

BEFORE THE HEARING EXAMINER
CITY OF SEATTLE

In the Matter of the Appeals of:)

Hearing Examiner Files

621 APARTMENTS LLCs, AND SEATTLE)
SHORT TERM RENTAL ALLIANCE, SEA)
TO SKY RENTALS AND MICHELLE)
ACQUAVELLA,)

W-17-002 and W-17-003
(consolidated)

From a Determination of Nonsignificance for)
Land Use Code and Licensing Code Text)
Amendments Related to Short Term Rentals.)

DECLARATION OF ALY PENNUCCI
IN SUPPORT OF CITY'S REPLY ON
ITS MOTION TO DISMISS

I, Aly Pennucci, declare under penalty of perjury under the laws of the State of Washington as follows:

1. I make this declaration based on my personal knowledge. I am over eighteen and am otherwise competent to testify to the following matters.
2. I am now, and at all material times mentioned have been, employed as a Central Staffer for the Seattle City Council and I have been assigned to prepare legislation, conduct research and review the files related to regulation of short-term rentals in Seattle.
3. I assisted in the preparation of the Short-term Rental legislation. As part of the preparation of the legislation, I reviewed various sources of information about the use and growth of "short term rentals" including a report entitled "Brief: Dramatic Growth

DECLARATION OF ALY PENNUCCI IN SUPPORT OF
THE CITY'S REPLY TO ITS MOTION TO DISMISS- 1

Peter S. Holmes
Seattle City Attorney
701 5th Avenue, Suite 2050
Seattle, WA 98104-7097
(206) 684-8200

1 of Short-Term Rentals in Seattle Could Reduce Apartment Supply (June 2016)” prepared
2 by Puget Sound Sage and a report entitled “Hosts with Multiple Units- a Key Driver of
3 Airbnb Growth, a comprehensive National review including a spotlight on 13 U.S.
4 Markets (March 2017)”. A true and correct copy of both these reports are attached
5 hereto as Exhibits A and B, respectively, to this declaration.

6 DATED this 21th day of July, 2017.

7 
8 ALY PENNUCCI

Brief: Dramatic Growth of Short-Term Rentals in Seattle Could Reduce Apartment Supply

June 2016



PRIMARY AUTHOR

Howard Greenwich, Senior Policy Advisor, MPP

ABOUT PUGET SOUND SAGE

Puget Sound Sage works to promote good jobs, quality employment opportunities, a cleaner environment, and affordable housing for low/moderate income families in the Seattle metropolitan area. Our mission is to ensure that all families benefit from economic growth, and that local and regional policy decisions meet the social and environmental needs of our communities. Sage provides timely, critical research on issues of the regional economy, jobs, housing and the environment. Find more information on our website, www.pugetsoundsage.org, and our blog, soundprogress.wordpress.com.

ACKNOWLEDGEMENTS

Thanks to the following people for their assistance in understanding our data and editing: Giulia Pasciuto, Myani Gilbert and Roy Samaan. We also deeply appreciate the work of Tom Slee to make available information and data about Airbnb for public policy and research purposes.

SUMMARY AND KEY FINDINGS

The rapid rise of Airbnb in the hospitality and lodging industry has made vacation rental more accessible to visitors and easier for hosts to participate than ever before. However, there is a downside to Airbnb and online STR companies in cities with rising rents, scarce affordable housing, and gentrification – it can pit the need to house visitors against the need to house residents. While Airbnb facilitates economic activity for mostly individual households and small businesses, the giant online company also depends greatly on high-intensity renting of whole units by multi-listing hosts for profit. Airbnb would like to emphasize income generated for hosts, but the company stands to make a lot of money from STR hosts who are really property managers or real estate investors, big or small. At the same time, growth in STRs threatens to remove long-term units from the local housing market, which will impact households struggling to find affordable housing and stay in Seattle. Displacement of low-income households – whether direct or indirect – cause real and lasting harm to individuals, families, and communities. The ability for low-income families, communities of color, immigrants, and refugees to live and work in Seattle must be prioritized over the growth of Airbnb.

Key Findings

Airbnb Enjoyed Tremendous Growth in Seattle

- While Airbnb listings in Seattle represent a fraction of listing in big tourist cities like Los Angeles and New York, **Seattle has a higher number of listings per person** than many other U.S cities.
- Of the 4,170 listings on Airbnb in Seattle, **about 2/3rds are “whole units”** which could mostly be otherwise used as long-term units (these are the most popular among Airbnb users). The remainder listings are private rooms and shared rooms.
- Since 2009, Airbnb listings have grown an **average of 600 per year**.
- In just the seven months from September 2015 to April 2016, Airbnb hosts listed an additional 947 places to stay, a growth rate of 29%. Were this to continue for another five months, it would represent an **annual growth rate of 50%**.

Airbnb’s Success Depends on Hosts Renting Two or More Whole Units

- While the vast majority of hosts list only one whole unit – likely to be their primary residence – 12% list more than one. This small group of hosts together list 36% of all whole units in Seattle and **function as short-term property managers or even de facto hotels**.
- **Just 27 hosts** who list five or more whole units on Airbnb in Seattle manage 10% of all whole units.
- Other research on Airbnb shows that the company makes as much as **40% of its revenue** on multi-listing hosts across 12 major U.S. cities.

Hosts Managing Multiple Units Grow Faster Than Any Other

- From September 2015 through April 2016, whole unit listings grew by 665 units, a growth rate of 31%.
- **Nearly half of this growth (48%)** came from hosts who manage more than one whole unit. Two out of five additional units (42%) came from hosts with three or more units.
- The number of whole units operated by **single unit hosts grew much slower (23%)** over this seven month period than hosts with three or more units (72%).
- Hosts that manage more than one whole unit **do not reflect Airbnb's claim that typical hosts** are "primary residents who occasionally rent their home to earn supplemental income." Some of these hosts are mid- to large size property management companies – some nationwide – that list up to 50 whole units. One host is a boutique hotel and another is a new "micro-housing" property on Capitol Hill.
- Hosts that manage multiple units are more likely to have hundreds of Airbnb reviews, can achieve economies of scale like hotels, and have access to capital that facilitates **expansion of their enterprises**.

If Expansion Continues, Hundreds of Whole Units May be Lost from the Long-Term Market

- Based on current trends, **over 1,600 long-term housing units in Seattle** could be converted or built as short-term rentals over the next three years. Under a slower growth scenario, nearly 1,000 would still be lost.
- Although making growth projections in a new industry is difficult, many financial analysts believe that **Airbnb will continue its expansion** as millions of new users join the platform over the next five years.

Neighborhoods at Risk of Displacement Growing in STRs at Same Pace as Rest of Seattle

- Over half of the whole units listed on Airbnb in Seattle are **concentrated in the urban center** of Seattle, along with popular neighborhoods such as Fremont, Queen Anne, and Capitol Hill.
- Neighborhoods further away from the center have fewer whole units to begin with, but are **growing at a similar rate to the whole city (31%)**. Only Eastlake and the University District experienced significantly slower growth over the seven month study period.
- Areas of Seattle where households are at **high risk of displacement** have high or steady growth in STR whole unit listings on Airbnb. Areas with high risk of displacement have been defined by the City of Seattle on a map found in Appendix A.
 - The downtown core, **which still houses many low-income households**, has the largest concentration of whole unit SRS (518) and experienced the second fastest growth rate in the City (42%).
 - Whole unit listing growth in **other high risk areas** include the Rainier Valley (32%), Beacon Hill (36%), Bitter Lake/Greenwood (60%), Northgate (31%), and Delridge (31%).

UNDERSTANDING THE SHORT-TERM RENTAL MARKET

What is a short-term rental?

Short-term rentals (STRs) are some form of lodging, such as a room or apartment, typically leased for less than 30 nights. While the City of Seattle does not currently have a definition of STRs, the Washington State Department of Revenue requires people renting all or part of a home for less than 30 days to pay retail and lodging taxes, just like a hotel or Bed and Breakfast.¹

For decades, marketed short-term rentals comprised mostly vacation rentals that people shared when not on vacation. With the advent of Airbnb, short term rentals now include a wide variety of places to stay, including living rooms, bedrooms, mother-in-law apartments, backyard cottages, condos, whole parts of apartment buildings and even hotels that advertise through online platforms. These platforms include Vacation Rental By Owner (owned by Expedia), HomeAway & VacationRentals.com (Expedia), FlipKey (Trip Advisor), Booking.com (Priceline) and Couchsurfing.

Short-term rentals in Seattle

Larger online STR platforms in Seattle include VRBO (800+ listings), HomeAway (700+listings), VacationRentals.com (800+ listings), and FlipKey (250+ listings).² However, by far the largest STR facilitator is Airbnb. From a handful of Seattle listings in 2008, the company's presence has exploded to nearly 4,200 listings.³ Airbnb claims that \$30 million was earned by their Seattle hosts from 151,000 guests in the twelve-month period from August 2014 to July 2015.⁴ As in many other cities, Airbnb has had a transformational effect on housing owners participating in the short-term rental market.

Total Airbnb listings in Seattle (4,170) is considerably less compared to markets like New York (34,661) and Los Angeles (20,951).⁵ However, Seattle, along with other smaller cities, has a higher ratio of listings per 1,000 residents than much bigger cities. Table 1 shows that Airbnb listings in Seattle (6.1 per 1,000 residents) are higher than Los Angeles (5.3), Philadelphia (4.5), New York (4.1), and San Diego (3.8).⁶

Table 1: Seattle Has More Listings Per Person Than Some Bigger Tourist Cities

City	Total Airbnb Listings	Total Population	Listings/1,000 Pop
Miami	7,032	441,003	15.9
New Orleans	4,177	389,617	10.7
Honolulu	3,539	352,769	10.0
San Francisco	8,051	864,816	9.3
Vancouver	5,004	610,000	8.2
Washington DC	4,512	672,228	6.7
Seattle	4,170	684,451	6.1
Los Angeles	20,951	3,971,883	5.3
Portland	3,128	632,309	4.9
Boston	3,086	667,137	4.6
Philadelphia	6,976	1,567,442	4.5
New York	34,661	8,550,405	4.1
San Diego	5,356	1,394,928	3.8
Toronto	9,150	2,615,000	3.5
Chicago	6,140	2,720,546	2.3
Total	125,933	26,134,534	4.8

Source: Author's analysis of data pulled from Airbnb's website by programmer Tom Slee

Impact of STRs on Long-Term Rental Markets

Given the scale of growth in such a short period of time, an immediate question is raised: where are the thousands of short-term rental units coming from? Are they just extra rooms and apartments that were going unused at a host's primary or secondary residence? Or have housing units already in the long-term market been converted to STRs by individual hosts or property management companies?

Other cities have enacted legislation that restricts STRs over concerns that they are reducing the overall supply of housing for their residents. For example, San Francisco has adopted strict rules for STR hosts and platforms. In a recent article, San Francisco Supervisor Aaron Peskin explained that tighter enforcement is needed because, "We believe that some 2,000 units of housing have been permanently taken off the market."⁷

Worse yet, conversion of long-term rental units can result in direct eviction and displacement of people out of their communities. Community groups and public officials in high cost housing cities, like New York, San Francisco and Los Angeles, link the growth of Airbnb with both evictions and displacement. People have been thrown out of their long-time homes for conversion to a short term rental, and the loss of thousands of units of housing in these high cost cities result in an even tighter rental market.⁸

At a neighborhood level, commercial conversion and operation of STRs can pose a significant threat to residents vulnerable to gentrification pressures. For example, the City of Seattle has created a map that shows where low-income households face the highest risk of displacement, based on a set of vulnerability factors (See Appendix A). Included are much of Southeast Seattle, Delridge, Northgate, Lake City, and Bitter Lake. With relatively lower housing and land prices, real estate investors or builders may identify housing units in these areas that are more profitable as STRs than long term rentals.⁹

Definitions

Those concerned with STRs use a variety of terms to mean the same thing, or mix concepts into one term. Airbnb itself uses language that emphasizes concepts of sharing and belonging, but sometimes at the expense of clarity about economic transactions. Below are terms and definitions used in this brief.

Shared Room: Shared rooms are non-private spaces in a home, typically occupied by the host. They can be a living room, a shared bedroom (with bunks, like a hostel), a den or other spare space. This is the least common listing on Airbnb and most STR companies don't list shared rooms at all.

Private Room: Private rooms are spaces with a door or controlled separation with the rest of a home, typically occupied by a host. However, guests must use common areas, like kitchens and bathrooms. These are more common than shared rooms.

Whole Unit: Whole units, referred to by Airbnb as "entire units," are spaces that guests do not have to share with their host, such as a whole house, mother-in-law units, backyard cottages, rooms with separate entrances from the host, or condos/apartments unused by the host, etc. This is by far the most common listing on Airbnb.

Host: A host is a person or business that uses an STR company to list and, depending on the website, broker guest booking of their listing. On Airbnb's website, each host has a unique "Host ID." The host as they appear on the website may be the actual owner of the unit or may be an intermediary who manages a unit. Many hosts on Airbnb represent professional management companies.

Listing: A listing is an offering for lodging on an STR website created by a host. Listings are for specific places, such as a shared space, private room or whole unit, that a guest can book in advance. On Airbnb's website, each listing has a unique "Room ID."

Booking: This means a guest reserved and paid for lodging in an STR listing. (At booking, Airbnb charges a non-refundable fee of 6-12% to the guest and a 3% fee to a host.) A unit may be listed, but not booked.

Guest: A guest is a person who has rented a unit listed on an STR website. For each stay, we assume a single guest includes all people who have occupied the unit, e.g., family members, friends, etc..

AIRBNB IN SEATTLE

Snapshot of Airbnb in Seattle

As of April 2016, Seattle's Airbnb website showed 2,873 hosts listing 4,170 units of short-term rentals. The majority of listings are whole units (67%), followed by private rooms (30%), and shared rooms (3%).¹⁰

Total Hosts	2,873
All Listings	4,170
Whole Units	2,817
Private Rooms	1,234
Shared Rooms	119

Source: Author's analysis of data pulled from Airbnb's website by programmer Tom Slee

Airbnb reports that hosts began listing units in Seattle in 2009.¹¹ Over the seven years since the first listings, Airbnb has grown by an average of 600 units a year – most of which have happened in the last few years.

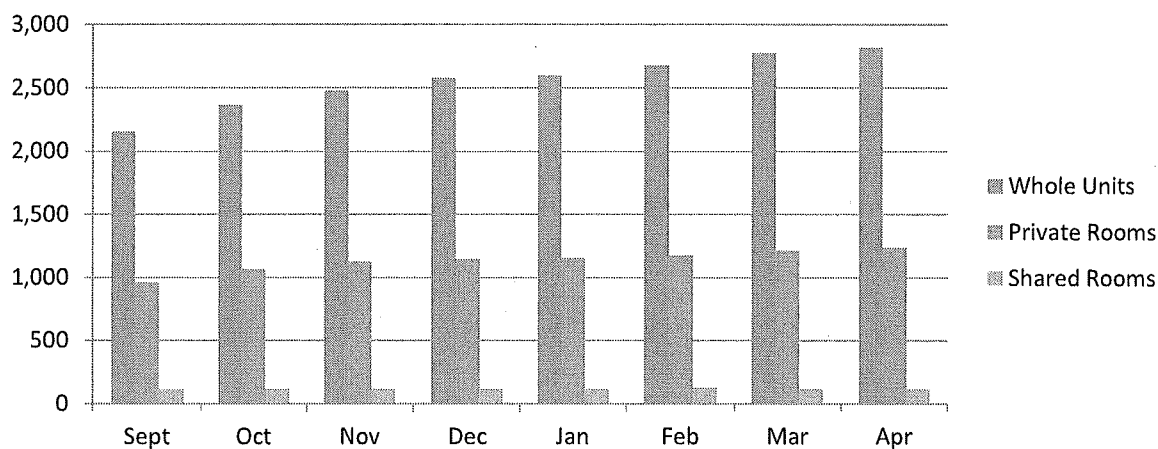
In just the seven months from September 2015 to April 2016, Airbnb added 947 listings, an increase of 29% total (see Table 2 and Figure 1).¹² If similar growth continues throughout the rest of the year (e.g., projecting a full 12 months, from September 2015 to September 2016), it represents an annual growth rate of 50%.

**Table 2: Rapid Increase in Overall Seattle Listings,
September 2015 through April 2016**

Listing Type	Increase in Listings	Growth Rate
Shared Rooms	119	7%
Private Rooms	274	29%
Whole Unit Growth	665	31%
All Listings	947	29%

Source: Author's analysis of data pulled from Airbnb's website by programmer Tom Slee

**Figure 1: Aribnb Listing Growth By Type,
September 2015 to April 2016**



Source: Author's analysis of data pulled from Airbnb's website by programmer Tom Slee

This rapid rate of growth could only be possible where there is: 1) high demand for hospitality in Seattle, and 2) availability of thousands of rooms and whole units for short-term renting.

On the demand side, Seattle is one of the most popular destinations in the US for visitors and all signs point to continued growth of the hospitality industry.¹³ Hotel occupancy rates are higher in Seattle than in the rest of the U.S., indicating that demand for hotel rooms is exceeding supply.¹⁴ On the supply side, thousands of rooms, condos, apartments and houses have been available by short-term rental hosts for use as short-term rentals. If demand continues to grow, and is met by short-term rental hosts, where will the units come from?

Airbnb's Success Depends on Whole Units and Hosts with Two or More Listings

Any unoccupied space in a housing unit or property is a potential long-term rental for a variety of situations, such as a roommate, direct lease, or sublease. However, whole units represent both the vast majority of listings on Airbnb as well as larger spaces, with multiple bedrooms, that could accommodate more people. Whole units and larger units represent the most likely vehicle for conversion or investment in STRs. One financial advice website puts it this way: "For Airbnb hosts looking to make a living on the hospitality platform, full apartment rentals are the way to go."¹⁵ For these reasons, we have focused the remainder of our analysis on whole units.

As of April this year, 2,058 Airbnb hosts list whole units on Airbnb in Seattle. The vast majority (88%) of these hosts only list one unit (see Figure 2). The remaining 12% of units are listed by hosts who offer multiple units for rent. We break these down into three categories: hosts with two units, hosts with 3-5 units and hosts with 6 or more units.

Figure 2: Only One in Eight Hosts List 2 Or More Whole Units

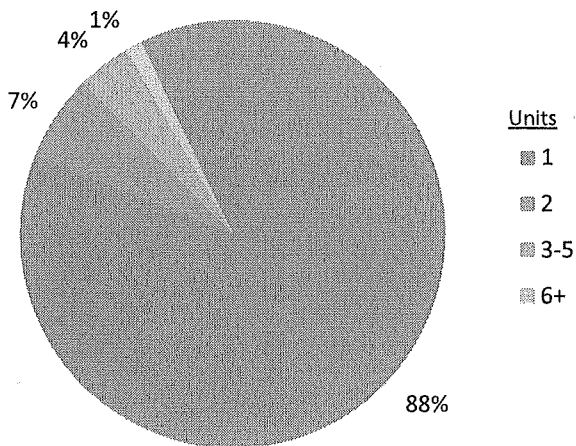
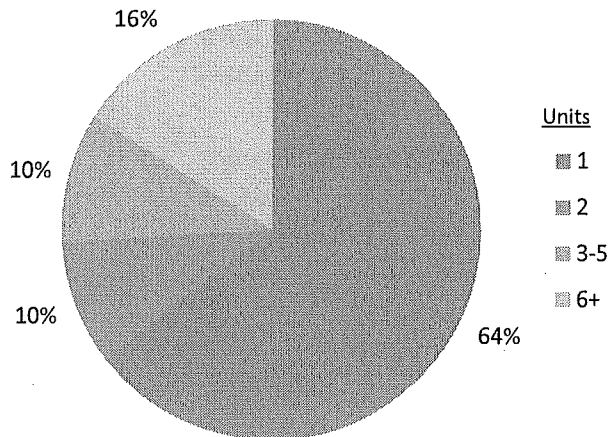


Figure 3: One in Three Whole Units Are Listed By Hosts Manage 2 Or More Units



Source: Author's analysis of data pulled from Airbnb's website by programmer Tom Slee

Although only 12% of Airbnb hosts list more than one whole unit in Seattle (see Figure 2), this small group lists 36% of all whole units (see Figure 3). As of April 2016, hosts who manage multiple units are comprised of 135 two-unit hosts, 82 three-to-five-unit hosts, and 27 six-or-more unit hosts. Remarkably, the 27 hosts that list six or more units in Seattle offer 10% of all whole units on Airbnb. These hosts do not fit Airbnb's self-described profile of Seattle hosts.

“Airbnb hosts are overwhelmingly primary residents who occasionally short-term rent their home to earn supplemental income.” - Airbnb¹⁶

Contrary to Airbnb’s “typical host” profile – someone who shares the home they live in – much of the company’s profit depends on revenue generated by short-term rental property managers. Penn State researchers found that 40% of Airbnb’s revenues came from multi-unit hosts across 12 major U.S. cities.¹⁷ The same study found that 30% of Airbnb’s revenues were generated from units available 360 days a year – clearly not people sharing the home they live in either full time or part time. A survey conducted by short-term rental advisors LearnAirbnb revealed that a third of hosts are not listing units to make supplemental income, but as wealth building or a main source of income.¹⁸ And nearly half of Airbnb hosts surveyed intended to add one or more listings in the next year.¹⁹

Multi-Listing Hosts Generate Half of All Airbnb Growth In Whole Units

In Seattle, Airbnb has benefited tremendously from growth of units listed by hosts with two or more units. As of April 2016, Airbnb listed 2,817 whole units across all categories of hosts, an increase of 31% since September 2015 (See Table 3).

Nearly half (48%) of this growth came from hosts who have more than one listing. Two out of five (42%) whole unit growth came from just hosts with three or more units. While hosts with only one unit remains the largest group on Airbnb in Seattle, their listings grew by a much slower rate (23%) than hosts with 3-5 units (72%) and hosts with 6+ units (54%). In other words, Airbnb’s typical hosts – listing only one whole unit – contributed to merely half of the growth in these more profitable types of units.

Table 3: Half of All Growth in Whole Units Caused by Multi-Listing Hosts, Sept 2015 – April 2016

Monthly Snapshot	Count of Whole Unit Listings By Host Type					
	1 Unit	2 Units	3-5 Units	6+ Units	All 2+ Units	Total
September	1,471	224	165	292	681	2,152
October	1,627	236	201	301	738	2,365
November	1,722	244	201	309	754	2,476
December	1,771	238	228	337	803	2,574
January	1,749	244	225	380	849	2,598
February	1,793	228	250	408	886	2,679
March	1,800	236	258	428	922	2,722
April	1,814	270	284	449	1003	2,817
Total Growth	343	46	119	157	322	665
Rate of Growth	23%	21%	72%	54%	47%	31%
Share of Growth	52%	7%	18%	24%	48%	100%

Source: Author’s analysis of data pulled from Airbnb’s website by programmer Tom Slee

This rapid growth of multiple unit hosts reveals a trend towards commercial operations of Airbnb units. If we assume that most multiple listing hosts are not living in their second or third units, these are most likely investment properties that could otherwise be used for long-term tenants. But the benefits are two-way – hosts make a return on investment and Airbnb profits from growth in this type of listing.

Multiple-Unit Hosts Have More Capacity for Expansion

Who are the multi-listing hosts on Airbnb? Most of the hosts in the two and three-to-five unit category are likely small businesses. Many self-describe their hosting with a story of them starting with one listing and adding several more, because they enjoy hosting or were able to make it into full time work. But these types of hosts are being targeted by a raft of online start-ups that help people manage and invest in new short-term rentals. For example, Pillow will take over all aspects of whole unit management, including booking, linens, cleaning, repairs, and guest services. Mashvisor helps investors find ideal short-term rental investment opportunities by comparing long-term with short-term rental returns on investment, at a neighborhood by neighborhood level. These services provide economies of scale and analysis that allow small operators and investors to secure additional short-term rental units. It is not surprising, then, that whole units managed by hosts with three-to-five listings grew by 72% in only seven months.

Seattle hosts with six or more units are growing almost as fast (52% over seven months), but represent very different kinds of property managers. Table 4 below shows all of the hosts with six or more whole units.²⁰ The largest hosts appear to be multi-state, commercial enterprises that manage either “corporate housing” aimed at business travelers or “vacation rentals” aimed at leisure travelers. The list also appears to include a new micro-housing building on Capitol Hill, a tiny hotel in Pioneer Square and an apartment building. In most cases, these property managers use Airbnb as one site to market their units – some have their own web page for booking while others use STR platforms in addition to Airbnb. For example, Sea To Sky Rentals has been operating vacation rentals long before Airbnb started in Seattle, and primarily manages short-term rentals for other owners.²¹

Taken as a group, these hosts have amassed hundreds of reviews across hundreds of units over time, positioning themselves well for high occupancy rates and the ability to attract additional capital for more units. Expansion in this group could include more national operators entering the Seattle market or existing hosts buying or managing additional units.

Table 4: List of All Seattle Hosts With Six Or More Whole Units

Host ID	Website Host/Alias	Most Likely Real Business*	# of Whole Units	Average Price	# of Reviews
8534462	Daniela	Barsala Corporate Housing	54	\$193	1,309
4962900	Stay Alfred	Stay Alfred	49	\$142	1,980
3074414	Melissa	Unknown	46	\$99	813
430709	Sea to Sky Rentals	Sea to Sky Rentals	42	\$210	207
74305	Seattle Oasis	Seattle Oasis	36	\$139	649
42537846	Eric	Roy Street Commons (Micro-housing)	31	\$64	688
50550045	Diane & Lily	Unknown - corporate housing	24	\$147	182
10558142	James	Unknown	12	\$134	614
15454102	Corporate Condo	Corporate Condo	12	\$186	190
658155	Joe	Unknown	11	\$281	196
754810	Andy	Unknown	11	\$289	161
29051256	Katya	Unknown	11	\$209	108
5325329	Blair	Unknown	10	\$247	724
14980831	Rebecca	Unknown - family business	10	\$168	172
1623580	Sep	Unknown	9	\$133	339
1787819	Christine	St. John's Apartments	8	\$171	215
31148752	Bob	TurnKey Vacation Rentals	8	\$233	812
31366898	Christine	Unknown	8	\$198	356
33360	Laura	Unknown	7	\$169	131
1650960	Qing	Unknown	7	\$287	233
22764472	Krystal	Unknown	7	\$186	120
5177328	Andrea	Unknown	6	\$144	245
6372203	Darcy	Merchant's Hotel	6	\$156	690
16756919	Morteza	Unknown	6	\$119	84
23792018	Roda	Unknown	6	\$107	152
35961304	Marianne	Unknown	6	\$93	406
44312115	Kevin	Unknown - Property Mgmt Company	6	\$93	73
			449	\$162	11,849

* These are either self-identified by hosts or are apparent from other research

Source: Author's analysis of data pulled from Airbnb's website by programmer Tom Slee

If Expansion Continues, Hundreds of Whole Units May Be Lost From Long-Term Market

Projecting forward, multiple-listing hosts could begin to convert long-term units in sizeable numbers that would have significant impact on the long-term housing market. Table 5 shows projected loss of long-term rental units to STRs, under two assumed scenarios. The least conservative scenario is a projected growth rate of 47% per year for whole units listed by hosts with multiple listings (see Table 3), extrapolated from the seven months of data we have obtained.²² A more conservative assumption for growth is the rate for all whole units in Seattle, or 31% (see Table 3). We also assume that the first unit

of multiple listing hosts could be their own primary residence, reducing potential long-term units by 244. With these assumptions, we start with 759 non-primary, whole units in 2016 and estimate the numbers over the next three years.

Table 5: Recent Growth Trends Indicate Substantial Loss of Long-Term Rentals

	Projected Yearly Growth	2016	2017	2018	2019
Total Units Each Year	47%	759	1,116	1,640	2,411
Long-Term Units Lost			357	881	1,652
Total Units Each Year	31%	759	994	1,301	1,702
Long-Term Units Lost			235	542	943

Source: Author's projections based on data pulled from Airbnb's website by programmer Tom Slee

By 2019, under the same aggressive growth rates we've recently seen, we could lose up to 1,652 long-term units in Seattle to the short-term rental market. In a slower growth scenario, we could lose up to 943 units.

Will Airbnb in Seattle continue to grow at such a rapid pace? Overall, industry observers seem optimistic. Bloomberg reports that one Wall Street firm, Cowen Group, recently used a consumer survey to project an increase in all Airbnb "room nights" from 79 million in 2016 to 500 million in the next five years.²³ Another financial firm, eMarketer, predicts that Uber's expansion will end in two years, but Airbnb's will continue.²⁴ Further research could be done to create a more robust prediction model using factors such as long-term market rents, interest rates, occupancy rates in hotels, etc., but it is beyond the scope of this brief.

Neighborhoods At Risk of Displacement Growing at Same Pace as Rest of the City

As reported above, whole unit Airbnb listings grew throughout Seattle by 31% from September 2015 to April 2016 (see Table 3). Growth in total units across Seattle tended to reflect existing concentrations of units in the urban center (+153 units) and popular neighborhoods like Capitol Hill (+86 units), Wallingford/Fremont/Greenlake (+67 units), and Queen Anne (+51 units) (see Table 6).²⁵ (See Appendix B for a full list of the 88 Seattle neighborhoods used by Airbnb and the change in whole units for each.)²⁶

However, nearly all areas of Seattle saw consistent growth of whole units on Airbnb, between 23% and 42%. Notably slower growth occurred in Eastlake/South Lake Union (17%) and the University District (-11%), both areas that have seen substantial new construction of multifamily buildings.

Table 6: Airbnb Whole Units Concentrated in Urban Center, But Strong Growth Everywhere

Seattle Area	Whole Units 9/2015	Whole Units 4/2016	Change	% Change
Citywide	2,152	2,817	665	31%
Urban Center				
CBD/Belltown/First Hill/ID	365	518	153	42%
Capitol Hill	323	409	86	27%
Queen Anne/Lower Queen Anne	202	253	51	25%
Leschi/Madronna/Central District	178	240	62	35%
Eastlake/South Lake Union	60	70	10	17%
	1,128	1,490	362	32%
Near North				
Wallingford/Fremont/Green Lake	274	341	67	24%
Ballard/West Woodlawn	126	166	40	32%
Roosevelt/Wedgewood/Ravenna	84	110	26	31%
University	89	79	-10	-11%
Magnolia/Interbay	41	64	23	56%
	614	760	146	24%
Southwest				
West Seattle	112	158	46	41%
Delridge	39	51	12	31%
	151	209	58	38%
Southeast				
Rainier Valley	87	115	28	32%
Beacon Hill	47	64	17	36%
SODO/Duwamish	7	9	2	29%
	141	188	47	33%
Far North				
Bitter Lake/Greenwood	60	96	36	60%
Northgate	32	42	10	31%
Lake City	26	32	6	23%
	118	170	52	44%

Source: Author's analysis of data pulled from Airbnb's website by programmer Tom Slee

A comparison between the City's map of displacement risk (Appendix A) and whole unit growth reveals areas of overlap that should be of concern for low-income communities and policy makers. The largest concentration (518 units) and second largest growth (42%) of Airbnb whole units occurs in the urban center of Seattle, which includes Downtown, First Hill, the International District and the Central District.

Other at-risk areas with smaller concentrations of whole units but strong growth include Rainier Valley (32%), Beacon Hill (36%), Bitter Lake/Greenwood (60%), Northgate (31%), and Delridge (31%). The only area with a higher risk of displacement that did not experience growth of Airbnb whole units was the University District (-11%).

CONCLUSIONS AND RECOMMENDATIONS

The rapid rise of Airbnb in the hospitality and lodging industry has made vacation rental more accessible to visitors and easier for hosts to participate than ever before. Airbnb's expansion in Seattle illustrates the city's strong attraction to visitors and tourists, which, in turn, brings new income to our region. However, there is a downside to Airbnb and online STR companies in cities with rising rents, scarce affordable housing, and gentrification – it can pit the need to house visitors against the need to house residents. The tourism and hospitality industry, in particular, comprises of low- to moderate-wage workers who are increasingly priced out of the city.

While Airbnb facilitates economic activity for mostly individual households and small businesses, the giant online company also depends greatly on the high-intensity renting of whole units by multi-listing hosts for profit. Airbnb would like to emphasize income generated for hosts, but the company stands to make a lot of money from STR hosts who are really property managers or real estate investors, big or small. At the same time, growth in STRs threaten to remove long-term units from the local housing market, which will impact households struggling to find affordable housing and stay in Seattle. The ability for low-income families, communities of color, immigrants, and refugees to live and work in Seattle must be prioritized over the growth of Airbnb. As Sage has documented elsewhere, displacement of low-income households – whether direct or indirect – cause real and lasting harm to individuals, families and communities.²⁷

Recommendations

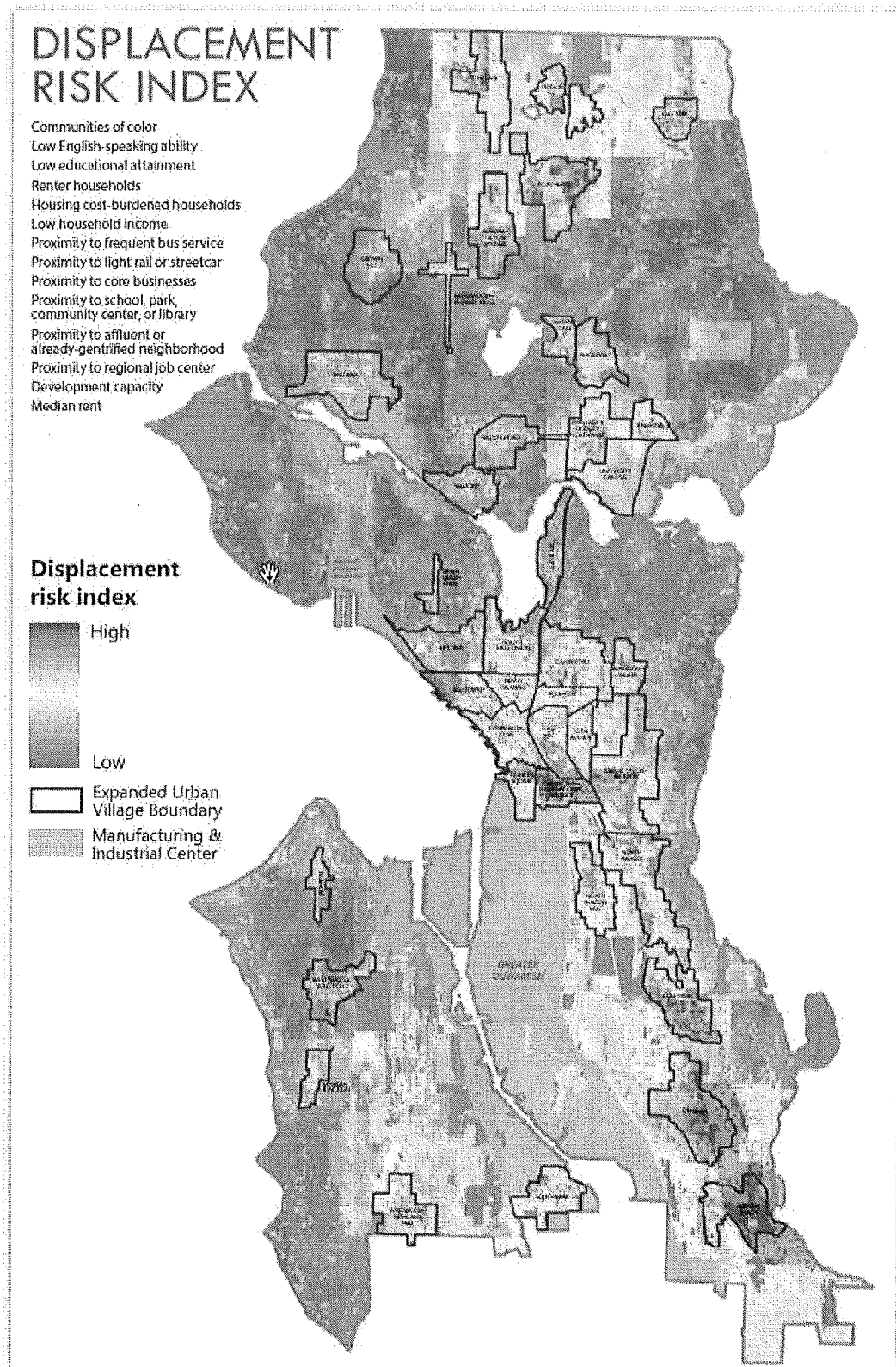
The City of Seattle should prioritize housing policy that puts the people the most at risk of displacement at the center. In the case of Short Term Rentals, public policy should ensure that investors in STRs are not taking long-term units out of the housing market, particularly in areas with high risk of displacement. At the same time, the City should allow families in high displacement risk areas to take advantage of housing assets to supplement their income. Puget Sound Sage suggests:

1. The City should prevent growth of whole unit STRs hosted by individuals or companies with more than one unit that is not their primary residence. (Hosts with two whole units at their

primary residence would be OK.) There are many policy mechanisms to achieve this, including restrictions on STRs that are not on a host's primary residence, placing a cap of one or two units for all whole unit hosts, or limiting the number of days that hosts can rent STRs (thus removing the incentive to purchase housing as an investment property for sole use as an STR).

2. The disaggregation of STR leasing to thousands of hosts makes enforcement of any policy difficult. The City should require any online STR platform company to divulge all information necessary for the City to monitor the number of nights STRs are leased and who is leasing them. Cities across the U.S. have met with strong opposition to requests for data from Airbnb, and we anticipate the same will be true in Seattle. We recommend that STR platforms, like Airbnb, VRBO and HomeAway face high financial penalties for violating requirements for information. These are all very large companies that may not be affected by small fees or fines if they desire to thwart or avoid regulation.
3. The City should establish a simple regulatory license for Airbnb hosts that allows the City to engage with and monitor STR activity independent of the STR platform companies. In particular, this will help the City monitor growth of STRs in areas with high risk of displacement.

APPENDIX A: City of Seattle Displacement Risk Index Map²⁸



APPENDIX B: Concentration and Growth of Airbnb Whole Units Listings In Seattle

Seattle Neighborhood	Whole Units 9/2015	Whole Units 4/2016	Change	% Change
<u>Citywide</u>	2,152	2,817	665	31%
<u>Downtown</u>				
Belltown	173	244	71	41%
Central Business District	67	93	26	39%
First Hill	75	111	36	48%
International District	4	9	5	125%
Pike-Market	20	35	15	75%
Pioneer Square	18	17	-1	-6%
Yesler Terrace	8	9	1	13%
Subtotal	365	518	153	42%
<u>Eastlake/South Lake Union</u>				
Eastlake	38	33	-5	-13%
South Lake Union	18	23	5	28%
Westlake	4	14	10	250%
Subtotal	60	70	10	17%
<u>Capitol Hill</u>				
Broadway	226	306	80	35%
Madison Park	11	11	0	0%
Montlake	11	11	0	0%
Portage Bay	12	12	0	0%
Stevens	63	69	6	10%
Subtotal	323	409	86	27%
<u>Central Area</u>				
Atlantic	31	37	6	19%
Harrison/Denny-Blaine	9	10	1	11%
Leschi	22	39	17	77%
Madrona	16	28	12	75%
Mann	38	45	7	18%
Minor	62	81	19	31%
Subtotal	178	240	62	35%
<u>Queen Anne</u>				

East Queen Anne	61	81	20	33%
Lower Queen Anne	60	74	14	23%
North Queen Anne	45	50	5	11%
West Queen Anne	36	48	12	33%
Subtotal	202	253	51	25%

University

University District	89	79	-10	-11%
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Ballard

Adams	45	53	8	18%
Loyal Heights	20	35	15	75%
Sunset Hill	10	12	2	20%
West Woodland	34	50	16	47%
Whittier Heights	17	16	-1	-6%
Subtotal	126	166	40	32%

North Central

Fremont	99	119	20	20%
Green Lake	32	41	9	28%
Phinney Ridge	44	63	19	43%
Wallingford	99	118	19	19%
Subtotal	274	341	67	24%

Northeast

Bryant	15	21	6	40%
Laurelhurst	4	7	3	75%
Ravenna	35	34	-1	-3%
Roosevelt	17	24	7	41%
View Ridge	2	6	4	200%
Wedgwood	7	11	4	57%
Windermere	4	7	3	75%
Subtotal	84	110	26	31%

Beacon Hill

Holly Park	4	3	-1	-25%
Mid-Beacon Hill	13	16	3	23%
North Beacon Hill	29	43	14	48%
South Beacon Hill	1	2	1	100%
Subtotal	47	64	17	36%

Delridge

High Point	7	5	-2	-29%
Highland Park	6	6	0	0%
North Delridge	14	19	5	36%
Riverview	4	9	5	125%
Roxhill	1	5	4	400%

South Delridge	7	7	0	0%
Subtotal	39	51	12	31%

Lake City

Cedar Park	5	6	1	20%
Matthews Beach	10	11	1	10%
Meadowbrook	2	3	1	50%
Olympic Hills	3	3	0	0%
Victory Heights	6	9	3	50%
Subtotal	26	32	6	23%

Magnolia

Briarcliff	7	13	6	86%
Interbay	8	11	3	38%
Lawton Park	12	24	12	100%
Southeast Magnolia	14	16	2	14%
Subtotal	41	64	23	56%

Northgate

Haller Lake	6	10	4	67%
Maple Leaf	17	20	3	18%
North College Park	6	8	2	33%
Pinehurst	3	4	1	33%
Subtotal	32	42	10	31%

Northwest

Bitter Lake	4	10	6	150%
Broadview	7	9	2	29%
Crown Hill	7	12	5	71%
Greenwood	35	53	18	51%
North Beach/Blue Ridge	7	12	5	71%
Subtotal	60	96	36	60%

West Seattle

Alki	22	39	17	77%
Arbor Heights	3	4	1	33%
Fairmount Park	22	28	6	27%
Fauntleroy	5	8	3	60%
Gatewood	8	14	6	75%
Genesee	14	19	5	36%
North Admiral	30	35	5	17%
Seaview	8	11	3	38%
Subtotal	112	158	46	41%

Rainier Valley

Brighton	5	9	4	80%
Columbia City	31	41	10	32%
Dunlap	6	3	-3	-50%
Mount Baker	22	27	5	23%
Rainier Beach	2	5	3	150%
Rainier View		1	1	n/a
Seward Park	21	29	8	38%
Subtotal	87	115	28	32%
<u>SODO/Duwamish</u>				
Georgetown	2	2	0	0%
Industrial District	4	5	1	25%
South Park	1	2	1	100%
Subtotal	7	9	2	29%

Source: Author's analysis of data pulled from Airbnb's website by programmer Tom Slee

ENDNOTES

¹ Washington State Dept of Revenue, "Persona Home Rentals" (June 2009). Accessed 6/13/16 at: <http://www.dor.wa.gov/docs/pubs/industspecific/homerentals.pdf>.

² Number of listings taken from search results on all Seattle listings on identified various websites. Note that Vacationrentals.com and VRBO are both owned by HomeAway, so cross listings are highly likely. Many Airbnb hosts also list on multiple platforms so the figures cited won't add up to a total of units in Seattle.

³ See endnote 5.

⁴ Airbnb, "The Impacts of Home Sharing in Seattle," (Jan 2016). Accessed 6/13/16 at: <https://www.scribd.com/doc/296189904/Airbnb-s-Seattle-Economic-Impact-Report>. Note: Airbnb does not appear to provide the report on their website.

⁵ All data on Airbnb hosts and listing in this brief were pulled from Airbnb's website by programmer Tom Slee. once a month for seven months, from September 2015 to April 2016. Mr. Slee is one of many to develop a program that automatically mines Airbnb's website to create useful data sets. (Others include Murray Cox with Inside Airbnb and sites like Airdna.com). Unlike others, Mr. Slee has made his source code available to the public on his website, as well as an extensive methodology. According to Mr. Slee, data pulled from Airbnb is 10 to 20% of the real data, which is enough to make policy decisions. His methodology can be accessed at: <http://tomslee.net/airbnb-data-collection-methodology-and-accuracy>.

⁶ Author's analysis of data pulled from Airbnb's website combined with the Census' American Community Survey population estimates.

⁷ Laura Wenus, "Supervisors Target Homesharing Platforms with Hefty Fines," *Mission Local* (Apr 26, 2016). Accessed 6/13/2016 at: <http://missionlocal.org/2016/04/supervisors-target-homesharing-platforms-with-hefty-fines/>.

⁸ See 1) Bianca Barragan, "Rent-Controlled Tenants Were Evicted, Then Found Their Apartments on Airbnb," *Curbed Los Angeles* (Dec 17, 2015). Accessed 6/13/2016 at: <http://la.curbed.com/2015/12/17/10620080/ellis-act-evictions-airbnb-lawsuit>. 2) Steven Hill, "The Unsavory Side of Airbnb," *The American Prospect* (Oct 19, 2015). Accessed 6/13/2016 at: <http://prospect.org/article/evictions-and-conversions-dark-side-airbnb>. 3) Steven Hill, "Airbnb Is Contributing to the Displacement of Long-Term Tenants in San Francisco," *Alternet* (Dec 2, 2015). Accessed 6/13/2016 at: <http://www.alternet.org/books/airbnb-contributing-displacement-long-term-tenants-san-francisco>.

⁹ At the moment, commercial property managers of online STRs appear to be primarily smaller businesses and investors. According to one real estate investment company, large-scale housing management firms and real estate investors have not entered the market because it is still new and unstable. However, STRs have attracted enough smaller investors and operators to spur start-up advisors like LearnAirbnb and Mashadvisor who specialize in STRs. Unattributed, "The Rise of the Professional Airbnb Investor," *RealtyShares* (Feb 9, 2016). Accessed 6/10/2016 at: <https://www.realtyshares.com/blog/the-rise-of-the-professional-airbnb-investor/>.

¹⁰ Author's analysis of data pulled from Airbnb's website by computer programmer Tom Slee. The author's data lines up very closely to Airbnb's own published data. The company notes that "The typical Airbnb host rents out the home in which he or she lives. Just over two-thirds, 67 percent rent their entire home or apartment (for example, while they are away), with 30 percent renting a private room, and 3 percent renting a shared room." From Airbnb, "The Impacts of Home Sharing in Seattle," (Jan 2016).

¹¹ Airbnb, "The Impacts of Home Sharing in Seattle," (Jan 2016).

¹² Author's analysis of data pulled from Airbnb's website by computer programmer Tom Slee.

¹³ See Blanca Torres, "More visitors, spending more money, lift hotel and convention biz," *Seattle Times* (Apr 25, 2016). Accessed 6/13/16 at <http://www.seattletimes.com/business/economy/more-visitors-spending-more-money-lift-hotel-and-convention-biz/>. Also, a survey by AAA of its members shows Seattle is the second most popular destination for auto travelers projected for summer 2016. "Seattle Ranks Among Top Summer Travel Destinations in the U.S.," *AAAWA.com* (June 8, 2016). Accessed 6/13/16 at: <https://www.aaawa.com/about/newsroom/release.asp?ref=401>.

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- ¹⁴ "Seattle Achieves Record Tourism Growth for the Third Consecutive Year, Job Growth Out-Paces the U.S.," *VisitSeattle.com* (Apr 25, 2016). Accessed 6/13/16 at: <http://www.visitseattle.org/press/press-releases/seattle-tourism-statistics-announced/>.
- ¹⁵ Nick Wallace, "Where Do Airbnb Hosts Make the Most Money?" *Smartasset.com* (Jan 12, 2016). Accessed 3/16/16 at: <https://smartasset.com/mortgage/where-do-airbnb-hosts-make-the-most-money>.
- ¹⁶ Airbnb, "The Impacts of Home Sharing in Seattle," (Jan 2016).
- ¹⁷ John W. O'Neill and Yuxia Ouyang, "From Air Mattresses to Unregulated Business: An Analysis of the Other Side of Airbnb," *Penn State School of Hospitality Management* (Jan 2016). Accessed 6/9/16 at: <http://www.ahla.com/uploadedFiles/Common/pdf/PennStateAirBnbReport.pdf>.
- ¹⁸ Unattributed, *The State of Airbnb Hosting*, *LearnAirbnb.com*, (Q1 2016). Accessed 6/10/16 at: <https://s3-us-west-2.amazonaws.com/learnairbnb/SOH-Report/LearnAirbnb.com-Airbnb-Home-Sharing-Report-v1.4.pdf>.
- ¹⁹ Ibid
- ²⁰ We explored each of the hosts with five or more units by reading reviews by their guests (which occasionally mentions the property management company that employs the host), using basic search or reverse image searches on Google.com, and reading their non-Airbnb websites. In the cases where hosts did not self-identify their real company name, we make our best guess on who is behind the host or alias.
- ²¹ Sea To Sky Rentals, "About Us," *seatoskyrentals.com*. Accessed 6/13/16 at: <http://www.seatoskyrentals.com/site/6736/about.aspx>.
- ²² A more robust growth project would be to extrapolate 47% growth over seven months to an annual growth rate of 81%. However, without having observed a year of growth, we use the growth since September as our annual estimate for growth over the next three years.
- ²³ Julie Verhage, "One Wall Street Firm Expects Airbnb to book a Billion Nights a Year Within a Decade," *Bloomberg.com* (Apr 11, 2016). Accessed 6/12/16 at: <http://www.bloomberg.com/news/articles/2016-04-11/one-wall-street-firm-expects-airbnb-to-book-a-billion-nights-a-year-within-a-decade>.
- ²⁴ Tess Townsend, eMarkerter: Airbnb Has More Room to Grow than Uber, *Inc.* (May 17, 2016). Accessed on 6/12/2016 at <http://www.inc.com/tess-townsend/lodging-growing-more-than-ride-sharing.html>.
- ²⁵ The author's source of data, Tom Slee, has low confidence in the accuracy of neighborhood names. He says this about them: This value may not match the neighborhood in the search, as search results commonly include listings from other neighborhoods. It is difficult to extract reliably from the Airbnb pages, and should not be taken too seriously." However, extensive searches on Airbnb's site have indicated that if Airbnb provides a listing from other neighborhoods, they are in close proximity. For the purposes of understanding where in Seattle Airbnb units are concentrated and whether areas at risk of displacement have seen whole unit growth, we believe that the neighborhood names are accurate enough.
- ²⁶ Data pulled from Airbnb's website uses the City Clerk's Geographic Indexing Atlas for its source of neighborhood names. However, the City Clerk states that the atlas is primarily for indexing and archiving City records and "is not intended to represent City planning districts, neighborhood council districts, nor boundaries and neighborhood names defined by other associations." Some of these neighborhood names are no longer in regular use or do not align with what current residents may think of as their neighborhood. However, most names are still in use and aggregate to more generally acceptable areas such as Queen Anne, Magnolia, Beacon Hill, West Seattle, Ballard, Lake City, etc.
- ²⁷ Margaret Wykowsski and Howard Greenwich, *Transit Oriented Development that's Healthy, Green & Just: Ensuring Transit Investment in Seattle's Rainier Valley Builds Communities Where All Families Thrive*, Puget Sound Sage (May 2012). Accessed 6/13/16 at: <http://pugetsoundsage.org/downloads/TOD%20that%20is%20Healthy,%20Green%20and%20Just.pdf>.
- ²⁸ City of Seattle, "Equitable Development Implementation Plan" (April 2016). Accessed 6/13/16 at: <http://2035.seattle.gov/wp-content/uploads/2016/05/EDI-Imp-Plan-042916-final.pdf>.

CBRE Hotels' Americas Research

Hosts with Multiple Units – A Key Driver of Airbnb Growth

A Comprehensive National Review Including
a Spotlight on 13 U.S. Markets

March 2017

CBRE

EXHIBIT B

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INTRODUCTION

In 2016, the number of hosts, properties, and revenue generated on Airbnb expanded worldwide at an exponential rate. Brian Chesky, Airbnb's co-founder and CEO, recently tweeted that Airbnb hosted more than 2 million guests around the world on New Year's Eve 2016. That is roughly double the amount hosted in 2015 (1.1 million) and four times the number from 2014 (540,000). The company is now reportedly valued at \$30 billion and has over 3 million listings worldwide.

Our analysis, using comprehensive data from Airdna, is primarily focused on information for entire-home hosts, where the guest has complete and sole access to the whole unit during their stay. Shared units and unique venues (*e.g.* igloos, treehouses, etc.) are separated out of our analyses because of their disparate nature relative to the typical hotel guest room offering.

This analysis covers the U.S. and highlights data for 13 cities utilizing two years of Airdna data for the period of October 2014 through September 2016. The study involves analyses of the performance trends of entire-home, multi-unit hosts using Airbnb as a distribution platform. This group of hosts is arguably the most controversial on the Airbnb platform because of the resulting intersection of lodging and housing. While other studies have included mention of these operators, this study focuses on the performance trends of this sizable group. Our report provides a clear picture of how Airbnb is expanding primarily by growth of multi-unit operators and how they are a key component of Airbnb's base of hosts.

METHODOLOGY AND DATA:

This analysis looks at data compiled by Airdna (Airdna.co), which tracks Airbnb listings and revenue generated by Airbnb hosts. The information used in this study covers 13 of the nation's largest Airbnb markets: Austin, Boston, Chicago, Los Angeles, Miami, Nashville, New Orleans, New York, Oahu, Portland, San Francisco, Seattle, and Washington DC. The data covers the period October 2014 – September 2016 and isolates multi-unit entire home hosts and separates out data for all shared and private rooms, units with a minimum stay requirement of 30 days or more, and unique property types, such as boats, tree houses and tents. The report covers only active units on Airbnb and excludes units that did not have a single booking over the previous month (defined as being "inactive"). Inactive listings represented approximately one-half of the total listings on Airbnb in the U.S.

Starting in October 2015, certain data available in previous years was no longer available. As such, Airdna was required to adopt a new approach to estimating certain information. This change impacts the estimation of rooms sold and revenue generated for properties and would not impact Airdna's estimation of hosts or properties on the site.

GLOSSARY:

Host: Person or entity renting out at least one unit on the Airbnb platform.

Unit: a space (Entire Home, Private Room, or Shared Room) listed for rent on Airbnb.

Entire Home: The guest has complete and sole access to the entire unit during the stay.

Private Room: The guest has their own sleeping area, but shares access to the Unit common areas.

Shared Room: The guest rents a common area, like an airbed in a living room.

Multi-Unit Operator: Any host renting out two or more unique, entire home units during the same month.

ADDITIONAL INFORMATION:

Jamie Lane, senior economist, CBRE Hotels' Americas Research and Mark Woodworth, senior managing director and head of lodging research, conducted the analysis and developed the key findings.

This study was funded by the American Hotel & Lodging Education Foundation.

DISCLAIMER:

Information contained herein, including projections, has been obtained from sources other than CBRE but believed to be reliable. We have not verified it and make no guarantee, warranty or representation about it. It is your responsibility to confirm independently its accuracy and completeness.

KEY FINDINGS

Revenue generated year-over-year by Airbnb hosts almost doubled in 2016. Within this group, hosts with multiple units increased their share of that revenue. In isolating just hosts renting entire-home units, those with two or more units accounted for nearly 40% of the revenue on Airbnb in the U.S. In the top 13 markets studied, the share captured by multi-unit hosts increased in almost every case; often by close to 10%. The exceptions were New York and San Francisco, where the share of revenue declined by 7.1% in New York and 4.6% in San Francisco. The revenue from entire-home hosts that operate multiple units in the 13 cities studied represents a disproportionately large percentage of the national total. As such, we consider them to be a key driver of Airbnb growth.

\$1.8 Billion — In the U.S., hosts renting out two or more entire-home units generated over \$1.8 billion in revenue in 2016. In the 13 markets highlighted, revenue reached \$700 million.

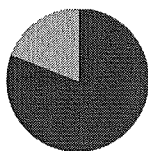
In the U.S., multi-unit entire-home hosts were the fastest growing Airbnb segment in terms of the number of hosts, units, and revenue generated in 2016.



Revenue growth for entire-home properties increased by an average of 76% in the 13 markets studied. Nashville (+283%) was the fastest growing market followed by Oahu (+187%) and New Orleans (+144%). San Francisco (+57%) and New York (+39%) were the slowest growing markets.

Hosts with 10 or more properties generated a quarter of all multi-unit host revenue, or roughly \$175 million in the 13 markets studied.

\$175 Million



Hosts renting out entire-home units earned 81% of the revenue on Airbnb in the U.S.

NATIONAL SUMMARY

Based on data from Airdna, and for the period October 2015 to September 2016, over 416,000 hosts generated an estimated \$5.7 billion in revenue through Airbnb in the United States, which was a 140% increase in revenue over the preceding 12-month period. Of this \$5.7 billion, approximately 81% was captured by hosts offering an entire-home unit, up from approximately 78% in the prior year. In the 13 markets studied more closely, over 175,000 hosts generated an estimated \$2.4 billion in revenue through Airbnb, which was a 72% increase in revenue over the preceding 12-month period.

This study analyzes the performance trends of entire-home, multi-unit hosts using Airbnb as a distribution platform. Multi-unit hosts are defined as any host renting out two or more units in a single month, while entire-home units give guests complete and sole access to the whole unit during their stay. Looking at our annual totals for single unit hosts and units, there are more units than hosts. This is due to hosts that rented out two or more units during the year, but never in the same month.

Revenue for entire-home multi-unit hosts increased at a greater rate than all other Airbnb host types. These hosts now makes up 32% of all revenue generated on Airbnb in U.S. (over \$1.8 billion) and 30% in the 13 markets (over \$700 million) that are highlighted in this analysis. The revenue derived from these multi-unit hosts in the 13 markets rose 89% year-over-year. Over this same period, revenue for entire-home hosts with one unit and all other hosts increased by 70% and 57%, respectively. Table 1 shows the performance of Airbnb in the top 13 markets as well as the U.S. as a whole. The table then separates out the performance of single unit hosts vs. multi-unit hosts (*i.e.* 2+ units) and shows the sum of hosts, units, and revenue as a percentage of just entire-home rentals and all hosts, units, and revenue, including entire-home, private room, shared room, unique property units, and units with a minimum stay requirement of 30 days or more.

Table 1: Airbnb Performance Nationally and in Top Markets, October 2015 – September 2016

MARKET	HOST UNITS	ANNUAL TOTALS			% OF ENTIRE-HOME RENTALS			% OF TOTAL		
		HOSTS	UNITS	REVENUE	HOST	UNITS	REVENUE	HOST	UNITS	REVENUE
13 Highlighted Markets	Entire Home 1	96,656	102,535	\$1,177,676,057	89.5%	70.3%	62.6%	55.2%	40.0%	49.6%
	2+	11,350	43,242	\$702,562,292	10.5%	29.7%	37.4%	6.5%	16.9%	29.6%
	Total	108,006	145,777	\$1,880,238,349	100.0%	100.0%	100.0%	61.7%	56.8%	79.2%
	All Other	67,167	110,716	\$493,472,107				38.3%	43.2%	20.8%
National	Market Total ¹	175,173	256,493	\$2,373,710,456				100.0%	100.0%	100.0%
	Entire Home 1	236,413	258,133	\$2,787,695,396	88.9%	66.1%	60.4%	56.8%	40.0%	49.0%
	2+	29,381	132,224	\$1,828,166,706	11.1%	33.9%	39.6%	7.1%	20.5%	32.1%
	Total	265,794	390,357	\$4,615,862,102	100.0%	100.0%	100.0%	63.9%	60.5%	81.1%
	All Other	150,321	254,493	\$1,074,193,112				36.1%	39.5%	18.9%
	Market Total ¹	416,115	644,850	\$5,690,055,214				100.0%	100.0%	100.0%

Sources: Airdna, CBRE Hotels' Americas Research, January 2017.

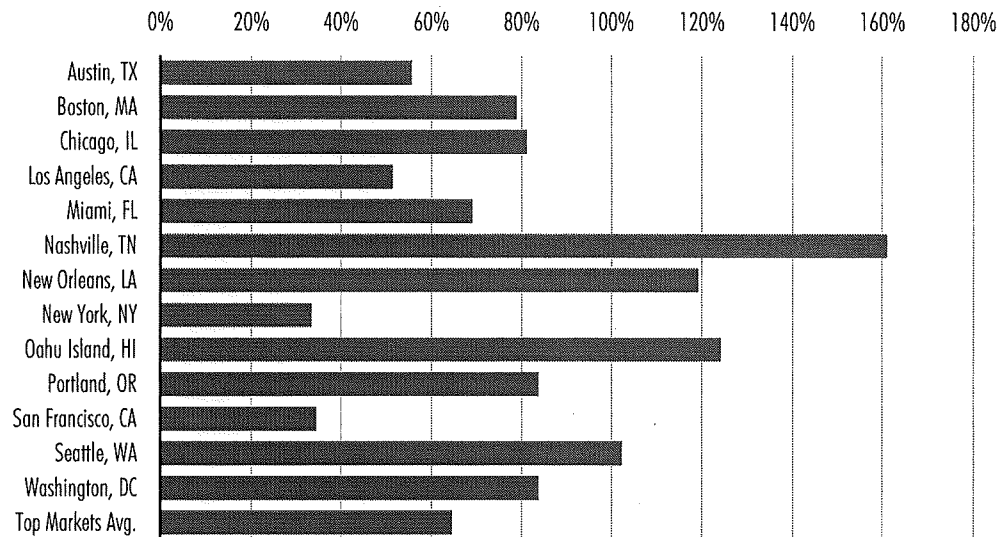
¹ - Includes All Airbnb Rentals, including Entire Homes, Private Rooms, Shared Rooms, unique properties, and units with a minimum stay requirement of 30 days or more.

Nationally, almost 30,000 hosts listed more than one entire-home unit on Airbnb throughout the year, totaling over 130,000 units. In the highlighted 13 markets, 11,350 unit hosts collectively rented out over 43,000 units, or 17% of Airbnb's inventory. These multi-unit hosts generated over \$700 million in revenue, which represents 30% of the revenue generated over this period in these 13 markets.

NATIONAL SUMMARY

All markets realized an increase in the total number of units managed by multi-unit hosts. Four markets shown in Figure 1 had a year-over-year growth rate of above 100%. Nashville led the way with a 161% increase in units followed by Oahu (124%), New Orleans (120%) and Seattle (102%). In New York and San Francisco, units managed by multi-unit hosts only increased by about 35%, which is slightly higher than overall unit growth for these two markets, leaving the share of units managed by multi-unit hosts relatively unchanged.

Figure 1: Airbnb Multi-Unit Hosts Unit Growth by City, 2015 - 2016



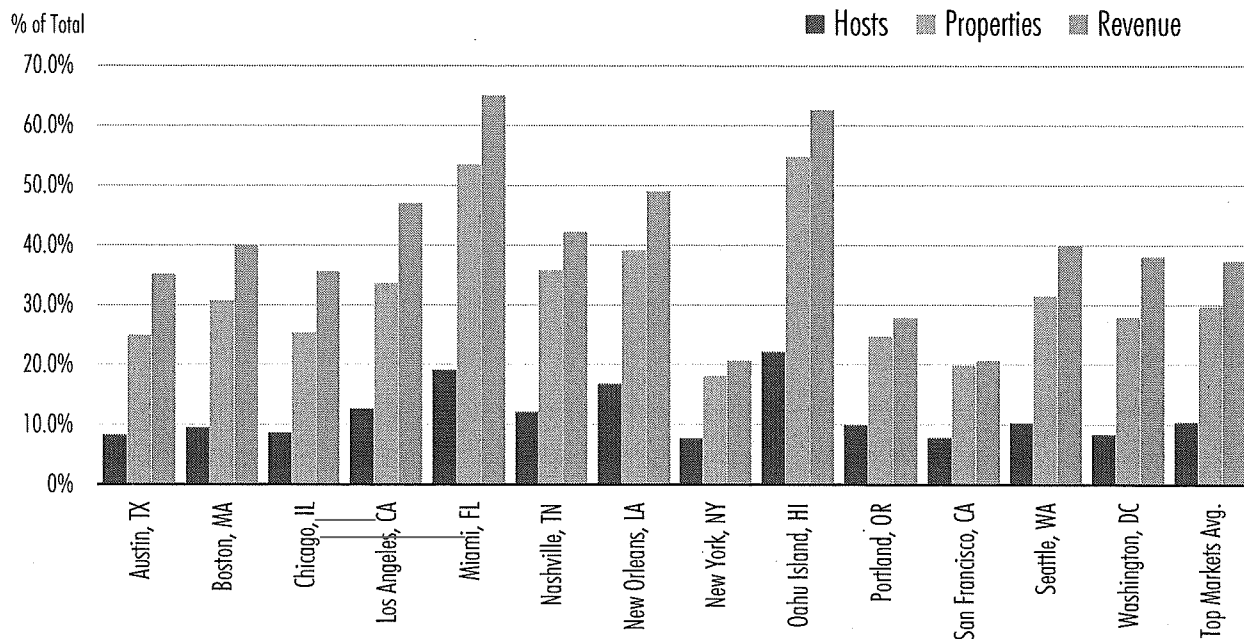
Source: Airdna, CBRE Hotels' Americas Research, January 2017.

The graph in Figure 2 shows the percentage of entire-home hosts that have multiple units expressed as a percent of all other entire-home hosts. It then shows by market what percent of properties and revenue they control in that market. On average in the top 13 markets, 11% of entire-home hosts have 2 or more units. These hosts manage 30% of the properties in these cities and earn 37% of the revenue.

The percentage of revenue generated by multi-unit hosts varies significantly by market. In some cities, over 60% of Airbnb's entire-home rental revenue comes from hosts with two or more entire-home rentals. Miami and the island of Oahu have percentages of 65% and 63% respectively. This trend is consistent with other leisure and vacation travel markets. In these areas, and to varying degrees, established vacation rental companies represent a portion of the inventory and revenue generated on Airbnb.

NATIONAL SUMMARY

Figure 2: Multi-Unit Hosts as a Percent of All Entire-Home Hosts



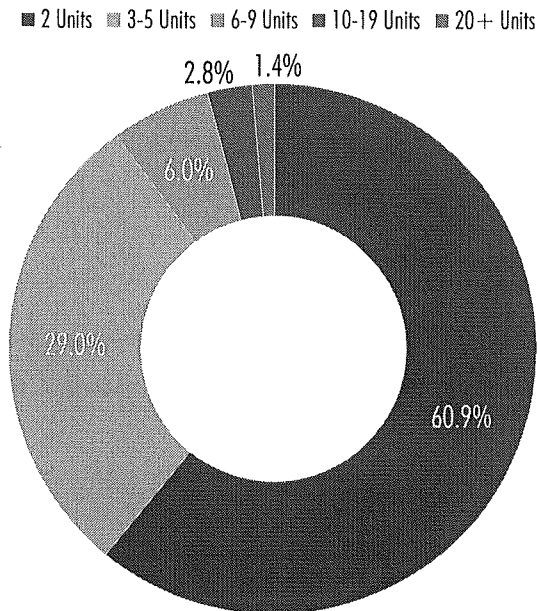
Source: Airdna, CBRE Hotels' Americas Research, January 2017.

In New York and San Francisco, overall revenue earned by multi-unit hosts renting entire-home units increased over 2015 levels, but at a slower rate than that of other hosts. In these markets, the share of total Airbnb revenue captured by multi-unit hosts declined by 7.1% in New York and 4.6% in San Francisco. In all other markets studied, the share increased, often by up to 10%. The trend nationally and in these top markets clearly indicates that Airbnb continues to be an increasingly popular platform for commercial, multi-unit hosts to list their rental inventory and that these hosts are generating a growing share of the company's business.

Figure 3 shows a profile of the over 11,000 Airbnb multi-unit hosts in the 13 markets during the period October 2015 to September 2016 and the percent of hosts that fall into 5 different categories based on the number of active properties that they managed during the year. We separated the hosts between those with just 2 units, and those with 3-5, 6-9, 10-19, and 20 or more. Hosts with 10 or more units only made up 4.2% of the group, but generated 24.8% of multi-unit host revenue (see Figure 4).

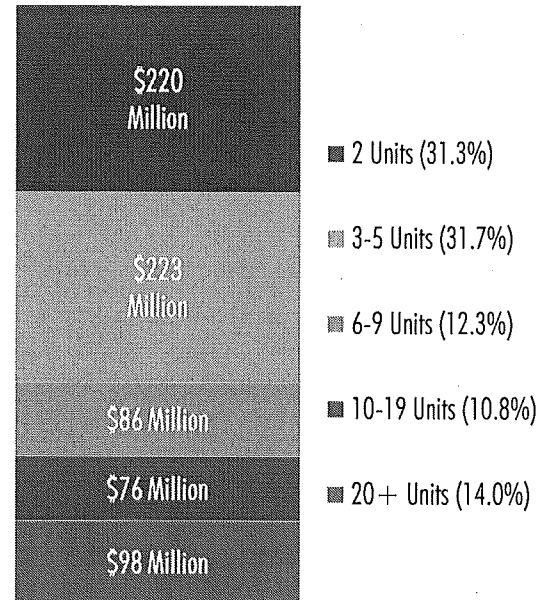
NATIONAL SUMMARY

Figure 3: Percent of Hosts with Multiple Properties by Unit Count in the 13 Highlighted Markets



Source: Airdna, CBRE Hotels' Americas Research, January 2017.

Figure 4: Percent of Revenue Generated by Multi-Unit Hosts by Unit Count in 13 Highlighted Markets



Source: Airdna, CBRE Hotels' Americas Research, January 2017.

City summaries follow in Appendix 1 and 2. These appendices provide more detail of individual city performance and key findings.

Appendix 1: City Tables

The tables in Appendix 1 present the performance of Airbnb in its top 13 U.S. markets. The data is separated out between the performances of single unit hosts vs. multi-unit hosts and then shows the sum of hosts, units, and revenue as a percentage of just entire-home rentals and all hosts, units, and revenue.

Appendix 2: City Overviews

The pages in Appendix 2 give a summary of the important findings that we identified in each market. It also shows the year-over-year change for each market's key performance metrics along with a chart with the monthly percentage of multi-unit hosts, properties, and revenue earned in that market.

APPENDIX 1: CITY TABLES

		ANNUAL TOTALS			% OF ENTIRE-HOME RENTALS			% OF TOTAL			
MARKET		HOST UNITS	HOSTS	UNITS	REVENUE	HOST	UNITS	REVENUE	HOST	UNITS	REVENUE
Austin, TX	Entire Home	1	5,783	6,039	\$60,761,956	91.6%	75.1%	64.7%	62.8%	48.2%	57.0%
		2 +	531	2,006	\$33,108,498	8.4%	24.9%	35.3%	5.8%	16.0%	31.1%
		Total	6,314	8,045	\$93,870,454	100.0%	100.0%	100.0%	68.6%	64.2%	88.1%
	All Other	2,891	4,492	\$12,726,348				31.4%	35.8%	11.9%	
	Market Total ¹	9,205	12,537	\$106,596,802				100.0%	100.0%	100.0%	
Boston, MA	Entire Home	1	4,453	4,656	\$53,103,511	90.5%	69.3%	60.0%	46.8%	32.5%	42.2%
		2 +	470	2,060	\$35,468,573	9.5%	30.7%	40.0%	4.9%	14.4%	28.2%
		Total	4,923	6,716	\$88,572,084	100.0%	100.0%	100.0%	51.7%	46.8%	70.4%
	All Other	4,591	7,631	\$37,286,782				48.3%	53.2%	29.6%	
	Market Total ¹	9,514	14,347	\$125,858,865				100.0%	100.0%	100.0%	
Chicago, IL	Entire Home	1	5,919	6,140	\$49,964,403	91.2%	74.6%	64.3%	54.6%	40.6%	49.4%
		2 +	568	2,096	\$27,697,291	8.8%	25.4%	35.7%	5.2%	13.9%	27.4%
		Total	6,487	8,236	\$77,661,694	100.0%	100.0%	100.0%	59.8%	54.5%	76.7%
	All Other	4,362	6,877	\$23,567,794				40.2%	45.5%	23.3%	
	Market Total ¹	10,849	15,113	\$101,229,488				100.0%	100.0%	100.0%	
Los Angeles, CA	Entire Home	1	16,096	17,074	\$183,736,658	87.3%	66.4%	53.0%	54.4%	37.9%	43.1%
		2 +	2,347	8,646	\$162,958,068	12.7%	33.6%	47.0%	7.9%	19.2%	38.3%
		Total	18,443	25,720	\$346,694,726	100.0%	100.0%	100.0%	62.3%	57.2%	81.4%
	All Other	11,164	19,281	\$79,277,706				37.7%	42.8%	18.6%	
	Market Total ¹	29,607	45,001	\$425,972,432				100.0%	100.0%	100.0%	
Miami, FL	Entire Home	1	6,142	6,773	\$59,482,748	80.8%	46.4%	34.9%	55.8%	32.7%	31.1%
		2 +	1,458	7,814	\$110,840,545	19.2%	53.6%	65.1%	13.2%	37.7%	57.9%
		Total	7,600	14,587	\$170,323,293	100.0%	100.0%	100.0%	69.0%	70.3%	89.0%
	All Other	3,413	6,151	\$21,103,626				31.0%	29.7%	11.0%	
	Market Total ¹	11,013	20,738	\$191,426,920				100.0%	100.0%	100.0%	
Nashville, TN	Entire Home	1	2,635	2,748	\$40,000,630	87.8%	64.1%	57.8%	62.2%	43.9%	50.8%
		2 +	365	1,541	\$29,179,671	12.2%	35.9%	42.2%	8.6%	24.6%	37.0%
		Total	3,000	4,289	\$69,180,300	100.0%	100.0%	100.0%	70.8%	68.5%	87.8%
	All Other	1,239	1,968	\$9,580,576				29.2%	31.5%	12.2%	
	Market Total ¹	4,239	6,257	\$78,760,876				100.0%	100.0%	100.0%	
New Orleans, LA	Entire Home	1	2,932	3,102	\$36,514,525	83.1%	60.8%	50.9%	60.5%	41.2%	43.8%
		2 +	596	1,996	\$35,227,234	16.9%	39.2%	49.1%	12.3%	26.5%	42.3%
		Total	3,528	5,098	\$71,741,759	100.0%	100.0%	100.0%	72.8%	67.8%	86.1%
	All Other	1,321	2,423	\$11,535,326				27.2%	32.2%	13.9%	
	Market Total ¹	4,849	7,521	\$83,277,085				100.0%	100.0%	100.0%	

APPENDIX 1: CITY TABLES

MARKET	HOST UNITS	ANNUAL TOTALS			% OF ENTIRE-HOME RENTALS			% OF TOTAL		
		HOSTS	UNITS	REVENUE	HOST	UNITS	REVENUE	HOST	UNITS	REVENUE
New York, NY	Entire Home 1	30,256	31,676	\$377,636,901	92.2%	81.9%	79.3%	55.1%	43.2%	59.4%
	2 +	2,569	7,011	\$98,316,083	7.8%	18.1%	20.7%	4.7%	9.6%	15.5%
	Total	32,825	38,687	\$475,952,984	100.0%	100.0%	100.0%	59.7%	52.8%	74.9%
	All Other	22,122	34,616	\$159,429,135				40.3%	47.2%	25.1%
	Market Total ¹	54,947	73,303	\$635,382,119				100.0%	100.0%	100.0%
Oahu Island, HI	Entire Home 1	1,905	2,059	\$30,941,237	77.8%	45.2%	37.3%	52.5%	30.3%	31.7%
	2 +	543	2,497	\$52,105,987	22.2%	54.8%	62.7%	15.0%	36.7%	53.5%
	Total	2,448	4,556	\$83,047,224	100.0%	100.0%	100.0%	67.4%	67.0%	85.2%
	All Other	1,184	2,248	\$14,417,743				32.6%	33.0%	14.8%
	Market Total ¹	3,632	6,804	\$97,464,967				100.0%	100.0%	100.0%
Portland, OR	Entire Home 1	3,035	3,146	\$37,111,549	89.9%	75.2%	72.1%	53.9%	40.3%	55.2%
	2 +	341	1,035	\$14,325,336	10.1%	24.8%	27.9%	6.1%	13.3%	21.3%
	Total	3,376	4,181	\$51,436,886	100.0%	100.0%	100.0%	59.9%	53.6%	76.6%
	All Other	2,259	3,617	\$15,738,920				40.1%	46.4%	23.4%
	Market Total ¹	5,635	7,798	\$67,175,806				100.0%	100.0%	100.0%
San Francisco, CA	Entire Home 1	8,337	8,649	\$147,257,809	92.1%	80.1%	79.3%	57.1%	43.1%	59.4%
	2 +	717	2,144	\$38,491,812	7.9%	19.9%	20.7%	4.9%	10.7%	15.5%
	Total	9,054	10,793	\$185,749,621	100.0%	100.0%	100.0%	62.0%	53.8%	74.9%
	All Other	5,550	9,285	\$62,343,404				38.0%	46.2%	25.1%
	Market Total ¹	14,604	20,078	\$248,093,025				100.0%	100.0%	100.0%
Seattle, WA	Entire Home 1	4,460	4,668	\$50,871,054	89.6%	68.5%	60.0%	56.3%	40.0%	47.7%
	2 +	516	2,144	\$33,929,457	10.4%	31.5%	40.0%	6.5%	18.4%	31.8%
	Total	4,976	6,812	\$84,800,511	100.0%	100.0%	100.0%	62.8%	58.4%	79.5%
	All Other	2,952	4,845	\$21,874,659				37.2%	41.6%	20.5%
	Market Total ¹	7,928	11,657	\$106,675,171				100.0%	100.0%	100.0%
Washington, DC	Entire Home 1	5,560	5,805	\$50,293,076	91.6%	72.0%	61.9%	52.7%	37.8%	47.5%
	2 +	512	2,252	\$30,913,737	8.4%	28.0%	38.1%	4.9%	14.7%	29.2%
	Total	6,072	8,057	\$81,206,813	100.0%	100.0%	100.0%	57.6%	52.5%	76.8%
	All Other	4,473	7,282	\$24,590,087				42.4%	47.5%	23.2%
	Market Total ¹	10,545	15,339	\$105,796,900				100.0%	100.0%	100.0%

Sources: Airdna, CBRE Hotels' Americas Research, January 2017.

¹ - Includes All Airbnb Rentals, including Entire Home, Private Room, Share Room, and unique property units

APPENDIX 2: AUSTIN

	ANNUAL AIRBNB PERFORMANCE				YEAR-OVER-YEAR CHANGE		
	HOST UNITS	HOSTS	UNITS	REVENUE	HOSTS	UNITS	REVENUE
Entire Home	1	5,783	6,039	\$60,761,956	35.1%	35.6%	67.6%
	2+	531	2,006	\$33,108,498	53.5%	55.9%	140.1%
	Total	6,314	8,045	\$93,870,454	36.5%	40.1%	87.6%
All Other		2,891	4,492	\$12,726,348	55.4%	56.5%	69.3%
Market Total		9,205	12,537	\$106,596,802	41.9%	45.6%	85.2%

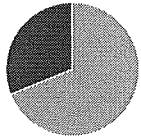
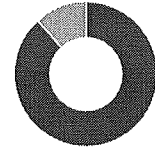
Source: CBRE Hotels' Americas Research, Airdna, January 2017.

+140%

Revenue generated by multi-unit entire-home hosts increased by 140% to now total more than \$33 million

88% of Austin Airbnb revenue comes from entire-home rentals

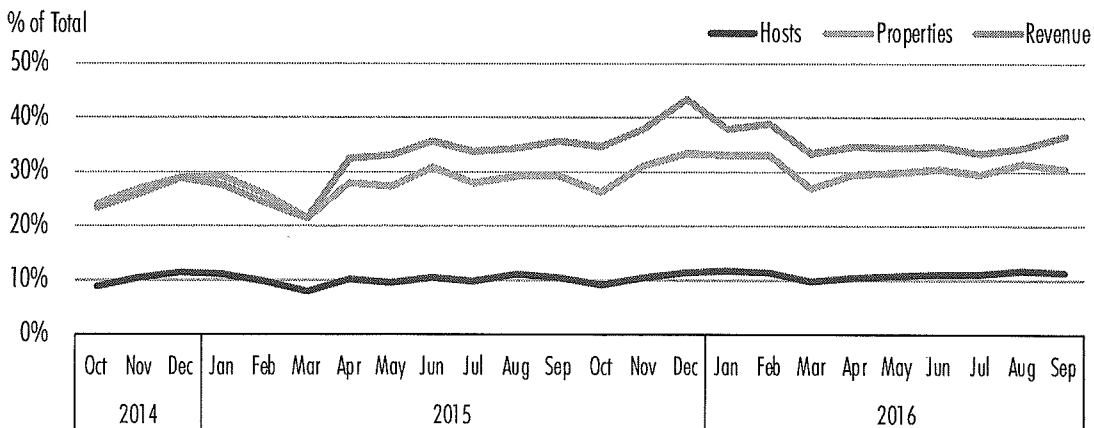
88%



31%

Hosts with 10 or more units earned more than 31% of the total revenue generated by multi-unit hosts

Austin, TX Multi-Unit Hosts as a Percent of All Entire Home Hosts



Source: CBRE Hotels' Americas Research, Airdna, January 2017.

The geographic area for Austin, TX as defined in these analyses encompasses jurisdictions that mandates state and local taxes that range, in aggregate, from 6% to 15%. Allowing for some amount of long-term stay demand, this suggest a potential tax obligation of \$5,000,000 to \$14,000,000.

Range Estimate of Potential Airbnb Tax Revenue - Austin, TX

STATE TAX	CITY TAX	EST. MAX TAX RATE	AIRBNB'S ESTIMATED TAX OBLIGATION
6.0%	9.0%	15.0%	\$5,000,000 - \$14,000,000

APPENDIX 2: BOSTON, MA

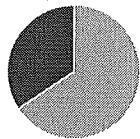
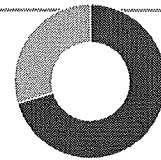
	HOST UNITS	ANNUAL AIRBNB PERFORMANCE			YEAR-OVER-YEAR CHANGE		
		HOSTS	UNITS	REVENUE	HOSTS	UNITS	REVENUE
Entire Home	1	4,453	4,656	\$53,103,511	41.3%	41.0%	93.1%
	2+	470	2,060	\$35,468,573	66.7%	79.9%	136.6%
	Total	4,923	6,716	\$88,572,084	43.4%	51.0%	108.4%
All Other		4,591	7,631	\$37,286,782	39.3%	42.3%	64.6%
Market Total		9,514	14,347	\$125,858,865	41.4%	46.3%	93.2%

Source: CBRE Hotels' Americas Research, Airdna, January 2017.

+137% Revenue generated by multi-unit entire-home hosts increased by 137% to now total more than \$35 Million

70% of Boston Airbnb revenue comes from entire-home rentals

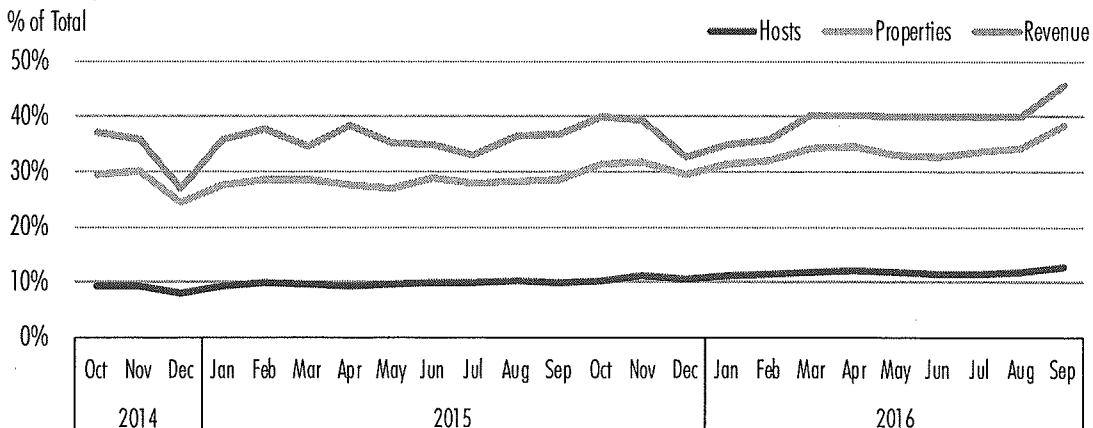
70%



34%

Hosts with 10 or more units earned more than 34% of the total revenue generated by multi-unit hosts

Boston, MA Multi-Unit Hosts as a Percent of All Entire Home Hosts



Source: CBRE Hotels' Americas Research, Airdna, January 2017.

The geographic area for Boston, MA as defined in these analyses encompasses jurisdictions that mandates state and local taxes that range, in aggregate, from 5.7% to 14.5%. Allowing for some amount of long-term stay demand, this suggest a potential tax obligation of \$6,000,000 to \$16,000,000.

Range Estimate of Potential Airbnb Tax Revenue - Boston, MA

STATE TAX	CITY TAX	SPECIAL TAX	EST. MAX TAX RATE	AIRBNB'S ESTIMATED TAX OBLIGATION
5.7%	6.0%	2.75%	14.45%	\$6,000,000 - \$16,000,000

APPENDIX 2: CHICAGO, IL

	HOST UNITS	ANNUAL AIRBNB PERFORMANCE			YEAR-OVER-YEAR CHANGE		
		HOSTS	UNITS	REVENUE	HOSTS	UNITS	REVENUE
Entire Home	1	5,919	6,140	\$49,964,403	37.4%	37.0%	76.6%
	2+	568	2,096	\$27,697,291	68.0%	81.0%	100.2%
	Total	6,487	8,236	\$77,661,694	39.7%	46.0%	84.4%
All Other		4,362	6,877	\$23,567,794	46.2%	51.5%	69.9%
Market Total		10,849	15,113	\$101,229,488	42.2%	48.5%	80.8%

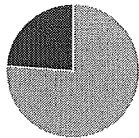
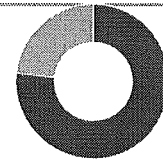
Source: CBRE Hotels' Americas Research, Airdna, January 2017.

+100%

Revenue generated by multi-unit entire-home hosts increased by 100% to now total more than \$27 million

77% of Chicago revenue comes from entire-home rentals

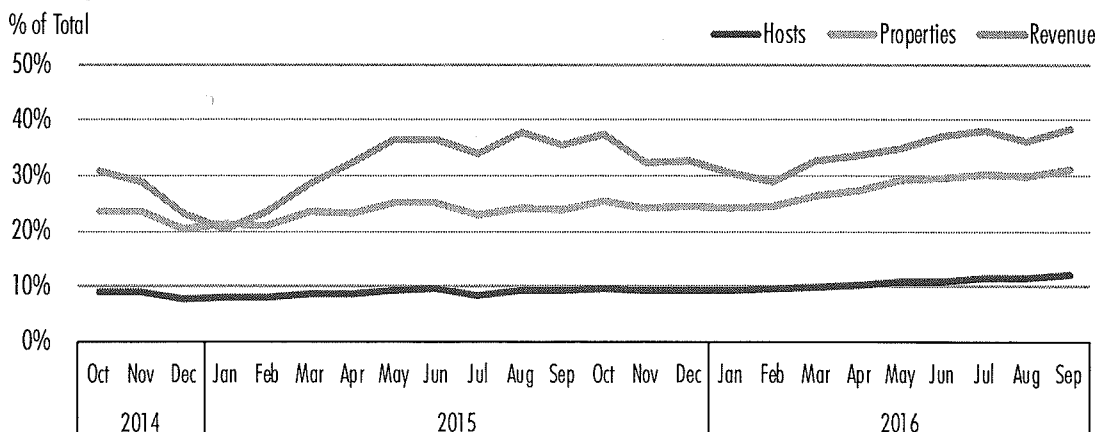
77%



24%

Hosts with 10 or more units earned more than 24% of the total revenue generated by multi-unit hosts

Chicago, IL Multi-Unit Hosts as a Percent of All Entire Home Hosts



Source: CBRE Hotels' Americas Research, Airdna, January 2017.

The geographic area for Chicago, IL as defined in these analyses encompasses jurisdictions that mandates state and local taxes that range, in aggregate, from 11.9% to 21.4%. Allowing for some amount of long-term stay demand, this suggest a potential tax obligation of \$10,000,000 to \$20,000,000.

Range Estimate of Potential Airbnb Tax Revenue - Chicago, IL

STATE TAX	COUNTY TAX	CITY TAX	SPECIAL TAX	RENTAL FEE	EST. MAX TAX RATE	AIRBNB'S ESTIMATED TAX OBLIGATION
6.2%	1.0%	4.5%	5.7%	4.0%	21.4%	\$10,000,000 - \$20,000,000

APPENDIX 2: LOS ANGELES, CA

	HOST UNITS	ANNUAL AIRBNB PERFORMANCE			YEAR-OVER-YEAR CHANGE		
		HOSTS	UNITS	REVENUE	HOSTS	UNITS	REVENUE
Entire Home	1	16,096	17,074	\$183,736,658	37.5%	37.8%	61.7%
	2+	2,347	8,646	\$162,958,068	60.0%	51.7%	87.1%
	Total	18,443	25,720	\$346,694,726	40.0%	42.2%	72.7%
All Other		11,164	19,281	\$79,277,706	49.4%	59.7%	71.6%
Market Total		29,607	45,001	\$425,972,432	43.4%	49.2%	72.5%

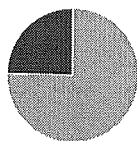
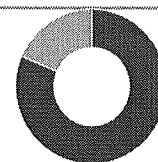
Source: CBRE Hotels' Americas Research, Airdna, January 2017.

+87%

Revenue generated by multi-unit entire-home hosts increased by 87% to now total about \$163 Million

81% of Los Angeles Airbnb revenue comes from entire-home rentals

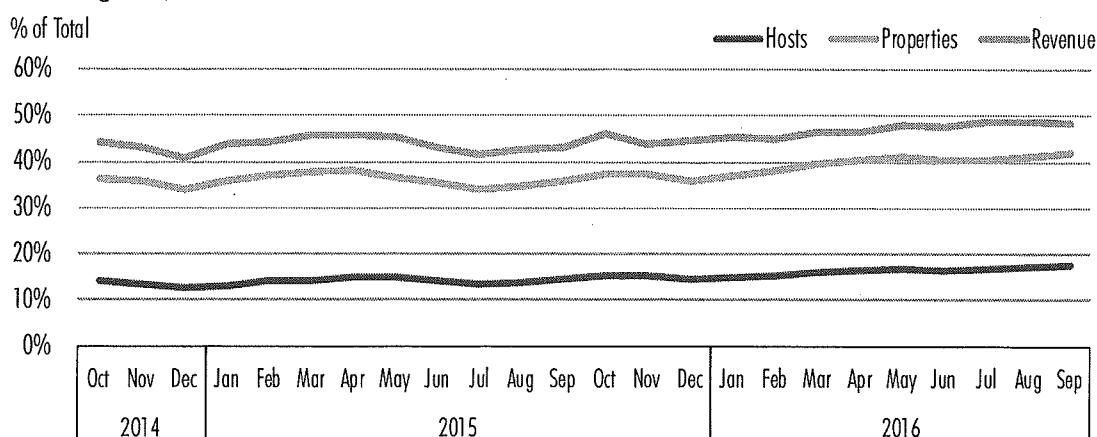
81%



25%

Hosts with 10 or more units earned more than 25% of the total revenue generated by multi-unit hosts

Los Angeles, CA Multi-Unit Hosts as a Percent of All Entire Home Hosts



Source: CBRE Hotels' Americas Research, Airdna, January 2017.

The geographic area for Los Angeles, CA as defined in these analyses encompasses jurisdictions that mandates state and local taxes that range, in aggregate, from 11% to 17%. Allowing for some amount of long-term stay demand, this suggest a potential tax obligation of \$37,000,000 to \$65,000,000.

Range Estimate of Potential Airbnb Tax Revenue - Los Angeles, CA

CITY TAX	SPECIAL TAX	EST. TAX RATE	AIRBNB'S ESTIMATED TAX OBLIGATION
10-14%	1 - 3%	11 - 17%	\$37,000,000 - \$65,000,000

APPENDIX 2: MIAMI, FL

	ANNUAL AIRBNB PERFORMANCE				YEAR-OVER-YEAR CHANGE		
	HOST UNITS	HOSTS	UNITS	REVENUE	HOSTS	UNITS	REVENUE
Entire Home	1	6,142	6,773	\$59,482,748	73.5%	72.3%	86.0%
	2+	1,458	7,814	\$110,840,545	57.3%	69.2%	105.5%
	Total	7,600	14,587	\$170,323,293	70.1%	70.6%	98.2%
All Other		3,413	6,151	\$21,103,626	98.4%	100.6%	96.3%
Market Total		11,013	20,738	\$191,426,920	78.0%	78.5%	98.0%

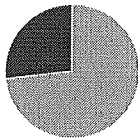
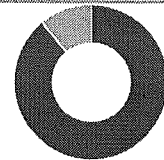
Source: CBRE Hotels' Americas Research, Airdna, January 2017.

+105%

Revenue generated by multi-unit entire-home hosts increased by 105% to now total more than \$110 Million

89% of Miami Airbnb revenue comes from entire-home rentals

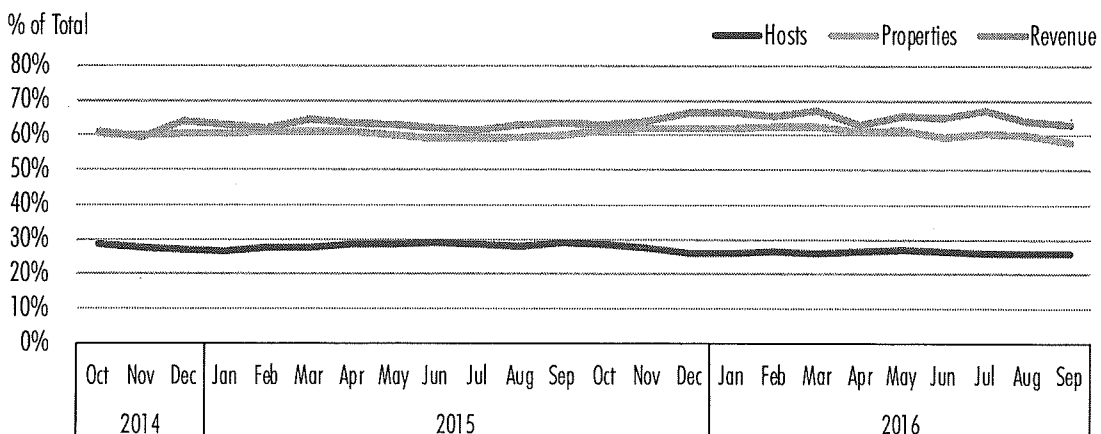
89%



27%

Hosts with 20 or more units earned more than 27% of the total revenue generated by multi-unit hosts

Miami, FL Multi-Unit Hosts as a Percent of All Entire Home Hosts



Source: CBRE Hotels' Americas Research, Airdna, January 2017.

The geographic area for Miami, FL as defined in these analyses encompasses jurisdictions that mandates state and local taxes that range, in aggregate, from 6% to 14%. Allowing for some amount of long-term stay demand, this suggest a potential tax obligation of \$9,000,000 to \$24,000,000.

Range Estimate of Potential Airbnb Tax Revenue - Miami, FL

STATE TAX	CITY TAX	COUNTY TAX	EST. MAX TAX RATE	AIRBNB'S ESTIMATED TAX OBLIGATION
6.0%	7.0%	1.0%	14.0%	\$9,000,000 - \$24,000,000

APPENDIX 2: NASHVILLE, TN

	ANNUAL AIRBNB PERFORMANCE				YEAR-OVER-YEAR CHANGE		
	HOST UNITS	HOSTS	UNITS	REVENUE	HOSTS	UNITS	REVENUE
Entire Home	1	2,635	2,748	\$40,000,630	90.4%	91.4%	230.2%
	2+	365	1,541	\$29,179,671	128.1%	161.2%	390.8%
	Total	3,000	4,289	\$69,180,300	94.3%	111.7%	283.1%
All Other		1,239	1,968	\$9,580,576	64.5%	69.7%	172.6%
Market Total ¹		4,239	6,257	\$78,760,876	84.5%	96.4%	265.1%

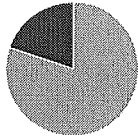
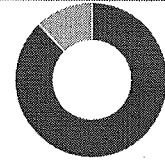
Source: CBRE Hotels' Americas Research, Airdna, January 2017.

+391%

Revenue generated by multi-unit entire-home hosts increased by 391% to now total more than \$29 Million

88% of Nashville Airbnb revenue comes from entire-home rentals

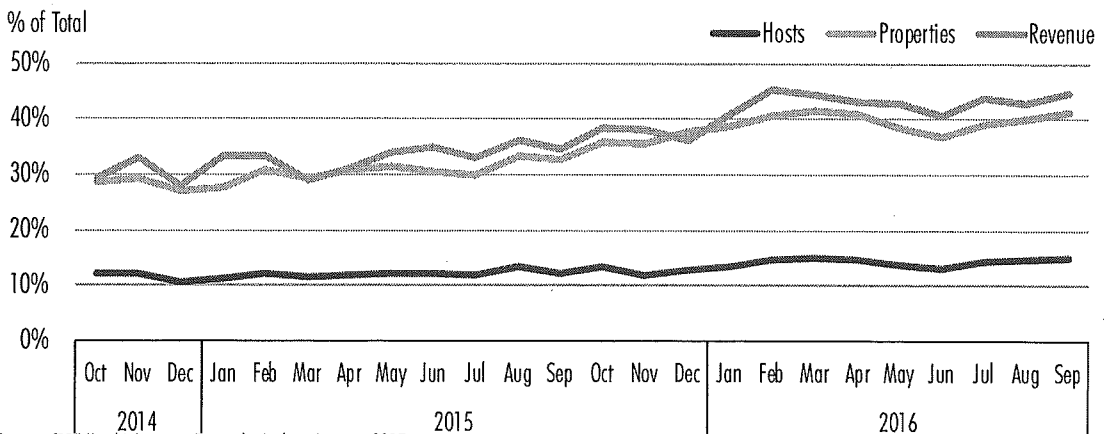
88%



20%

Hosts with 20 or more units earned more than 20% of the total revenue generated by multi-unit hosts

Nashville, TN Multi-Unit Hosts as a Percent of All Entire Home Hosts



Source: CBRE Hotels' Americas Research, Airdna, January 2017.

The geographic area for Nashville, TN as defined in these analyses encompasses jurisdictions that mandates state and local taxes that range, in aggregate, from 7% to 15.25%. Allowing for some amount of long-term stay demand, this suggest a potential tax obligation of \$4,000,000 to \$12,000,000.

Range Estimate of Potential Airbnb Tax Revenue - Nashville, TN

STATE TAX	CITY TAX	CITY FEE	COUNTY TAX	EST. MAX TAX RATE	AIRBNB'S ESTIMATED TAX OBLIGATION
7.0%	6.0%	\$2.50 per Night	2.25%	15.25% + FEE	\$4,000,000 - \$12,000,000

APPENDIX 2: NEW ORLEANS, LA

	ANNUAL AIRBNB PERFORMANCE				YEAR-OVER-YEAR CHANGE		
	HOST UNITS	HOSTS	UNITS	REVENUE	HOSTS	UNITS	REVENUE
Entire Home	1	2,932	3,102	\$36,514,525	71.5%	70.9%	106.8%
	2+	596	1,996	\$35,227,234	100.7%	119.3%	200.0%
	Total	3,528	5,098	\$71,741,759	75.8%	87.1%	144.0%
All Other		1,321	2,423	\$11,535,326	33.8%	44.8%	72.5%
Market Total		4,849	7,521	\$83,277,085	62.0%	71.0%	130.8%

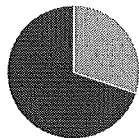
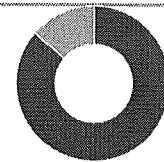
Source: CBRE Hotels' Americas Research, Airdna, January 2017.

+200%

Revenue generated by multi-unit entire-home hosts increased by 200% to now total more than \$35 Million

86% of New Orleans Airbnb revenue comes from entire-home rentals

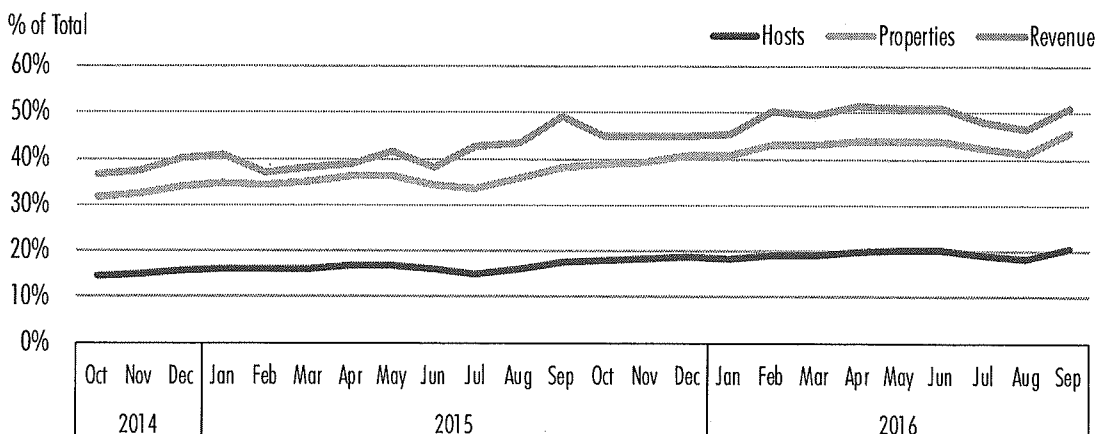
86%



70%

Hosts with 3 or more units earned 70% of the total revenue generated by multi-unit hosts

New Orleans, LA Multi-Unit Hosts as a Percent of All Entire Home Hosts



Source: CBRE Hotels' Americas Research, Airdna, January 2017.

The geographic area for New Orleans, LA as defined in these analyses encompasses jurisdictions that mandates state and local taxes that range, in aggregate, from 4% to 14.7%. Allowing for some amount of long-term stay demand, this suggest a potential tax obligation of \$3,000,000 to \$11,000,000.

Range Estimate of Potential Airbnb Tax Revenue - New Orleans, LA

STATE TAX	COUNTY TAX	CITY TAX	SPECIAL TAX	EST. MAX TAX RATE	AIRBNB'S ESTIMATED TAX OBLIGATION
4.0%	5.0%	4.0%	1.7%	14.7%	\$3,000,000 - \$11,000,000

APPENDIX 2: NEW YORK, NY

	HOST UNITS	ANNUAL AIRBNB PERFORMANCE			YEAR-OVER-YEAR CHANGE		
		HOSTS	UNITS	REVENUE	HOSTS	UNITS	REVENUE
Entire Home	1	30,256	31,676	\$377,636,901	23.1%	23.4%	52.5%
	2+	2,569	7,011	\$98,316,083	38.8%	34.2%	5.4%
	Total	32,825	38,687	\$475,952,984	24.2%	25.3%	39.6%
All Other		22,122	34,616	\$159,429,135	28.8%	31.7%	36.8%
Market Total		54,947	73,303	\$635,382,119	26.0%	28.2%	38.9%

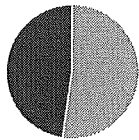
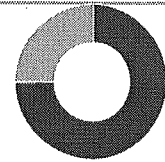
Source: CBRE Hotels' Americas Research, Airdna, January 2017.

\$98 Million

Revenue generated by multi-unit entire-home hosts increased by 5% to now total more than \$98 Million

75% of New York's Airbnb revenue comes from entire-home rentals

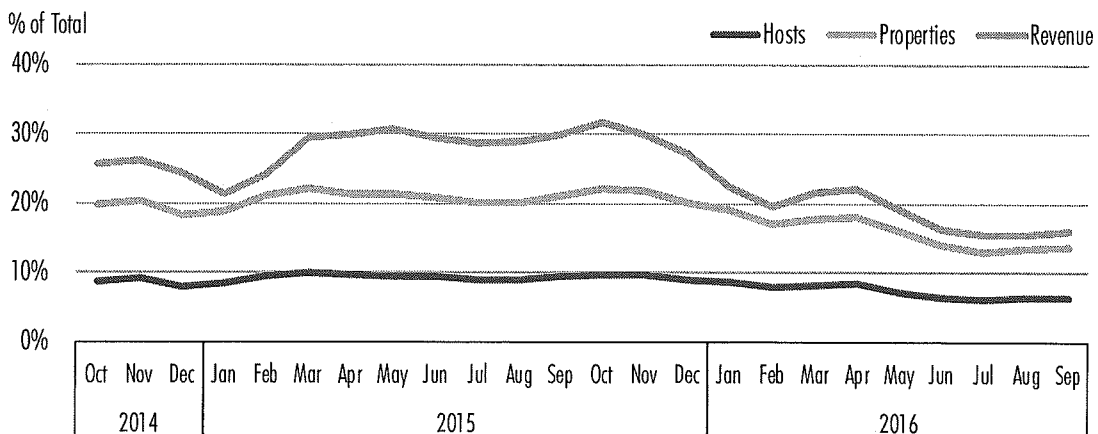
75%



48%

Hosts with 3 or more units earned 48% of the total revenue generated by multi-unit hosts

New York, NY Multi-Unit Hosts as a Percent of All Entire-Home Hosts



Source: CBRE Hotels' Americas Research, Airdna, January 2017.

The geographic area for New York, NY as defined in these analyses encompasses jurisdictions that mandates state and local taxes that range, in aggregate, from 4% to 14.75%. Allowing for some amount of long-term stay demand, this suggest a potential tax obligation of \$20,000,000 to \$92,000,000.

Range Estimate of Potential Airbnb Tax Revenue - New York, NY

STATE TAX	CITY TAX	CITY & STATE FEES	EST. MAX TAX RATE	AIRBNB'S ESTIMATED TAX OBLIGATION
4.0%	10.75%	\$3.50 Per Day Per Room	14.75% + FEE	\$20,000,000 - \$92,000,000

APPENDIX 2: OAHU ISLAND, HI

	HOST UNITS	ANNUAL AIRBNB PERFORMANCE			YEAR-OVER-YEAR CHANGE		
		HOSTS	UNITS	REVENUE	HOSTS	UNITS	REVENUE
Entire Home	1	1,905	2,059	\$30,941,237	81.8%	78.6%	138.9%
	2+	543	2,497	\$52,105,987	97.5%	124.6%	226.5%
	Total	2,448	4,556	\$83,047,224	85.0%	101.1%	187.3%
All Other		1,184	2,248	\$14,417,743	60.4%	77.0%	122.6%
Market Total		3,632	6,804	\$97,464,967	76.2%	92.5%	175.4%

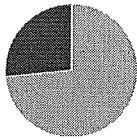
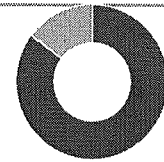
Source: CBRE Hotels' Americas Research, Airdna, January 2017.

+227%

Revenue generated by multi-unit entire-home hosts increased by 227% to now total more than \$52 Million

85% of Oahu Airbnb revenue comes from entire-home rentals

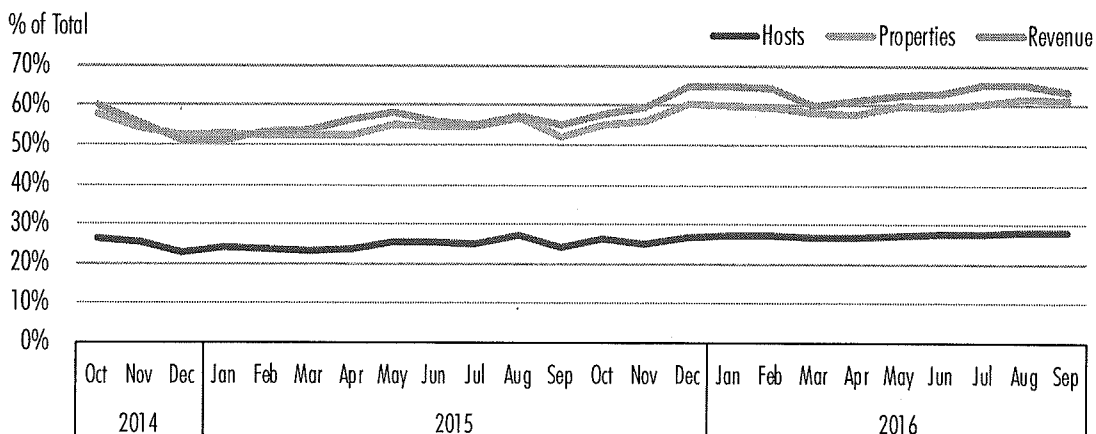
85%



27%

Hosts with 20 or more units earned more than 27% of the total revenue generated by multi-unit hosts

Oahu Island, HI Multi-Unit Hosts as a Percent of All Entire Home Hosts



Source: CBRE Hotels' Americas Research, Airdna, January 2017.

The geographic area for Oahu Island, HI as defined in these analyses encompasses jurisdictions that mandates state and local taxes that range, in aggregate, from 13.5% to 14%. Allowing for some amount of long-term stay demand, this suggest a potential tax obligation of \$10,000,000 to \$12,000,000.

Range Estimate of Potential Airbnb Tax Revenue - Oahu Island, HI

STATE TAX	COUNTY TAX	EST. MAX TAX RATE	AIRBNB'S ESTIMATED TAX OBLIGATION
13.46%	0.5%	13.96%	\$10,000,000 - \$12,000,000

APPENDIX 2: PORTLAND, OR

	HOST UNITS	ANNUAL AIRBNB PERFORMANCE			YEAR-OVER-YEAR CHANGE		
		HOSTS	UNITS	REVENUE	HOSTS	UNITS	REVENUE
Entire Home	1	3,035	3,146	\$37,111,549	50.2%	50.2%	93.6%
	2 +	341	1,035	\$14,325,336	73.1%	83.8%	123.3%
	Total	3,376	4,181	\$51,436,886	52.2%	57.3%	101.0%
All Other		2,259	3,617	\$15,738,920	43.9%	49.0%	83.4%
Market Total		5,635	7,798	\$67,175,806	48.8%	53.4%	96.6%

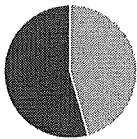
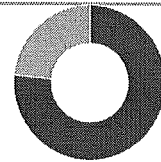
Source: CBRE Hotels' Americas Research, Airdna, January 2017.

+123%

Revenue generated by multi-unit entire-home hosts increased by 123% to now total more than \$14 Million

77% of Portland Airbnb revenue comes from entire-home rentals

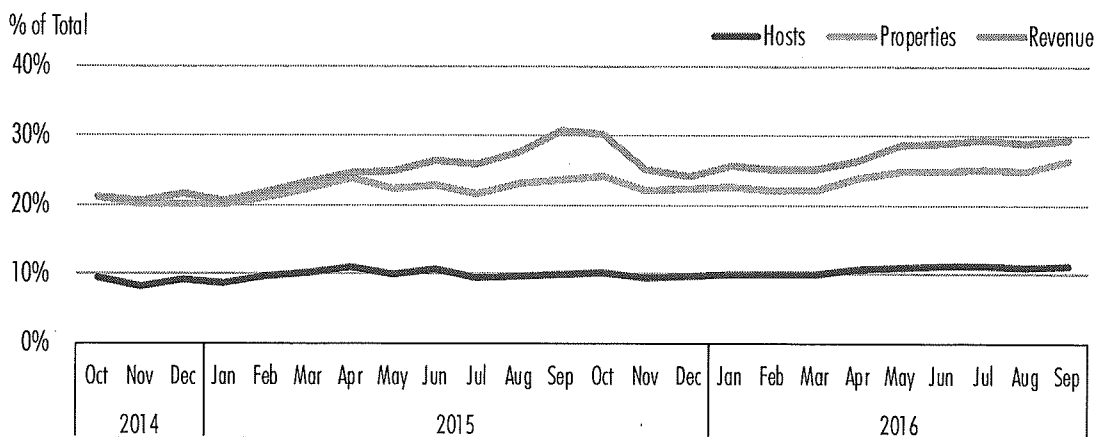
77%



54%

Hosts with 3 or more units earned 54% of the total revenue generated by multi-unit hosts

Portland, OR Multi-Unit Hosts as a Percent of All Entire Home Hosts



Source: CBRE Hotels' Americas Research, Airdna, January 2017.

The geographic area for Portland, OR as defined in these analyses encompasses jurisdictions that mandates state and local taxes that range, in aggregate, from 9% to 12.5%. Allowing for some amount of long-term stay demand, this suggest a potential tax obligation of \$5,000,000 to \$8,000,000.

Range Estimate of Potential Airbnb Tax Revenue - Portland, OR

STATE TAX	CITY TAX	COUNTY TAX	EST. MAX TAX RATE	AIRBNB'S ESTIMATED TAX OBLIGATION
1.0%	6.0%	5.5 - 9%	12.5%	\$5,000,000 - \$8,000,000

APPENDIX 2: SAN FRANCISCO, CA

	HOST UNITS	ANNUAL AIRBNB PERFORMANCE			YEAR-OVER-YEAR CHANGE		
		HOSTS	UNITS	REVENUE	HOSTS	UNITS	REVENUE
Entire Home	1	8,337	8,649	\$147,257,809	22.9%	22.8%	66.4%
	2+	717	2,144	\$38,491,812	35.3%	35.9%	34.3%
	Total	9,054	10,793	\$185,749,621	23.8%	25.2%	58.5%
All Other		5,550	9,285	\$62,343,404	15.8%	20.6%	36.9%
Market Total		14,604	20,078	\$248,093,025	20.6%	23.0%	52.5%

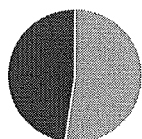
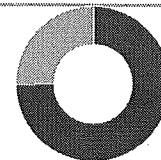
Source: CBRE Hotels' Americas Research, Airdna, January 2017.

\$38.5 Million

Revenue generated by multi-unit entire-home hosts increased by 34% to now total more than \$38.5 Million

75% of San Francisco Airbnb revenue comes from entire-home rentals

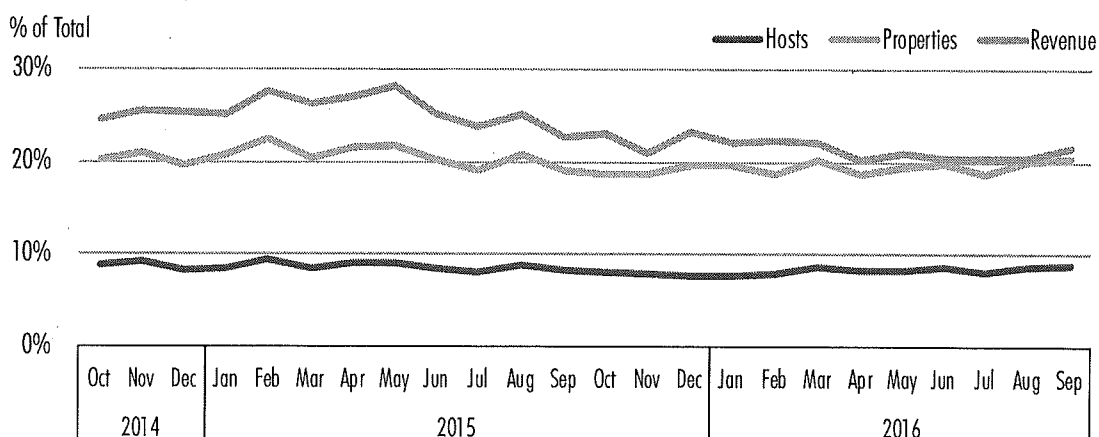
75%



48%

Hosts with 3 or more units earned 48% of the total revenue generated by multi-unit hosts

San Francisco, CA Multi-Unit Hosts as a Percent of All Entire Home Hosts



Source: CBRE Hotels' Americas Research, Airdna, January 2017.

The geographic area for San Francisco, CA as defined in these analyses encompasses jurisdictions that mandates state and local taxes that range, in aggregate, from 9% to 14%. Allowing for some amount of long-term stay demand, this suggest a potential tax obligation of \$17,000,000 to \$30,000,000.

Range Estimate of Potential Airbnb Tax Revenue - San Francisco, CA

CITY TAX	EST. TAX RATE	AIRBNB'S ESTIMATED TAX OBLIGATION
9-14%	9-14%	\$17,000,000 - \$30,000,000

APPENDIX 2: SEATTLE, WA

	HOST UNITS	ANNUAL AIRBNB PERFORMANCE			YEAR-OVER-YEAR CHANGE		
		HOSTS	UNITS	REVENUE	HOSTS	UNITS	REVENUE
Entire Home	1	4,460	4,668	\$50,871,054	52.1%	53.4%	94.9%
	2+	516	2,144	\$33,929,457	77.3%	102.6%	182.7%
	Total	4,976	6,812	\$84,800,511	54.3%	66.1%	122.5%
All Other		2,952	4,845	\$21,874,659	56.3%	61.4%	86.8%
Market Total		7,928	11,657	\$106,675,171	55.1%	64.1%	114.1%

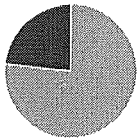
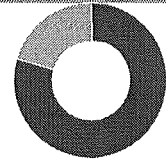
Source: CBRE Hotels' Americas Research, Airdna, January 2017.

+183%

Revenue generated by multi-unit entire-home hosts increased by 183% to now total almost \$34 million

79% of Seattle Airbnb revenue comes from entire-home rentals

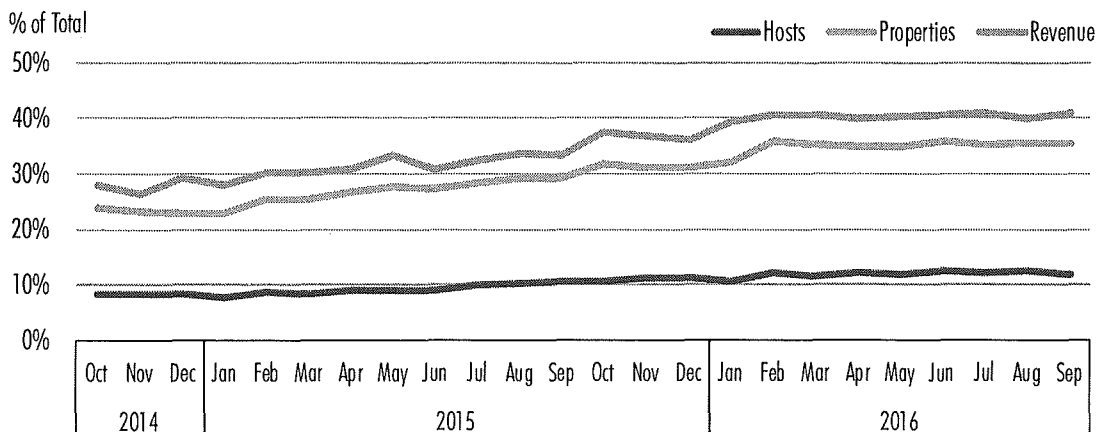
79%



23%

Hosts with 20 or more units earned more than 23% of the total revenue generated by multi-unit hosts

Seattle, WA Multi-Unit Hosts as a Percent of All Entire Home Hosts



Source: CBRE Hotels' Americas Research, Airdna, January 2017.

The geographic area for Seattle, WA as defined in these analyses encompasses jurisdictions that mandates state and local taxes that range, in aggregate, from 6.5% to 15.6%. Allowing for some amount of long-term stay demand, this suggest a potential tax obligation of \$5,000,000 to \$15,000,000.

Range Estimate of Potential Airbnb Tax Revenue - Seattle, WA

STATE TAX	CITY TAX	COUNTY	EST. MAX TAX RATE	AIRBNB'S ESTIMATED TAX OBLIGATION
6.5%	7.1%	2.0%	15.6%	\$5,000,000 - \$15,000,000

APPENDIX 2: WASHINGTON, DC

	HOST UNITS	ANNUAL AIRBNB PERFORMANCE			YEAR-OVER-YEAR CHANGE		
		HOSTS	UNITS	REVENUE	HOSTS	UNITS	REVENUE
Entire Home	1	5,560	5,805	\$50,293,076	40.1%	40.4%	66.8%
	2+	512	2,252	\$30,913,737	69.0%	84.0%	134.2%
	Total	6,072	8,057	\$81,206,813	42.2%	50.3%	87.3%
All Other		4,473	7,282	\$24,590,087	52.5%	58.6%	62.6%
Market Total		10,545	15,339	\$105,796,900	46.4%	54.1%	80.9%

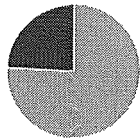
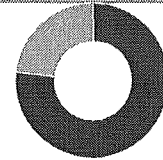
Source: CBRE Hotels' Americas Research, Airdna, January 2017.

+134%

Revenue generated by multi-unit entire-home hosts increased by 134% to now total almost \$31 million

77% of Washington, DC Airbnb revenue comes from entire-home rentals

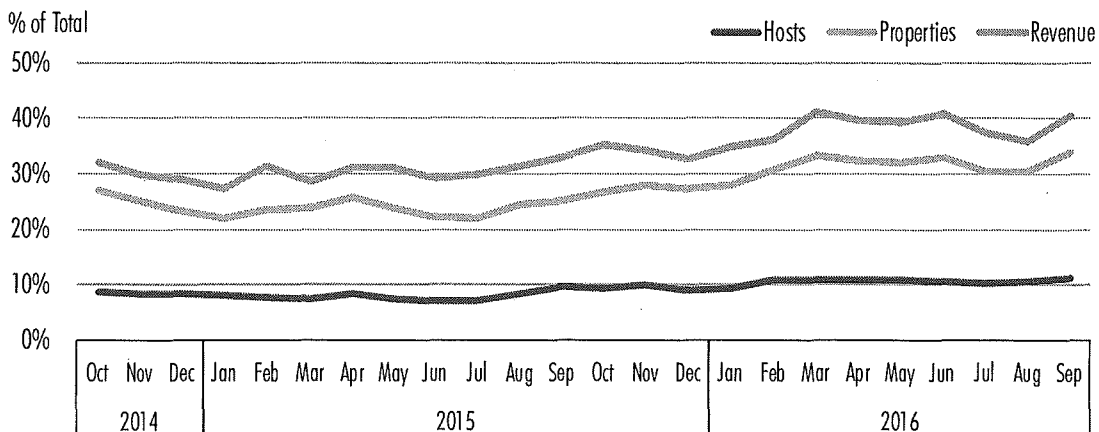
77%



24%

Hosts with 20 or more units earned more than 24% of the total revenue generated by multi-unit hosts

Washington, DC Multi-Unit Hosts as a Percent of All Entire Home Hosts



Source: CBRE Hotels' Americas Research, Airdna, January 2017.

The geographic area for Washington DC, as defined in these analyses encompasses jurisdictions that mandates state and local taxes that range, in aggregate, from 6% to 14.5%. Allowing for some amount of long-term stay demand, this suggest a potential tax obligation of \$5,000,000 to \$14,000,000.

Range Estimate of Potential Airbnb Tax Revenue - Washington, DC

STATE TAX	CITY TAX	EST. MAX TAX RATE	AIRBNB'S ESTIMATED TAX OBLIGATION
0- 6%	6 - 14.5%	6-14.5%	\$5,000,000 - \$14,000,000

CONTACTS

Jamie Lane

Senior Economist

CBRE Hotels' Americas Research

+1 404 812 5045

jamie.lane@cbre.com

Twitter: @Jamie_Lane

R. Mark Woodworth

Senior Managing Director and Head of Lodging Research

CBRE Hotels' Americas Research

+1 404 812 5085

mark.woodworth@cbre.com

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