



# Hawaii's Home and Vacation Rental Market: Impact and Outlook

Prepared for Hawaii Tourism Authority

December 29, 2016



# Executive Summary

# ■ Executive Summary

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## Summary of Key Findings and Estimates

- The share of visitors that stayed in a “Rental House” increased from 4.6% in 2010 to 7.4% in 2015 according to HTA.
- Hotel occupied room nights per Hawaii visitor arrival has decreased by 12% during the past five years as home and vacation rentals become more prevalent.
- However, as is explored in this report, home and vacation rentals appear to be growing the pie rather than purely taking share from hotels.
- Those who stay in home/vacation rentals seem to do this on most visits; there does not seem to be as much overlap between hotel users and those who stay in home/vacation rentals.
- The market sees a segment of travelers who only/predominately stay in home and vacation rentals due to their preference or rate sensitivity.
- The home and vacation rental market in Hawaii is already well established and not an exploding phenomenon. According to JLL’s surveys, 38% of visitors said they expect their use of home/vacation rentals to increase in the future.
- In major urban markets (non-resort markets) that JLL surveyed, this proportion was higher, suggesting that the business model of staying in home/vacation rentals in Hawaii is more established and mature, and as such not seeing as high of a growth rate as in New York, Austin, San Francisco, Nashville, etc.
- One of the main drivers is the relatively lower cost: the median nightly rate of home and vacation rentals was estimated at \$170, vs. hotel the 2015 average daily rate of \$244.
- Only a small share of respondents indicated that they booked a vacation or home rental due to hotels being sold out. This suggests that a significant portion of home and vacation rental guests in Hawaii do not view hotels as a substitute.

# ■ Executive Summary

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## Summary of Key Findings and Estimates (Continued)

- One-third of visitors surveyed indicated they chose to stay at home and vacation rentals because it enables them to stay outside of traditional hotel zones and because they enjoy the greater individuality.
- The two most common reasons for using home or vacation rentals are the relatively lower cost and more flexible/larger accommodations, which suggests those travelers would be less likely to travel to Hawaii if this option were not available.
- The average party size of home rental users served was 3.4 people, vs. 2.2 for Hawaii visitors as a whole. A party of 3.4 people would generally need to book two hotel rooms, highlighting the relative price savings for home and vacation rentals.
- 61% of visitors surveyed paid less per night for home and vacation rentals than the state's hotel average daily rate.
- This proportion is deemed to represent *induced demand* resulting from the existence of the home/vacation rental market.
- 15% of respondents indicated they would not have made the trip had it not been for the alternative accommodations option.
- 9% of residents have made their residential unit available for visiting guests through vacation and home rental sites. On average, these units are occupied 42% of the time.
- Of those who have not rented their unit out in the past, 6.8% are either "somewhat likely" or "very likely" to make their residential unit available as a home or vacation rental in the future.
- JLL estimates that the share will grow from 9% to 12% during the next five years.
- This breakdown of future likelihood is in line with surveys that JLL has conducted in other U.S. markets and suggests that the business model has reached a slowdown in growth, and that there is a structural ceiling in terms of the willing hosts in the future. This will be further impacted as regulatory bodies impact the industry in the future.
- Both hotels and home/vacation rentals are expected to remain prevalent going forward and offer diversification of accommodations options for visitors.
- The next page depicts a summary of the total estimated spend associated with home and vacation rental activity in Hawaii in terms of accommodations spend and all other spend, along with the associated economic impact.

# Executive Summary

## Market size and impact today and future by the numbers

Key Estimates (\$ Millions)	
<b>Total Estimated Spend Resulting from Home and Vacation Rental Guests (Accommodations Spend Plus All Other Spend)</b>	
2016	\$ 3,068
2021F	\$ 4,902
<b>Hawaii Visitor Spend Impact From Induced Demand to Islands Because of Option to Stay at Home and Vacation Rentals (Accommodations Spend Plus All Other Spend)</b>	
2016	\$ 1,872
2021F	\$ 2,990



Economic Impact (\$ Millions, except Jobs)			
Output multiplier (2007 I/O model)	Income multiplier (2007 I/O model)	Total Job multiplier (2007 I/O model)	State tax multiplier (2007 I/O model)
1.660	0.470	11.200	0.107
Sales generated (direct, indirect, and induced)	Household income generated (direct, indirect, and induced)	Number of jobs supported <sup>1</sup> (direct, indirect, and induced)	State government tax revenue generated (direct, indirect, and induced)
\$ 5,092.9	\$ 1,442.0	34,000	\$ 326.7
\$ 8,136.5	\$ 2,303.7	55,000	\$ 522.0
Sales generated (direct, indirect, and induced)	Household income generated (direct, indirect, and induced)	Number of jobs supported <sup>1</sup> (direct, indirect, and induced)	State government tax revenue generated (direct, indirect, and induced)
\$ 3,106.7	\$ 879.6	21,000	\$ 199.3
\$ 4,963.2	\$ 1,405.3	33,000	\$ 318.4

Source: JLL

<sup>1</sup>According to HTA and DBEDT, these jobs may not be new jobs. Multipliers pertain to DBEDT 2007 I-O Model, Type II multiplier  
Source: HTA, DBEDT, JLL

- As is explained throughout this report, the total spend associated with home and vacation rentals is estimated at \$3.1 billion in 2016—a figure expected to grow to \$4.9 billion in 2021. This encompasses accommodations and other spend such as food and beverage, transportation and retail.
- As depicted in the report, 61% of this activity is deemed induced, meaning that it would not exist if it were not for the existence of the home and vacation rental market in Hawaii.
- The economic impact in terms of sales generated from the spend in 2016 is \$5.1 billion; the associated household income generated is \$1.4 billion, and the estimated number of jobs supported totals 34,000.
- JLL also computed the Transient Accommodations Tax resulting from home and vacation rental stays in Hawaii, along with the maximum potential non-realized hotel tax receipts due to displacement resulting from home and vacation rental stays (depicted to the right).

Key Estimates (\$ Millions)	
<b>Transient Accommodations Tax on Hawaii's Estimated Home and Vacation Rental Room Nights</b>	
2016	\$ 109
2021F	\$ 173
<b>Maximum Potential Non-Realized Hotel Tax Receipts due to Displacement Resulting from Home and Vacation Rental Room Nights</b>	
2016	\$ 138
2021F	\$ 220

Source: JLL

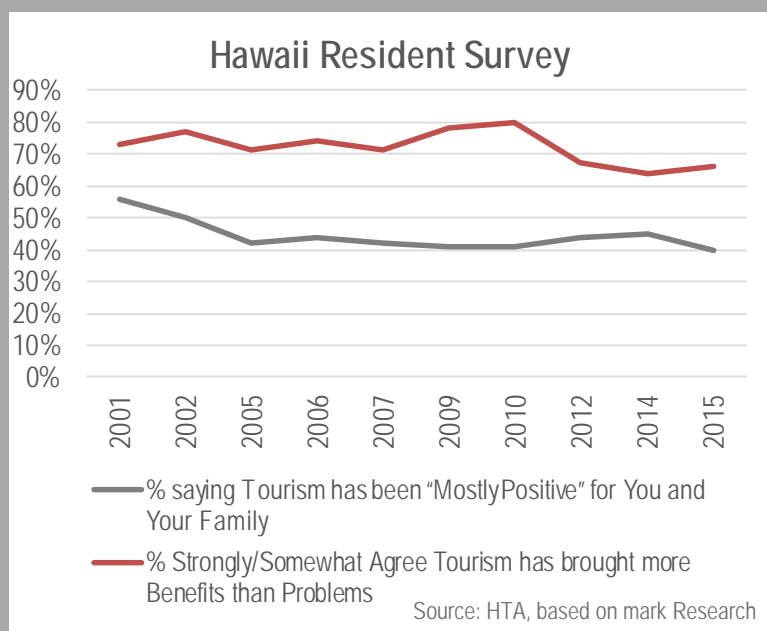




# Executive Summary

## Additional observations

1. There is a need to incorporate the shared accommodations industry into community/economic development planning.
2. The impact of shared accommodations on housing prices and affordability has been raised in this process.
3. The ability to retain home ownership tends to be positively impacted by income generated by shared accommodations.
4. A form of regulation including a permitting process is anticipated by the industry.
5. The scarcity of land for major hotel development has underpinned the prevalence of shared accommodations.
6. Given that home and vacation rentals and alternative accommodations are an “accordion” of supply, there can be positive implications for the meetings and conference industry in terms of there being more availability of accommodations.



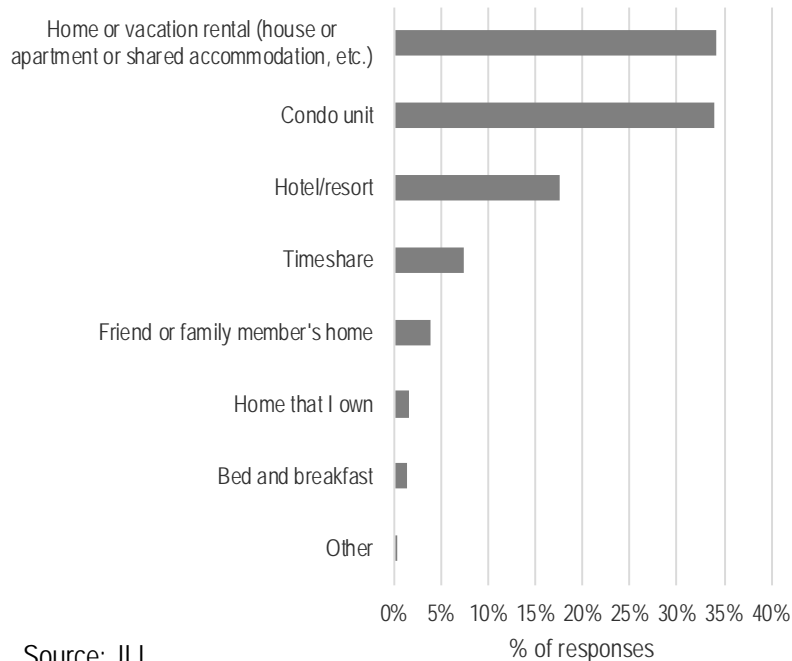
- Based on HTA's annual tourism report, Resident Sentiment has marked some change in recent years, with the proportion of residents agreeing that “tourism brings more benefits than problems” seeing a decrease from 2010 levels.
- The curve has been moving downward during a period when the prevalence of visitors indicating they've stayed at a home or vacation rental has risen.
- At the same time, the proportion of Hawaii residents indicating that “tourism is mostly good for them” has recently marked a decline and is at the survey low-point.
- The figures can in part be interpreted to suggest that residents feel the additional visitor arrivals that result from home and vacation rentals increase the demands on residential neighborhoods and overall infrastructure, which supports that there is a need to incorporate the shared accommodations industry into community/economic development planning.
- At the same time, some growth in the share of respondents saying ‘tourism has been good for their family’ (up until the decline in 2015) can in part be attributed to income earned by owners of the residential units—as addressed in this report, 60% of residents surveyed by JLL indicated that one of the reasons they make their residential unit available is to subsidize their housing cost.

# Evaluation of JLL Visitor Survey

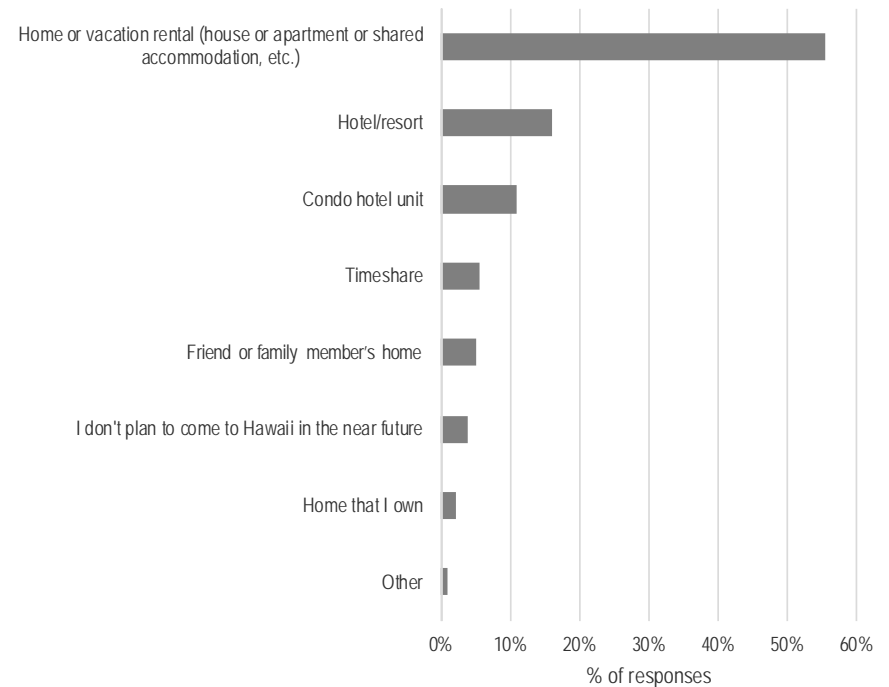
# Evaluation of JLL Visitor Survey

Frequent home or vacation rental users exhibit relatively low overlap with hotel guests

During your visit(s) to Hawaii within the past 24 months, where did you stay?



Where do you plan to stay on your next trip to Hawaii?



Source: JLL

- JLL was provided with a list of approximately 33,000 recent visitors to Hawaii who had indicated in their visitor surveys that they stayed in a "Rental House".
- This subset of visitors to Hawaii was then contacted by JLL, and it was ascertained that the highest stay category was "home or vacation rental".
- The response for "condo" was the second highest, but this can often be understood as the same category as "home or vacation rental". It is deemed that the vast proportion of respondents who selected "condo" booked it as a home or vacation rental.
- Another 18% indicated they also stayed in hotels on the same or additional trips, suggesting that a relatively small proportion of home or vacation rental users views hotels as a substitute.
- Of those surveyed, the highest proportion of respondents say they plan on using a home or vacation rental again on their next trip to Hawaii.

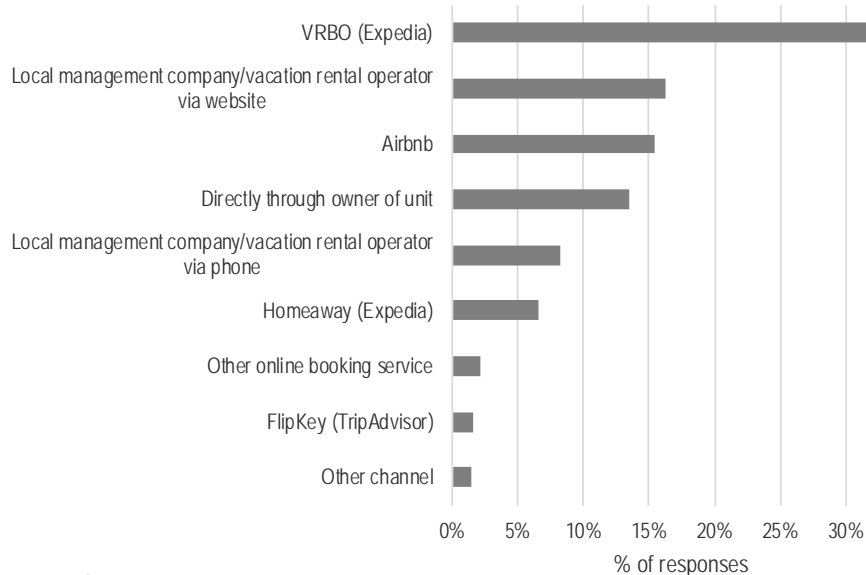




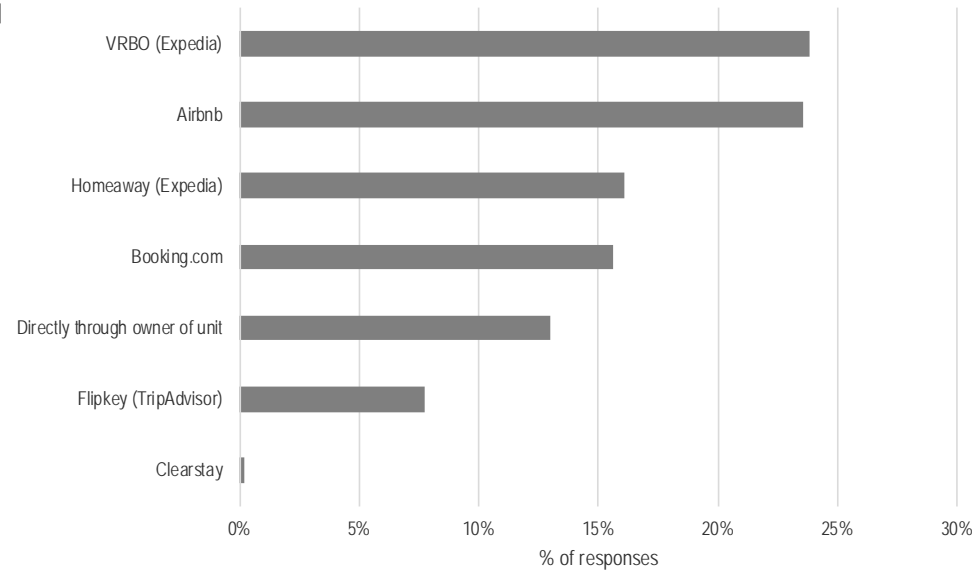
# Evaluation of JLL Visitor Survey

VRBO is biggest source of bookings, according to survey

How did you book your stay(s) at the home or vacation rental previously referenced?



Please tell us which of the below booking sources for home or vacation rentals you've heard of, even if you have not used them or booked through them.



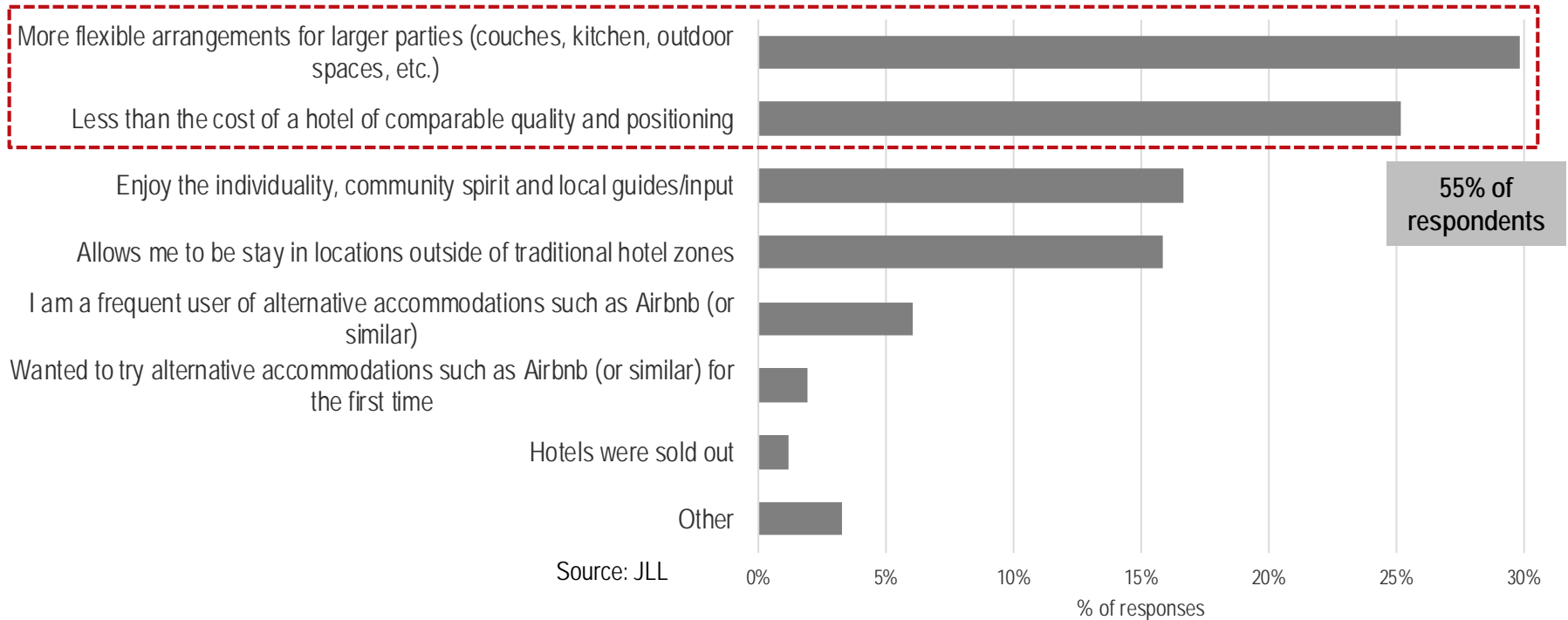
Source: JLL

- Some 33% of visitors surveyed indicated that they booked their recent stays through VRBO, with local management companies and Airbnb being roughly tied for second place.
- When it comes to name recognition, an equal share of respondents have heard of VRBO and Airbnb.

# ■ Evaluation of JLL Visitor Survey

Accommodations layout and lower cost are primary motivations to use home and vacation rentals vs. hotels in Hawaii; hotels not a big substitute for home and vacation rental users

What are primary reasons that you decided to stay in home or vacation rental during your visit(s) to Hawaii?

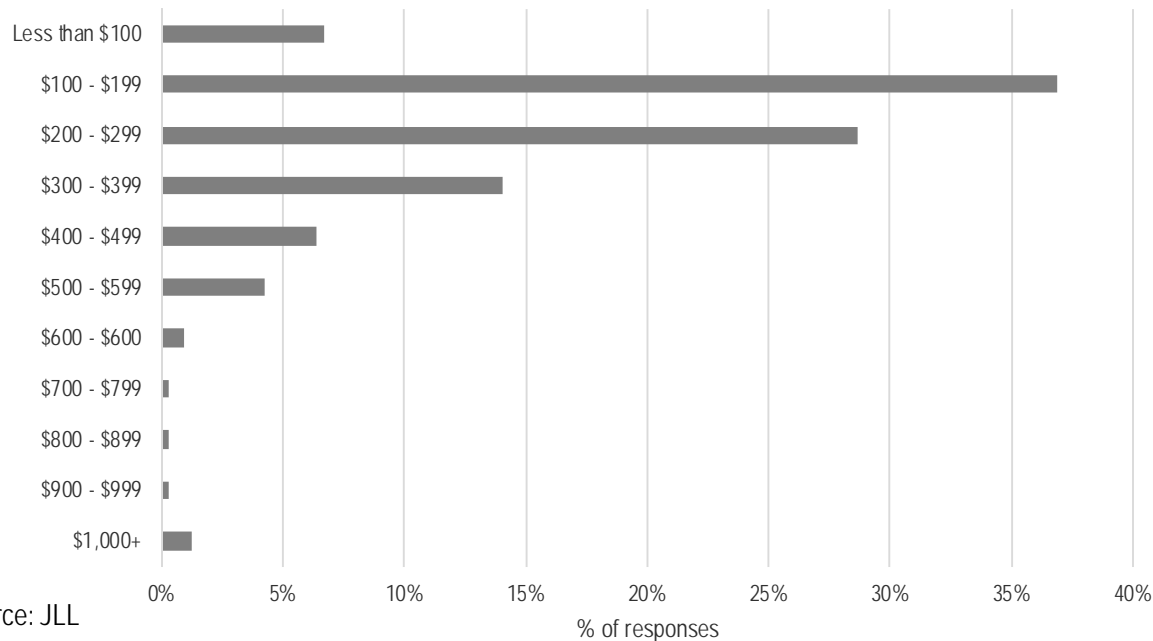


- 'Accommodations type' and 'lower cost' are the primary motivations of visitors to Hawaii who have used home and vacation rentals vs. staying in a traditional hotel. This distribution of responses is in line with what JLL has surveyed in other markets in the U.S. and globally.
- Only a small share of respondents indicated that they booked a vacation or home rental due to hotels being sold out. This suggests that a significant portion of home and vacation rental guests in Hawaii don't necessarily view hotels as a substitute; the responses suggest that they generally don't first check hotel availability and then consider home and vacation rentals as a secondary option.

# ■ Evaluation of JLL Visitor Survey

Visitors surveyed indicated that once hotels are priced above \$239 per night for their entire party (average of 3.4 people), they begin to consider other alternative accommodations

We are interested in understanding the price point at which visitors to Hawaii begin to consider home or vacation rentals as opposed to hotels. At what average cost per night for a traditional hotel do you begin to consider home/vacation rentals?



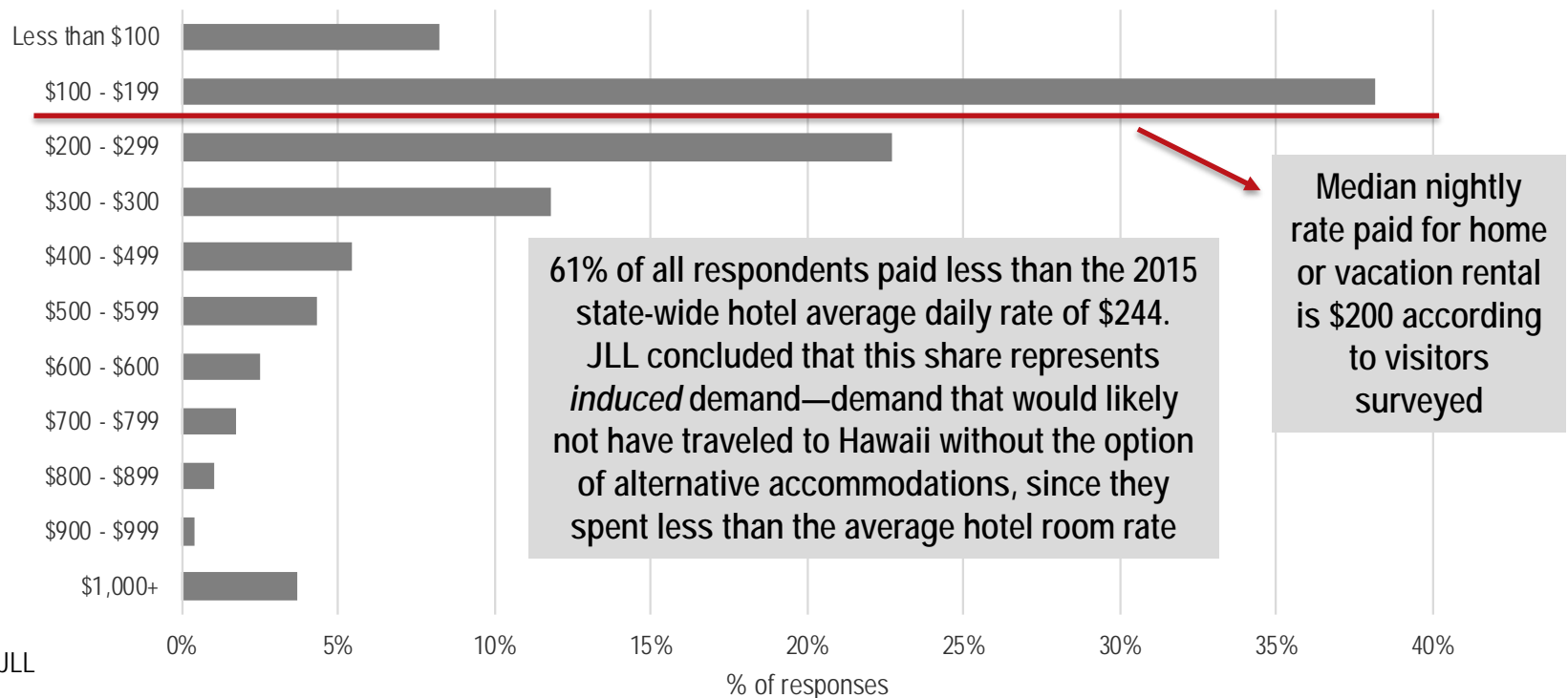
- The visitors surveyed indicated, on average, when hotel rates are \$239 per night or above, they begin to consider alternative accommodations. The statewide hotel rate in 2015 was \$244, meaning that on average, visitors who stay in home and vacation rentals are priced out of the hotel market.
- In addition, given that these guests tend to be more price sensitive, hotels may wish to focus on marketing themselves to less price sensitive guests, who will drive incremental spending on property, such as food and beverage and spa services.



# ■ Evaluation of JLL Visitor Survey

61% of visitors surveyed paid less per night for home and vacation rentals than the state's hotel average daily rate. This proportion is deemed to represent *induced* travel demand to Hawaii resulting from the existence of this accommodations business model

During your most recent visit to Hawaii, what was the average rate you paid per night for the home or vacation rental in which you stayed?

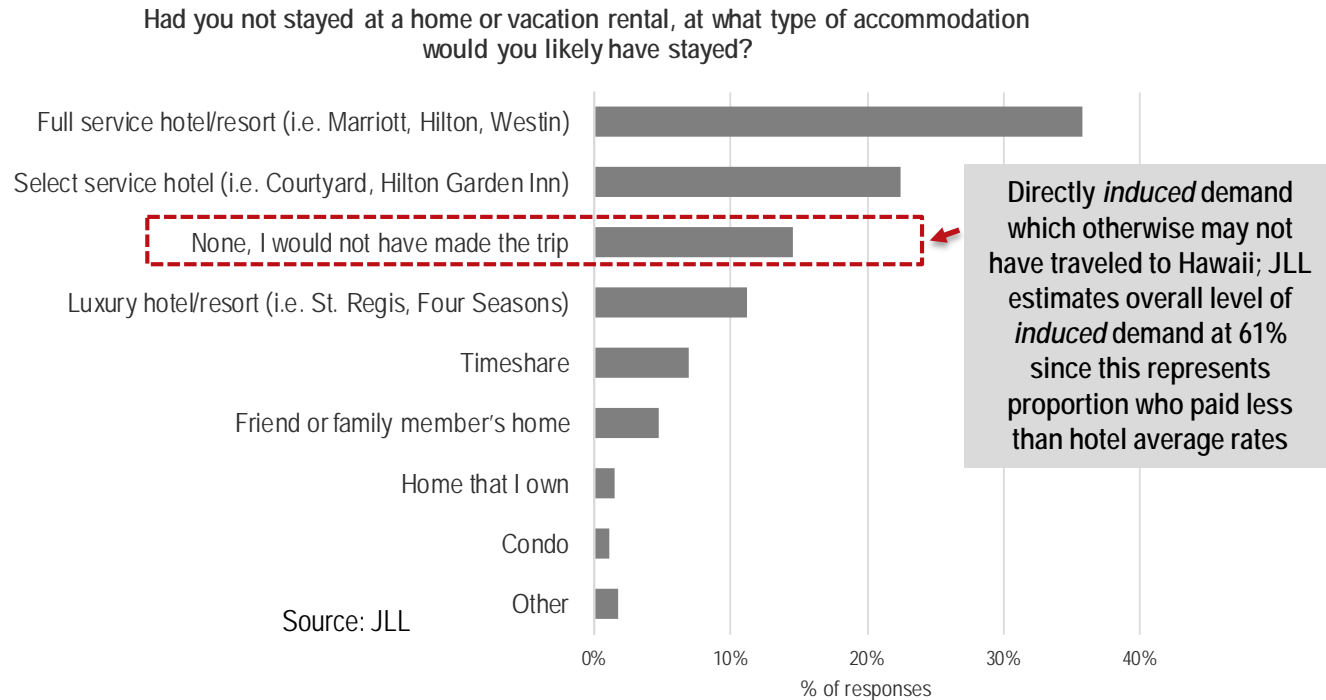


- The median rate paid by the surveyed sample is \$200 per night
- The average party size of the visitors surveyed was 3.4 people, so the median nightly per capita rate is \$59.
- Assuming that hotels see an average occupancy of 2.2 people (this is the average party size of all visitors to Hawaii), then the per capita hotel rate equates to \$111, suggesting that home and vacation rentals represent a lower-cost option.



# ■ Evaluation of JLL Visitor Survey

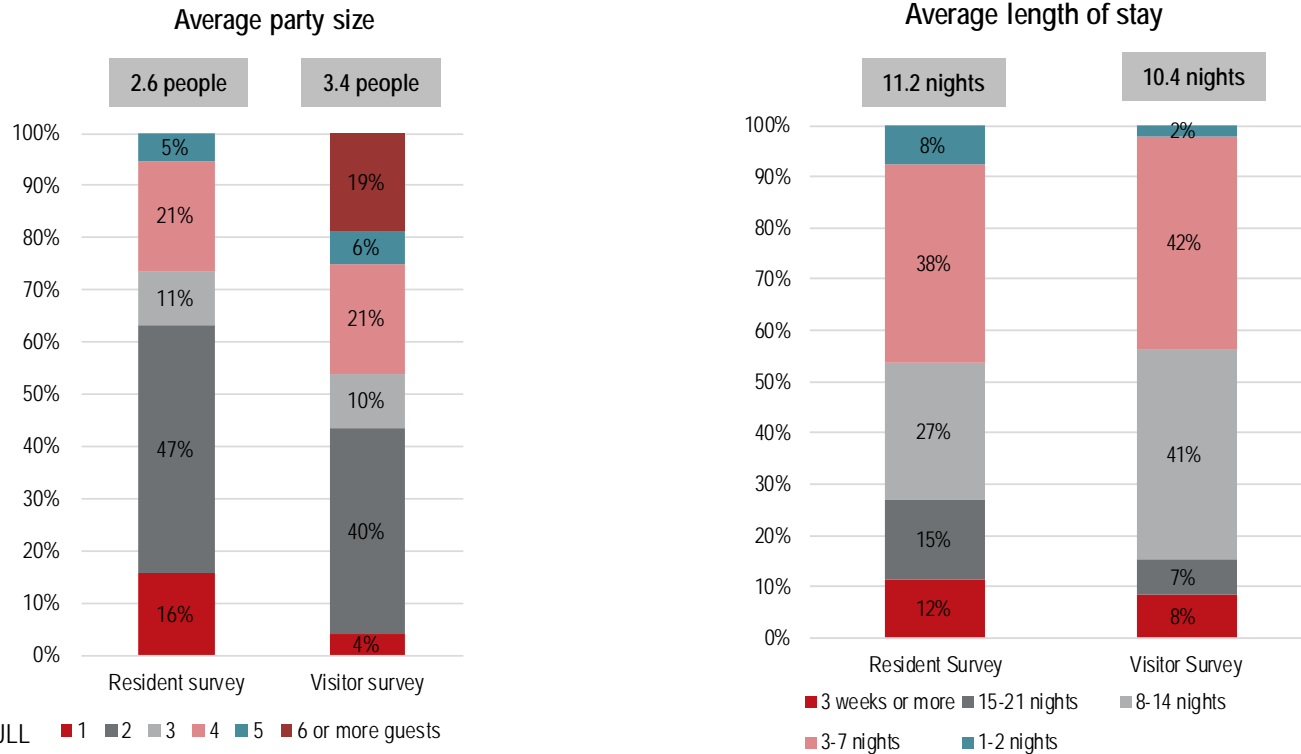
15% of those surveyed directly say they would not have made the trip had it not been for alternative accommodations option and the overall level of *induced* demand is estimated at 61% of home and vacation rental room nights



- As observed in other markets, alternative accommodations do not seem to be much of a substitute for luxury hotels.
- In most markets, mid-market hotels are the ones losing the greatest amount of share, but on Hawaii there is limited branded select service stock.
- Thus, "Full service hotel/resort" was most frequently cited as substitute for home/vacation rental.

# Evaluation of JLL Visitor Survey

According to visitors, average party size staying in home and vacation rentals is 3.4 people; average length of stay is 10.4 nights



- According to JLL's survey results, the average visitor party size is 3.4 people and the average party size hosted by residents is 2.6 people.
- The ratio of groups with 2-5 people are closely in line when comparing the results of the resident survey and visitor survey. It is large visitor groups and the residents who host single travelers that are driving the variance between the average party size of residents and visitors.
- The average visitors' party size of 3.4 people is larger than what most single hotel rooms can accommodate, which based on JLL's experience tends to be one of the reasons such visitors seek out alternative accommodations which are more spacious or have a more flexible set up such as extra beds.
- The average length of stay reported by residents was 11.2 nights, and 10.4 nights by visitors. In both the resident and visitor surveys, the average length of stay was slightly longer than Hawaii's overall length of stay for all visitors.





# Evaluation of JLL Resident (“Supply”) Survey

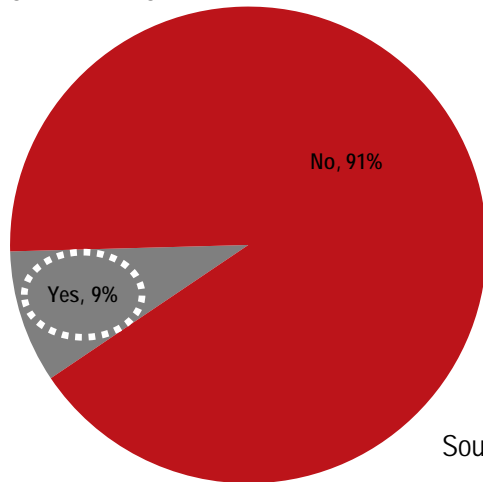
# ■ Evaluation of JLL Resident (“Supply”) Survey

9% of Hawaii residents have made their residential unit available as a home or vacation rental. Of those who have not done so previously, a relatively limited 6.9% are “somewhat likely” or “very likely” to join the mix going forward

During the past couple of years, have you made your residence available for rental to visiting guests through a home or vacation rental site?

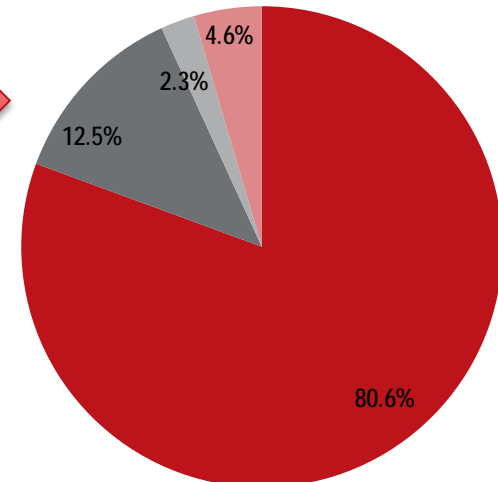
In the next 12 months, how likely are you to consider making your residence in Hawaii available for rental to visiting guests through a home or vacation rental site?

Throughout section, key surveyed data points used in estimating overall market size are circled



Of those answering “No”, JLL quantified residents’ future expected behavior w/ regard to making residential unit available

Source: JLL



■ Not at all likely      ■ Not too likely  
■ Very likely      ■ Somewhat likely

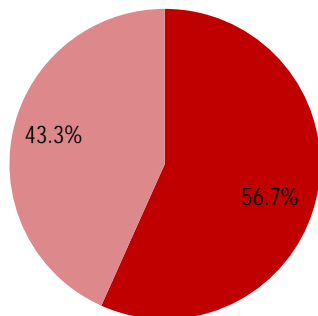
- At the current proportion of 9.0%, this indicates a need to implement some level of regulations in order to manage growth.
- Some 80.6% of residents who have not made their residential units available as a home/vacation rental during the previous year indicate that they are “not at all likely” to do this going forward either. Of those who have not done so in the past, 6.9% are either “somewhat likely” or “very likely” to make their residential unit available as a home or vacation rental in the future.
- This breakdown of future likelihood is in line with surveys that JLL has conducted in other gateway markets across the U.S. and suggests that the business model has already reached a slowdown of growth, and that there will be a structural ceiling in terms of the willing hosts in the future.
- The share of residents making their residential unit available was then grossed up to the market as a whole and applied to total number of households in Hawaii.



# ■ Evaluation of JLL Resident (“Supply”) Survey

Approximately 40-43% of residents surveyed indicated that the residence they make available for rent as a home or vacation rental is not their primary residence

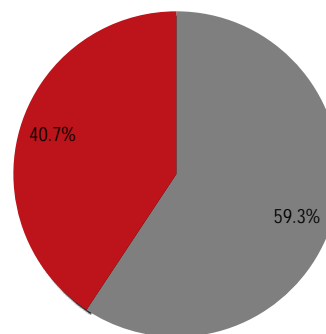
Which of the following best describes you?



- The residence I make available on home rental sites is my primary residence
- The residence I make available on home rental sites is my secondary residence/investment property

Source: JLL

Which best describes your activity with regard to renting your residence on a home or vacation rental site?



- Rent residence temporarily/occasionally while I am away (e.g., vacation, business trip, etc.)
- Rent residence full-time/as often as possible as this is the primary purpose/business model for the unit

Source: JLL

- 43.3% of residents surveyed indicate that the residential units that they make available as a home or vacation rental to visiting guests is their secondary residence/investment property. Consistent with this, 40.7% of those surveyed indicated that the primary business model of the unit is to rent it on a full-time basis or as often as possible.
- The remaining 59.3% indicated that they make their unit available temporarily or occasionally or while they themselves are traveling. This distinction is deemed important because the average annual occupancy of the units can vary notably depending on the hosts' motivations.
- As such, in estimating the overall market size of the home and vacation rentals market, JLL individually applied the proportion of those surveyed who indicated that their unit is their primary residence vs. a secondary residence/investment property *individually* when grossing up to the population of households as a whole.

# ■ Evaluation of JLL Resident (“Supply”) Survey

Average annual occupancy of home and vacation rentals in Hawaii is 42%

Surveyed Residents' Experience Making Available of Residence as Home or Vacation Rental

	2014			2015		
	Properties (Responses)	Occupied Room Nights	Annual Occupancy	Properties (Responses)	Occupied Room Nights	Annual Occupancy
The residence I make available on home rental sites is my primary residence	17	1,808	29%	17	2,300	37%
The residence I make available on home rental sites is an investment property/second home	8	1,320	45%	8	1,489	51%
<b>Weighted Average</b>	<b>25</b>	<b>3,128</b>	<b>34%</b>	<b>25</b>	<b>3,789</b>	<b>42%</b>

Source: JLL

Throughout section, key surveyed data points used in estimating overall market size are circled

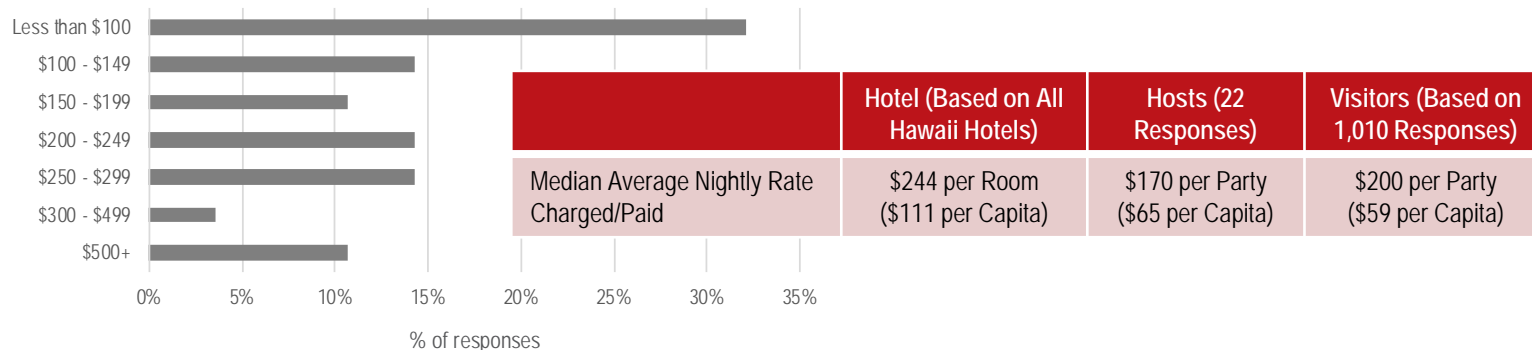
- In order to estimate the occupancy rate of home and vacation rentals, JLL surveyed how many nights the residential unit that they made available for rent was *occupied* during 2014 and 2015.
- JLL separately estimated the occupancy rate for units that are a primary residence, and those which are a secondary residence/investment property.
- Not surprisingly, the number of occupied room nights grew from 2014 to 2015, and the secondary residence/investment property had a higher average annual occupancy rate than primary residences.
- The blended average occupancy rate for home and vacation rentals in Hawaii per the survey responses is 42% per year. This figure is higher than what is typically seen in urban markets such as New York, San Francisco and Toronto, where a lower share of the units made available are secondary homes or investment properties.
- Given that Hawaii is a resort market, and since the average length of stay for home and vacation rental stays (per JLL’s survey) is 10.9 nights, vs. the average length of stay of 5.0 nights for alternative accommodations in urban gateway markets in the U.S., the units in Hawaii see a higher occupancy rate than the average occupancy rate of alternative accommodations elsewhere.
- JLL utilized these figures to size the entire home and vacation rental market based on the proportion of residential units in Hawaii which are primary residences vs. secondary homes/investment properties.



# Evaluation of JLL Resident (“Supply”) Survey

Median nightly rate charged for home/vacation rentals in Hawaii estimated at \$170

Thinking back to your three most recent rentals, what was the average nightly rate you charged your visiting guests?  
Please provide the value in \$USD.



Average Nightly Rate Charged During Three Most Recent Rentals				
Accommodations Type	Total Revenue	Number of Properties (Responses)	Average Nightly Rate Charged	Median Nightly Rate Charged
Hosts renting primary residence	\$ 2,374	15	\$ 158	\$ 120
Hosts renting secondary residence/investment property	\$ 1,637	7	\$ 234	\$ 225
<b>Weighted Average</b>	<b>\$ 4,011</b>	<b>22</b>	<b>\$ 182</b>	<b>\$ 170</b>

Throughout section, key surveyed data points used in estimating overall market size are circled

Source: JLL

- JLL estimated the average nightly rate charged for the entire unit, and separately compiled the figures for Hawaii residents who are renting out their primary residence vs. those renting out a secondary residence/investment property.
- As is to be expected, the nightly rate for the secondary residence/investment property category was higher than for the primary residence category as for these units, the host/owner are not themselves staying there during the stay.
- JLL utilized these figures to size the home sharing market in Hawaii based on the proportion of residential units in Hawaii which are primary residences vs. secondary homes/investment properties.

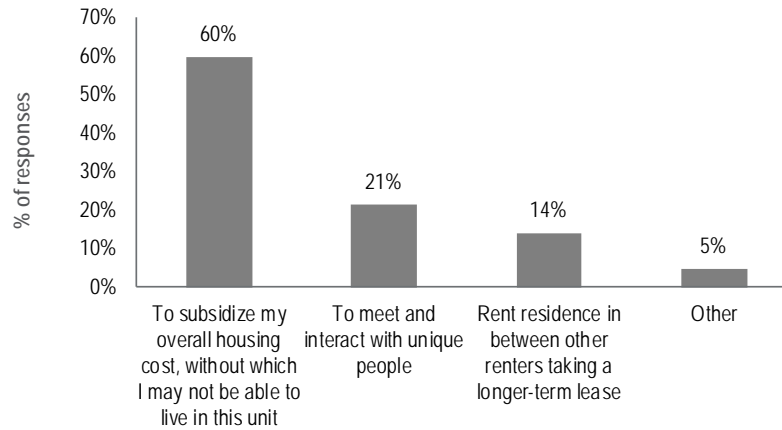


# Evaluation of JLL Resident (“Supply”) Survey

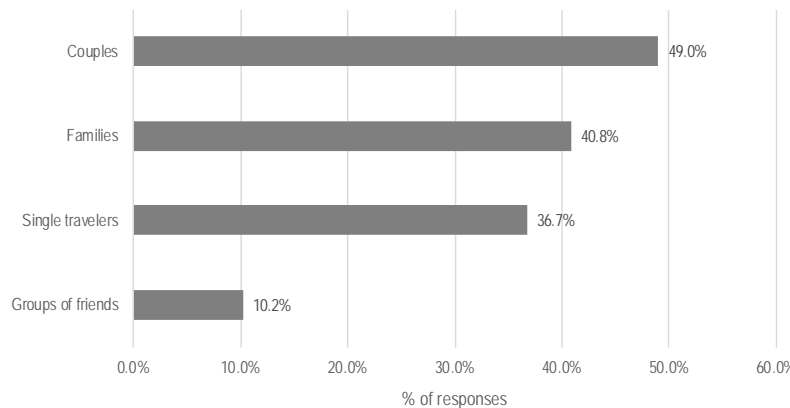
Motivation for participating in business model is often financial; three-quarters of individuals making living unit available own the unit (vs. rent it)

- Consistent with JLL’s research conducted in other markets, the primary reason why Hawaii residents make their residential units available as a home or vacation rental to visiting guests is often to earn extra income.
- 75% of those renting out their living unit own it.
- 73% of those surveyed indicated that the living unit they rent out has 3+ bedrooms, which represents a notably different physical accommodation from a typical (one-room) hotel room; further supporting that the traditional hotel and alternative accommodations business models are somewhat complementary.

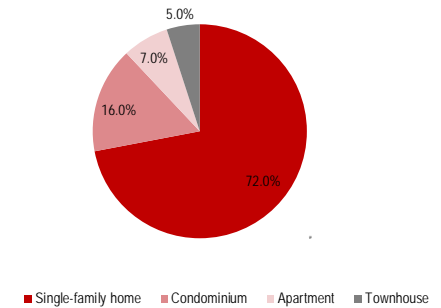
Hawaii Residents' Surveyed Reason(s) for Making Living Unit Available for Rent to Visitors as a Home/Vacation Rental



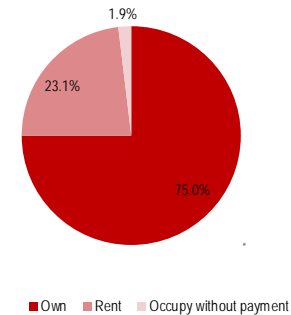
What party types do you most commonly accommodate?



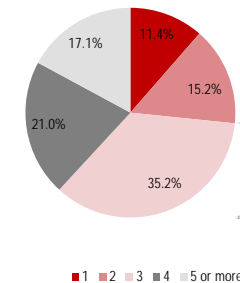
Please describe the primary residence in which you live



Do you rent or own the primary residence in which you live?



How many bedrooms do you have in the primary residence in which you live?



Source: JLL



# Market Size and Impact Today and in Future

# Market Size and Impact Today and in Future

Visitation to Hawaii increasing at more than twice the pace of hotel demand; while alternative accommodations are taking some share from hotels, the overall pie is growing

Year	Hawaii Hotel Market Performance		Hawaii Visitor Arrival Figures				
	Est. Occupied Room Nights	Hotel Occupied Room Nights per Visitor Arrival	Visitor Arrivals	Visitor Days	Visitor Days who Stay in Hotels	Average Length of Stay (All Visitors)	Average Party Size
2010	13,828,000	1.970	7,018,133	65,465,125	62.5%	9.3	2.1
2011	14,366,000	1.968	7,299,047	68,466,519	62.7%	9.4	2.2
2012	15,232,000	1.897	8,028,743	74,519,278	63.4%	9.3	2.2
2013	15,072,000	1.844	8,174,461	74,942,169	63.0%	9.2	2.2
2014	15,072,000	1.814	8,308,114	75,646,053	63.5%	9.1	2.2
2015	15,074,000	1.743	8,649,357	78,281,080	62.0%	9.1	2.2
1.7%		CAGR 2010-2015	4.3%				

Hotel occupied room nights per Hawaii visitor arrival decreased by 12% during past five years

Source: HTA, JLL, STR

If not for Hawaii's home and vacation rental units, growth in visitor arrivals may get dampened due to some hotels being close to maximum practical occupancy

- Total Hawaii visitation increased by a compound annual growth rate of 4.3% from 2010 to 2015. Hotel occupied room nights increased by a lesser 1.7% per year, suggesting that some of the incremental market share is not going to hotels, but rather to alternative accommodations types such as home and vacation rentals.
- During the time frame evaluated, hotel occupied room nights per visitor arrival has been trending down slightly while the percent of visitors who stay in rental homes has trended upwards (see next slide for graphic).

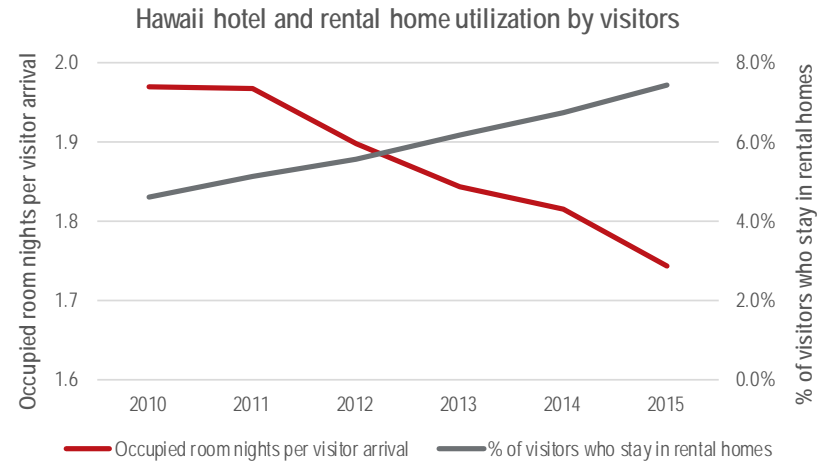


# Market Size and Impact Today and in Future

Visitation to Hawaii increasing at more than twice the pace of hotel demand; while alternative accommodations are taking some share from hotels, the overall pie is growing

Hawaii Housing Stock and Demographics			Rental House Guests per HTA	
Year	Hawaii Population	Housing Units	Proportion of Total Visitors to Hawaii Who Stayed in "Rental House"	Rental House Room Nights based on Visitor Days
2010	1,320,741	519,969	4.6%	3,017,388
2011	1,331,912	522,636	5.1%	3,525,560
2012	1,348,497	524,651	5.5%	4,134,256
2013	1,404,054	526,929	6.2%	4,612,215
2014	1,419,561	530,091	6.8%	5,109,566
2015	1,431,603	532,455	7.4%	5,804,354

Source: U.S. Census Bureau, Population Division (May 19, 2016); and calculations by the Hawaii State Department of Business, Economic Development & Tourism, JLL, HTA



Throughout section, key surveyed data points used in estimating overall market size are circled

JLL utilized the number of housing units on Hawaii to gross up the behavior from the surveyed sample to the market as a whole (see next slide).

During the time frame evaluated, hotel occupied room nights per visitor arrival has been trending down slightly while the percent of visitors who stay in rental homes has trended upwards.

# Market Size and Impact Today and in Future

At an estimated \$1.2 billion in annual accommodations revenue, home and vacation rental accommodations market represents 16% of hotel revenue in Hawaii

Estimation of Market Size: Home and Vacation Rentals in Hawaii, 2016

Housing Units and Proportion Thereof	Island Household Composition	Share of Residents who Make Residential Unit Available	Physical Stock	Surveyed Occupancy	Occupied Room Nights	Median Nightly Rate	Total Estimated Accommodations Revenue
68%	Primary Residence	9.0%	32,600	37%	4,410,000	\$ 120	\$ 529,200,000
32%	Secondary Residence/Investment Property		15,400	51%	2,870,000	\$ 225	\$ 645,800,000
<b>532,455</b>	<b>Total</b>		<b>48,000</b>	<b>42%</b>	<b>7,280,000</b>	<b>\$ 170</b>	<b>\$ 1,175,000,000</b>
<b>Comparison: Estimated Total Hotel Spend, 2016</b>			<b>53,200</b>	<b>79%</b>	<b>15,400,000</b>	<b>\$ 253</b>	<b>\$ 7,150,500,000</b>
<b>Home and Vacation Rentals Market Share as % of Hotel Market</b>			<b>90%</b>	<b>52%</b>	<b>47%</b>	<b>67%</b>	<b>16%</b>

Note a) the overall median nightly rate is calculated from all data points for the "Primary Residence" and "Secondary Residence/Investment Property" category and is as such not mathematically equal to the weighted average computed by dividing total spend by total room nights.

Note b) Total Hotel Spend pertains to total estimated hotel revenue (accommodations and all other revenue): Based on STR's 2016 HOST Almanac, room revenue for full service resorts pertains to 54.5% of total revenue. JLL as such grossed up the Hawaii hotel room revenue as reported by STR to estimate total hotel revenue. Note that the overall median nightly rate is calculated from all data points for the "Primary Residence" and "Secondary Residence/Investment Property" category and is as such not mathematically equal to the weighted average computed by dividing total spend by total room nights.

Source: JLL, STR. For Housing Units: U.S. Census Bureau, Population Division (May 19, 2016); and calculations by the Hawaii State Department of Business, Economic Development & Tourism

Average occupancy rate of home and vacation rental residence

Home and vacation rental accommodations spend estimated at 16% of total hotel revenue

- According to the survey of residents, 9.0% have made their residential unit available as a home or vacation rental during the past several years. For residents who made their primary residence available, the average occupancy achieved was 37% and the median nightly rate charged was \$120. For residents who made their secondary residence or an investment property available, the average occupancy achieved was 51%, at a median rate of \$225.
- JLL grossed these figures up by the proportion of primary residences vs. secondary residences/investment properties in the state of Hawaii.
- Occupied room nights for home and vacation rentals was an estimated 7.3 million with accommodations revenue estimated at \$1.2 billion in 2016.
- Given that home and vacation rentals are often occupied by their primary residents, the annual number of nights with a paid guest ("occupancy") is notably lower than in the hotel market.
- Hotels have significant ancillary revenue streams such as food and beverage, spa, activities, retail, etc. For resorts, these revenues amount to 45.5% of total revenue; as such total hotel revenue in the state of Hawaii was estimated at \$7.2 billion in 2016.



# Market Size and Impact Today and in Future

Five years from now, an estimated 12.0% of Hawaii residents are expected to participate in the home and vacation rental market, up from 9.0% today

The below depicts respondents' future expected usage of the accommodations type in Hawaii. The category with the highest number of responses in both cases was "maintain" the current level of activity. An equal share of hosts expects to increase and decrease the number of nights they plan on making their residence available to visiting guests in the future. This suggests that from a supply standpoint, the business model is already quite established. This also suggests that "supply" is not growing as fast as demand, which may result in price increases for visiting guests.

Expected Future Activity of Hosts and Visitors in Hawaii			
Hosts		Visitors	
Make residence available to visiting guests:	Proportion of Responses	Expectation of future stays in home and vacation rentals:	Proportion of Responses
Less often	27%	Decrease the # of nights	6%
More often	24%	Increase the # of nights	38%
About the same	49%	Maintain the # of nights	56%

Source: JLL

- JLL structured its survey to ascertain the proportion of Hawaii residents who have made their residential units available as a home or vacation rental during the previous year, and also asked, for those *who have not done so previously*, what their likelihood is *going forward*. The assumptions are listed below.
- Since the home and vacation rental market is deemed to already be quite mature, JLL reflected this in applying an odds adjusted methodology in determining the share of residential unit owners who are likely to make a unit available as a home or vacation rental in the future:
  - Of those who have not made their residential units available previously, 2.3% said they are "very likely" to do so. JLL assumed that one-third of these will join the mix within the next year, which results in an estimated participation rate of 9.8% in one year.
  - Next, JLL assumed that during the next five years (by 2021), another one-third of the 2.3% "very likely" cohort will join the mix.
  - Moreover, JLL assumed that one-third of the 4.6% who said they are "somewhat likely" to participate will do so.
- The result is that by 2021, JLL estimates that **12.0% of residents will make their residential unit available** as a home or vacation rental.

Survey Responses	Estimated share of residents making residential unit available as a home or vacation rental
Current share	9.0%
Assume that 33% of those who are "very likely" to make residential unit going forward do so within year	0.8%
<b>Total Proportion of Participating Residents in One Year</b>	<b>9.8%</b>
Assume that within next five years, another 33% of those "very likely" join in	0.8%
Assume that 33% of those who are "somewhat likely" join in	1.5%
<b>Total Proportion of Participating Residents by 2021</b>	<b>12.0%</b>

Source: JLL



# Market Size and Impact Today and in Future

Five years from now, an estimated 12.0% of residents in Hawaii are expected to participate in the home and vacation rental market, up from 9.0% today

Future Size of Home and Vacation Rental Market in Hawaii									Residential Unit Type									
Year	Hawaii Housing Units	Share of Residents who Make Residential Unit Available	Physical Stock	Estimated Occupancy	Occupied Room Nights	Median Nightly Rate	Total Estimated Accommodations Revenue	Transient Accommodations Tax	68% Primary Residence					32% Secondary Residence/Investment Property				
									Stock	Occupancy	Occupied Room Nights	Median Nightly Rate	Total Estimated Accommodations Revenue	Stock	Occupancy	Occupied Room Nights	Median Nightly Rate	Total Estimated Accommodations Revenue
2016	532,455	9.0%	48,000	42%	7,280,000	\$ 170	\$ 1,175,000,000	\$ 108,700,000	32,600	37%	4,410,000	\$ 120	\$ 529,200,000	15,400	51%	2,870,000	\$ 225	\$ 645,800,000
2017F	533,520	9.8%	52,100	42%	7,990,000	\$ 175	\$ 1,327,200,000	\$ 122,800,000	35,400	38%	4,850,000	\$ 124	\$ 599,500,000	16,700	51%	3,140,000	\$ 232	\$ 727,700,000
2018F	534,587	10.3%	55,300	43%	8,580,000	\$ 180	\$ 1,466,500,000	\$ 135,700,000	37,600	38%	5,220,000	\$ 127	\$ 664,500,000	17,700	52%	3,360,000	\$ 239	\$ 802,000,000
2019F	535,656	10.9%	58,400	43%	9,070,000	\$ 186	\$ 1,596,600,000	\$ 147,700,000	39,700	38%	5,520,000	\$ 131	\$ 723,800,000	18,700	52%	3,550,000	\$ 246	\$ 872,800,000
2020F	536,727	11.5%	61,500	43%	9,550,000	\$ 191	\$ 1,731,800,000	\$ 160,200,000	41,800	38%	5,810,000	\$ 135	\$ 784,700,000	19,700	52%	3,740,000	\$ 253	\$ 947,100,000
2021F	537,801	12.0%	64,700	43%	10,040,000	\$ 197	\$ 1,875,100,000	\$ 173,400,000	44,000	38%	6,110,000	\$ 139	\$ 850,000,000	20,700	52%	3,930,000	\$ 261	\$ 1,025,100,000
<i>Growth</i>	<i>0.2%</i>					<i>3.0%</i>		<i>0.0925</i>				<i>3.0%</i>					<i>3.0%</i>	

Source: JLL Tax Rate is per State of Hawaii - Department of Taxation

- JLL then estimated the size of Hawaii's home and vacation rental sharing market through 2021.
- Housing unit stock grew by an estimated 0.4% in 2015; JLL assumed annual growth of 0.2% through 2021.
- JLL applied the proportions of individuals who make their residential unit available as a home or vacation rental based on proportions presented on the previous slide through 2021; years in between were estimated based on straight-line growth between the two years.
- Home and vacation rental occupancy levels grew by eight percentage points from 2014 to 2015 according to JLL survey data. JLL assumed further growth, though at a more stabilized level, as residential unit owners become more sophisticated with regard to revenue management, etc.
- JLL assumed 3% rate growth, in line with hotels' rate growth projections for Hawaii and the nation as a whole.
- The result is an estimated market size of \$1.9 billion in 2021, up from \$1.2 billion today.
- The State of Hawaii – Department of Taxation assesses a Transient Accommodations Tax on accommodations earned by those renting their unit out as a home or vacation rental. The tax rate, as of June 30, 2010 is 0.0925% of taxable proceeds. This amount is depicted above.
- As is calculated on the next slide, the Transient Accommodations Tax is largely in line with the tax amount not realized by hotels resulting from the market share that was not accommodated in hotels due to the existence of the home and vacation rental market.





# Market Size and Impact Today and in Future

Total spend resulting from home and vacation rental market is estimated at \$3.1 billion in 2016; 61% of this figure is deemed to represent *induced* demand to Hawaii

Estimated Spend in Hawaii Resulting from all Home and Vacation Rental Guests

Year	Room Nights	Average Party Size	Guests	Median Nightly Rate per Room Night	Spend on Accommodations	Spend Per Person Per Day <u>Beyond Accommodations</u> per HTA Figures	Spend Beyond Accommodations	Total Spend	Accommodations Spend Resulting from Induced Demand	Spend Beyond Accommodations Resulting from Induced Demand	Total Spend Resulting from Induced Demand	
2016	7,280,000	3.4	24,752,000	\$ 170	\$ 1,175,000,000	\$ 76	\$ 1,893,000,000	\$ 3,068,000,000	\$ 716,800,000	\$ 1,154,700,000	\$ 1,871,500,000	
2017F	7,990,000	3.4	27,166,000	\$ 175	\$ 1,327,200,000	\$ 79	\$ 2,139,900,000	\$ 3,467,100,000	\$ 809,600,000	\$ 1,305,300,000	\$ 2,114,900,000	
2018F	8,580,000	3.4	29,172,000	\$ 180	\$ 1,466,500,000	\$ 81	\$ 2,366,900,000	\$ 3,833,400,000	\$ 894,600,000	\$ 1,443,800,000	\$ 2,338,400,000	
2019F	9,070,000	3.4	30,838,000	\$ 186	\$ 1,596,600,000	\$ 84	\$ 2,577,100,000	\$ 4,173,700,000	\$ 973,900,000	\$ 1,572,000,000	\$ 2,545,900,000	
2020F	9,550,000	3.4	32,470,000	\$ 191	\$ 1,731,800,000	\$ 86	\$ 2,794,900,000	\$ 4,526,700,000	\$ 1,056,400,000	\$ 1,704,900,000	\$ 2,761,300,000	
2021F	10,040,000	3.4	34,136,000	\$ 197	\$ 1,875,100,000	\$ 89	\$ 3,026,400,000	\$ 4,901,500,000	\$ 1,143,800,000	\$ 1,846,100,000	\$ 2,989,900,000	
									3.0%	61.0%	61.0%	61.0%

Source: HTA, JLL

Assumption: 61% of Rooms Nights in Home and Vacation Rentals Pertain to Induced Demand That Would Not Have Come to Hawaii Without this Accommodations Type

- Based on HTA's 2015 survey of expenditure data by accommodations type, the average per person, per day spend of "Rental House" guests on all categories outside of accommodations was \$74.25. This includes food, entertainment, recreation, transportation and shopping. JLL inflated this figure by 3.0% annually (in line with recent hotel average daily rate growth rates). Thus, the figure represents \$77 per person, per day in 2016.
- JLL added the total spend on accommodations, as calculated previously, and the spend beyond accommodations. For the entire home and vacation rental market in Hawaii, this is estimated at \$3.1 billion in 2016 and \$4.9 billion in 2021.
- Based on data points ascertained from its survey, JLL assumed that 61% of home and vacation rental room nights in Hawaii represent induced demand, i.e. room nights that would not have come to Hawaii had it not been for this business model. The spend pertaining to the share of home and vacation rental activity in Hawaii that is deemed *induced* is estimated at \$1.9 billion in 2016 and \$3.0 billion in 2021.
- Based on HTA's annual report, 2015 was projected to see 6% growth in the number of jobs generated by tourism spending. This growth exceeds the 3.9% growth in hotel room rates posted in 2015 based on figures reported publicly by STR, which supports that beneficiaries of tourism dollars are spreading beyond traditional hotels.



# Market Size and Impact Today and in Future

Non-realized hotel taxes stemming from market share not accommodated by hotels due to home and vacation rental market estimated at \$138 million in 2016

Maximum Potential Hawaii Hotel Tax Impact Resulting from Home and Vacation Rental Market

Year	Resulting Room Night Demand Accommodated in Home and Vacation Rentals vs. Hotels (Assumption: 39% of Home and Vacation Rental Demand is NOT Induced and Thus Potentially Taken from Hotels)	Average Daily Rate for Hawaii Hotels	Room Revenue	Tax on Room Revenue	Ancillary Spend in Hotels (45.5% of Total Revenue)	Hawaii General Excise Tax on Hotel Ancillary Revenue*	Maximum Potential Hotel Tax Impact
2016	2,839,200	\$ 253	\$ 718,400,000	\$ 113,800,000	\$ 599,800,000	\$ 23,990,000	\$ 137,800,000
2017F	3,116,100	\$ 261	\$ 812,100,000	\$ 128,600,000	\$ 678,000,000	\$ 27,120,000	\$ 155,700,000
2018F	3,346,200	\$ 268	\$ 898,300,000	\$ 142,200,000	\$ 750,000,000	\$ 30,000,000	\$ 172,200,000
2019F	3,537,300	\$ 276	\$ 978,100,000	\$ 154,900,000	\$ 816,600,000	\$ 32,660,000	\$ 187,600,000
2020F	3,724,500	\$ 285	\$ 1,060,700,000	\$ 168,000,000	\$ 885,500,000	\$ 35,420,000	\$ 203,400,000
2021F	3,915,600	\$ 293	\$ 1,148,600,000	\$ 181,900,000	\$ 958,900,000	\$ 38,360,000	\$ 220,300,000
	39.0%	3.0%		15.83%	45.5%	4.0%	

\*According to Hawaii Department of Taxation, General Excise Tax is a business privilege tax, taxed at 4% of activities such as retailing business and professional services, amusement, etc. Effective 2007, a county surcharge of 0.5% was added to State's 4% general excise tax for business conducted in the City/County of Honolulu. For simplicity, JLL applied the 4% throughout and did not distinguish between activity in City/County of Honolulu vs. rest of Hawaii.

Source: JLL

- Based on survey data, JLL assumed that 61% of home and vacation rental room nights represent induced demand, i.e. room nights that would not have come to Hawaii had it not been for this accommodations option. It thus follows that 39% of the home and vacation rental room nights represent demand that would otherwise potentially have stayed in hotels; it can thus be deduced that this represents market share potentially taken from hotels.
- This represents the *maximum potential hotel tax impact*, given that it is not certain that all of this 39% cohort would have actually been able to stay in the hotel due to hotels being sold out in some cases and/or other factors.
- JLL computed taxes not realized by hotels from the market share that was not accommodated in hotels due to the existence of the home and vacation rental market.
- The *maximum potential* amount in 2016 represents approximately \$138 million, which is expected to grow to a maximum of \$220 million in 2021 as home and vacation rental room nights grow.

# Appendix

# ■ Appendix

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## Primary research conducted by JLL: Methodology of market surveys

In order to arrive at a representative and complete estimate of the impact of the home and vacation rental market in Hawaii, JLL conducted two separate surveys, to measure the *supply* and *demand* for home and vacation rental stays. Below is a description of JLL's approach with regard to the two surveys:

### Demand Survey

- JLL contacted approximately 33,000 recent visitors to Hawaii and will ask them questions as to where they stayed, and how they booked that type of accommodation. This list was provided to JLL by HTA.
- JLL ascertained the drivers and motivations behind the choice to stay in vacation rentals and alternative accommodations such as VRBO and Airbnb and also tabulate their self-reported spend, length of stay and purpose of trip.
- The survey also quantified unique data points such as the point at which a hotel is deemed to be too expensive and the visitor thus searches for vacation rental options.
- The purpose of this survey was to provide a more complete picture of the vacation rental market and to the extent feasible gross up the findings to universe of incoming visitors as a whole.
- The survey was conducted in July-August 2016.

### Supply Survey

- JLL procured contact information of a representative sample of Hawaii residents and emailed the survey to approximately 50,000 residents of Hawaii to tabulate their behavior as it relates to making their residence or other residential units that they own (or live in) available for vacation rentals.
- The distribution of recipients was spread roughly by the proportion of renters vs. owners on the island, in order to achieve a representative sample.
- The survey audience represented approximately 10% of households in Hawaii.
- JLL then grossed up the findings to the population of households/residential units as a whole in order to estimate the vacation rental activity (room nights, revenue, and other characteristics and factors) for Hawaii.
- The survey was conducted in July-August 2016.

# Appendix

At an estimated \$1.2 billion in annual revenue, home and vacation rental market represents an estimated 16% of hotel revenue in Hawaii

## Validation of Market Size Estimate based on HTA Figures

- JLL sought to validate its estimates by reviewing other figures made available by HTA. According to Hawaii's visitor surveys, 7.4% of visitors to the islands indicated that they stayed in a "Rental House" in 2015.
- Applying this to total visitor days suggests that approximately 5.8 million overnight stays were made in home and vacation rentals. Based on JLL's understanding of the survey data, it is deemed that this proportion is actually understated.
- Another way to validate JLL's estimate based on HTA data would be to take the 7.4% of visitor arrivals who indicated they stayed in a "Rental House" and multiply this by the average length of stay (per JLL's survey) of visitors who stayed in a home or vacation rental, which is 10.4 nights.
- Multiplying the total visitor arrivals by the 7.4% who indicated they stayed in a "Rental House" by the average length of stay of 10.4 nights results in 6.67 million overnight room nights, which is in line with JLL's bottom-up estimate above.

Rental House Guests per HTA		
Year	Proportion of Total Visitors to Hawaii Who Stayed in "Rental House"	Rental House Room Nights based on Visitor Days
2010	4.6%	3,017,388
2011	5.1%	3,525,560
2012	5.5%	4,134,256
2013	6.2%	4,612,215
2014	6.8%	5,109,566
2015	7.4%	5,804,354

Source: HTA

$$7.4\% \times 8.649 \text{ million visitors} \times 10.4 \text{ nights} \\ = 6,670,000 \text{ overnight room nights}$$

## Validation of Market Size Estimate based on Figures provided by Airbnb

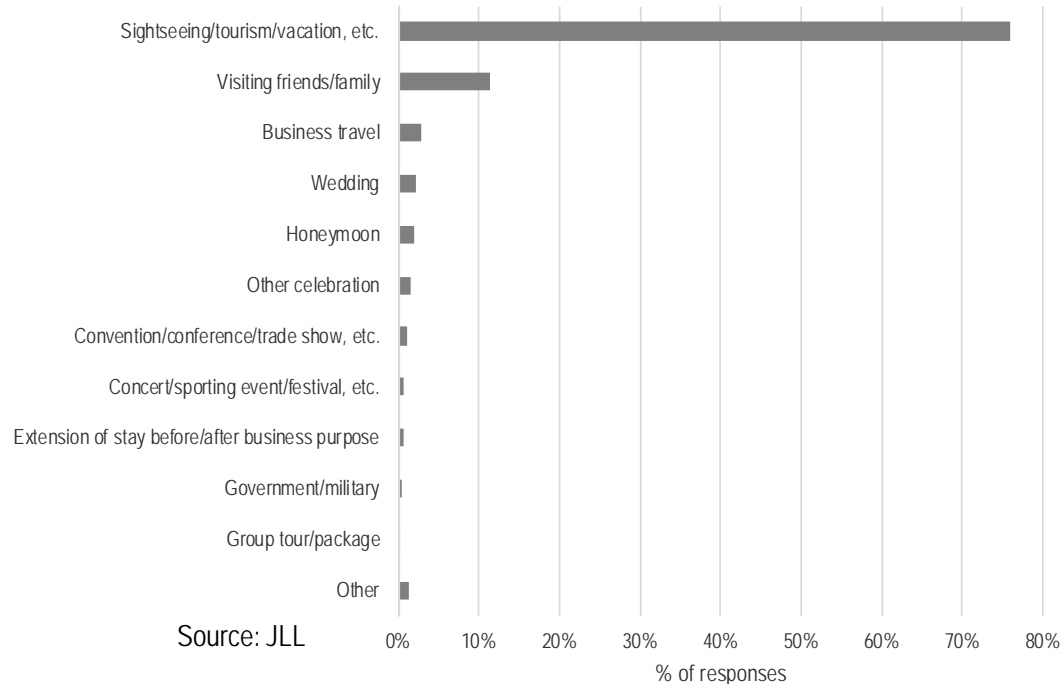
- JLL also sought to validate its estimates by reviewing other figures made available by Airbnb. Airbnb indicated that in calendar year 2015, their platform accommodated 1.3 million guest nights in the state of Hawaii.
- Based on JLL's demand (visitor) survey, 16% of home and vacation rental users booked their stay through Airbnb, which, when applied to the total market size of 7.28 million room nights equates to approximately 1.04 million room nights, which is directionally in line with the figures reported by Airbnb. Thus, JLL's methodology and overall market size estimates are deemed to be representative of the market.



# ■ Appendix

## Additional survey results: bulk of visitation, unsurprisingly, is related to leisure

In the trips noted above, what was the purpose of your visit(s)?



- As expected, the vast majority of visitors surveyed who have stayed in home and vacation rental units indicated that the purpose of the trip was leisure-oriented.
- Summing up the business-oriented categories equates to 6% of visitation, which is deemed to be smaller than the overall proportion of business travel to Hawaii. This suggests that home and vacation rentals are proportionately less often utilized by business travelers vs. hotels.
- Given that home and vacation rentals and alternative accommodations are an “accordion” of supply, there can be positive implications for the meetings industry in terms of there being more availability of accommodations. Based on the visitors surveyed, only a minimal proportion of convention/conference/trade show delegates stay in home and vacation rentals presently, but this stands to gradually change going forward as such accommodations types continue to cater to a greater share of non-leisure travelers. While it is expected to surface first in urban markets, there’s a growing demand for alternative accommodations from conference attendees, based on the platform’s variety of listings and overall value vs. traditional hotel rooms.



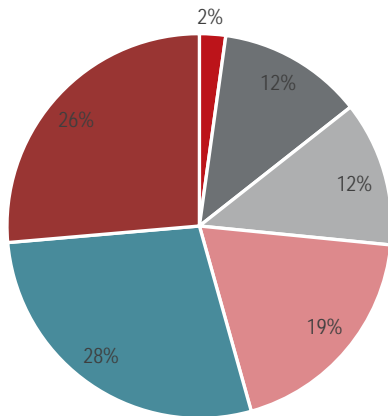


# Appendix

## Additional survey results: age and household income

- JLL surveyed marital status of both hosts and visitors, and found that a higher proportion of visitors to Hawaii are married.
- In terms of the age of visitors, 54% of those surveyed indicated they are over the age of 55 years. JLL did not survey the average age of hosts in order to curtail the length of the survey.
- The reported household income was somewhat higher for hosts, which is deemed representative given the high cost of homeownership on the islands.
- Also, 43% of hosts surveyed indicated the home they make available as a home/vacation rental is not their secondary residence or investment property; given that these individuals therefore own two or more homes suggests a higher level of affluence than the average visitor to the islands.
- A notably higher proportion of hosts said they make available a private room(s) to guests while the host themselves is there as well; the visitors surveyed indicated that in 92% of cases they had the full home to themselves.

Age Distribution of Visitors



■ 18-24 ■ 25-34 ■ 35-44 ■ 45-54 ■ 55-64 ■ 65+

Source: JLL

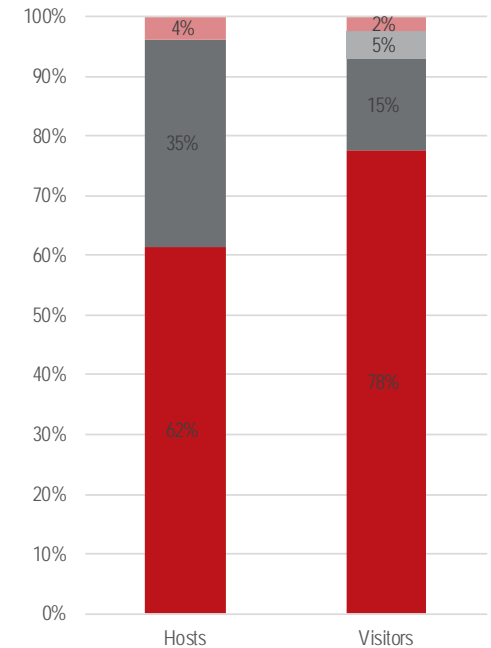
Surveyed Household Income		
Annual Income	Hosts	Visitors
Up to \$40,000	4%	16%
\$40,000 to \$59,999	8%	8%
\$60,000 to \$79,999	10%	24%
\$80,000 to \$99,999	12%	12%
\$100,000 to \$124,999	14%	4%
\$125,000 to \$149,999	10%	4%
\$150,000 to \$174,999	8%	4%
\$175,000 to \$199,999	5%	0%
\$200,000 to \$249,999	5%	0%
\$250,000 or more	9%	12%
Prefer not to answer	16%	16%

Source: JLL

Surveyed Stay Behavior and Accommodations Type		
Response	Hosts	Visitors
Host is not there at same time as visitors	60%	92%
Host is there but visitors have private room(s)	40%	6%
Share room(s) with host	n/a	2%

Source: JLL

Surveyed Marital Status



■ Widowed  
 ■ Living w/ sig. other but not married / domestically partnered  
 ■ Single  
 ■ Married/Domestic Partnership

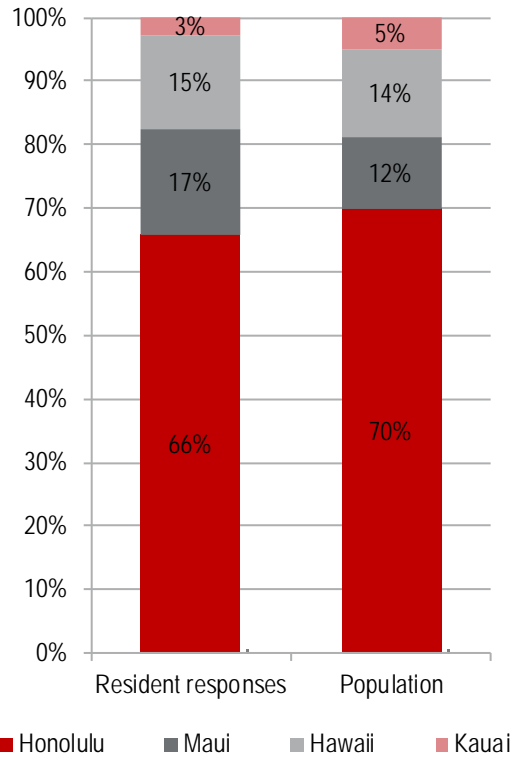
Source: JLL



# Appendix

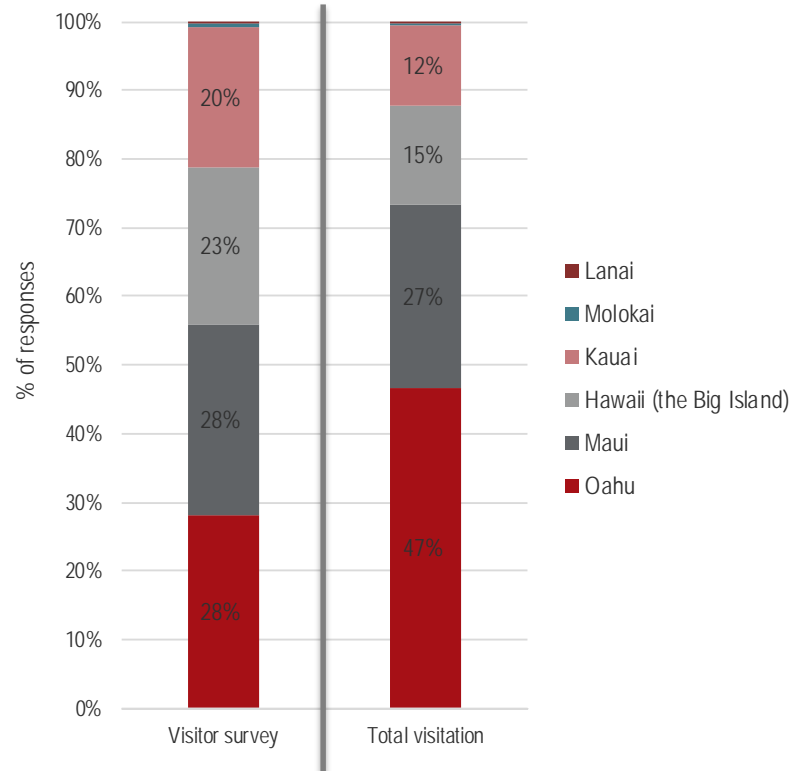
## Additional survey results: location of residents' homes and island of visitors' stay

Which county is your residence located in?



Source: JLL, U.S. Census Bureau (2015 estimates)

Where did you stay in a home or vacation rental?

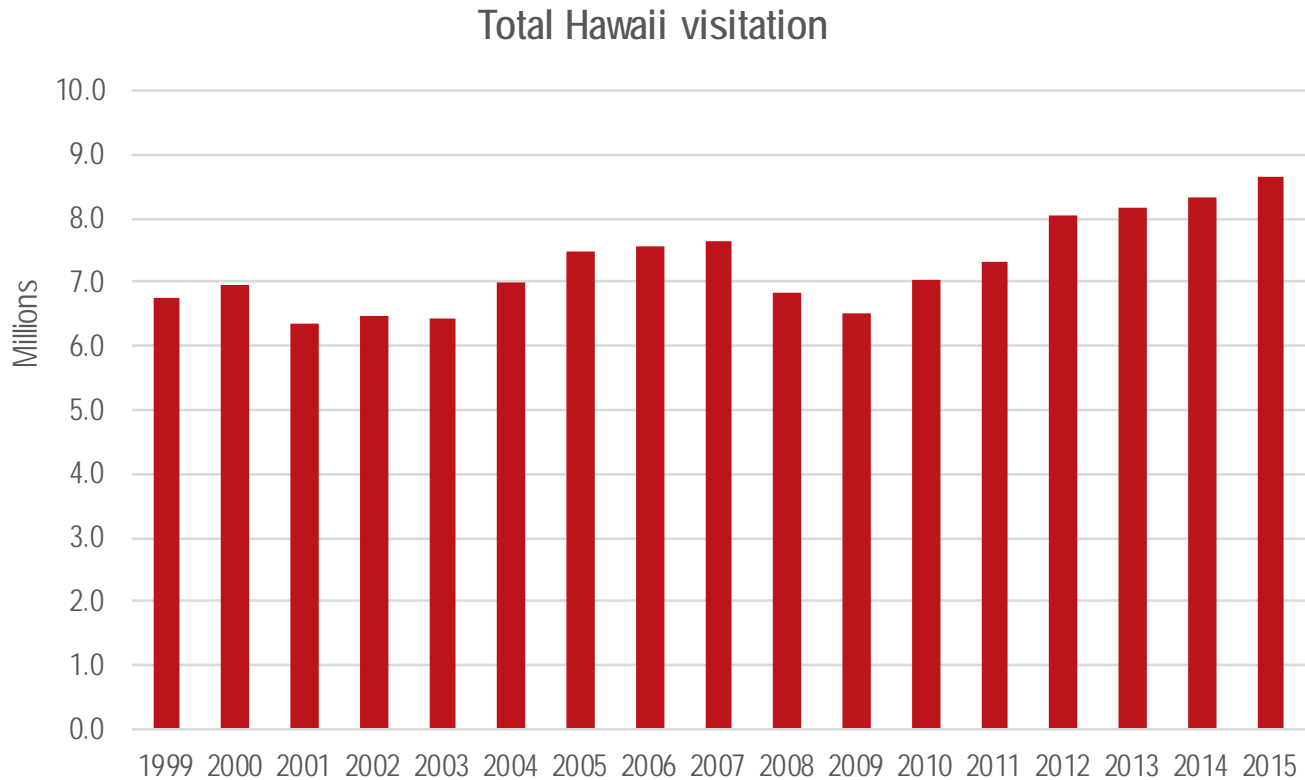


Source: JLL, Hawaii.gov

- As is to be expected, 66% of residents surveyed live in the county of Honolulu (Oahu Island), which is the most populous island. The residents surveyed were distributed in line with how population is distributed in the state of Hawaii.
- As for the visitors, there was a higher proportion which indicated they visited Maui, as Maui has a higher share of visitor arrivals vs. local residents as compared to Oahu. Interestingly, Oahu sees 47% of visitation to Hawaii but only 28% of home and vacation rental activity according to JLL's survey of visitors, which is deemed representative in that Oahu has the most established hotel stock of the islands.

# Appendix

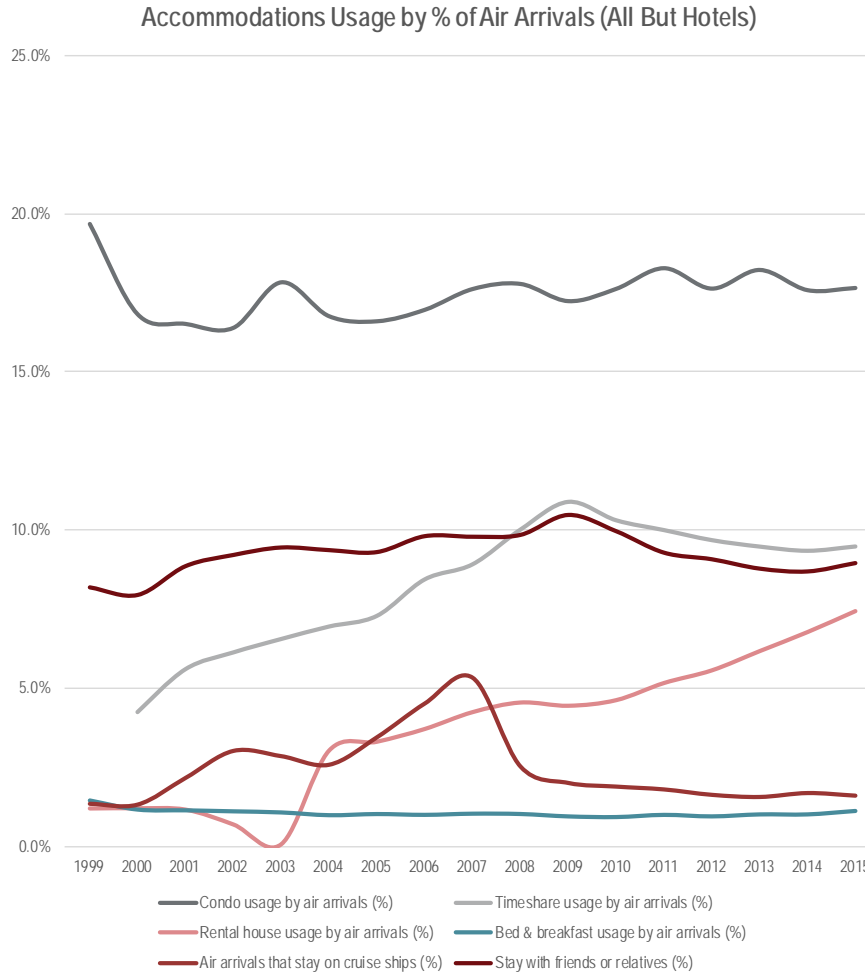
## Hawaii total visitor arrivals



Source: HTA

# Appendix

## Hawaii accommodations types



Intended accommodations among Hawaii air arrivals - compound annual growth rate		
Type	CAGR 2000-2015	CAGR 2011-2015
Rental House	14.4%	14.4%
Bed & Breakfast	1.1%	7.5%
Hotel	0.6%	4.2%
Condo	1.7%	3.5%
Friends or Relatives	2.2%	3.5%
Timeshare	7.0%	3.0%
Cruise Ship	2.7%	1.4%

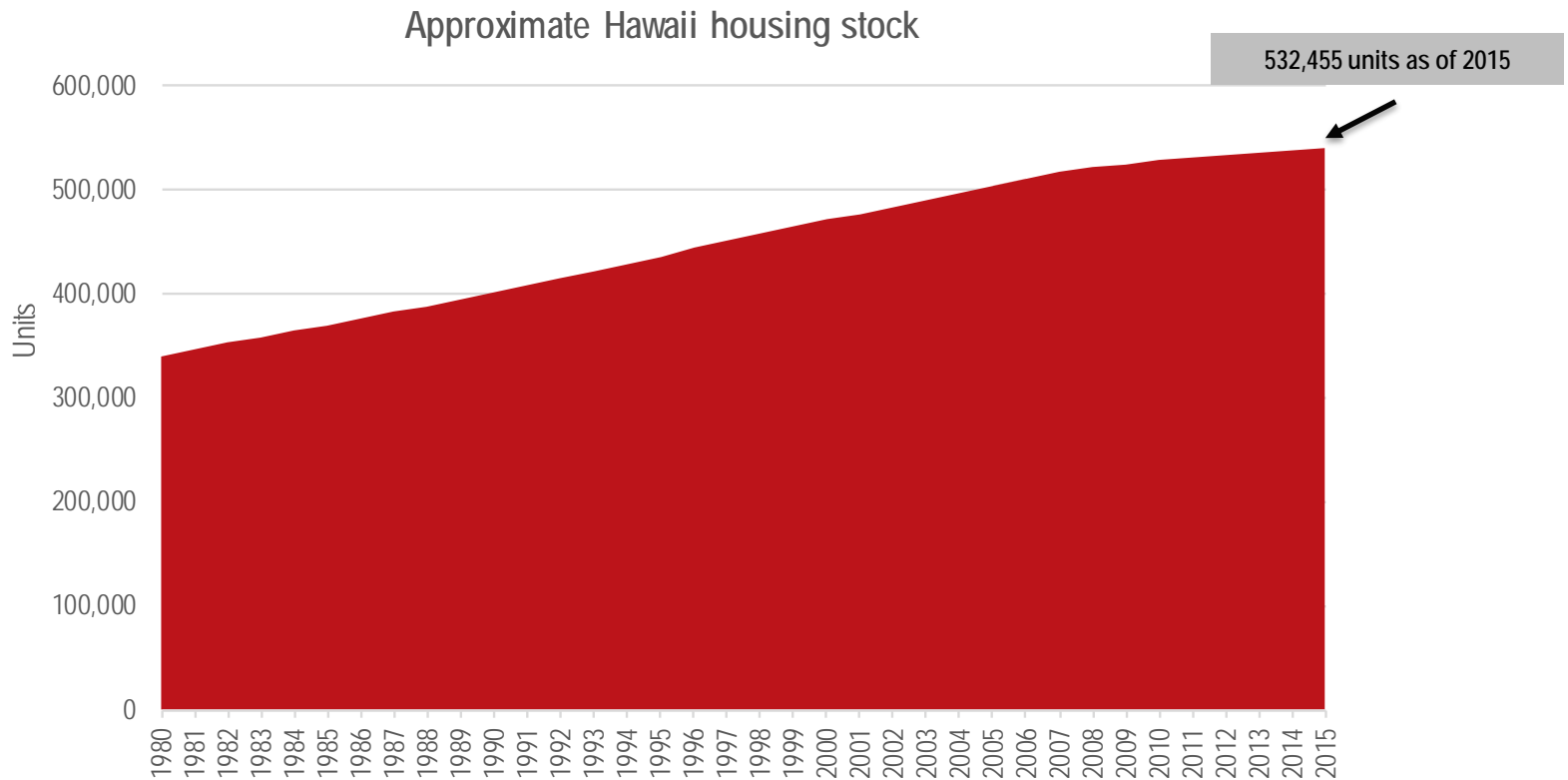
Source: HTA, JLL

Source: HTA, JLL



# Appendix

## Hawaii housing inventory



Source: DBEDT, U.S. Census Bureau, Population Division (May 19, 2016); and calculations by the Hawaii State Department of Business, Economic Development & Tourism



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