The Economics of Inclusionary Development







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- Bringing together leaders from across the fields of real estate and land use policy to exchange best practices and serve community needs;
- Fostering collaboration within and beyond ULI's membership through mentoring, dialogue, and problem solving;
- Exploring issues of urbanization, conservation, regeneration, land use, capital formation, and sustainable development;
- Advancing land use policies and design practices that respect the uniqueness of both the built and natural environments:
- Sharing knowledge through education, applied research, publishing, and electronic media; and
- Sustaining a diverse global network of local practice and advisory efforts that address current and future challenges.

Established in 1936, the ULI today has more than 38,000 members worldwide, representing the entire spectrum of the land use and development disciplines. Professionals represented include developers, builders, property owners, investors, architects, public officials, planners, real estate brokers, appraisers, attorneys, engineers, financiers, academics, students, and librarians.

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The ULI Terwilliger Center for Housing conducts research, performs analysis, and develops best practice and policy recommendations that reflect the land use and development priorities of ULI members across all residential product types. The Center's mission is to facilitate creating and sustaining a full spectrum of housing opportunities—including workforce and workforce housing—in communities across the country. The Center was founded in 2007 with a gift from longtime ULI member and former ULI chairman J. Ronald Terwilliger.

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Preface

Even as home mortgage interest rates remain at near-historic lows and multifamily apartment construction reaches near-record highs, millions of working Americans are dealing with serious housing affordability challenges. Nearly 10 million low- and moderate-income working households—one in four working renters and 16 percent of working homeowners—pay more than half their income for housing.1

High housing costs are not only detrimental for families: they are also bad for business and local competitiveness. They make it harder for companies to attract and retain workers or force employers to pay higher wages, which may be passed along to consumers in the form of higher prices. Workers forced to make unduly long commutes between their jobs and where they can afford to live may be less productive and spend less of their income in the community of their employment. Some research even suggests that housing shortages in highly productive cities have reduced the national gross domestic product.2

A growing number of cities are using their zoning authority to increase the development of new workforce housing units. The most widely used zoning approach is inclusionary zoning (IZ). Through IZ, cities require or encourage developers to create below-market rental apartments or for-sale homes in connection with the local zoning approval of a proposed market-rate development project.

Interest in IZ approaches is surging. New York City recently enacted the nation's most far-reaching policy, which is projected to drive development of 12.000 new below-market units over the next several years—substantially more if a recently lapsed tax incentive expected to accompany the program is revived.3 San Francisco voters in June of this year endorsed a major expansion of the city's existing IZ policy. Proposals to put IZ in place are advancing in Atlanta, Detroit, Los Angeles, Nashville, Pittsburgh, Portland, and Seattle, among a number of other cities. Across America's northern border, the provincial government of Ontario announced in March 2016 its intent to pass legislation that would enable its cities to enact IZ.4

IZ can be a complicated and controversial policy approach. Complicated because it aspires to harness the ever-changing dynamics of market-rate real estate development to achieve a fixed policy objective. Controversial because it aims to balance often opposing points of view in communities regarding the roles and responsibilities of the private sector to help meet a public need within a free-market economic system.

IZ's complexity and controversy come together around the extent to which the policies are mandatory, voluntary, or somewhere in between—i.e., applying only in certain situations, such as when local zoning is changed for a neighborhood or development project. Wherever a city lands along this continuum, almost all cities offer various types of development incentives that attempt to mitigate or offset the economic impacts the inclusionary policy has on land values and real estate development.

Understanding those effects is important. By definition, IZ is intended to generate a below-market real estate end use—workforce housing units—that the private market on its own would not produce at a given location. IZ may make that site less valuable than it would be if developed to its highest and hest use.

The positive news is that cities have at their disposal a variety of tools to make inclusionary development more favorable from the landowner's and developer's perspectives. Using those tools to optimize private developer participation—and spur the desired development of new workforce housing units—is challenging for most cities. Many have asked ULI District Councils and members for their advice on the best way to do it.

This study provides such advice on what incentives work best in which development scenarios. The study's purpose is to enable policy makers to better understand how an IZ policy affects real estate development and how to use the necessary development incentives for IZ to be most effective.

We approached this study with no preconceived point of view about IZ. We believe that for at least as long as real estate development remains robust in the current economic cycle and housing affordability for the workforce remains a priority for business and political leaders, IZ concepts will be part of local land use policy making. The question then becomes: How can an IZ policy be best designed to work in the context of the local real estate development market? We hope this study will be useful to any community seeking practical answers to that question.

Stockton Williams **Executive Director ULI Terwilliger Center for Housing**

Introduction

About This Study

The study focuses on multifamily rental development, which is a priority in many current and emerging IZ policies. The implications of IZ on mixed-use and for-sale housing development are outside the scope of the study.

The study has four main sections:

Introduction

This section details the focus of the study, defines key terms and development prototypes, and describes the technical methodology and modeling assumptions.

- Section I: Understanding the Economics of Development
 - This section provides an overview of real estate development economics and key drivers of real estate development feasibility from a developer's perspective.
- Section II: Assessing the Impacts of Inclusionary Zoning on **Development**

This section summarizes relevant research on IZ policies and performance and assesses how key IZ policy features—share of below-market housing units and income targeting of those units affect development feasibility.

Section III: Optimizing the Effectiveness of Incentives for **Inclusionary Development**

This section explores how and when the principal development incentives available to cities—direct subsidies, tax abatements, density bonuses, and reduced parking requirements—can be most effective as part of an IZ policy.

Key Takeaways

- A growing number of cities in the United States and Canada are turning to their zoning authority as a means to generate new development of workforce housing units, which are in short and decreasing supply in many communities.
- The most common zoning approach is inclusionary zoning. Through IZ, cities require or encourage developers to create belowmarket rental apartments or for-sale homes in connection with the local zoning approval of a proposed market-rate development project.
- The single most important factor for an IZ policy to achieve its goals is a significant and sustained level of market-rate **development in the local market.** If a community is not currently experiencing a material amount of new development, an IZ policy will not generate a meaningful number of new workforce housing units.
- In most cases, jurisdictions will need to provide development incentives to ensure the feasibility of development projects affected by an IZ policy. The principal incentives are direct subsidies, density bonuses, tax abatements, and reduced parking requirements. Individually and in combination these incentives can substantially enhance the feasibility of development projects affected by an IZ policy. Each incentive has strengths and limitations that derive from the local real estate development environment.
- In the right market conditions and with the optimal availability of development incentives, IZ policies can generate development of new workforce housing units that would not otherwise be built. Even in such situations where the stars align, IZ at its most effective is only one tool in what must be a broad-based toolbox available to local governments to meet their workforce housing needs.

Methodology and Modeling Assumptions

The study relies on several analytic approaches.

Literature review and expert review

We reviewed 17 major studies and reports on IZ reflecting a wide range of perspectives and methodologies (listed in Sources) and received input on the study approach and content from an advisory group of developers, consultants, and public officials who have worked directly with IZ programs. (The members of the advisory group are listed in the Acknowledgments section.)

Spreadsheet pro formas

Pro forma cash flow models are common decision-making tools used by real estate developers and local policy makers. In interviews with developers and other experts and a comprehensive literature review of IZ policy and performance, we found that pro formas are the most widely used tool for evaluating IZ policy criteria and development incentives.

To assess the feasibility of development using land residual calculations. we produced spreadsheet pro formas for three prototypical multifamily development types: stacked flats, four over one, and residential towers. These are described on page XI.

The pro forma inputs (i.e., analytic assumptions) are broadly illustrative of an average U.S. region as of June 2016. These assumptions may or may not be accurate for a specific market within the United States. The inputs are as follows:

- Soft cost: 30 percent of hard costs;
- Developer fee: 4 percent of hard and soft costs;
- Operating cost (as a percent of revenue): 30 percent;
- Vacancy rate: 10 percent;
- Cap rate: 4.5;
- Return on cost cap yield spread: 1.5 percent;
- Return on cost feasibility target: 6 percent; and
- Area median income (AMI): \$74,000.

Rapid pro forma prototyping

To better understand the sensitivity of development feasibility to IZ policy criteria and development incentives, we carried out a rapid testing algorithm that modified multiple pro forma inputs simultaneously. We calculated residual land values and other outputs that resulted from hundreds of thousands of distinct pro forma inputs. These metrics helped the team better understand the behavior of pro formas with varied IZ requirements and offsetting incentives.

Machine-learning segmentation

To inform our feasibility analysis, we used machine-learning algorithms to cluster U.S. regional markets based on factors that play a role in real estate development feasibility. We clustered U.S. metropolitan markets based on mean construction costs, median incomes, and mean apartment rents.

Residual land value analysis

We used residual land value analysis to assess and compare development feasibility under various scenarios. Residual land value is a measure of what a developer would be able to pay for the land, given a set of assumptions regarding capital and operating costs and revenue. Residual land value, in essence, represents the developer's land budget. A higher residual land value means that a proposed development project is likely to be more feasible. A negative residual land value—a land budget below \$0—means that a proposed development project is not feasible absent offsetting incentives.

Residual land value analysis is a common metric used by developers to evaluate development feasibility. It is also a useful metric for assessing IZ and accompanying development incentives because IZ policies principally affect land value, especially in the short run.

Prototypes Used

This analysis uses three development prototypes throughout. The table below provides a summary.

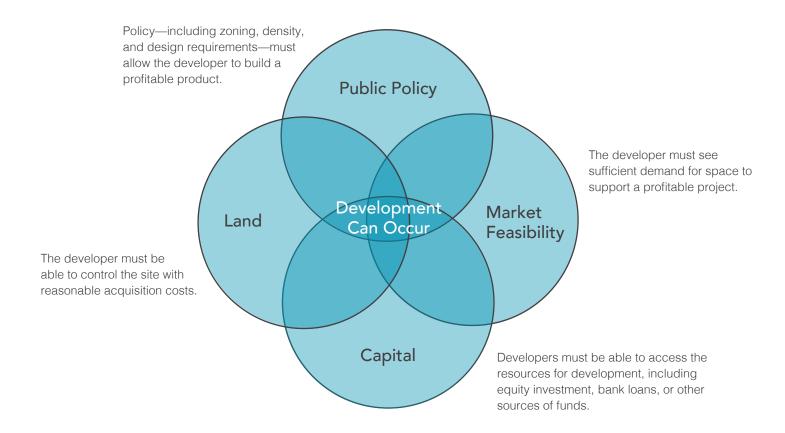
	Stacked flats	4 over 1	Residential tower
Stories	3	5 (+ one level underground)	17
Units	61	177	15 wrap units around garage 239 tower units
Unit mix	30% studio 40% one bedroom 30% two bedroom	30% studio 40% one bedroom 30% two bedroom	25% studio 35% one bedroom 25% two bedroom 15% three bedroom
Average unit size (gross square feet)	805	805	1,430 (wrap units) 805 (tower units)
Residential efficiency (% leasable area)	90%	90%	100% in wrap units 90% in tower units
Parking	61 surface spaces	102 podium stalls 75 underground stalls	254 integrated parking stalls
Primary construction costs (hard costs)	Residential: \$125/sq ft Surface parking: \$7,000/stall	Residential: \$165/sq ft Podium parking: \$30,000/stall Underground parking: \$40,000/stall	Wrap residential: \$153/sq ft Tower residential: \$210/sq ft Integrated deck parking: \$33,000/stall

Section I: Understanding the Economics of Development

Four Factors Determine Development Feasibility

The goal of an IZ policy is to leverage new market-rate development to provide new workforce housing units. Because IZ depends on market-rate development, IZ works only when new development is occurring. For that reason, understanding how market-rate development occurs is an optimal starting place for understanding how IZ policies can be structured to work with the market to increase the supply of workforce housing.

The diagram below illustrates in a highly schematic manner the principal factors that intersect to determine development feasibility: public policy (allowable density, required use mix), market feasibility (achievable pricing relative to production cost), capital (cost and availability), and land (cost and availability). IZ principally intersects with land and market feasibility.



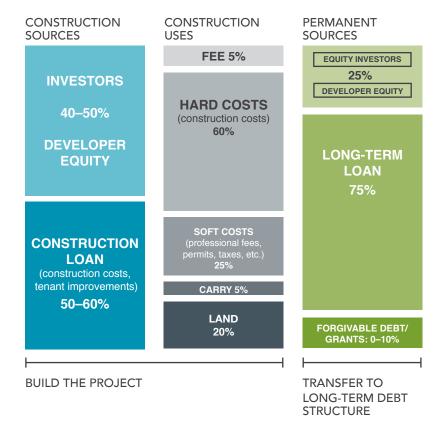
Developers Fund Construction Costs Using a Variety of Sources

Feasibility is based on a set of calculations that assess whether the project (a) has sufficient demand (measured in market rents or sales) to cover its construction and operating costs and (b) can provide financial returns for the effort and risk undertaken by the developer and its sources of funding. Public policies affect feasibility in various ways throughout the development process. Some may increase upfront costs (e.g., requiring higher-quality design), while others may reduce ongoing operating costs (e.g., tax abatements).

Feasibility calculations have two major components. The first is **sources** and uses, which reflects the costs of building and financing a development project. Uses reflect the costs of creating a development project. Sources describe the various sources of capital available. For a project to be built, the sources must meet or exceed the uses. The following percentages are broadly illustrative of the breakdown of sources and uses for a multifamily development project.

The construction sources provide funding to build the project. The developer and outside investors typically provide equity. Most projects also have a construction loan that accounts for at least half the sources. Some projects have mezzanine debt (a hybrid of equity and debt).

The **uses** are the costs of the project, including the costs to acquire the site, construct the project, pay for architectural, engineering, and other services, and pay interest on financing the construction loan (carry). In addition, developers must cover overhead costs for staff and other expenses and often choose a fee for their time and expenses.

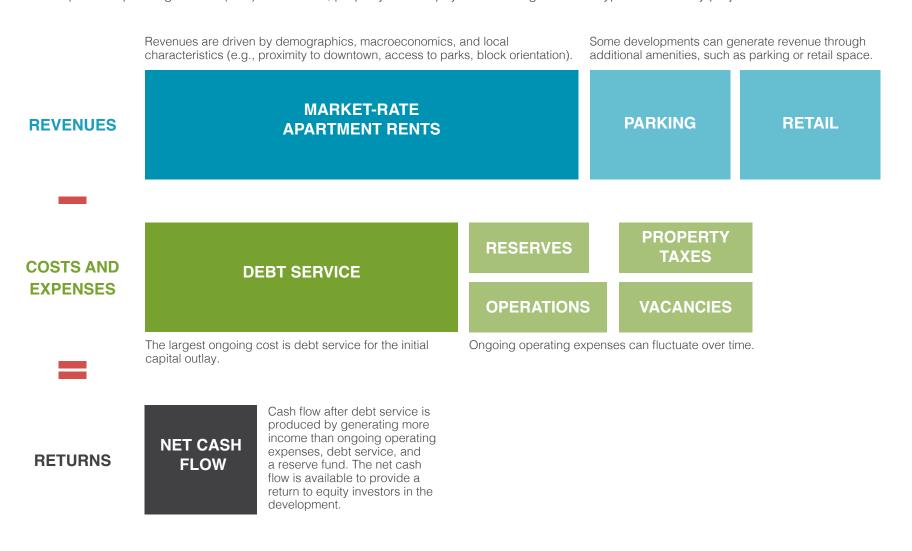


The permanent sources pay off the construction loan when the project is operational. Some construction loans are "convertible" into permanent loans while other developers arrange for separate long-term financing that repays the construction lender once construction is complete.

Project Operating Revenues Must Exceed Costs to Generate Investment Returns

The second major component of development feasibility is costs and revenues, which are reflected in a development pro forma or a cash flow statement. A pro forma compares a set of ongoing operating costs to a set of ongoing operating revenues derived from rents. Revenues minus costs equal net operating income (NOI). Out of NOI, property owners pay

debt service and set aside capital reserves. Investors and lenders must be confident that the resulting net cash flow (after debt service and reserves) is sufficient to cover all operating costs and compensate them for their capital commitments. The graphic below shows broad illustrative cost and revenue categories for a typical multifamily project.



Development Feasibility Varies by Submarket

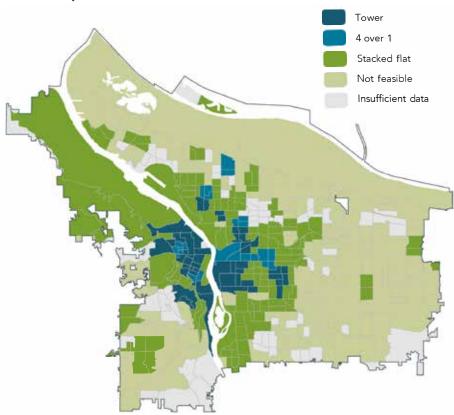
Every city and region have development submarkets that are "hot" or "cold" areas for new development. Although the development equation is complex, this relative temperature is, at any point in time, driven largely by three variables: market rents, construction costs, and the availability and price of land.

In some parts of a city (or region), the rents and prices are high enough to cover the cost of constructing a new higher-density building. In other areas, they are not. Even in areas where prices are sufficient to cover construction costs, developers must also find land that is available and affordable. In highly built-out areas of a city where rents and prices are guite high, little development may occur because any available land is too costly to support new development. In general, developers of higher-density buildings will be willing to pay more per square foot for land.

These variables are influenced by zoning policy. In most jurisdictions, local zoning limits the size and shape of buildings and the types of tenants that can occupy them. Sometimes those restrictions preclude developers from building projects that are financially feasible. For example, a city may allow only a four-story building to be built on a particular parcel, but the revenues from a four-story building may be too low to justify the purchase and demolition of a two-story building. In such cases, sites are likely to be repositioned in the market or adaptively used.

The map at right illustrates how development feasibility varies by development typology and by submarket in a single city. Using current data compiled at the U.S. census block group level and a pro forma model, the map shows where development at different densities would be feasible within Portland, Oregon. Zoning policies, including IZ, thus will have varying impacts and efficacy in different areas of a city or region. Portland has a cost index that is at the U.S. average. (See page XI for a description of the development typologies.)

Case Example



Note: This map displays the feasibility of any of the three development types (stacked flats, 4 over 1, residential tower) based on an assumed land value of \$0. Because it is unlikely that land will be available at a price of \$0, this map is more representative of where market-rate development is not likely to occur than where it will occur.

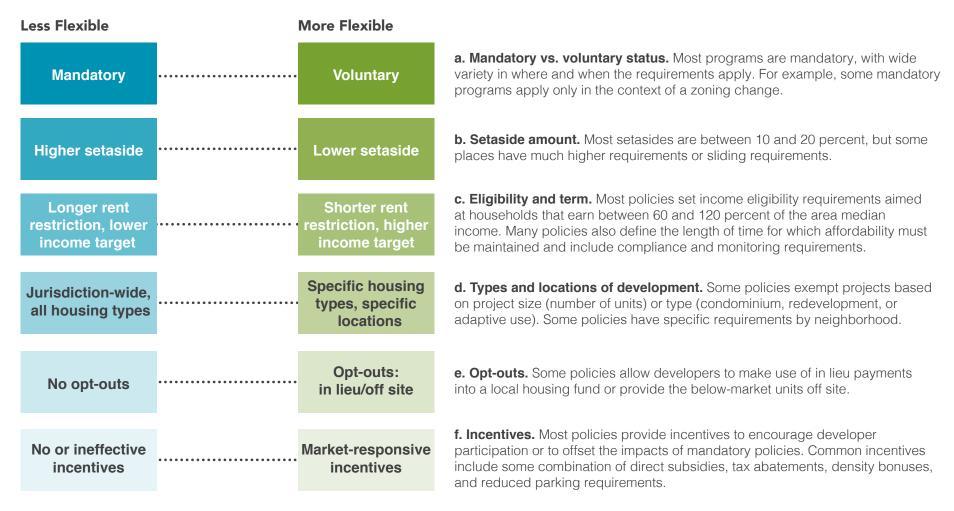
This analysis measures development feasibility in terms of residual land value—a measure of what a developer would be able to pay for the land, given a set of capital and operating cost and revenue assumptions. Residual land value, in essence, represents the developer's land budget. A higher residual land value means that a proposed development project is likely to be more feasible. A negative residual land value—a land budget below \$0—means that a proposed development project is not feasible absent offsetting incentives.

Section II: Assessing the Impacts of Inclusionary Zoning on Development

Inclusionary Zoning Policies Vary Widely in Many Respects

More than 500 cities and counties in 27 states and the District of Columbia have adopted an IZ policy. Although all share the common approach of using zoning authority to encourage or require development of belowmarket workforce housing units in connection with approval of a proposed

market-rate project, they reflect considerable diversity in design and implementation. Major aspects about which IZ policies differ from place to place are summarized below.



Inclusionary Zoning Has Had Significant Impact in Some Areas

The most comprehensive assessment of new housing units generated by IZ programs suggests a seemingly modest total of roughly 150,000 units across 500 programs, some of which are several decades old. ⁵ This figure probably substantially understates IZ production for two reasons. First, the assessment was released in 2010 and most of its data was from 2008 and 2009, so it does not account for IZ-induced development over the past several years when market-rate multifamily development boomed. Second, reliable data are not available on the amount of funding raised and units produced through fee in lieu payments from developers as part of IZ policies.

A closer examination indicates that IZ approaches have achieved significant new below-market-rate production in some markets, such as Fairfax County, Virginia; Montgomery County, Maryland; Palm Beach County, Florida; and throughout southern California. In addition, in cities such as Boston, Chicago, and San Francisco, IZ's relatively small impact compared with overall development may mask its benefits in creating workforce housing in high-cost environments that otherwise would not have occurred.

Nevertheless, IZ has fallen short of its promise in any number of places, probably for one or more of the following reasons:

- **Insufficient levels of new market-rate development:** A number of cities and counties with IZ policies on the books are relatively small or weaker development markets. Moreover, policies in many cities were likely stymied by the Great Recession.
- **Shortcomings in program design and administration:** Even though research suggests that more than 80 percent of policies are mandatory, anecdotal evidences suggests that many have been crafted loosely. administered inconsistently, or enforced weakly.
- Lack of adequate development incentives: In many communities, the costs (in reduced land value or economic return) of developing in accordance with the IZ policy outweigh the benefits, so developers do not participate. The otherwise large body of research on IZ has paid scant attention to this issue.

"Whereas a considerable amount of research has dealt with IZ effects on house values, little work has focused on builders themselves and how ordinances might affect their activities. Little is known...about which incentives are most effective in garnering policy participation among builders and developers." (Urban Institute. Expanding Housing Opportunities through Inclusionary Zoning: Lessons from Two Counties. Washington, DC: U.S. Department of Housing and Urban Development, 2012.)

Three Key Findings Emerge from the Research on Inclusionary Zoning

IZ policies depend on market-rate development. In general, IZ policies generate the most below-market units in areas where the most marketrate development is occurring. Conversely, as New York City's feasibility analysis of its policy as designed concluded: "Rental projects in moderate and weak markets do not achieve sufficient returns to achieve feasibility without subsidies, even before incorporating an inclusionary requirement. This reflects the reality that few market-rate rental projects are being built in markets with relatively low rents, as they are unable to support current construction costs and land prices."6

IZ policies must be carefully crafted to avoid adverse effects. Some studies have shown that IZ policies in some areas have contributed to higher housing prices or rents or depressed or delayed market rate development. Other studies have not found these effects. A recent review of the leading IZ research from across the ideological spectrum concluded that "the most highly regarded empirical evidence suggests that inclusionary housing programs can produce affordable housing and do not lead to significant declines in overall housing production or to increases in market-rate prices." The study cautioned, however, that careful attention to the design details and the structuring of incentives is critical to avoid adverse effects.

IZ policies usually target moderate-income households. Most IZ policies primarily focus on households earning between 60 percent and 120 percent of AMI (the standard housing industry income range that defines "workforce housing"). Cities have options for serving lower-income families through IZ. such as allowing developers to "trade" targeting lower-income households in exchange for developing fewer below-market units. Cities can also increase the subsidies and incentives to enhance the feasibility of lower-income units. And cities can allow developers to pay a fee to the city in lieu of developing IZ units, which the city can use to support construction for lower-income households directly.

Housing Market Impacts Associated with Local Inclusionary Housing **Programs: Results from Key Evaluation Studies**

Jurisdiction	Period	Impacts on overall housing supply	Impacts on home prices/rents
California (28 programs) ⁸	1981–2001	No negative effect on housing starts	Not available
California (65 programs) ⁹	1988–2005	No decline in single-family starts Increase in multifamily starts	Increase in single- family home prices of 2.2 percent
California (125 programs) ¹⁰	2007–2013	Not available	Stricter programs associated with 1.9 percent decline in rents
San Francisco (55 programs) ¹¹	1987–2004	No negative effect on housing starts	No effect on home prices
Los Angeles and Orange counties (17 programs) ¹²	1998–2005	No negative effect on housing starts	Not available
Boston area (99 programs) ¹³	1987–2004	Up to a 10 percent decline in housing starts	Increase in single- family home prices of 1 percent

Source: Lisa Sturtevant, "Separating Fact from Fiction to Design Effective Inclusionary Housing Programs," Center for Housing Policy brief, National Housing Conference, Washington, D.C., 2016.

Inclusionary Zoning Affects Development Feasibility

At the most fundamental level, IZ policies reduce the economic value of a development site by driving part of its use to a below-market purpose: the provision of units affordable to households that otherwise would not be able to afford the maximum achievable rent in the property. This has the effect of lowering NOI, which reduces the value of the development project.

When faced with such a situation, developers typically have three options:

- Decline to proceed with the proposed market-rate development project at the desired location (and possibly develop a similar project in another nearby jurisdiction without IZ).
- Persuade the owner of the development site to sell it for a below-market price, which most private landowners are unwilling to do.
- Accept a lower return on the proposed market-rate project, which most developers have limited (if any) ability to do.

However, development can move forward under IZ without experiencing any of these outcomes under the following two scenarios:

The first is the rare instance in which the rents for the market-rate units are high enough to "cross subsidize" the lost value associated with rents for the below-market units.

The second scenario is when the local jurisdiction provides development incentives to sufficiently mitigate the impact of the below-market units on overall development feasibility. That subject, which is relevant in any city with an IZ policy, is the focus of section III of this study.

First, though, we must understand how the two primary policy features of IZ policies affect development feasibility:

- Setaside percentage (the share of units that are below market); and
- **Depth of affordability requirements** (the average or maximum income level of households who are eligible for the setaside units).



Emerald Vista, Dublin, California. (© 2013 Jeff Peters, Vantage Point Photography Inc.)

Assessing the Impacts of Below-Market-Unit Setasides

What it is: Most IZ policies establish a setaside of below-market units at between 10 percent and 20 percent of the total number of units in a proposed development project.

How it affects the pro forma: As the setaside percentage increases. the average per-unit revenue of a development declines. In general, the revenue loss associated with increasing the setaside percentage is greater for projects that can generate higher market-rate rents.

Key takeaway: The setaside (or percentage of units required to rent below market) can significantly affect development feasibility.

Assessing the impacts of depth of affordability targets: This graphic shows the impact of different setaside levels at 80 percent of AMI within two different areas of a city: Area A with rents at \$3.00 per square foot and Area B with rents at \$3.50 per square foot.

Land residual of a 4 over 1 podium building at different setaside levels:

Area B

has an achievable apartment rent of \$3.50 PSF



Area A

has an achievable apartment rent of \$3.00 PSF



Land Budget=0

Note: PSF=per square foot, SA=setaside.

Assessing the Impacts of Below-Market-Unit Income Levels

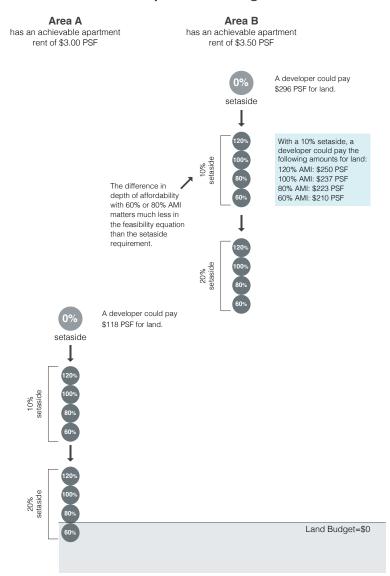
What it is: Most IZ policies target below-market units to households earning between 60 percent and 120 percent of AMI. Many programs also specify narrow income bands within these ranges.

How it affects the pro forma: Lowering the income levels of the below-market units in the IZ policy has the same effect as the setaside percentage. It reduces project income and prospective investor returns relative to the status quo.

Key takeaway: The required level of affordability can have a significant impact on development feasibility.

Assessing the impacts of depth of affordability targets: This graphic shows the impact of different setaside levels and depth of affordability targets within two different submarkets in a city: Area A with rents at \$3.00 per square foot and Area B with rents at \$3.50 per square foot.

Land residual of a 4 over 1 podium building at different rent targets:



Policy Tradeoffs Exist from the Developer's Perspective

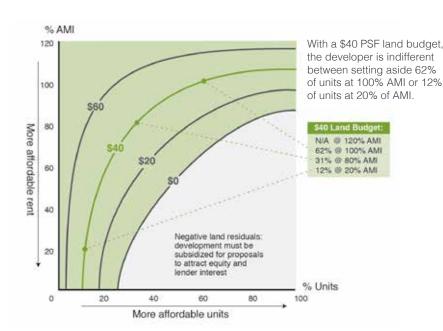
Policy makers can make tradeoffs between the percentage of units set aside for below-market housing and the depth of affordability of units. Because of the varying sensitivity of land residuals in different contexts, policy makers may experience resistance from the development community about the effects of different IZ policies. Policy makers should be aware of the context-specific tradeoffs of IZ requirements and consider policies that vary by context or policies that allow flexibility between affordability targets and the percentage of below-market units.

Scenario 1: Land Residuals (Stacked Flats)

Where market rents and below-market rent targets are relatively close, development impacts may be relatively small if only a small percentage of units is required. However, in such instances, developments may yield similar land residuals when a high percentage of units is required at a higher level of affordability. For that reason, developers that focus on low-rise apartments in suburban locations may argue against deeper levels of affordability.

Market situation within the region: Market-rate rents (\$2.25) at or close to below-market rent targets.

Impact: The developer may be able to accommodate a high percentage of below-market units in a development project at higher AMI-based affordability targets and still expect an adequate land budget.

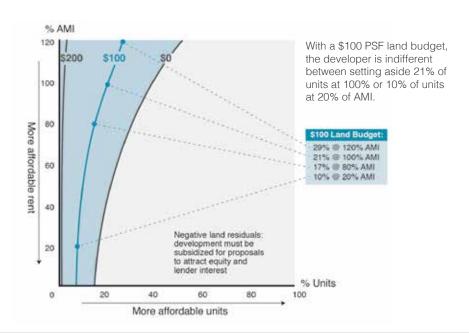


Scenario 2: Land Residuals (4 over 1)

Where market rents are high relative to below-market rent targets, developers are relatively indifferent to below-market rent targets. In such circumstances, projects may yield similar land residuals with either high or relatively deep below-market rent targets as long as only a small percentage of units is required. For this reason, developers that focus on mid-rise and high-rise projects in high-rent submarkets may argue against requiring higher percentages of below-market units.

Market situation within region: High market rents (\$3.25) relative to belowmarket rent targets.

Impact: The depth of affordability has less impact on the developer's ability to acquire the site than the unit setasides.



Section III: Optimizing the Effectiveness of Incentives for Inclusionary Development

Development incentives are often required to encourage and enable the private sector to produce the desired amount of new workforce housing units as part of an IZ policy. The question is: What type and mix of incentives make most sense?

The answer is that it depends on local market (and submarket) conditions and development product type, as summarized in section I. Unless marketrate rents are high enough to cross subsidize the below-market units, the value of development incentives in most cases will need to substantially mitigate, if not fully offset, the costs (in lost economic value) of the belowmarket setaside and income targeting, as discussed in Section II.

Local communities have an array of options for providing inclusionary development incentives. This section assesses the utility and limitations of four types: direct subsidies, tax abatements, density bonuses, and reduced parking requirements. (Some jurisdictions reduce or waive fees as an inclusionary development incentive; while often helpful and worth doing in general, fees are generally not a primary determinant of feasibility.)

Local governments can also give developers the ability to opt out of an inclusionary commitment by making a payment to the jurisdiction in lieu of meeting the IZ requirement to provide below-market units on site. This option is also discussed in this section.

To understand how developers would likely respond to these incentives in the context of an IZ policy given a particular construction type (stacked flat, four over one, and residential tower) and local market conditions (rent/ purchase price, construction costs, land prices, etc.), we used building prototypes and pro formas to standardize the financial analysis. To aid in the evaluation of the effectiveness of different policy approaches, we used computer algorithms to run multiple pro forma permutations. Thus, although our modeling and examples may not precisely reflect costs and impact in some markets, they are broadly illustrative of national development variables.



1400 Mission Street, San Francisco, California. (Tishman Speyer)

Direct Construction Subsidies Can Enhance Feasibility but Can Be Expensive

Takeaways: Direct construction subsidies provide an offset to the costs of development and can be used to incentivize development in locations where it might not otherwise be feasible. Construction subsidies are very effective and efficient from a developer's perspective.

What it is: One-time infusion of funding that reduces construction costs.

Examples: Forgivable zero-interest loans and grants; low-interest equity loans; tax increment investments; sales tax exemptions; prevailing wage exemptions; land writedowns if land is publicly owned; fee waivers, etc.

How it affects the pro forma: Subsidies reduce the required equity or debt needed to fund construction. When hard construction and financing costs are reduced enough to offset the lost economic value associated with the below-market units, developers can afford to pay the market price for land.

Key considerations: Direct subsidies can be relatively expensive. especially in high-cost markets. Using public subsidies to support IZ by

definition diverts public resources from other priorities and may engender community opposition on these grounds. Direct subsidies may also come with local requirements that increase development costs, such as prevailingwage and local-hiring mandates.

Direct construction subsidies required to offset IZ requirements vary by market strength. The higher the submarket rents, the greater the subsidy required to fill the gap between achievable submarket rents/prices and AMI restricted rates.

The chart below shows the amount of capital subsidy required to offset IZ setaside requirements for three development typologies with varied rent inputs. The subsidies are measured per building. Not surprisingly, the total subsidy required is greater at higher setaside amounts for all development typologies, and the highest-density development types require the largest subsidies (as much as \$14 million for one residential tower building when 20 percent of the units are required to be set aside as below market).

Capital Subsidy to Offset IZ Impacts at 80% AMI

Lighter bars denote 10% setaside; darker bars denote 20% setaside.



Tax Abatements Can Incentivize Development in Otherwise Infeasible Locations

Takeaways: By reducing annual operating costs, tax abatements can help offset the negative economic impact of IZ. Relatively few cities to date have used tax abatements in connection with IZ, suggesting an opportunity for wider use.

How it works: Tax abatements provide a temporary (or, less frequently, permanent) reduction in recurring taxes associated with real property or tenants of real property.

Examples: Property tax assessment freeze; property tax rate reductions; sales, import, or income tax-free zones.

How it affects the pro forma: Tax abatements can enhance development feasibility by allowing operators to reduce their operating costs. Either yields higher NOI and a higher property value.

Key considerations: Tax abatements divert resources from other local priorities and their establishment may be politically infeasible. In fact, some jurisdictions limit or preclude tax abatements and similar tax relief approaches. In addition, tax abatements may conflict with other tax-based urban development incentive programs. For example, tax increment financing (TIF) is a tool used by jurisdictions to provide capital subsidies to development projects. However, TIF relies on property tax revenues, some of which may be forgone with property tax abatements.

Finally, the scale of the tax abatement is limited by a jurisdiction's tax formulas. For example, some development proposals may require subsidies greater than the project's total tax burden. Therefore, tax abatements may be insufficient incentives to fully offset the impacts of IZ. The chart below describes the level of tax abatement required to fully offset the impacts of IZ for a set of hypothetical circumstances.

Tax Rate Abatement Required to Offset IZ Impact at 80% AMI

Lighter bars denote 10% setaside; darker bars denote 20% setaside.



Density Bonuses Can Enhance Feasibility Where Development Is Already Occurring

Takeaway: Working with the local development community to craft sensible bulk and height policies is one way to address housing affordability irrespective of inclusionary zoning. Density bonuses are by far the most common form of incentive that accompanies IZ policies and are used in both voluntary and mandatory programs.

How it works: Density bonuses allow developers to build larger buildings (in terms of height or floor/area ratio) on a site as an incentive or offset for providing below-market units.

How it affects the pro forma: Density bonuses can enhance development feasibility—and mitigate negative economic impacts associated with belowmarket units—by increasing a property's gross rents, which can generate more rent and yield a higher land value.

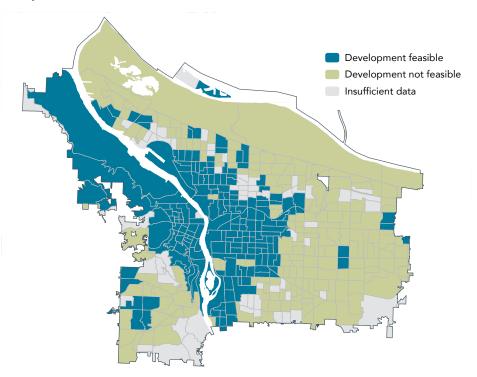
Key considerations: The effects of density bonuses vary substantially based on market conditions. In general, density bonuses are attractive only in markets where developing additional square feet of new development is profitable. Density bonuses by definition will not provide an incentive in areas where market-rate development is not already occurring and will offer only a modest incentive in areas where development is happening on a limited basis.

Increasing density, height, or both can put properties into another construction cost category. For example, a building can change from a podium construction type (maximum of six or seven stories) to a steel and concrete construction (more than seven stories) and actually make a denser project less feasible. It can also interact with parking requirements in ways that create development challenges. If each additional unit carries with it the burden of additional parking, this "incentive" can both add upfront costs and make for a less efficient building configuration—for example, requiring parking underground to accommodate additional stalls.

Adding density to a site may reduce the efficiency of the layout or generate layouts that are less attractive. For example, if the only way to take advantage of a density bonus would be to reduce the widths of light wells, courtyards, and open spaces, it may reduce the achievable rents of the project and yield a less profitable building than a lower-density alternative.

Case Example

This map illustrates the results of financial feasibility modeling, based on the achievable rents in U.S. census block groups in Portland, Oregon. It shows that development at any density is feasible only in certain parts of the city. Any policies that seek to leverage private development would have power only in these areas.



Note: This map displays the feasibility of any of the three development types (stacked flats, 4 over 1, residential tower) based on an assumed land value of \$0. Because it is unlikely that land will be available at a price of \$0, this map is more representative of where market-rate development is not likely to occur than where it will occur.

Reduced Parking Requirements Can Enhance Feasibility in Certain Scenarios

Takeaway: Development incentives that reduce parking requirements are valuable only where the policies require more parking than a developer would optimally provide.

How it works: This approach allows developers to reduce the amount of parking required to be built as part of a development.

How it affects the pro forma: Parking requirements can have a material impact on development costs, because parking is expensive to build (\$30,000-\$50,000 per underground space in many urban markets) and often does not produce revenue. By decreasing construction costs, reducing parking requirements can enhance development feasibility and mitigate negative economic impacts associated with below-market units. The value of parking incentives is related to the optimal parking configuration for a project as well as to the required amount of parking.

Key considerations: Parking reductions may be valuable in some locations and have little or no value in other contexts (for example, immediately adjacent to a high-capacity transit line). A reduction in required parking is beneficial only where requirements are set higher than market demand.

The value of a parking reduction will vary based on the optimal building form, given the parking requirements. For example, a parking reduction may allow a developer to use more of a parcel's area for building footprint and therefore provide more housing units. Given the higher planned use of the land, the developer can offer to pay more and is more likely to strike a development deal with the landowner.

Parking capital costs vary considerably based on the type of stalls. For example, a project with surface parking may see only a modest reduction in project cost by reducing the number of stalls. In contrast, a central-city tower with underground parking may save tens of thousands of dollars per unit by reducing the number of stalls provided.

A reduction in parking may have negative effects in some development situations. For example, reducing the amount of parking in an upscale condominium tower may lead to lower sales prices because potential homeowners must pay for off-site parking. Reducing the amount of parking in a suburban garden apartment complex may lead to lower rental rates because of the difficulties tenants may face when seeking a parking spot near their unit. Thus, developers may not take advantage of lower parking requirements in many cases. For these types of reasons, lenders may object to reductions in the parking provided in a given development.



Rhode Island Row, Washington, D.C. (Urban Atlantic and A&R Development)

Opt-Out Options Payments Can Provide Flexibility but Come with Tradeoffs

Many IZ policies provide developers the option of buying out of the requirement to directly produce below-market units within their proposed market-rate development projects. Three opt-out options are discussed most prominently in the literature: in lieu payments, off-site provision, and donating off-site land. Developer payments made in lieu of delivering below-market units off site are typically used by cities to directly support the development of workforce housing units elsewhere. Though less common, some IZ policies give developers the opportunity to provide workforce housing off site rather than delivering the units within the same physical structure. In rare instances, developers may donate buildable land to a housing agency in lieu of providing the below-market units required by the IZ policy.

Each of these opt-out options is an alternative that developers can weigh against building below-market units within their market-rate developments, and all of the options can advance the policy goals of IZ. Policy makers must understand how these options might be perceived by developers to understand their efficacy and the policy tradeoffs that exist.

Setting the in lieu payment amount affects IZ outcomes. If the payment amount is set high, developers may not be able to feasibly support the in lieu payments and will either be able to deliver the below-market units within a project or not build at all. If the payment is set low, the local jurisdiction may realize less workforce housing development than might have been achievable through the IZ policy.

Several typical approaches exist to setting an IZ in lieu payment amount. The amount can be set as (a) the difference in development costs between market-rate and below-market units; (b) the difference between the value of the market-rate and below-market-rate units; or (c) the average amount of subsidy per unit that the local government currently provides for development of similar units. Fees may be set based on the total square footage of the market-rate development project or the number of units.

In both cases (a) and (b), the in lieu fee amount would depend on the submarket and the highest and best use of particular development sites. Because IZ policies are typically formulated as standard one-size-fits-all requirements across entire jurisdictions, the resulting in lieu fees may be set high or low relative to most submarkets. Context-oriented in lieu fees can vield better results for both developers and policy makers. Whatever the policy formulation, indexing or otherwise enabling IZ in lieu fees to fluctuate with inflation or local development costs can prevent their erosion as a resource over time.

An important policy consideration in establishing an IZ off-site option is defining the off-site location of new below-market units. Should the off-site location be required to be at another site in the vicinity of the market-rate project or at any location? On the one hand, requiring the units nearby may ensure that workforce housing units have access to the same assets and amenities as market-rate housing units.

On the other hand, allowing workforce units to be located far from developers' original projects, specifically in areas where land is less expensive, may allow off-site policies to generate a higher number of new workforce units. In either case, jurisdictions must carefully structure and closely assess the outcomes of IZ off-site provisions.

Likewise, jurisdictions must be careful in formulating land donation policies as an IZ opt-out option. Portions of the property being developed for marketrate housing could be donated to an affordable housing developer, a nearby parcel could be donated, or a distant location could be donated. Workforce housing units built near the market-rate units give both sets of housing units access to the same amenities.

Jurisdictions must consider the difficulty of delivering units in various locations, including the cost of doing so, and the timing of delivery. Site donation often shifts the burden—including all the risks—of developing workforce housing to the jurisdiction, its housing development partners, or both. Further, depending on the capacity of the jurisdiction, this may lead to a delay in delivering the workforce units relative to the timing of on-site and off-site requirements.

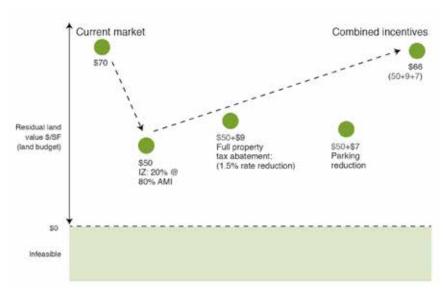
Like the other IZ design elements, the efficacy of opt-out provisions varies with market conditions, developers' capacities, and the availability of incentives that can make on-site provision of below-market units more attractive than opt-out policy options.

Putting It All Together

In some areas, cities will likely need to provide multiple incentives to optimize private sector participation in an IZ policy to offset the costs of producing ambitious inclusionary housing goals. The following two scenarios demonstrate the impact of a 20 percent setaside, targeting 80 percent of AMI, on land value. We then display the effect of two different policy incentives—a property tax abatement and a parking requirement reduction. The property tax incentive is modeled as a full abatement assuming a rate of 1.5 percent of market value. The parking ratio incentive reduces the required parking ratio from one per unit to 0.5 per unit.

Scenario 1: Stacked-flat building with market rents at \$2.25 PSF

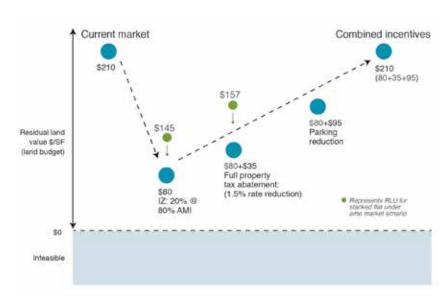
A developer proposes a three-story building in an area with rents of \$2.25 per square foot. With no incentives to offset an IZ policy, the development is feasible only if the developer is able to acquire the land at a price of about 70 percent of its pre-IZ policy market value—\$50 per square foot compared with \$70 per square foot. The developer will also consider uses other than apartments with land values greater than \$50 per square foot. When combined, incentives allow a developer to pay up to \$66 per square foot for land, which is slightly lower than the minimum land cost the developer can afford to pay before the IZ policy. The incentive would increase the likelihood of development occurring absent an incentive.



Scenario 2: 4 over 1 podium building with market rents at \$3.25 PSF

A developer proposes a mid-rise, five-story building in an area with achievable rents of \$3.25 per square foot. With no incentives, the development is feasible only if the developer is able to acquire the land at a price of about 40 percent of its pre-IZ policy market value—\$80 per square foot compared with \$210 per square foot. The developer will consider alternative uses with land values greater than \$80 per square foot.

When combined, these incentives allow a developer to pay up to \$210 per square foot for land, which completely offsets the impact of the IZ policy and allows the developer to pay the same amount for land prior to the IZ policy.



 The green dots represent residual land value (RLV) for stacked-flat building under same market scenario. Under these policy regimes, the stacked-flat prototype yields a higher RLV than the 4 over 1 prototype, suggesting a developer may choose to build at a lower density

Conclusion

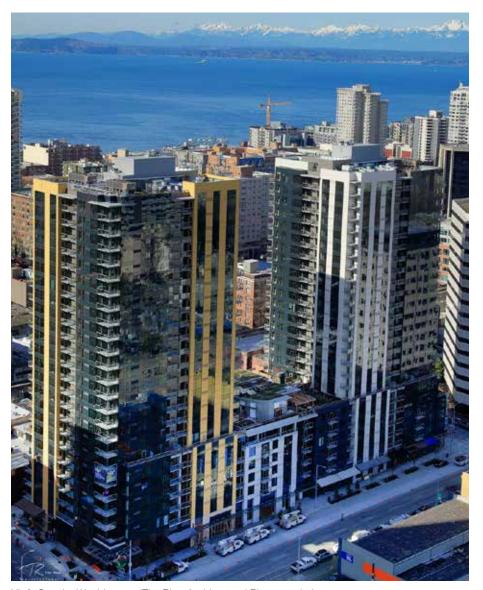
IZ policies can be an effective tool for harnessing local real estate market dynamics to generate development of new workforce housing units under certain conditions. Most important, IZ policies depend on market-rate development to be successful; areas not experiencing any or much marketrate development will likely not generate significant results from an IZ policy.

In very strong development environments (substantial amounts of new construction and rehabilitation, steady rent and price growth, low vacancy rates), IZ policies can yield development of new workforce housing units without subsidy or other development incentive from the local jurisdiction. In some moderately strong development environments, IZ policies can achieve their goals as well, provided the city or county contributes the optimal levels and combinations of development incentives.

For a site to be developable, landowners must be willing to part with their land and any occupied or operating asset on the site for a price that developers can afford. The price that developers are willing to pay is determined by the financial viability of a proposed development project on that site. Because IZ policies may reduce what a developer can pay for land, the best-case scenario is that the reduced land value is still the highest and best use for that site at that moment in the market cycle, and absent any price adjustment for the landowner, the development outcome will still be the same. However, that is not always the case. In many instances, incentives are required for development to be feasible.

To the extent that IZ policies remain in place over a sustained period of time, land prices may adjust and the IZ requirements may be absorbed as a "cost of doing business" in the jurisdiction. The challenge is that the most effective IZ policies need to have the ability to adapt in response to changing market conditions. Both these somewhat opposing values—policy consistency and policy flexibility—have value to developers and contribute to the success of an IZ policy. Balancing them appropriately in design and administration of IZ is perhaps the central challenge for cities seeking to make best use of this particular policy tool.

In the right market conditions and with the optimal availability of development incentives, IZ policies can generate development of new workforce housing units that would not otherwise be built. Even in such situations where the "stars align," IZ at its most effective is only one tool in what must be a broad-based toolbox available to local governments to meet their workforce housing needs.



Via6, Seattle, Washington. (Tim Rice Architectural Photography)

Notes

- 1. Mindy Ault, "Housing Landscape 2016: An Annual Look at the Housing Affordability Challenges of America's Working Households," Report for the National Housing Conference, Center for Housing Policy, February 2016.
- 2. Chang-Tai Hsieh and Enrico Moretti "Why Do Cities Matter? Local Growth and Aggregate Growth," National Bureau of Economic Research, NBER Working Paper 21154, Cambridge, MA, 2015.
- 3. David J. Goodman, "New York Passes Rent Rules to Blunt Gentrification," New York Times, March 22, 2016.
- 4. Ministry of Municipal Affairs and Housing. Ontario's Long-Term Affordable Housing Strategy Update (Toronto, ON: Queen's Printer for Ontario, 2016).
- 5. Nico Calavita and Alan Mallach, eds., Inclusionary Housing in International Perspective: Affordable Housing, Social Inclusion, and Land Value Recapture (Cambridge, MA: Lincoln Institute of Land Policy, 2010).
- 6. BAE Urban Economics Inc., Market and Financial Study: NYC Mandatory Inclusionary Housing (New York: BAE Urban Economics, 2015), 50.
- 7. Lisa Sturtevant, "Separating Fact from Fiction to Design Effective Inclusionary Housing Programs," Center for Housing Policy brief, National Housing Conference, Washington, DC, 2016, 1.
- 8. David Paul Rosen and Associates, City of Los Angeles Inclusionary Housing Study: Final Report (Los Angeles, CA: Los Angeles Housing Department, 2002).
- 9. Gerrit-Jan Knaap, Antonio Bento, and Scott Lowe, Housing Impacts of Inclusionary Zoning (Washington, DC: National Association of Home Builders, 2008).
- 10. Ann Hollingshead, When and How Cities Should Implement Inclusionary Housing Policies (Portland, OR: Cornerstone Partnership, 2015).
- 11. Jenny Schuetz, Rachel Meltzer, and Vicki Been, 31 Flavors of Inclusionary Zoning: Comparing Policies from San Francisco, Washington DC and Suburban Boston (New York: Furman Center for Real Estate and Urban Policy, 2008).
- 12. Vinit Mukhija, Lara Regus, Sara Slovin, and Ashok Das, "Can Inclusionary Zoning Be An Effective and Efficient Housing Policy? Evidence from Los Angeles and Orange Counties," Journal of Urban Affairs 32 (2010): 229-252.

13. Jenny Schuetz, Rachel Meltzer, and Vicki Been, 31 Flavors of Inclusionary Zoning: Comparing Policies from San Francisco, Washington DC and Suburban Boston (New York: Furman Center for Real Estate and Urban Policy, 2008).

Sources

Following are the studies of inclusionary zoning that were reviewed in connection with the development of this report.

BAE Urban Economics Inc. Market and Financial Study: NYC Mandatory Inclusionary Housing. Prepared for the New York City Housing Development Corporation. New York: BAE Urban Economics, 2015.

Calavita, Nico, and Alan Mallach, eds. Inclusionary Housing in International Perspective: Affordable Housing, Social Inclusion, and Land Value Recapture. Cambridge, MA: Lincoln Institute of Land Policy, 2010.

David Paul Rosen and Associates. City of Los Angeles Inclusionary Housing Study: Final Report. Los Angeles, CA: Los Angeles Housing Department, 2002.

Hickey, Robert, Lisa Sturtevant, and Emily Thaden. Achieving Lasting Affordability through Inclusionary Housing. Cambridge, MA: Lincoln Institute of Land Policy, 2014.

Jacobus, Rick. Inclusionary Housing: Creating and Maintaining Equitable Communities. Cambridge, MA: Lincoln Institute for Land Policy, 2015.

Knaap, Gerrit-Jan, Antonio Bento, and Scott Lowe. Housing Market Impacts of Inclusionary Zoning. Washington, DC: National Center for Smart Growth Research and Education, 2008.

Lens, Michael C., and Paavo Monkkonen, "Do Strict Land Use Regulations Make Metropolitan Areas More Segregated by Income?" Journal of the American Planning Association 82 (1): 6–21.

Mader, Josiah, and Mark Willis. Creating Affordable Housing Out of Thin Air: The Economics of Mandatory Inclusionary Zoning in New York City. New York: New York University Furman Center for Real Estate and Urban Policy, 2015.

Means, Tom, Edward Stringham, and Edward Lopez. Below-Market Housing Mandates as Takings: Measuring Their Impact. Oakland, CA: The Independent Institute, 2007.

Mukhija, Vinit, Lara Regus, Sara Slovin, and Ashok Das. "Can Inclusionary Zoning Be an Effective and Efficient Housing Policy? Evidence from Los Angeles and Orange Counties." Journal of Urban Affairs 32 (2010): 229-252.

NAHB Land Use and Design Department. Inclusionary Zoning Primer. Washington, DC: National Association of Home Builders, 2015.

Schuetz, Jenny, Rachel Meltzer, and Vicki Been. "Silver Bullet or Trojan Horse? The Effects of Inclusionary Zoning on Local Housing Markets in the United States." Urban Studies 48 (2): 297-329.

Schwartz, Heather L., Liisa Ecola, Kristin J. Leuschner, and Aaron Kofner. Is Inclusionary Zoning Inclusionary? A Guide for Practitioners. Santa Monica, CA: RAND Corporation, 2012.

Seifel Consulting Inc. Inclusionary Housing Financial Analysis. San Francisco, CA: San Francisco Mayor's Office of Housing, 2012.

Sturtevant, Lisa. "Separating Fact from Fiction to Design Effective Inclusionary Housing Programs." National Housing Conference policy brief, Center for Housing Policy, Washington, DC, 2016.

Taylor, Mac. "Perspectives on Helping Low-Income Californians Afford Housing." Brief for the Legislative Analyst's Office, Sacramento, CA, 2016.

Urban Institute. Expanding Housing Opportunities through Inclusionary Zoning: Lessons from Two Counties. Washington, DC: U.S. Department of Housing and Urban Development, 2012.



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