

## The Impact of Building Restrictions on Housing Affordability

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Today, as leading policy makers, trade associations and poverty advocacy groups contend that America suffers from a housing affordability crisis; researchers question both the nature and prevalence of such a crisis. Is this a national phenomenon, or do certain areas face dramatically higher housing costs than other regions of the country? The old real estate adage that location determines property value may take on new meaning in the attempt to answer these questions.

In order to distinguish this issue from poverty debates, a recent study defines housing affordability as the ratio of housing price to construction costs. This is not intended to undermine the plight of those who cannot afford adequate housing, but instead to determine whether housing is expensive relative to its basic cost of production. According to data from the R.S. Means Company, which monitors construction costs separate from land prices in U.S. metropolitan areas, most American homes are priced close to, and even below their cost of construction. However, there are areas, mainly in the West and Northeast, where housing prices exceed their construction costs by at least 40 percent. Of course, part of this housing premium stems from a greater demand for the various amenities, such as better schools and stronger labor markets found in these areas. But how does supply, of both new construction and land, act to set housing prices?

The Means data suggest that the supply of new houses is almost perfectly elastic, meaning that houses can be physically built on demand. This implies that the restriction of housing supply lies almost entirely in the supply of land. The classic economics approach argues that because there exists a fixed amount of land, the cost of that land drives up housing prices, separate from construction costs. The alternative to this approach proposes that government regulation, rather than a limited supply of land, more accurately explains the higher housing prices in relatively expensive areas. Zoning and building restrictions impose an artificial constraint on the supply of housing in these areas where land is actually abundant. The classic economics approach

relies on the intensive marginal value of land, found by comparing the prices of similar homes located on lots of various sizes. This method approximates the value of additional land to existing homeowners. An alternative to the classic economics approach attempts to determine the extensive value of land, or the value of owning a piece of land with a house on it. The alternative method estimates the value of land by subtracting the construction cost from the value of a home and then divides that by the number of acres.

By matching the Means data with data from the American Housing Survey and the U.S. census, the study uses regression analysis to compute both the intensive and extensive values of land in high-cost areas. In many cities, the extensive value of land is roughly 10 times the intensive value, meaning that, for an average lot, the classic economics approach explains only 10 percent of the value of the land in these areas. This evidence supports the alternative view that higher housing prices result more from government regulation than through normal market forces.

According to the classic economics approach, if the cost of land drives up housing prices, then areas with greater density should also have higher prices because land is relatively scarce in those areas. The regulation view argues that the greater amenities found in expensive areas impose a higher zoning tax that does not affect the marginal price of land. A regression of density on housing prices fails to support a statistically significant positive relationship. More importantly, the large amount of variation in these results further supports the regulation view. For instance, Detroit, Seattle, and Los Angeles have comparable residential densities, but different fractions of houses on expensive land, while New York City and San Diego have relatively high fractions of houses expensive land, but different residential densities. In addition, a regression of density on average January temperature, a representative amenity, suggests that there is no apparent relationship between land consumption and the benefits associated with high-cost areas. Because higher average January temperatures are related to

higher housing prices, this further questions the role of density in raising the value of land. A regression using the average January temperature to explain the intensive and extensive measures for land also implies that amenities raise the zoning tax on land more than the intensive value of land. These relationships remain virtually unchanged even after controlling for median income, based on the premise that wealthy people who live in expensive areas also demand more land.

After examining the implications for zoning posed by residential density and extensive land values, what is the direct relationship between zoning and housing costs? The study uses a measure of the average amount of time needed to obtain a building permit to represent the degree of zoning for a given metropolitan area. These measures range in value from 1, which corresponds to less than three months, to a value of 5, which corresponds to more than two years. A regression of permit time on housing prices reveals a strong positive relationship. For every one-unit increase in permit wait time, at least 15 percent of the housing stock shifts to high-cost housing, or housing priced at more than 40 percent above the cost of new construction. Roughly 75 percent of high-cost housing can be found in areas with an average building permit delay of at least six months. Another regression of the zoning measure on the implied zoning tax, based on the extensive value of land, also suggests a strong positive relationship. For every one-unit increase in permit wait time, the implicit zoning tax rises by \$7 per-square foot. Again, this

relationship remains unchanged after controlling for population growth and median income.

The study summarized in this brief reaches several key conclusions. First, in terms of new construction costs, America is not in the midst of a housing affordability crisis. For most of the nation, housing prices are near or below the cost of new construction. Secondly, the classic economics approach fails to explain the extreme variance in those areas where housing affordability has reached the level of crisis. The marginal value of land accounts for only a fraction of the housing prices above construction costs, and there is no significant relationship between density and housing price in expensive areas. Conversely, measures of zoning strictness are highly correlated with increasing housing prices. This analysis excludes any possible benefits of zoning regulations, which could serve to lessen the social cost of a zoning tax. The study also ignores the role of neighborhood effects and residential mobility in explaining the variance in housing values across areas with similar residential densities. Based on these findings, policy makers could more effectively reduce the burden of high-cost housing by targeting the zoning tax on new construction, rather than through subsidies for housing and construction costs. However, zoning reform will undoubtedly generate losses in housing value for current homeowners in expensive areas. Such zoning reform would thus have to somehow compensate these homeowners in order to garner necessary political support.

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