor Dummy	—	0.924	—	0.549	—	0.333*	—	0.200*	—	0.358
Days Until Housing Element Approved 100[d]	—	0.963***	—	0.965***	—	0.969***	—	0.987~	—	0.977***
Housing Element Never Approved Dummy	—	1.033***	—	1.041***	—	1.033***	—	1.016**	—	1.024***
Housing Demand Factors										
Years Since Incorporated Decades	1.081***	0.976	1.075***	0.981	1.075***	0.912**	1.080***	0.905***	1.078***	0.904***
Central City Dummy	1.166	2.410***	1.192	3.098***	1.238	0.833	1.264	0.981	1.234	1.140
Large City Dummy	2.024	1.175	2.166*	1.209	2.036	0.393*	2.371*	0.418	2.168*	0.475
Town Dummy	0.632**	1.046	0.608**	0.665*	0.624**	0.538**	0.620**	0.337***	0.632**	0.422***
Rural Dummy	0.079***	0.592	0.071***	0.285**	0.068***	0.175*	0.073***	0.007***	0.075***	0.046***
Real County GDP Per Capita 1K	0.996	1.018***	0.994	1.017***	0.995	1.004	0.997	1.009	0.990	1.004
% Change in Real County GDP Per Capita	1.001	0.997	1.004	1.001	1.001	1.001	1.003	0.990	1.002	0.997
Existing Housing Supply Factors										
Housing Units 1k	1.024*	0.993	1.026**	0.995	1.026**	0.945***	1.030***	0.945**	1.027**	0.955***
% Housing Units Occupied	1.009	1.023*	1.009	1.023***	1.008	0.999	1.009	0.995	1.009	1.000
Scale Factors										
Square Miles	1.027***	0.992	1.026***	0.989	1.027***	0.977	1.028***	0.981	1.028***	0.977**
Population 1k	0.990	1.003	0.989	1.003	0.989	1.023***	0.988**	1.02***	0.989*	1.019***
Constant	38.222***	0.499	29.009***	4.112	32.763**	155.3***	58.47***	3.589	157.5***	51.18***
Residual Values from Predicted RHNA Reg	—	0.995	—	0.999	—	0.998***	—	0.999***	—	0.999***
Alpha 95% Confidence[a]	1.09–1.49	3.13–4.19	1.06–1.45	2.26–2.99	1.09–1.52	2.24–2.92	1.14–1.59	1.35–1.74	1.11–1.50	1.01–1.29
McFadden's R[b]	0.06	0.05	0.07	0.05	0.06	0.05	0.06	0.07	0.06	0.07

(*Continued*)

Table 2. (Continued).

	Very-Low Income Housing		Low-Income Housing		Moderate-Income Housing		Above-Moderate-Income Housing		All Housing	
	Allocated	Permitted	Allocated	Permitted	Allocated	Permitted	Allocated	Permitted	Allocated	Permitted
Cragg & Uhler's R[b]	0.58	0.36	0.60	0.39	0.58	0.43	0.58	0.64	0.59	0.68
Observations	478	478	478	478	478	478	478	478	478	478

Note: *** indicates a p-value < .01, ** a p-value between 0.05 and 0.01, * a p-value between 0.10 and 0.05, all in a two-tailed test.

~ indicates a p-value of less than 0.10 for a Wald-Test of joint statistical significance of the two measures of HCD timeliness of approval (in 100-day increments, the length in time during the Fifth Housing Element until the city's general plan adjustments to accommodate its RHNA approved by HCD) and (a variable equal to zero if approved during the Fifth Housing Element and 47.48—the number of weeks in the Fifth Housing Element—if never approved).

[a]It is appropriate to use negative binomial regression (nberg in STATA) when modeling a count outcome (number of affordable housing permits over a set period) dispersed toward zero (UCLA, n.d.). We verified this overdispersion using the Alpha Confidence Interval reported at the bottom of the table, which excludes zero for all dependent variables. The derivation of all regression results included the calculation of robust standard errors.

[b]The regression coefficients from negative binomial regression are not directly interpretable, so we report them here as Incidence Rate Ratios (IRRs). These IRRs indicate the expected multiplicative change in the dependent variable for a one-unit increase in the explanatory variable, assuming all other variables remain constant. Therefore, an IRR less than one indicates a negative association, while an IRR greater than one indicates a positive association. Using the Very-Low Income housing unit allocation regression as an example, we find that a 1% increase in the % of residents aged 55+ in a California city reduces the dependent variable by 0.970, roughly a 3% decrease. Conversely, a 1% increase in the % Houses Owner-Occupied raises this dependent variable by 1.016, approximately a 2% increase.

[c]The process by which we determined whether a city had an elected official on its COG's RHNA committee was to use ChatGPT 5.0 (Microsoft CoPilot) to search through documentation from each of California's 24 COGs for its RHNA methodology, meeting agendas and minutes, and/or board or policy committee notes. This search yielded a distinct list of California cities with a "seat at the table" when a COG's allocation committee made its RHNA recommendations. Note that member cities in SACOG, SANDAG, AMBAG, SLOCOG, STANCOG, SJCOG, and the Fresno, Kern, Merced, Madera, Kings, and Tulare County COGs include a representative from all their member cities in this allocation process.

[d]Note that it is only appropriate to use IRRs to detect the expected effect of a marginal change in an explanatory variable when all other variables are constant, which is not the case when a California city has gone through the full 4,748 days without housing element approval for the Fifth Cycle (2015-2023). To interpret this case, we need to use STATA's margins command to indicate the expected effect based on the explanatory variables Days Housing Element Not Approved 100 and Housing Element Never Approved. Our findings are: Very-Low-Income Permits (−63, −56%), Low-Income Permits (−25, −24%), Moderate Permits (−295, −130%), Above Moderate Permits (−2,615, −197.2%), and Total Permits (−1004, −56.7%). The first value in parentheses represents the expected decline in housing units in a typical California city by household income type, and the second value is the percentage of this decline among the total affordable housing units approved in that city by household income type.

increase in a city's % Age 25–34 correlates with the respective 7%, 19%, and 14% increases in very-low, above-moderate, and total housing units permitted.

NIMBY motivations

Table 2 provides evidence supporting the contention that the permitted housing amount in a California city, distinct from the required RHNA allocation, correlates with explanatory variables in this analysis that capture NIMBY-based motivations. Clearly, political participation, as measured by the percentage of all adults in a city that voted in the 2016 presidential election, matters. A one-percentage-point increase in this participation rate is associated with about a 2% to 4% increase in the various measures of housing units constructed. This correlation with participation means that the greater the number of adults in a city who can vote and exercise their right to vote, the more housing units are produced for all types of households. With California exhibiting a household percentage homeownership rate of about 56% in the late 2020s[7]—only New York state's rate of 55% is lower—it is not a surprise that local governments respond to the nearly half of the population potentially desiring homeownership within their boundaries, when this renter class is more likely to participate in the political activities that result in whether greater housing construction is encouraged or discouraged.

Interestingly, political ideology also matters. A one-percentage-point increase in a city's 2016 vote for the Republican presidential candidate Donald Trump is associated with a similar decrease in very-low-income housing permits, but with a two-percent increase in above-moderate permits and a one-percent increase in total permits for all types of housing issued during the period observed. Apart from Whittemore and BenDor's (2019) finding that self-declared "very Liberal" individuals are less likely to favor denser housing development in their neighborhood, there is little other evidence to compare these findings. Reinforcing anecdotes and stereotypes, perhaps the more likely free-market views of the right result in less government regulation, zoning, and CEQA enforcement. While a Republican emphasis that perhaps favors the net benefits to the community over "equity"-driven motivations yields the correlation that California cities whose residents align more with the Republican Party build more above-moderate-income housing and less very-low-income housing.

Regarding our tests of factors that may influence NIMBYs, based on the "Homevoter" (Fischel, 2001) and "Neighborhood Defender" (Einstein et al., 2020) hypotheses, we find no evidence that a higher proportion of homeowners in a city reduces the permitting of new housing units. The data used here consistently suggest the opposite: a one-percentage-point increase in the share of homeowners in a city results in a one- to two-percentage-point increase in the number of housing units. Perhaps this finding is due to its derivation in a multiple regression analysis that controls for other demographic factors often correlated with homeownership (age, education, race/ethnicity, and income). In contrast, previous findings came from empirical analyses without such controls. However, the regression results in Table 2 do support the Neighborhood Defender's idea that a city with a higher share of long-term residents (those who moved in before 2000) produces fewer new housing permits for moderate, above-moderate, and total housing units, with around a 2% decrease for every 1% increase in senior residents. Additionally, there is a notable correlation between a $1,000 increase in a city's median household income and a 1% decrease in permits for low- and moderate-income housing.

Neighborhood Defenders may hesitate to reduce their local government's per capita spending by adding more affordable housing units. Meanwhile, cities with greater local government resources can subsidize the construction of very-low-income housing, often by requiring local matching funds for state and federal programs aimed at low-income households. We find evidence supporting these trends. A $1,000 increase in per-capita expenditure led to roughly 16%, 4%, and 1% declines in permitted low-income, moderate-income, and above-moderate-income housing permits, respectively. The same increase, likely reflecting the local resources needed to support very-low-income housing, led to about a 2% increase in permitting for that critical housing type.

Housing allocation and approval institutions

Our findings under this category should interest California and all states wishing to increase the construction of new housing units in their cities. First, the allocated RHNA goal delivered to a city within a COG by the council's own process, or the value chosen by HCD for a non-COG city, matters to the number permitted over the fifth cycle observed, as indicated by the strong statistical significance of the endogenous explanatory variable accounting for it. Second, the time it takes a jurisdiction to complete an HCD-approved Housing Element significantly relates to the issuance of building permits across all housing types. For every 100 days that a city's Housing Element remains unapproved from the start of the planning period that began in 2011, there is an expected change in the building permits issued for very-low-income housing by −3.7%, low-income housing by −3.5%, moderate-income housing by −3.1%, above-moderate-income housing by −1.3%, and all housing types by −2.3%. Given that the average time for approval for California cities in this sample is near 2,100 days (nearly 6 years), the previous percentage reduction rises by a factor of 20 to get an approximation of the consequential reduction in the needed permitting of housing by a jurisdiction not altering its general plan in a manner that makes it the permitting of required housing reasonably possible as determined by HCD. As noted in Footnote 3 in Table 2, this negative result holds even after accounting for California cities that did not receive HCD approval for their Housing Elements during the Fifth Cycle. However, a separate interpretation is necessary for such cities.

Importantly, the regression results in Table 2 show that the 125 California cities operating under their own charter experienced significant increases in building permits for affordable housing units across all household income categories except moderate. Compared to a General Law city, which is the non-charter option in the state, charter cities see notable increases of about 80% in building permits for very-low-income housing, 90% for low-income housing, 40% for above-moderate-income housing, and about 30% for all housing types. Charter cities in California may choose to operate under the default system of a city council, a mayor elected from the council or chosen citywide, and a hired city manager, which is the excluded category in our analysis. Alternatively, with a simple majority of the electorate, they may adopt a "Strong Mayor" system in which the mayor serves as the chief executive. Our findings indicate that this significant increase in mayoral power, exercised by only six of the state's largest cities, correlates with approximately 30% and 20% reductions, respectively, in the number of permits for moderate- and above-moderate-income housing units. Nonetheless, the overall effect of a California city adopting its own charter is only negatively associated with permits for moderate-income housing and strongly positively associated with permits for all other types of new housing, according to this Fifth Element of the data. It is plausible that this correlative result is due to the additional citywide influence a mayor can exert in favor of local housing needs. Perhaps this creates the necessary counterbalance to council members who may be more inclined to support affordable housing somewhere in the city, but not in their own districts. As noted by the League of California Cities (n.d.-a), other factors related to their expanded legal authority to exert home rule over municipal affairs include overriding state law in areas, such as land-use procedures, elections, contracting, labor standards, and administrative rules. All of which could also contribute to the result of permitting more housing of all forms, except for moderate-income households.

Under the institutional category, our findings show that cities belonging to a Council of Governments (COG) generate about 60% to 70% more moderate, above moderate, and total housing permits. Although this increase in housing permits correlates with this affiliation, it is most likely not due to institutional differences but rather to the fact that three-fourths of California's COGs are in metropolitan areas, which are more likely to face higher housing demand. This broader factor explains the differences observed in permitting, which we discuss next.

Housing demand factors

To accurately assess the independent relationship of a variable with the number of housing permits, it is important to consider other factors that also relate to it. A key factor in this case is the local housing market. In simple terms, higher demand is likely to increase the number of housing units permitted. In contrast, a larger existing housing stock and its utilization rate both decrease the number of permits. The challenge with this straightforward interpretation is that, in a reduced-form model like the one used here, determining what constitutes a pure demand- or supply-side correlation is somewhat unclear.

With the above caveat in mind, we turn to an examination of the factors most likely to influence demand for local housing permits. We began with the city's vintage, measured in decades, which is likely to capture both demand- and supply-side influences on housing unit permits, such as land use, housing type, lot size, mixed-use structures, infrastructure, street layout, and proximity. Thus, it is an important variable to account for, but a harder one to interpret. A decade increase in the age of incorporation of a city is associated with a 9% to 10% decrease in the total permitted, specifically for housing affordable to moderate- and above-moderate-income households.

As an indicator of increased demand for local housing due to a more vibrant surrounding economy, we include the per capita value of economic activity in a city's county and the percentage change in these real values over the past 10 years. The only effect observed was for a $1,000 increase in Real County GDP Per Capita, which correlates with about a 2% rise in housing permits affordable to very-low- and low-income households. A likely explanation is that local officials are more inclined to approve such units because of pressure from the business community and their own recognition that a thriving economy, measured in per-capita income, requires workforce housing to meet the increased demand for employees and the additional retail and service jobs that come with residents having higher per-capita incomes.

Compared to the excluded category of suburban cities, which make up nearly 60% of California's cities, we also analyze how different jurisdiction types—central city, large city, town, and rural—correspond with housing permits. Examining these regression coefficients is especially useful for the low-income affordable housing permit category. All other variables being equal, a central city issues just over three times as many permits for such housing as a comparable suburban city. Conversely, a city classified as a town or rural area issues approximately 35% and 71% fewer permits, respectively.

Housing supply and scale factors

As the number of housing units in a city before the Fifth Element increases by 1,000, we report a measurable effect on permits allocated for moderate, above-moderate, and total housing units, with decreases of about 5% in all three categories. We expected that an increase in the percentage of a city's housing units occupied would signal a decrease in the jurisdiction's available housing stock and might correlate positively with permit issuance, as fewer actual units are available than the units measured. As expected, we found this to be the case in permitting low- and very-low-income units, with a 1%-point increase in occupied housing correlating with about a 2-percentage-point increase in the most affordable types of housing.

Finally, a city with more square miles within its boundaries, and therefore more space for additional housing, was expected to issue more housing permits. However, after we accounted for a city's population, this was not observed. Instead, as a city's population increases by 1,000 residents, permits at the moderate, above moderate, and total levels rise by about 2%. Since these IRRs are measured while keeping the city's area constant, they best indicate that an increase in a California city's population density is associated with more permitting. Perhaps those who can afford housing, primarily moderate- and higher-income households, prefer to live in California's most densely populated areas. Moreover, such areas are welcoming to housing targeted at the relatively affluent.

Discussion of findings

Summary

A shortage of housing, driven by limited supply and high demand, is pushing up housing prices across the United States, particularly in California. Curtailing demand is not a practical political solution, so increasing the number of new housing units, especially those affordable to households with incomes below moderate, must be considered in any policy plan to address this issue. If this increase in housing supply does not occur, the negative impacts of high housing prices will fall disproportionately on the most vulnerable populations in the regions where it is occurring. Furthermore, as Wassmer (2021) and others have found, the secondary impacts of this unaffordability result in a constrained regional economy, and even state and national economies, whose productivity and overall well-being are lower than they would be if housing was more affordable for the workers and families who need to be there to generate enhanced economic activity. Therefore, to effectively propose ways to increase housing supply in a state and its most affected regions, it is important to identify plausible reasons by examining correlated variables, supported by qualitative observations and theory, that are likely contributing to the causes of constrained housing supply.

Common beliefs and qualitative research suggest that opposition to housing development in neighborhoods (NIMBYism), along with actions and institutions of state and local governments that encourage or do not oppose such opposition, decreases the number of new affordable housing units. We previously summarized studies exploring how Not-In-My-Backyard attitudes affect housing supply and, consequently, reduce housing affordability. In this study, we contribute to this research by analyzing data from California's Department of Housing and Community Development (HCD), obtained through its mandated Regional Needs Assessment (RHNA) process during its Fifth Cycle (2015–2016 through 2023–2024). The RHNA process requires cities to include a Housing Element in their general plans, which identifies suitable locations within the city to meet state-mandated housing unit requirements across four income levels. After 8 years, HCD evaluates a city's progress toward the goals set in its Housing Element by recording the number of permits issued. In this analysis, we assess how NIMBYism correlates with a city's final permit numbers using a regression-based analysis of variables previously identified in the literature as indicators of NIMBY-related demographics, motivations, and institutional factors.

Beginning with a state policy perspective on this issue and holding other factors constant, we find that the number of city housing permits of all types granted over 8 years increases in nearly one-to-one correspondence with the RHNA amount assigned to the city by the state. Remember that these assigned amounts are mandated goals required by the state to counter potential NIMBY attitudes toward new residential construction in localities. Our analysis also shows that a city's number of permits over the observed period is more likely to fall below its RHNA amounts the longer it takes for the California Department of Housing and Community Development (HCD) to receive and approve a city's Housing Element, which lists zoning and other land use changes needed to incorporate the new RHNA-prescribed units into its general plan. Of further interest from the local policy perspective of encouraging greater housing affordability is that charter cities with a city council and mayor form of local governance, as compared to a city council—only structure, are more likely to permit all types of new housing. However, we also learn that extending a mayor's role to a strong mayor diminishes this effect. Perhaps this occurs because mayoral representation helps promote citywide interest in increased housing construction. Nonetheless, too much mayoral power over daily city decisions and activities related to new housing, along with the need to fund the costly election campaign—faced by a strong mayor—may lead to political influences that reduce this enthusiasm.

Turning to the potential role of NIMBYism in reducing the effectiveness of policies designed to promote housing development and improve affordability, we present regression-based evidence that certain resident and institutional characteristics associated with NIMBYs are negatively associated with the total number of housing permits issued in California cities. A brief overview of variables with positive correlations includes higher percentages of young adult residents, greater political

engagement, support for a Republican presidential candidate, and homeownership. Variables that negatively influence new housing permits include higher percentages of senior residents and long-term residents, as well as higher median household incomes. These correlative findings provide empirical support for the idea that factors related to NIMBYism can affect the success of state-led programs to increase local housing construction. Additionally, these results may help explain why housing affordability is a concern in other states without similar interventions.

Recommendations for institutional reform

We opened this paper by noting that, currently, California and Oregon continue to lead in recognizing that there is a regional (or even statewide) benefit from all localities in the region (or state) building more housing, which exceeds the sum of the local benefits each locality gains (Schuetz, 2022). Nevertheless, as mentioned earlier, at least half a dozen other states are at various stages of using similar approaches. All these states have established mechanisms to oversee further local housing development and track its progress. As shown by the details provided here, California's program is more advanced and, based on our positive findings regarding its successes and potential for further improvement, it is something that all states aiming to increase housing affordability might consider adopting.

We have shown that leading a city to produce more housing units is only the start. Getting them to permit these new housing units also requires greater, timely oversight of the local plans drawn up to accommodate them reasonably. Moreover, local governments throughout California and the United States, serious about raising housing production within their boundaries, may learn from the benefit of adopting a mayor-council form of government where the mayor can better champion the housing needs of the entire city, over the NIMBY tendency of council members, where their district-based parochial interests are likely to take precedence.

Since completing its Fifth Element RHNA process, California has recognized its own shortcomings in implementing it. For the Sixth Element (2021–2029), the state is now pursuing reforms to improve its Regional Housing Needs Allocation (RHNA) process and to assist localities in meeting their assigned allocations across all household income levels by using additional "carrots" and "sticks." As noted by the California Department of Housing and Community Development (n.d. g), this includes: (1) assigning higher local RHNA numbers, (2) imposing mandatory local zoning when a city's plan lacks adequate sites, (2) expanding the role of the state's attorney general with more enforcement tools, and (3) exercising a "Builder's Remedy" in state law, which allows developers to construct residential that do not match zoning if the local government is not in compliance with its Housing Element and the projects include affordable units. Additionally, HCD has significantly increased its efforts to inform the public about progress toward housing construction goals in all cities. To support stakeholders working toward these goals, HCD now maintains databases of potential residential sites across the state, along with information on environmental and zoning regulations, and provides technical assistance to help stakeholders effectively utilize these databases. Based on the analysis of past practices presented here, these reforms are justified and offer additional options for all states considering or already adopting a more top-down approach to address local NIMBYism related to residential development.

If a state is unwilling to adopt the top-down approach recommended above, our findings justify exploring other policy options. As Einstein et al. (2020) highlight, one institutional reform worth considering is to open proposed affordable housing projects for public review only if their construction violates local zoning restrictions. Commonly called By-Right development, Phillips (2020) also views it as a key strategy for increasing affordable housing. Although such a reform might require changes in local ordinances or even state law, it would significantly lessen the vulnerability of affordable and market-rate housing projects to NIMBYism. An example of this approach is California's Senate Bill 35, which, in 2017, compelled localities to approve affordable housing projects

that meet specific standards, subjecting them only to administrative review and eliminating public discretionary review (Finnigan & Manji, 2023).

We also provide evidence that a higher prevalence of older, long-term, and less Republican-affiliated political ideology among residents corresponds to a city's underperformance in creating the new housing units the state needs. Reducing attitudes prone to NIMBYism, which hinder affordable housing development, could help the state meet its housing objectives. One way to do this is to increase public awareness that residential NIMBYism does not align with Progressive or even moderate Liberal political values. Schuetz (2022) highlights this in the concluding chapter of her book on fixing America's broken housing system, labeling Democrats who support local exclusionary zoning and restrictions on affordable housing as the new "Limousine Liberals." At the same time, Kahlenberg (2023) offers a book explaining how "Snob Zoning," NIMBYism, and class bias among well-educated Americans have led to the acceptance of economic discrimination in housing markets. As Colburn and Aldern (2022) point out, if a city wants to reduce homelessness in a U.S. metropolitan area, the best place to start is by making housing more affordable for low-income households. Klein and Thompson (2025) even suggest that this crucial shift toward favoring "Abundance" in new housing—especially in states and cities led by Democrats—is the key principle the party needs to adopt to stay relevant to working-class voters.

While this study expands the current empirical evidence on how city characteristics often associated with NIMBYism correlate with a lack of housing development, it has certain limitations. It only estimates the expected correlation between a city's resident or institutional traits and the number of new housing permits issued. However, as mentioned throughout this paper, confounding factors diminish the precision of these measurements. Future research could employ a mixed-methods approach, selecting one or more of California's large metropolitan areas and randomly sampling residents from each city. This method would collect responses to questions designed to gauge residents' attitudes toward new affordable housing. Like the survey conducted by Whittemore and BenDor (2019), these findings would provide a more direct measure of resident NIMBY sentiment within a city. The researcher could then explore linkages between these findings and a city's success in meeting its RHNA housing allocation and permit goals. Despite this limitation, we believe this study represents a major step forward in the expanding research on the factors that impede the planning sector's efforts to reduce the affordable housing shortage in the U.S.

Notes

1. See Kneebone and Reid (2023) for a complete inventory of what specific states are doing to mandate, or at least encourage, further local housing production. For example, Connecticut, New Jersey, Rhode Island, and Illinois set specific threshold goals for local affordable housing stock. While Washington requires jurisdictions to plan for and accommodate housing growth targets set by the state. In 2026, Maryland began state-level oversight and housing production goals around transit to partially address the state's housing shortage.
2. An exception to this finding is Pendall et al. (2018) that reports from a national sample of U.S. cities between 1994 and 2003, that jurisdictions with a higher percentage of college educated residents were both more likely to adopt and retain local housing regulations (high-density zoning, inclusionary zoning, and density bonuses) favoring more affordable housing.
3. As found by the California State Auditor (2022), the execution of the prescribed RHNA process used to determine specific needs for local affordable housing in a California jurisdiction lacks sufficient technical and data support due to inadequate oversight and review.
4. Monkkonen et al. (2024) use this interpretation to justify a city's RHNA allocation as a negative proxy for the degree of anti-housing regulation present in a California city and show that modest deregulation in a high-housing -demand city yields more housing unit permits than substantial deregulation in a low-housing-demand city.
5. We recognize that using citywide demographic or political characteristics as proxies for local NIMBYism introduces an "ecological inference problem." The issue arises because citywide measures are used to represent a form of political resistance that operates at a much smaller scale, the neighborhood level. This does not constitute a strict "ecological fallacy," since our analysis does not make claims about individual attitudes, but it does assume that city-level patterns are linked to neighborhood opposition. This is a common limitation in empirical work of this kind, as permitting authority and regulatory decisions occur at the municipal level. Citywide measures,

therefore, capture the broader political environment in which neighborhood resistance forms and should be interpreted as indicators of the city's overall political climate rather than precise measures of localized opposition.

6. We do this through the calculation of a Herfindahl-Hirschman Index (HHI), a widely used diversity/concentration index that ranges between zero (perfect diversity) and one (perfect concentration). For ease of interpretation, we multiply this value by 100. See Simpson (1949).
7. See Public Policy Institute of California. (2022). *Homeownership Trends in California*. https://www.ppic.org/blog/homeownership-trends-in-california/

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