July 23, 2018

Mr. Matt Kiessling  
Vice President Short-term Rental Policy  
TravelTech  
3033 Wilson Blvd., Suite 700  
Arlington, VA 22201

ECONOMIC IMPACT OF ALTERNATIVE ACCOMMODATIONS ON OAHU

Dear Mr. Kiessling:

Kloninger & Sims Consulting LLC, (“K&S”) is pleased to present this letter report summarizing our findings about the economic impact of Alternative Accommodations on the Island of O‘ahu.

Background  
In 1989, the City & County of Honolulu stopped issuing permits, or Non-Conforming Use Certificates (“NUCs”), for short-term rentals located outside of resort-zoned areas. At that time, there were 2,376 NUCs on O‘ahu. Over the ensuing 29 years, Alternative Accommodations have become a popular and attractive accommodation type for travelers around the world and in Hawai‘i. However, many of those NUCs have lapsed over this same period and today there are only 659.

To gain an understanding of the potential economic impact of such regulation, TravelTech has asked K&S to estimate the 2017 economic impact of Alternative Accommodations on the Island of O‘ahu, including those that are located outside of resort-zoned areas and lack an NUC. TravelTech and its booking platform members are interested in understanding the potential economic impact of new regulation on Alternative Accommodations on O‘ahu. Two of the booking platforms, Airbnb and HomeAway, provided data on their O‘ahu operations to K&S. In addition to data on the number of active listings on O‘ahu, they provided internal data on important metrics such as average party size and average length of stay.

Executive Summary  
Alternative Accommodations on O‘ahu are a key component of O‘ahu’s tourism infrastructure, used by about one of every seven visitors to O‘ahu in 2017. O‘ahu visitors using Alternative Accommodations spent more than $1.1 billion in 2017. When economic multipliers are applied, this $1.1 billion in direct visitor spending results in the following economic impacts:

- $2.0 billion in total spending,
- $564 million in total household income,
- $129 million in state taxes,
- 12,000 total jobs.
K&S estimated that about 60% of O‘ahu’s Alternative Accommodations lack an NUC and are located outside of areas zoned for short-term rental. An estimated $659 million in direct visitor spending would therefore be put at risk if these Alternative Accommodations were eliminated. When economic multipliers are applied, the following economic impact would be at risk if 60% of O‘ahu’s Alternative Accommodation inventory were eliminated:

- $1.2 billion in total spending,
- $336 million in total household income,
- $77 million in state taxes,
- 7,000 total jobs.

A drastic reduction in the supply of Alternative Accommodations on O‘ahu would therefore have a substantial negative impact on visitor spending on O‘ahu, as well as household income, state taxes, employment and air lift.

Analysis of Direct Spending by O‘ahu Visitors Using Alternative Accommodations

We estimated the total spending by O‘ahu visitors using Alternative Accommodations exceeded $1.1 billion dollars in 2017.

### 2017 O‘ahu Total Alternative Accommodations Direct Visitor Spending by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Spending ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lodging</td>
<td>$463 M</td>
</tr>
<tr>
<td>Food &amp; Beverage</td>
<td>$237 M</td>
</tr>
<tr>
<td>Entertainment</td>
<td>$98 M</td>
</tr>
<tr>
<td>Transportation</td>
<td>$119 M</td>
</tr>
<tr>
<td>Shopping</td>
<td>$168 M</td>
</tr>
<tr>
<td>All Other</td>
<td>$21 M</td>
</tr>
</tbody>
</table>

Source: Hawai‘i Tourism Authority, Kloninger & Sims
Of the $1.1 billion in estimated direct visitor spending, about $643 million represented non-lodging spending, while $463 million was spent on lodging.

Source: Hawai‘i Tourism Authority, Kloninger & Sims

2017 O‘ahu Alternative Accommodations Direct Visitor Spending
(Lodging vs Non-Lodging)

Spending by visitors staying in Rental Houses accounted for about half of the spending associated with Alternative Accommodations or $549 million of the $1.1 billion.

Source: Hawai‘i Tourism Authority, Kloninger & Sims

<table>
<thead>
<tr>
<th>Category</th>
<th>Rental House</th>
<th>Bed &amp; Breakfast</th>
<th>Private Room in Private Home</th>
<th>Shared Room/Space in Private Home</th>
<th>Vacation Rental Condominium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Spending</td>
<td>$549 M</td>
<td>$76 M</td>
<td>$97 M</td>
<td>$28 M</td>
<td>$355 M</td>
</tr>
<tr>
<td>Lodging</td>
<td>$241 M</td>
<td>$26 M</td>
<td>$30 M</td>
<td>$7 M</td>
<td>$159 M</td>
</tr>
<tr>
<td>Food &amp; Beverage</td>
<td>$119 M</td>
<td>$17 M</td>
<td>$25 M</td>
<td>$6 M</td>
<td>$70 M</td>
</tr>
<tr>
<td>Shopping</td>
<td>$66 M</td>
<td>$15 M</td>
<td>$14 M</td>
<td>$10 M</td>
<td>$63 M</td>
</tr>
<tr>
<td>Transportation</td>
<td>$62 M</td>
<td>$11 M</td>
<td>$14 M</td>
<td>$3 M</td>
<td>$30 M</td>
</tr>
<tr>
<td>Entertainment</td>
<td>$50 M</td>
<td>$7 M</td>
<td>$11 M</td>
<td>$3 M</td>
<td>$28 M</td>
</tr>
<tr>
<td>All Other</td>
<td>$11 M</td>
<td>$1 M</td>
<td>$3 M</td>
<td>$0 M</td>
<td>$6 M</td>
</tr>
</tbody>
</table>

Source: Hawai‘i Tourism Authority, Kloninger & Sims
2017 Economic Impact of O‘ahu’s Alternative Accommodations

This $1.1 billion in direct visitor spending translates to about $2.0 billion in total direct, indirect and induced spending, based on the 1.81 output multiplier provided by the State of Hawai‘i Department of Business, Economic Development & Tourism (“DBEDT”). The direct visitor spending generated by visitors staying at Alternative Accommodations on O‘ahu also generated an estimated $564 million in household income and $129 million in state tax revenue, based on multipliers provided by DBEDT. Direct spending by visitors using Alternative Accommodations on O‘ahu in 2017 supported about 12,000 jobs.

Analysis of 2017 Total Supply of O‘ahu Alternative Accommodations

We analyzed various data sources to estimate the supply of Alternative Accommodations on O‘ahu, including:

- Hawai‘i Tourism Authority Visitor Plant Inventory Data,
- Hawai‘i Tourism Authority Visitor Arrival Visitor Characteristic Data,
- Internal data provided by Airbnb and HomeAway.

Based on our analysis, we estimate that there were more than 12,000 Alternative Accommodations on O‘ahu in 2017.

Visitor Plant Inventory Data

As a starting point, we considered the data from the 2017 Visitor Plant Inventory (“VPI”), the annual census of Hawai‘i’s visitor accommodations published by the Hawai‘i Tourism Authority (“HTA”). VPI survey data indicate a total of 3,317 alternative accommodations on O‘ahu in 2017. Because of the limitations of the survey methodology in identifying and surveying individual vacation rentals, we believe the VPI survey data undercount the number of alternative accommodations.

In recognition of the shortcomings of the survey methodology when applied to vacation rentals, the VPI includes a supplementary analysis of individually advertised vacation rental units (“IAVRU”), using data extracted from three booking platforms: HomeAway, Airbnb and TripAdvisor. The booking platform data indicated 9,441 IAVRUs on O‘ahu in 2017. While the extracted data provide useful detail profiling the supply, the data have several shortcomings. Since only the three largest platforms are included, Alternative Accommodations listed on other platforms are not included. The extraction captures a point in time, rather than annual data. Lastly, because it is common for hosts to list their units on multiple platforms, there is some double and triple counting of units.
### Limitations of Methodology

<table>
<thead>
<tr>
<th>Method</th>
<th>2017 O'ahu Units</th>
<th>Limitations of Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>VPI Survey</td>
<td>3,317</td>
<td>Undercounts due to fluid nature of supply and dispersion.</td>
</tr>
<tr>
<td>Booking Platform Extraction</td>
<td>9,441</td>
<td>Point in time data collection provides a snapshot, rather than annual data and therefore does not capture all of the intermittent supply. Only includes three largest platforms. Includes some double and triple counting of units listed on multiple platforms.</td>
</tr>
</tbody>
</table>

Source: Hawai‘i Tourism Authority, Kloninger & Sims

### Intent-to-Stay Data from Inflight Survey

We also analyzed the supply of alternative accommodations on O‘ahu using HTA data from the inflight survey. One of the questions on the survey asks visitors what type of accommodation they intend to use while visiting Hawai‘i. We combined the total 2017 O‘ahu visitors who indicated they intended to use the following accommodation types:

- Rental House,
- Bed & Breakfast,
- Private Room in Private Home,
- Shared Room/Space in Private Home
- Condo (applied 42.5% of the total, based on the ratio of Condo Hotel to VR Condo)

A total of 793,012 O‘ahu visitors chose Alternative Accommodations in 2017, representing 14.0% of O‘ahu’s 5.7 million visitor arrivals. Based on the larger party size of Alternative Accommodations visitors (3.9 people per party vs. 2.2 for all visitors), a length of stay of 7.6 nights and estimated occupancy of 60%, this analysis of visitor arrival data indicates O‘ahu’s Alternative Accommodations supply of about 7,000 units.

In addition to the HTA data on visitor arrivals and the supply of Alternative Accommodations, we analyzed data provided by Airbnb and HomeAway. Data provided by booking platforms indicates that some Alternative Accommodations are available for visitor use on a consistent basis throughout the year, while other Alternative Accommodations are listed and available for rental for only part of the year. This intermittent supply is believed to consist of:

- Hosts who make their residence available for rental during special events that generate lodging demand,
- Hosts who make their residence available for rental seasonally,
- Hosts who make their residence available while they are traveling away from home.

Based on our analysis of available data, including proprietary data provided by Airbnb and HomeAway, we estimate that the total number of Alternative Accommodation units on O‘ahu likely exceeds 12,000 units. Because the supply of Alternative Accommodations on O‘ahu...
includes some units that are available intermittently, we have based our economic impact analysis of Alternative Accommodations on the estimated 7,000 “effective units.”

2017 O’ahu Alternative Accommodations Supply Located in Designated Resort-Zoned Areas or with an NUC
We estimate that there are 2,167 units located in resort-zoned areas that allow nightly rental. Most of the units are located in condominiums in Waikiki located makai of Kuhio Avenue and Ala Moana Boulevard in Waikiki. The balance of the units are in the Ko Olina and Turtle Bay Resorts.

### Summary of Supply in Resort-Zoned Areas

<table>
<thead>
<tr>
<th>Area</th>
<th>Units in Resort-Zoned Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waikiki</td>
<td>1,946</td>
</tr>
<tr>
<td>Leeward/Makaha</td>
<td>164</td>
</tr>
<tr>
<td>North Shore</td>
<td>57</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,167</strong></td>
</tr>
</tbody>
</table>

Source: Hawai‘i Tourism Authority, Kloninger & Sims

In addition to the units in areas that are zoned for nightly rentals, there are 659 units that have an NUC issued by the City & County of Honolulu. Most are located in a handful of condominium projects located mauka of Kuhio Avenue in Waikiki.

### Summary of NUC Vacation Rentals

<table>
<thead>
<tr>
<th>Area</th>
<th>Units with NUCs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waikiki</td>
<td>508</td>
</tr>
<tr>
<td>Leeward/Makaha</td>
<td>24</td>
</tr>
<tr>
<td>North Shore</td>
<td>75</td>
</tr>
<tr>
<td>Other</td>
<td>52</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>659</strong></td>
</tr>
</tbody>
</table>

Source: City & County of Honolulu Department of Planning & Permitting, Kloninger & Sims

We estimated that 2,826 Alternative Accommodation units on O‘ahu are either located in an area zoned for nightly use or have an NUC. Of the estimated effective supply of 7,000 Alternative Accommodation units on O‘ahu in 2017, about 40% of the total, were either located in a resort zone where nightly rentals are allowed or had an NUC.
### Summary of Resort-Zoned Units and NUC Units

<table>
<thead>
<tr>
<th>Type</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resort-Zoned Areas</td>
<td>2,167</td>
</tr>
<tr>
<td>Non-Conforming Use Vacation Rentals (1)</td>
<td>659</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,826</strong></td>
</tr>
</tbody>
</table>

Source: City & County of Honolulu Department of Planning & Permitting, Kloninger & Sims

Note: The report on NUCs on the website of the City & County of Honolulu’s Department of Planning & Permitting shows a total of 816 TVUs and B&Bs. Our analysis of data in the report found a total of 659 units.

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### Home Sharing Component of the O‘ahu Supply

Of the total supply of Alternative Accommodations on O‘ahu, a portion are accommodations where the host is present. According to the VPI, they totaled 763 units in 2017.

### Estimated Alternative Accommodation Visitor Spending Associated with Accommodations That Lack Zoning for Nightly Rental or an NUC

We previously estimated that about 40% of the Alternative Accommodations on O‘ahu in 2017 were either located in an area zoned for nightly rental or have an NUC. About 60%, therefore, were located in areas not zoned for nightly rental and lack an NUC. Applying this 60% share to the total O‘ahu Alternative Accommodation visitor spend of $1,105,400,000 implies that about $659 million of the total spending is associated with Alternative Accommodations that were neither zoned for nightly rental nor had an NUC.

This $659 million in direct visitor spending represents $1.2 billion in total spending, $336 million in household income, $77 million in state tax revenue and 7,000 jobs supported based on DBEDT’s multipliers. These economic impacts would be at risk by regulation that closed all Alternative Accommodations outside of resort-zoned areas that allow nightly rental or that lack an NUC.

It should be noted that applying the 60% share could be considered conservative, since it is likely that Rental Houses, which represent more than half of the total visitor spending associated with Alternative Accommodations, likely account for a disproportionate share of the Alternative Accommodations located outside of resort zoned areas.

### Stakeholders in Sectors Affected by a Reduction in O‘ahu’s Visitor Accommodation Supply

To supplement our analysis of visitor data, we interviewed representatives from various sectors that could be affected by a reduction in visitor spending generated by Alternative Accommodations on O‘ahu. We interviewed people involved in retail, restaurants, and airlines.

**Airlines**

While various sectors of Oahu’s economy would be negatively affected by a reduction in the number of Alternative Accommodations, airlines are in the unique position of being able to
respond by redeploying aircraft to alternate routes. Airlines are keenly aware of the accommodation supply constraints on O‘ahu and the role that Alternative Accommodations play. In recent years, airlines have increased capacity to Oahu, in part due to the added capacity to accommodate visitors in Alternative Accommodations. During the past five years, airlines have added more than one million seats to Oahu, increasing from 7.0 million seats in 2012 to 8.1 million in 2017. Southwest Airline’s announced entry to the Hawai‘i market in 2019 will provide additional seats to the market and new options for travelers.

The recent growth of air capacity to Oahu would be jeopardized by new regulation that reduces the number of Alternative Accommodations on Oahu. It is likely that carriers serving O‘ahu would respond to a reduction in the supply of visitor accommodations on O‘ahu by reducing capacity. With O‘ahu’s hotels operating at annual occupancies in the mid-80s there is limited capacity to accommodate large numbers of additional visitors in hotels. As such, a reduction in the supply of Alternative Accommodations will lead to reduced visitor arrivals. This will lead to lower load factors on flights to O‘ahu, which in turn will result in airlines eliminating some O‘ahu flights.

**Retail and Restaurant**
The consensus among professionals involved in the retail and restaurant sectors was that a decrease in the supply of visitor accommodations on O‘ahu would reduce overall visitor spending but that generally they were not aware of the type of accommodations their customers were using. For example, businesses have a general understanding of the mix of visitors and residents in their customer base, but they typically do not know what type of accommodations the visitors use.

**Other**
There are indications that the tight hotel market on O‘ahu is limiting the ability of the destination to attract lucrative meetings, conventions and incentive (“MCI”) business. In 2017, hotel occupancy on O‘ahu averaged 83.3%, according to HTA data. An article in the April 6, 2018 issue of Pacific Business News addressed the challenges the MCI market faces due to the limited availability and high room rates of hotels on O‘ahu. In the article, the general manager of the Hawai‘i Convention Center stated, “It’s getting tougher and tougher in this strong leisure market to get competitive rates and pricing from hotel partners.”

Thank you for the opportunity to study this important issue. Please let me know if you have any questions or wish to discuss our findings.

Sincerely,

Erik Kloninger  
Managing Partner  
Kloninger & Sims Consulting LLC
Methodology

Supply of Alternative Accommodation Units

We analyzed the data from the 2017 VPI. The VPI Survey data for Vacation Rental Units (3,270 units) and B&B (47 units) were added to arrive at the total of 3,317 units. The figure from the Booking Platform Extraction was 9,441, based on the VPI report.

The demand analysis was based on data from HTA’s inflight survey. HTA provided visitor characteristic data for 2017 O‘ahu visitors who intended to stay at the following accommodation types:

- Rental House,
- Bed & Breakfast,
- Private Room in Private Home,
- Shared Room/Space in Private Home
- Condo

We applied the visitor characteristic data (party size and length of stay) to the visitor arrival statistics for each accommodation type. (For the Condo visitor count we applied 42.5% of the visitors indicating they were staying in a Condo, based on the ratio of Condo Hotel to Vacation Rental Condo supply data from the VPI. As “Vacation Rental Condo” is not a listed accommodation choice, the “Condo” visitor arrival figure includes visitors staying in Condo Hotels (condominiums with hotel-type services) and Vacation Rental Condos.) This analysis provided an estimate of annual room demand. We then applied an estimated occupancy of 60% to estimate the total supply of units.

Supply of Alternative Accommodation Units Located in Resort Areas or with an NUC

We identified the buildings in Waikiki’s Resort Mixed Use district (generally the area makai of Kuhio Avenue and Ala Moana Boulevard) and applied the number of units used in each as visitor accommodations according to the 2017 VPI. We included both vacation rental units and condo hotel units in the count. We applied a similar methodology to Ko Olina and Turtle Bay resorts.

The NUC data were extracted from the listing of NUC units on the website of the City & County of Honolulu Department of Planning & Permitting.

Visitor Spending & Economic Impact

We analyzed the PPPD spending of O‘ahu visitors by accommodation type for each of the types we have included in the Alternative Accommodations category. Data were provided by HTA. We estimated spending by category and accommodation type by applying the PPPD spending for each accommodation type by the number of 2017 visitor days. The individual accommodation type spending figures summed to the total spending for Alternative Accommodations. Economic multipliers were provided by the State of Hawai‘i Department of Business, Economic Development & Tourism.