



## Chapter 8

# Expanding Affordable Housing

Incomes in the United States are rising, but home prices are rising much faster in some highly regulated markets. While overall homeownership rates have increased since 2016, some disadvantaged groups lag behind. As households turn to the rental market, moderate-income households are dedicating a large share of their incomes to rent. The housing affordability problem shows no signs of subsiding in certain markets, as housing construction fails to keep up with demand, putting upward pressure on home prices and rents.

Fortunately, the majority of areas in the United States have relatively well-functioning housing markets in which regulations do not significantly drive up prices. Indeed, smart regulations that balance the need to build enough housing to meet growing demand while reflecting the reasonable concerns of neighborhood residents are achieved by many growing areas in the country. While areas with relatively moderate home prices may still suffer from some issues, such as delays for building permits, regulations do not necessarily make homes substantially less affordable.

However, research has shown that there are 11 metropolitan areas where the inability to build enough housing to meet demand has driven home prices far higher than the cost to produce a home. These 11 metropolitan areas include San Francisco, Honolulu, Oxnard, Los Angeles, San Diego, Washington, Boston, Denver, New York City, Seattle, and Baltimore.

Housing is particularly difficult to build in these 11 metropolitan areas due to excessive regulatory barriers imposed by State and local governments. Such overly restrictive regulations include zoning and growth management controls, rent controls, building and rehabilitation codes, energy and water efficiency

mandates, maximum-density allowances, historic preservation requirements, wetland or environmental regulations, manufactured-housing regulations and restrictions, parking requirements, permitting and review procedures, investment or reinvestment tax policies, labor requirements, and impact or developer fees. Research has linked higher home prices and lower housing supply to many of these regulations.

Resulting higher housing prices in these 11 metropolitan areas make homeownership less attainable for otherwise-qualified borrowers, thereby constraining their ability to achieve sustainable homeownership and putting additional pressure on rental markets for lower- and middle-income households. The lowest-income households are especially burdened. Among these 11 metropolitan areas, homelessness would fall by an estimated 31 percent on average if overly burdensome regulations were relaxed. Higher rents resulting from these regulations also deprive families of Federal rental housing assistance, because higher government expenditures on households in high-rent areas, through higher Fair Market Rents, reduce the amount of funds available to serve other needy families. For example, housing a family in a three-bedroom apartment can cost the Federal Government more than \$4,000 per month in San Francisco County, California, compared with about \$1,500 per month in Harris County, Texas.

Excessive regulatory barriers to building more housing in these specific areas also have broader negative effects beyond those imposed on lower-income Americans. State and local housing regulations reduce labor mobility by pricing workers out of several of the Nation's most productive cities, which stunts aggregate economic growth and increases inequality across regions and workers. Excessive regulatory barriers also reduce parents' ability to access neighborhoods that best advance their children's economic opportunity. And by incentivizing families to venture further from their places of work to find affordable housing, overregulation can increase commuting times to work,

thus harming the environment, straining local budgets, and decreasing worker productivity.

Removing government-imposed barriers to more affordable housing is a priority for the Trump Administration. Beyond establishing the White House Council on Eliminating Regulatory Barriers to Affordable Housing, the Department of Housing and Urban Development is encouraging State and local governments to focus on increasing housing supply in areas where supply is constrained. Increasing housing choice for all Americans requires taking on regulatory barriers that place housing in large swaths of specific areas out of reach for lower-income families.

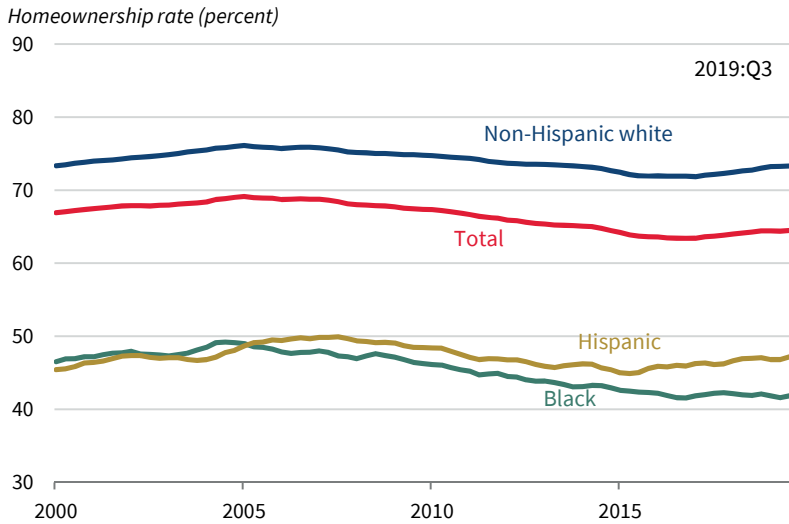
Since 2000, real median (posttax/posttransfer) household income has grown by 20 percent, while real home prices have grown by almost 50 percent, according to the Standard & Poor's / Case-Shiller Index (CBO 2019). With rising home prices outpacing income gains in some areas, households are spending larger portions of their incomes on housing, and fewer people can afford to purchase their own homes.

Although the overall homeownership rate has increased since 2016, some groups lag behind. Based on the four-quarter moving average, the black homeownership rate remains 31.5 percentage points below that of non-Hispanic white households (see figure 8-1). The Hispanic homeownership rate remains 26.2 percentage points lower than that of non-Hispanic white households, despite increasing by 1.3 percentage points since the fourth quarter of 2016, when President Trump was elected. Differences in homeownership between races exacerbate the wealth gap. In 2016, white families had a median wealth of \$171,000, while black families had a median wealth of \$17,600, resulting in part from their lower homeownership rate (Dettling et al. 2017).

Many American households, particularly low-income households, spend a large portion of their income on rent. According to the American Community Survey, out of 43 million renter households in the United States in 2017, 46 percent paid more than 30 percent of their income on housing, 31 percent paid more than 40 percent, and 23 percent paid more than 50 percent. Among renters with incomes of less than \$20,000 in 2017, about 74 percent paid more than 30 percent of their income in rent. For those renters with income between \$20,000 and \$50,000, about 61 percent paid more than 30 percent of their income in rent.

Meanwhile, a significant number of Americans go without housing altogether, sleeping instead on the streets or in homeless shelters. Just over

**Figure 8-1. Homeownership Rates by Race and Ethnicity, 2000–2019**



Sources: Census Bureau; CEA calculations.  
Note: Data represent a four-quarter moving average.

half a million people were homeless on a single night in January 2018, with 35 percent of those found in unsheltered locations not intended for human habitation, such as sidewalks and public parks (HUD 2018). Research has linked higher rents to higher rates of homelessness (e.g., Quigley, Raphael, and Smolensky 2001; Corinth 2017; Hanratty 2017; Nisar et al. 2019).

The housing affordability problem shows no signs of subsiding, given that home construction fails to keep up with demand in some places, putting upward pressure on home prices and rents. Indeed, from 2010 to 2016, housing construction failed to keep pace with household formation, according to the Census Bureau. Home construction per capita has declined every decade since the 1970s. While an average of 8.2 homes were built for every 1,000 residents between 1970 and 1979, annual average construction fell to 3.0 homes per 1,000 residents between 2010 and 2018. Across States, there is large variation in housing construction, according to State-level data from the Bank of Tokyo–Mitsubishi. For example, from 2010 to 2018, Texas built 5.3 homes and Florida built 4.3 homes per 1,000 residents, on average. Meanwhile, over the same period, California built 2.0 homes and New York built 1.7 homes per 1,000 residents.

A key driver of the housing affordability problem is excessive regulatory barriers to building (single and multifamily) housing in a selected number of areas in the United States. In a competitive market, developers will build homes until (economic) profits fall to zero or, in other words, until the price the developer receives for the home equals the cost to produce the home.

However, overly burdensome regulations in some areas restrict housing supply and drive the price of a home above its minimum profitable production cost: the cost of construction plus the price of land to build on in a free market and a normal profit margin. In terms of the standard model of supply and demand, regulations make supply less elastic, causing prices to increase and quantity to decrease. In this way, Glaeser and Gyourko (2018) note that regulation that drives home prices above production costs acts as a “regulatory tax” on housing. Regulations that can potentially drive up home prices include, for example, overly burdensome permitting and review procedures, overly restrictive zoning and growth management controls, unreasonable maximum-density allowances, historic preservation requirements, overly burdensome environmental regulations, and undue parking requirements.

It is important to emphasize that an adequate amount of smart regulation is important to address market failures and reflect the reasonable concerns of current neighborhood residents regarding new housing development. In chapter 1 of this *Report*, we review evidence that gains in housing wealth contributed to the growth of total household wealth from 2016 through 2019. Many growing areas are highly successful in balancing neighborhood concerns with the need to expand housing supply to meet growing demand. In fact, housing prices are near or below the cost to produce a home in most areas of the United States, suggesting that low income levels (despite incomes rising in recent years) rather than high home prices are the reason some households struggle to cover housing costs in those areas. However, research has shown that as a result of excessive local regulatory barriers to building housing, there are 11 metropolitan areas where the inability to build enough housing to meet demand has driven home prices far higher than the cost to produce a home (Glaeser and Gyourko 2018). These 11 metropolitan areas include San Francisco, Honolulu, Oxnard, Los Angeles, San Diego, Washington, Boston, Denver, New York City, Seattle, and Baltimore. Even in these areas, it is not necessary to build high-rise apartments throughout neighborhoods currently zoned for single-family homes or to eliminate all regulations. Rather, steps to remove excessive regulatory barriers must be taken so that housing supply can expand to meet demand and alleviate extreme housing cost burdens placed on low- and middle-income families.

The excessive regulatory barriers placed on building housing in these 11 metropolitan areas cause economic distress to their current and potential residents. In addition to restricting the ability of property owners to use their property in reasonable ways, these regulations increase costs for both renters and those trying to buy a home. Based on estimates from Glaeser and Gyourko (2018), excessive regulatory barriers (defined as regulations that drive up home prices at least 25 percent above home production costs) drive up home prices by between 36 and 184 percent in each of these 11 metropolitan areas, which

also leads to higher rents. These cost burdens are especially problematic for low-income Americans, who pay the largest share of their income on housing.

By increasing rents, overly burdensome regulatory barriers to building housing increase homelessness. As estimated by the CEA (2019), relaxing excessive regulatory barriers in these 11 metropolitan areas where housing supply is significantly constrained would reduce homelessness by an average of 31 percent in these areas. For example, homelessness would fall by 54 percent in San Francisco, 40 percent in Los Angeles, and 23 percent in New York. Because these areas contain 42 percent of the U.S. homeless population, homelessness would fall by 13 percent in the United States overall if each area adequately addressed its regulatory barriers.

Overregulation of these selected housing markets also reduces the efficiency of government housing assistance because fewer American families receive assistance for a given budget outlay. In 2019, the Department of Housing and Urban Development (HUD) was provided \$42 billion for its largest rental housing assistance programs: Section 8 Housing Choice Vouchers (\$23 billion), Section 8 Project-Based Rental Assistance (\$12 billion), and Public Housing (\$7 billion). Because HUD rental assistance is tied to market rents in an area, regulations that drive up rents also increase the costs of serving a fixed number of families. Deregulation that reduces rents in supply-constrained areas could produce savings for HUD that could be used to serve more families. For example, Federal taxpayers can pay more than \$4,000 per month in rental assistance toward a three-bedroom unit in San Francisco County, California, compared with about \$1,500 per month in Harris County, Texas.

In addition to specific harmful effects on low-income Americans, excessive regulatory barriers in selected markets have other negative consequences for all Americans. First, they reduce labor mobility across areas, which stunts aggregate economic growth and increases inequality across regions and workers. When it is more expensive for workers to live in areas where they are most productive, they are less likely to do so and their productivity falls. Hsieh and Moretti (2019), for example, estimate that gross domestic product would have been 3.7 percent higher by 2009 if housing supply restrictions in the New York, San Jose, and San Francisco areas were relaxed beginning in 1964.

Second, excessive regulatory barriers to building housing in selected markets reduces parents' ability to access neighborhoods that advance their children's economic opportunity. A series of papers by Raj Chetty and his colleagues have identified neighborhoods that are most likely to improve long-term outcomes of children (Chetty et al. 2018). High home prices are a common characteristic of such neighborhoods, suggesting that excessive regulation that artificially increases home prices may reduce in-migration and diminish opportunity for children. A report from the U.S. Senate Joint Economic Committee similarly found that the average U.S. zip code with the highest-quality public elementary schools has a median home price that is four times

as high as those zip codes with the lowest-quality public schools (JEC 2019). This is partly due to the willingness of some parents to pay more for homes located in high-quality school districts. Many of these areas have excessive regulatory barriers, however.

Third, excessive regulatory barriers to building housing increase commuting times because housing cannot be built near where people work, increasing driving time and traffic congestion, which harm the environment. The average commuter spent 54 hours in traffic congestion in 2017, up from 20 hours in 1982 (Schrank, Eisele, and Lomax 2019). The aggregate travel delay increased from 1.8 billion hours to 8.8 billion hours over this period, and the total cost associated with congestion rose from \$15 billion to \$179 billion. As a result of this rise in average commuting times, an extra 3.3 billion gallons of fuel were consumed.

Fortunately, growing evidence of the importance of addressing excessive regulatory barriers to building housing has led to increased bipartisan focus on the issue. The CEA under the previous Administration released a “Housing Development Toolkit” in 2016 for State and local regulators. While some of the proposed reforms could be problematic, the toolkit called for a number of productive steps to reduce local government barriers to housing development. These reforms include establishing by-right development to streamline the process for approving projects, permitting multifamily zoning to boost urban density, and shortening the process for obtaining building permits (CEA 2016). Some counterproductive reforms were also suggested, including requirements that developers build certain types of units with regulated rents in exchange for building more market-rate units, a policy that can potentially hinder overall supply expansions and increase prices in some areas (Schuetz, Meltzer, and Been 2011). The CEA (2016) connected regulatory barriers to a number of problems, including stunted economic growth, increased inequality, harm to the environment, and increased homelessness.

To more successfully address the overregulation of housing markets, President Trump signed an Executive Order on June 25, 2019, establishing the White House Council on Eliminating Regulatory Barriers to Affordable Housing. Recognizing the harmful impact of these regulations on economic growth, opportunities for children, homelessness, and the cost of government programs, the council is tasked with identifying the most burdensome Federal, State, and local regulatory barriers to housing supply as well as actions that can best counter them. The Executive Order requires the council to determine how each Federal agency can curtail impediments to housing development, including in ways that “align, support, and encourage” State and local authorities to address local regulatory barriers.

HUD has also taken action under the Trump Administration to counter regulatory barriers to building affordable housing. The Affirmatively Furthering Fair Housing rule, which was finalized during the previous Administration,

is being revised to focus more clearly on increasing housing supply in areas where supply is constrained, rather than encouraging localities to subsidize housing in more affluent areas. This rule recognizes that increasing housing choice for disadvantaged groups requires taking on regulatory barriers that place housing in large swaths of specific areas out of reach for lower-income families.

This chapter proceeds by first documenting the housing affordability problem in the United States. It then identifies the key role that excessive regulatory barriers play in the problem in a selected number of metropolitan areas. Next, it provides evidence of the many harmful consequences of these barriers, especially harm to low-income Americans. Finally, it concludes by discussing actions the Administration has taken to encourage the relaxation of excessive regulatory barriers in local housing markets.<sup>1</sup>

## The Housing Affordability Problem

When home prices rise faster than incomes, fewer households can afford to purchase a home. Those still able to qualify for a loan and purchase a home may do so in neighborhoods or regions with fewer opportunities, and they may commit larger shares of their income to mortgage payments and savings to a down payment. Renter households may pay a greater portion of their income in rent, leaving less income available for other needs. The burden is especially severe for lower-income households. By these definitions, the “housing affordability” problem in America is worsening, a result of home prices that have outpaced income gains and home construction that has not kept up with demand in certain areas.

Based on a four-quarter moving average, as of the third quarter of 2019, 64.5 percent of households owned their own homes (figure 8-1). This represents an increase of 1.1 percentage points since reaching its low point in 2016:Q3. However, the current homeownership rate is still 4.6 percentage points below its 69.1 percent peak in 2005:Q1.

Some groups have particularly low homeownership rates. The black homeownership rate was 41.8 percent in 2019:Q3, 31.5 percentage points below the non-Hispanic white homeownership rate (figure 8-1). While the Hispanic homeownership rate increased by 1.3 percentage points since 2016:Q4, when President Trump was elected, it was still at 47.2 percent in 2019:Q3, 26.2 percentage points lower than that of non-Hispanic white households (figure 8-1).

For those who are homeowners, owned homes are an important source of wealth. Thus, gaps in homeownership rates have direct implications for

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<sup>1</sup>The CEA previously released research on topics covered in this chapter. The text that follows builds on the research paper produced by the CEA titled “The State of Homelessness in America” (CEA 2019).



wealth gaps. According to the Federal Reserve Board’s Survey of Consumer Finances, in 2016, white families had a median wealth of \$171,000, while black families had a median wealth of \$17,600 and Hispanic families had a median wealth of \$20,700, partly as a result of their much lower homeownership rates (Dettling et al. 2017).

Among those who own a home, mortgages can take up a large share of income, especially for lower-income families. In 2017, housing costs represented 67.5 percent of household income for homeowners with less than \$20,000 in annual income, and 40.6 percent of income for homeowners with between \$20,000 and \$50,000 in annual income (Dumont 2019). Thus, housing affordability can be a problem even for those able to purchase their own home. In chapter 1 of this *Report*, we discuss how current low mortgage rates on the whole should support the housing market. However, other factors, such as high mortgage underwriting costs, hurt mortgage affordability.

As homeownership rates have fallen, the number of renter households has grown. The Federal Reserve Board estimates that of the 6.2 million households formed between 2009 and 2017, 5.7 million (92 percent) were new renter households (Dumont 2019). Renter households pay large shares of their income on rent—without building equity—which can make it difficult for low- and moderate-income households to address other needs. From 1970 to 2010, the share of renter households spending more than half of their income on housing increased from 16 percent to 28 percent; over the same period, the share spending at least 30 percent on housing increased from 31 percent to 52 percent (Albouy, Ehrlich, and Liu 2016). According to the 2017 American Community Survey, out of 43 million renter households in the United States, 46 percent pay more than 30 percent of their income on housing, 31 percent pay more than 40 percent, and 23 percent pay more than 50 percent. As shown in table 8-1, among renters with incomes of less than \$20,000 in 2017, about 74 percent paid more than 30 percent of their income in rent, a smaller share than in 2009. For those renters with incomes between \$20,000 and \$50,000, 61 percent paid more than 30 percent of their income in rent, rising from about 50 percent in 2009.

Meanwhile, a significant number of Americans go without housing altogether, sleeping instead on the streets or in homeless shelters. Just over half a million people were homeless on a given night in January 2018, with 35 percent of those found in unsheltered locations not intended for human habitation, such as sidewalks and public parks (HUD 2018). Research has linked higher rents to higher rates of homelessness (e.g., Quigley 2001; Corinth 2017; Hanratty 2017; Nisar et al. 2019).

The growing housing affordability problem is not driven by falling incomes (with the exception of the Great Recession, which led to severe housing problems, including widespread foreclosures; see Steffen et al. 2013). Since 2000, real median (posttax, posttransfer) household income increased by 20

**Table 8-1. Percentage of Renter Households Paying More Than 30 Percent of Income on Housing by Income, 2009 versus 2017**

Household income	2009 (percent)	2017 (percent)	Percentage point change	Percent change
Less than \$20,000	76.6	74.3	-2.3	-3.0
\$20,000 to \$49,999	50.2	61.0	10.8	21.5
\$50,000 to \$74,999	15.2	23.5	8.3	54.4
\$75,000 to \$99,999	6.8	10.3	3.5	51.3
\$100,000 or more	2.1	3.5	1.3	61.8
All renter households	47.7	46.0	-1.7	-3.6

Sources: American Community Survey; CEA calculations.

percent (CBO 2019). Real income gains were even larger for the bottom fifth of households (CBO 2019). The driver of growing unaffordability is rising home prices. According to the Standard & Poor’s / Case-Shiller U.S. National Home Price Index, real home prices have increased by 49 percent since 2000, outpacing real median income gains. Home prices have increased the fastest for entry-level homes—according to the American Enterprise Institute National Home Price Appreciation Index, home prices in the lowest price tier have increased more than 50 percent more than home prices in the highest price tier since 2012 (Pinto and Peter 2019). As shown in box 8-1, the housing affordability problem is concentrated in a selected number of areas in the United States, where the people who build houses are unable to afford them.

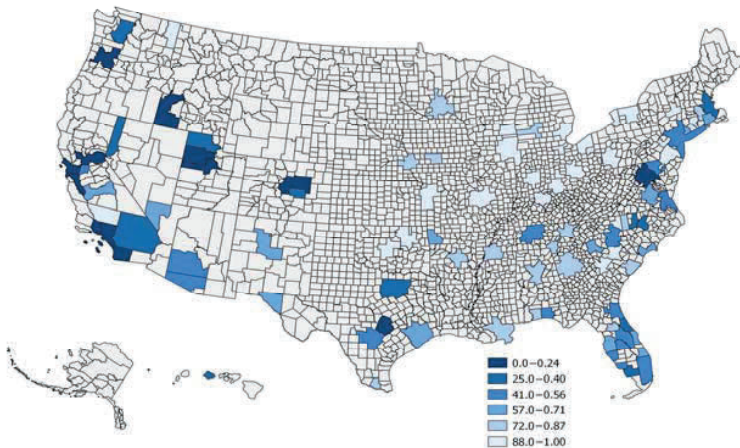
Although home prices are rising, home construction has been slow to respond, implying that supply is not keeping up with the demand for homes in certain places. Home construction per capita has declined every decade since the 1970s, according to the Census Bureau. While an average of 8.2 homes were built for every 1,000 residents between 1970 and 1979, annual average construction fell to 3.0 homes per 1,000 residents between 2010 and 2018. Across States, there is large variation in housing construction. For example, from 2010 to 2018, Texas built 5.2 homes and Florida built 4.3 homes per 1,000 residents, on average. Meanwhile, over the same period, California built 2.0 homes and New York built 1.7 homes per 1,000 residents. This represents a large decline for California, which built more than 7.0 homes per 1,000 residents in the 1970s and 1980s before falling to less than 4.0 per 1,000 residents in every decade since then. Meanwhile, New York is one of only two States in the country (along

### Box 8-1. Measuring the Housing Affordability Problem with the Carpenter Index

One way to assess the affordability of housing is to ask whether the people who build homes can afford to buy them. The American Enterprise Institute’s Carpenter Index compares the average income of households headed by carpenters to home prices in a given area. If the price of a home is less than three times the carpenter’s household income, then that home is deemed “affordable.” For each metropolitan area, the index calculates the share of entry-level homes that are affordable to the carpenter.

Figure 8-i shows the share of the entry-level housing stock that is affordable for the 100 largest CBSAs, with the darker shades illustrating areas where housing is less affordable to the average carpenter. The average carpenter can afford only 6.5 percent of entry-level homes built in the San Diego–Carlsbad, California, CBSA; 8.2 percent in the Oxnard–Thousand Oaks–Ventura, California, CBSA; 10.3 percent in the Los Angeles–Long Beach–Anaheim, California, CBSA; 10.7 percent in the San Jose–Sunnyvale–Santa Clara, California, CBSA; and 11.8 percent in the San Francisco–Oakland–Hayward, California, CBSA—the five least affordable areas in the country. By contrast, the average carpenter can afford 100 percent of entry-level homes in the Chicago–Naperville–Elgin, Illinois–Indiana–Wisconsin, CBSA; the Pittsburgh, Pennsylvania, CBSA; the Saint Louis, Missouri–Illinois, CBSA;

**Figure 8-i. The Carpenter Index by CBSA, 2018**



Source: American Enterprise Institute.  
Note: CBSA = core-based statistical area.

and a number of other areas in the Midwest. The index signals that the most expensive metropolitan areas are located in California and to a lesser extent the rest of the West Coast and the Northeast, while most of the affordable metropolitan areas are located in the Midwest.

with West Virginia) that has never built more than 3.0 homes per 1,000 residents in an average year across every decade since the 1970s.

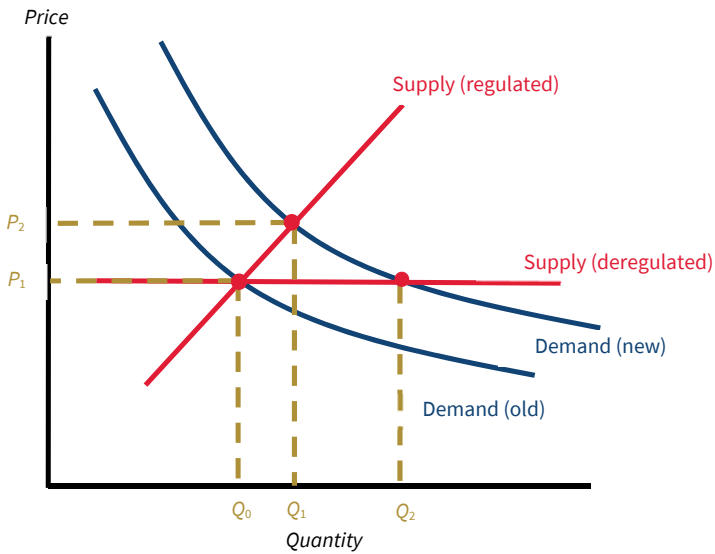
## The Role of Overregulation in the Housing Affordability Problem

When the housing affordability problem is defined as housing expenditures that constitute a sufficiently large share of income, there are three potential causes: (1) rising home prices, (2) falling household incomes, and (3) choices among households to consume higher-quality homes (with either high physical quality or in closer proximity to desirable amenities). As reported in the previous section, real home prices have risen 49 percent since 2000. Meanwhile, household incomes are rising rather than falling, and consumer decisions to choose higher-quality homes should not be considered an affordability problem. Thus, the fundamental problem with housing affordability in the United States today is excessively high home prices in certain areas.

Overly stringent housing regulations play a key role in driving up home prices in the face of growing demand. Figure 8-2 shows how excessive regulatory barriers to building housing in some areas constrain supply and thus increase home prices. In a market unconstrained by excessive regulation, developers can build new homes at a constant cost when demand shifts outward (for example, because higher wages increase the desirability of living in an area), and thus, price remains constant at  $P_1$  while quantity increases to  $Q_2$ . By contrast, new home construction cannot keep up with growing demand in a market constrained by excessive regulations, such as lengthy permitting processes and unreasonable land use regulations. Excessive regulations lead to an upward sloping, relatively more inelastic housing supply curve, which drives home prices above the cost to produce a home in a market without excessive regulatory barriers. Prices rise to  $P_2$  and quantity falls to  $Q_1$ . In this way, Glaeser and Gyourko (2018) note that excessive regulation that drives home prices above production costs acts as a “regulatory tax” on housing. This regulatory tax is represented in figure 8-2 as the gap between  $P_1$  and  $P_2$ .

Some regulations add additional costs to the development process, driving up the total cost of housing development and reducing supply. For example, environmental reviews can delay construction, imposing additional costs on developers. An unintended consequence of these regulations is that housing is

**Figure 8-2. The Effect of Regulation on Supply and Demand for Housing**



Sources: Glaeser and Gyourko (2018); CEA calculations.

instead built in less central areas where regulations do less to drive up home prices, which can increase commuting times and ultimately cause even greater environmental harm. More generally, approval processes for new development can be lengthy and uncertain, thus increasing the price and reducing the supply of housing by, for example, forcing developers to carry high-cost construction loans for a longer period of time, or having to spend additional money on extending options to purchase land. Gyourko, Hartley, and Krimmel (2019) formulate an Approval Delay Index and find that the review time for housing construction projects is more than twice as long in highly regulated areas compared with relatively lightly regulated areas, with an average review time of 8.4 months. Environmental reviews alone can add substantial costs to a housing project. For example, the California Environmental Quality Act, which requires certain construction in California to undergo an environmental impact assessment, can add an estimated \$1 million in costs to completing a housing development (Jackson 2018).

Other regulations that can potentially constrain supply are focused explicitly on reducing density. Building permit caps, population caps, and density restrictions limit the amount of new housing that can be built in an area. Similarly, urban growth boundaries prevent urban expansion beyond designated areas. Other kinds of regulations reduce density by regulating the type and size of housing that can be constructed in a locality. Minimum lot size

requirements prevent homebuilders from subdividing a lot in order to build more homes. Height restrictions prevent taller buildings with more floors and more housing units. Maximum floor area ratios (which are calculated by dividing floor area by lot area) limit the amount of living space, potentially across multiple units, that can be built on a given lot. Zoning regulations also may prevent certain types of housing, such as multifamily buildings, from being constructed.

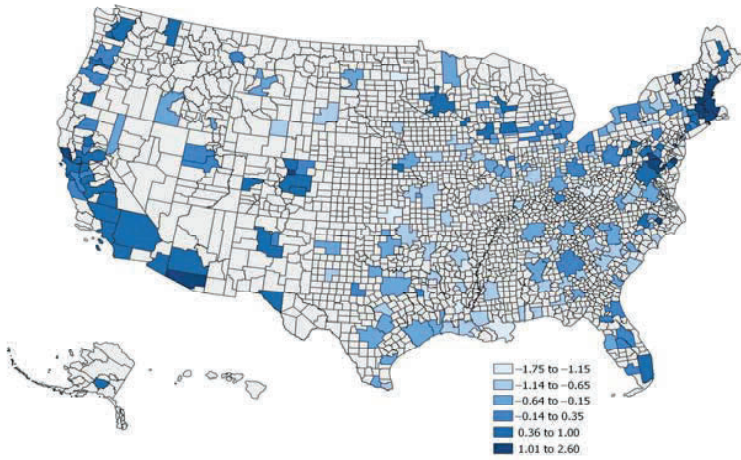
Of course, when these types of regulations are not excessive, they can be beneficial—for example, by maintaining standards that promote safety, or by providing information about housing characteristics—without significantly constraining supply. In addition, certain types of land use may generate pollution or congestion externalities, and some amount of regulation, such as impact fees, can help developers internalize these costs of construction. Local citizens may also wish to preserve certain land for public use or conservation purposes, such as parks. However, in a selected number of places, excessive regulations prevent supply from expanding to meet housing demand, substantially driving up home prices.

It is generally believed among economists that the overall effect of excessive regulatory barriers that constrain housing supply is to reduce overall well-being. For example, Albouy and Ehrlich (2018, 117) not only find that stringent housing regulation increases home prices, but also that any benefits of these regulations for improving quality of life are outweighed by their cost. They note: “On net, the typical land-use regulation in the United States reduces well-being by making housing production less efficient and housing consumption less affordable.” Glaeser and Gyourko (2018, 14) summarize the literature and state: “Empirical investigations of the local costs and benefits of restricting building generally conclude that the negative externalities are not nearly large enough to justify the costs of regulation.”

The stringency of housing regulations and their impact on housing supply vary across the country. One way to measure the stringency of regulations is to analyze the regulations themselves. One measure that is heavily relied upon is the Wharton Residential Land Use Regulatory Index. Gyourko, Saiz, and Summers (2008) constructed the index from a national survey of municipalities regarding their regulatory process and land use regulations. The resulting index is shown by metropolitan statistical area in figure 8-3, with a darker shade of blue indicating cities that have more stringent land use regulations. The South and the Midwest have the least restrictive regulations, while California and the Northeast have the most.

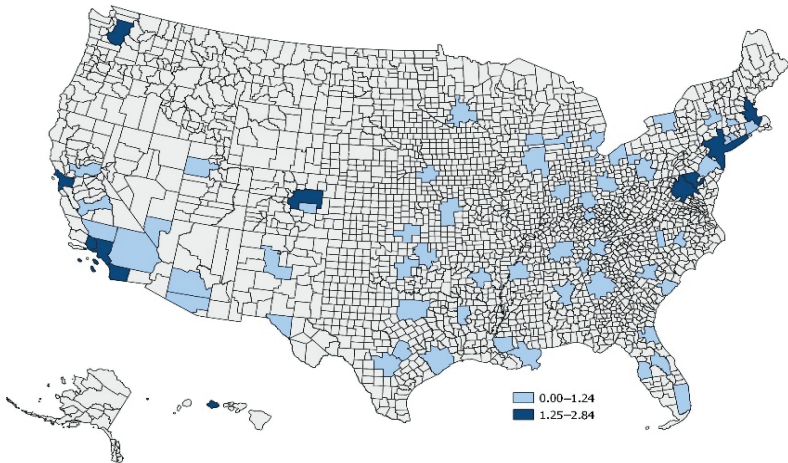
Areas with higher regulatory burdens tend to have higher home prices. Figure 8-4 shows metropolitan areas by the ratio of their median home prices to the cost to produce a home, as constructed by Glaeser and Gyourko (2018). Where regulations are lax, the ratio of home prices to production costs should be near or below 1. Where regulations are more stringent and demand is strong,

**Figure 8-3. Wharton Land Use Index by Metropolitan Statistical Area, 2008**



Source: Gyourko, Saiz, and Summers (2008).

**Figure 8-4. Ratio of Home Prices to Production Costs by CBSA, 2013**



Sources: Glaeser and Gyourko (2018); CEA calculations.  
Note: CBSA = core-based statistical area.



ratios may exceed 1. It is important to note that production costs include not only the construction cost of the home but also a normal profit margin and a small cost of land on which to build the home that would be achieved in a market without overly stringent regulations.

It is certainly the case that, even in an unconstrained market, land prices for a fixed size plot (i.e., an acre) of land will be higher in more desirable locations. Davis and others (2019) document large variation in land prices per acre across the United States—much of this variation would remain even if all areas relaxed overly stringent housing regulations. However, the price of a parcel of land used for each housing unit may be similar across areas absent excessive regulation. In dense areas, each housing unit would require a smaller plot of land, and so, though the price of an acre of land is likely to be higher in denser areas, the cost of the smaller piece of land used for each two-bedroom housing unit may be similar to the cost of the larger piece of land used for a two-bedroom unit in less dense areas. Of course, this will only roughly be true, and other factors, such as differences in property taxes, may drive some remaining differences. Partly for this reason, Glaeser and Gyourko (2018) focus on areas where home prices significantly exceed production costs.

Figure 8-4 shows that the places where ratios of home price to production cost significantly exceed 1 (i.e., where home prices are at least 25 percent higher than home production costs) are largely the same places with high regulatory indices. Though correlational, this provides suggestive evidence that housing regulations help determine home prices. Figure 8-4 also indicates that excessive regulation is currently a major problem in a selected number of places, indicated by the darker shade of blue. As noted earlier in this chapter, these 11 metropolitan areas include San Francisco, Honolulu, Oxnard, Los Angeles, San Diego, Washington, Boston, Denver, New York City, Seattle, and Baltimore.

Examples of overly burdensome regulations abound in these 11 CBSAs. Four of the 11 are located in California, where multifamily homes may be built on less than a quarter of the land in Los Angeles, Long Beach, Anaheim, and San Diego and less than half of the land in San Francisco and Oakland (Mawhorter and Reid 2018). In the cities of Los Angeles and San Diego, two parking spaces are required for every typical two-bedroom apartment, one and a half parking spaces are required for every typical one-bedroom apartment, and one parking space is required for every studio apartment, increasing costs for multifamily housing developers and, ultimately, renters (San Francisco eliminated its parking requirements in early 2019). Across Hawaii, only 4 percent of land may be developed due to its network of local and State zoning regulations.

Although overly burdensome permitting processes and other barriers may still be a problem and put some degree of upward pressure on home prices in the rest of the country, the major problem with excessive regulation is currently limited to these 11 areas. Nonetheless, future demand growth in



additional areas with excessive regulatory barriers could increase the number of areas with artificially inflated home prices.

Consistent with figures 8-3 and 8-4, a number of academic studies find that stringent regulation increases housing prices. In a review of much of the earlier literature, Ihlanfeldt (2004) concludes that growth controls and minimum lot size restrictions reduce the supply of housing and increase its price. Quigley and Raphael (2005) find that cities in California with more stringent regulations have higher levels and growth in home prices and rents, and that housing supply is much less responsive to price increases in more regulated areas. Glaeser, Gyourko, and Saks (2005) argue that land-use restrictions explain why prices for high-rise apartments in Manhattan far exceed the cost to construct them. Ihlanfeldt (2007) finds that more stringent land-use regulation increases home prices in Florida. Glaeser and Ward (2009) find that more stringent regulations, especially minimum lot sizes, are associated with higher home prices and less construction in Massachusetts. Saiz (2010) finds that land-use regulations, in addition to geographical constraints, are important determinants of the responsiveness of housing supply to price increases. Summarizing the literature, Glaeser and Gyourko (2018, 8) state: “The general conclusion of existing research is that local land use regulation reduces the elasticity of housing supply, and that this results in a smaller stock of housing, higher house prices, greater volatility of house prices, and less volatility of new construction.”

Some might argue that there are reasons other than regulation that might be driving higher home prices. One reason could be that construction costs are rising. However, Gyourko and Molloy (2015) find that real construction costs (including the cost of labor and materials) remained relatively constant from 1980 to 2013. Another potential cause is geographical constraints on building. For example, Saiz (2010) argues that many areas with supply constraints have steep-sloped terrain that prevents the development of new housing. Nonetheless, even in areas that appear to have land constraints, developers could build more densely and with fewer permitting delays, which would exert downward pressure on housing prices. Finally, though we focus on supply, housing regulations may also increase prices through increased demand for housing if land use restrictions increase the appeal of living in a certain community. Empirically, however, Albouy and Ehrlich (2018) find that supply effects dominate demand effects.

## Consequences of Overregulation of Housing

The overregulation of housing markets in selected metropolitan areas has several negative consequences. By increasing home prices well above home production costs, it increases the cost of attaining homeownership and increases the rent for renter households. It hurts low-income Americans in

particular by increasing homelessness and by reducing the number of people government housing assistance programs can serve. More generally, it reduces labor mobility across areas and thus weakens economic growth, reduces the ability of children to access high-opportunity neighborhoods, and harms the environment.

### ***The Increased Cost of Attaining Homeownership and Higher Rents***

In most areas in the United States, reasonable regulations do not substantially drive up home prices. But in a selected number of metropolitan areas, excessive regulatory barriers to building housing substantially increase the price of purchasing a home above the cost to produce it.

Figure 8-5 shows the extent to which excessive regulations drive up home prices in these 11 metropolitan areas, according to data published by Glaeser and Gyourko (2018) and shown above in figure 8-4. Home prices are more than 150 percent higher in the San Francisco–Oakland–Hayward, California, CBSA, and the Urban Honolulu, Hawaii, CBSA; are about 100 percent higher in the Oxnard–Thousand Oaks–Ventura, California, CBSA; the Los Angeles–Long Beach–Anaheim, California, CBSA; and the San Diego–Carlsbad, California, CBSA—and are 36 percent higher in the Baltimore–Columbia–Towson, Maryland, CBSA, the smallest price premium of the 11 supply-constrained metropolitan areas.

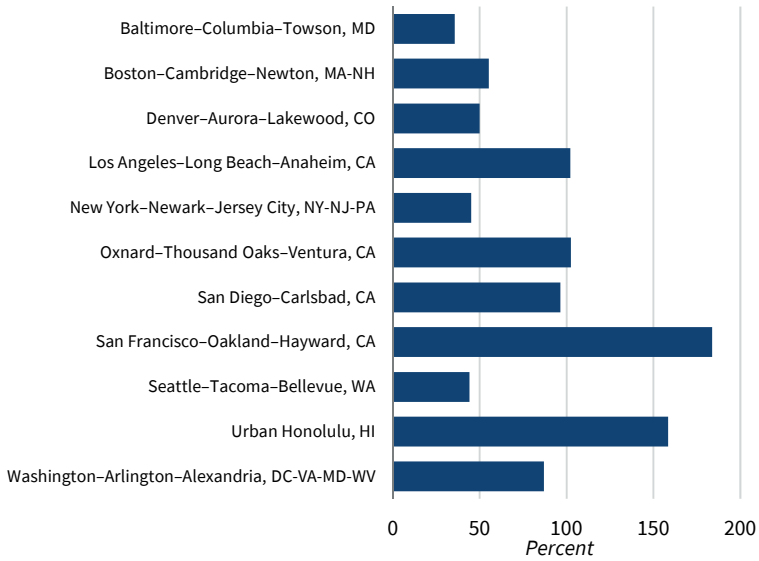
The higher home prices resulting from excessive regulations make it more difficult for households to purchase their own homes and build wealth. As HUD Secretary Ben Carson recently stated, “As a result [of the shortage in the housing supply], Americans have fewer housing opportunities, including the opportunity to achieve sustainable homeownership, which is the No. 1 builder of wealth for most U.S. families” (Carson 2019). Excessive regulation also increases rents in these 11 metropolitan areas, because higher home prices increase the amount property owners need to receive in revenue each year to maintain a normal profit margin. Higher rents are especially burdensome for lower- and moderate-income Americans—and, for some, may make it prohibitively expensive to live in these excessively regulated areas.

### ***Increased Homelessness***

Another harmful effect of overregulation of housing markets is its impact on homelessness. Several studies that rely on data on homelessness over time in various communities find that a 1 percent increase in rent is associated with about a 1 percent increase in homelessness. Because housing regulations generally drive up rents, they should thus be expected to also increase homelessness.

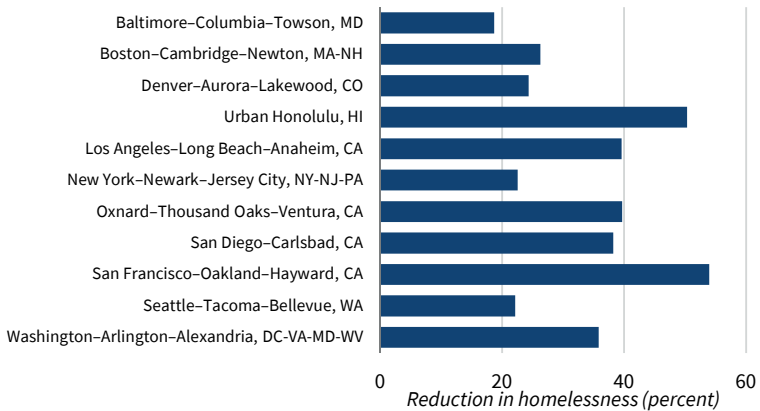
The CEA (2019) estimates the extent to which removing excessive regulatory barriers that reduced home prices to their production costs would reduce

**Figure 8-5. Home Price Premium Resulting from Excessive Housing Regulation**



Sources: Glaeser and Gyourko (2018); CEA calculations.

**Figure 8-6. Percentage Reduction in Homelessness by CBSA from Deregulating Housing Markets**



Sources: Department of Housing and Urban Development, Point-in-Time Counts, 2018; Census Bureau; Corinth (2017); Glaeser and Gyourko (2018); Goodman (2004); CEA calculations.

Note: CBSA = core-based statistical area. Each continuum of care is merged into the metropolitan area where the majority of its overall population lives. This simulation assumes that deregulation reduces the ratio of home value to production cost to 1 for all metropolitan areas with a ratio of at least 1.25; see the text for further details about the simulation.

homelessness. The results are summarized in figure 8-6. Homelessness would fall by 54 percent in the San Francisco–Oakland–Hayward, California, CBSA; by 50 percent in the Urban Honolulu, Hawaii, CBSA; by 40 percent in the Los Angeles–Long Beach–Anaheim, California, CBSA; by 38 percent in the San Diego–Carlsbad, California, CBSA; by 36 percent in the Washington–Arlington–Alexandria, D.C.–Virginia–Maryland–West Virginia, CBSA; and by between 19 and 26 percent in the Boston–Cambridge–Newton, Massachusetts–New Hampshire, CBSA; the Denver–Aurora–Lakewood, Colorado, CBSA; the New York–Newark–Jersey City, New York–New Jersey–Pennsylvania, CBSA; the Seattle–Tacoma–Bellevue, Washington, CBSA; and the Baltimore–Columbia–Towson, Maryland, CBSA.

The aggregate reduction in homelessness in these 11 metropolitan areas, which contain 42 percent of the U.S. homeless population, would have important effects for the United States as a whole, with total U.S. homelessness falling by just under 72,000 people, or 13 percent. These findings are also broadly consistent with results from Raphael (2010), who uses a different methodology to assess how housing market regulation drives up homelessness rates. Using an index of housing market regulation by metropolitan area, he finds that deregulation could reduce overall United States homelessness by 7 to 22 percent. He does not show how homelessness reductions would vary across specific areas. It is important to note that the housing supply responses resulting from deregulation would take many years to translate into the types of price reductions, and thus homelessness reductions, shown here. Still, these results suggest that the severe homelessness problems in a selected number of metropolitan areas are substantially driven by city-created regulations on housing.

### ***Fewer People Are Served by Housing Assistance Programs***

By driving up rents, overly stringent housing regulations in selected metropolitan areas increase the government’s cost of providing rental housing assistance, resulting in fewer assisted families. The Federal Government provides rental housing assistance across a number of programs that are administered by different agencies. Three major programs are administered by HUD—these include (1) Section 8 Housing Choice Vouchers, (2) Section 8 Project-Based Rental Assistance, and (3) public housing. The largest of these three HUD programs is the Housing Choice Voucher program, which served 2.3 million families at a cost of \$23 billion in fiscal year (FY) 2019 (42 percent of the overall HUD budget). Under the voucher program, qualified tenants receive Federal subsidies that cover a portion of their rent in private rental apartments of their choosing. The second-largest HUD program is Section 8 Project-Based Rental Assistance, which served 1.2 million families at a cost of \$12 billion in FY 2019. Under Project-Based Rental Assistance, apartment owners receive government subsidies to lease units to low-income families. The third-largest

HUD program is public housing, which served 1.0 million families in FY 2019, at a Federal operating cost of \$7 billion (excluding the opportunity cost of holding the property). Public housing is built and managed by government authorities. Unlike with Housing Choice Vouchers, tenants living in units covered by Project-Based Rental Assistance and in public housing do not maintain their subsidy if they move.

Eligibility for these programs is based on a family's income relative to median income in their area. However, only about one in four eligible families actually receives assistance, because housing costs are too high to serve every family that meets the income requirements for the programs, especially in high-cost areas. For example, the maximum payment standard for a three-bedroom unit is more than \$4,500 per month in San Francisco County, California, compared with about \$1,500 per month in Harris County, Texas. Many areas have waiting lists for assistance that extend multiple years, and in some cases, waiting lists are not reopened for long periods of time.

Housing deregulation that removes excessive barriers and reduces market rents could extend assistance to many eligible families not currently being served in expensive markets. Under each of the three major HUD programs, the government generally covers the difference between 30 percent of a household's adjusted income and the allowable rent or operating cost for housing units. For the voucher program, if market rents decrease, Public Housing Authorities would pay less for contract rent, assuming the tenants' payments remain mostly constant at 30 percent of adjusted income. HUD would also need to pay private property owners less to house people under Project-Based Rental Assistance. These savings from deregulation could be used to serve additional families under current funding amounts.

Removing excessive regulatory barriers could also improve the effectiveness of the Low-Income Housing Tax Credit (LIHTC), a program that subsidizes the developers of affordable housing units. The Federal Government is estimated to spend about \$9 billion per year on LIHTC (JCT 2017). Given the budgetary restrictions on how much can be spent on this program, excessive housing regulation increases the costs of building subsidized housing and reduces the amount of it that can be built.

### ***Weakened Labor Mobility and Economic Growth***

Aside from its specific harm to low-income Americans, excessive regulation in selected housing markets also has negative consequences for the general population. One important example is the reduction in labor mobility across areas because higher home prices in certain areas reduce the incentive to move to places where wages may be higher. This reduces the productivity of workers and shrinks aggregate economic output. Hsieh and Moretti (2019) estimate that reducing housing regulations in New York City, San Jose, and San Francisco to that of the median U.S. city would have substantially increased growth from

1964 to 2009, leading to 3.7 percent higher gross domestic product in 2009. Hsieh and Moretti argue that this missing growth is the result of spatial misallocation of workers, as high-productivity cities construct barriers to increasing housing supply to meet demand from workers. Glaeser and Gyourko (2018) find that restrictive land use regulations reduce national output by a smaller but still important 2 percent. Herkenhoff and others (2018) similarly find significant economic growth effects from relaxing land use restrictions.

Reducing labor mobility has important regional effects in addition to aggregate ones. When home prices are higher due to overregulation, workers are less able to migrate to areas with higher wages. This results in a persistent gap in wages between high-productivity and low-productivity areas that cannot be reduced through migration that would expand the supply of workers in high-wage areas. Zabel (2012) finds that housing prices increase more in response to an increase in labor demand in cities with an inelastic housing supply than in those with a more elastic housing supply, thus reducing the incentive for in-migration to areas with an inelastic housing supply. Saks (2008) similarly finds that more heavily regulated housing markets are less responsive to changes in demand for housing, lowering employment growth in areas with relatively more extensive land use regulations. Saks estimated that the employment response to an increase in labor demand in an area in the 75th percentile of her State regulatory index is 11 percentage points smaller than the response in an area in the 25th percentile.

Ganong and Shoag (2017) find that higher home prices resulting from stringent land use regulation can help explain why disparities between economic regions have grown since 1980, breaking from the previous pattern of regional economic convergence. Hämäläinen and Böckerman (2004) examine migration in Finland and come to a similar conclusion as Ganong and Shoag: high housing prices discourage in-migration.

Even within cities, high levels of land use regulations can increase socioeconomic segregation. Owens (2019) examines segregation between neighborhoods, between places (municipalities, cities, and towns), and between cities and their suburbs and finds that most housing segregation occurs between neighborhoods, rather than between places or between cities and their suburbs, which suggests that zoning regulations could play an important role. Rothwell and Massey (2010) find that restrictive zoning laws lead to greater socioeconomic segregation and reduce interaction between the poor and the affluent. Lens and Monkkonen (2016) find that land-use regulation and income segregation are positively related, with density restrictions leading to a concentration of more affluent households, although not necessarily a concentration of poor households.

## ***Reduced Opportunity for Children***

Overregulation of housing markets can also potentially reduce the ability of children to access neighborhoods that advance opportunity. A series of papers by Raj Chetty and his colleagues have identified neighborhoods that are most likely to improve long-term outcomes of children. A child that moves from a neighborhood at the 25th percentile to the 75th percentile of the opportunity index increases his or her lifetime earnings by \$206,000. Chetty and others (2018) calculate the “cost of opportunity,” and find that an additional \$1,000 in children’s future annual income costs \$190 each year for rent for every year of childhood. The cost of opportunity varies considerably across the United States, however, and much of the variance is due to differences in land use regulatory regimes. An additional \$1,000 in future annual income for a child costs only \$47 in Wichita but \$260 in Boston or Baltimore. Thus, relaxing excessive regulatory barriers to building housing could reduce the cost for families of accessing higher-opportunity neighborhoods for their children and potentially improve their long-term prospects.

Similarly, a report from the U.S. Senate Joint Economic Committee finds that U.S. zip codes with the highest-quality public elementary schools have a median home price that is four times as large as those zip codes with the lowest-quality public schools (JEC 2019). Many of these areas have highly restrictive zoning. Although expanded school choice weakens the association between home prices and the quality of public schools, housing deregulation could potentially promote greater access to high-quality schools for students (JEC 2019).

## ***Increased Traffic Congestion and Harm to the Environment***

Finally, excessive regulatory barriers to building housing in certain areas increases commuting times and traffic congestion because sufficient housing cannot be built near where people work. The average commuter spent 54 hours sitting in traffic in 2017, up from 20 hours in 1982 (Schrank, Eisele, and Lomax 2019). The aggregate travel delay increased from 1.8 billion hours to 8.8 billion hours during this period, and the total cost associated with congestion rose from \$15 billion to \$179 billion.

As a result of this rise in average commuting times, an extra 3.3 billion gallons of fuel were consumed, increasing carbon emissions and harming the environment. Moreover, as Glaeser notes, “when environmentalists resist new construction in their dense but environmentally friendly cities, they inadvertently ensure that it will take place somewhere else—somewhere with higher carbon emissions” (Glaeser 2009). Indeed, Glaeser (2009) finds that households in urban areas emit less carbon than those in the suburbs, even after adjusting for differences in climate and environmental regulation across these areas. Factors contributing to fewer emissions in cities include smaller housing units and that people are less likely to drive or would drive shorter distances than

### Box 8-2. Poor Substitutes for Regulatory Reform

Policymakers have proposed a litany of policies aside from regulatory reform to lower rents or incentivize affordable housing construction in high-cost areas. However, these proposals alone—such as rent control, increases in rental housing assistance, and so-called inclusionary zoning—are unlikely to have their intended effects on rents or construction, and in some cases may be counterproductive.

Rent controls, or policies that limit rent increases for certain rental units, are sometimes offered as a means of addressing high housing costs. Though existing tenants in rent-controlled units may benefit from smaller rent increases, supply is reduced for new potential tenants and the incentive for developers to build more units is diminished. There are few issues where economists are in as much as agreement as they are regarding the outcomes of rent control. In a 2012 University of Chicago Booth poll of economists across the political spectrum, 95 percent disagreed that rent control ordinances, such as those imposed in New York and San Francisco, had boosted affordable housing or improved the quality of rental units (IGM 2012).

The economists' consensus is supported not only by economic theory but also by the empirical literature. In a recent paper examining the effect of a 1994 rent control law on housing supply and prices in San Francisco, Diamond, McQuade, and Qian (2019) find that the law had the opposite of its intended effect on rents. While those living in rent-controlled units benefit from lower rents, and remain in these units longer than they would without rent control, those who do not have access to these units are substantially harmed in the long run. Landlords responded to the law by converting existing buildings into condominiums and by taking other steps to avoid being subject to rent control laws. This *lowered* the supply of rental housing by 15 percent and incentivized the creation of housing that served the preferences of high-income households. As a result, this rent control law likely raised rents in the long run rather than lowering them. Moreover, even existing tenants who benefit from rent control may suffer from unintended consequences. Jiang (2019) finds that rent control increases unemployment among tenants in New York City, potentially because they can sustain longer bouts of joblessness given their lower housing costs, or because tenants are tied to a particular housing unit and restrict their job search to opportunities nearby.

Expansions of government housing programs to combat rising rents are also unlikely to provide much relief to the general population of residents in supply-constrained areas. When the supply of housing is inelastic, expanding demand by increasing government subsidies increases prices rather than quantities. As a result, government rental subsidies to low income-renters will likely increase rents in markets with overly restrictive housing regulations. Eriksen and Ross (2015) find that housing vouchers increased rents for housing within 20 percent of the Fair Market Rent threshold in supply-constrained communities. They estimate that a 10 percent increase in the number of



vouchers increased rents by 0.39 percent for these units. LIHTC, a program that subsidizes developers of below market-rate rental housing units, may also be ineffective at addressing the underlying supply problem according to some evidence. Eriksen and Rosenthal (2010) find that new LIHTC development largely crowds out private development, leaving total housing supply unchanged. Glaeser and Gyourko (2008) note that the credit tends to increase the profits of subsidized builders, while pushing unsubsidized builders out of the housing market.

Regulations that require a certain share of housing units to be set aside for low-income residents, often referred to as “inclusionary zoning,” also fail to solve the affordable housing problem. For example, Schuetz, Meltzer, and Been (2011) find that inclusionary zoning can increase home prices and in some cases reduce housing development. Hamilton (2019), in a study of Washington and Baltimore, similarly finds that inclusionary zoning increases prices.

they would if they lived in the suburbs. As discussed in box 8-2, regulatory reform—rather than rent control, expansion of government programs, or inclusionary zoning—offers the most effective solution to the problems posed by high housing costs and overregulation.

## Conclusion

How to increase housing affordability through regulatory reform is an issue that has garnered bipartisan attention in recent years. In this chapter, we have focused on excessive regulations that substantially drive up home prices in a selected number of metropolitan areas. Relaxing these regulations would greatly benefit Americans, especially those with lower incomes, by reducing the cost of attaining homeownership and reducing rents in supply-constrained areas. Falling rents resulting from relaxing excessive regulations would reduce homelessness by 31 percent on average in these areas, and more families could be served by Federal rental housing assistance programs. Broader benefits would include increased economic growth, reduced regional disparities, expanded opportunities for children, and a cleaner environment.

We have also emphasized that addressing the problem of overregulation with more regulation would be counterproductive. Rent control can increase housing prices by reducing the incentive for developers to build new housing. Similarly, expanded government subsidies for housing do not solve the problem of overregulation. When housing supply is constrained, housing subsidies for tenants may increase market rents without increasing the quantity of housing, counteracting the goals of these programs.

The Trump Administration has taken steps to address onerous housing regulations. President Trump issued an Executive Order in 2019 to establish the White House Council on Eliminating Regulatory Barriers to Affordable Housing, which is tasked with reviewing housing regulations at all levels of government and submitting a report to the President in 2020 with recommendations on how to ameliorate these excessive regulatory burdens.

HUD has also taken action under the Trump Administration to counter regulatory barriers to building affordable housing. The Affirmatively Furthering Fair Housing rule, which was finalized during the previous Administration, is being revised to focus more clearly on increasing housing supply in areas where supply is constrained. This rule recognizes that increasing housing choice for disadvantaged groups requires taking on regulatory barriers that place housing in large swaths of specific areas out of reach for lower-income families.