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Long-term vacant housing in the United States ☆

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ABSTRACT

Long-term vacancy—defined as nonseasonal housing units that have been vacant for an unusually long period of time—is a useful measure of excess supply in the housing market. In fact, long-term vacancy is more strongly correlated with indicators of housing market distress than standard measures of vacancy. At the national level, long-term vacancy is relatively uncommon. However, the stock of long-term vacant housing is concentrated in a small number of neighborhoods with high long-term vacancy rates. Some of these neighborhoods have characteristics suggestive of overbuilding during the housing boom, while others have characteristics symptomatic of persistently weak housing demand.

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1. Introduction

The durability of housing is one of the main features that set it apart from other types of goods. Because physical structures will exist for many years even when no one is occupying or maintaining them, a decrease in the demand to live in a particular location or type of housing unit will lead to vacant structures. Not all vacancy is a sign of an excess supply: Some units are held vacant for seasonal use, and others are vacant for a relatively short time when the residents of the unit change over. But in most cases, long periods of vacancy are a physical manifestation of the inability of the housing supply to fully adapt to changes in housing demand.

The housing market contraction from 2007 to 2010 brought issues related to vacant housing to the forefront, as it resulted in a rapid and largely unforeseen shift in the number and types of housing demanded and so coincided with a substantial increase in the number of vacant housing units. According to the decennial census, which provides the most accurate data on vacant residential structures in the US, 8% of non-seasonal housing units stood vacant in April 2010 (see Fig. 1). This fraction was the largest recorded since the statistics were first collected in 1950. Although surveys indicate that vacancy has come down somewhat since 2010, it still appears high by historical standards. For example, the Housing Vacancy Survey (HVS), which has tracked vacant housing units since 1965, shows that the non-seasonal vacancy rate in 2015 was still higher than any reading prior to 2003 (see Fig. 1).[1]

Long periods of unintended vacancy are a waste of resources because the structure has failed to provide the housing services that were intended when the structure was built. Moreover, homes that stand vacant for a long period of time are less likely to be maintained adequately, thereby requiring renovation in order to become fully functional once again. Vacant homes also may pose problems for local communities if they attract crime, create a safety hazard, or otherwise detract from the quality of the neighborhood (Apgar et al., 2005; Griswold and Norris, 2007; Mikelbank, 2008; US GAO, 2011; Whitaker and Fitzpatrick, 2013; Wilcox et al., 2004). Moreover, abandoned properties impose costs on local governments in the form of maintenance costs, demolition costs, administrative costs of locating owners and mortgage lien holders, and judicial costs (US GAO, 2011).

Because only homes that are not intended to be vacant reflect a mismatch between supply and demand, distinguishing between intentional and unintentional vacancy is critical for understanding the extent that the housing stock may be underutilized. However, most datasets with information on vacant housing do not provide enough detail to allow researchers to make this distinction. For

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[1] The level of the vacancy rate as measured in the HVS has been higher than that in the decennial Census since 2000. In the HVS, using weights based on occupied housing units rather than population seems to generate a smaller number of occupied housing units, and perhaps therefore a higher fraction of vacant housing units (Cresce, Cheng and Grieves, 2014). This discrepancy is the topic of ongoing investigation by Census Bureau staff.
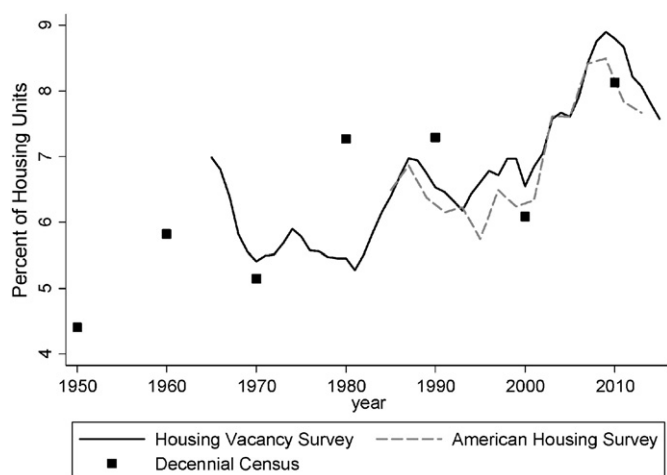
Fig. 1. Aggregate non-seasonal vacancy rate. Note. Author's calculations from the Decennial Census, Housing Vacancy Survey (HVS) and American Housing Survey. Seasonal and occasionally-occupied housing units are excluded from the numerator and denominator.

Fig. 2. Vacancy as excess supply in the housing market.

example, Table 1 shows the categories of vacant housing that are available in the 2010 Census. While units in some categories, like those designated as vacant for seasonal, recreational or occasional use, are likely intended to be vacant, other categories likely contain a mixture of intended and unintended vacancy.

In this paper, I use data on duration of vacancy to gain insight into underutilization of the housing stock. I begin by presenting a simple theoretical framework to illustrate the connection between vacancy and excess supply in the housing market, and discuss why data on duration of vacancy can help refine estimates of the excess supply. Using the American Housing Survey (AHS), I estimate the aggregate fraction of housing units that have been vacant for an unusually long period of time, which I refer to as "long-term" vacancy. Long-term vacancy has been less than 2% of the nonseasonal housing stock from 1989 to 2011, and it accounts for only about one quarter of the increase in the aggregate nonseasonal vacant stock from 2001 to 2011. Thus, at the national level underutilization of the housing stock is not nearly as extensive as indicated by traditional measures of vacancy. This result means that although the current level of aggregate vacancy is unusually high, many of the housing units that are currently vacant will become occupied relatively quickly, and therefore are unlikely to impose many of the costs of long-term vacant or abandoned units.

If all neighborhoods had a long-term vacancy rate equal to the national average, one could conclude that the excess supply of housing is not a significant issue. However, an excess supply could be important in some locations if the stock of long-term vacant property is concentrated in a small number of locations. To examine the distribution of long-term vacant property across neighborhoods, I use data on duration of vacancy by Census tract from the US Postal Service (USPS). This data source has only been used in a handful of academic studies, and as far as I am aware this paper is the first to use it to examine geographic

distribution of vacancy across the entire United States. I find that the stock of long-term vacant housing is highly concentrated in a small number of neighborhoods with high vacancy rates: In 2013, 13% of Census tracts had a long-term vacancy rate more than one standard deviation above the mean, and these tracts accounted for 39% of all long-term vacant units.[2] By contrast, nearly two thirds of tracts had a long-term vacancy rate below the mean.

Next, I examine the characteristics of tracts that had an unusually high long-term vacancy rate in 2013. Such tracts can be found in many regions and metropolitan areas across the US. Using principal component analysis, I find that these neighborhoods can be categorized into four basic types: housing boom neighborhoods, declining inner-city neighborhoods, poor-but-stable inner city neighborhoods, and declining suburban neighborhoods. The fact that these neighborhoods have different characteristics illustrates the multiple factors that can lead to long-term vacancy. For example, in the housing boom neighborhoods, high levels of construction from 2000 to 2009 suggest that overbuilding during the boom has contributed to long-term vacancy. By contrast, the declining inner-city and suburban neighborhoods have suffered population losses and high vacancy rates for decades, suggesting that these areas suffer from persistent weakness in housing demand. Due to the diverse characteristics of neighborhoods with a high long-term vacancy rate, policies that may be effective at reducing the long-term vacant stock in one location may be less effective in other locations.

Finally, I show that the long-term vacancy rate is more strongly correlated with various measures of housing market distress than standard measures of vacancy, such as the gross vacancy rate or the homeowner vacancy rate. Thus, policy makers and academics who desire to measure excess supply in the housing market would do well to consider long-term vacancy.

Table 1
Type of vacancy in the 2010 census.

	Percent of vacant stock
For rent	27.6
For sale	12.7
Rented, awaiting occupancy	1.4
Sold, awaiting occupancy	2.8
Seasonal, recreational or occasional use	31.0
Other	24.5

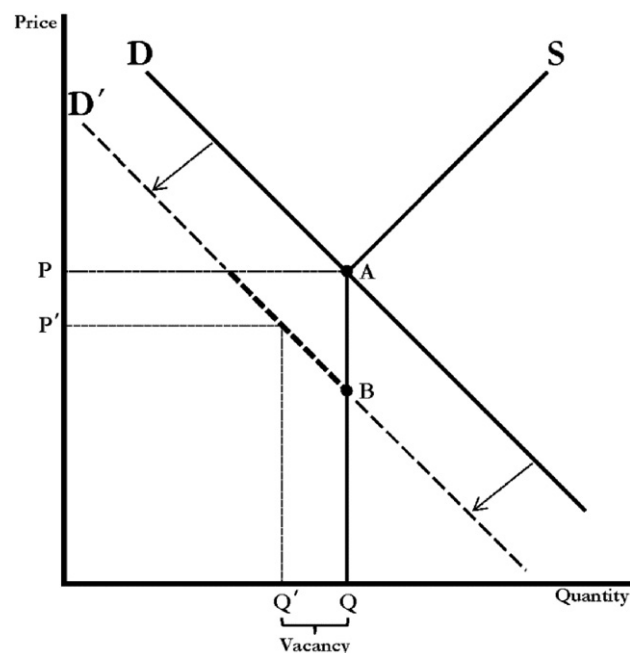Note. Author's calculations based on the 2010 Census.

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[2] Similarly, using data from Columbus OH, Mikelbank (2008) finds that abandoned properties are concentrated in the central city.