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Mitigating the Portland Housing Crisis: Analyzing How the City of Portland's Policies Can Better Facilitate Continuous Affordable Housing Development

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By

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Abstract

In this thesis I ask: *What policies should the City of Portland, Oregon, enact to increase the supply of affordable housing?* To answer this question, I first outline the current state of housing in Portland and current policies affecting housing in Portland. I then provide a review of scholars' findings on effective housing policies in the United States, Europe, Australia, and Thailand. Finally, I compare these scholars' recommendations to the current policies in Portland to determine what policies the City of Portland should maintain, how policies can be improved, and what policies should be considered for new implementation. I find that the City of Portland is practicing many policies that are in line with scholars' recommendations, but also has room to improve. Primarily, Portland's mandatory Inclusionary Housing program, which is a crucial component of its affordable housing programs, follows scholars' recommendation by offering various options with multiple incentives to provide choice to housing developers. The City offers density bonuses, tax incentives, and parking mandate exemptions as part of their Inclusionary Housing program and separate from it. However, Portland should also consider implementing other policies, such as land subsidies, joint ventures, expanding land banking practices, and more. I also recommend further analysis on the Inclusionary Housing program's effect on housing production rates, Oregon's statewide rent cap, and Portland's rental relocation assistance program overall.

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Mom and Dad: Here's to saving the world. I hope you enjoy me trying to save a little part of it. Thank you for always encouraging me to think bigger, smarter, and just a little bit harder, and all your support.

Grandpa: College is hard and expensive. Thank you for making it a bit easier and a bit cheaper.

Coul: Thank you for being my best friend, a sounding board, and a companion through mirrored experiences.

Marta: Thank you for your love and support, and bearing with me through 2am "I'm almost done" moments.

Jim: Thank you for being my mentor, friend, and boss. Here's to evidence-based governance and making the world a better place.

Rebecca: Thank you for greeting me with open arms, lighting a fire underneath me, and guiding me toward success.

Portland State University: Let knowledge serve the city.

Introduction

The US Housing Crisis

Most metropolitan areas in the United States face a housing crisis. Housing is both more expensive than experts recommend, and its demand exceeds the supply. Metropolitan areas facing this crisis are estimated to have an “underbuilding gap” of 7 million units (Joint Center, 2020; Lowrey, 2022). America faces a free-market economic reality where prices for this commodity have soared to match the outpaced growth of demand relative to supply. But, the free market does not account well for one crucial characteristic of housing as a commodity: its demand is not very elastic to price. Even when prices increase because of a supply shortage, demand for housing doesn’t decrease at a proportional rate, facilitating the continued increase in housing prices where demand exists. This pattern has led to the demand for urban housing increasing as urban populations grow, while its supply continually underproduces (Hsieh & Moretti, 2019; Kingsella & MacArthur, 2022).

Demand for housing can be categorized by configuration and location. Both of these housing demands can fluctuate with price, but not to the same degree that the demands of more common commodities fluctuate with price. The configuration of housing can be a preference for some individuals but may be a necessity for others. College students, for example, may have a housing preference, but most can live in a studio, share a 1-bedroom dorm, share a 2-bedroom townhouse, or live in a fraternity-style home. A family of four on the other hand, may in theory be able to live in a studio, but in reality – to maintain basic sanity, privacy, and needed space – at minimum require a 1-bedroom home, and would be far better off in a 2-bedroom home. Similarly, individuals who are elderly, have a disability, or other unique needs, may require a home that is accessible and easy to navigate.

In the same vein, the location of housing is only flexible for some individuals. For those who work remotely or are retired, opportunities for where to live are greater. For those who commute to work, living too far away, such as a 2-hour commute, while in theory is feasible, in practicality is nearly impossible. Furthering the importance of location of housing, other factors such as transit and walkability, cultural connections, family, and proximity to stores and parks greatly influence where we live. And, individuals who are elderly, have children, have a disability, are low income, or have other unique needs, may need to live somewhere that is near amenities that are accessible, welcoming, safe, and affordable.

Thus, for many people, finding a different home configuration or moving somewhere else simply isn't a solution to too-expensive housing. As a result, because of high housing prices and the high demand for housing, renters are paying a higher percentage of their income on rent. As of 2018, about 80% of renters who made less than $30,000, over 50% of renters who made $30,000-$44,999, and over 25% of renters of who made $45,000-$74,999 paid more than the 30% of their income on housing, putting them in the category of "rent burdened" (Joint Center, 2020).

As rent and home purchase prices continue to increase in metropolitan areas, other areas of life are negatively affected as well. First, Americans' overall spending power is circumscribed by the priority of paying for costly housing. Second, high housing prices exacerbate segregation by social class, which can decrease social mobility. Since housing is de facto organized by income, increased housing costs further constrict an already limited availability of housing within individuals' price ranges, decreasing opportunities of different-socio-economic classes living alongside each other (Ramakrishnan et al., 2021). And third, the lack of affordable housing is the leading cause of increasing rates of homelessness in the United States (Colburn & Aldern, 2022).

Thus, getting our housing in order should be of great importance to those concerned with the economy's success and stability, standards of living, socioeconomic integration, the homeless crisis, and increasing the general wellbeing for upcoming generations. While this problem could, in theory, be solved by the private action of housing-related businesses (such as construction companies, real estate development firms, and property management) taking action to increase supply or decrease the cost of housing, this has yet to happen. So, *how can the public sector facilitate the betterment of the housing market?*

Grand swaths of recommendations are plausible to nudge governments toward improved housing efficacy. However, since housing markets and policies vary across states and their localities, to truly make policy actionable, it must be targeted to its level of implementation and location. Therefore, in this thesis I ask: *What policies should the City of Portland, Oregon, enact to increase the supply of affordable housing?* To answer this question, I first outline the current state of housing in Portland and current policies affecting housing in Portland. I then provide a review of scholars' findings on housing policies in the United States, Europe, Australia, and Thailand. Finally, I compare their recommendations to the current policies in Portland to determine what policies the City of Portland should maintain, how policies can be improved, and what policies should be considered for new implementation.

The State of Housing in Portland, Oregon

The Portland Housing Crisis

The State of Oregon is projected to need about 554,691 new housing units by 2042, with 32% of these units (176,300) being affordable housing. With a population of about 4.24 million in 2022, Oregon needs to gain housing equal to roughly 13% of its current population in 20 years (United States Census Bureau, 2022), building approximately 27,735 new housing units per year.

While the housing crisis exists statewide, it is especially acute in Portland. Regional housing reports indicate that over the next 20 years, the Portland Metro area will generally need over

220,000 new units (ECONorthwest, 2021). The City of Portland has identified that it needs at least 23,000 low- and moderate-income units (Portland Housing Bureau, 2022b). The City does not clarify whether this means there is a current deficit of 23,000 units or that Portland must build 23,000 units to keep in line with projected demand. However, given other reports on housing explaining Multnomah County's (the county encompassing Portland) deficit in housing, the former is likely the case (Small, 2018).

The need for this housing is showing. Portland's homeless population has grown tremendously, increasing by over 1,000 individuals to about 5,200 people, from 2015 to 2020, with the primary reason for homelessness listed as too expensive housing (Portland Housing Bureau, 2023a; Colburn & Aldern, 2022). The median home sale price in Portland has increased from just over $300,000 in 2012 to over $500,000 in 2021. Median rent is $1,614/month, which is 39% of Portland's median renter household income ($49,643), meaning renter households with median income and median rent are rent burdened (Portland Housing Bureau, 2023a; Joint Center, 2020).

Portland's Current Solutions

Because of the severity of the housing crisis plaguing Portland, the City of Portland (the city government), Oregon Metro (the Portland metropolitan area regional government), and the State of Oregon (the state government) have implemented a variety of policies to increase affordable housing production. While this paper focuses on policies managed by the City of Portland, it describes Oregon Metro's and the State of Oregon's policies affecting housing in Portland to best understand the context the City of Portland's policies are operating in.

These policies can be sorted as short-term and long-term policies. Short-term policies aim to develop and improve a fixed number of housing units or solve problems that require housing as a solution but are not caused by the current lack of housing. Long-term policies aim to aid in the overall development and improvement of affordable housing units. While short-term policies play a crucial role in housing development, long-term policies are what will guide the City of Portland out of its housing crisis because they facilitate the development of housing in a scalable (in price and goals) and long-term manner.

Short-Term Policies Affecting Housing in Portland

In an attempt to construct more housing to begin alleviating pressures of the modern housing market, Portland voters passed the Portland Housing Bond in 2017, which gave the City of Portland $258.4 million to build 1,300 units of affordable housing in the short-term future. As of 2021, 314 units were opened under this project, and 1,176 units were underway, totaling 1,490 units with $58.6 million (23%) in funds still available. (These remnant funds could build another 337 housing units at the same average cost of previous units built with the bond.) (Portland Housing Bureau, 2022a) While this bond will objectively make a positive impact on Portland, it has committed to only 6.5% of the 23,000 low- and- moderate-income units Portland needs (Portland Housing Bureau, 2022b) after spending $200 million, which is 77% of its total funds. If all low- and- moderate-income housing currently needed was built at this monetary rate by the City of Portland, it would cost about $3 billion. Similarly to the Portland Housing Bond, voters passed the Metro Affordable Housing Bond of $652.8 million to develop 3,900 affordable units across the Portland metropolitan area in the short-term future, allocating Portland $211 million to build 1,475 affordable units.

The City of Portland's Permanent Supportive Housing Plan and N/NE Housing Strategy are short-term development programs. The Permanent Support Housing Plan is developing a fixed number of units to provide housing for long-term homeless individuals. The N/NE Housing

Strategy addresses the legacy of urban renewal and community displacement in North and Northeast Portland by creating a limited number of new affordable home purchasing opportunities, affordable rental units, and land banking for future development, focusing especially on equity for those displaced by past policies (Portland Housing Bureau, 2023).

Long-Term Policies Affecting Housing in Portland

As of 2019, Oregon maintains the first-in-America statewide annual rent increase cap. This caps rent increases at 7% + inflation and only applies to units that have existed for 15 years or more. (e.g., units that opened in 2010 are not affected by the rent cap in 2024 but are affected by the rent cap in 2025.) At 14.6% in 2023 (and 9.9% in 2022) and not applying to new units, this rent cap doesn't protect renters sufficiently. While the rent cap is expected to decrease as inflation declines, a 14% rent increase only needs to happen six times before it doubles in cost. Even a 10% rent cap can be insufficient for many, as it would only take eight 10% increases before rent would be doubled (Ramakrishnan, 2023).

Somewhat similar to a rent increase cap, the City of Portland requires landlords pay relocation assistance (varying by rental size) if their tenant is displaced because of a rent increase that is greater than 10% annually (City of Portland, n.d.a). This sliding-scale rental relocation assistance is equal to 19% of average annual studio rents, and 18% of 1, 2, and 3-bedroom rents (Portland Housing Bureau, 2023; Portland Housing Bureau, 2020).

As of 2017, the City of Portland maintains an inclusionary housing program that requires "all residential buildings proposing 20 or more new units provide a percentage of the new units at rents affordable to households at 80% of the median family income or below" (Portland Housing Bureau, 2021a). However, this program allows developers to build no affordable units onsite and instead build affordable units offsite in another development or to pay a fee in lieu of building affordable units. If developers choose to build affordable units onsite, they receive multiple cost offsets, including various tax exemptions, parking requirement exemptions, and density bonuses (Portland Housing Bureau, 2021a). (The City of Portland calls their cost offsets "incentives," but most scholars call these cost offsets.) If developers build offsite, they are offered fewer cost offsets, are required to build within a one-half mile radius of the original building or in an equal or higher Combined Opportunity Map score of the original building, and the units must be "reasonably equivalent in size, quality and bedroom count" relative to the original building (Portland Housing Bureau, 2021a). From the program's inception in 2017 to October of 2021, 192 private projects were permitted or were in the process of being permitted to build 1,313 affordable units through the program. This is equal to over $196 million dollars in publicly subsidized housing, according to the City of Portland (Portland Housing Bureau, 2021b).

The City of Portland also provides five main development cost offsets for affordable rental units. The Deeper Housing Affordability Program offers a density bonus for creating affordable units, including three-bedroom units to support families. The System Development Charge (SDC) Exemption Program reduces fees associated with building housing for affordable housing developments (Portland Housing Bureau, n.d.). These two programs, along with exemptions from parking mandates, 10-year property tax exemptions, and more, are used as cost offsets in Portland's Inclusionary Housing program (Portland Housing Bureau, 2021a). The Manufactured Dwelling Park Affordable Housing Bonus Density Program offers a density bonus for what is colloquially known as mobile home parks that provide affordable homes (City of Portland, 2020). The Non-Profit Limited Tax Exemption reduces property taxes on low-income housing provided by nonprofit organizations. The Affordable Housing Transfer Program allows developments to transfer Floor Area Ratios (FAR) (i.e., density regulations) to another development if all units involved are affordable. So, if one affordable housing development does not build up to its maximum allowed density, (the development only has a 1.8 density ratio when 2.8 is the maximum allowed), the "remaining density" can be transferred to another affordable housing development (the receiving development's density maximum would increase from 2.1 to 3.1) (Portland Housing Bureau, n.d.; Portland Housing Bureau, 2023; Portland Housing Bureau, 2021a).

Unlike the previous five policies that provide cost offsets during the construction of housing, the Multiple-Unit Limited Tax Exemption (MULTE) provides cost offsets after development is complete by granting projects a 10-year exemption to taxes on structural improvements to the property (City of Portland, n.d.).

The City of Portland also practices limited land banking for future development of affordable housing. Land banking is when individuals or institutions (like governments) purchase land for future development. Governments can use land banking to provide land to affordable housing projects at low or no cost to decrease overall development cost. The extent that Portland land banks appears extremely limited, as it is mentioned in plans, but rarely and without much detail (Portland Housing Bureau, 2023; Saltzman & Manning, n.d.). For example, the City of Portland explains that while the great majority of Metro Bond funds are used to fund the development of housing, some of its funds are going to land banking in the Broadway Corridor, but does not offer further details (Portland Housing Bureau, 2023).

These current solutions are making progress, but there is more work to do to resolve Portland's housing crisis. Ultimately, Portland needs to build even more housing and decrease its cost. Through a review of scholarship on affordable housing policy, this paper will examine how the City of Portland's housing policies can be improved to increase housing production and housing affordability.

Review of Scholarship on Affordable Housing Policies

While one might expect that simply increasing housing supply will decrease rental and purchasing costs, this is not the case. Housing surpluses and housing supply constraints (regulations and geographic constraints on the construction of housing, decreasing relative production of housing) are found to affect home purchasing prices, but are not the primary driver in rent changes (Murray, 2021; Molloy et al., 2020). An analysis tracking the percent annual growth of housing costs in Australia against the surplus of housing from 2000 to 2019 concludes that housing shortages and surpluses do not directly cause price shifts (Murray, 2021). An examination of the history of rent prices, purchasing prices, and housing supply constraints concludes that rents were already disproportionately high in areas before supply constraints went into effect (Molloy et al., 2020). Further, an example from Taiwan shows that home and rent price indexes do not adjust to equilibrium with each other. While the Taiwanese indexes approach each other when a greater gap exists, smaller gaps between the indexes do not lead toward equilibrium, and it takes over a year for home prices to moderately influence rental prices (Tsai, 2012). So, changing home prices does not necessarily mean changing rental prices. Therefore, reducing the housing supply shortage will have beneficial impacts on its own by shrinking the gap of needed and available homes. But increasing housing supply to decrease rental prices, especially when only adjusted in small quantities, is not expected to produce an elastic, normative response.

Scholars in the field of housing supply and costs have examined other methods utilized in attempts to increase the supply of affordable housing. The following literature review examines five of these methods, (rent control, inclusionary zoning, density bonuses, land subsidies, and interest rates) to understand their efficacy. Scholars are in consensus that the path out of a crisis like the one Portland is experiencing requires housing with multi-family density and up. Thus, discussions involving single family housing are not examined, unless they are integrated into discussions about housing stock as a whole.

Rent Control

One common recommendation to mitigate the affordability concern of the housing crisis is to regulate the cost of housing through rent control. Rent control is when the government (typically local when used in the US) controls the price of rent, often by creating a maximum rent or a maximum rent increase per year. As mentioned above, the State of Oregon has a statewide annual rent increase cap at 7% + inflation.

Scholars have observed that rent control is effective at managing short-term rental costs (Sturtevant, 2018; Sims 2007). A study of rent control in Boston, Massachusetts that controlled 20% of rental housing stock from 1985 to 1998 observed that rent control is an effective method of managing the price of rent, decreasing rent by $170-450/month (dependent on the coefficient used in analysis) (Sims, 2007). A review paper (Sturtevant, 2018) found similar rent-dampening effects of rent control when vacancy decontrols and vacancy allowance conditions were not in place.

However, rent control can have long-term detrimental effects on the housing market (Sturtevant, 2018; Wilhelmsson et al., 2011). Sturtevant (2018) observed the following seven key issues with rent control. First, rent control allows higher and lower income families to benefit from its price regulation. Second, lower prices caused by rent control incentivize families to stay in rent-controlled units, even when the size or location of the unit no longer fits their needs. Third, rent-controlled units and complexes suffer from deterioration and/or a lack of investment. Fourth, rent control leads to a decrease in the available supply of housing. Fifth, rent control generally leads to more expensive rents in the uncontrolled market. (In some cases, rent control actually decreases rents in the uncontrolled market, but this price decrease may be caused by a reduction in maintenance of rent-controlled units, causing detrimental impact on their aesthetics, and therefore negatively affecting the market rate of surrounding housing (Sims, 2007)). Sixth, rent control is generally effective but has a variety of loopholes dependent on policy variation. Seventh, there are significant costs to implementing rent control.

Wilhelmsson et al. (2011) analyzed Sweden's nationwide rent control program, which sets the rental prices across Sweden annually, concluding that the Swedish rent control program leads to market inefficiency. Locations with high demand had rent prices lower than market value and locations with low demand had rent prices higher than market value. Reducing rents below market value for affordability purposes is often the goal of rent control, but, maintaining artificially high rents in low-demand locations is counterproductive to the purpose of rent control.

In summary, rent ceilings work to reduce the cost of regulated units, but have detrimental effects which may impact the housing quality of rent-controlled units and nearby non-rent-controlled housing stock, and the quantity and cost of housing stock overall. Attempting to control for these detrimental effects by rent controlling a broader portion of the housing market, like Sweden's nationwide rent control program, does not guarantee an ideal system, however, as rent control has the possibility to overprice units.

Inclusionary Zoning

Inclusionary zoning is when (often local) governments require that X% of units built in an apartment complex are priced for low-income households. Many local governments use inclusionary zoning mandates in hopes of producing affordable housing without direct subsidies (Schuetz et al., 2011; Powell & Stringham, 2004).

On their own, inclusionary zoning mandates can lead to a decrease in housing production and an increase in housing costs (Schuetz et al., 2011; Powell & Stringham, 2004). For example, the average jurisdiction in the Bay Area created about seven affordable units per year via inclusionary zoning, totaling 2-3% of all housing produced from 1987 to 2003. This output of affordable units is small, especially when compared to other programs like the federal Low-Income Housing Tax Credit (LIHTC), which produced an annual average of about 1,800 units in the same location from 1987 to 2003. One possible explanation of the detrimental effects of inclusionary zoning is that inclusionary zoning passes the lost revenue or cost of mandated affordable units to property management, acting as a tax to those who collect rents (Schuetz et al., 2011). Further, the administrative oversight for inclusionary zoning can be cumbersome on both the managing jurisdiction and property management when too stringent, leading to excess costs and unnecessary waiting periods to fill vacant homes. These effects lead to complications in building more housing by increasing resources required to build and lease housing, decreasing supply production and increasing prices (Powell & Stringham, 2004).

When inclusionary zoning is paired with other policies that offset its added costs to property management, inclusionary zoning is effective at facilitating the construction of affordable housing. Density bonuses, land subsidies, lower interest rates, and/or fast-track planning increase the profitability of inclusionary zoning, with up to 30% of units mandated as affordable becoming feasible under these policies (Ryan & Enderle, 2012; Warren-Myers, 2019). Notably, these cost-offsets can be negated by other requirements, such as parking space requirements (Ryan & Enderle, 2012). It's also important that the inclusionary zoning mandates strike a balance of stringency, so that they are effective, but not burdensome to a point of restricting housing supply and increasing housing costs (Schuetz et al., 2011; Powell & Stringham, 2004). One example of an inclusionary zoning success is from Montgomery County, Maryland, where from 1974 to 2010, over 10,000 affordable units were produced, largely due to their inclusionary zoning-style law which included density bonuses (Ryan & Enderle, 2012).

One common variation of inclusionary zoning includes “in lieu” fees, which allow developers to pay a fee in lieu of providing integrated affordable units. In lieu alternatives can benefit or cause detriment to housing policies, dependent on goals, resources, and other contextual factors. As an example, some jurisdictions rely on in lieu fees to contribute to their fund to construct or rehabilitate affordable homes. While there are three common methods of calculating appropriate in lieu fee costs, what matters is if the fee represents the real cost of constructing affordable homes equal to the ones not being built (Shroyer, 2020).

Thus, without subsidies, inclusionary zoning does not prove effective at promoting affordable housing. However, with subsidies and a careful balancing of policies and priorities, inclusionary zoning is an effective method of increasing the supply of affordable housing.

Density Bonuses

Density bonuses are when properties are given permission to build at a higher density than what would typically be allowed. This augmented density has proven effective at increasing the feasibility of inclusionary zoning (Warren-Myers et al., 2019; Rowley & Phibbs, 2012). In Australia, when housing projects are offered a 20% density bonus, their capacity to support 25% or more units as affordable is expected to greatly increase (Warren-Myers et al., 2019).

However, density bonuses can be negated if improperly implemented and can be politically unfavorable (Rowley & Phibbs, 2012; Ryan & Enderle, 2012). Housing experts caution the land must be bought by the developer before the density bonus is agreed upon, or those selling the land may attempt to incorporate the land density bonus into their selling price, largely nullifying the benefit of the density bonus (Rowley & Phibbs, 2012). Another way density bonuses can be less effective than intended is when they are curtailed by “public aversion, market forces, regulatory obstacles, and local inaction," as they were (and possibly still are) in California (Ryan & Enderle, 2012, p.415).

Density bonuses can also cause inequitable outputs. In San Diego, density bonuses for inclusionary zoning are clustered in areas where higher density was politically acceptable in the 1980s and where development costs were low, "i.e. where there is little political resistance and where socially and economically excluded populations tend to reside." (Ryan & Enderle, 2012, p.423)

Overall, density bonuses prove effective at promoting affordable housing, especially when in conjunction with inclusionary zoning. However, without proper regulation and foresight, the use of density bonuses can have their own detrimental effects.

Land Subsidies and Banking

Land subsidies are when housing projects are given a discount or subsidy on the purchase price of the land the project will be built on. Government land subsidies can generally be provided by direct subsidies to the land purchase or by land banking. Land banking is when governments purchase land strategically to use, sell, or give in the future. Because land value typically increases over time, purchasing land earlier on can save money. Further, if governments land bank, they gain the opportunity to leverage the land in housing development deals or provide low-cost land to affordable housing projects. This discounted land increases the feasibility of affordable housing policies, such as inclusionary zoning (Warren-Myers et al., 2019; Rowley & Phibbs, 2012; Granath Hansson, 2019). Because land is sold between private entities at maximum profit, land subsidies provide a crucial step in affordable housing. When land purchase prices decrease, then the potential for affordable housing increases (Rowley & Phibbs, 2012). For example, when housing projects are offered a 30% land subsidy, their capacity to support a percentage of affordable units increases to 25% or more (Warren-Myers et al., 2019).

Granath Hansson (2019) examines strategies that the cities of Berlin, Hamburg, Stockholm, and Gothenburg use to build affordable housing. Hamburg uniquely utilizes a land allocation technique which considers the cost of the land and the project concept to promote affordable housing. Stockholm and Gothenburg use direct land allocation of their already-banked land, which is considered less costly and more convenient than traditional market competition. Berlin first offers its banked land to municipal housing companies, then to housing construction cooperatives, both through direct allocation. If neither are interested, Berlin then offers its banked land to the private market on a competitive basis. Granath Hansson explains how the ability of a government to set the price of land can play a key role in the quantity of production of housing and its cost, by lowering the cost of a housing project to strategically increase the development of affordable housing. While adjusting the price of land is easier in locations where the land is owned by the government, providing land subsidies to support affordable housing mimics the effects of land allocation discussed here and still benefits the production of affordable housing. Overall, land subsidies are effective at promoting affordable housing by decreasing the net cost of the project, which allows for lower rents.

Low Interest Rates

Housing projects are typically funded by loans paid back with interest. When interest rates on housing projects are lower, the total cost of the project, and therefore minimum level of rent, are also lower (Warren-Myers et al., 2019; Rowley & Phibbs, 2012; Granath Hansson, 2019). For example, when Australian housing projects are offered a 7% interest rate instead of a 12% interest rate (on 100% of their debt), their capacity to support a percentage of affordable units is expected to increase to 20% or more because of the overall decrease in cost (Warren-Myers et al., 2019). Similarly, Berlin uses interest-free loans to promote the construction of affordable housing by requiring that these interest-free housing projects have 20-33% of units at a certain rental cost per square meter and stay rent controlled for 20 years (Granath Hansson, 2019).

Low interest rates are not always easy to obtain, but governments can help. Interest rates are determined by analyzing the risk of project failure. As a result, big, known, trustworthy developers are more likely to secure smaller interest rates than newer, smaller developers, and the riskier a project is, the higher interest rate it will have. Governments can reduce project risk and increase trust by participating in joint ventures. Joint ventures are when the government dedicates some of its resources (often money) to a housing project. Joint ventures can guarantee a cash flow from the government to the bank, increasing trust in the success of the housing project that needs the loan. Thus, when governments partake in a joint venture, they increase trust in the project's success, potentially decrease interest rates on the housing project loan, and therefore increase the feasibility of affordable housing development (Rowley & Phibbs, 2012). Governments can also offer their own low-interest rate loans to housing projects to reduce overall housing development costs. These loans can cover only a percentage of project costs or the entire project, dependent on government objectives and funds available (Granath Hansson, 2019). While government-provided loans are not technically joint ventures, they may have a similar effect of lowering banks' interest rates if the housing project is funded by both government and private loans. When the government provides a loan to a housing project, it shows the government's investment, and therefore trust in the project. Banks may see this and respectively increase their own trust in the project, and therefore lower their interest rates.

Overall, lower interest rates for housing projects are effective at promoting affordable housing. Lower interest rates for housing projects can be achieved by governments partaking in joint ventures to increase trust in the success of the project. Governments can also directly offer low-interest rate loans themselves, which may also provide the same benefits as joint ventures for remaining private-market funding of the housing project.

Recommendations to the City of Portland

With the information above, I now review and compare the City of Portland's policies against policies recommended by housing scholars. While Portland has both long- and short-term policies, I only review long-term policies because they are scalable in price and goals to develop a sufficient amount of affordable housing to guide Portland out of its housing crisis. Short-term policies play a crucial role in assisting and stabilizing the housing market, but will not solve the cause of our housing crisis: chronically under-developing housing.

The Inclusionary Housing Program

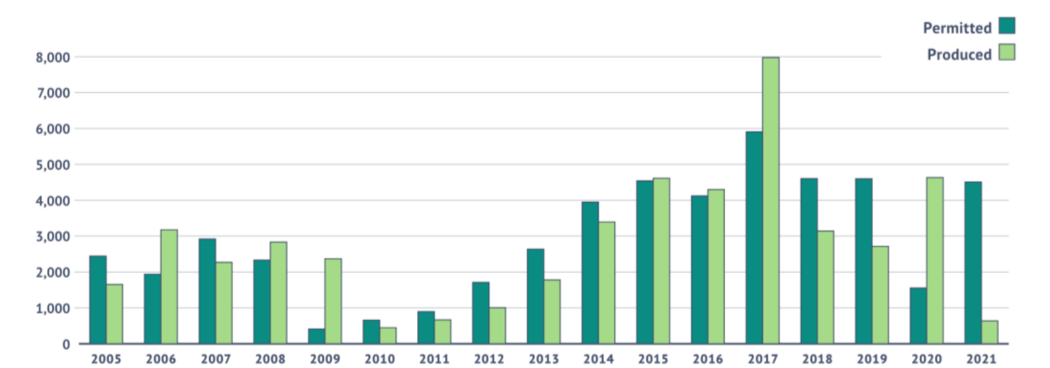
The cornerstone of Portland's affordable housing programs is its Inclusionary Housing program, which requires all buildings with 20 or more units to follow its requirements for affordable units. The first step to analyzing the success of this Inclusionary Housing program is to examine whether it has caused a decrease in housing production, which is antithetical to the goal to produce more affordable housing. The program relies on certain cost offsets to reduce the disincentivizing effect it may have on housing development (which would lead to a decrease in housing production). These cost offsets are FAR (density) bonuses, development fee exemptions, parking mandate exemptions, and 10-year property tax exemptions (Portland Housing Bureau, 2021a).

As a point of reference, between 4,000 and 5,000 multi-family homes were developed in 2015 and 2016. Since the Inclusionary Housing program's implementation in 2017, multi-family housing development surged to about 8,000 units in 2017, then dropped to about 3,000 units in 2018. Then, housing production increased past 2015 and 2016 levels in 2020, but fell to under 1,000 units produced in 2021 (Portland Housing Bureau, 2023; Figure 1). During this time, single-family housing development remained relatively stable, staying between 600 to 900 units, until 2021 when it halved its production to just over 300 units (Portland Housing Bureau, 2023; Figure 2).

While the development of multi-family housing appears to have been negatively affected by the 2017 implementation of the Inclusionary Housing program, it seems to have rebounded in 2020, only to be interrupted by COVID-19 in 2021 (USA Facts, 2023). It's possible multi-family housing production returned to pre-Inclusionary Housing rates in 2020, but it is difficult to tell if this would have been a sustainable return or anomaly because of COVID-19's disruption. Further analysis is needed to conclude if the Inclusionary Housing program has a detrimental effect on multi-family housing development.

Figure 1

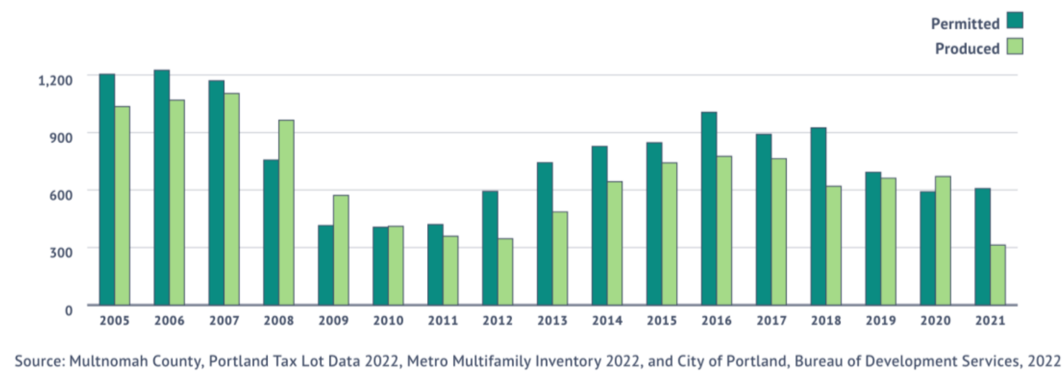
Multi-Family Unit Permits and Production, 2005-2021, (Portland Housing Bureau, 2023a, p.28)



Source: Multnomah County, Portland Tax Lot Data 2022, Metro Multifamily Inventory 2022, and City of Portland, Bureau of Development Services, 2022

Figure 2

Single-Family Unit Permits and Production, 2005-2021, (Portland Housing Bureau, 2023a, p.28)



While it is difficult to tell how Portland's Inclusionary Housing program will affect the quantity of multi-family housing development in the long term, we can more certainly observe that developers are generally not trying to avoid the program by building under its activation threshold of 20+ units per building. Records indicate that developers have only avoided the project six times in 2019, 2020, and 2021 combined, when they built multiple buildings under 20 units instead a single building over 20 units (Ambati, 2022). This observation is promising, but requires further examination as housing production normalizes after COVID-19 (USA Facts, 2023).

The cost offsets in the Inclusionary Housing program, FAR (density) bonuses, development fee exemptions, parking mandate exemptions, and 10-year property tax exemptions follow scholars' recommendations to successfully offset the costs of mandated affordable units. While development fee exemptions and 10-year property tax exemptions were not examined by the scholarly work reviewed in this paper, their effects are similar to other cost offsets examined. Development fee exemptions mimic parking mandate exemptions and land subsidies by providing an upfront cost reduction in development. The 10-year property tax exemption mimics lower interest rates by reducing the amount required by the developer to pay back annually (for its 10-

year duration). The FAR bonuses and parking mandate exemptions follow scholars' more direct recommendations on how to offset costs of inclusionary housing mandates.

The current cost offsets for Portland's Inclusionary Housing program are promising, but the City of Portland should also examine the effects of land subsidies and land banking, along with how to lower housing project interest rates through joint ventures and government loans, to determine how the program can be optimized. Land subsidies and banking are effective at reducing development costs for housing projects, and land banking provides Portland an opportunity to strategize what is developed where past the broader regulations of zoning.

The City of Portland should examine creating a city fund to provide low-interest rate loans as a cost offset for the Inclusionary Housing program and to facilitate other affordable housing developments. A low-interest loan decreases annual loan payback requirements for developers, decreasing overall housing project costs. This city loan could be supplementary or the sole loan developers use. If supplementary, the city loan may sway banks (who provide remaining funding) to offer lower-interest rates to the developer because the project will seem more likely to succeed, thanks to the government's financial support of the project.

Portland's Inclusionary Housing program alternative of building affordable units offsite is not well researched by scholars. While the requirements of this alternative appear likely to ensure similar housing offsite compared to building onsite, the results of this alternative should be analyzed to confirm the development of similar housing. The alternative of a fee in lieu of building affordable units can be appropriate for Portland if the funds from the collected fees are used appropriately and properly calculated. Therefore, Portland should examine whether this fee in lieu is equal to how much it would cost the City of Portland to develop similar affordable housing and adjust it accordingly.

In summary, the City of Portland should continue its Inclusionary Housing program while analyzing multi-family housing development in coming years to determine if the program decreases overall housing production. If the program does decrease overall housing production, Portland should redesign the program to reduce its detrimental effect of decreasing housing production. The City of Portland should also examine how to fine-tune its current offsets, along with considering the potential benefits of land subsidies, augmented land banking, and joint ventures as offsets for the Inclusionary Housing program and as separate incentives for affordable housing. The Program's offsets should be continually researched and adjusted to best ensure the development of inclusionary, affordable housing.

Other Density Bonus Programs

The Deeper Housing Affordability Program and Manufactured Dwelling Park Affordable Housing Bonus Density Program are two density bonus programs separate from the Inclusionary Housing program to facilitate affordable housing development. Both of these programs augment density permitted to facilitate the development of affordable housing, following scholars' recommendations. In its use of density bonuses, Portland should be careful to ensure that its effects are equitable and not restricted by politics, market forces, or administrative processes.

No programs similar to Portland's Affordable Housing Transfer Program were examined by the scholars reviewed in this paper. Further research should be done on the efficacy of the Affordable Housing Transfer Program to facilitate the development of affordable housing. That being said, if the program acts as a density bonus to the receiving development without having adverse effects, then it expected to succeed if utilized, as density bonuses have proven effective at facilitating the development of affordable housing. Further research should examine how frequently this transfer program is used and its effects.

Annual Rent Increase Caps

The City of Portland's rental relocation program requires that any tenant that moves because rent increased 10% or more in a 12-month period is paid relocation assistance equal to about 18% of their annual rent. This acts similarly to a rent increase cap by disincentivizing (but not banning) 10% or more annual rent increases. At 18% of annual rent for 1, 2, and 3-bedroom apartments, it would take landlords 18 years to recuperate the fee in rent increased 1% past 10% (11% rent increase), 9 years at 2% (12% rent increase), and 6 years at 3% (13% rent increase). While not guaranteed, this is likely a strong preventative measure against rent increasing more than 10% annually in Portland. Further research should analyze whether this policy is effective at preventing rent from increasing past 10% in Portland and whether it decreases housing development.

While this paper focuses on the City of Portland's policies, it's important to know the effects of circumferential policies to understand what gaps remain in policies that affect Portland housing. The State of Oregon maintains a rent cap equal to 7% + inflation. While localized and limited rent caps may cause long-term detriment to housing supply, it's possible a statewide annual rent increase cap that is flexible to inflation may not cause similar harmful effects. Further, since Oregon's rent cap does not set the price of housing, but just implements a ceiling, it does not face the issue of overpricing housing.

Oregon's rent cap excludes developments built in the last 15 years, possibly offsetting the decrease in housing production associated with rent caps. Alternatively, this leaves new, non-regulated developments at risk of big price increases. Even with the regulations of the rent cap, allowing price increases of 7% + inflation is still fairly gratuitous. The City of Portland and the State of Oregon should seek to find the lowest annual increase cap that does not hinder the housing market in order to best protect renters. Ultimately, like Portland's rental relocation program, Oregon's annual rent increase cap is a new type of policy that need further research. With the potential to do good or harm, the policy's effects should be tracked, and it should be adjusted accordingly.

Conclusion

In this paper I asked, *what policies should the City of Portland, Oregon, enact to increase the supply of affordable housing?* To answer this question, I first outlined the current state of housing in Portland and current policies affecting housing in Portland. I then provided a review of scholars' findings on housing policies in the United States, Europe, Australia, and Thailand. Finally, I compared their recommendations to the current policies in Portland, to determine what policies the City of Portland should maintain, how policies can be improved, and what policies should be considered for new implementation.

The City of Portland is practicing many policies expected to be successful in producing affordable housing, but also has room to improve. Portland should continue practicing its Inclusionary Housing program while also examining various factors to better understand how it can be improved. Notably, this examination should include how the Inclusionary Housing program impacts multi-family development rates, and if multi-family development decreases past the initial two-year drop in production, how to mitigate this detrimental impact. The City of Portland should also continue density bonuses, development-related tax exemptions, and 10-year property tax exemptions to offset the costs of inclusionary housing and to promote affordable housing separate from the program. Lastly, Portland should consider utilizing land subsidies, joint ventures in a long-term program, and expanding its use of land banking to optimize its affordable housing development programs. Future research should study the effects of Portland's rental relocation program and the State of Oregon's statewide rent increase cap to see how they impact rental prices and housing development in Portland and across the state.

Other policies that may be of interest to the City of Portland and similarly situated localities, but that I was unable to include in this paper, are land-value taxes to replace more traditional property taxes to incentivize better use of land; regulating building size to produce more three- to six-story apartments that are more affordable to develop per unit than higher-story buildings; reducing permit approval time to reduce time-induced costs of housing development; and non-profit, less-for-profit, or municipal housing development and management to decrease overall housing prices by decreasing profits from rents. These policies should be further researched to determine their efficacy in increasing affordable housing in American metropolitan areas, including, but not limited to Portland, Oregon.

This paper examines Portland's affordable housing policies to determine their current and expected success by comparing them to scholars' observations and recommendations on similar policies. Localities in similar situations and crises to Portland should consider analyzing Portland's policies and their effects to inform how they may address their own crises. They might also consider an analysis like the one I've presented here to compare their current policies to scholars' recommendations.

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