How Affordable Housing Can Exclude: The Political Economy of Subsidized Housing

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ABSTRACT

Affordable housing is often studied as a single good: we measure its production and availability; evaluate policies to increase supply; or study the development process. But, there are many types of affordable housing. In this paper, we ask: How do the different types of affordable housing shape the politics of permitting new affordable housing, and what is the impact of these politics on home-seekers? Focusing on rental housing with subsidized rents, we find that affordable housing is a surprisingly heterogeneous good, which often comes with a number of exclusionary restrictions attached. Some cities and towns disproportionately permit units that are smaller, less financially accessible, and age restricted. Race may motivate at least some of these choices: subsidized housing units in whiter cities and towns are more likely to be age restricted.

Keywords: Subsidized housing; affordable housing; exclusionary restrictions; senior housing; housing supply

Introduction

A wide body of political science, economics, and public policy work has explored the sources of America's ongoing housing crisis. Researchers have pinpointed

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the pivotal role that the undersupply of housing has played in spurring rising housing prices and have investigated institutional and behavioral factors that make housing construction so difficult (Glaeser and Gyourko, 2018; Gyourko and Molloy, 2015; Einstein et al., 2019). While this research does not treat housing as a monolith, it relies on, in some cases, fairly broad categories to analyze the politics of housing development. These broad categories may lead researchers and policymakers to miss important policy tools that make housing more (or less) exclusionary.

In particular, previous research has primarily analyzed two types of housing project traits. The first is project size. A multitude of studies—primarily survey-based—have explored how the scale of a housing development shapes public support. Here, the distinctions have been fairly fine-grained; across multiple studies, one can learn how Americans respond to single-family homes, duplexes, triplexes, and mid-sized and larger apartment buildings (Hankinson, 2018; Marble and Nall, 2017; Trounstine, 2023). The second trait researchers have explored has been categorized more coarsely: housing affordability. Studies have primarily distinguished between market-rate housing and affordable housing (Tighe, 2010; Marble and Nall, 2017). Here, affordable housing is treated as a monolith.

Academics are not alone in treating affordable housing as a broad, allencompassing category. At permitting and zoning meetings, policy makers, local officials, and residents often express a preference for more "affordable" housing instead of new "luxury" units. As one example, in an interview with a local NPR affiliate, the director of housing and community development in Chelsea, MA exemplified this dichotomization of housing: "Over the last ten years, there's been about three times the amount of luxury housing built compared to affordable housing." (Turken, 2023)

However, "affordable" can mean many different things, and includes a variety of different regulations and government programs (at the federal, state, and local levels) that seek to reduce the price of housing for those who cannot afford the prevailing market rates. Some affordable housing is traditional public housing; it is owned and managed by a local public housing authority—funded by the federal Department of Housing and Urban Development (HUD)—with tenants paying subsidized rents to their government landlord. Most newer affordable housing is privately developed and owned; this housing is financed through programs like the federal Low Income Housing Tax Credit (LIHTC) and state tax incentive programs. It is also sometimes legally mandated or incentivized through state and local zoning laws and and regulations.

Suppose units in a particular development are designated as "affordable." To whom does this apply? Some units may be designed to affordable to the average person in a community, and may have the rent set as a percentage of the area median income (AMI). Other units may be meant to be available to a person of any income, and charge a rent based on a percentage of one's individual

income instead. Such units are considered "deeply subsidized" because the relatively subsidy (the difference between what one pays and the market rate) may be much larger than units where the rent if a function of AMI.

Affordable housing is also not available to all home-seekers equally, and may come with specific residency restrictions. For example, some housing is limited to senior citizens or other specific groups, such as veterans. Other affordable housing is available to all income-qualifying households. Finally, the size of affordable housing units may, in practice, create restrictions even if no formal limitations are in place. Affordable developments that consist of only single-room studios are unlikely to be suitable for families. Multi-bedroom affordable housing developments may be better for families, but less affordable for single people.

Collectively, these variations mean that only a small fraction of units may be suitable for a given individual or household. Public policy largely enables communities to treat these different types of affordable housing types as substitutes when permitting housing, even though they are not substitutes to consumers (people seeking affordable housing). Indeed, within the bounds of fair housing laws, communities have enormous latitude to choose who gets to live in the affordable housing that they permit, creating potential mismatches between current and prospective residents, senior citizens and young people, and people of different income levels. Through negotiations with developers needing building permits, communities can choose how expensive to make their affordable housing, how large (or, more often, small) to make affordable units, and whether or not units have age restrictions or preferences for local residents. By treating affordable housing as a single type, rather than disaggregating between different types of affordable housing, previous researchers and policymakers miss the ways in which ostensibly inclusive public policies can in practice further local communities' exclusionary aims.

In this paper we examine how the subsidized housing supply varies across different communities, and how the politics of housing shapes which types of subsidized housing are available in different kinds of places. By analyzing subsidized housing as a differentiated good over which communities nd home-seekers have very different preferences, we are better able to understand the challenges of building subsidized housing to meet the demand of those who need it.

Subsidized Housing: Insufficient Data and Exclusionary Practices

For the purposes of this paper, we define subsidized housing as any type of housing built through government regulatory or financial policy that requires the housing to be priced below market rate. This definition encompasses a wide variety of different mechanisms. For example, a local inclusionary zoning ordinance might mandate that all private housing developments above a certain

size include a minimum percentage of subsidized housing units. Or, the federal or state government might fund the development of public housing, where the government remains as landlord upon completion of the development; such projects are typically overseen by local housing authorities, which are sometimes part of municipal or county government and other times separate entities. While some so-called "naturally occurring affordable housing" emerges because of market conditions, here, we take up housing that is affordable because of some form of government intervention.

As noted above, these subsidized housing units can be priced at a variety of different levels depending upon the regulatory or funding mechanism used to create the housing. Some units' rents are simply a percentage of the homeseeker's income, while other, more costly units set their rents to be affordable to someone earning at or close to the area median income.

Below, we outline two issues complicating our current scholarly understanding of the allocation of subsidized housing. First, we explore how fragmentation in the provision of affordable housing makes it challenging to track how much affordable housing is being produced and where it is being placed. Second, we outline the exclusionary restrictions that governments and private actors might apply to affordable housing, further limiting access to this valuable good.

Insufficient Data: How Governments Track Subsidized Housing

Defining subsidized housing helps to show that, like so many public policies under American federalism, subsidized housing policy is deeply fragmented, involving financing and regulation from multiple levels of government. Federal, state, and, in some cases, local governments all have programs in place to fund the development of subsidized housing. Sometimes, the government directly oversees development and management of the property. Most of the time, though, the government incentivizes private development through tax credits, requirements, or density bonuses.

The rules governing the actual building of subsidized housing are largely the purview of state and local government. These laws and regulations dictate where housing can be placed, how many units can be developed, and what form a particular building is allowed to take, among other things. They can also incentivize or require the development of affordable housing. Inclusionary zoning is the most prevalent form of zoning explicitly targeting subsidized housing (Thaden and Wang, 2017). Some local communities and states have also adopted bonuses—sometimes in conjunction with their inclusionary zoning ordinances—that allow developments with a minimum amount of subsidized housing to bypass certain local zoning rules.¹

 $^{^1\}mathrm{National}$ Housing Center, "Common Incentives and Offsets in Inclusionary Housing Policies," <code>https://nhc.org/policy-guide/inclusionary-housing-the-basics/common-incentives-and-offsets-in-inclusionary-housing-policies/.</code>

Local control over land use and permitting also means that local governments are frequently involved in negotiations with private developers over project specifics. A planning or zoning board might ask a developer to, among other things: shrink a project; add in local preferences for subsidized units, wherein people who live or work in a community move to the top of the application pile; or, include age restrictions on subsidized units.

On top of this multitude of government actors, there are also multiple private actors deeply involved in the development of subsidized housing. Indeed, the government incorporates the private sector at virtually every stage of the subsidized housing development. Perhaps most obviously, private developers—and an array of subcontractors—are responsible for the physical construction of a subsidized housing development. Private banks might be involved in financing the development. Moreover, once it is time to actually lease units, lottery agents manage the application and waitlists, while leasing agents and property managers deal with the day-to-day logistics of actually managing the property (Einstein and Palmer, 2022).

The fragmentation of subsidized housing development is thus manifold. Multiple levels of government administer, regulate, and fund subsidized housing. This means that, without centralized guidance and requirements, multiple actors are separately making decisions about how to track (or not track) subsidized housing units. Perhaps unsurprisingly, this means that we have little systematic information about how government and private actors are making decisions about the provision of this precious good.

Subsidized Housing as a Tool of Exclusion

Local control over housing policy generally creates powerful interests in and tools for exclusionary practices (Einstein et al., 2019). White, socioeconomically privileged communities can use their control over land use and permitting to control what housing gets built and where, thereby limiting who has access to their communities and their public goods. Researchers and policymakers recognize zoning and land use as powerful contributors to racial and economic segregation (Rothstein, 2017; Trounstine, 2018; Schuetz, 2022). A similar logic intuitively applies to the development of affordable housing, and negotiations over unit types. Communities may select for affordable housing that they believe will favor current residents or outsiders who are demographically similar, rather than change the makeup of their community.

Local governments influence what *type* of affordable housing gets built. Most multifamily housing requires either special permits or variances from existing zoning (Schuetz, 2022). Both of these processes require developers to present their plans at public hearings, where public comment is solicited, and obtain formal approval from local planning and zoning boards or city

council committees. This entitlement process creates significant opportunities for local government negotiations (Hankinson, 2013). In the many interviews with housing developers, lottery agents, and public officials that we conducted in our research, the type of affordable housing unit was a frequent topic of discussion. For example, a lottery agent who worked across multiple Massachusetts communities told us that towns frequently asked for affordable housing lotteries to include local preferences, where individuals who live or work in a community move to the top of any applicant pool: "Towns care about local preference. They want that." (Einstein and Palmer, 2022)

A variety of considerations shape what local governments might prefer. They may be attentive to community needs and demands. Some of these considerations may be strictly related to the demographics of a community. For example, a large number of seniors living below the poverty lines may spur a local government to push for more age restricted housing. Alternatively, local governments may respond to the potentially biased considerations of their most politically active residents. Indeed, local governments might be highly responsive to the loudest community voices (Einstein et al., 2019), and restrict housing to those they perceive to have the lowest impact on public life and finances. At a basic level, given low turnout in local elections (Hajnal et al., 2022), we might expect public officials to be especially sensitive to constituents they expect to be most politically active: older, longtime residents. Local governments may be also respond to racial threat or animus. White communities that perceive themselves to be under threat from more diverse places may be especially incentivized to build affordable housing that benefits their current residents, and potentially excludes non-white prospective residents (Key, 1949; Hopkins, 2009; Enos, 2018).

Critically, these drivers of potential local decision-making are rooted in local—not regional—preferences and demands. In a fragmented metropolitan area and devolved federal system, local governments pursue policies that are in their own self interest (Peterson, 1981). In the absence of state preemption, there is no mechanism for effective coordination or policy-making across municipalities, and many places have little incentive to account for broader regional demand when making decisions about housing (Burns, 1994; Dreier et al., 2004; Trounstine, 2018).

Subsidized housing types profoundly shape for whom they are accessible. Here, we outline three important attributes: (1) rent type; (2) age restriction; and (3) unit size. This list is by no means exhaustive of all possible restrictions that can be attached to affordable housing. For example, an analysis of unit attributes misses the ways in which waitlist management can also attach its own potentially exclusionary requirements. While subsidized housing is a scarce good virtually everywhere, in some communities, it is so oversubscribed that access to dictated by lengthy waitlists managed by lottery agents. These waitlists can include all sorts of attributes so long as they abide by fair housing

laws. Some communities, for example, might choose to prioritize people who recently experienced homelessness or who are fleeing domestic abuse. While there are myriad of these preferences that we might analyze for this paper, we focus on one with potentially exclusionary aims: local preferences. Communities can choose to prioritize people who live or work in their communities when selecting applicants for affordable housing off of waitlists. There are no systematic data available on these waitlists, but limited evidence suggests they are prevalent: one company in Massachusetts that ran lotteries across the state used local preferences in 14 of the 27 developments for which there was information available online (Einstein and Palmer, 2022). For both data availability reasons and conceptual clarity, we focus here on *unit traits*; as we will show in our ensuing data analysis, they prove both prevalent and consequential.

Rent type. There are two primary ways that subsidized housing units charge rent. The first, more financially accessible type, charges rent as a percentage of a household's income—putting housing within reach even for the lowest income housing. The second type of subsidized housing sets rent as a percentage of the area median income. Many developments might allow people to qualify so long as their income is at or below 80% (or some other percentage) of the area median income. This means that people earning solidly middle-class salaries qualify for subsidized housing—and pay rents that may seem astronomical for so-called affordable housing. For example, in the city of Boston, a family of four with an income of \$118,720 qualifies as 80% of median area income. An "affordable" 2-bedroom unit charging rent based on the area median income will cost them \$2,672 per month.² All of these unit types are classified as "affordable," in official counts of subsidized housing. The type of rent will consequentially radically shape the income levels of individuals who can access a particular development and broader community.

Age Restrictions. While fair housing law prohibits restrictions based on a variety of demographic traits, housing developments are permitted to include age restrictions that only allow residents above a certain age to reside in a unit. These restrictions will vary from place to place: some developments set age restrictions as low as 55, while others are set to 62 or 65. Governments and advocates justify these restrictions on the grounds that seniors have specific housing needs that can be best met in developments targeted to that population. These restrictions may also be popular with local governments and residents who perceive seniors to create fewer traffic and service burdens relative to, say, families with children. Seniors are also a powerful interest group at the local level (Anzia, 2018), and frequent, disproportionate local voters (Hajnal et al., 2022).

Senior housing may also serve more exclusionary aims. Seniors are, on average, less diverse and more likely to be White than the nation as a whole—

 $^{^2} The city of Boston outlines eligibility for various types of affordable housing here: https://docs.google.com/spreadsheets/d/1w2YD5z__2eFEK2aCxUG4j18KCCx2aA1R1ix_vOp9oqI$

and significantly more White than children under the age of 18. Senior housing may consequentially also be attractive to a city or town hoping to maintain racial exclusivity.

Unit size. Different-sized units are accessible to different households. Families with multiple children may prefer units with two or more bedrooms, while single people or seniors looking to downsize may seek smaller units. Unit size thus has a potentially profound impact on which types of households can access a particular community.

Data: Massachusetts Subsidized Housing

Because of the fragmentation in who funds, permits, and develops subsidized housing, collecting data on affordable housing developments is a complex and difficult undertaking. The state of Massachusetts helps to illustrate these challenges, and provides a novel opportunity for understanding the allocation of subsidized housing.

The state collects systematic data on subsidized housing as a result of an unusually strong preemption law passed in 1969, Chapter 40B. The law allows developers to bypass local zoning laws if two conditions are met: (1) at least 25% of units in their proposed project are subsidized; (2) less than 10% of the housing stock is subsidized in the the community in which the project is proposed. As a consequence, the state uses a Subsidized Housing Inventory (SHI) (see Figure 1) to track the subsidized housing stock in each municipality. The state only tracks units; there is no information about the precise affordability of those units or for whom the units are designated. From the perspective of the state, one-bedroom units reserved for seniors are just as good as three-bedroom units for families. Units that are only affordable to lower-middle class residents of a town are as good as deeply affordable units accessible to the poorest families.

In other words, the state of Massachusetts and its local governments do not know how many units of different sizes are located in their communities, how many units are age restricted, or, the prices of different units. They may not even have accurate data on total unit counts; for mixed-income developments, which include both market-rate and affordable units, the Subsidized Housing Inventory counts *all* units, not just the affordable ones as SHI units. So, a mixed-income development with 20 subsidized units and 80 market rate units would count as 100 SHI units. Consequentially, the state is miscounting a significant number of market-rate units—one estimate places the number as high as 33,000—as affordable.³

Massachusetts is, in many respects, a best case scenario for governmentprovided subsidized housing data. Few states have this type of legislation

 $^{^3 \}rm https://housingnavigatorma.org/wp-content/uploads/2024/02/Data-Reveal-Presentations-all.pdf$

Executive Office of Housing and Livable Communities Chapter 40B Subsidized Housing Inventory (SHI) as of June 29, 2023*

	2020 Census	Total		
	Year Round	Development		
Community	Housing Units	Units**	SHI Units	%
Abington	6,799	666	489	7.19%
Acton	9,151	1,517	737	8.05%
Acushnet	4,275	125	95	2.22%
Adams	4,299	324	324	7.54%
Agawam	12,313	620	558	4.53%
Alford	237	0	0	0.00%
Amesbury	7,808	841	663	8.49%
Amherst	10,684	1,467	1,252	11.72%
Andover	13,464	2,212	1,675	12.44%
Aquinnah	215	33	33	15.35%
Arlington	20,400	1,615	1,299	6.37%
Ashburnham	2,448	144	29	1.18%
Ashby	1,206	0	0	0.00%
Ashfield	800	20	19	2.38%
Ashland	7,456	1,021	419	5.62%
Athol	5,207	261	261	5.01%
Attleboro	19,049	1,166	1,166	6.12%
Auburn	6,979	366	366	5.24%
Avon	1,830	75	75	4.10%
Ayer	3,783	381	226	5.97%
Barnstable	21,915	1,816	1,485	6.78%
Barre	2,234	83	83	3.72%
	10-0	1.		

Figure 1: Excerpt from the Massachusetts Subsidized Housing Inventory.

in place, meaning they have little incentive to engage in this type of policy tracking. As a result in most communities, we lack even basic unit counts. This means that policymakers and scholars do not even know which communities have the largest shares of subsidized housing or which policy programs have been effective at producing subsidized housing, among other things. In short, we have little information about how this scarce good is allocated.

To address these formidable data challenges, we rely on data collected by Housing Navigator Massachusetts, a non-profit organization that seeks to make information about affordable housing available to prospective tenants across the Commonwealth. Housing Navigator has the only high-quality statewide data on the supply of affordable housing; this information is not available from any state office. Housing Navigator defines an affordable housing unit as a "permanent rental property with an income restriction that accepts applications from the general public. This definition includes public housing, LIHTC-funded housing, 202s and inclusionary housing." Housing Navigator assembled its inventory by working with local governments, receiving submissions from property owners

 $^{^4 \}rm Housing~Navigator~Massachusetts,~``FAQ/Methodology,'' https://housingnavigatorma.org/wp-content/uploads/2024/01/FAQ_Glossary.pdf$

and managers, and independent research from county registries of deeds and assessors.

For each unit, the data includes the municipality, unit size, subsidy type, and if the unit has age restrictions.⁵ The data do not cover a variety of other potentially important attributes, including the year built, other restrictions on residency, and preferences in how the lottery operates, such as a preference for local residents. We supplement the Housing Navigator data with municipal-level U.S. Census data from the 2022 American Community Survey (ACS) on race, age, income, and housing prices in each municipality.

Overall, we have data on 207,573 units, distributed across 3,340 developments in 280 municipalities (the remaining 71 municipalities in Massachusetts do not have any subsidized housing). Subsidized housing is unequally distributed across the state. Boston, the largest city in the state, has 24% of the subsidized units. Worcester, the second-largest city, has only 4%.

Affordable Housing Supply Restrictions

The Housing Navigator data demonstrate the substantial variation in the supply of affordable housing across municipalities in Massachusetts. Figure 2 shows the distributions of three key variables across the 280 cities and towns in our dataset. The top panel shows the distributions of subsidy types. We divide subsidies into two broad categories: units where the rent is based on a percentage of individual income, and units where the rent is based on a percentage of the area median income (AMI). We consider units with two or more bedrooms to be accessible to families, as they have at least one bedroom for the adult(s) and one for the child(ren). Finally, the third panel shows the distribution of units with age restrictions. While the exact minimum age set in the restrictions varies across municipalities (typically 55–65), these restrictions are designed to create housing reserved for older residents.

As shown in Figure 2, the supply of subsidized housing varies greatly across municipalities. However, it does so in systematic ways. For example, wealthier communities have a much smaller share of subsidized housing units than poorer communities. Figure 3 shows this relationship, with median housing price on the x-axis and subsidized housing units as a percentage of total housing units on y-axis. This relationship is not a function of variations in local demand. Wealthier towns located next to poorer towns tend to have much smaller shares of subsidized housing, even though the demand for this housing isn't limited to each town individually. For example, Springfield is one of the poorer cities in Massachusetts, with a relatively high share of subsidized units. The

⁵Unit size defines if the unit is a single-room-occupancy (SRO), studio, or the number of bedrooms.

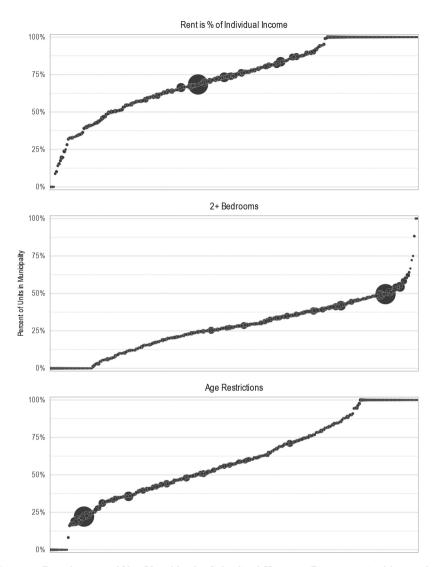


Figure 2: Distributions of Key Variables for Subsidized Housing. Points are sized by number of subsidized units in the municipality.

surrounding towns, however, have much lower shares of subsidized housing, despite high demand in the Springfield metro area.

While these data show troubling inequities in the supply of affordable housing, they mask the full extent of potentially exclusionary choices cities and towns might make. Below, we explore variations in rent type, age restrictions, and unit size.

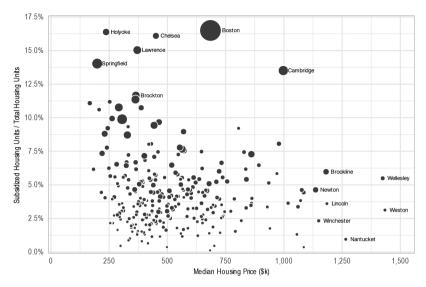


Figure 3: Wealthier Municipalities Have a Lower Share of Subsidized Housing. Points are sized by number of subsidized units in the municipality.

How much housing of each type *should* each community build? There are many factors that may drive the variation of subsidized housing amounts and types we observe in Figure 2, including demand for subsidized housing by different kinds of people, zoning and other housing regulations, and the preferences of decision-makers and residents in these municipalities. Measuring demand for subsidized housing overall and for particular populations (seniors, families, etc.) is difficult because, while demand may vary across the state and metropolitan area, Massachusetts is divided into a set of small municipalities, and individuals can move across these units. The population of low-income people in a particular municipality is not a good measure of demand for affordable housing in that place, as there is also demand from outside the municipality.

Given a state-wide housing crisis, we measure the demand side of housing at the region and state level, rather than at the municipal-level. For example, in the Boston-Cambridge-Newton MSA, 9.0% of people earn incomes below the poverty level. Among people aged 60 and older, 9.4% of people earn incomes below the poverty level.⁶ In other words, demand for subsidized housing is roughly the same for seniors and non-seniors.

Similarly, when wealthy towns permit subsidized housing, the units are more likely to have rents based on the area median income, rather than the individual's income. Figure 4 shows the relationship between median housing price and the percent of units in the municipality where the rent is based on

⁶American Community Survey, 5-year averages, 2018–2022, Table B17020.

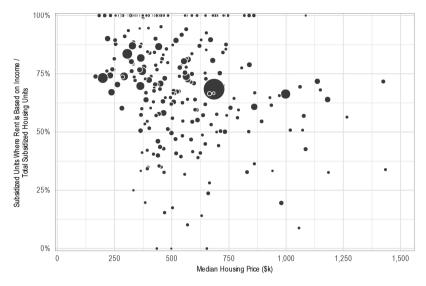


Figure 4: Wealthier Municipalities Have a Lower Share of the Most Affordable Subsidized Housing. Points are sized by number of subsidized units in the municipality.

the individual's income. Through this choice of rent-setting mechanism, even the subsidized housing in the wealthiest towns can be exclusive. For example, in Winchester, MA, a wealthy suburb of Boston, the 2024 monthly rent for an affordable two-bedroom unit at Sanctuary at Winchester West was \$2,292.

Many local governments justify these allocations on the grounds that they meet the needs of the current population. Indeed, local residents and governments cite an array of concerns when making decisions about housing, including schools, traffic, the environment, and concerns about the effects of new development on municipal finances, services, and character (Einstein et al., 2019). Taking the example of senior housing, the state of Massachusetts, and, indeed, the country as a whole, faces a rapidly aging population, making the case for additional senior housing intuitive. Many communities especially value the prospect of allowing current residents to age in place. Such housing is also perceived by some as a money-saver, with small, senior-oriented housing unlikely to place additional financial burdens on the schools.

Ongoing efforts to redevelop the Mugar Wetlands in Arlington, MA help to illuminate these dynamics. In 2016, Oaktree/Greenline LLC proposed a multifamily housing development under the state's Chapter 40B law. While the development is eligible to bypass local zoning under state law, town officials have been fiercely contesting whether, among other things, Arlington is subject to the state statute. Community opponents—who research shows hold sway

⁷https://search.housingnavigatorma.org/navigator/listing/HN-MA-017638

over public officials (Einstein et al., 2019; Sahn, Forthcoming)—immediately objected to the apartments on a variety of grounds. Some residents worried about the burden new apartments would place on schools. One member of the Coalition to Save the Mugar Wetlands noted, "The last 20 people who have moved into our neighborhood are all families with kids moving out of cramped Boston spaces. We think that trend will continue. The developer is projecting only about 30 school-age children, but in the three homes on my shared driveway we have eight children alone." In response to concerns like these—amplified by town officials—the developer reduced the total number of affordable units and made them age-restricted. Cities and towns can also use the size of units to effectively accomplish the same aims as age restrictions. A comment from a resident at a 2017 Milton Planning Board meeting illustrates this point: "the [small] sizes of the proposed apartments [are] good considering the overcrowding of the school."

In short, local governments do not have an incentive to take into account broader regional or statewide demand when deciding what housing gets built and to whom it should be allocated. Perhaps unsurprisingly, this has led to a supply of subsidized housing that does not match the region-wide demand. Figure 5 shows the breakdown of housing across three categories (senior housing, family housing with 2+ bedrooms, and smaller units) and two kinds of rentsetting mechanisms (based on individual income and based on area income). Statewide, 39% of all units are reserved for seniors. However, people over sixty make up only 22% of the populations with incomes below the poverty level in Massachusetts. 10 These units overwhelmingly have the most affordable type of rents. Thirty-nine percent of units are suitable for families, but these units are less likely to have the most affordable rents. Finally, 23\% of units are one bedroom or smaller, and are even less likely to have the most affordable rents. According to Housing Navigator, the greatest demand among housing-seekers is one-bedroom units for non-seniors, which municipalities have been reluctant to permit. When we exclude Boston, Worcester, and Springfield, the three largest cities in the state, the supply of senior housing grows to 46%, and 2+ bedrooms drop to 34% and smaller units to 19%.

Affordable Housing Supply Restrictions: Age Restrictions

Given the variation in subsidized housing across municipalities, we now turn to examining what municipal factors best predict the types of affordable housing

 $^{^8 \}rm https://www.belmontcitizens forum.org/2017/03/15/mugar-wetlands-project-stalled-for-now/ <math display="inline">^9 \rm https://www.yourarlington.com/arlington-archives/town-school/development/ <math display="inline">21703-mugar-100323.html$

 $^{^{10}2022}$ American Community Survey, Table B17020, "Poverty Status in the Past 12 Months by Age."

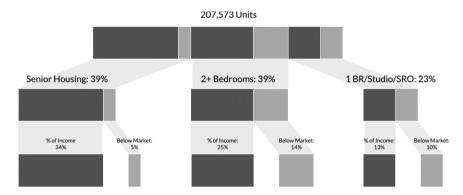


Figure 5: Supply of Subsidized Housing by Types. The top row of this figure shows the total number of subsidized housing units. The second divides these units into three categories: Senior Housing, 2+ Bedroom (Non-Senior) and 1 Bedroom, Studios, or Single Room Occupancy Units (Non-Senior). The third row splits each category by rent type: Below Market or Percent of Income.

in each place. We focus on the oversupply of housing restricted to seniors as a percentage of subsidized housing units.

Across the 280 municipalities in our sample, 44 (16%) restrict all of their subsidized housing units by age, and 72 (30%) restrict at least 80% of their units by age. However, unlike the total subsidized housing supply, the share of subsidized units restricted by age is not associated with income or housing costs in the municipality. Figure 6 shows the relationship between median housing price and the percent of subsidized housing units with age restrictions. Not only is there not a statistically significant correlation between housing prices and restrictions, but the municipalities with the highest share of restrictions span most of the price distribution; less expensive and more expensive municipalities both fully restrict their housing by age.

Given these preferences for senior housing, why do we observe such variation in the share of units with age restrictions across Massachusetts? Why do some towns only permit subsidized housing with age restrictions, while others, with similar median incomes and housing prices, permit a broader mix? These results cannot be explained as simply a function of need for senior housing, with demographically similar communities pursuing such disparate housing policies.

We estimated linear regressions where the dependent variable is the percentage of subsidized units in a municipality with age restrictions, and the independent variables are demographic characteristics of the municipality. We find a consistent relationship between the percentage of people in the municipality who are White and the share of subsidized housing with age restrictions. Model 1 of Table 1 shows this relationship. In Models 2–6 of Table 1 we add additional demographic variables: the percentage of the population aged 60 or

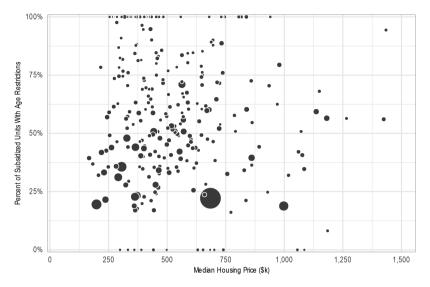


Figure 6: Supply of Subsidized Housing by Age Restrictions. Points are sized by number of subsidized units in the municipality.

older; the percentage of the population with incomes below the poverty level; the percentage of the seniors with incomes below the poverty level, and the percentage of people with incomes below the poverty level who are seniors. In Model 6 we include all of these variables in a single model. Across all six models, there is a significant positive correlation between the percentage of the population who is White and age restrictions. We interpret this as support for our hypothesis that race may help explain these variations. We also find a positive correlation between the percentage of people with incomes below the poverty level who are seniors and age restrictions, suggesting that actual need for senior housing is correlated with age restrictions. Figure 7 presents the results for the relationship between age restrictions and White population.¹¹

We interpret our results with caution for several reasons. First, many of the variables of interest are correlated, including income, poverty status, and race. Second, we are measuring the current demographics of these municipalities, not the demographics at the time of each decision to restrict or not restrict a

¹¹We also considered the possibility that the geographic context of the municipality may also be correlated with age restrictions. For each municipality, we identified all of the neighboring cities and towns, and calculated the demographics of the surrounding communities. However, we do not find consistent evidence of correlations between the characteristics of neighboring municipalities and age restricted housing. For example, we find a statistically significant correlation between the percentage of residents of neighboring municipalities who are Black and age restrictions. However, such relationships are not robust to the inclusion of additional control variables.

Table 1: OLS of Percent of Subsidized Units with Age Restrictions.

Dependent Variable:			% Age Rest	% Age Restricted Units		
Model:	(1)	(2)	(3)	(4)	(2)	(9)
Variables						
Constant	0.0154	0.0666	0.3028^{*}	-0.0489	0.0083	0.2979
	(0.0996)	(0.1029)	(0.1779)	(0.1694)	(0.0990)	(0.1977)
Median HH Income (\$k)	0.0007*	0.0005	0.0000	*6000.0	0.0006	-0.0003
	(0.0004)	(0.0004)	(0.0006)	(0.0005)	(0.0004)	(0.0000)
% White	0.5988***	0.7310^{***}	0.4473***	0.6380***	0.5271***	0.5854***
	(0.1131)	(0.1333)	(0.1368)	(0.1407)	(0.1173)	(0.1604)
$\%~{ m Aged}~60+$		-0.4666*				-0.7994^{***}
		(0.2521)				(0.2977)
% Below Poverty Level			-1.118*			-0.2157
			(0.5750)			(0.8975)
% Seniors Below Poverty Level				0.2666		-0.6264
				(0.5684)		(0.9339)
% Below Poverty Level Who Are Seniors					0.2505**	0.4140^{**}
					(0.1180)	(0.1993)
Fit statistics						
Observations	280	280	280	280	280	280
R^2	0.10988	0.12080	0.12192	0.11059	0.12419	0.15288
Adjusted R^2	0.10345	0.11124	0.11237	0.10092	0.11467	0.13426
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Note: IID standard-errors in parentheses Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

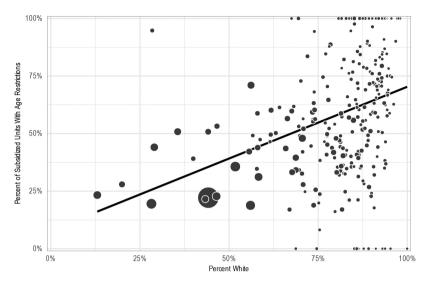


Figure 7: Relationship Between Town Racial Demographics and Age Restricted Subsidized Housing.

new subsidized unit by age. These decisions are may have been made several decades ago, under different demographic conditions; without the year of each development (currently unavailable), we can't match the demographics to the decisions to restrict. However, the relationship between current racial demographics and age restrictions are strong, and robust to including control variables for age, poverty status, and neighboring municipality demographics.¹²

Conclusion

By differentiating across types of subsidized housing, our research uncovers: (1) its incredible variety, and (2) the ways in which this scarce resource can be used as a tool of exclusion. Supply and demand often do not match because the production of subsidized housing is shaped by many factors that play no role in filling the housing once it is built.

What's more, in many ways, this paper presents an optimistic scenario. Massachusetts has some of the most aggressive subsidized housing laws on the books nationwide. Its state policies are responsible for the production of thousands of deed-restricted affordable units that would not otherwise exist. In

¹²As an additional test of this relationship, we estimated a series of random forest models to predict the share of subsidized housing with age restrictions using a variety of demographic variables for the municipality and its neighbors. Across every specification, the percentage of White residents in the municipality was consistently the most important variable to include (as measured as the mean decrease in node impurity).

many states, these government-subsidized units are simply not being produced at all. And, what units are being produced are not being tracked in a way that allows for meaningful policy evaluation. We hope that future research can continue to push for similar data collection in other contexts to provide further geographic generalizability to our findings.

One important limitation of this paper is that its analyses represent a snapshot. We do not have information on when subsidized units were constructed, so we cannot definitively connect contemporaneous demographics with unit production. Future longitudinal analyses would allow researchers to better identify the causal mechanisms leading to the production of particular affordable housing types—and how these policy choices may contribute to downstream racial and economic segregation.

This paper shows that simply comparing subsidized and market-rate developments belies enormous complexities in this policy area. We hope that future research can take seriously the call to disaggregate political and policy analyses of subsidized housing, and further illuminate how different levels of government decide what type of subsidized housing to build and for whom.

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