



Silver Bullet or Trojan Horse?

The Effects of Inclusionary Zoning on Local Housing Markets in Greater Boston

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While zoning codes in more than half of Greater Boston's cities and towns include some form of inclusionary zoning (IZ), these provisions appear to have produced relatively few units of affordable housing and may have put some upward pressure on housing prices in communities that have adopted them. In contrast, more stringent and widespread IZ provisions in the San Francisco Bay area and counties surrounding Washington, D.C. appear to have been more effective in producing affordable housing. However, due to limitations in the data, we cannot directly compare how IZ provisions have impacted permitting and prices in those two regions.

Background

The Boston metropolitan area has some of the highest housing costs in the nation, but it also has a relatively well-developed infrastructure around the provision of affordable housing. The best known affordable housing policy in Massachusetts is the statewide law, Chapter 40B, also known as the Anti-Snob Housing Act, in effect since 1969, which allows the state to override local zoning laws for projects in communities where less than 10 percent of the housing meets state definitions as affordable which require that 20-to-25 percent of the units in a proposed project are affordable (Glaeser, Schuetz and Ward 2006; Fischer 2009).

In recent years an increasing number of communities have adopted inclusionary

zoning (IZ) as an alternative local mechanism to promote affordable housing production. IZ programs either require developers to make a certain percentage of the units within their market-rate residential developments available at prices or rents that are affordable to low- and moderate-income households, or offer incentives that encourage them to do so.

In this policy brief, we use data from the Local Housing Regulation Database (which was jointly developed by the Rappaport Institute and the Pioneer Institute for Public Policy Research),¹ to describe the emergence of IZ in Greater Boston area and the ways in which local IZ programs are structured. (Dain and Schuetz 2005) We also report the amount of affordable housing developed under IZ and the effects of IZ on housing prices and levels of new housing construction. Finally, we offer some comparisons between the design and effects of IZ in Greater Boston with two other high-housing cost regions where IZ programs are quite prevalent: the San Francisco Bay Area and Greater Washington DC.

Characteristics of Boston-Area IZ Programs

The popularity of IZ in the Boston suburbs has been increasing over time. As of 2004, just over half the suburban jurisdictions within 50 miles of Boston had adopted some form of affordable housing incentive or requirement. Although a small number of municipalities

Rappaport Institute/Furman Center Policy Briefs are short overviews of new scholarly research on important issues facing the region. This brief is based on "31 Flavors of Inclusionary Zoning: Comparing Policies from San Francisco, Washington, D.C., and Suburban Boston" and "Silver Bullet or Trojan Horse? The Effects of Inclusionary Zoning on Local Housing Markets," both published by NYU's Furman Center and available at <http://furmancenter.org/research/publications/>. Funding for the initial research was provided by the Center for Housing Policy.

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report having adopted IZ in the 1970s, the number of communities adopting IZ has increased in each successive period, with nearly 60 percent of jurisdictions reporting adoption dates between 2000 and 2004. (See Table 1) The increasing popularity of IZ may reflect pressures on communities to reach Chapter 40B's ten percent affordable housing quota. In fact, many recent Comprehensive Plans adopted by Boston-area suburbs explicitly mention their desire to avoid "hostile" 40B projects as motivation for adopting local IZ programs (Dain 2005).

Inclusionary zoning programs can be structured in an almost infinite number of ways, depending on local policy goals and other regulations. Below we describe the structure of IZ in the Boston area along several key dimensions: breadth of applicability to new development, mandatory status, the presence of cost offsets and in-lieu options, the required affordable share, length of affordability restrictions and income groups targeted.

In other regions of the country, IZ programs are generally designed to apply quite broadly to most new housing construction, perhaps with exemptions granted for very small developments (fewer than 5 or 10 units). In Massachusetts, IZ programs are more narrowly designed, with most being triggered only by proposals to develop in specific locations

or certain project types. (See Table 2) Less than one-third of IZ programs use project size as the trigger. Among the 26 communities that specify a minimum project size, the average minimum size is eight units.

The trigger observed most frequently in Boston-area IZ ordinances is an attempt to use cluster or planned development zoning. Although cluster development provisions typically reduce the minimum lot size and other dimensional requirements, most do not authorize more units than could be built on the same parcel under conventional zoning. However, many communities offer the possibility of additional units in return for affordable housing or some other community benefit. Another common trigger is a request to build specific types of housing, especially multifamily or age-restricted housing.

Yet another fairly common mechanism for IZ programs was suggested by a 1975 revision of the state's zoning enabling legislation, which explicitly authorized localities to grant increases in density in exchange for affordable housing (NHC 2002). Developers can apply for a special permit granting increased density over that allowed by right. Unlike the other two triggers, this can usually be applied to conventional subdivisions of single-family houses.

Table 1: Timing of IZ Adoption

Year IZ Adopted	Number	Percent
Pre-1980	3	2%
1980 - 1989	14	7%
1990 - 1999	16	9%
2000 - 2004	48	26%
Date Unknown	18	10%
No IZ*	88	47%
Total	187	100%

Note: Some cities and towns may have adopted IZ after 2004.

Table 2: Trigger Conditions for IZ

Trigger Condition	Cities/Towns
Minimum project size	28
Cluster/Planned Unit Development	33
Structure Type	18
Multifamily	14
Townhouse	2
Accessory Apartments	2
Duplex	1
Senior Housing	11
Specific Districts	12
SP/Variance Request	7
Conversion/Reuse	3
No Specific Condition Listed	8

Note: Trigger conditions are not mutually exclusive. Many communities have more than one IZ policy with different triggers, or may list multiple conditions for a single program (i.e. multifamily housing in a specific district.)

One of the key distinctions among IZ programs is whether they are mandatory (i.e. developers are required to provide affordable units or other contributions, in order to receive permission to build market-rate housing) or voluntary (developers are offered incentives to encourage them to include affordable housing). Of the 99 municipalities that had adopted IZ, just over one-third (34) had entirely mandatory programs, around 40 percent had entirely voluntary programs, and the remainder had both mandatory and voluntary. For instance, the town of Clinton requires affordable housing as part of its Mill Conversion program and offers a density bonus in exchange for affordable units under flexible (cluster) development. Approximately two-thirds of the 48 programs adopted since 2000 have some mandatory component, while fewer than half of earlier programs did.

Both mandatory and voluntary IZ programs often include provisions designed to offset the costs of providing the affordable units. For voluntary programs, these serve as the incentive for developers to participate, while for mandatory programs they may be added to offset the reduction in developers' profits. The most common type of cost offset is a density bonus, by which developers may build more units than would be allowed under conventional zoning. Among the suburban Boston sample, mandatory and voluntary IZ programs differ considerably as to whether they provide cost offsets. Only about one-third of mandatory IZ programs offer a density bonus, while virtually all voluntary programs do. Of the four voluntary programs that do not offer bonus units, three relax other requirements, generally lot sizes or frontages.

Similarly, mandatory and voluntary programs differ in their provisions for developers to satisfy the conditions through alternatives to developing affordable units on-site (also referred to as buyout options). Such alternatives include providing cash or land in lieu of development, or allowing developers to build affordable units at another location (presumably a site with lower land or development costs). Roughly one-fourth of communities with voluntary IZ programs offer alternatives to on-site production, compared to half of communities with mandatory IZ.

While most IZ programs require a relatively small share of units to be affordable, a small number of jurisdictions have much higher requirements. Roughly 58 percent of IZ policies require ten or fifteen percent of the units to be affordable (roughly comparable with 40B guidelines), but nine communities require a 25-33 percent set-aside and three require at least 50 percent.² For instance, Hopkinton's IZ program applies only to duplexes, and requires that one unit in each building must be affordable. Among the IZ programs that are voluntary, it appears that developers can choose the share of affordable units and receive cost offsets on a sliding scale or negotiate with the town on a case-by-case basis.

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Over half of the communities with IZ specify that the units should be affordable to low- and moderate income households. Many ordinances, however, do not define income groups by share of Annual Median Income (AMI), so it is unclear whether the categories are directly comparable. A relatively small number of communities (17) target affordable units only to low-income households, Peabody requires that some units be affordable to very low income households, four (Concord, Methuen, Shrewsbury and Wenham) target only moderate income households, and 26 simply require that the units be "affordable" without referencing particular income targets. Some communities set different targets for rental and ownership.

Most IZ programs in the Boston area require that the affordability provisions on low-cost units be preserved for very long periods with nearly one-third of IZ programs imposing permanent affordability constraints while a few others require 80- or 99-year terms. At the other end of the spectrum, a handful of ordinances require affordability for only 10-to-15 years. However,

anecdotal evidence suggests that term lengths are increasing over time (NHC 2002).

Affordable Housing Production

Perhaps the most salient policy question regarding IZ programs is: how effective have they been at producing affordable housing? So far, it appears that IZ in Massachusetts has not been terribly productive (perhaps because so many IZ provisions were relatively new at the time when the data was collected). One-fifth of communities with IZ programs that reported production outcomes have produced some affordable units through IZ. (See Table 3) Over one-third could not state whether any affordable units had been built. The lack of

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production may reflect the very recent adoption dates: of the 33 communities with known adoption dates prior to 2000, 10 reported that IZ had produced some affordable housing, 8 reported none, and 15 did not respond. Precise counts are not available, but an earlier survey by Citizens' Housing and Planning Association (CHAPA) estimates that between 1990 and 1997, approximately 1,000 affordable units statewide were constructed under local IZ, while about 5,000 affordable units were built under Chapter 40B (NHC 2002).

Ideally we would like to draw conclusions about how the characteristics and structure of IZ programs affect the amount of affordable housing produced. However, several limitations of the existing data and the nature of IZ programs hinder our ability to do so conclusively. First, the surveys provide a snapshot of program characteristics and total units produced at the date of the survey, but do not indicate whether, when and how characteristics or production levels have changed over time, although anecdotal evidence suggests that such changes are relatively common. Second, many of the characteristics are defined in relationship to one another, rather than as fixed points. For instance, the share of affordable units and length of price/rent restrictions may vary by the proposed tenure or targeted income group, or the size (if any) of the density bonus depends on the share of affordable units. IZ programs also interact with other housing and land use policies, including baseline zoning and Chapter 40B, making it difficult to isolate the impact of a single policy. With these caveats in mind, we conducted regression analysis to identify which characteristics of IZ programs and general determinants of housing supply and demand are correlated with an increased likelihood of a jurisdiction with IZ having produced some affordable units.

Only two factors are robustly significant predictors of whether a jurisdiction in Greater Boston has produced any affordable units under its IZ program: the length of time the policy has been in effect and the minimum lot size for single-family homes. All else being equal, communities that have had IZ programs in place for 5-to-14 years are much more likely to have seen the construction of some affordable housing units than communities with programs that are less than two years old. This

Table 3: Affordable Units Produced Under IZ by Mandatory Status

Inclusionary Status	Any Affordable Units Built?			Total
	Yes	No	Unknown	
Optional	10	18	14	42
Mandatory	6	14	14	34
Both Optional and Mandatory	5	11	7	23
Total	21	43	35	99

likely reflects the relatively long time needed to complete a development project in the region, as well as some learning curve for developers and local officials at implementing the program. The other significant finding is that communities with larger minimum lot sizes are more likely to have adopted IZ. In general, however, given the small number of observations, the share of very recently adopted programs, and the relatively large number of places for which we are missing data on whether IZ has ever been used, it is difficult to draw strong conclusions from these results about what programmatic, market or regulatory characteristics make it more likely that IZ programs will produce affordable units.

Effects of IZ on Housing Permits and Prices

Many economists and developers believe that, because IZ acts as a tax on new housing development, it is likely to reduce the production of new housing and increase prices of both new and existing houses. To determine the effects of IZ on housing construction and prices in the Boston area, we constructed a panel dataset and estimated reduced-form regressions of prices and permits for single-family homes, which make up the overwhelming majority of housing units in greater Boston. These include measures for the length of time IZ has been in effect, and controlling for standard determinants of housing supply and demand and jurisdiction and year fixed effects.

The estimated effects of IZ on single-family permits in Greater Boston provide some evidence that IZ constrains new development but the results are not conclusive. The simplest model suggests that jurisdictions with IZ programs that have been in place for at least two years issue roughly 10 percent fewer single-family permits per year, significant at the five percent level. Parsing the effects further suggests that the size of the effect increases over time: the estimated drop in permits increases from 10.9 percent for 5-9 year-old IZ programs to over 30 percent for programs older than 10 years, significant at the five-percent level (Column 2). The median number of single-family permits per year is about 35 during the time period examined, implying annual decreases of 3 to 10 permits, depending on the year of adoption. However, the estimated

effects of IZ decrease and become statistically insignificant once controls for market characteristics are added to the model. These results imply that observed differences in permits may reflect changes in housing market conditions that are correlated with the adoption of IZ, rather than the effects of IZ itself.

We find slightly stronger evidence that IZ has put upward pressure on single-family home prices in Boston-area suburbs between 1987 and 2004. The base model suggests that the presence of an IZ programs in place for at least two years is associated with a 2.8 percent increase in prices, controlling for jurisdiction and year fixed effects. Prices in jurisdictions with IZ programs in place for 5-14 years are 3.75-3.95 percent higher than prices in similar jurisdictions with very recent or no IZ programs, with weak evidence of slightly higher

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prices in jurisdictions with 2-4 year old IZ programs. Adding controls for population size and interpolated changes in other local demographics decreases the magnitude and statistical significance on all the IZ age coefficients. Only the 5-9 year category is still statistically significant at the ten percent level. Applying a two percent estimated price increase to the real median single family sales price in 2000, about \$243,000, implies a price increase of roughly \$4,860 associated with a relatively mature IZ program.

Comparison with San Francisco Bay Area and Greater Washington DC

The structure of IZ programs in Greater Boston differ in several salient ways from IZ programs in the San Francisco and Washington DC metropolitan areas. (See Table 4) On average, IZ programs in the other two areas were adopted earlier than in Boston. The median years of adoption in the Bay Area and Washington DC are 1992 and 1996,

Table 4: Comparison of IZ Programs in Greater Boston, San Francisco Bay Area and Greater Washington DC

	Greater Boston	San Francisco MSA	Washington DC
Prevalence of IZ	99/187 cities and towns	6/9 counties 49/105 cities and towns	6/23 counties* 5/117 cities**
Year Adopted			
Median	2001	1992	1996
Range	1972 - 2004	1973 - 2006	1974 - 2007
Mandatory	58%	93%	82%
Exemptions	Limited eligibility Broad exemptions	Broadly applicable	Exemptions for <50 units Other exemptions vary by jurisdiction
Buyouts	38%	86%	100%
Percent Affordable Required (median)	15%	15%	12.50%
Density Bonus	71%	67%	100%
Income Targets	Low Low and Moderate	Very Low, Low, and Moderate Low and Moderate	60% - 70% AMI
Affordability	1/3 require permanent Half don't specify	Median 45 years	10 - 30 for owners 20 - 30 for renters
Median Annual Production	43% produced no units	Counties: 15 units Cities and Towns: 6 units	180 units***

* Prince George's County MD adopted IZ in 1991 but repealed it in 1996.

** Includes District of Columbia (adopted in 2007)

*** Units produced reported for 6 jurisdictions that adopted IZ prior to 2003.

respectively, compared with 2001 in Boston. IZ programs in California have the broadest coverage of the three regions, applying to most new housing development. In the DC area IZ applies to most developments with more than 50 units, although some jurisdictions grant exemptions for other conditions, such as projects not served by public water and sewer. Unlike in Boston, in both California and the DC area, virtually all IZ programs are mandatory. The income targets and share of affordable units are similar across all three regions, but the length of affordability in Boston is longer than the other two regions. Cost offsets, most frequently density bonuses, are widely available in all three regions, as are alternatives to on-site development.

IZ programs have produced more affordable units in both California and DC than in Boston. All programs in the Bay Area and nearly all in the DC have produced at least some affordable housing. With the data that are available, it is not possible

to determine whether the difference in affordable housing production across the three regions is a function of how IZ is structured and implemented, whether it reflects underlying differences in regional housing markets, or simply variation in the age of IZ programs.

To analyze the effects of IZ on housing permits and prices in the San Francisco Bay Area, we conducted regression analysis using a similar methodology to that described for the Boston area. (Due to the small number of jurisdictions in the DC area with IZ, we were not able to conduct regression analysis on the effects of IZ in that region.) Unlike the analysis on Boston, the regressions show no evidence of a statistically significant effect of IZ on either single-family permits or single-family housing prices in the San Francisco area. Some concerns about the data, particularly discrepancies across various surveys in the year that IZ was adopted by California jurisdictions, suggest caution in interpreting these results, however. In addition, interviews conducted

with affordable housing non-profit organizations and the Northern California Homebuilders Association suggest that implementation of IZ varies widely across Bay Area jurisdictions. Many communities negotiate each development that triggers IZ on a case-by-case basis, including reducing the number of affordable units required in exchange for provision of infrastructure or other community amenities. Such variation in enforcement of the policy is likely to confound statistical analysis of its effects. (This is likely true for the Boston region as well.)

Conclusions

As in other parts of the country, inclusionary zoning appears to be an increasingly popular policy among local governments in Greater Boston. However, the relatively small amount of affordable housing that has actually been produced under IZ programs in the Boston area raise questions about this strategy's efficacy. Further, it appears that IZ has put some upward pressure on housing prices in communities that have adopted it, although the magnitude of the effect is rather small. Given these findings, researchers and affordable housing advocates should continue to monitor both affordable housing output and the effects on housing prices and construction as IZ programs in the region become more established.

Endnotes

¹ The Local Housing Regulation Database, compiled in 2004 by the Pioneer Institute for Public Policy Research and the Rappaport Institute for Greater Boston, contains data on land use regulatory practices for 187 cities and towns within 50 miles of Boston, excluding the city of Boston itself. More information about the database can be found at <http://www.masshousingregulations.com>.

² Beverly, Belmont, Cohasset, Dover, Newburyport, and Sutton require 25%; Northborough, Winchester, and Hingham require 33%; Hopkinton and Tyngsborough require 50%; and Lincoln requires 60%.

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