

# Are Housing Vacancy Rates a Good Proxy for Physical Blight?

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## Abstract

*Housing vacancy and physical blight pose challenges in U.S. cities, particularly in shrinking cities of the Rust Belt. Although some cities have begun collecting fine-scale data on physical blight, most cities do not have detailed blight data. Researchers and policymakers may need to rely on coarser-scale data such as neighborhood vacancy rates as a proxy for physical blight. To explore whether housing vacancy rates are a reasonable proxy for physical blight, data from a comprehensive parcel condition survey in Toledo, Ohio, were used to characterize residential vacancy and physical blight at the property parcel scale. These data were then aggregated to the census tract scale, and rates of vacancy and physical blight from the local parcel survey were compared with broadly available tract-scale estimates of vacancy from the U.S. Postal Service (USPS) and the U.S. Census Bureau's American Community Survey (ACS). Results demonstrate that although USPS and ACS vacancy estimates were closely correlated with vacancy rates from the local survey, both sources overestimated vacancy in high-vacancy areas of Toledo relative to the local survey. For all three data sources, tract-scale vacancy rates were strongly and positively correlated with physical blight ( $r \geq 0.73$ ), and there were no significant differences in the strength of correlation among the data sources. These results suggest that, despite modest overestimation of vacancy in high-vacancy areas, tract-scale housing vacancy data from USPS or ACS can be used as a proxy for physical blight in the absence of more detailed local data. By comparing patterns in three relevant data sources, this study helps work toward just and informed decisionmaking related to housing vacancy and physical blight.*

## Introduction

Urban vacant land is important from a number of perspectives, such as urban planning and policy (for example, Hollander et al., 2009; Kim, Newman, and Jiang, 2020; Németh and Langhorst, 2014; Prener, Braswell, and Monti, 2020), social-ecological systems (for example, Haase, Haase, and Rink, 2014; Kremer, Hamstead, and McPhearson, 2013; Nassauer and Raskin, 2014), and sustainability (for example, Anderson and Minor, 2017; Herrmann, Schwarz, et al., 2016; Herrmann, Shuster, et al., 2016). Vacant parcels are properties that are not currently occupied or

inhabited. This definition includes parcels with unoccupied housing units or other structures and vacant lots that do not contain structures. Vacant residential land is particularly prominent in U.S. cities, as vacant residences account for three-fourths of all vacant addresses (Newman et al., 2016).

Vacant land is particularly abundant in shrinking cities (also termed legacy cities) compared with growing cities (Newman et al., 2016). Shrinking cities are those that have experienced sustained declines in population and/or economic activity resulting from a series of related processes, including globalization, deindustrialization, suburbanization, targeted disinvestment, and racist housing practices (Hackworth, 2019; Martinez-Fernandez et al., 2012; Sadler and Lafreniere, 2017). In the United States, shrinking cities are concentrated in the Rust Belt that extends from the Northeast to the Midwest (Ganning and Tighe, 2021; Harrison and Immergluck, 2021; Schilling and Logan, 2008). Shrinking cities have high levels of residential vacancy citywide compared with growing cities (Newman et al., 2016), but vacancy patterns are heterogenous within cities as some neighborhoods experience more land abandonment than others (Berland et al., 2020; Hoalst-Pullen, Patterson, and Gatrell, 2011; Pearsall and Christman, 2012).

Although some degree of housing vacancy can be desirable to provide opportunities in the housing market (Mallach, 2018), widespread vacancy presents challenges for local governments. Vacant parcels burden local governments with costs for services such as code enforcement units, police, and fire departments (Immergluck et al., 2016). At the same time, vacant parcels generate less property tax revenue than occupied parcels due to tax delinquency and lower property values. They further reduce tax revenues by depressing the property values of nearby parcels (Immergluck et al., 2016; Mallach, 2018). Local governments and nonprofits dedicate substantial resources to neighborhood stabilization through efforts including revitalization, urban greening, land banking, and targeted demolitions.

Housing vacancy also presents challenges for urban residents (Sampson et al., 2017), in part because vacancy is associated with physical blight. The broader concept of blight has been difficult to define objectively, and the use of blight to justify redevelopment has a controversial history in U.S. urban policy (Gordon, 2004; Pritchett, 2003). Here, physical blight is defined more narrowly as observable elements of physical disorder such as broken windows or fire damage that negatively impact the appearance or integrity of a residential property. Whereas recognizable signs of care encourage a sense of safety (Nassauer and Raskin, 2014), the presence of physical blight increases fear and the perception of criminal activity (Branas et al., 2018; Perkins, Meeks, and Taylor, 1992). Vacancy has been linked to increased crime (Branas, Rubin, and Guo, 2012; Cui and Walsh, 2015) and negative physical and mental health outcomes (Garvin et al., 2013; Sivak, Pearson, and Hurlburt, 2021; Wang and Immergluck, 2018). Vacancy and physical blight can contribute to the erosion of social capital and a reduced sense of community pride (Curley, 2010; Teixeira, 2015). Landowners see their property values fall when surrounding parcels are vacant (Han, 2014; Whitaker and Fitzpatrick, 2013). This deterioration of neighborhood housing market conditions may disincentivize owners to maintain their properties, particularly when needed repairs cost more than the house is worth.

Concentrated vacancy is an equity issue, given that vacancy rates are positively correlated with higher proportions of Black or African-American residents, higher poverty, and lower educational

attainment (Harrison and Immergluck, 2021; Schwarz, Berland, and Herrmann, 2018). Racially discriminatory housing practices have been implicated as historical drivers of vacancy (Sadler and Lafreniere, 2017). Immergluck (2016) found that more persistent vacancy was associated with high-poverty areas during the 2011–2014 housing market recovery. In addition, the perception of neighborhood disorder is amplified in areas with more Black or African-American residents and higher poverty, reflecting implicit cultural biases (Sampson and Raudenbush, 2004). So although urban vacancy poses tremendous challenges for urban policymaking in general (Hackworth and Nowakowski, 2015), the disproportionate consequences of physical blight for traditionally marginalized groups further underscore the need to understand patterns in housing vacancy and physical blight and then design effective solutions.

One way that cities in the Rust Belt have worked to understand residential vacancy and the condition of their housing stocks is through parcel condition surveys. In general, parcel condition surveys involve field crews walking the city and making observations about each property. These observations may include land use, presence/absence of a structure, building occupancy status, condition of the structure, indicators of physical blight, and more. To date, parcel condition surveys have been conducted across a range of Rust Belt cities, including Toledo, Ohio; Cleveland, Ohio; Detroit, Michigan; Gary, Indiana; Muncie, Indiana; and Trenton, New Jersey. The data from these parcel condition surveys can be used to understand the scope and geographic distribution of vacancy and physical blight and then to design strategic policy responses (Kapszukiewicz and Mann, 2015). Parcel condition surveys require time and money to complete, however, and they may not be feasible in all cities. In lieu of parcel condition surveys, national datasets are broadly available that characterize residential vacancy at the neighborhood scale. It is unclear how well these national datasets agree with data from local parcel condition surveys. Moreover, although it is acknowledged that physical blight is associated with vacancy, it is not known how reliably neighborhood estimates of housing vacancy can be used as a proxy for physical blight.

This article contributes to our understanding of housing vacancy and physical blight in three ways. First, the article establishes a connection between housing vacancy and physical blight at the parcel scale. Second, vacancy rates from two national data sources are compared with vacancy data from a local parcel condition survey to analyze the overall level of agreement among data sources and geographic patterns where the data sources disagree. Third, all three vacancy data sources are correlated with rates of physical blight to understand whether vacancy data can serve as a reliable proxy for physical blight in the absence of blight data.

## **Methods**

### **Study Area**

The study area is Toledo, Ohio (41.65° N 83.54° W). Toledo is adjacent to Lake Erie in the U.S. Rust Belt. Formerly a glass manufacturing center (Floyd, 2014), the city experienced declines in manufacturing during the second half of the 20th century. Toledo's population decreased by approximately 100,000 people from its peak census population in 1970 to 282,275 people in 2015 (U.S. Census Bureau, 2021a). Today, Toledo is representative of many Rust Belt cities with areas of marked decline and relatively prosperous areas with functioning housing markets (Hackworth and

Nowakowski, 2015; Tighe and Ganning, 2015). The proliferation of vacant properties and physical blight costs the city millions of dollars per year through direct costs and lost tax revenues (Immergluck et al., 2016).

## **Data Sources and Preparation**

### **Toledo Survey Data**

In recognition of challenges presented by vacant properties and the need for data to guide management decisions, the Lucas County Land Bank launched the Toledo Survey (Kapszukiewicz and Mann, 2015). The Toledo Survey is a comprehensive parcel condition survey conducted in 2014–2015. For each property parcel in the city, field crews documented the presence or absence of a structure, the condition of the structure, whether the structure appeared to be occupied, and various indicators of physical blight (Kapszukiewicz and Mann, 2015).

The Toledo Survey data were prepared for analysis by characterizing housing vacancy and physical blight. For housing vacancy, non-residential parcels were removed from the dataset. Vacant lots—parcels without a residential structure—were also removed for consistency with the two national data sources used for comparison. Then the Toledo Survey indicator of occupied/vacant was used to characterize vacancy at the parcel level. To match the national data sources, the parcel data were aggregated to the scale of census tracts using 2015 tract boundaries (U.S. Census Bureau, 2021b). Census tract boundaries do not match the boundaries of Toledo. The final set of 95 census tracts included in the analysis consisted of 93 tracts with their geographic centers within Toledo and two tracts that extend northeast into Lake Erie but have all their residences in Toledo.

Physical blight was categorized into serious issues and aesthetic issues following Kapszukiewicz and Mann (2015). Serious issues included the following major maintenance issues: roof damage, foundation damage, and fire damage. Aesthetic issues included deteriorated porches, peeling paint or missing siding, broken windows, unkempt lawns, and boarded structures. For each parcel, two binary indicators were created to signal the presence of (1) one or more serious issues and/or (2) one or more aesthetic issues. As with the vacancy data, these data were aggregated to the tract scale, yielding the percent of residential parcels in each tract with serious issues and the percent of residential parcels in each tract with aesthetic issues.

### **U.S. Postal Service and U.S. Department of Housing and Urban Development Data**

The U.S. Department of Housing and Urban Development (HUD) publishes vacancy data generated by the U.S. Postal Service (USPS). These data were acquired at the census tract scale from the HUD Office of Policy Development and Research (HUD, 2021). This dataset includes the total number of residential addresses in each tract, the number of residential addresses that have been vacant for at least 90 days, and the number of “no-stat” or undeliverable residential addresses that are unlikely to have mail delivered. The USPS/HUD residential vacancy rate for each tract was calculated by subtracting no-stat addresses from total addresses and dividing the number of vacant addresses by that difference. Data from the fourth quarter of 2015 were used to match the dates of the other two data sources. Negligible differences in tract vacancy rates were observed when rates were calculated

without first subtracting no-stat addresses or when data from different quarters in 2015 were used. This result indicates that patterns in the data were not sensitive to these data preparation choices.

### **American Community Survey Data**

American Community Survey (ACS) data were acquired from the U.S. Census Bureau (2021a). The ACS reports data annually based on surveys sent to a sample of the population. Here, 2011–2015 5-year estimates were used to characterize residential vacancy at the census tract scale. Tract vacancy rates were calculated by dividing the count of vacant housing units by the total housing units.

## **Data Analysis**

### **Vacancy and Physical Blight Relationships at the Parcel Scale**

The relationship between housing vacancy and physical blight was first analyzed at the parcel scale. This analysis relied on Toledo Survey observations of parcel occupancy status and binary indicators of physical blight (serious issues and aesthetic issues). First, chi-squared tests were used to determine if rates of physical blight varied according to occupancy status for all residential parcels citywide. Second, in recognition that citywide results could be biased by the disproportionate amount of both vacancy and physical blight in high-vacancy areas, the chi-squared tests were repeated for high-vacancy areas only. High-vacancy areas were defined as census tracts with housing vacancy rates above the upper quartile (that is, 75th percentile and above), based on tract vacancy rates derived from the Toledo Survey data.

### **Comparison of Vacancy Rates by Data Source**

Census tract vacancy rates were compared among the three data sources to assess the magnitude of differences and to analyze geographic patterns in where those differences were more pronounced. The parcel-scale Toledo Survey vacancy data were aggregated to census tracts to assess differences among data sources. Pearson correlations were computed to characterize the level of agreement among vacancy estimates from the Toledo Survey, USPS/HUD, and ACS. Scatterplot graphs with linear regression lines were generated to visualize these relationships.

Hot spot analysis was conducted to indicate where discrepancies in vacancy estimates among data sources were more pronounced. Specifically, the Getis-Ord  $G_i^*$  statistic was applied to identify geographic hot spots and cold spots in the differences between data sources in tract vacancy estimates across Toledo. For example, when subtracting Toledo Survey vacancy minus USPS/HUD vacancy, hot spots would indicate geographic clusters of relatively strong positive differences wherein the Toledo Survey estimated higher vacancy rates in that part of the city than USPS/HUD. On the other hand, cold spots would indicate areas where relatively strong negative differences were clustered, highlighting areas where USPS/HUD vacancy estimates were substantially higher than Toledo Survey estimates. Hot spot analysis was performed for each paired combination of Toledo Survey, USPS/HUD, and ACS data sources. The Getis-Ord  $G_i^*$  statistic was implemented using a first-order queen contiguity neighborhood definition in the R *spdep* package (Bivand and Wong, 2018).

## Census Tract Housing Vacancy Rates as a Proxy for Blight

Correlation analysis was used to assess the relationship between housing vacancy and physical blight at the census tract scale. Pearson correlation coefficients ( $r$ ) were computed to characterize the relationships between each of the three vacancy data sources (Toledo Survey, USPS/HUD, and ACS) and the proportion of residential parcels with each type of physical blight (aesthetic issues, serious issues). This analysis yielded six total correlation coefficients. The strength of correlation between vacancy and physical blight was compared across data sources using the Fisher  $z$ -transformation, which converts correlation coefficients to  $z$ -scores. The  $z$ -scores were then used to test for significant differences between correlation coefficients. A significant difference between datasets would indicate that one data source was more closely correlated with physical blight than another data source. Unless otherwise noted, all analyses were conducted in the *R stats* and *base* packages (R Core Team, 2021).

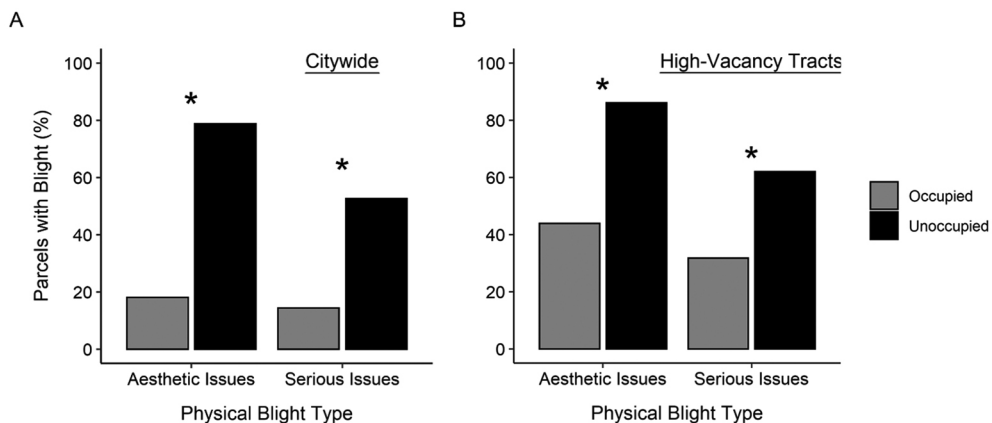
## Results

### Vacancy and Physical Blight Relationships at the Parcel Scale

Chi-squared tests indicated significant differences in the prevalence of physical blight between occupied and unoccupied parcels (see exhibit 1). In the citywide analysis, aesthetic issues were observed on 78.7 percent of unoccupied parcels compared with 18.1 percent of occupied parcels. Similarly, serious issues were observed on more than one-half (52.7 percent) of unoccupied parcels and only 14.4 percent of occupied parcels (see exhibit 1a). The observed rates of physical blight were greater in high-vacancy tracts. For unoccupied parcels, aesthetic issues (86.0 percent) and serious issues (62.1 percent) were both more prevalent as compared with occupied parcels (43.9 percent and 31.8 percent, respectively) (see exhibit 1b).

#### Exhibit 1a and 1b

Comparison of Physical Blight on Occupied Versus Unoccupied Parcels



\*Significant differences at  $p < 0.001$ .

Note: High-vacancy tracts are those with vacancy rates at or above the 75th percentile.

Source: Toledo Survey

## Comparison of Housing Vacancy Rates by Data Source

Estimates of census tract housing vacancy rates varied by the data source. The Toledo Survey recorded lower vacancy rates overall than either USPS/HUD or ACS (see exhibit 2). Pearson correlations ranging from 0.73 to 0.85 showed reasonably strong agreement between the data sources (see exhibit 3). Tract vacancy rates from USPS/HUD were usually greater than Toledo Survey estimates, and ACS vacancy rates were generally greater than both the Toledo Survey and USPS/HUD (see exhibit 3).

### Exhibit 2

Summary Statistics for Housing Vacancy Rates by Data Source for Toledo Census Tracts

	Toledo Survey (%)	USPS/HUD (%)	ACS (%)
Mean	8.1	11.1	17.0
Median	6.0	7.7	14.3
Standard Deviation	6.0	9.0	10.7
Minimum	0.5	0.8	0.0
Maximum	25.3	30.5	44.6

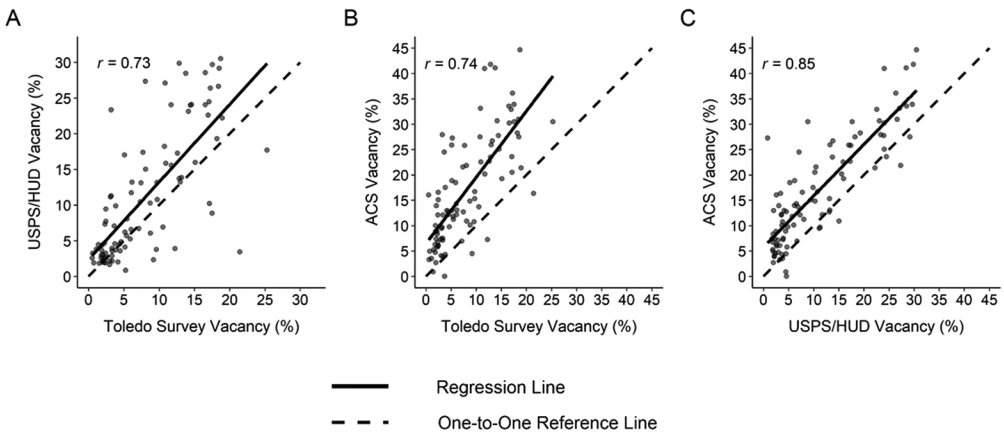
ACS = American Community Survey. USPS = U.S. Postal Service.

Note: n = 95.

Sources: Toledo Survey; U.S. Census Bureau; U.S. Department of Housing and Urban Development

### Exhibit 3

Scatterplots Comparing Census Tract Vacancy by Data Source



ACS = American Community Survey. USPS = U.S. Postal Service.

Sources: Toledo Survey; U.S. Census Bureau; U.S. Department of Housing and Urban Development

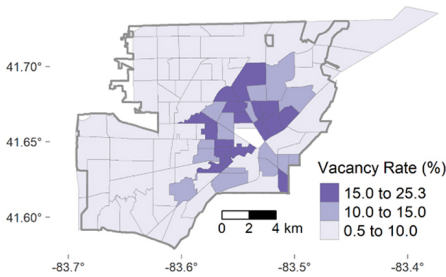
Hot spot analysis with the Getis-Ord  $G_i^*$  statistic demonstrated spatial non-stationarity in the differences in vacancy estimates between data sources. Although USPS/HUD vacancy rates tended to be higher overall than Toledo Survey rates (see exhibit 3a), these differences were more pronounced in the higher vacancy areas of Toledo (see cold spots with solid outlines in exhibit 4b). Similarly, ACS vacancy rates were typically higher than Toledo Survey vacancy rates (see exhibit

3b), but these differences were more pronounced in high-vacancy tracts near downtown Toledo (see cold spots with solid outlines in exhibit 4c) and less pronounced in lower-vacancy tracts in south and northwest Toledo (see hot spots with dashed outlines in exhibit 4c). Finally, there was comparatively less spatial structure to the differences between USPS/HUD vacancy rates and ACS vacancy rates (see exhibit 4d), with only two cold spots centered on lower vacancy tracts that bordered higher vacancy tracts.

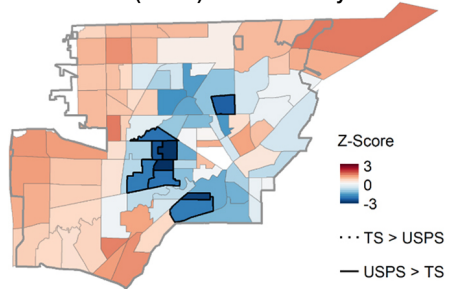
**Exhibit 4**

Geographic Patterns in Vacancy Estimates Across Data Sources

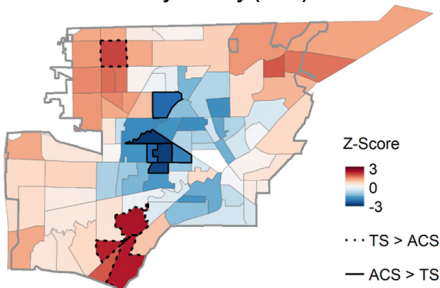
**A: Toledo Survey Estimates for Percent Vacant Residential Structures by Census Tract**



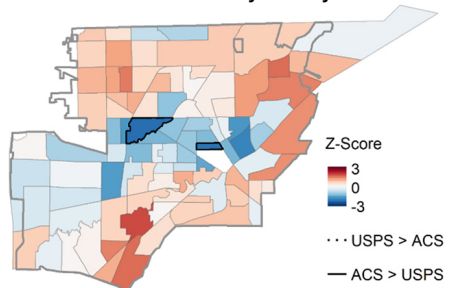
**B: Hot Spot Maps Showing Geographic Clusters in the Difference Between Toledo Survey (TS) Minus USPS/HUD (USPS) Tract Vacancy Estimates**



**C: Hot Spot Maps Showing Geographic Clusters in the Difference Between Toledo Survey Minus American Community Survey (ACS)**



**D: Hot Spot Maps Showing Geographic Clusters in the Difference Between USPS/HUD Minus American Community Survey**



ACS = American Community Survey. TS = Toledo Survey. USPS = U.S. Postal Service.

Note: Bold tract outlines indicate statistically significant clusters of large positive differences (dotted lines) and large negative differences (solid lines).

Sources: Toledo Survey; U.S. Census Bureau; U.S. Department of Housing and Urban Development

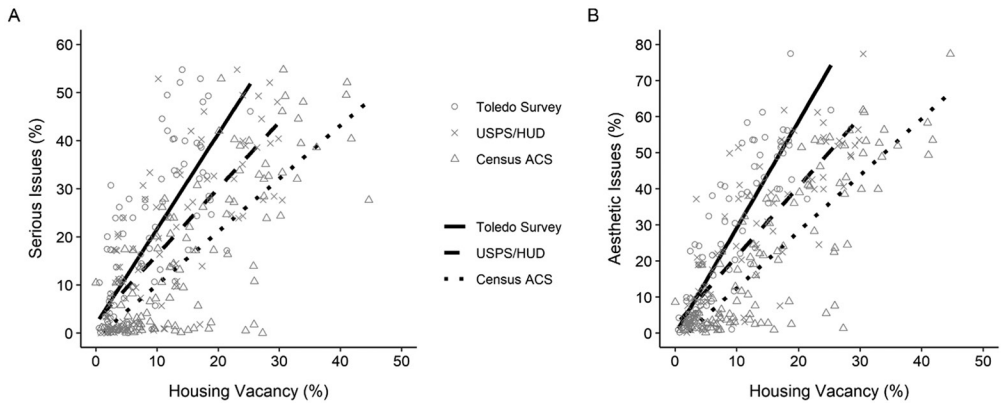
**Census Tract Housing Vacancy as a Proxy for Blight**

Physical blight increased with housing vacancy. All correlations between housing vacancy and physical blight were positive and strong ( $r \geq 0.73$ ;  $p < 0.001$ ) (see exhibits 5 and 6). Observed  $r$  values ranged from 0.73–0.77 for serious issues and 0.81–0.87 for aesthetic issues. No significant differences were observed between correlation coefficients ( $p > 0.10$  for all comparisons) (see exhibit 6).



**Exhibit 5**

Scatterplots with Linear Regression Lines Showing the Relationships Between Housing Vacancy and Physical Blight

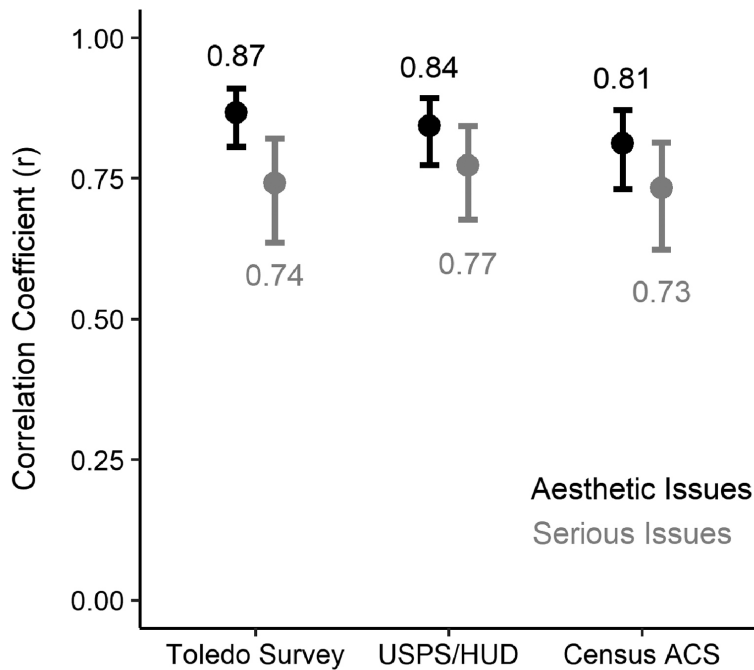


ACS = American Community Survey. USPS = U.S. Postal Service.

Sources: Toledo Survey; U.S. Census Bureau; U.S. Department of Housing and Urban Development

**Exhibit 6**

Pearson Correlation Coefficients and 95 Percent Confidence Intervals for the Relationships Between Housing Vacancy and Physical Blight, by Data Source



ACS = American Community Survey. USPS = U.S. Postal Service.

Sources: Toledo Survey; U.S. Census Bureau; U.S. Department of Housing and Urban Development

## Discussion

Vacant housing and physical blight are pressing issues in U.S. cities. The rise of parcel condition surveys, especially in Rust Belt cities, reflects the importance of vacancy and physical blight observations for guiding data-driven land management and policy decisions. In the absence of parcel-scale datasets, however, decisionmakers and researchers have relied on broadly available datasets at the neighborhood scale from USPS/HUD and the Census ACS to understand patterns in housing vacancy and physical blight (for example, Hackworth, 2014; Harrison and Immergluck, 2021; Schwarz, Berland, and Herrmann, 2018). This article provides context for using these datasets by comparing housing vacancy rates across data sources and explores implications for using vacancy rates to approximate the prevalence of physical blight. In general, strong agreement in tract vacancy estimates among all three data sources (see exhibit 3) suggests that robust analyses could be generated using any of the data sources. Furthermore, strong correlations between housing vacancy and physical blight did not differ significantly across data sources (see exhibit 6), indicating that each data source could reliably capture the relationship between housing vacancy and physical blight.

There are some nuanced differences among data sources that deserve mention, however. First, tract-scale vacancy estimates were lower overall in the Toledo Survey compared with both national data sources (see exhibits 2 and 3). The sources of error in these estimates are not fully known but could result from factors like data collection error in the Toledo Survey (for example, misjudged vacancy or data entry errors) or sampling error inherent in the Census ACS. Second, the relatively higher estimates of vacancy observed in the USPS/HUD and ACS estimates were more pronounced in higher-vacancy areas, as indicated by cold spots in exhibit 4b and 4c, respectively. Again, the reasons for these discrepancies are not apparent, but they suggest that the choice of the vacancy data source is potentially important in studies focused on high-vacancy areas. Third, although the strength of correlation between vacancy rates and physical blight did not vary by data source (see exhibit 6), the slopes of regression lines characterizing those relationships did vary (see exhibit 5). This variation is apparently caused by relatively higher vacancy estimates in the Census ACS data—and to a lesser degree the USPS/HUD data—as compared with the Toledo Survey data. The reasons for these observed differences could be explored further in future studies to better understand the implications for research and policy related to high-vacancy areas.

This article demonstrates a connection at the parcel scale between housing vacancy and physical blight for both aesthetic issues and serious issues. Previous work in Toledo by Berland et al. (2020) showed that vacant residential parcels were more likely to have overgrown vegetation than comparable occupied parcels. The results here extend this finding to other forms of physical blight, including dilapidated building conditions. As expected, physical blight was more common on parcels with vacant structures (see exhibit 1), although it is not clear if reduced parcel care following abandonment led to physical blight or if perhaps the preexistence of physical blight played a role in prompting abandonment. In some cases, it may have been a combination of both, wherein deteriorating housing market conditions in the neighborhood reduced incentives to maintain the property, allowing physical blight issues to emerge. Then the property was eventually abandoned, and subsequently, more blight issues developed as the house sat unoccupied.

Observing relatively higher rates of physical blight in high-vacancy areas (see exhibits 1 and 5) is not surprising given that high-vacancy neighborhoods have experienced a confluence of challenging factors. These factors include policies that featured racial discrimination or systematically disinvested in high-poverty neighborhoods (Hackworth, 2019; Tighe and Ganning, 2015). In addition, weakening housing market conditions and land abandonment can reduce financial incentives for owners to maintain properties (Fujii, 2016; Han, 2014; Harrison and Immergluck, 2021; Hollander, 2010). Finally, reduced social cohesion can undermine the sense of community and neighborhood social norms that can encourage property maintenance (Locke et al., 2021; Rigolon et al., 2021; Sampson et al., 2017; Teixeira, 2015). The high prevalence of physical blight on vacant residential parcels likely has neighborhood effects, whereby occupied parcels in close proximity experience negative impacts of vacancy, including reduced property values (Han, 2014; Whitaker and Fitzpatrick, 2013), increased crime or the perception of reduced safety (Branas, Rubin, and Guo, 2012; Cui and Walsh, 2015; Nassauer and Raskin, 2014), and a loss of social cohesion or community pride (Nassauer and Raskin, 2014; Rigolon et al., 2021). Furthermore, although this article only considered the vacancy of housing units, high-vacancy areas are also likely to have many vacant lots without residential structures. Vacant lots add to the challenges presented by vacant residences, but they may also present opportunities for locally desirable social-ecological outcomes (Anderson and Minor, 2017; Garvin et al., 2013; Herrmann, Schwarz, et al., 2016; Rigolon et al., 2021; Stern and Lester, 2021).

The negative impacts of vacancy and physical blight have been well documented, policy recommendations and responses have been varied (Harrison and Immergluck, 2021). Direct discussion of urban shrinkage has often been avoided by policymakers altogether (Mallach, 2017). Demolition has commonly been used to reduce the prevalence of abandoned houses and physical blight (Mallach, 2018). Paredes and Skidmore (2017) observed increased property values for parcels near demolition sites in Detroit. In addition, Alvaay Torrejón, Paredes, and Skidmore (2021) demonstrated a reduction in property tax delinquency for properties near demolition sites, possibly signaling that demolishing dilapidated houses can improve perceived neighborhood quality. Strategic demolitions may be beneficial in certain situations (Harrison and Immergluck, 2021), but widespread demolition as a policy has been criticized (Hackworth, 2019). Although not always successful in practice, revitalization efforts may encourage reinvestment in high-vacancy neighborhoods, particularly when safeguards such as community land trusts are put in place to avoid gentrification that displaces residents (Prenner, Braswell, and Monti, 2020). Governance innovations like land banks have become increasingly common to facilitate the transfer of vacant houses to new owners who are likely to maintain the properties. Fujii (2016) described how land banks can work together with community development corporations to generate positive outcomes that are not seen when financial institutions or speculative investors own vacant houses.

Policy interventions should be tailored to the local situation because the impacts of vacancy on quality of life within neighborhoods are context-dependent, such that vacancy rates alone cannot precisely predict socioeconomic outcomes (Hollander, 2010). Still, addressing residential vacancy and physical blight remains a key challenge, particularly for shrinking cities (Accordino and Johnson, 2000; Harrison and Immergluck, 2021). This issue is made even more important by the imperative to address structural inequities in our cities (Tighe and Ganning, 2015) related to the fact that high-vacancy neighborhoods have disproportionately high populations of traditionally

marginalized groups (Rigolon et al., 2021; Schwarz, Berland, and Herrmann, 2018). The emergence of parcel condition surveys alongside broadly available USPS/HUD and ACS data gives policymakers and researchers new perspectives on housing vacancy and physical blight. As presented in this article, a better understanding of these data sources—and the patterns they reveal—is an important step in working toward just and informed decisionmaking.

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