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Transient Vacation Rentals on Oahu: Socio-Economic and Fiscal Impacts and Policy

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I. INTRODUCTION

Following a national trend, home-based businesses grew in Hawaii during the 1990s, which continued into the first decade of the new Millennium. The Hawaii cooperative extension service (CES) reported Hawaii home-based business in: agriculture, manufacturing, transportation, construction, wholesale and retail trade, service, finance, insurance or real estate and other. The typical home-based Hawaii home-based business owners made more than \$75,000, 85 percent owned their homes and had more gross household debt and income than their national counterparts (Hsu, Masuo, Fong, and Yanagida, 2008). Our email survey and the Vacation Rentals by Owners (VRBO) website reveal that many Honolulu County residents engaged in the vacation rental (home-based) business to serve the tourism industry, exporting hospitality services. Their export resource is their home or part of their homes used as short-term rentals (STRs).

According to Small Business Administration (SBA), there are over 22.9 million small businesses in the country of which 53 percent are home-based businesses (Longley, 2012). Small businesses account for 99.7 percent of the employers, for 50 percent of the private sector workers and for more than 50 percent of the non-farm private gross domestic product in the country. Small businesses are 97 percent of exporters

and produce 29 percent of export value. They continue to exist four years after startup and account for 75 percent of net new jobs. It is not surprising that in the nineties and following the recession of 2000-2001 and the great recession of 2008, many chose to focus on growing the home-based vacation rental segment of tourism. This is clearly a part of an expanding worldwide trend. The traveling public clearly and enthusiastically supports incorporating the industry into the community through spending on STRs in Tokyo, Sydney, San Francisco, New York, London, Berlin, Paris, Madrid, Milan and many other locations around the world (www.vrbo.com website and www.ozstayz.com.au website, 2012).

In the above context, some regulations affecting the growth of STRs in Honolulu are examined. The Land Use Ordinance No.86-96 took effect in Honolulu in 1986. It prohibited short-term transient rentals (STRs) of less than 30 days that were not located in resort districts or resort mixed-use precinct of Waikiki. A subsequent Ordinance No.89-154, which took effect in December 1989 prohibited new B&Bs in all zoning districts. It required all B&Bs and STRs to prove they were in operation prior to October 22, 1986 and December 28, 1989 respectively in order to continue with the business. It also required them to obtain a Nonconforming Use Certificate (NUC) from the Department of Planning and Permitting (formerly known as the Department of Land Utilization), City and County of Honolulu by September 28, 1990. Certain restrictions applied to these short-term rentals. They (including accessory dwellings) could not be enlarged. They could also lose nonconforming status if the transient use was discontinued over 12 months and finally STRs had to meet residential occupancy limits. In 1989, there were 2,235 rental housing units and 141 B&Bs that held non-conforming use certificates (NUCs) and were permitted to operate in the City and County of Honolulu (Eng, 2007). By July 2011 there were only 826 STRs and 49 B&Bs that were permitted. So the number of legitimate short-term rentals (STRs) operating in the City and County of Honolulu has been greatly reduced. The three main reasons for dropping the nonconforming use certificates by short-term rental operators have been: 1) Noncompliance with the renewal requirements; 2) Voluntary withdrawal; and 3) revocation due to the expansion of the nonconformity. (Eng, 2007). It is clear that under current rules in the County of Honolulu, the STR segment of home-based

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businesses has had to go through a lengthy, difficult permitting process to bring their businesses into compliance with the law. This has resulted in only a small cross-section of STRs operating on Oahu being registered and having the required special non-conformity use permits (NUCs). Pending the passage of a new vacation rental ordinance, this is unlikely to change.

The City and County of Honolulu Planning Commission have been holding hearings over recent years to more strictly regulate short-term rentals and has a draft bill proposing changes to the 1989 bill that sharply limited STR activity related to B&Bs and STRs (Yamane, 2011). However, the proposed bill is not acceptable in its current form to many Oahu homeowners who see its provisions as an encroachment on their property rights and as an obstacle to legitimately earn a living through renting their property (Baehr, 2011).

This study on the economic impact of STRs on the City and County of Honolulu was commissioned by the Hawaii Vacation Rental Owners Association (HVROA) on the island of Oahu. The study is aimed at informing the debate on the Planning Commission's draft bill and underlining the economic consequences of the Department of Planning and Permitting's announced intent to strengthen existing law and shut down STRs without permits in the near future. Since B&Bs and STRs are essentially small, home-based businesses, it is important to recognize the potential adverse effects and unintended consequences of unduly restrictive regulations or an outright ban. In this spirit, this study can be viewed as consistent with the requirements of Senate Bill 188 (Act 217) signed into law by Governor Linda Lingle in 2007. Small businesses in Hawaii account for 115,186 businesses, represent 96.5 percent of all employers and employ about 55 percent of the workforce (SBA, 2012), a context regulator need be cognizant of in their efforts.

a) Previous Studies

There has been one previous documented study regarding the Transient Vacation Rentals (TVRs, previously used as an acronym for short-term rentals STRs) on Oahu by the Kauaian Institute in September 2005 (The Kauaian institute, 2005). The market segment assessment study provided a comparative analysis of the geographic and economic footprint of transient vacation rentals on Oahu. Two significant findings from the study were a count of 1117 STRs on Oahu following an intensive search process (which shows an undercount of STRs in official figures reported by DBEDT) and an estimate of \$65 million in lodging revenues received by STRs in 2004.

This study updates the earlier study by using both officially and privately reported data for 2010 and uses the 2007 Hawaii Input-Output Table to measure the impact of TVR lodging revenues on output, earnings,

and employment in Honolulu County. Although some definitional and legal differences exist between Bed & Breakfast (B&B) Rentals, Transient Vacation Units (STRs) rentals and other private homes available for short-term rentals, in this study, all such short-term rentals (STRs) are considered to be B&Bs and STRs. There has been no intensive attempt to develop a new separate estimate of STR lodgings in Honolulu County either through an intensive or extensive search or survey process given the limitation on time in developing this research report. We did, however, conduct an STR email survey and gleaned the VRBO/ Home away website. Results from both sources enter into our estimate of the STR total on Oahu.

b) Research Organization

Section II provides a review of studies reviewing STR and related trends, impacts, and policies of other jurisdictions as well as Hawaii. Section III provides a discussion of Oahu STR characteristics and presents our estimated Oahu STR unit number. Section IV provides our analysis of the economic and fiscal impacts of STRs on Oahu's economy. Finally, section V provides research conclusion and suggested policy recommendations from our investigations.

II. REVIEW OF STUDIES ASSESSING STR TRENDS, IMPACTS, AND POLICIES

This section provides national and international STR trends and related trends, STR impacts and STR policies that have been promulgated by other jurisdictions as well as Hawaii. This information provides a context and perspective in which to view for Oahu's STR industry.

a) Trends

According to Travel Industry Association of America, in 2010, the United States travel industry garnered \$ 758.7 billion from domestic and international travelers spending (excluding international passenger fares). The estimated impact of these travel expenditures was 7.4 million jobs with over \$188.4 billion in payroll income for Americans, as well as \$117.6 billion tax revenue for federal, state and local governments (USTA, 2011).

It is not surprising given the vast potential of the tourism industry and its growth trend, many home-based businesses have commenced serving travelers through either operating travel agencies or by offering lodgings as either bread & breakfast establishments or transient vacation units within their homes. Since the 1990s decade, several factors have contributed to growing this segment of the home-based business. These include the spread of the internet, e-commerce, web-based advertising and growth in the number of firms providing specialized software for home-based businesses and facilitating monetary transactions online. As mentioned earlier, home-based businesses afford

a greater sense of freedom, provide earnings for proprietors and generate significant employment in the country (SBA, 2012).

The Internet has revolutionized the property management industry changing the paradigm on how profits from holiday rentals and the visitor industry are to be distributed among more participants. The advent of e-commerce challenges the status quo where property managers and hotel owners previously used to call the shots and from whom market power has been slipping away (Smith 2012). Credit cards and Paypal facilitate the trust in the transactions, Google and Google ads help to market the rentals, property management software system (PMS) integrates accounting and marketing tools and direct SMS communications to client phones about check-in times, and other arrangements are the reality (Wortham, 2011). All of these developments have greatly boosted the confidence of property owners who are creating home-based businesses in the form of short-term rentals (STRs). Web-based ventures listing SDRs include Airbnb that raised \$112 million in venture funds and Windu that raised \$90 million in Europe, 9flats, Roomarama, iStop Over, Craigslist, Rent a home, Take a break, Stayz, Home away, Ozstays, and Vacation Rental by Owner (VRBO) among others. Mergers and acquisitions among these web-based businesses are occurring as this burgeoning industry consolidates (Wortham, 2011; Smith, 2012).

STR websites have eliminated middlemen in the form of expensive travel agents and real estate brokers proving to be useful middlemen in a global market. Ancillary sectors that support tourism and travel have evolved simultaneously with STRs. Examples are Neighbor Goods to rent other goods, Snap Goods that list ski equipment and power tools, and start-ups like Get around in the Bay Area which connects car owners with those who want to rent cars (Wortham, 2011).

In total, the scale of operations of the STR industry has assumed global proportions with billions of dollars invested, millions of dollars in earnings and hundreds of thousands newly created jobs. According to Quinby (Glantz, 2011), on-line listings had been a major driving force behind what has been an extraordinary transformation of the residential real estate market over the past decade.

b) Externalities

While the economic impacts of STR growth by themselves are viewed positively, there are negative impacts and some positive impacts that have not been accounted for (i.e. externalities). STRs may have externality impacts on a local community. In economic theory, an externality occurs if the benefits or costs of a good are passed on to or "spillover" to someone other than the buyer or seller. The presence of externalities signifies market failure. Market failure means that the market produces "wrong" amounts of the goods or

services in question and fails to allocate resources properly. Relative to the market allocation of resources that is 'efficient' in the absence of externalities, there is over-allocation of resources to the production of the good or service in the presence of a negative externality.

Likewise, sometimes externalities associated with some goods or services are beneficial to other producers and consumers. These uncompensated spillovers accruing to third parties or the community at large are called positive externalities. Typically, the presence of beneficial externalities indicates under allocation of resources for goods and services that generate them.

c) STR Externalities and their Policy Responses

In an earlier study regarding the economic impact of transient vacation rentals in Maui County, the authors cited some of the purported benefits of vacation home development in rural Vermont in the 70s and 80s to satisfy recreational needs of urbanites from southern New England and New York (Fritz, 1982). For Vermonters who had traditionally experienced high levels of poverty, these included: improvements in the quality of life, additional employment, tax revenues, income and induced investments. Furthermore, due to the impact on the tax base being positive local landowners would face lower property taxes.

The City of Encinitas, California proposed an amendment to prohibit short-term vacation rentals in all residential zones throughout the city. The amendment at least in part appears to have been a response to negative externalities associated with vacation rentals cited by city residents including loud and disorderly tenants, illegal parking and vandalism, overcrowding and traffic congestion. The amendment was found to be inconsistent with the Coastal Act. The Coastal Act promotes and preserves a full range of public access opportunities along the coast, including the provision of accessible and affordable commercial facilities, which serve and support coastal visitors. Another major reason to reject the amendment was the amendment's inconsistency with the California Environmental Quality Act (CEQA) as it would have an adverse impact on visitor-serving accommodations and low-cost recreational facilities. Provisions of CEQA also state that amendments will not be approved or adopted as proposed if there exist feasible alternatives or mitigation measures available which would substantially lessen any significant impact the activity may have on the environment. A compromise was reached, and the City of Encinitas adopted an ordinance requiring owners to get an annual \$150 permit from the city for each short-term rental unit. The Superior Court in North County ruled in favor of the City of Encinitas when this provision was legally challenged in 2010 (Medford, 2011). Since 2009, the city collects a 10 percent transient occupancy tax (TOT) of which 8 percent is deposited in the General

Fund, and 2 percent is allocated to a special fund dedicated to beach sand replenishment and stabilization projects.

In San Juan County in Washington renting out a home as a vacation rental is not considered a commercial use and is allowed in residential areas. There are no limits on vacation rentals. However, homeowners are required to obtain a conditional use permit (San Juan Islander, 2002, 2004 and 2005). Detached accessory dwelling units (ADUs) were more likely to be used for vacation rentals and caregiver housing whereas attached ADUs were more likely to be used for family and other personal guests. As positive, transient rentals earned income for the owners such that changing the rules could cause "economic harm." Perceived negatives were transient rentals reduced housing to locals, devalued surrounding properties and impacted water systems due to increased density. The consensus was that ADUs historically had provided affordable housing. In 2005, in order to mitigate the problems associated with vacation rentals, property owners with transient rental permits were assessed taxes 15 percent higher than similar buildings without a permit. Also, the personal property in the transient rental properties is subject to personal property tax while the transient rentals are subject to sales and hotel/motel taxes. Property owners of transient vacation rentals must also provide a contact number that is available 24 hours a day. The number does not have to be a local number.

Big Bear nestled in the San Bernardino Mountains in California had a 2008 ballot measure initiative. It sought to improve the quality of transient rentals by improving the safety and security of guests, provide remedies for unruly and unlawful overnight uses and encourage currently unregistered rentals to become licensed and provide residents with notice of each proposed commercial use of a residence in their neighborhoods (Ballot measure, 2007). However, a group called Citizens Protecting the Rights of Property Owners (CPRPRO) successfully sued the City of Big Bear in Superior Court to remove the initiative from the election ballot (Big Bear Grizzly, 2008). The measure would have required private home rentals to be approved through the conditional use permit process and comply with Americans with Disability Act laws among other restrictions. It was shown by an independent financial study that at least 90 percent of the private home-rentals in the City of Big Bear Lake would not have been able to comply with the initiative measure and would have gone out of business. The measure would have impacted the city's general fund significantly due to loss of the transient occupancy tax.

In 2010, the New York Assembly approved a ban on short-term rentals whereby owners and renters could not let out their apartments as transient hotels (Drake, 2010). The law was to take effect in May 2011

but has not been implemented fully because it was considered too broad. Noise, disruption and real safety concerns drove that decision. The legislators were also concerned with the shortage of housing in the city. At the same time, a new bill was introduced to amend the yet to be implemented the short-term rental ban in New York City in April 2011 (Protect-Vacation-Rentals.com website, 2011). The bill aimed to provide an exemption for a specific class of good actors that rented a certain type of "class A" multiple dwelling units on a short-term basis.

According to the draft bill the "class A" multiple dwelling units could be lawfully rented for less than thirty days provided it met four conditions viz. (i) is not a single room occupancy, (ii) contains a bathroom and kitchen, (iii) has working smoke detectors located in each room and (iv) the unit has sufficient fire, hazard, and liability insurance to cover those persons using the unit for such occupancy. The justification provided for the draft bill was that the law banning short-term rentals encompassed a greater universe than was intended. Although the law would phase out Single Room Occupancy Buildings (SROs), it would also rid New York State of a legitimate business model, namely, short-term rental units. These short-term units provide tax income to New York and tourism dollars to the areas in which they are located. Thus one should not confuse STRs with SROs, which often get associated with decrepitude, poor maintenance, and numerous building and health code violations.

In December 2011, the New York City Council held a hearing on Intro. 404 that would amend the Administrative Code to provide increased fines for illegal conversions of residential apartments into short-term rentals and that would classify the illegal conversion of more than one unit in the same building as immediately hazardous (Protect-Vacation-Rentals.com website, 2011). Among the benefits of regulating short-term rentals as opposed to their outright ban was "localizing" the benefits from the travel industry beyond Manhattan and giving visitors a chance to experience and see the city as a true New Yorker. A compromise solution (as opposed to a ban) would also mitigate a fear that a ban would result in disinvestment in city infrastructure.

In San Francisco, the census count on vacation rentals surged to 5564 in 2010 from 3764 in 2000 and 1509 in 1990 (Glantz, 2011). The census figures in 2010 for nearby San Jose was 845 and Oakland had 633 vacation homes. Vacation homes with a view could rent for as much as \$650 per night. The city collects 14 percent hotel tax from landlords who rent apartments to out-of-towners on a short-term basis. The city acknowledged it did not have enough staff to investigate complaints of illegal rentals. One of the prime reasons driving up demand for short-term rentals by tourists is to have the real San Francisco experience. However, the "hotelization" of San Francisco has led to a perception

that seniors, families and low-income tenants are being ejected out of the city to live elsewhere.

In March 2011, Walton County commissioners in Florida were set to consider county legislation that would control the number of occupants that may sleep in short-term rental condominiums and single-family homes (Stark, 2011). The proposed legislation was considered by some to be anti-family, anti-tourism, anti-short-term rental property owner property rights and anti-business. People also feared that short-term rental owners would dump their real estate in Walton County and move somewhere else along the Gulf coast. However, Florida Governor Scott signed into law House Bill 883 in June 2011 that would prohibit counties and cities from imposing rental restrictions on vacation rentals unless they had previously enacted laws. The legal issues identified related to short-term rentals were: constitutional issues, disparate treatment, alienation of property, reasonable regulations, contractual obligations, the frequency of usage (between hotel versus residential), practical consideration regarding amending community development regulations and ordinances.

In the City of Austin, Texas the council began in early 2012 to make an inventory of short-term rentals and look at the impact on neighborhoods and the quality of life (Castillo, 2012). This process is estimated to take three months to complete and cost around \$63,500.

Concerns over B&Bs/Transient Vacation Units in the State of Hawaii to an extent mirror various concerns expressed by different communities and towns on the US mainland.

d) *The Hawaii Experience*

A significant Oahu STR concern is that it destroys the residential character of neighborhoods and turns them into eventually resort areas (Au, 2007). Other concerns include the fact that they introduce a constant flow of strangers into the neighborhood which impacts rental housing availability, rent prices, property taxes and the property rights of neighbors (Bartley, 2005).

On Maui there is concern over the long run stock of housing for residents due to transient vacation rentals, with Ohana units being converted to vacation rentals and their impact on local lifestyles (Eagar, 2007). There is also fear that these types of rentals would urbanize agricultural and rural areas (Watanabe, 2007).

A record of county zoning complaints from January 1999 through August 2005 showed that noise, late parties, traffic congestion, illegal structures or illegal modeling, disturbances, and parking on the street are some of the negative externalities associated with transient rentals on Maui (MVRA, 2006). The most frequent complaint (10 in number) was regarding disturbances from STRs from 1999 to 2005.

It was reported that in 2008, 2009 and 2010 complaints received against STRs on Oahu were 117, 364 and 698 respectively (Carvahlo, 2011). Of these only

15-20 percent of the investigated complaints were found to be valid and mostly involved code violations. If the higher 20% figure is used for valid complaints, it is about 136 valid complaints received against 2875 STRs (B&Bs and STRs) for 2010. That is about 4.7 percent of STRs on Oahu that registered negative complaints, not unlike Maui County where it has been about 3%. Since 2010 there had been 70 notice of violations and only ten had reached the final stages (Tanoue, 2011). The penalties involved fines up to \$1,000/day.

e) *Studies on Regulations and Restrictions affecting Short Term Rentals*

Recently there is growing literature in the study of regulations and restrictions placed on STRs. The efficacy of rental restrictions to promote neighborhood stability, aesthetic tranquility and quality of life in neighborhoods was studied for STRs in Sedona, Arizona (Pindell, 2009). It has been shown that the lost rental income to owners can be significant. When there have been legal proceedings, courts in the country while ruling for the government have considered an ordinance a relatively minor intrusion on alienation rights. Court rulings in favor of the owners have often viewed an ordinance as having a disparate impact on the individual member, of the community, of having far-reaching economic consequences for the property and having an unintended over-inclusive effect. The author notes the need for more flexibility in ownership models and regulatory regimes to preserve the economic stability of individuals and communities. Local government, that are generally closer to their constituents and adaptable to change, maybe the appropriate sites for regulatory changes.

The impacts of short-term rental restrictions on rental property owners can be evaluated: i) from its effects on rental income, property values, operational costs and nonconforming use status of rental property owners; ii) from the effects it has on the local real estate market, tourism, local economy, tax revenue, affordable housing and government administrative costs for the community; iii) from the effects on rental fees and inventory of short-term rental units for renters; and iv) the underground market and uncertainty in the STR housing market as unintended consequences (Robinson & Cole LLP, 2011). There may be alternatives to short-term rental restrictions through enforcing existing ordinances on excessive noise, public nuisance, property maintenance standards, unruly public gathering, nighttime curfew and parking restrictions. Other approaches may involve adoption of ordinances that target community-wide issues or employing best practices such as narrow regulations, grandfathering provisions, quantitative or operational restrictions, permitting requirements, inspection requirements and enforcement provisions.

Many resort cities around the country have continued to impose rental restrictions so the situation

continues to evolve in many states and locality. However STRs continue to generate billions in annual real estate sales, millions of dollars of new construction and in annual insurance premiums and contribute significantly to the finance and mortgage industries and property tax revenues (Rumrell & Brock P.A., 2011). So a ban or severely restricting STRs could have a significant dampening impact on the overall economy.

f) Summary

The studies reviewed clearly indicate externality related issues with respect to short-term rentals both B&Bs and STRs. Whereas the economic impacts on output, employment, earnings and tax revenues are generally positive, there are other costs associated with the operations of STRs. These other costs are associated with disturbances, parking, water and sewer services, pressures on the long run stock of housing, on the character of residential neighborhoods, and the urbanization of agricultural and rural lands. Other issues relate to concern over the safety and security of the guests as well as the residents.

This report does not provide an extended cost-benefit analysis, incorporating valuation of both positive and negative externalities and used for social decision-making. However, it could be noted that there are sufficient management tools in economic theory to handle externalities and make social and economic outcomes more efficient. As referenced above, these tools involve legislation, fines, and specific taxes to deal with negative externalities and subsidies for consumers and producers for the provision of public goods and services in the case of positive externalities.

III. OAHU STRS-THEIR CHARACTERISTICS AND NUMBER

This section provides information characterizing Oahu B&Bs/STRs, their place in Oahu's housing complex and their numbers. We also present results of our e-mail survey.

a) Data Sources

The American Community Survey, for Oahu CDS Hawaii done by the US Census Bureau for 2010 is used for this study for Oahu housing characteristics. This source provides a Population and Housing Narrative Profile and is an update of the US Census Bureau figures for 2009. Information regarding the total number of visitors, the average length of stay, demand for lodging types, total visitor expenditures, visitor plant inventory by islands was all found through perusing DBEDTs Annual Visitor Research Reports from 2003-2010. Information on STR and B&B visitor days was derived by means of private communication with an official (Mr. Cy Feng, personal communication) of the Hawaii Tourism Authority (HTA) organization.

The Kauaiian Institute conducted searches over the internet for each of Oahu's zip codes and looked at

major vacation websites and in the print media to provide the best available estimate of the STR number on Oahu. The Kauaiian Institute estimated the STR number in 2005, which they later up-dated, in their 2008 survey. In addition, for our estimate of the STR number on Oahu, we reviewed i) transcripts of testimony provided by Mike Friedel at a meeting of the Planning Commission of the City Council on January 30, 2008, ii) a news release of the Hawaii Tourism Authority on February 21, 2005, and iii) a copy of the written communication addressed to Ms. Angie Larson from Mr. Henry Eng, Director of Planning and Permitting of the City and County of Honolulu dated July 25th, 2007. We also received an update on the number of licensed STRs and B&Bs having Non - Conforming Use Certificates as of July 18, 2011. We have estimated the number of licensed and unlicensed STRs and B&Bs on Oahu, by looking at the total counts of B&Bs and other STRs from all sources, namely, from Department of Planning and Permitting of the City and County of Honolulu, Hawaii Tourism Authority, DBEDT, The Kauaiian Institute, the VRBO website and after conferring with competent authority in the context of our own analyses generated during our research process.

Finally, we conducted an e-mail survey to better understand the nature and characteristics of all Oahu's B&B/STR industry.

b) Email Survey

An email survey was designed and distributed to Oahu B&B/STR owners and operators (see Appendix 1 for a copy of the survey document). There were 102 respondents to the survey.

i Respondents by STR Type

The total respondent number (102) owns or operates a total of 904 separate STR units which comprises 31.4% of the total estimated STR number on Oahu (2,875).** The sample can be characterized as follows.

- Distribution
 - Respondents (Total = 102)
 - 28.4% B&Bs
 - 21.6% condos/townhouses
 - 50.0% STRs
 - Units (Total = 904)
 - 8.1% B&Bs
 - 32.2% condos/townhouses
 - 59.7% STRs
- Characteristics
 - Book & Own
 - B&Bs
 - 46.8% of B&B respondents book & own a single B&B

** Derivation of this value is presented below.

- The average number of B&Bs per respondent equals 1.5 reflecting the high percentage of B&B operators booking and owning their B&B
- Condos/Townhouses
 - 18.5% of townhouses/condos respondents book & own a single townhouse/condo
 - The average number of townhouse/condos per respondent equals 10.8 reflecting the high percentage of townhouse/condo operators who book but do not own the townhouse/condo
- STRs
 - 33.8% of STR respondents book & own a single STR
 - The average number of STRs per respondent equals 7.3 reflecting the high percentage of STR operators who book but do not own the unit

Travel agent and real estate respondents comprised 3.9% and 12.7% of the sample, respectively. It seems reasonable to surmise that these respondents book multiple units without ownership and thus are responsible for the high unit number per respondent for townhouses/condos and STRs.

ii STR Distribution

Figure 1 shows the Oahu geographical distribution of the sample respondent STRs. Sixty percent (60%) of sample respondents indicated their STR location as North Shore and Waimanalo/Lanikai/Kailua. The remaining respondent STR locations are roughly equivalent in number. Since the number of STRs by location per respondent was not gathered in our sample, we can only surmise that the STR unit number in our sample roughly corresponds to the location of sample respondent STRs.

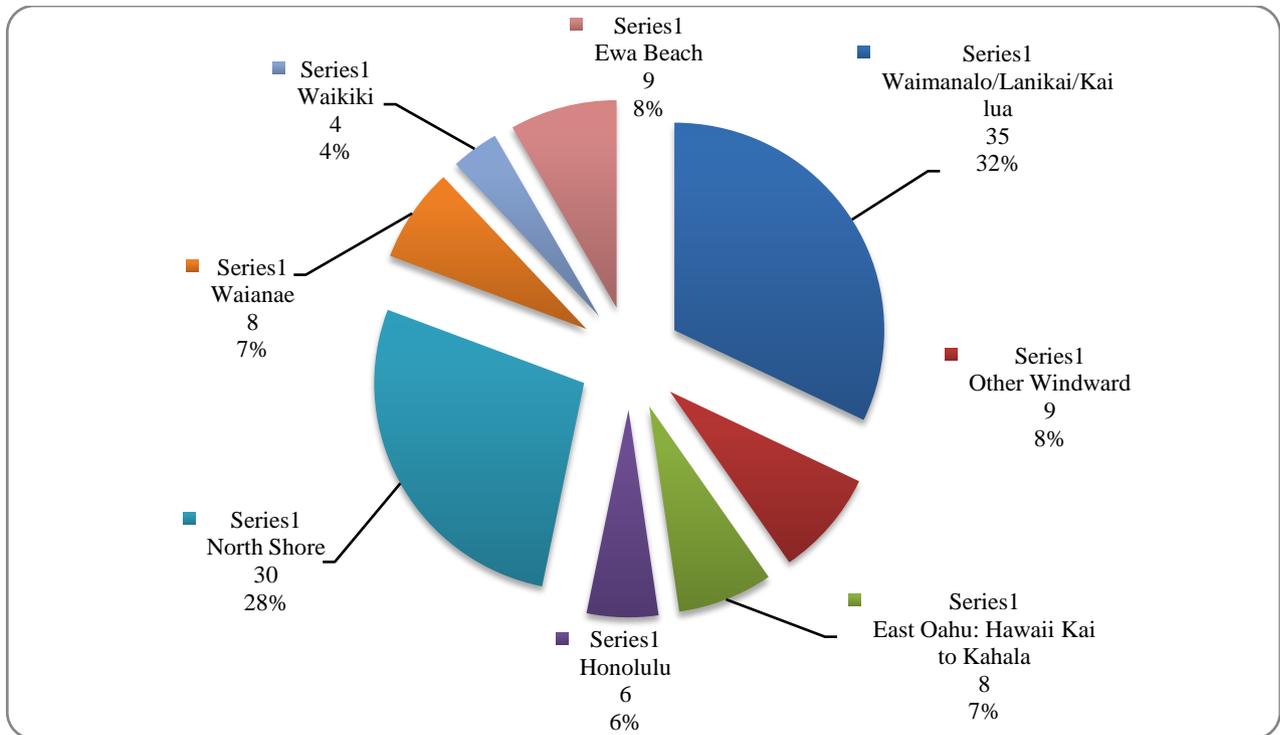


Figure 1: Location of Sample Respondent STRs

While STRs make up an insignificant percentage of Oahu's overall housing supply this STR percentage of housing units for particular sub-regions would be higher given the Figure 1 STR distribution weighted more heavily toward Windward and North Shore sub-regions.

iii In Operation Prior to 1986 & 1989

Sixteen (16) or 21.6% of all sample respondents indicated that their units were in operation (renting less than 30 days) prior to 1986 & 1989. There was insufficient information in the sample to determine the STR number in operation prior to 1986 & 1989.

iv Non-Conforming use Certificates (NCUs)

Twelve (12) or 16.2% of all sample respondents indicated that they had at sometime in the past received a Non-Conforming Use Certificate for their STRs or B&Bs from the Department of Planning and Permitting (DPP). However, only nine (9) or 12.2% of respondents currently have a certificate to operate their STR. Three (3) respondents indicated that they dropped their NCU Certificate to operate two (2) of which indicated that their revocation was "due to the expansion of the nonconformity." There was insufficient information in the sample to determine the STR/B&B location distribution with NCUs.

v STR Property Habitation and Property Managers

Almost ninety-four percent (93.6%) of B&B respondents reported that they live on the property confirming what was already noted that the vast majority of B&B's are owner-operated but adding that almost all B&B operators live on the property.

Fifty-four percent (54.0%) of STR respondents reported that they have property managers while 46.0% do not. This result is consistent with the high number of STRs per respondent (i.e. 7.3) and suggests a practical limit of how many STR's a single individual can book (and manage), especially if that individual is the STR owner and not a professional property manager. This assertion is supported by the sample reporting of a small number of respondents (10) booking more than five units, which if removed from the sample results in STR units per respondent of 1.3, would be approximately the same as the B&B units per respondent reported above. In other words, most STR operators are small, home-based business operations even if they do have a property manager.

vi Rental Rates and Occupancy Rates

Respondents reported the following STR rental rate information.^{††}

- The average rental rate per day was \$377 with a median rate of \$250 per day^{††}
- The minimum sample rental rate per day was \$40
- The maximum sample rental rate per day was \$3,500.

Table 1 shows the occupancy rate per STR type. It is noteworthy that these occupancy rates are less than the average hotel occupancy rates recently reported for Oahu, which exceed 80%.^{§§}

Table 1: Occupancy Rate by STR Type

STR Type	Occupancy Rates			
	Average	Min	Max	Median
STR	62.7%	0.8%	98.0%	65.0%
B&B	69.4%	20.0%	98.0%	73.0%
Condo	69.3%	24.0%	90.0%	70.0%

Using the median STR rental rate per day, the average STR occupancy rate, and the STR number, the total sample STR sales equals \$58.2 million. Projecting for all of Oahu based on this sample result and the percentage of total STR units the sample represents indicates a total current Oahu STR (direct) STR lodging expenditure amount of \$185.1 million.^{***}

^{††} Some respondents reported a range of rental rates for which the analysis took the mid-point of the range for reporting purposes.

^{††} Given the large range in reported rental rates with several being outliers on the upper end of the range, the median would better measure rental rates typical for an Oahu STR.

^{§§} Source: UHERO website Data Portal

^{***} As will be presented, this estimate falls within the range of STR lodging expenditures estimated based on the approach and data used below.

vii STR Advertising, Community Expenditures, and Attitudes

Ninety-four (94.1%) of sample STRs advertise their property on the Internet of which 4 (50% of STRs with NCUs) provide their NCU certificates permit number in their advertisement. This same percentage of sample STRs (94.1%) employ others to perform cleaning, maintenance, bookkeeping and other services to support their STR small business operations. The average number of individual service providers utilized by the sample equals 5 on which the average Oahu STR spends approximately \$2,200 per month for their services.

All but one respondent (i.e. 101 respondents) indicated they would be agreeable to legislation that included permitting with reasonable rules and regulations. However, at least under the current regulatory regime, only 14.7% (15) would be agreeable to including their physical address with their advertisements. Based on multiple comments of respondents (the most frequently mentioned), not including a physical address may be due to increased risk of theft and break-in when a physical address is advertised. Not including a physical address to a lesser extent is also due to STR respondent neighborhood sensitivities as they noted that adding their physical address to advertising would cause more traffic problems in the neighborhood as people would have local relatives come by to investigate their unit before renting.

viii Respondent Comments

- Financial/Economic
 - Without vacation rental income would have to default on my mortgage.
 - Our focus is not on steady occupancy as we often use our home, but the rentals do assist in paying the monthly bills such as cleaning, utilities, and landscaping services.
 - I am usually enjoying my property when not occupied, but due to the difficult economy, we only netted \$6000 this year which went into replacing the deck and a roof repair.
 - Our B&B kept us from losing our home. We bought at the top of the market and cannot afford the payments unless we short-term rent. Without this income, we would be subject to a short sale or worse foreclosure.
 - I cannot afford to live in my personal home if I didn't have the rental income from my STR.
 - Not only does this cottage industry generate income for owners who struggled to keep up in this expensive marketplace, and for the people in the owner's employ, it also generates revenues for local businesses. This revenue comes from the owners who are willing to upkeep their property and from the guest to eat/shop/play on Oahu.

- Market
 - Without large vacation rental homes like mine (four-bedroom) many of the families I rent to choose not to come to Hawaii for their family vacation.
 - Many people live in our community book my units for their visiting family and friends as their homes are not large enough for them to stay with them. They come for weddings, funerals, graduations, etc. most cannot afford Turtle Bay resort prices. They would not come if that was their only choice for a place to stay.
 - B&Bs that are quiet, provide parking and utilize only one parking space are actually keeping the residential look because that is what sells.
 - I stopped doing short-term rentals when they became too controversial. I would do so if the controversy were removed which would lead to more economic transactions in Kailua as well as restaurant activity nearby.
 - I have made many improvements to my condo in order to make it competitive in the vacation rental market. Such upgrades increase the property value of surrounding condominiums which would not be possible without this STR income.
 - We could easily quadruple our level of activity if current regulatory problems and issues were resolved.
 - Multiple respondents indicated that they only rent out their STR when they are not staying there which varies considerably over a year.
 - People who have enjoyed our B&B return year after year becoming like family and call our B&B there Honolulu home. Our neighbors know we do B&B and have even used our B&B for their visiting relatives and friends.
- Regulatory
 - Reasonable permitting needs to be done as soon as possible. It's time to help our economy and stop the feuding among neighbors. Having guidelines to follow would be a win-win for all involved, but most importantly our communities need the economic benefits now.
 - Most of my neighbors have supported my STR activities and enjoyed my guests over my 16 years of operation. I have but one neighbor recently retired who filed complaints who has ceased so doing given he has found an alternative to work activities in retirement.
 - I can only see benefits for the City & County to license B&B/STRs. The licensing will generate extra revenue for the County beyond taxes already paid by owners. It will provide rules and regulations by which the owners will need to abide, minimizing complaints by neighbors. It (licensing) would allow law enforcement to focus on the true complaints

rather than those submitted by the Keep It Kailua group.

- Because of current problems we are limited in rental income from our STR.
- Multiple respondents indicated that they rent their STR by the month would like to have the option of renting shorter-term.
- Fiscal
 - General excise and transient accommodation taxes paid on a yearly basis for the seven condos I own on Oahu are approximately \$34,000.
 - I paid \$12,000 in general excise and transient accommodation taxes in the first half of this year.
 - Multiple respondents commented that even though they were not certified they did pay all general excise and transient accommodation taxes related to their STRs.

c) *Oahu STR Number*

The Oahu STR number is an integral value to the estimation of the economic and fiscal impacts of Oahu STRs including B&Bs. This section reviews previous research to estimate the Oahu STR number and the resulting from our research process.

i) *STRs and Total Oahu Supply of Lodging by Type*

Table 2 provides information regarding the supply of visitor lodgings by type for Oahu. Overall, the total number of Oahu lodging units stands at about 34,000 with little change from 2009 to 2010. However, the change in STRs over this period was much more dramatic declining 37 percent from 2009 to 2010 with a declining percentage share of the total of all Oahu lodging units from 2.15 percent in 2009 to 1.35 percent in 2010 (percentage amounts are Appendix 2 Tables). The decline can be attributed to the significant decline (-57%) in Waikiki/Honolulu STRs as well as a somewhat significant decline in Windward STRs (-20%) (See Appendix 2 Tables for more details).

One final noteworthy observation from Table 2 data is the insignificant number of the total of all Oahu lodging units that STRs currently comprise (458 or 1.35% of the total). This STR unit number appears to be on the decline based on the data reviewed in Table 2. One could reasonably presume that the STR decline on Oahu is due to STR shutdown and other threats emanating from County authorities^{†††} a decline contraindicated in the context of an apparent consumer preference for this lodging type (to be discussed).

^{†††}. This statement is supported by the observation of the Hawaii Tourism Authority. It noted that while increasing in previous years, the number of bed & breakfast ("B&B") units and properties recorded for 2010 decreased partly due to enforcement of county licensing regulations and partly due to slow recovery from the recession which forced some B&B properties to close.HTA, "2010 Visitor Plant Inventory Report," (see <http://www.hawaii-tourismauthority.org/research-reports/reports/visitor-plant-inventory/>).

Table 2: Supply of Lodgings by Type of Accommodations, Honolulu County

Lodging Type	2010 Units	2009 Units	Change from 2009
Hostel	247	251	-1.6%
STR	458	732	-37.4%
Bed & Breakfast	88	105	-16.2%
Individual Vacation Unit	370	627	-41.0%
Institutional	33,256	32,936	1.0%
Apartment/Hotel	83	93	-10.8%
Condominium Hotel	5277	4695	12.4%
Hotel	25527	25786	-1.0%
Timeshare	2369	2362	0.3%
Other	79	82	-3.7%
Grand Total	34,040	34,001	0.1%

Source: Appendix 2

Figure 2 shows the STR distribution for each STR type. Windward side has the largest share of bed & breakfast B&Bs while Waikiki yet has the largest share of individual vacation units (STRs) in spite of the decline in these units from 2009 to 2010 discussed above.

Exclusive of Waikiki/Honolulu, the STR distribution would show be similar to the STR respondent distribution reported from our email survey discussed above with higher concentrations of STR units in Windward and North Shore sub-regions.

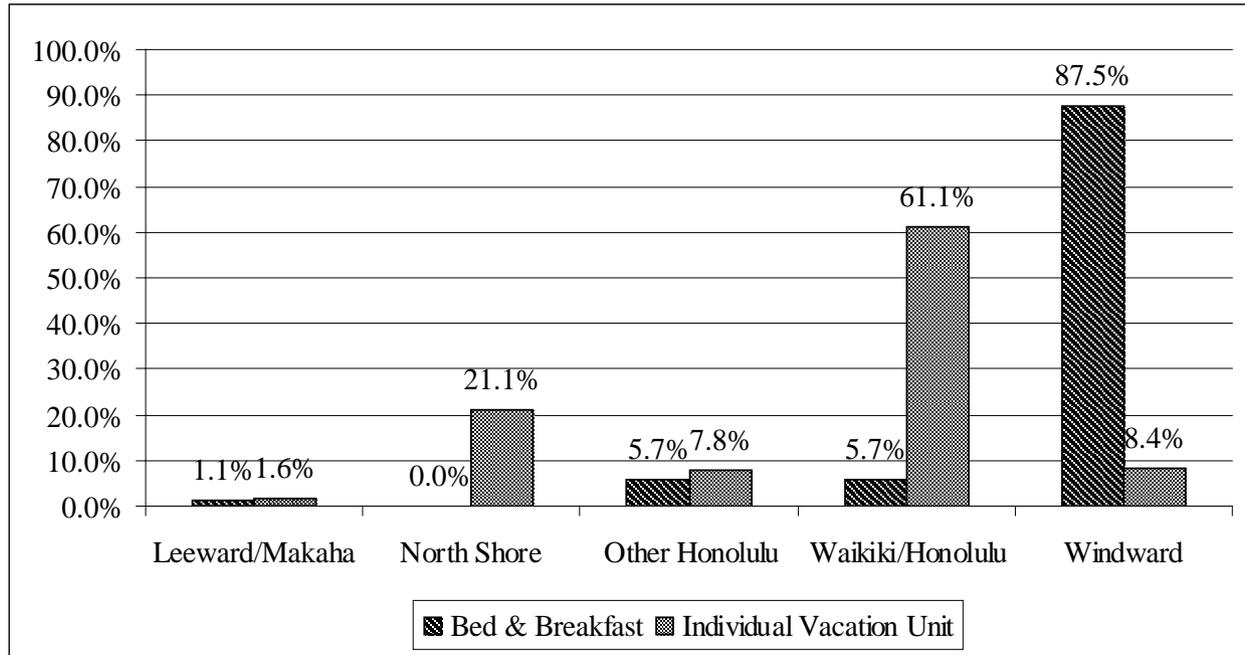


Figure 2: Current (2010) STR Distribution on Oahu

The source of the data and thus STR total in Table 2 is the Hawaii Tourism Authority. As will become apparent below, this 2010 total (458) contrasts markedly from the estimated total based on our analyses and a review of efforts to more exactly estimate the Oahu STR number for analysis use. If the STR unit number based on our best efforts to estimate this amount for Oahu more accurately estimates actual STR units and translates into a proportionate increase in STR visitor numbers, the economic impacts reported herein will be understated. We make this fact apparent in the economic and fiscal analyses of this report.

ii Study (VRBO/Homeaway website) Oahu STR Count
 An analysis was performed on the VRBO/Homeaway website considered the most popular website for less than 30-day rentals. B&B, condo, and STRs were distinguished and counted. Detailed results of this effort are reported in Appendix 3. Summary results are the following.

- The total unit count equals 2,227 distributed as follows:
 - 37.3% STRs^{##}

^{##} These are House, Cottage or Separate unit from the main house.

- o 7.9% studio or apartment^{§§§}
- o 45.1% condos/townhouses
- Price measures are the following:
 - o Lowest \$ per night
 - Minimum = \$65
 - Maximum = \$700
 - Average = \$106
 - Median = \$99
 - o Highest \$ per night
 - Minimum = \$95
 - Maximum = \$4,750
 - Average = \$1,456
 - Median = \$850
 - o Overall median = \$275

Industry persons indicated that there are more units than represented by the total that does not advertise but works through a buddy network wherein unit managers refer guests to alternative locations when they have no vacancies. There are also several hundred STRs who refuse to use VRBO/Homeaway but rather use smaller websites. These data limitations suggest that the VRBO/Homeaway unit count representing all Oahu STR units is understated.

Price measures of the VRBO/Homeaway well comport with our email survey results most particularly the median price per unit. Our email survey results indicated a \$250 per night median rate per night, which is fairly consistent with the \$275 rate per night from the VRBO/Homeaway analysis.

iii *Oahu STR Count used for Analysis*

In order to understand changes occurring in Hawaii's Visitor Accommodation industry, the Hawaii Tourism Authority (HTA) and the Department of Business, Economic Development and Tourism, (DBEDT), State of Hawaii conducted a study to determine the number of B&Bs and vacation rentals operating throughout the state in 2004 and released the data in 2005. The study conducted by the Omni Trak Group involved an extensive search of Internet sources. It reported an additional 9000 units of B&Bs and vacation rentals in the State that were not part of the State's Visitor Plant Inventory Report that is compiled by DBEDT annually. By way of comparison, on Oahu alone, the joint study reported 2700 units of B&Bs and vacation rentals for 2004 while the DBEDT's 2005 annual report listed only 2500 such units on Oahu. The Kauaian Institute estimated STRs on Oahu to be 1117 units in 2005 and 1342 units in May 2008 of which 1133 were STR homes and 209 B&Bs. The Kauaian Institute estimates of the number of STRs and B&Bs on Oahu did not include the Waikiki district in the study, did not

include condominiums and did not take note of the B&B definition used in the City's ordinance. Thus, the Kauaian Institute numbers are lower, (41.9% to 45.3%) than the ones derived from the Omni Trak study conducted jointly by HTA & DBEDT and the numbers published in the Visitor Plant Inventory by DBEDT.

This study does not attempt to reconcile the various estimates by the City & County of Honolulu, and HTA and DBEDT, State of Hawaii and The Kauaian Institute via primary research. It seems likely that the DBEDT numbers is (from the optional survey given on the backside of) the Agricultural Declaration Form that all inbound travelers fill out. Since the survey is optional, any STR estimate based on this data could only accurately estimate the STR number if there was 100% compliance. This is highly unlikely. In contrast, the Kauaian Institute Study's inventory lists were reviewed area by area by a small group of reliable, professional STR booking agents specializing in those areas. The review eliminated duplicates (same property, different website, possibly different property name, etc.), confirmed the number of rental units on the property, confirmed the B&B unit or STR unit, and provided additional (below the radar) units that were not initially found. The HTA & DBEDT Study conducted by Omni Trak Group also involved extensive Internet searches.

In our opinion, the comprehensive nature of the primary data collection process performed by the Kauaian Institute would normally result in a more accurate count of the STR number than the (optionally reported) DBEDT data. But the Kauaian Institute's estimated Oahu County STR number had some limitations as noted. After gleaning the history of NCU registration and certifications issued to STRS on Oahu since 1990 and after examining the testimony of state and county officials, our current estimate of licensed and unlicensed Oahu STRs is 2,875 (Please see Appendix 3 for data and discussion details). This estimate comports with the VRBO/Homeaway website analysis estimate adjusted for its shortcomings and is the Oahu STR unit estimate for any analysis purposes.

d) *Honolulu County Housing Characteristics and STRs*

The US Census Bureau American Community Survey of 2010 estimated the following for Honolulu County.

- 337,030 total housing units of which 91.7% (309,154) were occupied units and 8.3% (27,876) were vacant housing units****
- Owner-occupied units comprised 51.5% (173,487) of total housing units with a vacancy rate of 1.1% (1,908)

****A housing unit is vacant if it is either without occupants or temporarily occupied by persons whose usual place of residence is elsewhere. A unit from which occupants are temporarily absent (due to being on vacation or the like) is not considered a vacant unit.

§§§ These are units with or without a kitchenette that is attached to the main house.

- Renter-occupied units comprised 40.25% (135,667) of total housing units with a vacancy rate of 5.0% (6,783)
- 55.9% (158,134) of total housing units are (detached) single-family units and the remainders (44.4%) are attached single or multi-unit structures.

In percentage terms, Oahu STRs comprise the following.

- 0.85% of all housing units and 1.82% of all (detached) single-family units
- 0.93% of occupied housing units
- 2.12% of renter-occupied units

This implies that in percentage terms, Oahu STRs comprise an insignificant percentage of all Oahu housing units even when measured as a subset of renter-occupied units. This latter fact counters assertions that STRs have a significant impact on the Oahu rental market (i.e. "STRs deny rentals to locals"). This conclusion is supported by the fact that Oahu rental vacancy numbers according to the Census Bureau exceeded the STR numbers by a factor of 2.4. Stated otherwise, adding STRs to the rental market all other things constant, the Oahu rental vacancy rate would increase to 7.1%. Such an increased vacancy rate would translate into negative economic and fiscal consequences.

IV. ECONOMIC AND FISCAL IMPACTS OF STRS ON OAHU

Estimation of the economic and fiscal impacts of STRs on Oahu requires estimation of the STR visitor number and direct expenditures not only for STR lodging but also other expenditures made by STR visitors. The total of direct expenditures made by all STR visitors has multiplier impacts because they lead to other expenditures as they circulate in the economy. These multiplier effects require measurement for a complete accounting of STR economic and fiscal impacts on Oahu. This section presents a discussion of the derivation of all variables required to measure the total STR economic and fiscal impact on Oahu and the economic and fiscal impact estimation results.

a) *Number of Oahu Visitors*

i) *Lodging Demand by Visitor Lodging Choice*

The analysis characterizes the lodging market serviced by hotels, condos, and timeshare as the "institutional" market as third-party institutions generally manage these lodging types, not the lodging owner as is much more often the case for STRs.

The "Friends and Family" category of visitors does not constitute a demand for market lodgings but is considered reflective of an actual or potential demand for STR accommodations. STR accommodations allow close proximity of "Friends and Family" visitors to the

locals visited.^{tttt}The "Friends and Family" category may also reflect STR visitors reported by STR operators as "Friends and Family" visiting to avoid regulatory scrutiny. It also seems reasonable to surmise that a cross-section of the Mixed accommodation type includes STR visitors. For analysis purposes, we estimate the STR portion in both the Friends & Relatives and Mixed categories as equal to their overall proportion of total Oahu visitors.

Table 3 shows the Honolulu County Lodging Demand by Visitor Lodging Choice. Table 3 shows that between 2004 and 2010, total visitors to Honolulu County declined from 4.56 million visitors to 4.45 million visitors, a reduction of 1.8 percent. The 2004-2010 visitor decline was evident primarily for hotels leading to the overall decline in the institutional category and to a much lesser extent to bed & breakfasts which, however, did not cause the STR category total number to decline due to the rental house increase in this category. The other lodging types experienced an absolute increase in visitor numbers being most significant for timeshare (approximately 78,000) and rental house STRs (53,000+).

^{tttt} STR operators contend that 30% of their requests for STRs are from locals seeking a nearby accommodation for visiting friends & family.

Table 3: Honolulu County Lodging Demand by Visitor Lodging Choice

Lodging Type	2004	2005	2006	2007	2008	2009	2010
STR (Reported)	130,702	154,952	162,819	183,373	177,843	163,674	181,532
Bed & Breakfast	34,283	38,986	34,930	37,864	34,917	30,872	31,769
Rental Houses	96,419	115,966	127,889	145,509	142,926	132,802	149,763
Institutional	3,448,425	3,584,937	3,389,256	3,367,066	3,131,069	3,028,580	3,287,434
Hotels	3,107,010	3,228,838	3,005,630	2,932,688	2,714,813	2,612,119	2,843,335
Condo*	254,088	263,801	260,758	286,996	270,996	255,190	278,889
Timeshare*	87,327	92,298	122,868	147,382	145,260	161,271	165,210
Friends & Relatives	454,561	478,391	497,570	496,697	452,576	464,259	484,571
Bed & Breakfast (est.)	3,417	3,847	3,655	3,886	3,644	3,447	3,437
Rental Houses (est.)	9,609	11,444	13,381	14,932	14,916	14,829	16,204
Non-STR (Est.)	441,535	463,100	480,534	477,880	434,016	445,983	464,930
Mixed**	527,282	629,529	705,728	793,123	575,123	501,177	525,075
Bed & Breakfast (est.)	3,963	5,063	5,184	6,204	4,631	3,721	3,725
Rental Houses (est.)	11,147	15,059	18,980	23,843	18,955	16,008	17,558
Non-STR (Est.)	512,172	609,407	681,565	763,076	551,537	481,447	503,792
Total	4,560,970	4,847,809	4,755,373	4,840,259	4,336,611	4,157,690	4,478,612
STR (Analysis)	158,838	190,365	204,019	232,238	219,989	201,680	222,456
Bed & Breakfast	41,663	47,896	43,769	47,954	43,192	38,041	38,931
Rental Houses	117,175	142,469	160,250	184,284	176,797	163,639	183,525

*These Accommodations Only, **Staying in Multiple Accommodations

Source: Annual Visitor Research Reports, 2004-2011, DBEDT, State of Hawaii

ii Lodging Demand Changes over Time

Table 4 presents the growth of each lodging type for the two periods shown. Consistent with absolute visitor number per lodging type in Table 3, Table 4 shows that per lodging type visitor percentage changes have been very uneven. Condo and rental house STRs have experienced significantly greater growth than other lodging types with hotels experiencing not only the greatest absolute decline in visitor number but the largest percentage decline as well (-8.5%). However, the hotel-lodging type has the greatest visitor number increase in absolute terms relative to other lodging types and is an approximate second to the rental house percentage increase from 2009 to 2010. The rental house percentage increase from 2009 to 2010 could be considered a continuation of a pre-existing upward trend in this lodging type meaning hotels may be having the most robust recovery from the 2008-2009 visitor number doldrums.

Table 4: Percentage Changes in Lodging Demand by Visitor Lodging Choice

Lodging Type	2004-2010	2009-2010
STR	38.9%	10.9%
Bed & Breakfast	-7.3%	2.9%
Rental Houses	55.3%	12.8%
Institutional	-4.7%	8.5%
Hotel*	-8.5%	8.9%
Condo*	9.8%	9.3%
Timeshare*	89.2%	2.4%
Friends & Relatives	6.6%	4.4%
Mixed**	-0.4%	4.8%
Total	-1.8%	7.7%

Source: Calculated from Table 3

It is worthy to mention that 2010 visitor numbers increased 7.7 percent from 2009 with forecast continued but slowing growth (in percentage terms) through 2012 (DBEDT, 2011). In the context of overall total visitor numbers to Oahu increasing at a decreasing rate over the next two years, one could reasonably expect continued growth but at a decreasing rate for each of the respective lodging types given each accommodation type experienced positive growth from 2009 to 2010.

b) Oahu Visitor Demand and Market Share by Lodging Type

i Lodging Type Market Share

Table 5 shows market share by visitor lodging choice. Table 5 shows that institutional lodging types not only service the largest absolute number of visitors on Oahu but also capture the largest though declining market share. This declining market share is primarily due to the declining market share of hotels (i.e. declining from 75.7% to 71.2% or by 5.9%), which has lost market share not only to other institutional lodging types (condo market share increased 12.8% and timeshare market share increased 94.5%) but the STRs as well (market share increase of 42.8%). The STR market share has come primarily from rental houses (market share increase of 59.7%) as opposed to bed and breakfasts B&Bs (market share decline of 4.7%).

Table 3: Market Share by Visitor Lodging Type

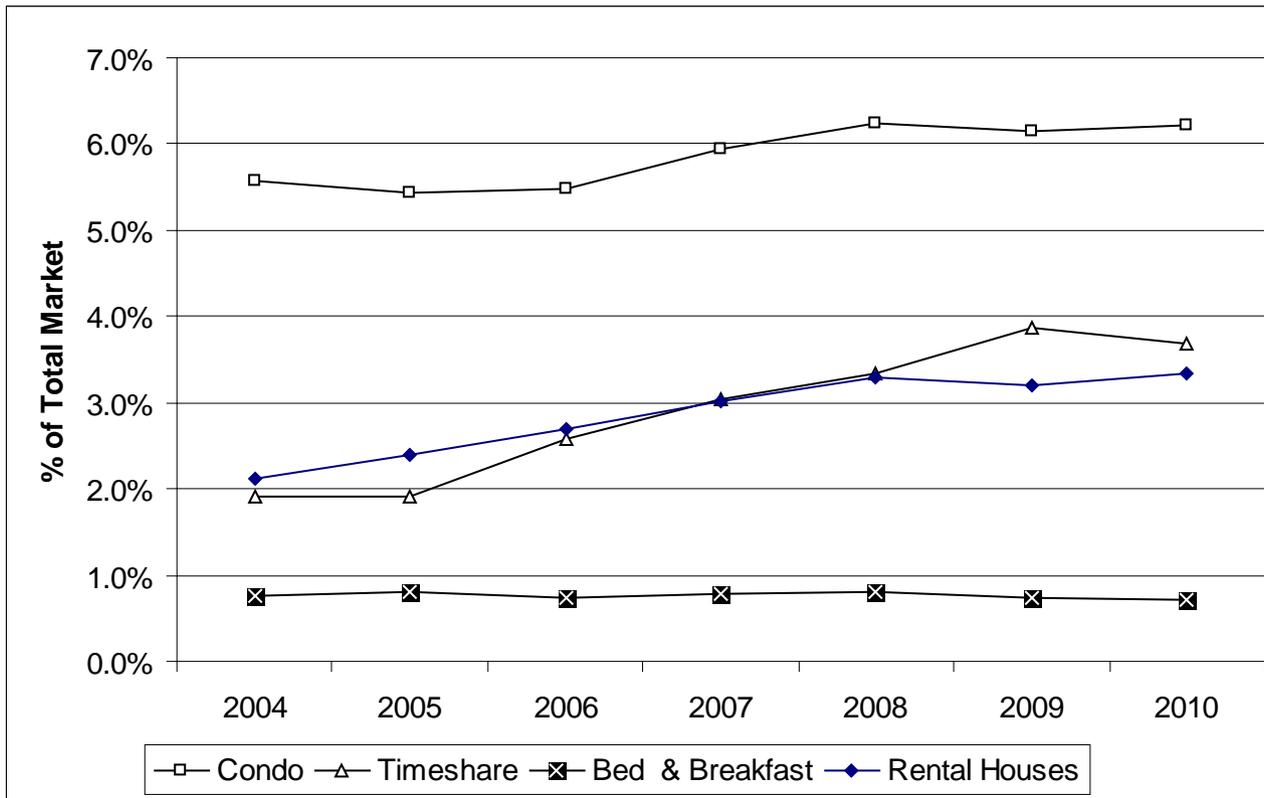
Lodging Type	2004	2005	2006	2007	2008	2009	2010
STR Total	2.9%	3.2%	3.4%	3.8%	4.1%	3.9%	4.1%
Bed & Breakfast	0.8%	0.8%	0.7%	0.8%	0.8%	0.7%	0.7%
Rental Houses	2.1%	2.4%	2.7%	3.0%	3.3%	3.2%	3.3%
Institutional Total	75.6%	73.9%	71.3%	69.6%	72.2%	72.8%	73.4%
Hotels	68.1%	66.6%	63.2%	60.6%	62.6%	62.8%	63.5%
Condo	5.6%	5.4%	5.5%	5.9%	6.2%	6.1%	6.2%
Timeshare	1.9%	1.9%	2.6%	3.0%	3.3%	3.9%	3.7%
Friends & Relatives	10.0%	9.9%	10.5%	10.3%	10.4%	11.2%	10.8%
Mixed	11.6%	13.0%	14.8%	16.4%	13.3%	12.1%	11.7%

Source: Table _ Institutional market share is the sum of that for hotels, condos, and timeshares
STR market share is the sum of bed & breakfast and rental houses

ii Market Share Changes over Time

Excluding hotels due to its distorting impacts on observing market share trends of other lodging types, Figure 3 more clearly shows market share changes in lodging types over time. While not registering the highest market share gain, STRs registered the second largest market share gain (41.4% increase). Such a market share gain suggests an increasing visitor preference for STR-type accommodation types with time. This conclusion is reinforced by the fact that while Oahu visitor numbers decreased 82,000 (or by 1.8%)

from 2004 to 2010, STR visitors increased by almost 51,000 during the same period leading to a simultaneous market share increase of approximately 41.4% as noted. One could further surmise in contrast to hotels, that STR visitors, as well as non-hotel institutional types, are less impacted, in fact not impacted at all, from economic downturns than visitors choosing the hotel lodging type. To the extent, this is the case suggests that the existence of STR lodging types can help soften negative economic impacts which disrupt the overall visitor sector of Hawaii's economy.



Source: Table _

Figure 3: Market Share by Lodging Type

c) Daily Spending of an STR Visitor

Table 4 shows that on average, a visitor spent \$175.10 per day on Oahu. Approximately, 39 percent of

the amount expended was on lodgings, which equals \$68.20 per day. In contrast to this DBEDT reported the amount, the research process of this report yielded 2

alternative estimates of STR lodging price of STR visitor expenditure per day. These are:

- The email survey median price per night = \$250
- VRBO/Homeaway website median price per night = \$275

Since these prices per night reflect the price for the STR accommodation and not the per visitor expenditure, the analysis assumes an average visitor number per STR accommodation night of two (2) using these prices for analysis purposes.

Expenditures on lodgings reported by DBEDT were followed by expenditures on food and beverage

(\$43.20), shopping (\$23.20), transportation (\$19.20), entertainment (\$13.90) and all other (\$7.30) in order of expenditure level. In total, the average visitor spent \$106.90 daily on items besides lodging while visiting Oahu. It is noteworthy that expenditure categories experiencing a decline from 2009 to 2010 were entertainment & recreation and shopping. Income elasticity and price sensitivity may provide explanations for declines in spending on these categories, as visitors are increasingly circumspect in their expenditure choices since the 2008 global meltdown.

Table 4: 2010 Visitor Personal Daily Spending by Category on Oahu (DBEDT data)

Expenditure Type	Daily Spending (in dollars)	Percent of Total Spending	% Change from 2009
Grand Total DBEDT	\$175.10	100.0%	0.50%
Email Survey Average	\$356.90		
Angie Daughter	\$381.90		
I. Total Food & Beverage	\$43.20	24.7%	4.50%
Restaurant Food	\$30.60	17.5%	7.60%
Dinner Shows & Cruises	\$4.40	2.5%	12.90%
Groceries & Snacks	\$8.30	4.7%	-8.80%
II. Entertainment & Recreation	\$13.90	7.9%	-13.60%
III. Total Transportation	\$19.20	11.0%	1.70%
Interisland Airfare	\$3.50	2.0%	17.50%
Ground Transportation	\$1.60	0.9%	13.60%
Rental Vehicles	\$12.10	6.9%	-0.80%
Gasoline, Parking, etc	\$2.00	1.1%	3.70%
IV. Total Shopping	\$23.20	13.2%	-11.80%
Fashion & Clothing	\$9.30	5.3%	-10.40%
Jewelry & Watches	\$3.80	2.2%	-15.50%
Cosmetics, Perfumes	\$0.40	0.2%	-9.20%
Leather Goods	\$1.00	0.6%	-16.60%
Hawaii Food Products	\$3.20	1.8%	-8.10%
Souvenirs	\$5.50	3.1%	-13.00%
V. Lodging DBEDT	\$68.20	38.9%	4.00%
Email Survey Average	\$250.00		
Angie Daughter	\$275.00		
VI. All Other Expenses ^{1/}	\$7.30	4.2%	21.40%

1/ Includes cruise package and on-ship spending on U.S. Flagged Hawaii ported ships

Source: DBEDT, State of Hawaii. 2010 Annual Visitor Research Report. Derived from Tables 81 & 82. P. 127

The estimation of the economic impacts on STR and B&B lodging expenditures as well as total STR and B&B visitor expenditures utilize information provided in Table 4. The analysis provides these estimates to highlight the fact that the full economic impact of the STR industry exceeds the STR and B&B visitor expenditure based solely on lodging expenditures. Making this distinction highlights that when an STR visitor chooses an alternative destination as opposed to substituting an alternative Oahu lodging type for an STR, the economic impact is more than the loss of the

lodging expenditure alone. This issue is discussed more fully below.

d) *Estimated STR Lodging and Total Related Expenditures from STR Visitors to Oahu*

i) *STR Lodging Revenues (Direct Lodging Expenditure) Calculation Formula and Data*

The formula for calculating revenues (direct expenditures) from STR and B&B visitor stays on Oahu is:

$$\text{STR Lodging Revenues} = \text{Annual Number of STR Visitors} \times \text{STR Visitor Length of Stay} \times \text{STR visitor daily lodging expenditure}$$

Where,

- Oahu STR visitor number (see Table 3):
 - Bed & Breakfast = 38,931
 - Rental House = 183,525
- Oahu STR visitor daily expenditure (see Table 4 and discussion):
 - Lodging:
 - DBEDT Lodging Price = \$68.20
 - Email Survey Price = \$125
 - VRBO/Homeaway Website Price = \$137.5
 - Total:
 - DBEDT Lodging Price = \$175.10
 - Email Survey Price = \$231.90
 - VRBO/Homeaway Website Price = \$244.40
 - Average Oahu STR Visitor Length of Stay:###
 - Bed & Breakfast = 6.14
 - Rental House = 10.52

Year	Rental House	Bed & Breakfast	All
2009	9.22	4.94	8.95
2010	10.52	6.14	8.81
% Change	14.1%	24.3%	-1.6%

ii *Estimation of Annual (Direct) STR Lodging and Total STR Visitor Expenditures*

We calculate annual (direct) lodging expenditures and total (i.e. lodging + other expenditures) annual expenditures of Oahu visitors staying in STRs and B&Bs. The lodging expenditure indicates spending directly related to Oahu property owners willingness to supply STR and B&B services to accommodate this visitor market segment. Total expenditures more broadly measure the overall direct economic impact of serving the STR and B&B market segment by STR and B&B property owners.

- Direct Lodging Expenditures:
 - Bed & Breakfast Units
 - DBEDT Lodging Price = \$16.3 million
 - Email Survey Price = \$29.9 million
 - VRBO/Homeaway Website Price = \$32.9 million
 - Rental housing units
 - DBEDT Lodging Price = \$131.7 million
 - Email Survey Price = \$241.3 million
 - VRBO/Homeaway Website Price = \$265.5 million
- Direct Total Expenditures:
 - Bed & Breakfast Units
 - DBEDT Lodging Price = \$41.9 million
 - Email Survey Price = \$55.4 million
 - VRBO/Homeaway Website Price = \$58.4 million

- Rental Housing Units Bed & Breakfast Units
 - DBEDT Lodging Price = \$338.1 million
 - Email Survey Price = \$447.8 million
 - VRBO/Homeaway Website Price=\$471.9 million

If the STR and B&B visitor number to Oahu is higher than that used to estimate (direct) STR and B&B visitor expenditures due to a higher STR and B&B unit number on Oahu as discussed above, the (direct) STR and B&B visitor expenditure amount could increase by a factor of 6.3.

e) *Oahu-wide Economic and Fiscal Impacts of STR and B&B Expenditures*

i *Total Oahu STR Economic Impacts*

We used multipliers (Type II) from the 2007 State of Hawaii Input-Output Tables to estimate the economic impacts of Oahu STR and B&B visitor lodging and total expenditures. These dollar impacts include direct, indirect and induced effects for each STR and B&B visitor dollar spent on Oahu are as follows.

- Total output (sales) generated from STR and B&B expenditures
 - For Lodging Expenditures
 - DBEDT Lodging Price = \$304.8 million
 - Email Survey Price = \$558.6 million
 - VRBO/Homeaway Website Price=\$614.5 million
 - For Total Expenditures
 - DBEDT Lodging Price = \$752.3 million
 - Email Survey Price = \$1.0 billion
 - VRBO/Homeaway Website Price = \$1.1 billion
 - Oahu labor income (earnings) from STR and B&B expenditures
 - For Lodging Expenditures
 - DBEDT Lodging Price = \$97.6 million
 - Email Survey Price = \$178.8 million
 - VRBO/Homeaway Website Price = \$196.7 million
 - For Total Expenditures
 - DBEDT Lodging Price = \$240.0 million
 - Email Survey Price = \$321.3 million
 - VRBO/Homeaway Website Price = \$339.2 million
- Jobs generated by STR and B&B expenditures
 - For Lodging Expenditures
 - DBEDT Lodging Price = 2,389
 - Email Survey Price = 4,379
 - VRBO/Homeaway Website Price = 4,817
 - For total expenditures
 - DBEDT Lodging Price = 7,566
 - Email Survey Price = 9,555
- VRBO/Homeaway Website Price = 9,993
- Hawaii State taxes
 - For Lodging Expenditures
 - DBEDT Lodging Price = \$24.7 million

###STR Estimated Visitor Length of Stay
 Source: Personal Communication with Cy Feng, Economist VI, Hawaii Tourism Authority

- Email Survey Price = \$45.2 million
- VRBO/Homeaway Website Price = \$49.8 million
 - For Total Expenditures
 - DBEDT Lodging Price = \$52.4 million
 - Email Survey Price = \$72.9 million
 - VRBO/Homeaway Website Price = \$77.5 million

For reasons noted above, these economic impact values would increase if the STR and B&B visitor number to Oahu is higher than the lower value used to estimate (direct) STR and B&B visitor expenditures for reasons discussed above.

ii *Fiscal Impacts of STRs and B&Bs on Oahu*

Based on estimated STR direct expenditures on Oahu (see above) and the 9.25% TAT rate per lodging dollar the analysis calculates that STRs contribute TAT dollars to state tax coffers of which 20.4 percent comes to Honolulu County.^{§§§§} Added to this amount specifically for Oahu is the 0.712 percent rail tax all on Total Expenditures all of which comes to Oahu as a visitor contribution to Oahu's planned rail system.

- DBEDT Reported Lodging Amount
 - TAT = \$2.8 million
 - Rail Tax = \$2.7 million
- Email Survey Lodging Amount
 - TAT = \$5.1 million
 - Rail Tax = \$3.5 million
- VRBO/Homeaway website Lodging Amount
 - TAT = \$5.6 million
 - Rail Tax = \$53.8 million

There may be other Oahu-level tax consequences due to the current operation of STRs and B&Bs not measured in this analysis. It is uncertain if these tax consequences would be positive or negative.

f) *Visitor Number Impact STR Regulatory Changes*

A reduction in STRs for any reason including regulatory changes could reduce the Oahu visitor number if STR visitors cannot or choose not to use an alternative lodging type if STR lodgings are unavailable. It is beyond the scope of this research report on how to address the STR visitor reductions on the Oahu visitor reductions due to regulatory changes. However, one can infer that in a competitive global marketplace with the capacity to provide a potpourri of lodging types, informed and budget-conscious visitors would find

alternative destinations to Oahu, if Oahu lodging choices do not meet their specific lodging tastes and preferences, most specifically an STR experience. As reported, an STR lodging experience appears to be an increasing lodging type preference. If the current Oahu STR visitor chooses an alternative destination to Oahu to secure an STR or B&B lodging experience rather than substitute an alternative Oahu lodging type, this source of exogenous (out-of-state) expenditure would cease with consequent negative economic and fiscal impacts.

Lacking the STR type experience for whatever reason, STR visitors may yet choose Oahu as their resort destination using an alternate, available lodging type. In this instance, the negative economic impact on Oahu due to not providing an STR experience from this segment of visitors would be mitigated. However, there would yet be a redistribution of income from STR owners to non-STR lodging type owners. There would also be a loss in utility or satisfaction to STR visitors who, due to STR or B&B unavailability, must then use a "second best" Oahu lodging type.

It is useful to note that a simple threat of STR or B&B closure may reduce their number or cause an STR proprietor to operate below the scope of the authorities. For example, if a closure threat caused a 10% reduction in STR or B&B numbers with no offset to this loss by virtue of using a non-STR lodging type, the economic impact would be a reduction equal to:

- \$38.0 million to \$53.0 million in sales
- \$24.0 million to \$33.9 million in labor income
- 757 to 999 Oahujobs
- \$5.2 million to \$7.7 million in Hawaii State taxes
- \$548 thousand to \$941 thousand in revenues to Honolulu County.

Again as noted, it is beyond the scope of this research effort to determine whether visitors whose first preference is an STR lodging experience would substitute another Oahu lodging type due to their unavailability, or choose an alternative resort destination. The extent to which the STR visitor lacking his/her first lodging preference substitutes an alternative lodging type on Oahu, the economic impact of a reduction in STR visitor numbers will be less than the numbers just reported. Similarly, if STRs are eliminated altogether on Oahu and there is no substitution by the STR visitor to an alternative Oahu lodging type, the (negative) economic impacts will be the full economic impact amount of the STR industry estimated and presented above.

g) *STR versus Institutional Lodging Type (Economic) Leakages*

It is beyond the scope of this analysis to determine the extent of the substitution and income redistribution impacts of any policy eliminating or reducing the number of STRs. Something that merits notice, however, are differences between STRs and

^{§§§§}According to Hawaii Statutes, 44.8% percent of TAT (Transient Accommodation Tax) revenues belong to counties [State of Hawaii Department of Taxation, Annual Report 2008-09, Honolulu, Hawaii 2006; http://www6.hawaii.gov/tax/a5_1annual.htm]. Oahu's share of the TAT revenues was \$40.2 million in the fiscal year ending 6/30/09 (City & County of Honolulu, Comprehensive Fiscal Report, June 30, 2010; <http://www1.honolulu.gov/budget/cafr.htm>). This amount was 20.4 percent of total TAT collections for Fiscal 2008-09 (\$201.6 million) and 14.9 percent of total Honolulu County revenues (\$1.2 billion). [Department of Taxation, State of Hawaii, Annual Report, 2008-09; http://www.hawaii.gov/tax/hrs/hrs_237d.pdf].

institutional lodging types potential multiplier impacts from direct lodging expenditures.

Email survey results indicate that the majority of Oahu STR's are locally owned. This means that whatever residual remains after expenses are deducted from revenues can reasonably be surmised to remain in the state. In contrast, as a function of its nonresident ownership structure of the institutional unit segment of the visitor lodging industry in Hawaii, less than 10 percent of the revenue generated by this segment of the visitor accommodations industry in Hawaii remains within the state fit to where they are domiciled (Ferguson, 2011) Additionally, it seems reasonable to surmise that a larger portion of institutional lodging type expenses (e.g. administration) are incurred out-of-state than is the case for STRs. This would lead to a smaller institutional type multiplier effect than it would be the case for STRs.

The implication of the ownership difference between STRs and institutional lodging types most particularly hotels is that there is a difference between the overall economic impact of these lodging types. Locally owned, STR lodging types can reasonably be expected to have a greater multiplier and thus within state economic impact than non-STR lodging types.*****

V. CONCLUSIONS AND POLICY IMPLICATIONS

Many opponents of STRs have attempted, through the political process, to prohibit the operation of STRs on Oahu, limit them to commercial or resort districts and constrain them by requiring them to have permits for Non-Conforming Use (NCUs) and deny them needed permits to operate legitimately if they did not meet the grandfathering clause in the legislation.

There is currently a draft ordinance for which hearings have occurred in Honolulu. The ordinance would ban illegal short-term rentals and cause them to cease operations. So B&Bs/STRs not covered by the 1989 ordinance would not be permitted. Our study has shown that there are significant positive economic impacts of STR operations in Honolulu. There is *strong* evidence that the STR sub-sector of the lodgings industry has grown in size, is globally networked and over the last two decades has provided significant economic benefits to the populace of Oahu. These include contributions to economic output between \$752.3 million and \$1.10 billion, contributions to earnings between \$240.6 million and \$339.2 million along with the generation of 7,566 to 9,993 jobs in the County.

***** A research result concluded that "despite identical pricing structures, a locally owned vacation rental unit that rents for \$150 a night contributes fully \$236 dollars more to the local economy than does a hotel unit that also rents for the same rate but is owned by a corporation based outside of Hawaii." [Ferguson]

The drastic reduction in numbers of permitted B&Bs/STRs between 1990 and 2011 shows that the direct and opportunity costs of compliance have been high. A possible alternative to a legal operation is an illegal one. As many STRs are currently operating outside of the law, we estimate that significant monies in General Excise Tax (GET) revenues, TAT revenues, and rail tax revenues and other business income taxes are being lost to the State of Hawaii. Honolulu could stand to gain its share of the TAT funds, Rail tax funds and through increased property taxes if STRs could operate as legitimate businesses and be required to pay their due share of taxes if all STRs operated legally. Some of these additional funds can then be used to provide additional public goods and services such as water, sewer, and parking in support of the visitor industry and for negative externality mitigation. Regulations that would ease the cost of compliance, taxes that would be neutral, uniform and have lower administrative costs associated with collections and fines that would not be excessive but have sufficient deterrent effect would enable short-term rentals to contribute significantly to the Oahu's economy specifically and Hawaii's economy in general.

STR negative externalities associated can be addressed to ameliorate citizen concerns using a variety of policy instruments to mitigate any real or perceived negative externalities. These may involve up-dating community zoning laws taking into account current realities, using citations for rowdy behavior and disturbing the peace in residential neighborhoods where STRs may be permitted, using fines for illegal and inappropriate parking, levying higher property taxes on STR establishments to provide lower taxes for residents and assigning increased responsibility for STR operators for the safety and security of the guests and mandatory evacuation plans in case of emergencies. Such policy measures have been successfully implemented elsewhere to mitigate negative externalities.

The impact on the long-term availability of housing units for residents is not a major externality given a large number of unoccupied housing in Honolulu. It has been shown that in other places outside of Hawaii, accessory dwelling units (ADUs) whether attached or detached have increased affordable housing units and family incomes for residents. ADUs could be used for short-term vacation rentals and/or housing local residents if the need exists. The character of Ohanas and local lifestyles need to be preserved as learning local customs and being exposed to native culture is one of the reasons why visitors choose to come to Hawaii and gain the Kama'aina experience of the local islander. It is this type of visitor demand which is becoming much more prevalent in today's tourist market that is met by STRs. It is also an irrefutable fact in resource economics that it is most efficient to let land gravitate

to highest and best use which may mean using a property as an STR.

Alienation of property restrictions on homeowners are not isolated, extreme occurrences anymore within the country or abroad. Local governments that are close to their constituents and adaptable to change can gain much through exploring new regulatory approaches that are minimal and yet work for the entire community. There may be trade-offs involved in pursuing the goals of economic stability for individuals and the community and restricting the alienation of property rights of homeowners, especially the speculative homeowners. The need for or lack thereof of rental restrictions can best be studied and then effected by empirical analysis of complaints received, utilization of stakeholder input and having an effective public process to move the community forward from conflict and confrontation to cooperation. Some alternatives to rental restrictions may lie in the enforcement of existing ordinances with respect to noise limits, public nuisance, property maintenance standards, unruly public gatherings, nighttime curfew and parking restrictions. Numerous best practice examples are drawn from various locations also exist to deal with broad community issues such as, for example, those worried about changing the character of residential neighborhoods. These can be achieved through narrowly tailored regulations, grandfathering provisions, quantitative and operational restrictions, licensing / registration requirements, inspection requirements and enforcement provisions.

Future trends in the tourism business in Hawaii will be determined by many factors not discussed in this study such as a) Hawaii's Tourism Strategic Plan; b) policies related to small businesses, land use, and infrastructure; c) availability of sufficient plant inventory; and d) the recreational choice of baby boomers. However, based on our empirical investigation, we can state that there are a growing and surging trend of short-term rentals (STRs) in the Hawaii market as in other resort areas of the US mainland and competitive worldwide destinations, to meet this visitor demand. Before the issue is subjected to short shrift and result in the choking and demise of the STR sector of the visitor industry, it might be prudent for county officials to work in concert with state officials and STR operators to improve data gathering regarding STR visitors, conduct an extended cost-benefit analysis and explore every option to address community concerns fairly and equitably.

Finally, research results of this study indicate that the impact of supporting STRs not only would encourage local investment in Hawaii's economy but also would result in a higher level of economic activity generated per dollar of visitor spending than non-STR and B&B lodging types. Both outcomes augur for a larger fiscal impact from STRs and B&Bs then

equivalent dollar spending on non-STR lodging types. Additionally, such support would enable local residents to capture their fair share of visitor industry wealth. This outcome can be considered a positive externality to local residents of a policy to support STRs.

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