

Good Neighbors or Unwelcome Guests?

Examining the Impact of Short-Term Rentals on Local Housing Markets

KATE BELL

Master of Public Policy 2020

ABSTRACT

Over the past decade, short-term rentals have proliferated in local housing markets across the United States. The rising popularity of this home-sharing model has caused concerns about the impacts these rentals have on local rent prices and housing supply. Policymakers at the local, state, and federal levels have introduced a host of regulatory measures to curb adverse impacts and restore balance to the market, maintain housing affordability across tenure groups, and ensure compliance with state and local law. However, short-term rentals still manage to strain local housing markets with each passing year. Rather than enacting blanket legislation, policymakers should adopt comprehensive planning strategies focused on both short-term rentals and other contributors to housing mismatches perpetuated by this industry, tailored to meet the needs of their specific communities.

The proliferation of short-term rentals (STRs) in housing markets across the country has been staggering over the past decade. While the home-sharing model is touted as having benefits such as providing hosts with extra income to cover mortgage payments and offering guests more authentic experiences while traveling, short-term rentals also have adverse impacts on local rent prices and housing supply. As short-term rental platforms gain popularity, policymakers have introduced a variety of regulations to alleviate these impacts and restore balance to the market, maintain affordability for renters and homeowners alike, and ensure compliance with state and local law. Yet even with these measures in place, short-term rentals continue to raise housing policy concerns.

This piece begins with a broad overview of the short-term rental model, major market players, and a brief history of the industry's recent proliferation in the United States. The issue scoping section will lay out some of the benefits provided by STRs and some of the issues posed by them, such as negative neighborhood externalities, foregone government revenue, and impacts on the local housing market supply. The literature review provides estimates of the impact of short-term rentals across multiple housing market metrics and identifies gaps in which further study is needed. The third section showcases various government interventions to temper the impact of short-term rentals on their respective housing markets and evaluates whether they are effective and can be adapted to meet the needs of other jurisdictions. The piece concludes by determining that further comprehensive policy interventions tailored at the state and local levels to meet the unique needs of individual housing markets, such as zoning reform and ordinances regulating STRs, are needed to counteract the housing mismatches and affordability concerns perpetuated by this industry.

ISSUE SCOPING

Long-standing assumptions about renter demand and demographics are being challenged by the proliferation of a new, e-commerce-focused housing business model sweeping the country: short-term rentals. The permissible length of stay in STRs varies from property to property, and residents are typically charged on a nightly or weekly basis to live in pre-furnished rooms or entire units. Legal definitions of what constitute STRs vary by location; however, the most common definition refers to a stay of 30 or fewer consecutive days.¹ With the advent of the sharing economy – a form of peer-to-peer global exchange conducted through online platforms directly connecting buyers with sellers – renting residential property on a short-term basis has become more ubiquitous in recent years.² Companies like Airbnb, VRBO, HomeAway, and FlipKey provide home-sharing platforms where homeowners can list their properties to prospective tenants, collecting service or processing fees in exchange for aggregating properties and connecting homeowners and guests.³ These services are accessible worldwide. As of 2017, Airbnb alone boasted over four million listings across 191 countries – more listings than the next five largest hotel brands combined.⁴

The rapid proliferation of STR listings is indicative of the model's popularity among consumers. STRs typically offer rates that are cheaper than many nightly hotel rates, even when guests rent out a full housing unit. In 2013, users who reserved a full-unit listing on Airbnb saved on average 20 percent compared to booking a hotel room for the same amount of time; those who rented a single bedroom saved just under 50 percent.⁵ Additionally, home-sharing fills a niche in the travel market that is currently underserved by the traditional hotel industry. STR units offer fully furnished accommodations in a home-like setting across geospatial areas, from the

heart of a downtown district to quaint, rural farmlands. In fact, in many cities, over 70 percent of listed Airbnb properties currently sit outside of hotel districts.⁶ Bookings on platforms like Airbnb generate an average of \$41 in customer savings per night in the United States relative to hotel stays.⁷

Consumers are not the only economic beneficiaries of STRs. Additional nightly and weekly rentable housing units accrue tourism dollars not captured by the traditional lodging industry. For example, in San Diego, California, STRs were estimated to add over \$480 million to the area's economy in 2017 and were linked to the creation of roughly 3,000 jobs serving these guests.⁸ Additionally, several platforms advertise their services to help homeowners "make ends meet" by renting out unoccupied rooms or full units to help with expenses such as mortgage payments or to augment income.⁹ Even for homeowners with multiple properties who are not struggling to keep up with such payments, the STR model offers an opportunity to rent out vacation abodes or second homes at the owner's convenience. This model allows homeowners at various income levels to turn a profit by ensuring that their unused rooms or units are occupied, even for just one night.

These benefits do not exempt the STR industry from criticism. The STR market has led traditional hotels to slash their nightly rates to remain competitive, yielding lower profits and spurring calls from lobbying groups like the American Hotel and Lodging Association for stiffer regulations on STR platforms and listings.^{10, 11} Local government leaders also lambast aspects of the industry that evade revenue collection, as STR guests do not tend to pay the average 15 percent accommodation tax rate levied on tourists who stay in traditional hotels or motels. As the informal lodging sector gains more popularity, this foregone revenue is likely to continue growing and put a greater strain on municipalities' fiscal outlooks.¹²

On a more granular level, residents living near STRs express concern about how these units and their guests impact the neighborhood, citing the amount of noise and trash produced by visitors that have no stake in keeping the area clean or quiet for more permanent residents.¹³

A final critique of the STR industry directly relates to the mismatch between local housing supply and demand. Opponents assert that STRs substantially reduce local housing supply and are responsible for raising overall housing prices. Homeowners who choose to convert rental properties into more profitable STRs contribute to displacement as long-term renters cannot keep up with the corresponding housing costs. Such strains on the local housing supply, coupled with rising prices, escalate the affordable housing crisis facing communities across the country.

“ Opponents assert that STRs substantially reduce local housing supply and are responsible for raising overall housing prices.”

Though the proliferation of STRs is a nationwide phenomenon, local housing markets are unique and thus face various and differing challenges, making these issues ones of local policy concern. The remainder of this piece will focus on how the presence of STRs impacts local housing supply and affordability by reducing the number of units in an area's long-term rental stock and increasing housing prices within individual housing markets.

LITERATURE REVIEW

As the short-term rental industry continues to expand and anecdotal evidence of the

industry's effects on consumer behavior grows, researchers and policymakers are urgently trying to better understand homesharing's full effects. While empirical research is limited on the specific effects of STRs, some researchers have developed models illustrating how internet-based sharing platforms alter how suppliers and consumers calculate the benefits they receive for using these products or services. The models suggest that in a world where goods can be shared, consumers' incentives to own a good change based on expected usage.¹⁴ For some people who own a given good, the sharing marketplace offers the possibility of maintaining ownership of that good while renting it at their leisure instead of owning it for personal use alone.¹⁵ Others who do not want to own a good in the absence of a sharing platform will choose to own it specifically to enter the sharing marketplace.¹⁶ These competing effects make the net impact on demand difficult to estimate.

While these models provide some insight into how the existence of STRs and sharing platforms may alter consumer behavior in the housing market, homesharing has distinct market effects compared to other shared goods. Prospective guests searching for a place to stay on a nightly or weekly basis on STR platforms usually have permanent housing. Therefore, the act of renting one of these units for a short period of time does not affect a guest's desire for long-term housing. These two markets remain spatially distinct from one another for consumers staying in STRs.¹⁷ Thus, the effects of home-sharing on a local housing market stem from the local market's housing supply rather than the demand from the sharing market's users. Yet some location-specific studies indicate that the prevalence of STRs drain the local supply of affordable housing. One such examination in Los Angeles found two market distortion mechanisms at play: first, an upward pressure on rents due to the conversion of resident-occupied units to year-round

home-shares; and second, the 'hotelization' of neighborhoods as property owners are incentivized to rent units through home-sharing platforms rather than to long-term city residents.¹⁸ A driving force of this shift towards hotelization is the ability to charge a rate that is both cheaper than a standard hotel stay and more expensive than an area's going rent. Findings suggest that commercially minded STR owners are jumping on this trend. In Boston, for example, 45 percent of all revenue generated from listings on Airbnb are earned by just 12 percent of STR owners.¹⁹ This disproportionate revenue generation indicates that in some markets, STRs are seen as investments rather than their advertised use as supplemental income to small-scale homeowners.

“ In Boston, for example, 45 percent of all revenue generated from listings on Airbnb are earned by just 12 percent of STR owners.”¹⁹

To assess whether STR units cause rents to increase, researchers used housing and rental price indices from the online real estate database Zillow and a national sample of Airbnb unit listings. The findings indicate that short-term rentals have a positive impact on the prices paid by two housing tenure groups: homeowners and renters; on average, a 1 percent increase in a market's STR listings results in a 0.018 percent increase in rents and a 0.026 percent increase in home prices.²⁰ Recent work focused specifically at the city level in Boston, Massachusetts used a hedonic estimation approach – a method to estimate the value of a good to consumers by assessing the values of each of a good's component parts – with individual

rental listings and a full web scrape of all Airbnb listings in the city proper over a six-month timeframe. The study reached similar conclusions, with a one standard deviation increase in short-term rental usage increasing Boston's rent prices by 0.4 percent.²¹ However, the extent of the industry's effects on housing supply and affordability are not constant across all markets. Smaller cities and towns, for example, tend to have fewer long-term rental housing units available, which leads to intensified impacts. A study of 237 municipalities with populations below 100,000 in Oregon found that in 16 cities, STRs make up over 5 percent of the housing stock; among the home-sharing stock for all of the towns sampled, 38 percent of listings are full units used by short-term guests for more than 30 days per year.²² These STRs could place upward pressure on rents, but they could also fulfill an unmet need by providing temporary accommodations in places without traditional hotels.

Little theoretical and empirical work has been done to analyze how the home-sharing economy impacts social welfare. More research needs to be done to answer key questions regarding the demographics of people both positively and negatively affected by the proliferation of STRs. Evidence related to which groups are more likely to experience displacement due to rising housing costs or are able to remain in their homes in quickly appreciating markets by renting spare rooms on these home-sharing platforms will be critical information for policymakers as they fashion solutions for their respective housing markets.

REGULATORY EFFICACY OF EXISTING GOVERNMENT INTERVENTIONS

Most regulatory interventions of the short-term rental industry have been concentrated at the state and local levels. However,

as tensions between traditional lodging providers, housing advocacy groups, and home-sharing platforms mount, the battle is beginning to shift to the halls of Congress. In September 2019, a bipartisan group of House members introduced the Protecting Local Authorities and Neighborhoods Act (H.R. 4232), a bill that would make home-sharing platforms liable for publishing any listings that violate state or local laws.²³ The legislation would strip online STR platforms of their existing legal immunity over content posted by third-party actors by excluding home-sharing sites from the protections granted by Section 230 of the Communications Decency Act, which shields website owners from being held liable for content posted by outside users. Though the bill has stalled as of the time of this publication, the vigor of the underlying debate has not subsided. Fair housing advocates and hotel lobbyists are seeking tougher federal enforcement to hold home-sharing sites accountable for profiting off illegal listings that drive up housing costs. Meanwhile, STR companies insist that federal action would disrupt the progress and collaboration between these platforms and state and local governments.²⁴

State-level regulation is more prevalent, though the extent of restrictions varies widely across states. One major concern for states is the collection of lodging, sales, and STR income taxes. The New York state Attorney General's Office found that STR hosts in New York City owed upwards of \$33 million in unpaid occupancy taxes from 2010 to 2014 alone.²⁵ This foregone sum has spearheaded state lawmakers to explore new approaches to facilitate and enforce proper tax filing and reporting to capture this revenue. Existing collection methods also vary across the country. As of 2018, 25 states mandate that short-term rental owners collect sales tax, and 14 states place the statutory burden on the home-sharing platforms facilitating each booking.²⁶ Airbnb has even entered into voluntary agreements with state, county, and municipal tax

agencies in almost every state (with the exceptions of Delaware, Georgia, and Hawaii) to collect and remit sales and occupancy taxes on behalf of their hosts.

Such agreements have come under scrutiny for their lack of transparency. Reports of state agencies ceding control of the payment and audit process to home-sharing platforms support claims that the agreements do not go far enough to hold STR companies accountable and actively undermine compliance with state tax and regulatory laws.²⁷ For example, some states, like Vermont, have laws that prohibit holding home-sharing sites responsible for remitting taxes since the platforms do not directly host financial transactions.²⁸ It is also important to note that these collected taxes do not directly address housing supply and affordability issues; rather, lodging taxes generally support tourism-promotion activities. Without making changes to how these funds are distributed, solidifying the tax remittance structures for short-term rentals is unlikely to yield progress in preserving affordable housing.

The most intensive regulations undertaken at the state level are those restricting the prevalence of STRs in a given housing market. Many such regulations limit the number of units property owners are allowed to rent out for 30 consecutive days or less. In New York, for instance, apartment buildings with three or more units are not authorized for STR use unless the owner or permanent tenant is also present during the stay.²⁹ While this type of regulation comes closest to preserving units for long-term tenants and maintaining more affordable rent prices, ensuring compliance is difficult. The volume of listings, scant resources allocated by states to enforce compliance, and insufficient communication with local municipal organizations hinder the efficacy of these state regulatory measures.

The final front for government regulation is at the local level. Yet, as with state efforts, these regulations and their effectiveness

vary widely. A few states have hindered the ability of local governments to take any action by outrightly prohibiting any sort of ban on STRs, though most states leave regulation up to local authorities. Several cities have adopted restrictions regarding the number and type of units available to be rented via home-sharing platforms. These restrictions range from de facto prohibition, as in Oakland, California, to a generally indiscriminate approach allowing for all kinds of STRs year-round, as in Columbus, Ohio.³⁰ Other cities, like Nashville, Tennessee, have legislated a more residence-oriented approach, tightly restricting the number of STRs allowed for units where the owner is not the primary resident.³¹ New Orleans, Louisiana, on the other hand, places a greater focus on the presence of hosts, capping the number of days where a unit can be rented without the host on-site at 90 days per year.³² Illustrating the flexibility municipalities have in fashioning regulations to fit their unique housing market needs, some cities have installed hybrid regulation models that limit the number of STRs by type only in specifically designated zoning districts. For many cities with these regulations on the books, STR units must also go through a municipal permitting process that ensures the units are code compliant.

Measuring the efficacy of these various regulatory structures in preserving affordable housing is difficult. Some estimates report that over 15 percent of units listed on home-sharing platforms were likely removed from the long-term rental market for the express purpose of serving as full-time short-term rentals in certain markets.³³ However, these estimates should be considered with caution. The obfuscation of rental listing data by prominent short-term rental companies like Airbnb render data collection cumbersome and available information inaccurate. Other reports estimating STR impacts in cities like New York have listing numbers differing by margins upwards of 5,000.³⁴

The precise impact of siphoning units off the long-term market and into for-profit STR units is difficult to pin down given the obstacles to accurate data collection. More comprehensive data-gathering and enforcement provisions are needed to accurately estimate how effective these strategies have been over time.

Further complicating matters for local jurisdictions is the conflicting desire to drum up local tourism and the need to maintain a robust, affordable housing stock for the market's renters. As tourism grows in areas with limited hotel capacity, municipal officials are tasked with weighing the trade-offs between imposing tighter regulations on a popular, cheaper alternative to traditional lodging facilities and discouraging benefits to the local economy from the influx of tourists wishing to stay in STRs. These cost-benefit calculations may differ drastically from city to city and town to town based on the unique composition of their respective housing markets and their attractiveness to tourists. Therefore, a one-size-fits-all strategy is not conducive to tackling the issues presented by STRs in local housing markets.

CONCLUSIONS AND RECOMMENDATIONS

The home-sharing model has exploded across the United States, and all levels of government are paying attention to how short-term rentals affect communities' housing markets. While the impacts these units have on increasing rent prices and restricting the local housing supply for long-term residents are difficult to gauge and vary by location, pressure is nonetheless mounting on government agencies to act. The next step for policymakers at the local, state, and federal levels is to find ways to strike a balance between preserving affordable rental housing and facilitating tourism and small-scale entrepreneurship for single-unit

short-term rental hosts. To balance these competing interests, policymakers should introduce a more comprehensive regulatory framework with proactive measures to tackle the many issues presented by the proliferation of STRs.

At the local level, municipalities should enact regulations that are responsive to the needs of their given communities. As housing markets are dynamic and change quickly over time and even across neighborhoods, cities and towns should tailor their respective regulations by zoning rather than blanket city-wide standards. The standards for which units can be considered STRs should be determined at this granular level. Zoning reform offers the type of flexibility required across municipalities with unique housing market needs.

For areas with tight or high-volume and competitive housing markets, existing zoning could be used as a basis to enact stricter measures such as barring STRs in all single-family residential districts or low-density multi-family districts. This could contain the proliferation of these units to more tourist-heavy areas with established hotels and motels instead of primary residential neighborhoods and could reduce negative neighborhood externalities. At the same time, this type of reform could place these single-family or low-density multi-family units back on the market for long-term renters or buyers, potentially resulting in a more established community of neighbors rather than a constant stream of short-term guests. Yet this policy is not without downsides. Policymakers should be sure to consider potential negative effects of these reforms on long-term renters in high-density, mixed-use areas who might see their already high rent prices increase beyond their means, pushing these renters out of their homes. In communities without these tight housing markets or in smaller communities, however, such sweeping changes would be unnecessary and ineffective. Many of these areas tend

not to have large multi-family complexes; restricting STRs to these zones would effectively prohibit the industry altogether.

A more fitting approach would be to have each municipality revisit its zoning codes and revise them in a manner that reflects specific community demands. For many cities, zoning codes have not been updated in years and fail to reflect how market disruptions like STRs affect housing patterns. However, these alterations often cannot be implemented quickly. Changes to zoning codes typically require city governments to pass legislation after extensive public hearings and comment periods and are often met with intense community debate. Therefore, zoning reform should be viewed as a long-term planning tool to address the changing housing marketplace due to STRs rather than a quick fix to eliminate or reduce current STR-induced pressures on the market.

In addition to zoning reforms, general codes and ordinances can be established to directly regulate the STR industry within a municipality's boundaries. Once again, these can and should be tailored to each unique housing market. In areas with seasonal residential fluctuations – like popular vacation destinations such as Cape Cod, Massachusetts; Myrtle Beach, South Carolina; or Vail, Colorado – restrictions on the amount of time properties may be used as full-unit STRs might make more sense rather than a hard cap on the number of STR properties allowed per owner. A hard unit cap could hamper the robust tourism industries that are the backbones of these local economies; making otherwise vacant properties unavailable for use for short-term visitors could reduce potential tourism revenue with little benefit for the local, longer-term rental market. A time limit to capture the peak tourist season while preventing year-round de facto hotels from filling the rental market would do well to support these areas' major industries without inflating rental prices year-round.

For year-round markets with tight housing capacity, a focus on capping the number of STR properties allowed per owner would be more effective. Cities could adopt ordinances that establish ownership caps ranging from the strictest one unit per owner to a more lenient two- or three-unit limit. Such restrictions would enable multi-property owners to take part in the STR market while simultaneously behooving these owners to lease their remaining units to longer-term occupants. City officials should consider the equity implications of these local cap laws. Property owners facing these caps may choose to renovate their STR units or use the homes they own in more desirable neighborhoods for homesharing, while not providing the same care to units outside of high-demand areas. To combat this, policymakers should consider incorporating equity standards and measurements into any ordinances pertaining to STR restrictions. Again, such policies should be tailored to the specific demands of each housing market and be updated over time.

Localities also need to consider more tangential approaches to resolving the housing mismatch perpetuated by short-term rentals. As hotel space is limited and costlier than STRs, municipalities should consider revising zoning statutes or instituting tax breaks for additional hotel construction within their city limits. This will enhance competition in the local hotel market and drive hotel rates and short-term rental demand down. Additionally, local and state governments should consider diverting the revenues generated from the lodging taxes remitted on short-term rental stays from tourism promotion. To directly address the perceived strain on affordable housing, these funds could instead be used solely for affordable housing preservation and development.

The efficacy of the suggestions above is contingent upon consistent and reliable enforcement. Revising the zoning code

or enacting regulations at the local level is effective only if cities and towns know the location and the number of STRs and who owns them. A simple yet resource-intensive way to document and monitor STRs would be to create a registry housed within a city department familiar with code enforcement. Property owners would have to receive approval from the city to operate the STR in accordance with local laws and zoning regulations. The registration and enforcement program can be funded partially through application and registration fees as well as through taxes levied from each STR stay. An evaluation, reporting, and penalty protocol would need to act in concert with this registration system. One potential reporting mechanism would be to create a complaint hotline housed within the STR enforcement division that neighbors can access via telephone, mobile app, or website to report STR abuse or illegal home-sharing units. Reporting such units is not enough, however; successful monitoring and enforcement requires real consequences to prevent future abuse of the system. City officials should consider adopting steep fines – perhaps increasing on a step rate schedule for repeat offenders – to disincentivize property owners from forgoing proper registration channels. Such penalties and fees would need to be higher than the potential revenues the property owners would receive from using these units as STRs to reduce the likelihood that these operators would view such fines as a cost of

doing business.

These enforcement and data-gathering proposals are both time- and cost-intensive and would likely be beyond the capabilities of individual municipalities. Therefore, enforcement and data gathering should be a joint effort between state and local governments. Higher levels of government can provide resources to properly enforce provisions set forth by municipalities; local governments can provide a more accurate read of the conditions on the ground, such as which neighborhoods are facing rapidly appreciating housing costs. Enacting complementary and cooperative legislation at both state and local levels that mandates full transparency of owner and property data for units listed on home-sharing sites is likewise critical for proper enforcement.

These recommendations serve as a starting point as officials consider ways in which to temper the adverse impacts on local housing markets, such as upward pressures on rents and neighborhood hotelization, introduced by this new home-sharing model. By pursuing a comprehensive regulatory strategy as described above using both zoning and more general regulatory mechanisms, leaders can help preserve local housing ecosystems across the country and ensure that affordability remains feasible for more residents without sacrificing the economic benefits of home-sharing for property owners and guests alike.

ABOUT THE AUTHOR

Kate Bell is a second-year Master of Public Policy candidate at the Gerald R. Ford School of Public Policy focusing on local, state, and urban policy. She received her Bachelor of Arts in Economics and Politics at Mount Holyoke College in 2015. Prior to attending the Ford School, Kate served the people of Boston, Massachusetts as a Neighborhood Liaison for City Councilor Josh Zakim.

ENDNOTES

1. Dayne Lee, "How Airbnb Short-Term Rentals Exacerbate Los Angeles's Affordable Housing Crisis: Analysis and Policy Recommendations," *Harvard Law and Policy Review* 10 no. 229 (2016): 232.
2. Marla Nelson and Renia Ehrenfeucht, "The Sharing Economy and the Ongoing Dilemma of Planning for Informality," *Planning Theory and Practice* 20 no. 2 (2019): 267.
3. "Pricing and Fees," *Airbnb Help Center*, accessed on December 13, 2019, <https://www.airbnb.com/help/article/1857/what-is-the-airbnb-service-fee?topic=250>.
4. Avery Hartmans, "Airbnb Now Has More Listings Worldwide than the Top Five Hotel Brands Combined," *Business Insider*, August 10, 2017, <https://www.businessinsider.com/airbnb-total-worldwide-listings-2017-8>.
5. "Airbnb vs Hotels: A Price Comparison," *Priceonomics*, June 17, 2013, <https://priceonomics.com/hotels/>.
6. John Byers, Davide Proserpio, and Georgios Zervas, "The Rise of the Sharing Economy: Estimating the Impact of Airbnb on the Hotel Industry," *Journal of Marketing Research* 54 no. 5 (2017): 688.
7. Chiara Farronato and Andrey Fradkin, "The Welfare Effects of Peer Entry in the Accommodation Market: The Case of Airbnb," *National Bureau of Economic Research*, Working Paper 24361 (2018): 5.
8. Mariel Concepcion, "Short-Term Rentals Are Fighting Back for Their Place in Tourism Sector," *San Diego Business Journal* 39 no. 40 (2018): 12.
9. David Wachsmuth and Alexander Weisler, "Airbnb and The Rent Gap: Gentrification through the Sharing Economy," *Environment and Planning A: Economy and Space* 50 no. 6 (2018): 1148.
10. Farronato and Fradkin, "The Welfare Effects," 18.
11. "The Hotel Industry's Plans to Combat Airbnb," *The New York Times*, April 16, 2017, <https://www.nytimes.com/interactive/2017/04/16/technology/document-hotel-industry-plans-to-combat-airbnb-excerpt.html>.
12. Daniel Guttentag, "Airbnb: Disruptive Innovation and the Rise of an Informal Tourism Accommodation Sector," *Current Issues in Tourism* 18 no. 12 (2015): 1201.
13. Shirley Nieuwland and Rianne van Melik, "Regulating Airbnb: How Cities Deal with Perceived Negative Externalities of Short-Term Rentals," *Current Issues in Tourism* (2018): 3.
14. John Horton and Richard Zeckhauser, "Owning, Using and Renting: Some Simple Economics of the 'Sharing Economy,'" *National Bureau of Economic Research*, Working Paper 22029 (2016): 3.
15. Keren Horn and Mark Merante, "Is Home Sharing Driving Up Rents? Evidence from Airbnb in Boston," *Journal of Housing Economics* 38 (2017): 15.
16. Horn and Merante, "Is Home Sharing Driving Up Rents?," 15.
17. Horn and Merante, "Is Home Sharing Driving Up Rents?," 15.
18. Lee, "How Airbnb Short-Term Rentals Exacerbate Los Angeles's Affordable Housing Crisis," 234.
19. Sarah Jimenez, "The Growth of Commercial Short-Term Rentals: How Boston Can Protect Affordable Housing and Quality of Life," *Community Labor United*, September 2017, http://massclu.org/wp-content/uploads/2017/10/clu_shorttermrental_report_prf7.pdf.
20. Kyle Barron, Edward Kung, and Davide Proserpio, "The Effect of Home-Sharing on House Prices and Rents: Evidence from Airbnb," Working Paper, 2017: 30.
21. Horn and Merante, "Is Home Sharing Driving Up Rents?," 21.
22. Sadie DiNatale, Rebecca Lewis, and Robert Parker, "Short-Term Rentals in Small Cities In Oregon: Impacts and Regulations," *Land Use Policy* 79 (2018): 407.
23. U.S. Congress, House, *Protecting Local Authorities and Neighborhoods Act*, H.R. 4232, 116th Congress, introduced in House on September 6, 2019, <https://www.congress.gov/bill/116th-congress/house-bill/4232/text>.
24. Tonya Riley, "The Technology 202: Airbnb Now Part of Congress's Debate over Silicon Valley's Legal Shield," *The Washington Post*, October 14, 2019, <https://www.washingtonpost.com/news/powerpost/paloma/the-technology-202/2019/10/14/the-technology-202-airbnb-now-part-of-congress-s-debate-over-silicon-valley-s-legal-shield/5da3b24f88e0fa3155a710c2/>.
25. "Airbnb in the City," *New York State Office of the Attorney General*, October 2014, <https://ag.ny.gov/pdfs/AIRBNB%20REPORT.pdf>.
26. Savannah Gilmore, "More States Taking Action on Short-Term Rentals," *National Conference of State Legislatures*, September 10, 2018, https://www.ncsl.org/Portals/1/Documents/legisbriefs/2018/September/ShortRentals_Sep2018_35_v01.pdf.
27. Dan Bucks, "Airbnb Agreements with State and Local Tax Agencies: A Formula for Undermining Tax Fairness, Transparency and the Rule of Law," *American Hotel and Lodging Association*, March 2017, https://www.ahla.com/sites/default/files/Airbnb_Tax_Agreement_Report_0.pdf.
28. Lillian Colasurdo and Michael Desrochers, "Short-term Rental Working Group Report: 2017 Report to the Legislature," *Vermont Department of Health - Agency of Human Services*, October 1, 2017, <https://legislature.vermont.gov/assets/Legislative-Reports/2017-Act76-ShortTermRental.pdf>.
29. David Wachsmuth, David Chaney, Danielle Kerrigan, Andrea Shillolo, and Robin Basalaev-Binder, "The High Cost of Short-Term Rentals in New York City," *McGill University School of Urban Planning - Urban Politics and Governance Research Group*, January 30, 2018, <http://www.sharebetter.org/wp-content/uploads/2018/01/High-Cost-Short-Term-Rentals.pdf>.
30. Norikazu Furukawa and Motoharu Onuki, "The Design and Effects of Short-Term Rental Regulation," *Current Issues in Tourism* (2019): 5.
31. "Short Term Rental Property Permit Information," *Metro Government of Nashville & Davidson County*,

Tennessee, accessed December 15, 2019, <https://www.nashville.gov/Codes-Administration/Short-Term-Rentals.aspx>.

32. New Orleans Code of Ordinances, *Article XI – Standards for Short-Term Rentals*, last updated December 9, 2019, https://library.municode.com/la/new_orleans/codes/code_of_ordinances?nodet=PTIICO_CH26BUBUREHOST_ARTXISTSHRMRE.

33. “Short Changing New York City: The Impact of Airbnb on New York City’s Housing Market,” *BJH Advisors LLC*, June 2016, <http://mobilizationforjustice.org/wp-content/uploads/Shortchanging-NYC.pdf>.

34. James Allen, “Disrupting Affordable Housing: Regulating Airbnb and Other Short-Term Rental Hosting in New York City,” *Journal of Affordable Housing and Community Development Law* 26 no. 1 (2017): 174.