

# How cities can do to provide affordable Housing

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# 1 Abstract

Housing policy is an issue that deeply affects everyone. A particular acute problem is the widespread lack of affordable housing. A large number of people find themselves cost burdened which is linked to many negative outcomes. A problem of this scale has led to governments at the local and federal level to create policies to address this issue facing so many Americans. In this paper, we will examine the severity of this housing crisis, some of its likely causes, and what strategies have been attempted and the research analysing how effective these strategies are.

# 2 Introduction 1

The issue of a lack of affordable housing especially for the poorest quintile of the population is a pervasive issue in the United States. The scale of this issue is often understated in media. The National Low-Income Housing Coalition(NLIHC) in 2018 issued their report "The Gap : A Shortage of Affordable Housing" which showcases the severity of the crisis[The National Low Income Housing Coalition, 2006]. They define a household as being in extremely low-income if their income is below 30% of the the AMI(area median income) or the national poverty guideline which is higher. There are 10.9 million renting households meeting this definitions. That accounts for a full 25% of the renter population in the US. Of these extremely low-income households 71% of them are severely cost burdened, meaning more than 50% of their income goes to rent. A Harvard study found that in the nine largest metros 51% of all households are pay more that 30% of their income to rent [Harvard University, 2017] . NLIHC found that there 7.3 million households are affordable to the extremely income, a massive of 3 million units between the demand for low income housing and its supply(fig 1). Worsening the situation, the reports stated number of extremely poor households is an underestimate of those who are very in need because their data does not include the homeless(approx 500,00 across the United States) or doubled up households. But the severe housing shortage is not equal with respect to income. By the time you get the the highest income bracket there is a surplus. See figure 1. The share of who is severely cost burdened by housing also does not cut equal across race, with 20% of black renters being are extremely low income vs 6% of white renters.

Given the state of such a crisis it is understandable that policy makers at all levels of government are interested to learn what they can do to help. In this paper we examine the most common strategies and their effectiveness. The ideal policy should help poor people be less cost burdened by rent and not restrict the future supply of housing as that is a clear issue. Less important this policy would also help people move to higher quality neighborhoods and be relatively efficient. The three main types of proposals we will examine

are housing vouchers, rent control, and housing regulation objections.

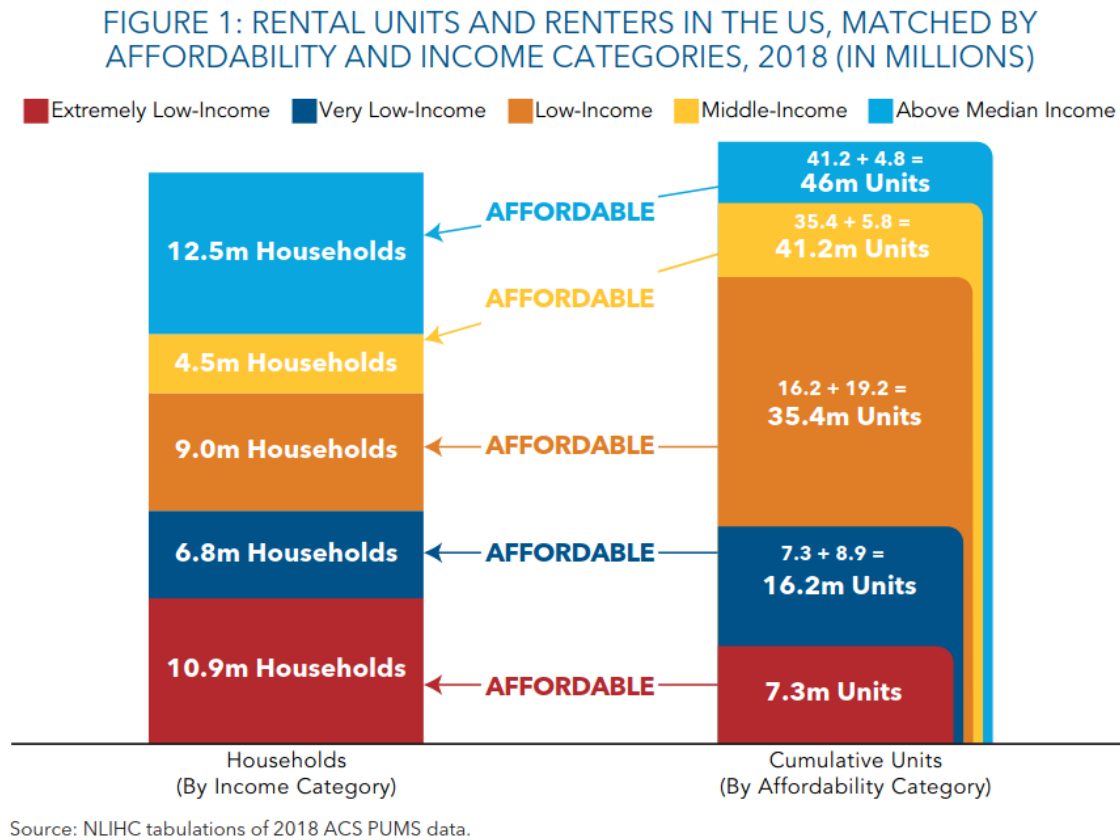


Figure 1: Total of households at or below income levels vs the cumulative supply of housing available to them. Image is produced by by THE GAP

### 3 Vouchers

The policy of providing housing vouchers that pay some portion of the rent for people living in fair market rent housing. The Center on Budget and Policy Priorities claims that 2.2 million families benefit from housing vouchers [cbpp, 2017]. The most common type of voucher is section 8 housing, vouchers in which voucher holders pay a maximum of 30% of their income to rent and the government handles the rest. A voucher holder is only allowed to live in housing which has rent that is at or below what is called the fair market rent. The fair market rent of a unit is determined by how much an average unit in each should be paying in rent. These rents are updated by HUD every year for one, two, three, and four bedroom units. For example the 2020 FMR for a two bedroom apartment in Minneapolis is \$1214 whereas the FMR for a 2-bedroom apartment in New York City is \$1951 [HUD, 2020]. The housing available to voucher seekers can be anywhere in the range between 90% and 110% of the FMR living a degree of freedom to the local housing

authority.

Although vouchers one could justifiably criticize voucher programs for not addressing what I outlined what the root of the housing problem is, the insufficient supply of low-income housing, they are quite effective at what they try to accomplish. Voucher recipients were found to be 80% less likely to be homeless, 50% less likely to be doubled up, and in 2014 2.8 million people were lifted out of poverty by rental programs of voucher research suggests vouchers make up more than 50% of this effect[Fischer, 2015].

Despite these successes housing voucher programs could be made better. Desmond and Perkins show that voucher recipients found that housing vouchers in Milwaukee are charged somewhere between \$51 and \$68 more per month in rent [Desmond and Perkins, 2016]. The reason they suggest is that if a voucher holder is living in a neighborhood that is below the city-wide FMR, landlords can overcharge to the FMR and the tenant is unlikely to move because they personally don't have to pay more and finding a new apartment in a better neighborhood that accepts voucher holders, which many apartments do not, takes time and effort. They also explain that landlords really do change their rent in correlation with increases of the countywide rent ceilings. A \$1 increase in the rent ceiling increases rents by \$0.13 - \$0.20. The more serious issue is that the current number of voucher holders is insufficient. Approximately,  $\frac{2}{3}$  of renters receive no assistance and housing vouchers in popular culture have notoriously long wait lists[Eggers and Moumen, 2013].

There are actually two different main avenues that the local housing authority can institute how the ceiling is set. The first and most natural way is to set the ceiling uniformly across the metro area. This has the potential problems. Research has shown that this type of ceiling This way of allocating for housing vouchers doesn't necessarily encourage people to seek out better neighborhoods. But there is another approach that has been implemented in the Dallas region that has shown key successes in helping people to not only afford an apartment but afford a higher quality apartment. The approach they took is the to create a variable ceiling where units in better neighborhoods had a more generous ceiling then those in lower quality neighborhoods. This turns out to be an effective approach. [Collinson and Ganong, 2018] found that implementing this change increased the average quality of neighborhood by new leases by 0.23 standard deviations. They are quick to point out that this is a very notable improvement, this is a larger improvement that the improvement one sees from a tenant going from unsubsidized to subsidized. Making this even more impressive is the fact that compared to a uniform rent ceiling, this strategy was budget neutral. What are the issues with Voucher Programs [Metcalf, 2018].

### 3.1 Rent Control

Rent control is the strategy of fixing the rent or at least the maximum rate rent can rise annually that apartments may charge their tenants. Rent control is much less common in the US but not absent. New York City has the most experience with it but many cities from across the country with cities such as San Francisco and Boston have attempted. Placing a cap on allowable rents is the most natural strategy to keep rents affordable rent control but it is not the most effective strategy to help help people.

Economic theory is clear in it's prediction that rent control shouldn't work as it introduces artificial market inefficiencies and if very widespread might reduce the construction of new housing stock since there is a risk at in the future the apartments revenue stream getting capped. The later concern is especially theoretical because of how infrequently it is used and how it is exactly implemented usually, which will be discussed below. Stemming from these theoretical concerns, economists almost wholly are opposed to rent control. One survey from 1990, showed that over 90% of economists believed rent control reduced the quantity and quality of apartments.

In practice as well rent control is flaw about not so terribly as pure economics theory would suggest. Almost invariably rent control polices are implemented with a common set of design choices. First, rent control doesn't apply to future developments. That is it is only units built before the a specified date in the bill to which rent control applies. This should help alleviate the fear that a future investment in an apartment complex can be easily targeted by rent control, to do so requires creating and passing an entirely new bill. Based on data it seems that rent control doesn't seem to The other common feature is that there a mechanisms for how apartments under rent control can reset to FMR or raise prices. Typically, a unit can reset rent to it's fair market value when the current occupant leaves. This creates conflicting forces between the landlord and the rent controlled tenant as the longer the tenant stays the more their rent diverges from the current FMR of that unit so the tenant is encouraged to stay in that unit longer then they otherwise would while the landlord would love the tenant to live. Another avenue that landlords may increase rents beyond their annual limit is if they provide a substantial improvement to the unit. On paper this exception makes sense, if this wasn't in place a landlord is actively discouraged from improving their property since it is a cost for no increased revenue and probably even a loss of future revenue if it convinces rent controlled tenants to stay longer. Finally, an apartment can get out of it's rent control obligations by converting to condos that owned by the occupants. Typically, in a rent controlled area some sort of board is responsible for approving rent increases from improvements and for deciding if a rented apartment will be allowed to convert to a non-rent complex. A landlord controlling a rent controlled complex is given incentive to pursue either of these options. But in practice, this undermines the goal of providing affordable housing to the

most poor. Converting your apartment to a more luxurious apartment or making it owner occupied attract higher income demographics. In San Francisco, researchers observed this effect. They found that rent control increases the average income of the tenants [Diamond et al., 2019]. Specifically, units renovated in this way attracted new tenants with incomes 18% then units that were in the control group and started out as similar quality. That is rent control is a driver of increased gentrification.

## 4 Regulations

One reason that many are not in favor of rent control or housing vouchers is they seem to not address the core issue of the housing crisis of limited supply. So some suggest we should look at how to encourage the increase the supply of housing. A common policy that economist believe is a key contributor of a constricted housing supply is regulations on new units. If more is needed to build a new unit then construction costs are higher which necessarily leads to higher rents to be more sustainable. Because the additional cost of a regulation tends to be uniform across the quality of unit, regulations can act repressively and hurt poor people the most. There are two key dimensions to look at when examining the effect of regulation, how much does it increase the cost of construction and how binding is it, that is in the free market without the regulation how frequently is the regulation implemented. For instance, although building sufficient parking is expensive we could imagine a theoretical neighborhood that lacks public transportation so having a car is so important such in the absence of legally mandated requirement to build a minimum number of parking spaces a contractor might build close to what they would have been required without the regulation. In this made-up scenario, parking spots would not be very binding which means the regulation is limiting supply minimally since without close the same effect would be achieved. How binding a requirement is matters but we would predict that some of the poorest citizens if given the choice might to opt to live in a more affordable apartment that lacks some provisions provided by regulations. Also it is important that not all regulations are bad, many protect the health and safety of the tenants and the community but they do come at a cost by limiting the supply of housing. Two particularly well studied regulations are minimum parking requirements and minimum lot requirements.

### 4.1 Parking requirements

"The high cost of free parking" by Shoup gives insight into how large an effect parking requirements place on new construction[Shoup, 1997]. A developer can opt for above ground or below ground parking. Above ground parking is cheaper to construct, averaging around \$20,000 per spot in contrast to below ground parking requiring up to \$50,000 per spot to construct. For both of this estimates of per spot it should be

recognized that there are significant fixed costs in construction of parking so the per spot cost is less the more spots are built for a structure. The reason underground parking is still a viable option despite its cost because it is more space efficient. With an above ground parking lot/ramp we are using space for parking that could be used for something else. From a city perspective, this reduces urban density. Jia and Wachs found that in San Francisco units with parking sold for approximately 10%-13% more [Jia and Wachs, 1999]. They explained that is this a critical percentage change. From income data they estimated that 69,000 households had the income to support a mortgage to buy a property with parking and that an additional 16,000 could afford a mortgage on a unit without parking. In this way, requiring parking can very strongly decrease the number of people who can find affordable housing. One question that arises is how binding are the requirements to build parking? Perhaps in the absence of regulations many developers would still opt to build a lot of parking spots because tenants want parking. If it is binding or close to it then the regulation isn't actually doing much positive or negative. This is a question that doesn't yet have a strong definitive answer. The best answer we have is that in NYC developers tend to build close to the minimum number of required parking spots implying that in the absence of regulation fewer parking spots would be constructed [McDonnell et al., 2011] [Cutter and Franco, 2012] since if developers wanted to build more parking they are already free to do so. It is unclear how drastic the drop in parking would be if developers were allowed to build the amount of parking they wished.

## 4.2 Minimum Lot Requirements

Economic theory would suggest that the cost of apartments shouldn't greatly exceed the cost of construction. In reality, this does hold closely for many smaller cities but it fails miserably in the largest cities experiencing acute housing pains. For instance, in Manhattan it is estimated that construction of an apartment typically costs \$100-\$200 per square foot of space but condos in Manhattan can easily sell for more than \$600 per square foot [Glaeser et al., 2003]. This is a massive profit margin of a rate of return over 300%. It seems like these profit margins should feed investment to drive up the supply of housing but that is not the case. Glaeser et. al conjecture that the culprit of the inadequate growth of the housing supply is regulations on new construction that function as an implicit tax on construction. Of course, the costs and values of a new unit are not uniform across all construction in Manhattan. For example, Glaeser et. al. found that the value of a unit increases from \$400 per square foot for units on floors 1-10 to \$573 per square foot for apartments above the tenth floor. This large gap is explained partially by having better views and partially due to taller apartments being associated with higher quality apartments. The authors contest that it is the regulations that are responsible for the gap between construction costs and value. After all, we have the technology

to build denser neighborhoods, in particular build up, and there is a financial incentive to do use. They comment that it is not just the literal dollar cost of a regulation like was the case with parking but also the all the stages of getting a permit to build can be difficult. Many neighborhoods are opposed to building densely in their neighborhood and these concerned citizens can create substantial barriers to construction which introduces a lot of uncertainty in investment. Evidence for this conclusion has been replicated in other cities as Boston as well [Glaeser and Ward, 2006]. It is interesting to note that in both Boston and NYC the high price of housing can not be reasonably explained by the limited amount of land in the area, in fact both are less densely built then the market would predict of areas with such in demand housing.

## 5 Incentives

Given the limited housing supply especially the role regulations can play one wonders is there is some set of forces pushing against increasing the supply of low income housing. It has been suggested that one of the primary reasons these regulations remain in place is explicitly because they are efficient tools to constrain the housing supply and increase the cost of homes. Economic theory has been developed specifically around locally provided public goods. The first insight was that consumers, here potential tenants, could state their demand for public services by moving to communities with the services they desire. Because these services are provided to all the citizens of a community this introduces something like a free-rider problem, where a public good is paid for by on set of the consumers of the good while a disjoint set consumes it without paying into services. But in this case it's more like a cheap rider where a community with great services incentivize people to build small cheap housing so that you pay minimal property taxes so as to get the public good for as cheap as possible[Fischel, 2003]. Basically, if a home worth \$1000 was in the same neighborhood in same neighborhood as one worth \$1,000,000 both benefit from the same services like public schools, police, infrastructure, and fireworks but the \$1000 homeowner had to pay a fraction of the cost to accrue these benefits. Economist Bruce Hamilton suggested that zoning values that increase the minimum value of a new home such as lot size and parking requirements but a floor on how cheap cheap-riders can consume the local public services. Furthermore restricting the supply of new housing in an in-demand city would increase the property values of existing homes. One study found that in the greater Boston area [Glaeser and Ward, 2006]. Research has also shown that homeowners vote more frequently than non-homeowners so the incentive to maximum the value of ones property is magnified in elections [Fischel, 2001].



## Conclusion

In this paper, I have shown that the housing crisis can indeed be called a crisis. It is an issue that affects many Americans with the poorest members of society being very disproportionately hurt by the existing housing situation. Research and economic theory suggest that one of the key component of this shortage of housing is regulations such as parking requirements and minimum lot requirements make it difficult to build affordable housing. The way in which these regulations exclude poor people may not be accidental either as restricting the supply of housing and keeping the quality of housing high increases the prices of homes. The inflated prices of homes will benefit current homeowners who as a demographic are more likely to vote. For poor people a fundamental problem is there simply isn't a sufficient supply of housing to them with nationally a gap of more than 3 million more extremely low-income households than the number of units this demographic could find affordable. Housing Vouchers, although not perfect are an excellent tool that policy makers can and should invest more in if they want to help poor people get out of poverty today. Rent control fails to help poor people in the same way instead it benefits current residents and costs future residents through the decreased supply of market rate housing.

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