

Corporate-Sponsored Informality: Online Urban Vacation Rentals and Their Effects on Housing Markets and Neighborhoods

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Online urban vacation rentals—often misleadingly characterized as part of the “sharing economy”—have proliferated in big US cities in recent years. Concerns grouped into at least two broad categories are beginning to mount and emerge as a matter of concern for everyday citizens, elected officials, and city planners. The first is the byproduct of the fact that many of the cities experiencing a chronic shortage of centrally-located, low-cost housing are also among the most attractive for tourists to visit. As a result, *housing market effects* are hypothesized to arise in cases where dwellings that once provided housing to permanent residents have been converted to, in effect, illegal full-time tourist accommodations. The second, *neighborhood quality of life effects*, result from the externalities imposed by the intrusion of tourist accommodations into formerly residential districts. Building on past studies examining such concerns in New York, Los Angeles, and San Francisco, we aimed to comparatively quantify the extent of these two types of impacts in five large US cities: Austin, Boston, Chicago, San Francisco, and Washington, DC.

Our study examined the online urban vacation rentals coordinated by Airbnb, the market leader in the industry. Because Airbnb was unwilling to disclose its internal data to us, we relied upon data automatically “scraped” from Airbnb’s website and provided to us by the New York-based journalist Murray Cox. While scraped data does not perfectly capture the extent and nature of Airbnb’s activities, it does make possible detailed estimates of the extent of the company’s activities in the five cities that we examined in the spring and summer of 2015. Using scraped data, we performed three types of analyses: i) overall quantifications of city-level data; ii) mapping the geographic patterns of Airbnb listings; and iii) using regression analysis to identify sociodemographic and physical factors that are associated with high concentrations of Airbnb listings at the census tract level within the five cities. These analyses allow us to report four broad-scale findings.

First, Airbnb listings are highly uneven in their geographic distribution. Certain types of census tracts are likely to have large concentrations of Airbnb listings. These are locations that are near city centers, located along rail transit lines leading towards city centers, that have large “nonfamily” populations, and that are located in the areas in which non-car transportation alternatives are most abundant. Interestingly, listings are not correlated with either high population densities or plentiful large multifamily buildings, suggesting that Airbnb listings concentrate more in “urban villages” than in the densest, high-rise dominated districts.

Second, Airbnb listing concentration patterns are highly racialized. Neighborhoods with large African American populations and a history of racial

isolation, even those with relative downtown proximity and rapid transit access, exhibit a marked paucity of Airbnb listings. Particularly when one considers the long history of race-based housing discrimination in the United States, and the fact that prospective Airbnb guests can view a photo of the hosts whose listings they are considering renting, policymakers have cause to be concerned about whether a new form of racially uneven economic activity is emerging in big US cities.

Third, commercial operators of Airbnb listings are abundant, raising concerns about possible regulatory capture as elected officials struggle to mediate between polarized interest groups seeking to shape new regulations and enforcement mechanisms for online urban vacation rentals. While Airbnb's rhetoric and marketing materials emphasize "home sharing" as a pleasant way for middle-income homeowners and renters to make new friends while earning extra spending money from hosting them, our results show that hosts holding more than one listing are a substantial presence. They account for between 30% of listings (Austin) and 44% (Boston). Furthermore, these commercially-oriented hosts contribute between 47% (Austin) and 59% (Boston) of the revenue Airbnb earns from each of the five cities. This suggests that in spite of the tone of Airbnb's rhetoric and marketing, the company's incentives to manipulate new regulatory and enforcement mechanisms away from a crackdown on (usually) illegal commercial hosts are strong.

Fourth, for the time being, citywide housing market effects appear modest in all five cities except for possibly San Francisco. Whole-unit listings range from 59% to 70% of the citywide totals in the five cities. However, what we define as *high-occupancy whole-unit listings*—those dwellings with an estimated Airbnb guest occupancy rate of 25% or greater, thus rendering them likely unusable as permanent housing—range from less than 1% of total listings in Chicago to over 14% in San Francisco. In every city but San Francisco, these units represent 3% or less of citywide for-rent vacancies, although in San Francisco this figure is substantial at over 13%. Thus, the real concern surrounding housing market effects likely exists at the scale of particular, centrally-located, highly sought-after neighborhoods where vacancies are scarce and Airbnb listings are abundant, rather than across entire cities (again, with the notable exception of San Francisco). However, with Airbnb listings across the five cities having exhibited exponential growth by more than doubling every year from 2009 to 2014, it is entirely possible that the San Francisco pattern could be replicated in other cities in coming years.

What should policymakers do? Our data indicate that neighborhood quality of life effects are substantial, with housing market effects perhaps more muted at a citywide scale but potentially exacerbating housing shortages in particular, already-popular neighborhoods. They also indicate that the possibility of regulatory capture is considerable. With the rapid pace of growth in listings coordinated by Airbnb and its competitors, city leaders may have a relatively narrow window of opportunity to ensure that online urban vacation rentals are a positive, rather than a detrimental, phenomenon in their jurisdictions.