Inclusionary Zoning: Policy Design, Tradeoffs, and Outcomes

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Contents

Introduction

Many cities and towns across the United States are facing significant housing challenges. Increasingly high rents and rising home prices have led to record-high cost burdens for a growing share of households and placed homeownership out of reach for many (Joint Center for Housing Studies, 2024). In Rockville, nearly half of renters spend 30 percent or more of their monthly income on housing (American Community Survey, 2023). In addition to affordability problems, many communities are also grappling with how to address past racial discrimination and current economic segregation.

Inclusionary zoning (IZ), sometimes referred to as inclusionary housing, is a policy that has gained increasing attention and use in recent decades. IZ programs seek to address affordability and integration challenges by encouraging or requiring new developments to provide a portion of new housing units at below-market-rates. Its "cost-free" appearance contributes to IZ's popularity, particularly among local governments with strained budgets and voters unsupportive of increased spending.

This report highlights the various designs, production outcomes, and tradeoffs associated with inclusionary zoning and aims to provide policymakers with a better understanding of IZ's impact on housing affordability, integration, and the broader housing market. The first part of this report provides an assessment of current affordability challenges with a focus on the City of Rockville. The report then moves to an overview of IZ programs on a national and regional scale. This section is followed by a discussion of IZ's cost and impact on developers, market-rate housing consumers, and local governments. The report concludes with findings on IZ's potential to improve economic and racial integration within communities.

Housing Affordability

Housing affordability is a unique challenge because it is not exclusively a housing problem; it encompasses both housing cost and income. A standard measure of housing affordability looks at how much an individual spends on housing relative to their income. An individual who spends 30 percent or more on housing is typically considered "cost burdened."[1] The measure is relatively straightforward for renters—it is simply the ratio of rent and utility costs to income—but calculating the cost of homeownership becomes more difficult when you begin to account for tax preferences and capital appreciation on top of mortgage payments, property taxes, and other expenses. Additionally, homeowners with long-term, fixed-rate mortgages are sometimes willing to accept a high cost-burden in the short term if they expect their income to increase at a faster rate than their housing expenses (Quigley & Raphael, 2004). Despite the imperfections of this measurement, it is still a widely accepted method for assessing housing affordability (Schwartz, 2021).

Harvard's Joint Center for Housing Studies publishes the most comprehensive assessment of housing affordability in their annual report, *The State of the Nation's Housing*. The Center's recent report reflects significant and growing affordability challenges across the United States (Joint Center for Housing Studies, 2024). Between 2019 and 2022, the number of cost-burdened homeowners grew by nearly 3 million, representing almost one in four homeowners. Renters face an even more challenging market. As of 2022, the number of cost-burdened renters was at the highest point in history, with half of all renters facing such costs. Likewise, the number of severely-cost-burdened renters—those spending more than half of their income on housing—also hit a record high in 2022. Notably, the study also found that cost-burden rates are disproportionately high for lower-income renters of color, even after controlling for racial income inequality.

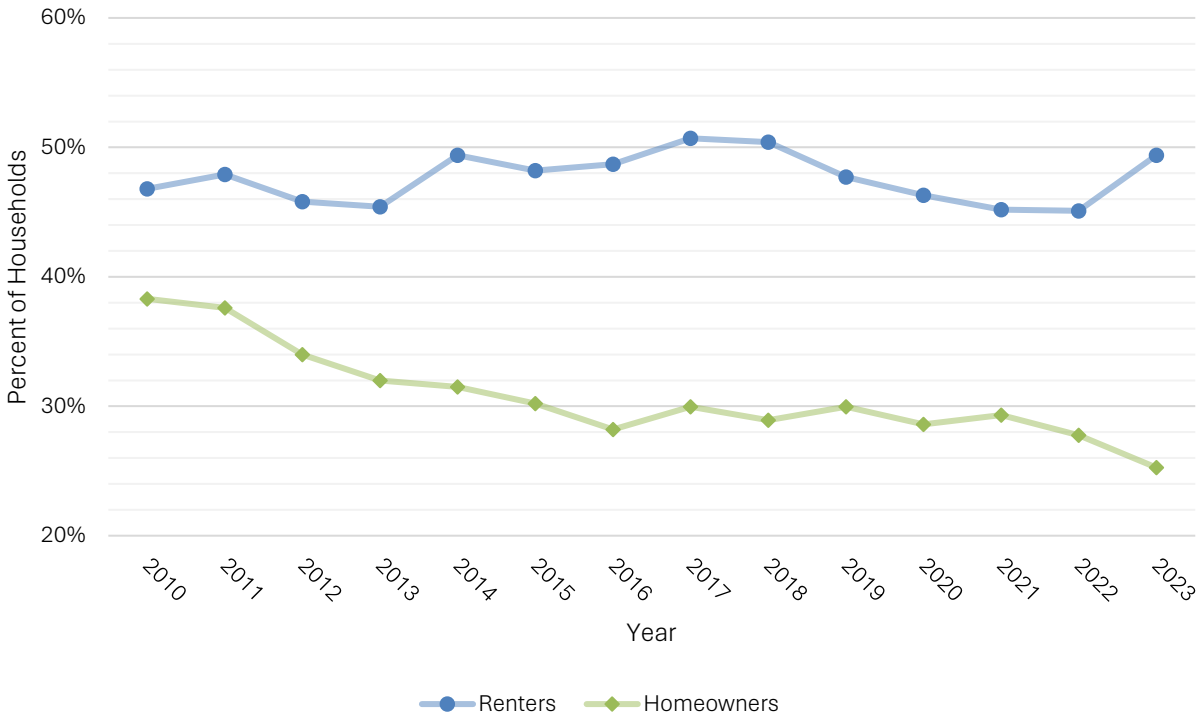
Cost Burdens in the City of Rockville

Data from the American Community Survey reflect similar cost-burden trends for renters and homeowners in Rockville, Maryland (see Figure 1). The share of cost-burdened homeowners with a mortgage declined steadily between 2010 and 2023, roughly following national trends (McCue, 2025). The steady decline from 2010 to 2016 for homeowners largely reflects the

[1] The threshold that defines someone as cost burdened has no intrinsic meaning (Schwartz, 2021). Prior to the 1980s, 25 percent was the accepted threshold.

market recovery following the mortgage crisis and economic recession of the mid-2000s. Between 2010 and 2023, the percentage of households spending 30 percent or more of their income on rent has remained between roughly 45 and 50 percent. This rate decreased slightly from 2019 to 2023 but began increasing again in 2023, possibly reflecting the expiration of COVID-19 support programs.

Figure 1: Cost-Burdened Households in Rockville, MD, 2010-2023



Source: Author
Data: U.S. Census Bureau, U.S. Department of Commerce. American Community Survey, ACS 5-Year Estimates Data Profiles, Table DP04 and Table S2506, 2010-2023.

Housing Gap Analysis

Another way to measure housing affordability is to estimate how many affordable homes are available to various income groups. Gap analysis reflects the surplus or deficit of homes for each income group. The housing gap analysis displayed in Table 1 and Table 2 was completed using data from the U.S. Department of Housing and Urban Development's Comprehensive Housing Affordability Strategy (CHAS) dataset. Table 1 is an analysis of renter-occupied units and Table 2 looks at owner-occupied units.

The housing gap analysis for renters in the City of Rockville reflects a severe shortage of units affordable to low-income households, particularly those earning less than 30 percent of the area median income (AMI) (See Table 1). There are an estimated 2,389 renter households in Rockville with an income less than 30 percent of the AMI (column A), yet there are only 1,065 units that would be affordable to this group within the city (column D). Once the number of affordable units that are occupied by households with an income *above* 30 percent of the AMI (column G) is accounted for, the gross deficit of affordable units for this income group increases to -1,642 units (column I). The gross deficit of affordable rental units for households with an income greater than 30 percent and less than or equal to 50 percent of the AMI (>30% AMI and ≤50% AMI) shrinks to -673 units. For households with an income greater than 50 percent and less than or equal to 80 percent of the AMI (>50% AMI and ≤80% AMI), estimates suggest a surplus of 341 affordable rental units.

Table 2 reflects similar affordability trends for owner-occupied housing. For households with an income less than or equal to 50 percent of the AMI (≤50% AMI), there is a gross deficit of -1,537 affordable homes. The deficit shrinks to -675 for households with an income greater than 50 percent and less than or equal to 80 percent of the AMI (>50% AMI and ≤80% AMI); it shrinks further to -198 for households with an income greater than 80 percent and less than or equal to 100 percent of the AMI (>80% AMI and ≤100% AMI). Like many rental units in the city, a significant number of homes affordable to low- and moderate-income households are occupied by higher-income households.

Table 1 and Table 2 reveal the largest housing gaps for households with the lowest income, which mirrors both national and statewide trends in Maryland (National Low Income Housing Coalition, 2024). Another notable finding is the surplus of rental units for households making between 50 and 80 percent of the AMI. The City of Rockville's inclusionary zoning policy and other programs designed produce affordable housing, such as the Low-Income Housing Tax Credit program, contribute to the surplus of units. While acknowledging the contributions of these programs, Furth and Hamilton (2024) also point out that roughly a third of all new rental units are affordable to households earning 60 percent of the AMI in the Washington DC and Baltimore metro area, the majority of which are market-rate. For example, they find that the typical renter household in Montgomery County, Maryland, living in a unit built since 2010 has a total housing cost that is affordable to a household earning 54 percent of AMI (Furth &

Hamilton, 2024). Furth & Hamilton's (2024) findings are consistent with national studies that find that moderate-income renter households face a far smaller shortage of affordable units compared to lower-income households (National Low Income Housing Coalition, 2024).

Several factors contribute to the lack of affordable units. For the lowest-income renters, it fundamentally reflects the inability of the private housing market to build and maintain low-cost housing without public subsidy (Schwartz, 2021). Schwartz (2021) also views wage stagnation, widening economic inequality, reductions in federally subsidized housing stock, and burdensome government regulations as contributors. Homeowners face similar income challenges in addition to increasingly high home prices, mortgage rates, insurance premiums, and property taxes (Joint Center for Housing Studies, 2024). To address these challenges, many localities have implemented inclusionary zoning policies. The design, outcomes, and tradeoffs of inclusionary zoning will be discussed in the remaining sections.

Table 1: Housing Affordability Gap Analysis for Renter-Occupied Units in Rockville, MD

Housing Affordability Gap Analysis, Rockville, MD
CHAS, 2017-2021

Renters	A	B	C	D = B+C	E = D-A	F	G	H = G/D	I = E-G
	Renter HHs Within Income Limits*	Renter Occupied Units by Affordability Level *	Vacant for Rent *	Total Units	Surplus / Deficit	Units Occupied by HH Within Income Limits *	Units Occupied by HH Above Income Limits *	% Units Occupied by HH Above Income Limits	Gross Surplus / Deficit
HH Income									
≤ 30% AMI	2,389	1,045	20	1,065	-1,324	735	318	30%	-1,642
> 30% AMI and ≤ 50% AMI	1,295	730	65	795	-500	175	173	22%	-673
> 50% AMI and ≤ 80% AMI	1,169	2,390	90	2,480	1,311	465	970	39%	341

Source: Author
Data: 2017-2021 HUD CHAS data for Rockville, MD.
URL: http://www.huduser.org/portal/datasets/cp.html
Tables: 17A, 17B, 18A, 18B, 18C
** Data taken from CHAS*

Table 2: Housing Affordability Gap Analysis for Owner-Occupied Units in Rockville, MD

Housing Affordability Gap Analysis, Rockville, MD
CHAS, 2017-2021

Owners	A	B	C	D = B+C	E = D-A	F	G	H = G/D	I = E-G
HH Income	Owner HHs Within Income Limits *	Owner Occupied Units by Affordability Level *	Vacant For Sale *	Total Units	Surplus / Deficit	Units Occupied by HH Within Income Limits *	Units Occupied by HH Above Income Limits *	% Units Occupied by HH Above Income Limits	Gross Surplus / Deficit
All Mortgages									
≤ 50% AMI	1,897	744	40	784	-1,113	328	424	54%	-1,537
> 50% AMI and ≤ 80% AMI	920	614	55	669	-251	20	424	63%	-675
> 80% AMI and ≤ 100% AMI	1,028	2,105	10	2,115	1,087	255	1,285	61%	-198
With a Mortgage									
≤ 50% AMI	938	369	-	-	-	89	290	-	-
> 50% AMI and ≤ 80% AMI	625	285	-	-	-	20	180	-	-
> 80% AMI and ≤ 100% AMI	710	1,675	-	-	-	215	1,100	-	-
Without a Mortgage									
<= 50% AMI	959	375	-	-	-	239	134	-	-
> 50% AMI and ≤ 80% AMI	295	329	-	-	-	0	244	-	-
> 80% AMI and ≤ 100% AMI	318	430	-	-	-	40	185	-	-

Source: Author

Data: 2017-2021 HUD CHAS data for Rockville, MD.

URL: http://www.huduser.org/portal/datasets/cp.html

Tables: 17A, 17B, 18A, 18B, 18C

** Data taken from CHAS*

Inclusionary Zoning

Inclusionary zoning (IZ) is used by localities to expand the supply of affordable housing and increase access to high-cost and high-opportunity neighborhoods. An IZ ordinance typically either requires or encourages developers to designate a portion of new housing units to be priced below market rate. While programs vary widely between jurisdictions, Schwartz (2021) points out the key dimensions that IZ programs share:

- *Set-aside requirements*. Most programs require 10 to 20 percent of units within a proposed development to be made affordable to low- or moderate-income households.
- *Developer incentives*. Developers are often compensated for setting a portion of units below market price. The most common incentive is a density bonus, whereby developers are permitted to build additional market-rate units beyond what is allowed under the zoning code. Other incentives include waivers of various fees, reduced parking requirements, less stringent design standards, and expedited review and processing of applications.
- *Strength of requirements*. Some jurisdictions have optional programs while others are mandatory.
- *Income targeting*. Most programs have specific income parameters for renters and purchasers of IZ units. Income minimums and maximums range from as little as 50 percent of the area median income to more than 120 percent. Limits tend to be higher for homeownership programs than for renter programs.
- *Affected projects*. The types of developments subject to IZ requirements differ widely by program. Some programs may apply only to developments above a certain size, and others may apply specifically to rental or homeowner developments.
- *Options for off-site development and in-lieu fees*. Many IZ programs have alternative compliance options. Under certain conditions, developers may be permitted to build affordable units off-site, pay fees in lieu of building affordable units, or rehabilitate existing units.
- *Duration of affordability*. IZ programs typically stipulate the length of time that IZ units must remain affordable. It is common for affordability periods to extend 10 to 30 years. Under some programs, the affordability period restarts when a unit is sold.

Inclusionary zoning policies are typically adopted in places with stronger housing markets, characterized by high median housing costs and low vacancy rates (Wang & Balachandran, 2023).

A National Picture of Inclusionary Zoning Programs

Between 2018 and 2019, Wang & Balachandran (2021) conducted the largest survey of inclusionary zoning programs to date. In their survey, an IZ program was defined as "a set of rules or a government initiative that encourages or requires the creation of affordable housing units or the payment of fees for affordable housing investments when new development occurs" (Wang & Balachandran, 2023). The study identified IZ programs in 734 jurisdictions spanning across 31 states, three-quarters of which were in New Jersey, Massachusetts, and California. The survey found that the number of IZ programs has significantly increased over time, although growth has been somewhat slower since 2010. Two in five programs received major updates within three years of the survey, reflecting the evolving nature of many policies.

Of the total 1,019 IZ Programs in the survey, 685 (or 67 percent) were "traditional programs"—those that were either mandatory or voluntary and produced inclusionary units on- or off-site, or programs that accepted in-lieu fees (Wang & Balachandran, 2023). The remaining 334 (33 percent) "linkage/impact fee" programs generated fees for the development of affordable housing from commercial development, residential development, or both. Of the 652 programs that reported an on-site option, the average set-aside requirement was 16 percent. Most programs targeted low-income households with annual incomes between 50 and 80 percent of the AMI—87 percent of rental programs and 75 percent of for-sale programs. The survey also found that 93 percent of programs have affordability requirements that last longer than 30 years. Most IZ programs also offered some kind of incentive to reduce the financial impact of providing inclusionary units. The most popular incentives included density bonuses (57 percent), other zoning variances (24 percent), fee reductions/waivers (17 percent), and expedited permitting (13 percent).

Measuring inclusionary zoning outcomes on a national scale is difficult given the lack of available data. In Wang & Balachandran's (2021) sample of traditional IZ programs, only 57 percent reported having tracking systems in place to measure inclusionary unit production and fees generated by IZ programs. Based on available data, Wang & Balachandran (2021) found that IZ programs across the nation produce an average of 27 affordable units per year

and a median of five units. Out of the 383 programs that tracked unit outcomes, 125 (33 percent) reported that no units had been created since program adoption. Notably, the national total of inclusionary units is likely higher because programs without unit counts were disproportionately located in regions where inclusionary production was relatively high. The survey also did not capture units created by fee-based IZ policies and only included "on the book" programs, not those produced through ad hoc negotiations (Wang & Balachandran, 2023).

Inclusionary Zoning Programs in the City of Rockville and the Region

In 1990, the City of Rockville established City Code Chapter 13.5, titled "Moderately Priced Housing," establishing the Moderately Priced Dwelling Unit (MPDU) program. The MPDU program is divided into a homeownership and rental program, which both have distinct eligibility requirements and application processes. Rockville has made significant revisions to the MPDU program in recent years. In 2021, the city increased the control period for rental MPDUs from 30 to 99 years and increased the set-aside requirement across all eligible developments from 12.5 to 15 percent. The city also decreased the threshold that triggers IZ requirements from developments of 50 or more units to those with 20 or more units in 2024.

The City of Rockville's MPDU program is aligned with inclusionary zoning programs in surrounding jurisdictions with a few exceptions. Rockville's MPDU program applies to any project planning to construct or develop 20 or more housing units, which is equal to the IZ programs in Montgomery County, Maryland, and the City of Gaithersburg. Other surrounding jurisdictions have higher thresholds ranging from 24 to 50 units. The minimum set-aside requirement in Rockville is 15 percent of the total units, which is higher than all other programs in surrounding jurisdictions. Like many other programs, Rockville offers an optional density bonus that is available to developments in residential-medium-density zones (RMD-10, RMD-15, and RMD-25) that provide a higher percentage of MPDUs than is required. The density bonus ranges from zero to 22 percent on a sliding scale based on the percentage of MPDUs provided. Most surrounding jurisdictions offer an optional density bonus, although they differ in the types of variances allowed to achieve bonus density—e.g., floor area ratio, height, setbacks, lot width, lot coverage, parking requirements. Developers in Rockville and in surrounding jurisdictions, typically, must provide more than the minimum percentage of below-market-rate units to be eligible for density bonuses. New MPDUs in Rockville have

affordability covenants that extend 30 years for owner-occupied units and 99 years for renter-occupied units. This control period matches Montgomery County's control period; however, most other programs have control periods on for-rent units that extend 30 to 40 years. See Table 3 for a summary of inclusionary zoning programs in surrounding jurisdictions.

Since its adoption in 1990, the City of Rockville's MPDU program has produced 992 rental and 472 for-sale MPDUs. From 2000 to 2024, the program produced an average of 40 rental and 19 for-sale MPDUs annually (see Figure 2).[2] For-sale MPDU production peaked in 2003 with 149 units sold. Between 2011 and 2019, zero for-sale MPDUs were sold. Rental MPDU production peaked in 2015 with 224 rental MPDUs added. The net total is slightly lower with 883 rental units and 447 for-sale units (see Figure 3).[3] Projects currently under construction in Rockville are expected to add 68 rental and 93 for-sale MPDUs.

[2] Zero MPDUs were produced from 1990 to 1999. Because of entitlement and construction, it is not uncommon for new programs to produce no units in the first few years following adoption.
[3] The net total reflects the number of new units less the number units with expired affordability covenants.

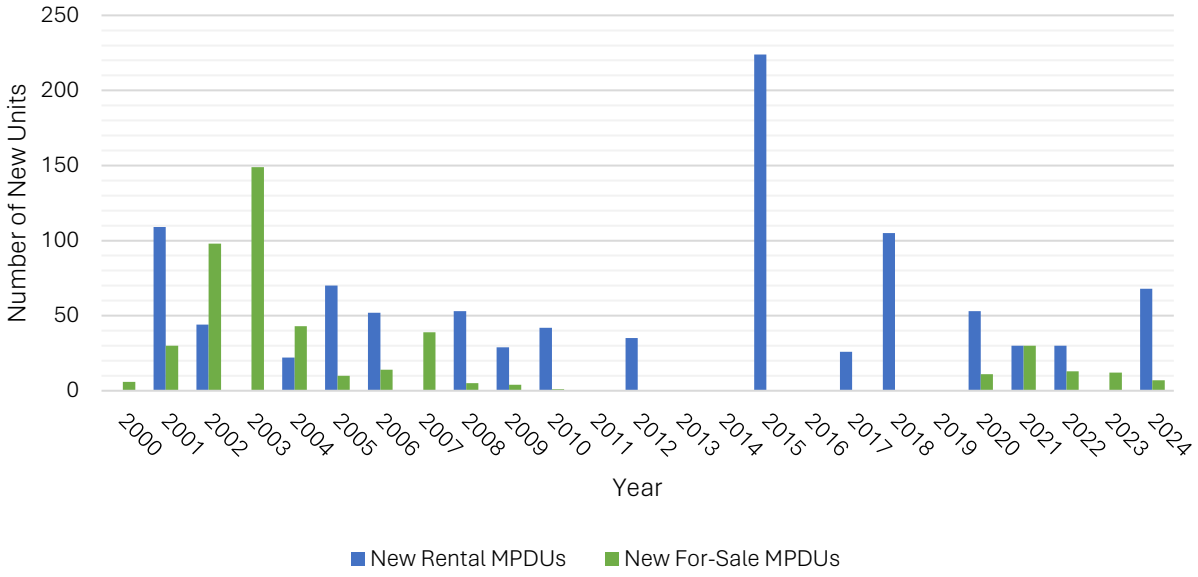
Table 3: Summary of Inclusionary Zoning Programs in the Region

Jurisdiction	Minimum Set-Aside	Threshold	Developer Incentives	Income Targeting	Alternative Compliance Options	Affordability duration
City of Rockville, MD	15%	20 or more units	Optional density bonus	Rental units: 60% AMI For-sale units: 50-80% AMI	Off-site development, land transfers, or contribution to housing trust fund (or any combination of the three). Must result in "significantly more" MPDUs	For-rent units: 99 years For-sale units: 30 years
Montgomery County, MD	12.5%	20 or more units	Optional density bonus, additional dwelling unit types, reduced area and dimensional requirements	Up to 70% of AMI	Off-site development, land transfers, or in-lieu payments, conditioned on approval	For-rent units: 99 years For-sale units: 30 years
City of Gaithersburg, MD	7.5-15%	20 or more units	None	Rental units: 50-80% of AMI For-sale units: up to 120% AMI	Only when, in for-sale, a project is determined to be unaffordable for purchasers. In this case a fee would be required.	30 years
City of Frederick, MD	12.5%	25 or more units	Optional density bonus, height exceptions	30-80% AMI	In-lieu payments (no approval necessary)	40 years
Frederick County, MD	12.5%	25 or more units	Optional density bonus	Rental units: 60-80% AMI For-sale units: 70-90% AMI	Off-site development, contribution to housing fund, or any combination that results in 10% more MPDUs. In-lieu payments (by right)	40 years
Howard County, MD	10-15%	Unknown	None	Rental units: up to 60% AMI For-sale units: up to 80% AMI	Off-site development, Moderate Income Housing rehabilitation, mixed-income development	For-rent units: in perpetuity For-sale units: Unknown

Loudoun County, VA	10-15%	24 or more units	Optional density bonus	Rental units: 30-50% AMI For-sale 30-70% AMI	In-lieu payments for single-family dwelling developments	30 years
City of Fairfax, MD	6-10%	30 or more units	Optional density bonus	Rental units: up to 60% AMI For-sale units: up to 70% AMI	Land-transfers or contribution to housing fund, conditioned on approval	For-rent units: 30 years For-sale units: 30 years
Fairfax County, VA	8-12%	50 or more units	Optional density bonus	ADUs: 50-70% AMI WDUs: 60-120% AMI	Land-transfers or contribution to housing fund, conditioned on approval	AUDs: 30 years WDUs: 50 years
City of Falls Church, VA	0%	Optional	Optional density bonus	Rental units: up to 60% AMI For-sale units: 50-80% AMI	In-lieu payments in exchange for density bonus	For-rent units: 20 years For-sale units: 15 years

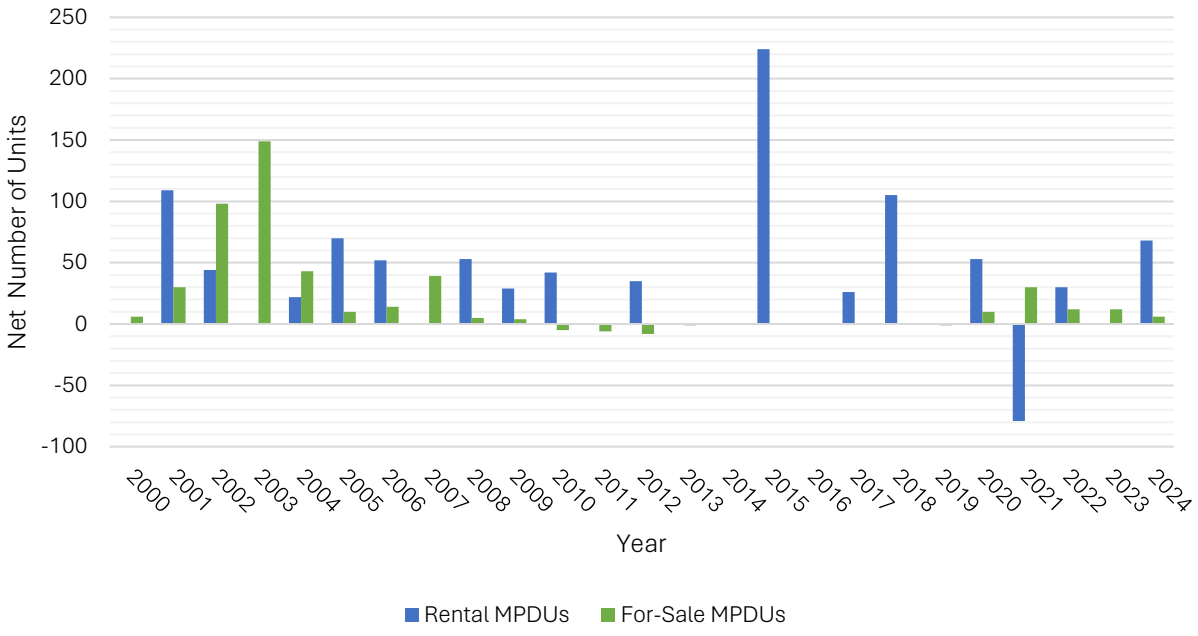
Source: Author

Figure 2: Number of MPDUs Produced Per Year in Rockville, MD, 2000-2024



Note: Years 1990 to 1999 are omitted as no MPDUs were produced during the period.
Source: Author
Data: Rockville, Maryland, Department of Housing and Community Development

Figure 3: Net Number of MPDUs per Year in Rockville, MD, 2000-2024



Note: Years 1990 to 1999 are omitted as no MPDUs were produced during the period.
Source: Author
Data: Rockville, Maryland, Department of Housing and Community Development

General Effectiveness of Inclusionary Zoning

Given the variation in IZ program design, it is often difficult to generalize about what dimensions have the greatest effect on the production of inclusionary units. Additionally, program outcomes are also dependent on local economic and housing market conditions and the specific state and local regulatory frameworks.

Sturtevant (2016) used several descriptive reports and case studies to highlight what factors tend to be associated with successful inclusionary zoning programs. The author found that (1) inclusionary zoning programs work best in strong housing markets. The logic behind this finding is straightforward: the production of inclusionary units is tied to the market-rate housing development. Without market-rate construction, there is no inclusionary unit production. (2) Mandatory IZ programs tend to work better than voluntary programs. The author found that mandatory programs produce more inclusionary units, but optional programs were also found to be successful if they offered appropriate incentives. (3) Effective inclusionary zoning programs include incentives that offset the cost to developers. A common criticism of inclusionary zoning is that it creates additional costs for developers that in turn lowers market-rate housing production (the topic of the following section). Incentives or offsets—density bonuses, modified development standards, fee waivers, expedited approvals—can counterbalance the cost of suppling inclusionary units. (4) Predictable programs with clear guidelines are most effective. Ad hoc policies and negotiations likely hinder inclusionary unit production. Housing developers rely on a predictable set of rules as they create pro formas, seek financing, and analyze market demand. Lastly, (5) successful inclusionary zoning policies have flexible compliance options. Flexible options help improve project feasibility by offering a variety of methods to meet affordability obligations.

Wang & Fu (2022) provide the most comprehensive empirical study of the relationship between program design and inclusionary unit productivity by utilizing data from Wang & Balachandran's (2021) national survey combined with U.S. Census data. The study found that rental policies, policies with more complex income requirements, and policies with more compliance options were associated with higher average annual inclusionary unit production. Against the authors' expectations, as inclusionary unit production went up, the minimum set-aside requirement trended downward. The study found no relationship between the length of the affordability term (control period) or whether a policy is mandatory on production. Wang &

Fu (2022) caution against drawing conclusions about what features are “best” given that the study did not focus on how policy features affect individual policies and encourage policymakers to consider local policy objectives, housing market conditions, community preferences, and their broader regulatory and political environments.

Others have sought to analyze specific program dimensions. Phillips (2024) used simulations to estimate potential IZ unit production in Los Angeles, California, based on different IZ set-aside requirements. The author modeled scenarios ranging from a 0 to 40 percent IZ requirement while also accounting for modest developer incentives. Simulations showed a quick rise in inclusionary unit production from 0 percent to around 10 percent, and continued growth (at a decreasing rate) until about 25 percent, at which point inclusionary unit production began to decrease. Because this is only a simulation based on a specific program and housing market, actual IZ unit production in other places will vary from the simulations. Nevertheless, the overall shape of the production curve likely remains constant across programs.

Schuetz et al. (2011) examined programs in the San Francisco, California, and Boston, Massachusetts, areas and found a positive association between less restrictive IZ programs and inclusionary unit production. Based on regression estimates, the number of inclusionary units built increased as the minimum project size that triggered IZ increased. Additionally, programs that offered density bonuses were associated with higher inclusionary unit production. Dawkins et al. (2017) also found evidence that developers may respond to lower IZ trigger thresholds by proposing smaller developments, thereby avoiding IZ requirements.

Inclusionary zoning programs vary significantly in terms of design and outcomes. The evidence presented here reflects the importance of tailoring IZ to local conditions and policy goals. It also suggests that policymakers ought to carefully assess the impact of IZ on developers and search for ways to mitigate overly burdensome costs. Failure to properly design an IZ program can lead to low inclusionary unit production and has the potential to increase overall housing costs. The next section looks at how IZ programs can lead to higher housing costs and analyzes how costs are borne by developers, market-rate housing consumers, and local governments.

Economic Effects of Inclusionary Zoning on Local Housing Markets

When evaluating inclusionary zoning policies, it is important to consider their broader impact on local housing markets and the production of market-rate units. There is a longstanding argument that inclusionary unit requirements raise the cost of housing development—what has been dubbed the "IZ tax" (Ellickson, 1981). Developers might absorb the IZ tax (Padilla, 1995) or pass on the cost to market-rate consumers (Ellickson, 1981), but if the costs are too high, projects may simply become infeasible. While this concern has garnered considerable attention, the arguments made have been largely theoretical and empirical studies on the subject have found mixed results (Ramakrishnan et al., 2019). Few, if any, authors refute the fact that providing below-market-rate units has a cost; the challenge is identifying how the cost is distributed among developers, market-rate housing consumers, and local governments (Wang et al, 2025).

Developers

Inclusionary zoning policies leverage new market-rate development to deliver affordable housing. Because IZ policies both depend on and influence market-rate development, understanding the factors that determine development feasibility in the private market is crucial to designing an effective IZ policy. The so-called "Five L's" of development associated with project feasibility are Labor, Land, Lumber, Laws, and Lending. This section explores these categories as they pertain to inclusionary zoning and explains how each category may influence a developer's decision to pursue a project.

Labor**.** The labor market for housing construction is a highly competitive industry (Gyourko, 2009). As the price of labor is largely driven by the market, more expensive localities with higher living costs will also have higher labor costs (Phillips, 2020). There is also a notable shortage of skilled construction labor across the United States, which increases costs further (Huang, 2024). This shortage of labor is driven by the industry's inability to attract and retain young people, women, and people of color, as well as the decline in new immigrant trade workers. Inclusionary zoning policies are unlikely to change the price that developers must pay for labor.

Land. What a developer is willing to pay for land—the "market value of land" or the "residual land value"—is determined by how much a developer can afford to spend after deducting costs from the expected value of the completed project (Garcia et al., 2023; Phillips, 2020).[4] For example, if a project is expected to sell condos for a gross price of $5 million and incur costs worth $3.5 million, the most a developer could spend on land is $1.5 million. Local zoning policy can have a significant impact on the projected revenue and cost of development and, thus, the amount a developer can pay for land. Take the previous example and assume an IZ program with no developer incentives requires a portion of the condos to be sold below-market price, reducing the total sale price to $4.5 million. Applying the same logic as before (completed project value – costs = residual land value), a developer can now only afford to spend $1 million on land, assuming market-rate condo prices and project cost remain constant. In some cases, the landowner might accept a lower price for the property, but they might also hold on to the property in the hopes of a larger return in the future.

Many IZ programs offer a density bonus to enhance development feasibility and mitigate the cost of providing affordable units. A density bonus can be structured several different ways: Jurisdictions may calculate the increase as a multiple of the floor area ratio, permit a larger number of units in a building or development site, provide a height allowance or exemption, reduce open space requirements, provide flexible design standards and site requirements, reduce the required number of parking spaces, or any combination (Local Housing Solutions, 2021a). These bonuses can generate a higher gross sale price or gross rent and yield a higher residual land value (Williams et al., 2016).[5]

The effectiveness of a density bonus can vary significantly based on market conditions. Generally, density bonuses tend to only be effective where there is high market demand and where density is a limiting factor on production (Local Housing Solutions,

[4] In the residual land value model, the minimum level of profit needed to attract financial investment is included as a cost.

[5] The increase in land value created by allowing higher density development should not be misinterpreted as making housing on those parcels less affordable. In this case, it is not the total land value that matters but the total land value divided by the total number of housing units (Phillips, 2020). Put differently, a $500,000 piece of land with one dwelling unit will likely provide less affordability than a $1 million parcel with four dwelling units.

2021a; Williams et al., 2016). Stated differently, additional units are only useful if they are likely to be rented or sold. Policymakers must also account for the fact that not all types of density bonuses provide the same level of benefit, and that increasing density may actually increase costs to such a degree that a project becomes infeasible. Eriksen & Orlando (2022) explored vertical returns to scale in residential construction—that is, the marginal cost of building additional stories. The researchers modeled the cost of constructing buildings of various heights in the 50 largest US cites and found nonlinearities in building costs. Overall, the marginal cost of adding an additional story is small and negative; however, moving from a three-story building to a four-story building has an estimated marginal increase of 8% and moving from seven to eight stories had an estimated marginal increase of 32%. A conclusion that can be drawn from this study is that granting an additional story, or two or three, as an IZ bonus may not change the residual land value or the financial feasibility of a project. Likewise, if building at a higher density means providing additional parking, the costs associated with doing so may be prohibitively high (Williams et al., 2016). For a density bonus to be effective, a jurisdiction needs to consider various building costs in addition to other factors—such as the depth of affordability for IZ units and set-aside requirements—to ensure the bonus will provide a sufficiently large incentive to generate affordable units (Local Housing Solutions, 2021a).

Lumber. Lumber refers to all materials that are needed for construction of a building. Inclusionary zoning programs, and municipalities more broadly, have little influence over the cost of building materials (Phillips, 2020). Municipalities, however, can sometimes influence *what* building materials must be used through local building codes and design standards. Some IZ programs require inclusionary units to be identical in every respect to market-rate units, even if that means installing granite countertops and luxury appliances (Jacobus, 2015). Less stringent design standards may reduce some material costs. [6] As many municipalities look to adopt sustainable

[6] This is not to say that inclusionary units should not adopt any design standards. In fact, it is recommended that jurisdictions adopt building design standards to avoid stigmatizing residents of affordable units. This may include requiring inclusionary units to be equitably distributed throughout a development; requiring inclusionary units be indistinguishable (externally) from market-rate units; or mandating that inclusionary units share the same entrances, common areas, and amenities. See Reyes & Khare (2021) for best practices to advance racial equity in inclusionary zoning programs.

practices, many have also established "green building" codes that seek to minimize the environmental impact of building construction and operation (Clark, 2021). Green building codes may bring savings in the long-run, but they often require additional up-front costs and can take longer to construct than conventional buildings (Fischhoff, 2020). Indeed, research has found that green building requirements are associated with an increase in home prices and a decrease in home production in some markets (Muzio et al., 2023). Policymakers may need to consider the tradeoffs between sustainability goals and housing affordability and seek out policies that align with both community needs (e.g., a tax subsidy for green building projects that provide affordable housing).

Laws**.** Law refers to the regulatory process for obtaining development approval. The length of the entitlement process can have a significant impact on project cost and feasibility (Long, 2011). A longer process requires more at-risk capital to be outstanding for a longer period, and adjustments to the proposed development during the process can also affect a project's value and cost. Uncertainty created by discretionary or slow approval increases the risk of losing predevelopment capital and leads developers to demand larger profit margins (Phillips, 2020). In the past, developers in Montgomery County, Maryland, claimed that addressing MPDU requirements added length and complexity to the development review process, although this was not found to be the case for other programs in the region (Levy et al., 2012).[7] In some jurisdictions, IZ projects qualify for expedited entitlement, which offsets some of the cost of providing inclusionary units and speeds up development. Expedited entitlement can be a valuable benefit, particularly in jurisdictions with lengthy processes, but it is unlikely to encourage affordable unit production as a stand-alone incentive (Local Housing Solutions, 2021b). Policymakers and program administrators should consider the potential impacts of administrative burden on developers, as poorly designed programs can slow development and impose additional costs.

[7] Montgomery County has since made significant process improvements and reduced the permitting timeline for developers. See Burnett & Morrill (2015) for an in-depth look at the changes put in place by the county.

Lending. To cover the construction cost of a multifamily project, developers must finance their costs with a combination of debt and equity. Short- and long-term loans (debt), typically issued by banks, provide the bulk of project financing in many cases. These loans carry interest rates that vary with the market cycle. When lenders examine the risk associated with issuing a loan to a developer, they often focus on the debt service coverage ratio (DSCR) (Garcia et al., 2023). The DSCR is calculated by dividing a project's expected net operating income (NOI)[8] by the anticipated loan payment. A DSCR of 1.0, for example, indicates that the project anticipates having exactly enough income to cover its loan payments. IZ affordability requirements effectively lower a project's expected NOI by lowering its income from rent. A lower NOI means that lenders are likely to offer a smaller loan to IZ projects compared to projects with no affordability restrictions (Urban Institute, 2016).

Absent any government subsidies, the remaining gap in financing left by loans (debt) must be filled by equity, which comes from project investors as well as a small amount provided by the developer. Investors consider housing development to be a riskier investment than stocks or bonds and demand high returns as a result (Garcia et al., 2023). Equity investors may include private equity investment firms, insurance companies, foreign capital, and the pension funds of public sector employees. As investors have alternative investment options that may provide higher returns or lower risk, developers must promise returns that are dictated as much by national and global markets as by local markets—it often has little to do with how much profit a developer is expected to make (Garcia et al., 2023). Therefore, a developer's lending costs are essentially fixed to the expected project income and the market demand for real estate investment.

When developers face the reduced economic value of a project due to IZ requirements, they essentially have three options:

- Decline to proceed with the proposed project at the desired location and possibly build in a nearby jurisdiction without IZ (or in a jurisdiction with less stringent IZ requirements);

[8] Net Operating Income (NOI) is defined as project income derived from rents minus expenses of operating the property (i.e. maintenance, leasing, property taxes, legal, staff) before paying debt.

- Attempt to purchase the land for below-market price, which most private property owners are unwilling to agree to;
- Or accept a lower return on the project, which most developers have little to no ability to do (Williams et al., 2016).

Developers can only avoid these options in a scenario in which market-rate units are priced high enough to "cross subsidize" below-market-rate units or instances in which local jurisdictions provide incentives to sufficiently offset the impact of below-market-rate units on development feasibility (Been et al., 2008; Williams et al., 2016).

Market-rate housing consumers

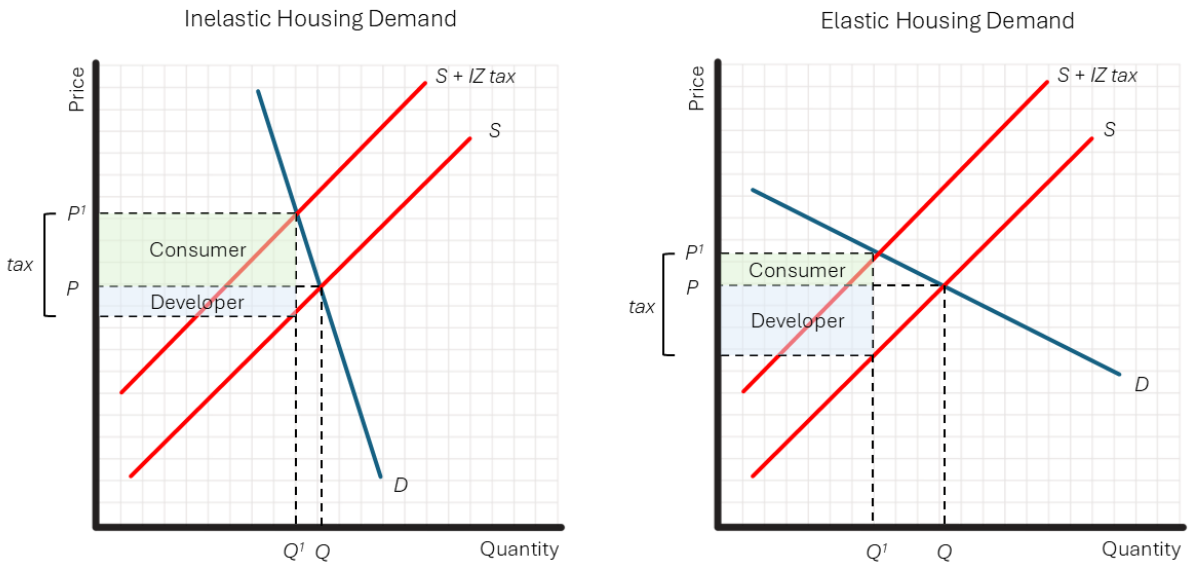
Proponents of inclusionary zoning often argue that developers tend to absorb the cost of inclusionary unit production and cannot pass on the costs to homebuyers or tenants (Jacobus, 2015; Grounded Solutions Network, 2018).[9] The economic theory behind this argument is that market-rate units can only be priced as high as consumers are willing to pay, therefore, developers cannot arbitrarily increase prices to cross subsidize below-market-rate units. This may be true for developers on an individual basis; however, if IZ increases costs for developers across an entire market, economic theory suggest that the consumers' share of the "IZ tax" will be dictated by the price elasticity of housing demand (Hollingshead, 2015).[10] The elasticity of demand for housing can vary by jurisdiction and is influenced by the income and preferences of new households and by the availability of housing alternatives when prices increase locally (Ellickson, 1981; Schuetz et al., 2011). In jurisdictions with inelastic housing demand—where housing alternatives are scarce or where individuals are willing to pay a premium to be located near certain amenities—developers may be more likely to pass the cost to market-rate consumers in the form of higher rents or home prices. Housing demand may be more elastic if there are alternative housing options in nearby markets or if consumers are

[9] This theory supposes that the costs associated with IZ are absorbed by declines in land prices or reductions in developer profits (Jacobus, 2015).

[10] In this context, price elasticity is how much consumers are willing to pay for housing. Price elasticity is a measure of how the quantity demanded of a good or service changes in response to a change in price. Demand is "elastic" if demand changes more than the price (e.g., a 10% price increase leads to a 20% decrease in demand), "inelastic" if demand changes less than the price (e.g., a 10% price increase leads to a 5% decrease in demand), or 'unit elastic' if price and quantity change by the same percent (e.g., a 10% price increase leads to a 10% decrease in demand).

income constrained. Figure 3 illustrates this theory, showing that consumers tend to bear most of the 'IZ tax' when the demand for housing is inelastic and less when demand is elastic.

Figure 3: Relative Burden of an "IZ Tax" by Price Elasticity of Demand



Source: Author

Others suppose that IZ programs have the potential to increase market-rate prices across the market, not on an individual-building level, if IZ requirements reduce the aggregate market-rate housing supply (Phillips, 2024). Simply put, if IZ programs produce fewer market-rate units than would be produced in the absence of IZ, prices across the market would be expected to increase. This would worsen affordability for all renters and buyers, not just people moving into new homes.

Research findings on IZ's impact on market-rate housing production are mixed. Schuetz et al. (2011) found a slight decrease in housing starts in Los Angeles, California, but no significant effect in Boston, Massachusetts. Bento et al. (2009) found a slight increase in multifamily production and no impact on single-family starts in California. Hamilton (2021), Mukhija et al. (2010), and Wang et al. (2025), each failed to find any significant impact on new housing starts.

Many studies find an association between IZ and higher market-rate home prices (Bento et al., 2009; Hamilton, 2021; Means & Stringham, 2012; Schuetz et al., 2011; Wang et al., 2025). Hamilton (2021) found that for each additional year a mandatory IZ program is in place, home

prices can be expected to increase on a per-square-foot basis by 1.1 percent, but did not observe any price increases for optional IZ programs in the Baltimore-Washington DC region.[11] Bento et al. (2009) found that IZ programs raise home prices by roughly 2.2 percent with greater increases in higher priced housing markets in California. Wang et al. (2025) found that more stringent IZ policies had greater price effects than less stringent policies with 3.0 percent and 2.1 percent increases, respectively. A summary of research findings is presented in Table 4. One should be cautious when drawing conclusions from these studies given the differing program designs, methodologies employed by researchers, and timings of the studies.

Table 4: Summary of Studies on Market-Rate Home Production and Prices

Study	Geography	New Housing Starts	Home Prices
Means & Stringham, 2012	California	Decrease	Increase
Schuetz et al., 2011	San Francisco metro/Boston suburbs	Mixed	Mixed
Bento et al., 2009	California	Mixed	Increase
Hamilton, 2021	Baltimore-Washington DC region	No effect	Increase
Mukhija et al., 2010	Los Angeles and Orange County, CA	No effect	n/a
Wang et al., 2025	United States	No effect	Increase

There are several indications that market-rate housing consumers in Rockville, Maryland, likely bear some of the cost of IZ. In addition to Hamilton's (2021) study that found evidence of increased home prices within the Baltimore-Washington DC region, economic and market indicators, discussed above, also support the claim. Places in which housing alternatives are limited tend to have more inelastic demand. One proxy for housing alternatives is the vacancy rate, which reflects the proportion of a jurisdiction's housing inventory that is available to be rented or sold. A homeowner vacancy rate of 1 to 2 percent and a rental vacancy rate of around 7 to 8 percent is generally understood to represent a market in which demand for housing matches the supply (Hartwell, 2025). In the City of Rockville, the vacancy rate is estimated at 0.8 percent for owner-occupied units and 3.0 percent for renter-occupied units (ACS, 2023). This means that households looking to buy or rent housing in Rockville have less

[11] Notably, optional IZ programs were also found to produce very few affordable units. Out of all the optional IZ programs in the region—Alexandria County, VA; Charles County, MD; City of Falls Church, VA; Fauquier County, VA; Harford County, MD; St. Mary's County, MD; Talbot County, MD; and the City of Warrenton, VA—only Alexandria and Falls Church, VA, have produced any units (Hamilton, 2021).

bargaining power, giving property owners more leverage to set prices (Phillips, 2015). The Metropolitan Washington Council of Government (2023) estimates that employment in the City of Rockville will increase by 23.6 percent between 2020 and 2050, increasing the demand for housing further. Rockville may also be considered a high-amenity location given its vast park system, high-preforming public schools, and access to public transportation. Some developers' view of IZ further support the economic and market evidence. One developer in Montgomery County, Maryland, remarked that "you lose money on every one of them [MPDUs]" and the market-rate units end up subsidizing the MPDUs (confidential interview cited in Levy et al., 2012). Taken together, this evidence suggests that market-rate housing consumers in Rockville likely bear some of the cost of IZ.

Local governments

Many jurisdictions offer incentives to offset the cost of providing below-market-rate units. As mentioned in the section above, the most common incentive is a density bonus, but other incentives include waivers or deferral of impact fees, tax deferment, expedited permitting, zoning variances, and other regulatory concessions that reduce developers' costs. Financial incentives may also be provided through federal Community Development Block Grants and Home funds or state and local subsidies, such as below-market-rate construction loans and tax-exempt bond mortgage financing (Calavita & Mallach, 2009). While offering incentives has been found to be an effective strategy for increasing inclusionary unit production (Schuetz et al., 2011; Sturtevant, 2016), it creates real costs for the public sector. When jurisdictions grant fee waivers or tax deferrals, for example, revenues that would otherwise go into a city's general fund are redirected to IZ programs. Even seemingly free incentives such as density bonuses may result in increased infrastructure and other public costs (Calavita & Mallach, 2009). Some incentives may also conflict with each other. For example, tax increment financing is used by some jurisdictions to provide capital subsidies to development projects and is funded through property taxes (Williams et al., 2016). Therefore, any reduction in property tax revenue would reduce funds available for capital subsidies. Policymakers ought to carefully weigh the costs and benefits of providing developer incentives and consider how public dollars can best be used to meet affordable housing goals.

Racial and Economic Integration Outcomes

In addition to the affordability goal, inclusionary zoning also seeks to increase racial and economic integration in neighborhoods and communities. This IZ goal has received considerably less research attention as many studies focus on IZ production and housing market impacts. The limited research available indicates that IZ can foster integration and lead to meaningful outcomes, although it is often highly context dependent.

Upward Mobility

Evidence indicates that neighborhoods can have a significant impact on the upward mobility of their residents, particularly on children. Schwartz (2010) examined the performance of elementary school students in public housing in Montgomery County, ranging from very-low-poverty neighborhoods to moderate-poverty neighborhoods.[12] The study found that over a period of five to seven years, children in public housing who attended the school district's most-advantaged schools vastly outperformed children in public housing who attended the least-advantaged schools (Schwartz, 2010). Chetty & Hendren (2015) found similar effects for children using a nationally representative sample. They found that children exposed to better neighborhoods had increased earnings later in life, an effect that compounded with time (Chetty & Henderson, 2018). These studies provide a few examples of the positive outcomes that inclusionary units may be able to provide.

It is important to point out that economic integration and racial integration are not always synonymous, and a city or county can experience one without the other. In Roisman's (2001) review of outcomes in New Jersey and Massachusetts, they found that while inclusionary zoning increased economic integration in suburban communities, in some cases it exacerbated racial segregation as the majority of units went to low-income white households. Roisman (2001) did not find this problem in Montgomery County, Maryland, and believes preferences for applicants who live or work in the county, the lottery system for selecting purchasers of MPDUs, and the fact that a proportion of the units were owned by the public housing authority contributed to the increase in racial integration. Likewise, a jurisdiction may experience racial integration without economic integration. Between 1980 and 2000,

[12] Public housing in this study refers to MPDUs purchased by Montgomery County's public housing authority.

Kontokosta (2016) found that neighborhoods with IZ units in Montgomery County became more racially diverse while income diversity remained relatively constant.

Geographic Integration

Where inclusionary units are located may also influence integration outcomes. In Montgomery County, Maryland, and Suffolk County, New York, Kontokosta (2016) found that neighborhoods most likely to receive IZ units are those that are, on average, more racially integrated at the outset. Greater income integration does not appear to predict whether a neighborhood is likely to receive IZ units (Kontokosta, 2016). Dawkins et al. (2017) also found that for-sale MPDU placement in Montgomery County is tied to the location of where new units are being constructed, which tended to be in suburban areas with large-scale subdivisions, resulting in a large share of for-sale MPDUs being constructed in areas with less access to public transit.

Equity Gains

Many inclusionary zoning programs offer owner-occupied units at a below-market rate. This can offer individuals who have previously experienced barriers to homeownership an opportunity to secure stable housing and build wealth. Dawkins et al. (2017) assessed equity gains of owner-occupied MPDUs in Montgomery County and found that the program enabled low-income homebuyers to realize tangible gains in home equity. The study also found that while MPDU homes did not appreciate as quickly as market-rate housing during the housing boom of the early 2000s, MPDUs saw smaller price declines during the housing bust (Dawkins et al., 2017). The type of inclusionary housing may also influence outcomes as inclusionary units with homeowner association and condominium fees could impose additional costs that preclude otherwise qualified buyers from attaining a unit (Dawkins et al., 2017).

Conclusion

This report has highlighted several aspects of IZ that should be considered when implementing changes to a program. Nevertheless, the scope of this report does not include other important aspects of IZ, such as aligning eligibility requirements with community needs or analyzing outcomes for off-site and payment-in-lieu compliance options.

Policymakers ought to also consider the underlying framework of inclusionary zoning. Contrary to what its name implies, inclusionary zoning does not repeal the exclusionary zoning codes that are largely responsible for the high cost of housing in many cities (Ikeda & Washington, 2015).[13] Fundamentally, inclusionary zoning seeks to capture value created by new development by mandating that a certain portion of new units be affordable. Some have argued that this is a misunderstanding of where value is held in cities. Manville (2021) wrote,

> [C]onventional value capture is completely backward. It targets development, even though the problem it wants to solve is caused by development's absence. It mistakes *development* as the source of value, when the real value in urban areas lies in *land*. By taxing development rather than land, conventional value capture pits two groups of people who by definition ameliorate housing scarcity—developers of market-rate housing and developers of affordable housing—against each other, while quietly protecting, through an implicit subsidy, the vast majority of landholders who are content to let housing scarcity persist. (p. 7)

Manville (2021) further noted that value capture can be an effective tool, but he argued that it is land that should be taxed, not new housing.

Similarly, policymakers should also consider the ways that IZ can, essentially, hold good policy solutions hostage. For example, relaxing parking requirements is an effective IZ incentive because it can significantly reduce the cost of development. If that is the case, one could argue that if more housing is the goal, parking requirements should be relaxed for all developments, not just those that are subject to inclusionary zoning requirements. But if that were to happen, it would no longer be an incentive.

[13] Exclusionary policy includes minimum lot size requirements, height restrictions, multifamily housing bans, and other rules that limit housing supply.

Many communities are seeking creative housing solutions as affordability challenges continue to put financial pressure on households. Inclusionary zoning is one of many potential tools, but policymakers and program administrators must recognize that IZ will not solve a city's housing problems on its own. A broader strategy that addresses housing supply constraints and the preservation of affordable housing is necessary.

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