

# An Analysis of Real Property Tax in Hawaii

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STATE OF HAWAII • DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

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Economic Development & Tourism

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## **Executive Summary**

Real property tax plays an important role in government finance, cost of living, real estate investment, housing supply and demand, as well as tourism. Various studies focusing on real property tax show that the tax is a relatively stable income source, difficult to avoid, and easy to collect. Furthermore, the impact of the property tax on local residents can be dampened by payments from out-of-state property owners and also reduce resident's federal tax burden.

This report examines the current status of real property tax in the State of Hawaii with regards to its role in government finance and residency of property owners. The report examines sources of property tax payments across classifications and counties. Scenarios related to property tax increases are also presented. It is important to note that the impacts of real property tax on real estate investment, housing supply and demand, and the welfare of home owners and renters are not addressed in this report. Furthermore, it is important to note that the term "resident" refers to an individual or entity that resides in a certain area. A summary of the current report is as follows:

### **A few facts about Hawaii's Real Property Taxes**

- Hawaii is one of the 14 states in the United States where property taxes are not levied at the state level, only the county level.
- Nearly one third (32.3 percent) of the property taxes were paid by property owners residing out-of-state.
- The growth of Hawaii's real property tax base (valuations) is correlated with the general economic cycle; the growth of tax base slowed when unemployment rates were high and vice versa.
- Property taxes are paid by all income groups. The home ownership rate by household income group ranges from 35.1 percent of households with household income less than \$25,000 to 85.7 percent of households with \$200,000 or more.

### **State and Local Government Fiscal Analysis**

State and local government revenue and expenditure estimates are based on the 2014 data compiled from the U.S. Census Bureau's Annual Survey of State and Local Government Finances (released in December 2016).

- Hawaii's state government share of general revenue from own sources (combined state and local government) is 74.7 percent, which is above the U.S. average of 55.2 percent and ranks Hawaii 5<sup>th</sup> highest among the 50 states.
- Hawaii's state government share of combined state and local government expenditure (current operations) is 79.8 percent, which is above the U.S. average of 43.7 percent and ranks Hawaii as the highest state in the nation.
- Hawaii's sales tax (GET) share of general revenue from own sources (combined state and local government) is 37.8 percent, which is above the U.S. average of 24.0 percent and ranks Hawaii as the 3<sup>rd</sup> highest state in the nation.
- Hawaii's individual income tax share of general revenue from own sources (combined state and local government) is 15.3 percent, which is slightly below the U.S. average of 15.8 percent and ranks Hawaii 28<sup>th</sup> in the nation.
- Hawaii's property tax share of general revenue from own sources (combined state and local government) is 12.2 percent, which is substantially below the U.S. average of 21.6 percent and ranks Hawaii 45<sup>th</sup> in the nation.
- Approximately 61 percent or \$11.4 billion of total revenue in Hawaii comes from the general revenue from own sources. Taxes contribute about 71.3 percent, while various charges and fees contribute about 29 percent to the general revenue from own sources.
- Hawaii's education expenditure, as a share of combined state and local government expenditure (current operations), is 27.3 percent, which is below the U.S. average of 37.2 percent and ranks Hawaii as the lowest in the nation
- In terms of per capita state and local government spending, Hawaii ranked 12<sup>th</sup> in the nation at \$11,221 per resident versus \$10,229 per resident in the nation in 2014.
- In terms of per capita real property tax, Hawaii ranked 35<sup>th</sup> in the nation at \$980 per person in 2014.

### **Property Class Analysis**

The real property tax estimates are based on data provided by each respective county for 2016. In order to compare real property tax across counties, this report uses four standardized property tax categories: Residential and Related, Hotel/Resort and Tourism Related, Commercial/Industrial and Public Service, and Agriculture, Conservation, and Preservation.

- Of the total number of properties (TMKs) in the state, the report estimated that 75.1 percent are Residential and Related, 15.8 percent are Agriculture, Conservation, and Preservation, 5.6 percent are Hotel/Resort and Tourism Related, and 3.5 percent are Commercial/Industrial and Public Service.
- The estimates for property tax collection in the state showed that 53.2 percent of total property tax are collected from Residential and Related, 23.2 percent from Commercial/Industrial and Public Service, 18.2 percent from Hotel/Resort and Tourism Related, and 5.4 percent from Agriculture, Conservation, and Preservation.

### **Property Ownership Analysis - Statewide**

- For the state overall, it was estimated that 87.5 percent of the Residential & Related properties were owned or managed by Hawaii residents. 10.8 percent were owned or managed by U.S. mainland residents, 1.1 percent were owned or managed by foreign resident or entities, and 0.6 percent of the residential properties were jointly owned by Hawaii and out-of-state residents.
- For the Hotel/Resort & Tourism Related category, it was estimated that 59.1 percent were owned or managed by the U.S. mainland residents, 31.8 percent by Hawaii residents, 7.9 percent by foreign residents, and 1.2 percent were jointly owned by Hawaii and non-Hawaii residents.
- For the Commercial/Industrial and Public Service category, it was estimated that 84.8 percent were owned or managed by Hawaii residents, 12.3 percent by mainland residents, 0.3 percent by foreigners, and 2.6 percent were jointly owned by Hawaii and out-of-state residents.
- For the Agriculture, Conservation, and Preservation category, it was estimated that 59.8 percent were owned by Hawaii residents or entities, 35.2 percent by mainlanders, 2.6 by foreigners, and 2.3 percent were jointly owned by Hawaii and out-of-state residents.

### **Property Tax Contribution Analysis**

This report also estimated the contribution of property taxes paid by Hawaii in-state, out-of-state, and foreign residents. In the case of multiple mailing addresses for one TMK, the portion of property taxes paid was allocated using equal shares for each location. For example, if one owner lives in Hawaii and the other lives on the U.S. mainland, 50 percent was allocated to Hawaii and

50 percent was allocated to the mainland. The estimates for property tax contribution by resident location were as follows:

- Including all tax classes, it was estimated that Hawaii residents contributed 67.8 percent of the total real property taxes collected; U.S. mainlanders contributed 29.9 percent and foreigners contributed 2.4 percent of property tax collections.
- For the Residential and Related category, Hawaii residents contributed a majority at 76.5 percent of total real property tax collected; U.S. mainlanders contributed 21.1 percent and foreigners 2.3 percent property tax collections.
- For the Hotel/Resort & Tourism Related category, U.S. mainlanders contributed over half of real property taxes paid at 52.0 percent; Hawaii residents contributed 42.8 percent and foreigners contributed 5.3 percent of real property taxes paid.
- For the Commercial/Industrial and Public Service category, Hawaii residents contributed 68.0 percent, mainlanders contributed 31.9 percent, and foreigners contributed 0.2 percent of real property taxes paid.
- For the Agriculture, Conservation, and Preservation category, Hawaii residents contributed 64.3 percent, mainlanders contributed 33.3 percent, and foreigners contributed 2.4 percent of total property taxes paid.

### **Effective Property Tax Rates for Residential Properties**

This report also estimated effective average tax rates for in-state versus out-of-state residential property owners. The analysis showed that the effective average residential property tax rates for in-state owners are approximately half of the effective average rate for out-of-state owners. This is mostly due to homeowner and other exemptions that in-state residents qualify for, which out-of-state residents, generally, do not qualify for. The exemptions reduce the taxable property value for in-state residential property owners, thus reducing their effective residential rate as compared with out-of-state owners as follows:

- The effective average rates for in-state-owners were 0.43 percent for the state overall, 0.38 percent for Honolulu County, 0.9 percent for Hawaii County, 0.56 percent for Maui County, and 0.49 percent for Kauai County.

- The effective average rates for out-of-state-owners were 0.83 percent for the state overall, 0.46 percent for Honolulu County, 2.22 percent for Hawaii County, 1.05 percent for Maui County, and 1.01 percent for Kauai County.

### **Scenarios to Generate Greater Property Tax Revenues**

Three scenarios are presented for the possibilities to minimize the impact of property tax increases on local residents:

1. *Increase residential property tax rate for all home owners and reduce the individual income tax rate*

For a \$100 million additional property tax revenue, the average effective property tax rate would increase from 0.43% to 0.613% for all the residential property owners (residents and non-residents), Hawaii residents would see a reduction in the state's effective average income tax rate from 5.25% to 3.88%.

2. *Increase residential property tax rate for non-resident home owners only*

For a \$100 million additional property tax revenue, non-resident home owners would see an increase in effective average property tax rate from 0.83% to 1.21% while Hawaii residents would be indifferent.

3. *Increase residential property tax for all home owners and increase resident home owner exemption to offset the increase*

For a \$100 million additional property tax revenue, the exemption amount would need to increase by 75% from the average of \$120,989 per owner occupied home in 2016 to \$211,730 per owner occupied home.

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## I. Introduction

The purpose of this report is to analyze the current contributions of the real property tax to the state and local government revenue and the relative contributions by resident status. This study also attempts to estimate the impacts on tax rates and amount of exemptions with hypothetical scenarios of increasing residential property tax rates.

As a background for this report, this section will give an overview of Hawaii's tax structure in comparison with other states, especially the division of revenue and expenses between state and local governments.

Hawaii's tax structure is unique compared with other states; the percentage of local taxes as a percentage of the state's income from own sources (a combined total of state and local taxes and fees) was one of the lowest of the 50 states (Table 1a). In 2014, Hawaii's percentage of local taxes, as a percentage of the combined total of state and local taxes, was 25.3 percent, and this was significantly below the average of all states, which was 44.8 percent (U.S. Census Bureau, 2016).

Hawaii's tax structure results in the state funding services that may be funded at a local level in other states. One example is education, where Hawaii is ranked at the top for education funding by the state, rather than at the local level (Kenyon, 2007).

Property taxation is an important component of revenue for both state and local governments. The property tax share of the state's revenue from own sources has a wide variation among states, with a high of 46.5 percent in New Hampshire and a low of 9.0 percent in North Dakota (U.S. Census Survey of State and Local Government Finances for 2014, 2016). Hawaii's property tax share of state total revenue was near the bottom at 12.2 percent.

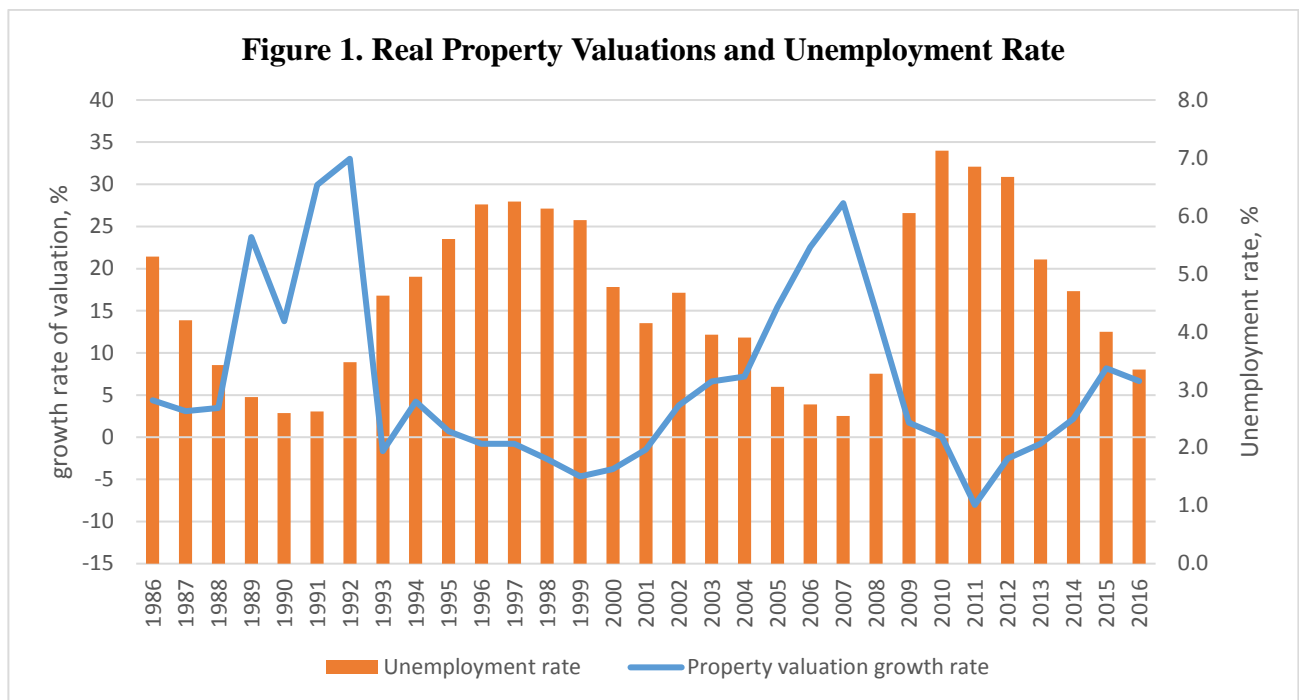
Property taxation is considered to be an efficient tax with less opportunity for distortion compared with other taxes. A recent study found that property tax, followed by a value-added tax, was the most pro-growth and least harmful type of tax (OECD, 2010). The study cited the following general characteristics for real property tax compared with other taxes:

- Property taxation does not distort supply;
- Property taxation encourages people to make the most efficient use of the land;
- Real property is an asset that cannot be transferred to another state;

- Property taxation is relatively simpler than other forms of taxes;
- And, property taxation is a more stable form of revenue than some other taxes (such as income taxes or sales taxes, which are based on flows).

In addition, since about 20.0 percent of all real properties in Hawaii are owned by non-residents and 12.5 percent of residential properties by non-residents (table 13), the state has a capacity to shift a portion of the property tax burden to out-of-state homeowners. Furthermore, property tax can reduce Hawaii resident’s federal taxable income due to the ability to write off property tax against personal income on federal tax return forms.

The real property tax base generally follows economic trends. As shown in Figure 1, the growth rate of real property valuations moved in the opposite direction of the unemployment rate over the 30-year period of 1986 through 2016. Due to the fact that assessed property values are determined by property sales of the previous year, there is often a time lag between assessed property values and the current economic conditions. This is a unique feature of real property tax, compared with income tax and general excise tax.



Source: Hawaii State Department of Business, Economic Development and Tourism, 2015 State of Hawaii Data Book.

While Hawaii’s property tax rates are relatively low, other taxes including the General Excise Tax (GET) and the individual income tax, increase the overall tax burden for Hawaii’s households.

According to the Tax Foundation, Hawaii’s total tax burden is ranked relatively high compared with

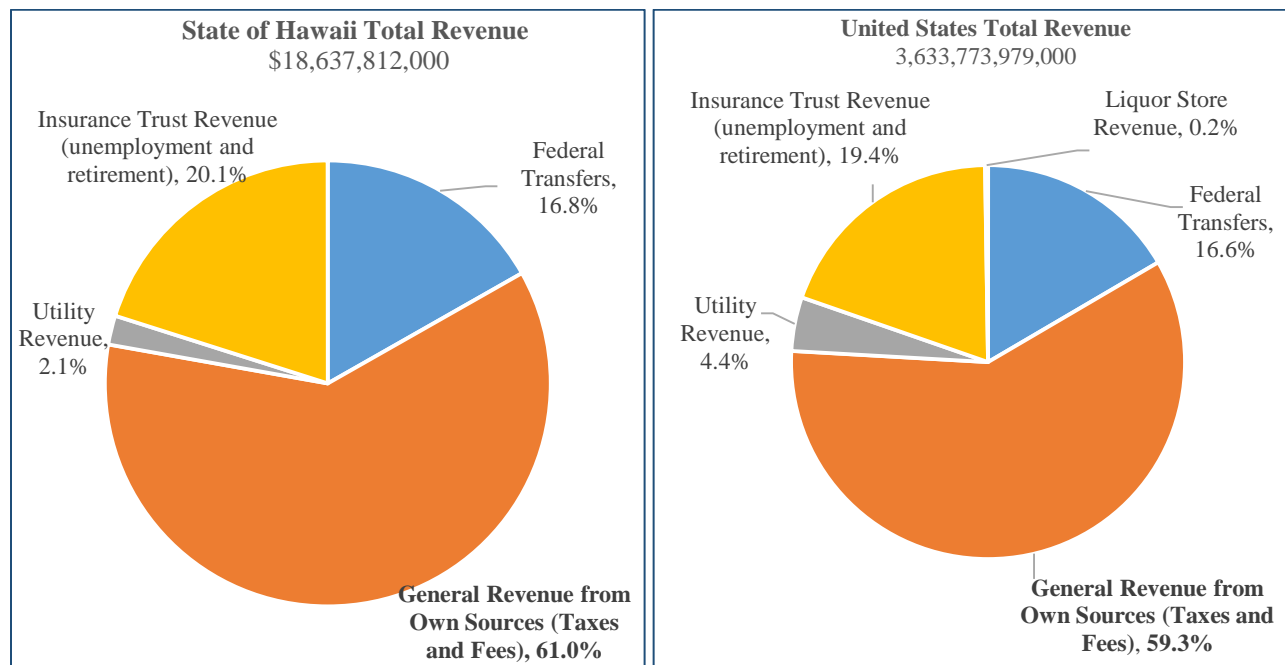
other states, coming in the 14th place among the 50 states in 2016 (Tax Foundation, 2016).

Therefore, it is important to examine Hawaii's property tax within the overall framework of Hawaii's tax structure, rather than conduct a simple property tax comparison to other states.

### *A 50 State Overview of Revenue and Spending in State Budgets*

Hawaii's total revenue composition is fairly similar to the U.S. average (Figure 2). The U.S. overall is slightly lower than Hawaii for general revenue from own sources (taxes and fees), while Hawaii's revenue from the utilities is lower than the U.S. average.

**Figure 2. Main Components of Total Revenue in Hawaii and in the United States (state and local government combined), 2014**



Source: U.S. Census Survey of State and Local Government Finances

It is important to distinguish between revenue streams the state and local governments control directly and those that are controlled by other sources. Revenue from own sources, including taxes and fees collected by state and local governments, are generally within the control of state and local governments. On the other hand, revenue from other sources such as federal transfers and insurance trusts may be outside of the state and local government control.

Table 1a and 1b compare Hawaii’s state ranking for local and state revenue as a share of combined state and local revenue from own sources. It also shows state and local spending for current operations.

**Table 1a: Local and State Revenue Share of the State’s Revenue from Own Sources, 2014**

| <i>Local Revenue Share of State's Revenue from Own Sources</i> |                              |              | <i>State Revenue Share of State's Revenue from Own Sources</i> |                              |              |
|--|------------------------------|--------------|--|------------------------------|--------------|
| 1  | New York                     | 54.6%        | 1  | Vermont                      | 82.1%        |
| 2  | Florida                      | 53.1%        | 2  | North Dakota                 | 79.4%        |
| 3  | Colorado                     | 51.8%        | 3  | Delaware                     | 78.4%        |
| 4  | Georgia                      | 51.6%        | 4  | Arkansas                     | 75.6%        |
| <b>5</b>   | <b>New Hampshire</b>         | <b>50.3%</b> | <b>5</b>   | <b>Hawaii</b>                | <b>74.7%</b> |
|  | <i>United States Average</i> | <i>44.8%</i> |  | <i>United States Average</i> | <i>55.2%</i> |
| 45   | New Mexico                   | 27.7%        | 45   | Nebraska                     | 50.3%        |
| <b>46</b>  | <b>Hawaii</b>                | <b>25.3%</b> | 46   | New Hampshire                | 49.7%        |
| 47   | Arkansas                     | 24.4%        | 47   | Georgia                      | 48.4%        |
| 48   | Delaware                     | 21.6%        | 48   | Colorado                     | 48.2%        |
| 49   | North Dakota                 | 20.6%        | 49   | Florida                      | 46.9%        |
| 50   | Vermont                      | 17.9%        | 50   | New York                     | 45.4%        |

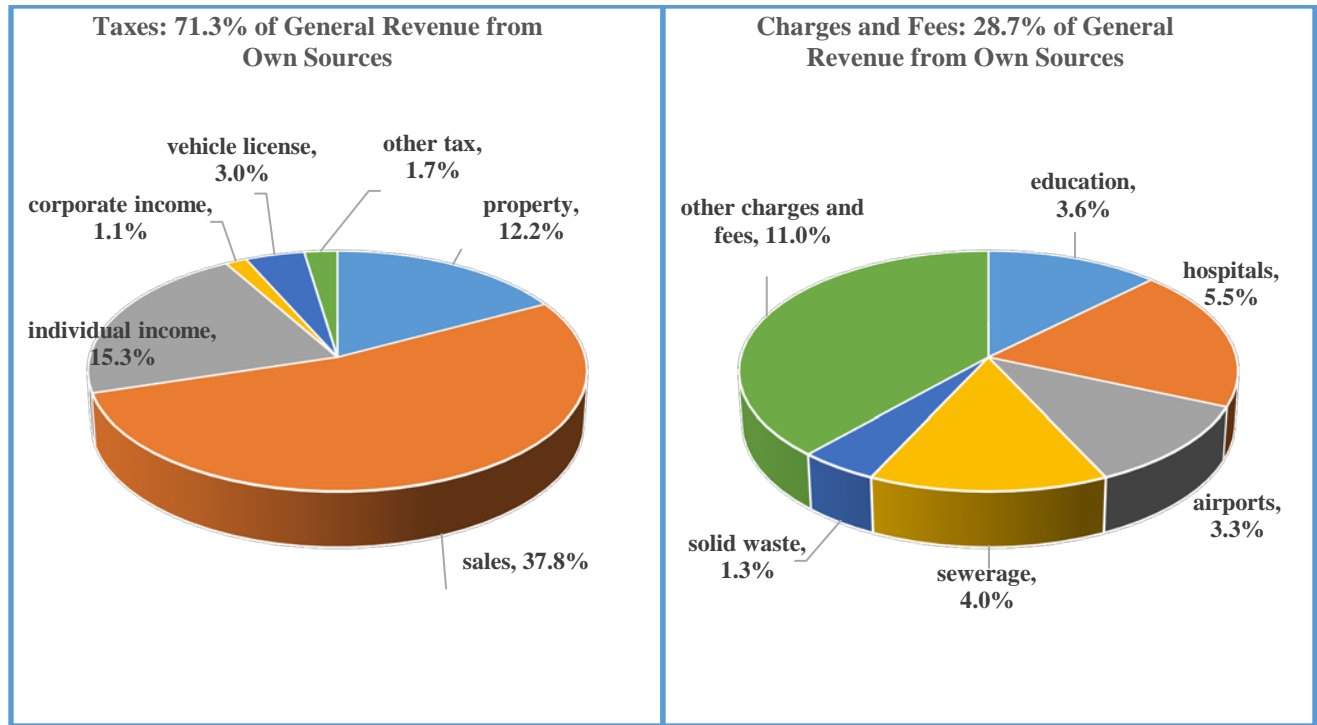
**Table 1b: State and Local Spending Share on Current Operations, 2014**

| <i>Local Spending Share on Current Operations</i> |                              |              | <i>State Spending Share on Current Operations</i> |                              |              |
|---|------------------------------|--------------|---|------------------------------|--------------|
| 1   | Nevada                       | 64.8%        | <b>1</b>  | <b>Hawaii</b>                | <b>79.8%</b> |
| 2   | California                   | 63.3%        | 2   | Delaware                     | 65.0%        |
| 3   | New York                     | 63.0%        | 3   | Alaska                       | 64.0%        |
| 4   | Nebraska                     | 63.0%        | 4   | Vermont                      | 61.9%        |
| 5   | Florida                      | 62.7%        | 5   | Kentucky                     | 61.1%        |
|   | <i>United States Average</i> | <i>56.3%</i> |   | <i>United States Average</i> | <i>43.7%</i> |
| 45  | West Virginia                | 39.2%        | 45  | Illinois                     | 39.3%        |
| 46  | Kentucky                     | 38.9%        | 46  | Florida                      | 37.3%        |
| 47  | Vermont                      | 38.1%        | 47  | Nebraska                     | 37.0%        |
| 48  | Alaska                       | 36.0%        | 48  | New York                     | 37.0%        |
| 49  | Delaware                     | 35.0%        | 49  | California                   | 36.7%        |
| <b>50</b>   | <b>Hawaii</b>                | <b>20.2%</b> | 50  | Nevada                       | 35.2%        |

Source: U.S. Census Survey of State and Local Government Finances

**General revenue from own sources** (61% of total revenue, Figure 2) is composed of taxes and fees. Figure 3 highlights contribution to the budget; the left chart is composed of taxes and the right chart is composed of charges and fees. The left side of the chart shows that total taxes in the state contribute 71.3 percent to the general revenue from own sources, while fees contribute 28.7 percent (the total of charges and fees) to the general revenue from own sources in Hawaii.

**Figure 3. Composition of the General Revenue from Own Sources in Hawaii - Taxes and Fees (state and local government combined), 2014**



Source: U.S. Census Survey of State and Local Government Finances

*The largest portion of Hawaii’s revenue from own sources* is generated from the sales tax (for Hawaii, GET – general excise tax). This comprises 37.8 percent of Hawaii’s government revenue from own sources (U.S. Census Bureau, 2016).

It is important to note that states with more tourism revenue such as Hawaii, Nevada, and Florida, also have a significant share of their state’s total revenue generated by various types of sales taxes. The table below shows states’ sales tax revenue as a share of total government revenue in the state.

**Table 2: Sales Tax Share of General Revenue from Own Sources by State, 2014  
(state and local government combined)**

| Rank     | State                        | Sales and Gross Receipts Taxes |
|----------|------------------------------|--------------------------------|
| 1        | Nevada                       | 43.6%                          |
| 2        | Washington                   | 39.3%                          |
| <b>3</b> | <b>Hawaii</b>                | <b>37.8%</b>                   |
| 4        | Tennessee                    | 36.8%                          |
| 5        | South Dakota                 | 35.6%                          |
|          | <i>United States Average</i> | 24.0%                          |
| 45       | Massachusetts                | 15.3%                          |
| 46       | New Hampshire                | 10.8%                          |
| 47       | Montana                      | 9.7%                           |
| 48       | Oregon                       | 7.2%                           |
| 49       | Delaware                     | 7.0%                           |
| 50       | Alaska                       | 5.1%                           |

Source: U.S. Census Survey of State and Local Government Finances

Additionally, a significant amount of revenue comes from government fees. For example, in 2014, total fees (such as education, sewerage, other fees) collected by the state and counties alone accounted for just under 29 percent of the state’s general revenue from own sources (see Figure 3 above, outer rim). Hawaii ranked third highest in the nation for sewerage fees collected in the state (behind Washington and Indiana). It is important to note that fees such as sewerage are mandatory for every property served by the public sewerage lines, regardless of the property’s tax status.

When comparing government fees and property taxes, an important consideration is the ability to write off state taxes paid on federal personal income tax returns, which reduces federal taxable income for state residents. For example, if property taxes were raised to cover sewage infrastructure improvements, this portion could be written off against federal income tax for Hawaii residents, thus reducing their taxable income at the federal level. On the other hand, generally, sewage fees paid by residents cannot be written off against federal income taxes and, therefore, this write-off portion is lost for Hawaii-resident taxpayers. This is one advantage of covering property-related public services through a property tax, rather than fees.

Compared with sales tax (GET), Hawaii’s largest revenue source, *individual income tax and real property tax* contribute less to Hawaii’s general revenue from own sources. In 2014, individual income tax contributed about 15.3 percent of Hawaii’s general revenue from own sources, just below the average of all states of 15.8 percent, and real property tax accounted for 12.2 percent, which was below the U.S. average of 21.6 percent. Other states have a tax structure, which is the reverse of

Hawaii, in that they have a higher proportion of property tax revenue and a lower proportion of sales tax revenue, for example New Hampshire.

All property taxes in Hawaii are collected at the local government level. However, many states across the nation have both the state and local governments collecting property taxes. In some states, properties are taxed by each of the government levels separately: state, county, and city. The state’s portion of total property tax revenue, levied at all levels of government, varies between the two high states Vermont (67.2 percent) and Arkansas (53.8 percent) to a low of zero percent for states where property tax is only collected at the local government level (including Hawaii). The next table compares Hawaii with the top and the bottom states for individual income and property taxation.

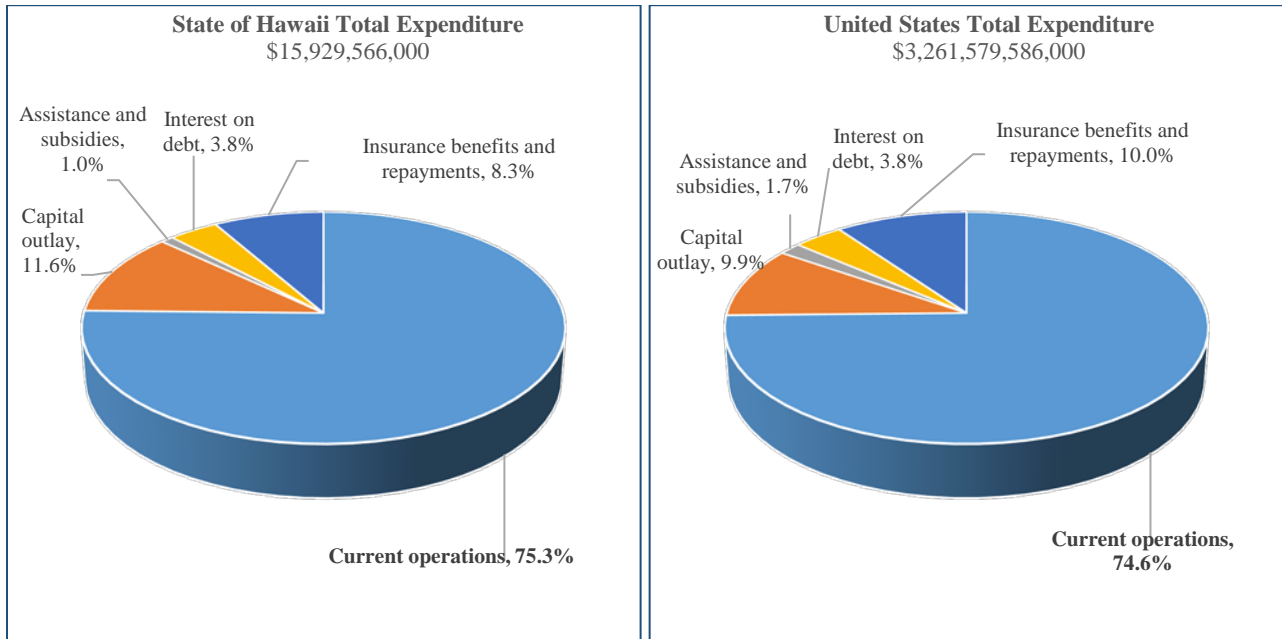
**Table 3: Individual Income and Property Tax Share of State General Revenue from Own Sources, 2014 (state and local government combined)**

| <i>Property Tax Share of General Revenue from Own Sources</i> |                                   |                     | <i>Individual Income Tax Share of General Revenue from Own Sources</i> |                                   |                     |
|---|-----------------------------------|---------------------|--|-----------------------------------|---------------------|
| 1   | New Hampshire                     | 46.5%               | 1  | Maryland                          | 28.5%               |
| 2   | New Jersey                        | 36.4%               | 2  | Oregon                            | 25.3%               |
| 3   | Connecticut                       | 32.0%               | 3  | Connecticut                       | 24.9%               |
| 4   | Rhode Island                      | 31.9%               | 4  | New York                          | 24.7%               |
| 5   | Vermont                           | 31.4%               | 5  | Massachusetts                     | 24.5%               |
|   | <b><i>United States Total</i></b> | <b><i>21.6%</i></b> |  | <b><i>United States Total</i></b> | <b><i>15.8%</i></b> |
|   |                                   |                     | <b>28</b>  | <b>Hawaii</b>                     | <b>15.3%</b>        |
| <b>45</b>   | <b>Hawaii</b>                     | <b>12.2%</b>        | 45   | Alaska                            | 0.0%                |
| 46  | Delaware                          | 11.0%               | 46   | Florida                           | 0.0%                |
| 47  | Oklahoma                          | 11.0%               | 47   | Nevada                            | 0.0%                |
| 48  | New Mexico                        | 11.0%               | 48   | South Dakota                      | 0.0%                |
| 49  | Alabama                           | 9.9%                | 49   | Texas                             | 0.0%                |
| 50  | North Dakota                      | 9.0%                | 50   | Washington                        | 0.0%                |

Source: U.S. Census Survey of State and Local Government Finances

Typically, the level of government where taxes are raised (state or local) determines revenue allocation. In the case of Hawaii, many expenditures related to education, health, hospitals, and corrections are covered at the state government level, where as in other states, these may be covered at the local level. In looking at the expenditure categories, Figure 4 shows that Hawaii is similar to the U.S. average. The main difference is that Hawaii spends more on capital outlays (new construction and maintenance of the existing facilities) and less on insurance benefits and assistance and subsidies, compared with the average of the U.S. overall.

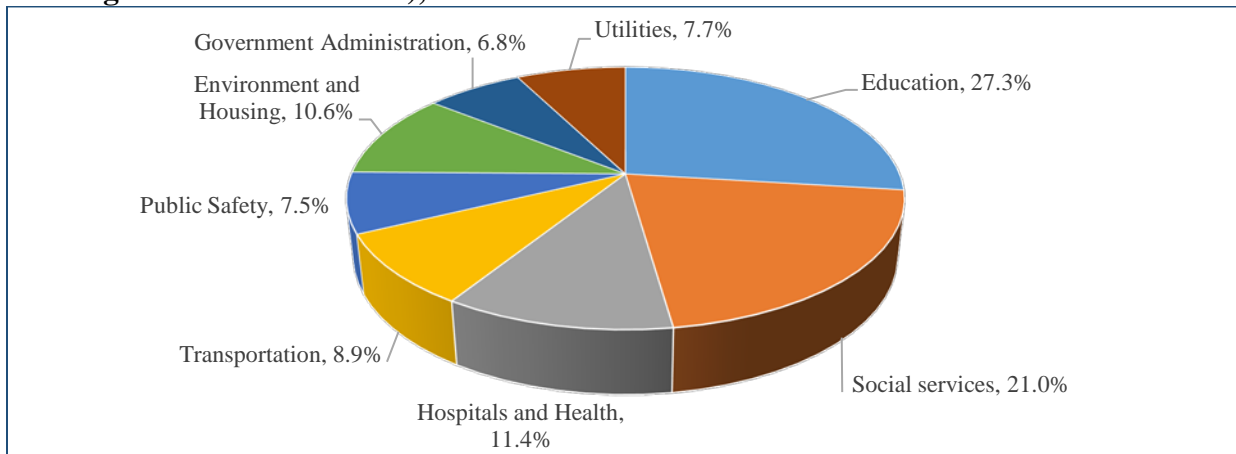
**Figure 4. Total Expenditure in Hawaii and in the United States, 2014**



Source: U.S. Census Survey of State and Local Government Finances

In addition, looking at how expenditures on current operations are structured, helps to better understand the composition and nature of these expenses. Figure 5 shows the main components of spending in the State of Hawaii on current operations. Current operations spending in Hawaii accounts for 75.3 percent of total expenditure.

**Figure 5. Main Components of Current Operations in Hawaii (state and local government combined), 2014**



Source: U.S. Census Survey of State and Local Government Finances



The table below lists comparisons with the top and bottom states in the nation *for total education spending*. The column on the right lists specific expenditures for primary and secondary education (K-12). As a share of the state’s spending on current operations, Hawaii’s education expenditure level is lower than every other state in the nation (Table 4).

**Table 4: Education Expenditure Share of Current Operations Spending 2014 (state and local government combined)**

| <i>Education Share of State’s Current Operations Spending</i> |                                     |                     | <i>Elementary and Secondary Education Share of State’s Current Operations Spending</i> |                                     |                     |
|---|-------------------------------------|---------------------|--|-------------------------------------|---------------------|
| 1   | Texas                               | 45.0%               | 1  | New Jersey                          | 33.2%               |
| 2   | New Jersey                          | 43.4%               | 2  | New Hampshire                       | 29.6%               |
| 3   | North Dakota                        | 43.2%               | 3  | Georgia                             | 29.0%               |
| 4   | Utah                                | 42.9%               | 4  | Connecticut                         | 28.3%               |
| 5   | Iowa                                | 42.5%               | 5  | Texas                               | 27.8%               |
|   | <b><i>United States Average</i></b> | <b><i>37.2%</i></b> |  | <b><i>United States Average</i></b> | <b><i>24.1%</i></b> |
| 45  | New York                            | 32.8%               | 45   | Tennessee                           | 20.3%               |
| 46  | Maine                               | 31.8%               | 46   | Arizona                             | 20.2%               |
| 47  | Florida                             | 30.9%               | 47   | Mississippi                         | 20.1%               |
| 48  | Tennessee                           | 30.9%               | 48   | North Carolina                      | 19.4%               |
| 49  | Alaska                              | 29.2%               | 49   | Oregon                              | 19.2%               |
| <b>50</b>   | <b>Hawaii</b>                       | <b>27.3%</b>        | <b>50</b>  | <b>Hawaii</b>                       | <b>17.8%</b>        |

Source: U.S. Census Survey of State and Local Government Finances

In addition to education, another area where spending is determined at the state level is *health and hospitals expenditure*. Table 5 compares Hawaii’s spending with the other states for health and hospital expenditure. In contrast to education, Hawaii’s state share of health and hospital expenditure are both above the U.S. average.

**Table 5: Health and Hospital Expenditure Share of Current Operations Spending 2014 (state and local government combined)**

| <i>Hospital Expenditures as a Share of State's Current Operations Spending</i> |                              |             | <i>Health Expenditure as a Share of State's Current Operations Spending</i> |                              |             |
|--|------------------------------|-------------|---|------------------------------|-------------|
| 1  | South Carolina               | 16.9%       | 1   | Michigan                     | 6.3%        |
| 2  | Mississippi                  | 16.2%       | 2   | Delaware                     | 5.6%        |
| 3  | Alabama                      | 14.9%       | 3   | Arizona                      | 5.5%        |
| 4  | Wyoming                      | 14.5%       | 4   | Vermont                      | 5.4%        |
| 5  | North Carolina               | 13.6%       | 5   | North Carolina               | 5.4%        |
| <b>21</b>  | <b>Hawaii</b>                | <b>6.9%</b> | <b>12</b>   | <b>Hawaii</b>                | <b>4.5%</b> |
|  | <i>United States Average</i> | <b>6.8%</b> |   | <i>United States Average</i> | <b>3.7%</b> |
| 45   | Maryland                     | 1.1%        | 45  | Massachusetts                | 2.0%        |
| 46   | North Dakota                 | 0.9%        | 46  | Louisiana                    | 2.0%        |
| 47   | Rhode Island                 | 0.8%        | 47  | Mississippi                  | 1.9%        |
| 48   | New Hampshire                | 0.6%        | 48  | Arkansas                     | 1.8%        |
| 49   | Delaware                     | 0.5%        | 49  | Iowa                         | 1.7%        |
| 50   | Vermont                      | 0.0%        | 50  | New Hampshire                | 1.5%        |

Source: U.S. Census Survey of State and Local Government Finances

In looking at *public safety* services as a share of the state's spending on current operations, Hawaii is below the national average for *police and fire safety* and *corrections* (where it ranks last in the nation, along with Iowa and New Hampshire). The table below compares Hawaii's spending with that of other states in the nation (top and bottom five) compared with the national average.

**Table 6: Police, Fire Safety and Corrections Expenditure Share of Current Operations Spending 2014 (state and local government combined)**

| <i>Police Expenditure as a Share of State's Current Operations Spending</i> |                              |             | <i>Fire Protection Expenditure Share of State's Current Operations Spending</i> |                              |             | <i>Corrections Expenditure Share of State's Current Operations Spending</i> |                              |             |
|---|------------------------------|-------------|---|------------------------------|-------------|---|------------------------------|-------------|
| 1   | Nevada                       | 6.9%        | 1   | Rhode Island                 | 3.4%        | 1   | California                   | 4.2%        |
| 2   | Florida                      | 5.8%        | 2   | Nevada                       | 3.1%        | 2   | Nevada                       | 4.2%        |
| 3   | Illinois                     | 5.2%        | 3   | Florida                      | 2.8%        | 3   | Arizona                      | 4.2%        |
| 4   | Maryland                     | 5.2%        | 4   | Arizona                      | 2.7%        | 4   | New Mexico                   | 4.0%        |
| 5   | Arizona                      | 5.0%        | 5   | Illinois                     | 2.5%        | 5   | Virginia                     | 3.9%        |
|   | <i>United States Average</i> | <b>4.2%</b> |   | <i>United States Average</i> | <b>1.8%</b> |   | <i>United States Average</i> | <b>3.1%</b> |
| <b>29</b>   | <b>Hawaii</b>                | <b>3.8%</b> | <b>25</b>   | <b>Hawaii</b>                | <b>1.6%</b> |   |                              |             |
| 45  | Iowa                         | 3.0%        | 45  | Minnesota                    | 1.0%        | 45  | Minnesota                    | 2.0%        |
| 46  | Indiana                      | 2.9%        | 46  | West Virginia                | 0.9%        | 46  | Massachusetts                | 2.0%        |
| 47  | West Virginia                | 2.8%        | 47  | North Dakota                 | 0.9%        | 47  | Maine                        | 1.9%        |
| 48  | Nebraska                     | 2.5%        | 48  | Vermont                      | 0.8%        | 48  | New Hampshire                | 1.8%        |
| 49  | Kentucky                     | 2.5%        | 49  | Pennsylvania                 | 0.7%        | 49  | Iowa                         | 1.8%        |
| 50  | Maine                        | 2.5%        | 50  | Delaware                     | 0.4%        | <b>50</b>   | <b>Hawaii</b>                | 1.8%        |

Source: U.S. Census Survey of State and Local Government Finances

## ***50-State Property Tax Comparison Study***

A recent report ***50-State Property Tax Comparison Study for Taxes Paid in 2016***, published by the Lincoln Institute of Land Policy, compared property taxes for metropolitan areas across the nation and calculated their respective effective tax rates, defined as the total tax bill as a percent of a property's market value. While the report title includes the phrase "50-State", the report itself focuses on local government property tax, rather than overall state tax policy due to the local nature of property taxes.

***Property tax comparison across cities.*** The report notes that it is difficult to compare property taxes across cities due to variations in property tax rules and exemptions. Therefore, it provides standardized effective property tax rates, comparable across localities, and an analysis of what drives the property tax rates for each respective locality.

***Why tax property?*** The report also outlines three strengths of property tax as a revenue source for local governments: 1) it is the most stable tax source (limited fluctuation with business cycles); 2) it is more progressive than other revenue streams such as sales tax (does not disproportionately affect the lower income population); 3) it promotes local autonomy (it is an immobile tax base, taxing people who live in a certain location).

***How municipalities set property tax rates.*** The report finds that many of the cities with high property tax rates have relatively low sales and income taxes. Homeowners are, generally, willing to pay higher property taxes to have a better quality of life – better public schools and safer neighborhoods.

An important conclusion of the report is that property tax rates are set differently than other tax rates, reflecting annual budgets for local government spending. According to the report, since income and sales tax rates are fairly constant year-to-year, "property tax rates are usually established *after* the local government budget is determined" in order to reach a targeted revenue level.

It is important to note that, although the report refers to "cities", these are references to the property locations rather than the taxing authority.

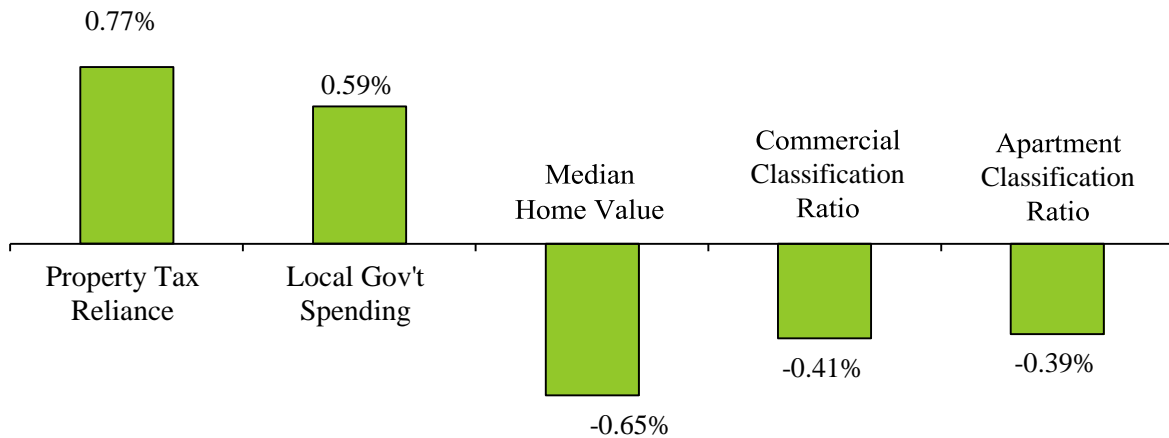
### **Why Property Tax Rates Vary Across Cities**

There are ***four key factors*** in the report that explain nearly three-quarters of the variation in property tax rates across the U.S. cities analyzed. The two factors that explain a majority of variation are the

respective city’s reliance on property taxes (as opposed to other revenue sources), and the level of property values in each jurisdiction. Two additional factors are local government spending and whether cities tax homesteads at lower rates than other types of property (referred to as “classification”).

**Figure 6: Key Factors Explaining Differences in Property Tax Rates**

Percent Change in Effective Tax Rate on Median Valued Home  
from 1 Percent Increase in Each Variable



Source: 50-State Property Tax Comparison Study for Taxes Paid in 2016 (Lincoln Institute of Land Policy, 2017)

***Property Tax Reliance***

Locations with high local sales or income taxes do not require as much revenue from property taxes. Figure 6 shows that a 1 percent increase in the share of revenue raised by local governments from the property tax is associated with a 0.77 percent increase in the effective tax rate on a median valued home. The report gives an example of two cities: Bridgeport, CT and Birmingham, AL. Even though Bridgeport has the highest effective tax rate on a median valued home and Birmingham has the seventh lowest effective tax rate on a median valued home, total local taxes are considerably higher in Birmingham (\$2,560 vs. \$2,010 per capita). This is due to various additional local taxes and surcharges paid in addition to property tax in Birmingham, as opposed to Bridgeport where everything is already included in one property tax bill.

The results of the study show that 37 percent of the variation in effective tax rates is explained by median home values, 26 percent by property tax reliance, 7 percent by local government spending, 8

percent by the commercial-homestead classification ratio (preferential treatment of the home owner occupied properties at the expense of commercial properties), and 3 percent by the apartment-homestead classification ratios (also preferential treatment of the home owner occupied properties, at the expense of renters).

### ***Property Values***

As noted above, property values are a major factor explaining differences in property tax rates among regions. Cities with high property values can impose a lower tax rate and still raise enough property tax revenue as a city with low property values. For example, San Francisco and Detroit have the highest and lowest median home values in 2016 —\$941,400 and \$42,600, respectively. The effective tax rate on a median valued home is 4.5 times higher in Detroit than San Francisco (3.15% vs. 0.70%). In spite of their lower property tax rate, San Francisco collects nearly five times more in property taxes from a median-valued home due to high property values (\$6,571 vs. \$1,341).

### ***Local Government Spending***

Generally, cities with higher public local spending will require higher property tax revenue. The report finds that local spending is higher in cities with greater revenue capacity, since cities with larger tax bases can raise more revenue without requiring higher tax rates. As Figure 6 shows, a 1 percent increase in local government spending per capita is associated with a 0.59 percent increase in the effective tax rate on a median valued home. Wages and cost of living are also important factors. Cities with a higher cost of living or higher wages will need to pay higher salaries to attract qualified teachers, police, and other local government employees.

### ***Classification and Preferential Treatment of Homestead Properties***

Property tax classification is the fourth factor that explains differences across cities for property tax rates. Under classified property tax systems, states and cities build preferences into their tax systems that result in lower effective tax rates for certain classes of property. For example, homeowner exemptions benefit homeowners by reducing their effective property tax rate.

The “classification ratio” compares the effective tax rate for two types of property. An increase in the classification ratio means a decrease in the tax rate of homestead properties. In other words, homeowners are collectively bearing a smaller share of the property tax burden, while businesses

and/or renters pay more. A 1.0 percent increase in the commercial-homestead classification ratio is associated with a 0.41 percent decrease in the effective tax rate on a median valued home, and a 1.0 percent increase in the apartment-homestead classification ratio is associated with a 0.39 percent decrease.

### ***Other Factors***

Two variables that could affect property tax rates are amounts in state and federal aid to cities and the share of total state and local government spending. Higher state aid allows local governments to rely less on property taxes, resulting in lower rates. Research shows that the impact of state aid on local property taxes is ambiguous and depends on how state aid is structured. Some state aid formulas can limit local spending, thereby reducing property taxes. The report mentions Hawaii as an example of a state that covers public service expenses that are usually covered by local governments in other states.

**Table 7: Factors Correlated with Homestead Property Tax Rates in Large U.S. Cities**  
(Effective Tax Rate for Median Valued Home, with Assessment Limits)

| State     | City             | Tax Rate    |             | Property Tax Reliance |                    | Median Home Value |                    | Local Gov't Spending |                    | Classification Ratio |            |                    |
|-----------|------------------|-------------|-------------|-----------------------|--------------------|-------------------|--------------------|----------------------|--------------------|----------------------|------------|--------------------|
|           |                  | Rank (1-73) | Tax Rate    | Rank (1-73)           | Impact on Tax Rate | Rank (1-73)       | Impact on Tax Rate | Rank (1-73)          | Impact on Tax Rate | Commercial           | Apartments | Impact on Tax Rate |
| <b>CT</b> | Bridgeport       | 1           | 3.81        | 1                     | 1.22               | 44                | 0.15               | 41                   | -0.06              | 65                   | 57         | 0.20               |
| <b>IL</b> | Aurora           | 2           | 3.72        | 4                     | 0.98               | 43                | 0.13               | 61                   | -0.22              | 96                   | 34         | 0.19               |
| <b>NJ</b> | Newark           | 3           | 3.20        | 2                     | 1.18               | 24                | -0.16              | 46                   | -0.09              | 71                   | 55         | 0.24               |
| <b>MI</b> | Detroit          | 4           | 3.15        | 62                    | -0.45              | 73                | 1.38               | 35                   | 0.01               | 44                   | 20         | 0.10               |
| <b>WI</b> | Milwaukee        | 5           | 2.67        | 17                    | 0.25               | 67                | 0.49               | 42                   | -0.06              | 46                   | 39         | 0.16               |
| <b>CO</b> | Denver           | 69          | 0.62        | 69                    | -0.54              | 13                | -0.43              | 7                    | 0.35               | 2                    | 65         | -0.47              |
| <b>MA</b> | Boston           | 70          | 0.61        | 3                     | 1.09               | 11                | -0.75              | 31                   | 0.03               | 5                    | 8          | -0.59              |
| <b>NY</b> | New York City    | 71          | 0.59        | 51                    | -0.29              | 7                 | -0.91              | 3                    | 0.84               | 4                    | 1          | -1.76              |
| <b>CO</b> | Colorado Springs | 72          | 0.45        | 71                    | -0.60              | 25                | -0.14              | 25                   | 0.08               | 3                    | 66         | -0.47              |
| <b>HI</b> | <i>Honolulu</i>  | <b>73</b>   | <b>0.31</b> | <b>20</b>             | <b>0.24</b>        | <b>3</b>          | <b>-1.07</b>       | <b>73</b>            | <b>-0.44</b>       | <b>6</b>             | <b>32</b>  | <b>-0.35</b>       |

Source: 50-State Property Tax Comparison Study for Taxes Paid in 2016 (Lincoln Institute of Land Policy, 2017)

In Table 7, the columns labeled “Impact on Tax Rate” show how each respective factor impacts the city’s tax rate relative to a scenario with an average value for that variable. In other words, a positive value means that the respective factor increases the city’s tax rate, while a negative value means that that factor decreases the city’s tax rate.

Honolulu has the 20<sup>th</sup> highest property tax reliance, which is predicted to increase the city’s tax rate on a median valued home by 0.24 percentage points relative to a city with an average property tax

reliance. For example, if Honolulu had an average property tax reliance and all other characteristics of the city were held constant (home values, government spending, etc.), then the city's tax rate would be 0.24 percentage points higher than the average. With an effective tax rate of 0.54 percent, Honolulu would still be the second lowest in the nation.

Honolulu has the 3<sup>rd</sup> highest median home value, which is expected to decrease the tax rate by 1.07 percentage points relative to a city with an average home value. In spite of having the lowest property tax rate in the nation, Honolulu still raises significantly more revenue per property than an average city with a higher property tax rate due to high property values. In other words, the lower tax rates are offset by higher property values.

Honolulu ranks the lowest of all cities for local government spending per capita. As shown in the previous table, this is expected to decrease the city's tax rate by 0.44 percentage points relative to a city with average spending.

Finally, Honolulu has significantly higher tax rates for commercial properties and apartments than for homestead properties. The classification ratio is 6<sup>th</sup> highest for commercial properties and 32<sup>nd</sup> highest for apartments. As noted in Table 7, the ratios measure the difference in effective rates for commercial and apartment properties as opposed to residential owner occupied after exemptions. Honolulu stands out for its generous homeowner exemptions. If Honolulu had homeowner exemptions similar to an average city, Honolulu's effective average tax rate would have been 0.35 percentage points higher in order to achieve the same effective tax rate.

### **Homestead Property Taxes**

Tax rates vary widely across the 53 cities. The three cities at the top of the chart – Detroit, Bridgeport (CT), and Aurora (IL) – have effective tax rates that are roughly 2.5 times higher than the average for the 53 cities. In five other cities, the effective property tax rate on a median valued home is 1.5 to about 2 times the average. The bottom six cities – Honolulu, Boston, Denver, Cheyenne (WY), Birmingham (AL), and Washington (DC) – all have effective tax rates that are less than half of the city average.

Under homestead exemption programs, the percentage reduction in taxable value falls as home values rise. For example, a \$20,000 exemption provides a 20 percent reduction in taxable value for a

\$100,000 home, a 10 percent reduction on a \$200,000 home, and a 5 percent reduction on a \$400,000 home. Additionally, there are other tax structures that could achieve similar results. For example, Minnesota uses a tiered assessment system where up to \$500,000 of a home’s assessed value is taxed at a 1.0 percent rate and above \$500,000 is taxed at a 1.5 percent rate.

According to the report, Boston had the highest homestead exemption value in 2016, which was equal to the lesser of \$178,325 or 90 percent of a property’s assessed value. The other two cities noted for substantial homestead exemptions were Honolulu (\$80,000 exemption) and Atlanta (\$75,000 of assessed value).

**Table 8: Property Taxes on Median Valued Home for Largest City in Each State (2016)**

| <b>Rank<br/>(tax rate rank, tax bill rank)</b> | <b>City/State</b>   | <b>Effective Tax Rate, %</b> |
|--|---------------------|------------------------------|
| <i>Highest 5</i>                               |                     |                              |
| <b>1, 45</b>                                   | Detroit, MI         | 3.82                         |
| <b>2, 4</b>                                    | Bridgeport, CT      | 3.81                         |
| <b>3, 5</b>                                    | Aurora, IL          | 3.72                         |
| <b>4, 2</b>                                    | Newark, NJ          | 3.20                         |
| <b>5,16</b>                                    | Milwaukee, WI       | 2.67                         |
| <i>Lowest 5</i>                                |                     |                              |
| <b>49, 53</b>                                  | Birmingham, AL      | 0.67                         |
| <b>50, 50</b>                                  | Cheyenne, WY        | 0.65                         |
| <b>51, 34</b>                                  | Denver, CO          | 0.62                         |
| <b>52, 20</b>                                  | Boston, MA          | 0.61                         |
| <b>53, 35</b>                                  | <i>Honolulu, HI</i> | <i>0.31</i>                  |

Source: 50-State Property Tax Comparison Study for Taxes Paid in 2016 (Lincoln Institute of Land Policy, 2017)

### **Commercial and Industrial Property Taxes**

The average effective tax rate on commercial properties for the 53 cities is 2.097 percent. A property worth \$1 million with \$200,000 in fixtures would owe \$25,166 in property taxes (2.097% x \$1.2m).

Commercial and industrial property tax rates vary widely across the 53 cities. The top five cities are Detroit, New York City, Chicago, Providence, and Bridgeport, and all have effective tax rates that are at least two-thirds higher than the average for these cities. The bottom six cities are Virginia Beach, Billings, Fargo, Honolulu, Seattle, and Cheyenne (WY), and all have tax rates that are less than half of the combined city average. A few of the cities had significant changes to their effective tax rates from 2015 to 2016. The cities with the largest declines in their tax rates were Boston and Fargo.



Generally, effective tax rates for commercial properties do not vary by property value. This is in contrast to homestead properties, where exemptions or other tax relief programs often create significantly lower rates for lower-valued properties. Only 11 of the 53 cities have effective tax rates that vary based on their value.

**Table 9: Commercial Property Taxes for Largest City in Each State (2016)**

Effective Tax Rate for \$1-Million Valued Property (plus \$200k in Fixtures)

| Rank<br>(tax rate rank) | City/State          | Effective Tax Rate, % |
|-------------------------|---------------------|-----------------------|
| <i>Highest 5</i>        |                     |                       |
| 1                       | Detroit, MI         | 4.09                  |
| 2                       | New York City, NY   | 3.93                  |
| 3                       | Chicago, IL         | 3.86                  |
| 4                       | Bridgeport, CT      | 3.81                  |
| 5                       | Providence, RI      | 3.71                  |
| <i>Lowest 5</i>         |                     |                       |
| 49                      | Billings, MT        | 1.03                  |
| 50                      | Fargo, ND           | 1.00                  |
| 51                      | <b>Honolulu, HI</b> | <b>0.91</b>           |
| 52                      | Seattle, WA         | 0.89                  |
| 53                      | Cheyenne, WY        | 0.66                  |

Source: 50-State Property Tax Comparison Study for Taxes Paid in 2016 (Lincoln Institute of Land Policy, 2017)

The report has a separate section on industrial properties and ranks the cities based on the value of industrial property (valued at \$1 million) including \$1 million in personal property (such as industrial equipment). There is a slight difference in the rankings based on the inclusion of personal property, which affects the effective tax rate. For the industrial ranking, Honolulu was in the 52<sup>nd</sup> position nationwide (versus 51<sup>st</sup> in commercial), and this was likely due to the inclusion of personal property.

### Apartment Property Taxes

The average effective tax rate on apartment properties for the 53 cities is 1.866 percent. A property worth \$600,000 with \$30,000 in personal property would owe \$11,196 in property taxes (1.866% x \$630,000 total parcel value).

Tax rates vary widely across the 53 cities. The top two cities of New York City and Detroit have effective tax rates that are more than 2.5 times higher than the average of the cities. The next three cities (Aurora, IL; Bridgeport, CT; and Des Moines, IA) have effective tax rates that are roughly

double the average. Conversely, there are eight cities where tax rates on apartments are less than half the average, with the lowest rates in Honolulu, Cheyenne, Denver, Washington (DC), and Salt Lake City.

**Table 10: Apartment Property Taxes for Largest City in Each State (2016)**  
Effective Tax Rate for \$600,000 Valued Property (plus \$30,000 of Fixtures)

| Rank<br>(tax rate rank) | City/State          | Effective Tax Rate, % |
|-------------------------|---------------------|-----------------------|
| <i>Highest 5</i>        |                     |                       |
| <b>1</b>                | New York City, NY   | 5.47                  |
| <b>2</b>                | Detroit, MI         | 4.79                  |
| <b>3</b>                | Aurora, IL          | 3.93                  |
| <b>4</b>                | Bridgeport, CT      | 3.81                  |
| <b>5</b>                | Des Moines, IA      | 3.59                  |
| <i>Lowest 5</i>         |                     |                       |
| <b>49</b>               | Salt Lake City, UT  | 0.76                  |
| <b>50</b>               | Washington, DC      | 0.75                  |
| <b>51</b>               | Denver, CO          | 0.70                  |
| <b>52</b>               | Cheyenne, WY        | 0.61                  |
| <b>53</b>               | <i>Honolulu, HI</i> | <i>0.33</i>           |

Source: 50-State Property Tax Comparison Study for Taxes Paid in 2016 (Lincoln Institute of Land Policy, 2017)

### **Classification and Preferential Treatment of Homestead Properties**

Many cities have lower effective tax rates for certain classes of property, usually designed to benefit homeowners. As noted earlier, the “classification ratio” describes these preferences by comparing the effective tax rate for two types of property. For example, if a city has a 3.0 percent effective tax rate on commercial properties and a 1.5 percent effective tax rate on homestead properties, then the commercial-homestead classification ratio is 2.0 (3.0% divided by 1.5%).

In a property tax system that treats all properties similarly, the classification ratio would be 1.0, because the effective rates on all properties would be the same. In other words, the *classification ratio provides a summary measure of the degree to which one type of property subsidizes lower property taxes on another class of properties.*

**Table 11: Commercial-Homestead and Apartment-Homestead Classification Ratios for Largest City in Each State (2016)**

| Commercial-Homestead Ratio       |                     |             | Apartment-Homestead Ratio        |                     |       |
|----------------------------------|---------------------|-------------|----------------------------------|---------------------|-------|
| Rank<br>(tax rate rank)          | City/State          | Ratio       | Rank<br>(tax rate rank)          | City/State          | Ratio |
| <i>Highest 5</i>                 |                     |             | <i>Highest 5</i>                 |                     |       |
| 1                                | New York City, NY   | 4.08        | 1                                | New York City, NY   | 4.97  |
| 2                                | Boston, MA          | 3.77        | 2                                | Columbia, SC        | 3.71  |
| 3                                | Columbia, SC        | 3.71        | 3                                | Indianapolis, IN    | 2.59  |
| 4                                | Denver, CO          | 3.62        | 4                                | Birmingham, AL      | 2.17  |
| 5                                | <b>Honolulu, HI</b> | <b>3.58</b> | 5                                | Charleston, WV      | 2.12  |
| <b>Average for the US Cities</b> |                     | <b>1.67</b> | <b>Average for the US Cities</b> |                     | 1.35  |
|                                  |                     |             | <b>24</b>                        | <b>Honolulu, HI</b> | 1.12  |
| <i>Lowest 5</i>                  |                     |             | <i>Lowest 5</i>                  |                     |       |
| 49                               | Manchester, NH      | 1.00        | 49                               | Salt Lake City, UT  | 0.97  |
| 50                               | Bridgeport, CT      | 1.00        | 50                               | Louisville, KY      | 0.97  |
| 51                               | Charlotte, NC       | 1.00        | 51                               | Cheyenne, WY        | 0.94  |
| 52                               | Louisville, KY      | 0.97        | 52                               | Virginia Beach, VA  | 0.88  |
| 53                               | Wilmington, DE      | 0.96        | 53                               | Chicago, IL         | 0.83  |

Source: 50-State Property Tax Comparison Study for Taxes Paid in 2016 (Lincoln Institute of Land Policy, 2017)

Effective property tax rates vary by class of property due to four primary reasons: the assessment ratio (which is the percentage of market value used to determine taxable values, where a \$100,000 commercial property would be taxed on its full market value, but a \$100,000 residential property would be taxed as if it were worth \$70,000); the nominal tax rate (which is the tax rate applied to the taxable value to determine the tax bill); exemptions and credits (most common are homestead exemptions, for example, a \$50,000 homestead exemption would mean a \$200,000 home would be taxed as if it were worth \$150,000, in a 100% assessment ratio); and, the sales ratio (when the sales ratio for homesteads is 95 percent, then a home worth \$100,000 would be “on the books” as if it were worth \$95,000).

### **Property Tax Assessment Limits**

Property tax assessment limitations became popular in the late 1970s, and this increased during the late 1990s and early 2000s as property values appreciated. Under this system, tax savings are greatest for homeowners who have owned their homes longer and whose home values have appreciated faster than the average. States with parcel specific assessment limits include Arizona, Arkansas, California, Florida, Illinois (Cook County only), Michigan, New Mexico, New York City, Oklahoma, Oregon, South Carolina, and Texas.

***Structure of the rest of the report.*** Following this section, introduction, Section II analyzes county property tax assessment data provided by each respective county. The data were analyzed to examine the following research topics:

- The proportion of homes owned by Hawaii residents as estimated from property tax mailing addresses;
- A revenue analysis of three different scenarios for raising property taxes.

Section III of the report analyzes the relationship between household income and their homeownership and home values.

Regarding the following sections, it is important to note that this report presents a ***limited framework*** for considering the issue of taxation in Hawaii. The analysis focuses on potential scenarios related to property tax increases offset by individual income tax decreases. This report does not include scenarios related to other forms of taxation and, therefore, should not be considered a comprehensive analysis of the state's taxation framework. The scope is limited to potential scenarios related to income tax and property tax. In summary, it provides a base that future research could expand upon.

## **II. Property Tax Analysis and Revenue Scenarios**

### **A. Data Analysis**

#### **Methodology**

This report provides a property tax analysis for the state and each respective county based on 2016 property tax records. The first goal of the study was to estimate the percentage of property owners who reside outside the State of Hawaii. From a data perspective, this presents a challenge, because declaring owner or entity location of residence is not required for real estate transactions. In other words, property tax records do not include the location of the property owner or entities' location of residence. However, property tax records do include mailing addresses for property tax notices and, therefore, these were used as a proxy for location of residence. It is important to note that, although mailing addresses provide a barometer for estimating out-of-state residence with property in Hawaii, it is only a very rough measure. There are reasons other than ownership for out-of-state mailing addresses including notices being sent to property managers, accountants, lawyers, or family members. Therefore, the information provided in this report should be interpreted as a reference, rather than an exact measure for non-resident property owners.

The second goal of the report was to analyze property tax by property tax class across counties. While the property tax classes among counties were similar, each county varied slightly in their property tax classes. Some examples of county-specific property tax classes were Residential A (Honolulu), Affordable Rental (Hawaii), Residential Investor (Kauai), and Time Share (Maui). Thus, in order to compare counties, the property tax classes were combined into four standardized categories based on taxation: Residential & Related, Hotel/Resort & Tourism Related, Commercial and Industrial, and Agriculture, Conservation, and Preservation (Table 12).

The unit of measure for the analysis was Tax Map Key (TMK) by mailing addresses for property tax notifications as a proxy for the location of the property owner/manager. Property tax assessment is based on a TMK number, which is associated with a property lot. For a majority of the cases, there was one mailing address per TMK. However, for TMKs with multiple property owners, there were multiple mailing addresses, and this was further complicated by the fact that some TMKs had both in-state and out-of-state mailing addresses for the same TMK. In this case, the portion of property taxes paid was allocated using equal shares for each location. For example, if there was a TMK with two mailing addresses, one in Hawaii and one in California, half of the taxes paid was allocated to Hawaii

and the other half was allocated to the Other U.S. category. A further explanation is included in the appendix.

A final caveat to the methodology was regarding residential property that was classified under a non-residential property tax class. For example, a house that was located on land classified under an agricultural related property tax class; this example was especially true for Hawaii County where the agriculture related property tax class comprises approximately 50 percent of the mailing addresses. Since the analysis was based on property tax class rather than actual use, the residential related properties do not necessarily reflect the actual use or quantity of housing stock.

**Table 12. Classification Categories Based on Property Tax Class**

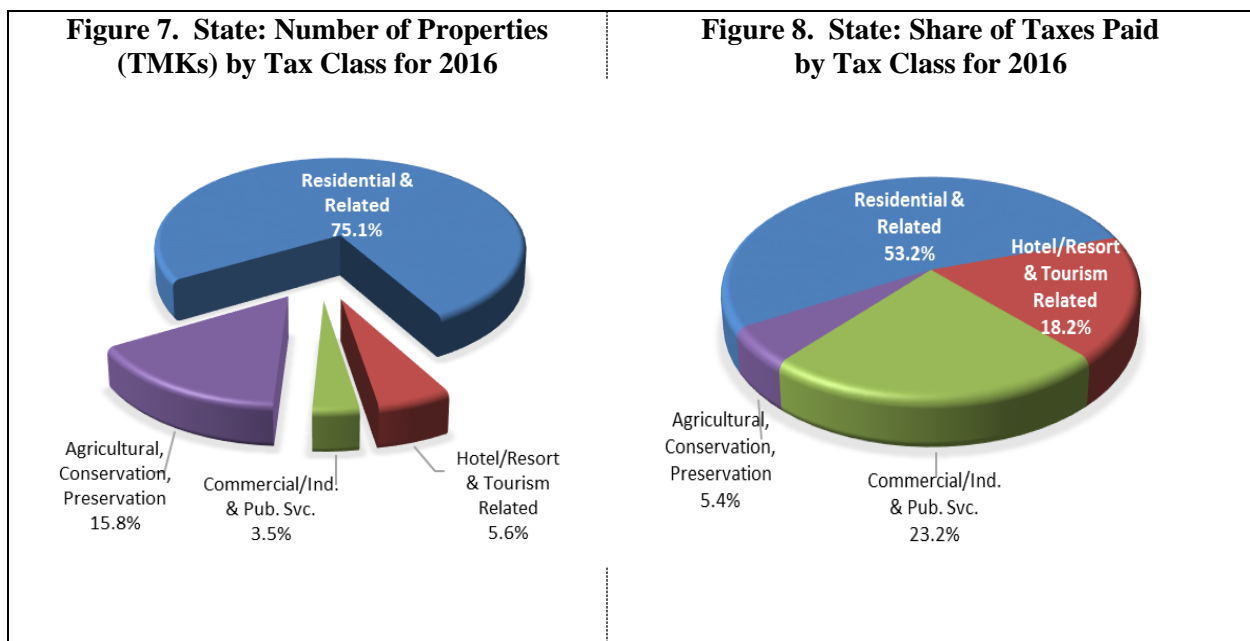
|                                   | <b>Residential &amp; Related</b> | <b>Commercial/Ind. &amp; Public Service</b> | <b>Hotel/Resort &amp; Tourism Related</b> | <b>Agriculture, Conservation, &amp; Preservation</b> |
|-----------------------------------|----------------------------------|---|---|--|
| <b>Affordable Rental</b>          | X                                |   |   |  |
| <b>Residential</b>                | X                                |   |   |  |
| <b>Residential A</b>              | X                                |   |   |  |
| <b>Apartment</b>                  | X                                |   |   |  |
| <b>Homeowner</b>                  | X                                |   |   |  |
| <b>Homestead</b>                  | X                                |   |   |  |
| <b>Residential Investor</b>       | X                                |   |   |  |
| <b>Commercialized Residential</b> | X                                |   |   |  |
| <b>Commercialized Home Use</b>    | X                                |   |   |  |
| <b>Commercial</b>                 |                                  | X   |   |  |
| <b>Industrial</b>                 |                                  | X   |   |  |
| <b>Public Service</b>             |                                  | X   |   |  |
| <b>Hotel/Resort</b>               |                                  |   | X   |  |
| <b>Vacation Rental</b>            |                                  |   | X   |  |
| <b>Time Share</b>                 |                                  |   | X   |  |
| <b>Agricultural/Native Forest</b> |                                  |   |   | X  |
| <b>Vacant Agricultural</b>        |                                  |   |   | X  |
| <b>Conservation/Preservation</b>  |                                  |   |   | X  |

### **Property Ownership and Tax Contribution**

This section analyzed property tax by property tax class and the mailing location address as a proxy for the resident location of the property owner or manager. The first section gives an overview at the state level, followed by an analysis of each individual county.

## State of Hawaii

For the state overall, the Residential and Related category had the highest share of taxes paid at 53.2 percent, with a 75.1 percent share of properties (TMKs). This was followed by the Commercial and Industrial category, which comprised 23.2 percent of property taxes paid and 3.5 percent of properties. The Hotel/Resort and Tourism Related category was third, at 18.2 percent of property taxes paid and 5.6 percent of properties. The category with the least amount of taxes paid was the Agriculture, Conservation, and Preservation category with 5.4 percent of taxes paid and 15.8 percent of properties.



Source: Respective counties' property assessment division and DBEDT calculation

Table 13 breaks down the amount of taxes paid by the location of the mailing address as a rough proxy for owner/manager location. The Residential and Related category had 87.5 percent of property taxes paid by residents with in-state mailing addresses, the highest of all categories. This was followed by Commercial and Industrial (84.8 percent), Agriculture, Conservation, and Preservation (59.8 percent), and Hotel/Resort and Tourism Related (31.8 percent).

**Table 13. Number and Percentage of Properties (TMKs) by Owner/Manager’s Mailing Address, State Total (2016)**

| Mailing Address Location   | Property Tax Class    |            |                                |            |                              |            |   |            |                |              |
|----------------------------|-----------------------|------------|--------------------------------|------------|------------------------------|------------|---|------------|----------------|--------------|
|                            | Residential & Related |            | Hotel/Resort & Tourism Related |            | Commercial/ Ind. & Pub. Svc. |            | Agriculture, Conservation, & Preservation |            | Total          |              |
|                            | # of TMK              | %          | # of TMK                       | %          | # of TMK                     | %          | # of TMK                                  | %          | # of TMK       | %            |
| Hawaii Only                | 351,684               | 87.5       | 9,589                          | 31.8       | 15,967                       | 84.8       | 50,719                                    | 59.8       | 427,959        | 79.9         |
| Other U.S. Only            | 43,500                | 10.8       | 17,796                         | 59.1       | 2,314                        | 12.3       | 29,853                                    | 35.2       | 93,463         | 17.4         |
| Foreign Only               | 4,432                 | 1.1        | 2,371                          | 7.9        | 62                           | 0.3        | 2,211                                     | 2.6        | 9,076          | 1.7          |
| Hawaii & Other Mixed       | 2,312                 | 0.6        | 356                            | 1.2        | 486                          | 2.6        | 1,953                                     | 2.3        | 5,107          | 1.0          |
| Other U.S. & Foreign Mixed | 32                    | 0          | 14                             | 0          | 0                            | 0          | 41  | 0          | 87             | 0.0          |
| <b>Total</b>               | <b>401,960</b>        | <b>100</b> | <b>30,126</b>                  | <b>100</b> | <b>18,829</b>                | <b>100</b> | <b>84,777</b>                             | <b>100</b> | <b>535,692</b> | <b>100.0</b> |

\*A property may have multiple tax classes such as Residential & Related and Commercial & Industrial, therefore, there is some double counting across tax classes. For the mailing address column, each property is counted only once even if there are multiple mailing addresses for property owners/managers.

Source: County Real Property Assessment Divisions and DBEDT calculations



Table 14 shows the amount of taxes paid by the location of the mailing address for the state overall in 2016. The Residential and Related category had the highest percentage of taxes paid by in-state mailing addresses at 76.5 percent. Residential and Related was followed by Commercial and Industrial (68.0 percent), Agriculture, Conservation, and Preservation (64.3 percent), and Hotel/Resort and Tourism Related (42.8 percent). In looking at taxes paid by out-of-state U.S. addresses, the highest share was the Hotel/Resort and Tourism Related category at 52.0 percent; followed by Agriculture, Conservation, and Preservation (33.3 percent), Commercial/ Industrial and Public Service (31.9 percent), and Residential and Related (21.1 percent). The highest category for foreign mailing addresses was the Hotel/Resort and Related category at 5.3 percent.

**Table 14. Amount and Percentage of Property Taxes Paid by Owner/Manager’s Mailing Address, State Total (2016)**

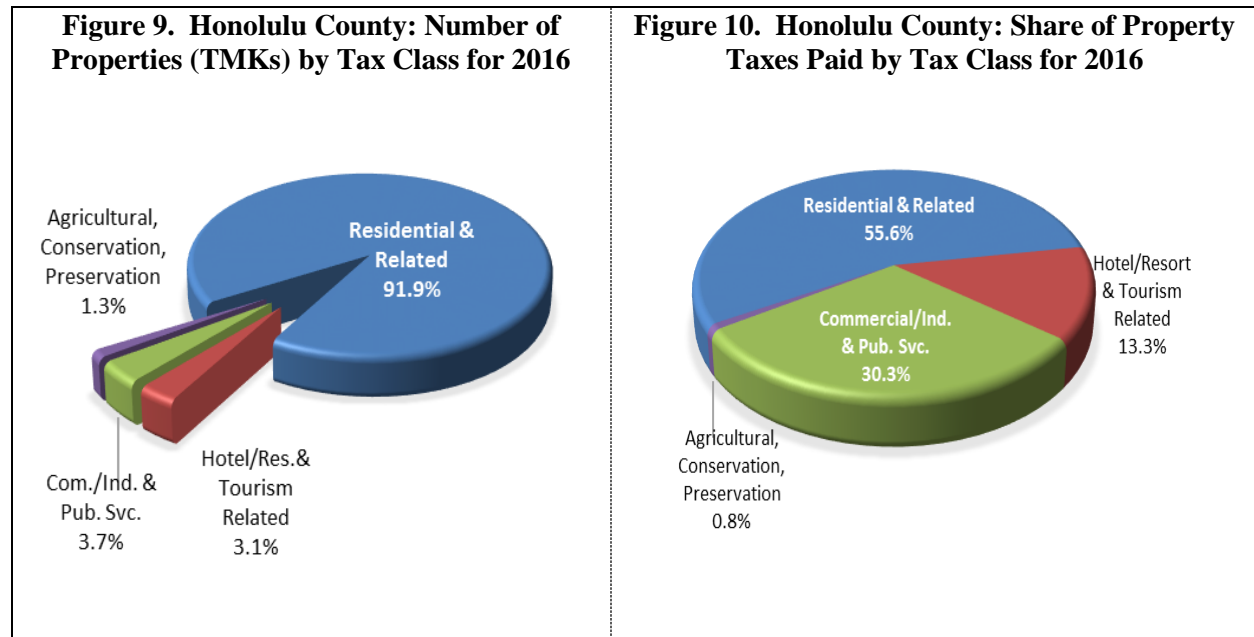
| Mailing Address Location | Property Tax Class    |      |                                |      |                              |      |   |      |                  |       |
|--------------------------|-----------------------|------|--------------------------------|------|------------------------------|------|---|------|------------------|-------|
|                          | Residential & Related |      | Hotel/Resort & Tourism Related |      | Commercial/ Ind. & Pub. Svc. |      | Agriculture, Conservation, & Preservation |      | Total            |       |
|                          | Amount (\$1,000)      | %    | Amount (\$1,000)               | %    | Amount (\$1,000)             | %    | Amount (\$1,000)                          | %    | Amount (\$1,000) | %     |
| Hawaii                   | 715,130               | 76.5 | 136,329                        | 42.8 | 275,682                      | 68   | 61,383                                    | 64.3 | 1,188,524        | 67.8  |
| Other U.S.               | 197,423               | 21.1 | 165,704                        | 52   | 129,234                      | 31.9 | 31,838                                    | 33.3 | 524,200          | 29.9  |
| Foreign                  | 21,725                | 2.3  | 16,738                         | 5.3  | 689                          | 0.2  | 2,312                                     | 2.4  | 41,464           | 2.4   |
| Total                    | 934,278               | 100  | 318,771                        | 100  | 405,605                      | 100  | 95,533                                    | 100  | 1,754,187        | 100.0 |

\*For TMKs with multiple address locations, property tax paid was allocated using equal shares for each location.

Source: County Real Property Assessment Divisions and DBEDT calculations

## Honolulu County

For Honolulu County, the Residential and Related category had the highest share of taxes paid at 55.6 percent, with a 91.9 percent share of the mailing properties (Figures 9 and 10). This was followed by the Commercial/Industrial and Public Service category at 30.3 percent of property taxes paid, with only 3.7 percent of properties due to the relative high value of each property. The Hotel/Resort and Tourism Related category had 13.3 percent of taxes paid with 3.1 percent of properties. Compared with the other counties, Honolulu County had the smallest share for the Agriculture, Conservation, and Preservation category, with a mere 0.8 percent of taxes paid and 1.3 percent of properties.



Source: City and County of Honolulu Real Property Assessment Division and DBEDT calculations

Table 15 shows Honolulu County’s number and share of property owners/managers by location of the mailing address. For the Residential and Related category, the vast majority had in-state mailing addresses at 91.4 percent. This was followed by the Agriculture, Conservation, and Preservation category at 88.4 percent; although, the amount of property taxes paid was minimal. The following categories were Commercial and Industrial at 84.9 percent and Hotel/Resort and Tourism Related at 51.5 percent. The Hotel/Resort and Tourism Related category stood out as having the highest share of both out-of-state U.S. (37.3 percent) and foreign (10.6 percent) mailing addresses.

**Table 15. Number and Percentage of Properties (TMKs) by Owner/Manager’s Mailing Address, Honolulu County (2016)**

| Mailing Address Location   | Property Tax Class    |      |                                |      |                              |      |   |      |          |       |
|----------------------------|-----------------------|------|--------------------------------|------|------------------------------|------|---|------|----------|-------|
|                            | Residential & Related |      | Hotel/Resort & Tourism Related |      | Commercial/ Ind. & Pub. Svc. |      | Agriculture, Conservation, & Preservation |      | Total    |       |
|                            | # of TMK              | %    | # of TMK                       | %    | # of TMK                     | %    | # of TMK                                  | %    | # of TMK | %     |
| Hawaii Only                | 242,640               | 91.4 | 4,662                          | 51.5 | 9,212                        | 84.9 | 3,218                                     | 88.4 | 259,732  | 89.9  |
| Other U.S. Only            | 19,699                | 7.4  | 3,381                          | 37.3 | 1,235                        | 11.4 | 332                                       | 9.1  | 24,647   | 8.5   |
| Foreign Only               | 2,278                 | 0.9  | 956                            | 10.6 | 47                           | 0.4  | 14  | 0.4  | 3,295    | 1.1   |
| Hawaii & Other Mixed       | 817                   | 0.3  | 55                             | 0.6  | 356                          | 3.3  | 76  | 2.1  | 1,304    | 0.5   |
| Other U.S. & Foreign Mixed | 8                     | 0    | 2                              | 0    | 0                            | 0    | 1   | 0    | 11       | 0.0   |
| Total                      | 265,442               | 100  | 9,056                          | 100  | 10,850                       | 100  | 3,641                                     | 100  | 288,989  | 100.0 |

\*A property may have multiple tax classes such as Residential & Related and Commercial & Industrial, therefore, there is some double counting across tax classes. For the mailing address column, each property is counted only once, even if there are multiple mailing addresses for property owners/managers.

Source: City and County of Honolulu Real Property Assessment Division and DBEDT calculations

Table 16 shows the amount of taxes paid by the location of the mailing address for Honolulu County in 2016. The Residential and Related category had 89.6 percent of property taxes paid by residents with in-state mailing addresses and this was the highest of all counties. Residential was followed by Agriculture, Conservation, and Preservation (85.8 percent), Commercial and Industrial (67.7 percent), and Hotel/Resort and Tourism Related (59.5 percent). Compared with the other categories, the Hotel/Resort and Tourism Related category and the Commercial and Industrial category had higher shares of property taxes paid by entities with mainland addresses (other U.S. category), at 34.7 percent and 32.2 percent respectively. Overall, the foreign mailing address share of property taxes paid was minimal, with the highest share in the Hotel/Resort and Tourism Related at 5.8 percent.

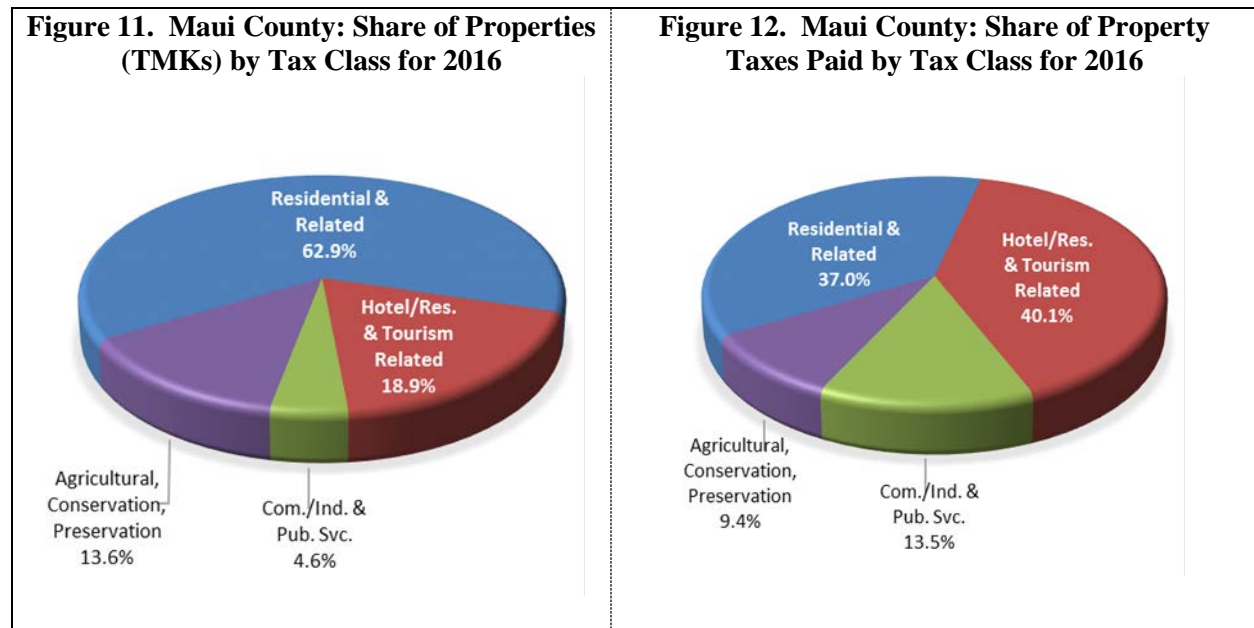
**Table 16. Amount and Percentage of Property Taxes Paid by Owner/Manager’s Mailing Address for Properties (TMKs), Honolulu County (2016)**

| Mailing Address Location | Property Tax Class    |      |                                |      |                              |      |   |      |                  |       |
|--------------------------|-----------------------|------|--------------------------------|------|------------------------------|------|---|------|------------------|-------|
|                          | Residential & Related |      | Hotel/Resort & Tourism Related |      | Commercial/ Ind. & Pub. Svc. |      | Agriculture, Conservation, & Preservation |      | Total            |       |
|                          | Amount (\$1,000)      | %    | Amount (\$1,000)               | %    | Amount (\$1,000)             | %    | Amount (\$1,000)                          | %    | Amount (\$1,000) | %     |
| Hawaii                   | 543,208               | 89.6 | 86,507                         | 59.5 | 223,555                      | 67.7 | 7,523                                     | 85.8 | 860,792          | 78.9  |
| Other U.S.               | 54,247                | 8.9  | 50,496                         | 34.7 | 106,334                      | 32.2 | 1,215                                     | 13.9 | 212,292          | 19.5  |
| Foreign                  | 9,044                 | 1.5  | 8,448                          | 5.8  | 524                          | 0.2  | 25  | 0.3  | 18,041           | 1.7   |
| Total                    | 606,500               | 100  | 145,451                        | 100  | 330,413                      | 100  | 8,763                                     | 100  | 1,091,125        | 100.0 |

Source: City and County of Honolulu Real Property Assessment Division and DBEDT calculations

## Maui County

The figures below show Maui County had a relatively high share of property taxes paid by the Hotel/Resort and Tourism Related category at 40.1 percent; however, the share of properties was lower at 18.9 percent of properties due to the high value of each property. The Residential and Related category had the second highest share of property taxes paid at 37.0 percent; however, it was the largest category for share of the number of properties at 62.9 percent. The Commercial/Industrial and Public Service category had 13.5 percent of taxes paid and 4.6 percent of properties. The category that had the least amount of property taxes paid was the Agriculture, Conservation, and Preservation category, with 9.4 of property taxes paid and 13.6 percent of properties.



Source: County of Maui Real Property Assessment Division and DBEDT calculations

For Maui County's location of mailing addresses, the top two categories for in-state mailing addresses were Commercial and Industrial and Residential and Related, with 82.4 percent and 81.1 percent respectively (Table 17). These were followed by Agriculture, Conservation at 69.9 percent in-state and Hotel/Resort & Tourism Related at 15.2 percent in-state. As noted above, Maui had a relatively high representation for out-of-state mailing addresses in the Hotel/Resort & Tourism Related category at 74.8 percent. Maui County had the second highest percentage of foreign mailing addresses for the Hotel/Resort and Related category at 9.4 percent.

**Table 17. Number and Percentage of Properties (TMKs) by Owner/Manager’s Mailing Address, Maui County (2016)**

| Mailing Address Location   | Property Tax Class    |            |                                |            |                              |            |   |            |               |              |
|----------------------------|-----------------------|------------|--------------------------------|------------|------------------------------|------------|---|------------|---------------|--------------|
|                            | Residential & Related |            | Hotel/Resort & Tourism Related |            | Commercial/ Ind. & Pub. Svc. |            | Agriculture, Conservation, & Preservation |            | Total         |              |
|                            | # of TMK              | %          | # of TMK                       | %          | # of TMK                     | %          | # of TMK                                  | %          | # of TMK      | %            |
| Hawaii Only                | 36,838                | 81.1       | 2,068                          | 15.2       | 2,708                        | 82.4       | 6,836                                     | 69.9       | 48,450        | 67.2         |
| Other U.S. Only            | 7,297                 | 16.1       | 10,197                         | 74.8       | 528                          | 16.1       | 2,276                                     | 23.3       | 20,298        | 28.1         |
| Foreign Only               | 856                   | 1.9        | 1,279                          | 9.4        | 9                            | 0.3        | 144                                       | 1.5        | 2,288         | 3.2          |
| Hawaii & Other Mixed       | 443                   | 1          | 80                             | 0.6        | 40                           | 1.2        | 524                                       | 5.4        | 1,087         | 1.5          |
| Other U.S. & Foreign Mixed | 3                     | 0          | 7                              | 0.1        | 0                            | 0          | 3   | 0          | 13            | 0.0          |
| <b>Total</b>               | <b>45,437</b>         | <b>100</b> | <b>13,631</b>                  | <b>100</b> | <b>3,285</b>                 | <b>100</b> | <b>9,783</b>                              | <b>100</b> | <b>72,136</b> | <b>100.0</b> |

\*A property may have multiple tax classes such as Residential & Related and Commercial & Industrial, therefore, there is some double counting across tax classes. For the mailing address column, each property is counted only once even if there are multiple mailing addresses for property owners/managers.

Source: Maui County Real Property Assessment Division and DBEDT calculations

In looking at Maui County’s share of property taxes paid by in-state mailing addresses, the Commercial/Industrial and Public Service category had the highest share at 61.5 percent (Table 18). This was followed by Residential and Related (55.4 percent), Agriculture, Conservation, and Preservation (53.2 percent), and Hotel/Resort & Tourism Related (17.6 percent). The Hotel/Resort & Tourism Related category for Maui County had a high share of property taxes paid by entities with out-of-state U.S. mailing addresses at 75.6 percent, the highest of all counties.

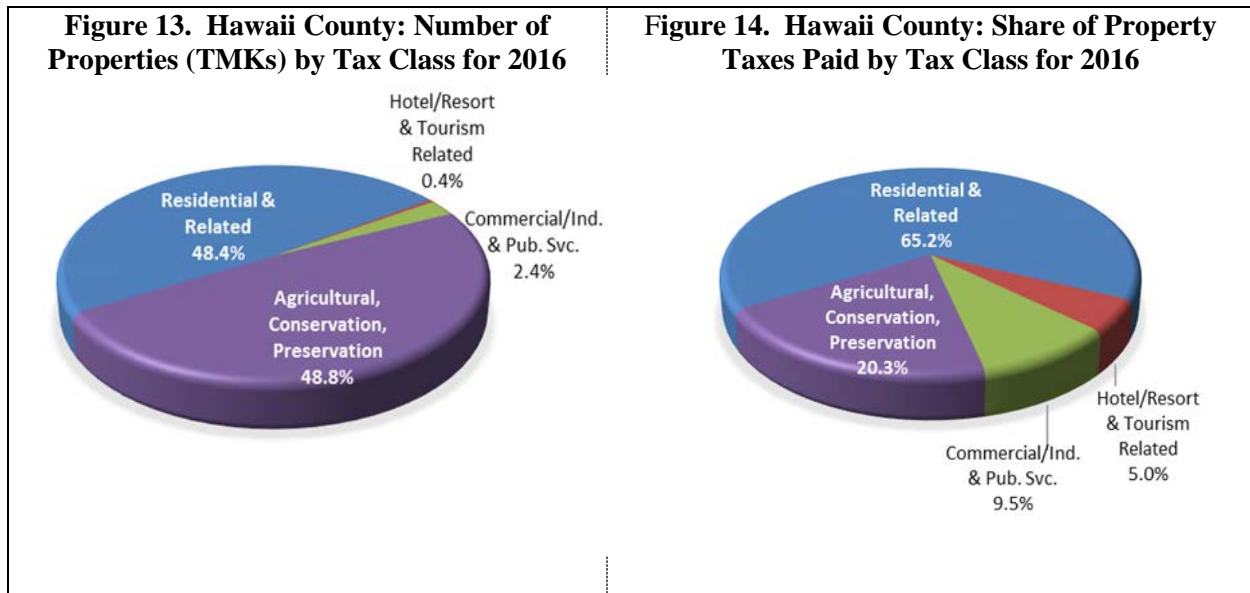
**Table 18. Amount and Percentage of Property Taxes Paid by Owner/Manager’s Mailing Address for Properties (TMKs), Maui County (2016)**

| Mailing Address Location | Property Tax Class    |      |                                |      |                              |      |   |      |                  |       |
|--------------------------|-----------------------|------|--------------------------------|------|------------------------------|------|---|------|------------------|-------|
|                          | Residential & Related |      | Hotel/Resort & Tourism Related |      | Commercial/ Ind. & Pub. Svc. |      | Agriculture, Conservation, & Preservation |      | Total            |       |
|                          | Amount (\$1,000)      | %    | Amount (\$1,000)               | %    | Amount (\$1,000)             | %    | Amount (\$1,000)                          | %    | Amount (\$1,000) | %     |
| Hawaii                   | 56,765                | 55.4 | 19,589                         | 17.6 | 22,947                       | 61.5 | 13,894                                    | 53.2 | 113,195          | 40.9  |
| Other U.S.               | 39,696                | 38.7 | 83,959                         | 75.6 | 14,206                       | 38.1 | 11,128                                    | 42.6 | 148,989          | 53.8  |
| Foreign                  | 5,985                 | 5.8  | 7,571                          | 6.8  | 147                          | 0.4  | 1,091                                     | 4.2  | 14,793           | 5.3   |
| Total                    | 102,446               | 100  | 111,119                        | 100  | 37,300                       | 100  | 26,113                                    | 100  | 276,977          | 100.0 |

Source: Maui County Real Property Assessment Division and DBEDT calculations

## Hawaii County

As shown in the figures below, Hawaii County’s Residential & Related category was the top category for the share of taxes paid at 65.2 percent, with a 48.4 percent share of properties. Hawaii County was the highest of all counties for the Agriculture, Conservation, and Preservation category, with property taxes paid at 20.3 percent and properties at 48.8 percent. The Commercial/Industrial & Public Service category had 9.5 percent of property taxes paid and 2.4 percent of properties. Hawaii County was also unique in that it had a comparatively low share of both taxes paid and properties in the Hotel/Resort & Tourism Related category, at 5.0 percent and 0.4 percent respectively.



Source: County of Hawaii Real Property Tax Office and DBEDT calculations

For Hawaii County’s share of the number of in-state mailing addresses, the top two categories were the Commercial/ Industrial and Public Service category at 86.9 percent and the Residential and Related category at 77.8 percent (Table 19). These were followed by the Agriculture, Conservation, and Preservation at 56.5 percent and the Hotel/Resort and Tourism Related category at 52.3 percent. While Hawaii County had a relatively high share of taxes paid by out-of-state mailing addresses, the share of the total number of properties was relatively small, indicating a higher value per property. This was especially true for the Residential and Related category.



**Table 19. Number and Percentage of Properties (TMKs) by Owner/Manager’s Mailing Address, Hawaii County (2016)**

| Mailing Address Location   | Property Tax Class    |            |                                |            |                              |            |   |            |                |              |
|----------------------------|-----------------------|------------|--------------------------------|------------|------------------------------|------------|---|------------|----------------|--------------|
|                            | Residential & Related |            | Hotel/Resort & Tourism Related |            | Commercial/ Ind. & Pub. Svc. |            | Agriculture, Conservation, & Preservation |            | Total          |              |
|                            | # of TMK              | %          | # of TMK                       | %          | # of TMK                     | %          | # of TMK                                  | %          | # of TMK       | %            |
| Hawaii Only                | 52,918                | 77.8       | 271                            | 52.3       | 2,893                        | 86.9       | 38,794                                    | 56.5       | 94,876         | 67.5         |
| Other U.S. Only            | 13,078                | 19.2       | 213                            | 41.1       | 363                          | 10.9       | 26,495                                    | 38.6       | 40,149         | 28.6         |
| Foreign Only               | 1,196                 | 1.8        | 1                              | 0.2        | 5                            | 0.2        | 2,047                                     | 3          | 3,249          | 2.3          |
| Hawaii & Other Mixed       | 848                   | 1.2        | 33                             | 6.4        | 70                           | 2.1        | 1,289                                     | 1.9        | 2,240          | 1.6          |
| Other U.S. & Foreign Mixed | 19                    | 0          | 0                              | 0          | 0                            | 0          | 37  | 0.1        | 56             | 0.0          |
| <b>Total</b>               | <b>68,059</b>         | <b>100</b> | <b>518</b>                     | <b>100</b> | <b>3,331</b>                 | <b>100</b> | <b>68,662</b>                             | <b>100</b> | <b>140,570</b> | <b>100.0</b> |

\*A property may have multiple tax classes such as Residential & Related and Commercial & Industrial, therefore, there is some double counting across tax classes. For the mailing address column, each property is counted only once even if there are multiple mailing addresses for property owners/managers.

Source: Hawaii County Real Property Assessment Division and DBEDT calculations

For the share of taxes paid by in-state mailing addresses, the top two categories for Hawaii County were the Hotel/Resort and Tourism Related and the Commercial/ Industrial and Public Service categories, at 77.5 percent and 75.1 percent, respectively. This was followed by the Agriculture, Conservation, and Preservation at 66.1 percent and the Residential and Related category at 46.2 percent of property taxes paid by in-state addresses. Hawaii County’s Residential and Related category had a relatively high share of taxes paid by out-of-state mailing addresses at 50.3 percent for the mainland and 3.5 percent for foreign addresses.

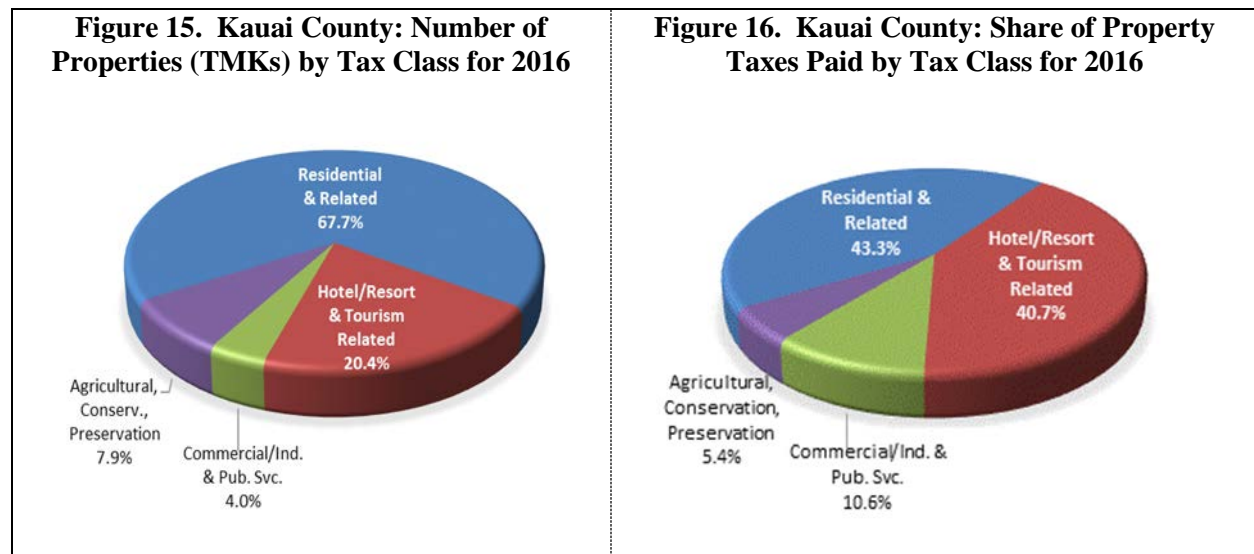
**Table 20. Amount and Percentage of Property Taxes Paid by Mailing Owner/Manager's Address for Properties (TMKs), Hawaii County (2016)**

| Mailing Address Location | Property Tax Class    |      |                                |      |                              |      |   |      |                  |       |
|--------------------------|-----------------------|------|--------------------------------|------|------------------------------|------|---|------|------------------|-------|
|                          | Residential & Related |      | Hotel/Resort & Tourism Related |      | Commercial/ Ind. & Pub. Svc. |      | Agriculture, Conservation, & Preservation |      | Total            |       |
|                          | Amount (\$1,000)      | %    | Amount (\$1,000)               | %    | Amount (\$1,000)             | %    | Amount (\$1,000)                          | %    | Amount (\$1,000) | %     |
| Hawaii                   | 80,100                | 46.2 | 10,277                         | 77.5 | 19,019                       | 75.1 | 35,769                                    | 66.1 | 145,165          | 54.6  |
| Other U.S.               | 87,109                | 50.3 | 2,964                          | 22.4 | 6,276                        | 24.8 | 17,188                                    | 31.8 | 113,537          | 42.7  |
| Foreign                  | 6,113                 | 3.5  | 15                             | 0.1  | 17                           | 0.1  | 1,164                                     | 2.2  | 7,310            | 2.7   |
| Total                    | 173,322               | 100  | 13,257                         | 100  | 25,313                       | 100  | 54,121                                    | 100  | 266,012          | 100.0 |

Source: Hawaii County Real Property Assessment Division and DBEDT calculations

## Kauai County

For Kauai County, the Residential and Related category had the highest share of property taxes paid at 43.3 percent. This category also had the highest share of number of properties at 67.7 percent. The next highest for share of taxes paid was the Hotel/Resort and Related category, with 40.7 percent of the taxes paid. However, due to the high value of each property, the share of the number of properties was relatively low at 20.4 percent. The Commercial/ Industrial & Public Service had 10.6 percent of taxes paid and 4.0 percent of properties. The lowest category for both taxes paid and properties was the Agriculture, Conservation, and Preservation category, with 5.4 percent for value of taxes paid and 7.9 percent of properties.



Source: County of Kauai Real Property Assessment Division and DBEDT calculations

The top two categories for Kauai County's share of the total number of properties were the Commercial and Industrial category at 84.7 percent and the Residential and Related category at 83.8 percent; followed by Agriculture, Conservation, and Preservation at 69.6 percent and Hotel/Resort and Tourism Related at 37.4 percent (Table 21). Kauai County had a relatively high share of out-of-state mailing addresses for the Hotel/Resort and Tourism Related category, with 57.9 percent mainland and 2.0 percent foreign.

**Table 21. Number and Percentage of Properties (TMKs) by Owner/Manager’s Mailing Address, Kauai County (2016)**

| Mailing Address Location   | Property Tax Class    |            |                                |            |                              |            |   |            |               |              |
|----------------------------|-----------------------|------------|--------------------------------|------------|------------------------------|------------|---|------------|---------------|--------------|
|                            | Residential & Related |            | Hotel/Resort & Tourism Related |            | Commercial/ Ind. & Pub. Svc. |            | Agriculture, Conservation, & Preservation |            | Total         |              |
|                            | # of TMK              | %          | # of TMK                       | %          | # of TMK                     | %          | # of TMK                                  | %          | # of TMK      | %            |
| Hawaii Only                | 19,288                | 83.8       | 2,588                          | 37.4       | 1,154                        | 84.7       | 1,871                                     | 69.5       | 24,901        | 73.2         |
| Other U.S. Only            | 3,426                 | 14.9       | 4,005                          | 57.9       | 188                          | 13.8       | 750                                       | 27.9       | 8,369         | 24.6         |
| Foreign Only               | 102                   | 0.4        | 135                            | 2          | 1                            | 0.1        | 6   | 0.2        | 244           | 0.7          |
| Hawaii & Other Mixed       | 204                   | 0.9        | 188                            | 2.7        | 20                           | 1.5        | 64  | 2.4        | 476           | 1.4          |
| Other U.S. & Foreign Mixed | 2                     | 0          | 5                              | 0.1        | 0                            | 0          | 0   | 0          | 7             | 0.0          |
| <b>Total</b>               | <b>23,022</b>         | <b>100</b> | <b>6,921</b>                   | <b>100</b> | <b>1,363</b>                 | <b>100</b> | <b>2,691</b>                              | <b>100</b> | <b>33,997</b> | <b>100.0</b> |

\*A property may have multiple tax classes such as Residential & Related and Commercial & Industrial, therefore, there is some double counting across tax classes. For the mailing address column, each property is counted only once even if there are multiple mailing addresses for property owners/managers.

Source: Kauai County Real Property Assessment Division and DBEDT calculations

Table 22 shows the amount of taxes paid by the location of mailing addresses for Kauai County. The Commercial/ Industrial and Public Service had the highest share of taxes paid by in-state mailing addresses at 80.8 percent. The Residential and Related category and the Agriculture, Conservation, and Preservation category followed with similar values, at 67.4 percent and 64.2 percent respectively. The category with the lowest share of property taxes paid from in-state addresses was the Hotel/Resort and Tourism Related category at 40.8 percent. For out-of-state addresses, 41.1 percent of the total was paid by out-of-state U.S. addresses and 1.1 percent was paid by foreign addresses.

**Table 22. Amount and Percentage of Property Taxes Paid by Mailing Owner/Manager’s Address for Properties (TMKs), Kauai County (2016)**

| Mailing Address Location | Property Tax Class    |      |                                |      |                              |      |   |      |                  |       |
|--------------------------|-----------------------|------|--------------------------------|------|------------------------------|------|---|------|------------------|-------|
|                          | Residential & Related |      | Hotel/Resort & Tourism Related |      | Commercial/ Ind. & Pub. Svc. |      | Agriculture, Conservation, & Preservation |      | Total            |       |
|                          | Amount (\$1,000)      | %    | Amount (\$1,000)               | %    | Amount (\$1,000)             | %    | Amount (\$1,000)                          | %    | Amount (\$1,000) | %     |
| Hawaii                   | 35,057                | 67.4 | 19,957                         | 40.8 | 10,161                       | 80.8 | 4,197                                     | 64.2 | 69,371           | 57.8  |
| Other U.S.               | 16,371                | 31.5 | 28,284                         | 57.8 | 2,419                        | 19.2 | 2,308                                     | 35.3 | 49,382           | 41.1  |
| Foreign                  | 582                   | 1.1  | 704                            | 1.4  | 1                            | 0    | 32  | 0.5  | 1,319            | 1.1   |
| Total                    | 52,010                | 100  | 48,945                         | 100  | 12,580                       | 100  | 6,537                                     | 100  | 120,072          | 100.0 |

Source: Kauai County Real Property Assessment Division and DBEDT calculations

## **B. Scenarios to Generate Greater Property Revenue From Residential & Related Properties**

Hawaii's property values are influenced to a significant extent by out-of-state ownership. A study examining the link between foreign purchases of Singapore residential property and the impact on residential property prices identified a ripple effect from the central city that expanded out to the suburbs (Wen-Chi et al., 2015). The study found that the impact on prices spread beyond the city to the suburbs, where foreign buyers did not tend to purchase property, and this had a negative impact on the affordability of homes for residents.

The high percentage of out-of-state owners presents a housing affordability challenge for Hawaii residents. In addition to housing costs, properties owned by out-of-state residents are often vacant and this reduces housing supply available to local residents. One region that has enacted policy to reduce non-resident pressure on housing affordability is Vancouver, British Columbia (Frank, 2016). As of August 2016, British Columbia imposed a 15 percent tax on foreign property buyers in the metropolitan Vancouver area, and this appears to have dampened prices. Similar policies have been enacted in Hong Kong and Singapore. Furthermore, the Vancouver City Council voted to enact a 1 percent tax on homes that are not primary residences and are empty for more than six months per year (Kassam, 2016).

There are three scenarios presented below that present possibilities to mitigate housing pressure for local residents. Table 23 presents the first scenario, which increases property tax rates to generate an additional \$50 million, \$100 million and \$200 million. These increases are then offset with lower individual income taxes for Hawaii residents. It shows an average property tax rate increase for the state and each respective county in order to achieve each of the respective revenue scenarios. The right side of the table highlights the individual income tax decrease required to offset the property tax increases. Since only Hawaii residents would qualify for a reduction in income taxes, the targeted additional property tax revenue of \$50, \$100, and \$200 million would come from the non-resident Hawaii property owners.

**Table 23: Scenario 1. Residential Property Tax Increase Offset by an Income Taxes Decrease for Residents**

| Additional Net Property Tax Revenue | Property Tax Increase                   |  |                  |            |             |              | Income Tax Decrease      |  |
|-------------------------------------|---|--|------------------|------------|-------------|--------------|--------------------------|--|
|                                     | Aggregate Tax Rate - Property           |  |                  |            |             |              | Current Rate             | Residential Income Tax Collected, 2013 |
|                                     | <i>Current Residential Tax Raised</i>   | <i>Current Effective Average Rates</i> |                  |            |             |              | <i>Statewide Average</i> | <i>State Total</i>                     |
|                                     | <b>\$934,278,386</b>                    | <b>Statewide Average</b>               | <b>HI County</b> | <b>HNL</b> | <b>Maui</b> | <b>Kauai</b> | <b>5.25%</b>             | <b>\$1,631,874,000</b>                 |
|                                     |   | <b>0.43%</b>                           | 0.90%            | 0.38%      | 0.56%       | 0.49%        |                          |  |
|                                     | <i>New Total Residential Tax Raised</i> | <i>New Effective Average Rates:</i>    |                  |            |             |              | <i>New Rate:</i>         | <i>Reduction in Tax Collected:</i>     |
| <b>+\$50 million</b>                | <b>\$1,147,688,440</b>                  | 0.517%                                 | 1.07%            | 0.45%      | 0.67%       | 0.58%        | <b>4.56%</b>             | <b>-\$213,408,780</b>                  |
| <b>+\$100 million</b>               | <b>\$1,361,125,654</b>                  | 0.613%                                 | 1.27%            | 0.53%      | 0.80%       | 0.69%        | <b>3.88%</b>             | <b>-\$426,845,993</b>                  |
| <b>+\$200 million</b>               | <b>\$1,787,903,786</b>                  | 0.805%                                 | 1.67%            | 0.70%      | 1.05%       | 0.91%        | <b>2.50%</b>             | <b>-\$853,624,125</b>                  |

Source: Hawaii Department of Taxation (DoTax); Each Respective County Assessor’s Division; and DBEDT calculations

Table 24 presents the second scenario, which examines increasing property taxes on out-of-state owners only, in order to reach revenue goals of \$50 million, \$100 million, and \$200 million respectively. In the case of Hawaii County, out-of-state residents usually purchase higher value properties, therefore, the revenue generated from rate increases on out-of-state owners is proportionally higher than local residents. Similarly, in Kauai and Maui Counties, the higher rate reflects higher-valued properties and their higher share of total residential property tax raised. In contrast, for Honolulu County, the out-of-state owner property tax rate would not need to be adjusted much higher than the average.

**Table 24: Scenario 2: Out-of-State Owner of Residential Property Tax Increase Scenario - What would the Out-Of-State Owner Tax Rate Be to Generate Additional Revenue?**

| Aggregate Tax Rate - Property             |  |   |           |       |       |       |
|---|--|---|-----------|-------|-------|-------|
| Property Tax Raised:<br><br>\$934,278,386 | <i>current rates</i>   |   |           |       |       |       |
|   | Out-of-State Owner Contribution to Statewide Property Tax Raised | Current out-of-state Owner Effective Average Rates: | HI County | HNL   | Maui  | Kauai |
|   | <b>23.46%</b>  | <b>0.83%</b>  | 2.22%     | 0.46% | 1.05% | 1.01% |
|   | <b>Current Contribution-\$219,148,110</b>                        |   |           |       |       |       |
| Additional Net Property Tax Revenue, \$   | <i>new rates</i>   |   |           |       |       |       |
| <b>+\$50 million</b>                      | <b>\$269,148,110</b>   | <b>1.02%</b>  | 2.73%     | 0.57% | 1.29% | 1.24% |
| <b>+\$100 million</b>                     | <b>\$319,148,110</b>   | <b>1.21%</b>  | 3.23%     | 0.68% | 1.53% | 1.47% |
| <b>+\$200 million</b>                     | <b>\$419,148,110</b>   | <b>1.58%</b>  | 4.25%     | 0.89% | 2.01% | 1.93% |

Source: Respective County Assessor’s Office and DBEDT Calculations

Finally, the third scenario examines increasing the home-owner exemption amount for in-state residents. The purpose of this is to reduce the impact of property taxes on Hawaii residents since it is typically owner-occupied residents who qualify for the exemption. While this analysis focuses on home-owner exemptions, it is important to note there are alternative methods for mitigating the impact of property taxes on residents. For example, assessment limits prevent a property’s assessed value from increasing above a fixed percentage and circuit breaker programs provide property tax mitigation measures if the property tax amount increases above a fixed percentage of income (Urban Institute, 2012). For the purpose of this analysis home-owner exemptions are used as a method to mitigate the impact property taxes on Hawaii residents; specifically, how much would a home-owner exemption need to be adjusted in order to generate extra \$50 million, \$100 million, and \$200 million of net property tax revenue?

This scenario examines the impact of raising the homeowner exemption value, so that owners living in their homes would pay less in property taxes. Consequently, those who are not living in their homes full-time, would face a higher effective property tax rate due to not receiving the exemption.

This measure, however, would negatively impact local owners of multiple properties who rent their properties for income (Hawaii resident investors). In order to mitigate this impact, additional changes



would need to be implemented, such as perhaps a special tax rate for residential property investors (similar to Kauai County). Table 25 shows the increased exemption scenario, where the value of properties with exemptions would be effectively decreased, which in turn would increase revenue from non-exempt properties.

**Table 25: Scenario 3: Homeowner Exemption Increase Scenario - What Would Hawaii Homeowner Exemption Have to Be to Generate Additional Revenue?**

| Revenue  |                                 | Taxes Raised, Property Values, and Effective Average Tax Rates: |                          | Total Statewide Adjusted Homeowner Exemption Value* | Average Exemption            |                          |                  |
|--|---------------------------------|---|--------------------------|---|------------------------------|--------------------------|------------------|
|  |                                 | With Exemptions   | Without Exemptions       |   |                              |                          |                  |
| <b>Current Property Tax Raised:</b><br>\$934,278,386 | Effective Average Tax Rate:     | <b>0.43%</b>  |                          | <b>\$25,804,055,800</b>                             | <b>\$120,989</b>             |                          |                  |
|  | Amount Raised by Taxation:      | <b>\$499,005,440</b>  | <b>\$435,272,946</b>     |   |                              |                          |                  |
|  | Property Value After Exemptions | \$133,589,370,351   | \$116,527,464,649        |   |                              |                          |                  |
| <b>Extra Property Tax Revenue Raised</b>             |                                 |   |                          |   |                              |                          |                  |
|  |                                 |   |                          |   | average exemption raised by: | average exemption value: |                  |
| <b>+\$50 million</b>                                 | <b>\$981,451,656</b>            | Effective Average Tax Rate:                                     | <b>0.47%</b>             |   | \$38,706,083,700             | 50.0%                    | <b>\$181,483</b> |
|  |                                 | New Tax Raised:   | <b>\$474,601,395</b>     | <b>\$509,676,991</b>                                |                              |                          |                  |
|  |                                 | Property Value After Exemptions:                                | \$120,601,854,634        | \$129,514,980,366                                   |                              |                          |                  |
| <b>+\$100 million</b>                                | <b>\$1,031,451,656</b>          | Effective Average Tax Rate:                                     | <b>0.50%</b>             |   | \$45,157,097,650             | 75.0%                    | <b>\$211,730</b> |
|  |                                 | New Tax Raised:   | <b>\$471,768,515</b>     | <b>\$562,314,527</b>                                |                              |                          |                  |
|  |                                 | Property Value After Exemptions:                                | \$114,108,096,776        | \$136,008,738,224                                   |                              |                          |                  |
| <b>+\$200 million</b>                                | <b>\$1,131,451,656</b>          | Effective Average Tax Rate:                                     | <b>0.57%</b>             |   | \$51,608,111,600             | 100%                     | <b>\$241,977</b> |
|  |                                 | New Tax Raised:   | <b>\$488,030,399</b>     | <b>\$646,247,987</b>                                |                              |                          |                  |
|  |                                 | Property Value After Exemptions:                                | <b>\$107,614,338,918</b> | <b>\$142,502,496,082</b>                            |                              |                          |                  |

\*Net exemption does not include disability, veterans, non-profit and other not typical homeowner exemption

Source: Respective County Assessor's Office and DBEDT Calculations

### III. Household income, home ownership and values

Household income is a strong indicator of home ownership and home values. Table 26 shows that home ownership monotonically increases as household income goes up in the Hawaii State. By contrast, the proportion of renters decreases as households become richer. Home ownership rate is up to 85.7% for household with income above \$200,000, while it is only 35.1% for household with income below \$25,000. This pattern is also true for the Honolulu County (Table 27) and the Maui, Kalawao and Kauai County (Table 28).

**Table 26. Home Ownership Status: State (Average of 2011-2015)**

| Household income       | Number of households | Own   | Rent  | No pay | Total |
|------------------------|----------------------|-------|-------|--------|-------|
| Less than \$25,000     | 77,184               | 35.1% | 59.2% | 5.7%   | 100%  |
| \$25,000 to \$34,999   | 34,481               | 41.7% | 55.0% | 3.3%   | 100%  |
| \$35,000 to \$49,999   | 51,950               | 47.5% | 49.6% | 2.9%   | 100%  |
| \$50,000 to \$74,999   | 84,199               | 51.7% | 45.4% | 2.9%   | 100%  |
| \$75,000 to \$99,999   | 63,263               | 61.4% | 36.1% | 2.5%   | 100%  |
| \$100,000 to \$149,999 | 79,204               | 71.3% | 27.4% | 1.4%   | 100%  |
| \$150,000 to \$199,999 | 31,869               | 79.6% | 19.6% | 0.9%   | 100%  |
| \$200,000 or more      | 28,420               | 85.7% | 13.7% | 0.6%   | 100%  |
| Total                  | 450,570              | 56.5% | 40.7% | 2.8%   | 100%  |

Source: U.S. Census Bureau, 2011-2015 American Community Survey Public Use Microdata Sample (PUMS); calculations by the Hawaii State Department of Business, Economic Development & Tourism.

**Table 27. Home Ownership Status: Honolulu County (Average of 2011-2015)**

| Household income       | Number of households | Own    | Rent   | No pay | Total   |
|------------------------|----------------------|--------|--------|--------|---------|
| Less than \$25,000     | 45,974               | 28.91% | 66.40% | 4.69%  | 100.00% |
| \$25,000 to \$34,999   | 21,260               | 36.46% | 60.81% | 2.73%  | 100.00% |
| \$35,000 to \$49,999   | 34,918               | 40.55% | 57.08% | 2.37%  | 100.00% |
| \$50,000 to \$74,999   | 57,027               | 46.44% | 51.42% | 2.14%  | 100.00% |
| \$75,000 to \$99,999   | 43,966               | 58.77% | 39.29% | 1.94%  | 100.00% |
| \$100,000 to \$149,999 | 59,826               | 70.06% | 28.65% | 1.29%  | 100.00% |
| \$150,000 to \$199,999 | 24,405               | 78.49% | 20.81% | 0.70%  | 100.00% |
| \$200,000 or more      | 22,222               | 84.46% | 15.00% | 0.54%  | 100.00% |
| Total                  | 309,598              | 54.06% | 43.78% | 2.16%  | 100.00% |

Source: U.S. Census Bureau, 2011-2015 American Community Survey Public Use Microdata Sample (PUMS); calculations by the Hawaii State Department of Business, Economic Development & Tourism.

**Table 28. Home Ownership Status: Maui, Kalawao and Kauai County  
(Average of 2011-2015)**

| Household income       | Number of households | Own    | Rent   | No pay | Total   |
|------------------------|----------------------|--------|--------|--------|---------|
| Less than \$25,000     | 12,731               | 39.13% | 56.45% | 4.41%  | 100.00% |
| \$25,000 to \$34,999   | 6,593                | 41.56% | 54.28% | 4.16%  | 100.00% |
| \$35,000 to \$49,999   | 9,033                | 54.78% | 41.94% | 3.29%  | 100.00% |
| \$50,000 to \$74,999   | 15,459               | 55.31% | 39.09% | 5.60%  | 100.00% |
| \$75,000 to \$99,999   | 11,617               | 65.04% | 31.10% | 3.86%  | 100.00% |
| \$100,000 to \$149,999 | 11,534               | 71.77% | 27.00% | 1.23%  | 100.00% |
| \$150,000 to \$199,999 | 5,004                | 82.63% | 15.67% | 1.70%  | 100.00% |
| \$200,000 or more      | 3,953                | 89.40% | 9.49%  | 1.11%  | 100.00% |
| Total                  | 75,924               | 58.90% | 37.52% | 3.58%  | 100.00% |

Source: U.S. Census Bureau, 2011-2015 American Community Survey Public Use Microdata Sample (PUMS); calculations by the Hawaii State Department of Business, Economic Development & Tourism.

As shown in table 29, the home ownership of Hawaii County’s household is higher than those in other counties in every income level and the ownership rate generally increases as income level.

**Table 29. Home Ownership Status: Hawaii County (Average of 2011-2015)**

| Household income       | Number of households | Own    | Rent   | No pay | Total   |
|------------------------|----------------------|--------|--------|--------|---------|
| Less than \$25,000     | 18,479               | 47.68% | 43.07% | 9.26%  | 100.00% |
| \$25,000 to \$34,999   | 6,628                | 58.89% | 36.93% | 4.18%  | 100.00% |
| \$35,000 to \$49,999   | 7,999                | 69.65% | 25.82% | 4.54%  | 100.00% |
| \$50,000 to \$74,999   | 11,713               | 72.46% | 24.15% | 3.39%  | 100.00% |
| \$75,000 to \$99,999   | 7,680                | 70.83% | 25.44% | 3.72%  | 100.00% |
| \$100,000 to \$149,999 | 7,844                | 80.05% | 17.94% | 2.01%  | 100.00% |
| \$150,000 to \$199,999 | 2,460                | 84.15% | 15.00% | 0.85%  | 100.00% |
| \$200,000 or more      | 2,245                | 90.87% | 8.37%  | 0.76%  | 100.00% |
| Total                  | 65,048               | 65.49% | 29.54% | 4.97%  | 100.00% |

Source: U.S. Census Bureau, 2011-2015 American Community Survey Public Use Microdata Sample (PUMS); calculations by the Hawaii State Department of Business, Economic Development & Tourism.

As for families with annual income below \$50,000, their home ownership rates are higher among those above 65 years old, or most of the time, retirees; on the contrary, for families with annual income above \$50,000, the home ownership rates of younger people are much higher than those above 65 years old (Table 30).

**Table 30. Home Owners by Age Group (Average of 2011-2015)**

|                      | Under 65 years of age |       | 65 years and over |       | State total |        |
|----------------------|-----------------------|-------|-------------------|-------|-------------|--------|
|                      |                       |       |                   |       |             |        |
| Less than \$25,000   | 13,074                | 48.3% | 14,008            | 51.7% | 27,082      | 100.0% |
| \$25,000 to \$49,999 | 19,333                | 49.5% | 19,740            | 50.5% | 39,073      | 100.0% |
| \$50,000 to \$99,999 | 54,304                | 65.9% | 28,053            | 34.1% | 82,357      | 100.0% |
| \$100,000 or more    | 77,457                | 73.0% | 28,716            | 27.0% | 106,173     | 100.0% |
| Total                | 164,168               | 64.5% | 90,517            | 35.5% | 254,685     | 100.0% |

Source: U.S. Census Bureau, 2011-2015 American Community Survey Public Use Microdata Sample (PUMS); calculations by the Hawaii State Department of Business, Economic Development & Tourism.

Table 31 shows the relationship between household income and home values. At the state level, median home values increase as household becomes richer. This is generally true for each county.

**Table 31. Homeowner's Median and Mean Home Value**

| Household income       | State total |         | Honolulu County |         | Maui, Kalawao and Kauai County |         | Hawaii County |         |
|------------------------|-------------|---------|-----------------|---------|--------------------------------|---------|---------------|---------|
|                        | Median      | Mean    | Median          | Mean    | Median                         | Mean    | Median        | Mean    |
| Less than \$25,000     | 350,000     | 461,015 | 450,000         | 574,165 | 425,000                        | 529,800 | 194,000       | 251,429 |
| \$25,000 to \$34,999   | 400,000     | 524,992 | 490,000         | 573,569 | 400,000                        | 600,184 | 250,000       | 375,724 |
| \$35,000 to \$49,999   | 400,000     | 467,964 | 480,000         | 515,020 | 429,000                        | 491,186 | 300,000       | 327,745 |
| \$50,000 to \$74,999   | 400,000     | 502,675 | 500,000         | 545,405 | 450,000                        | 529,122 | 280,000       | 342,687 |
| \$75,000 to \$99,999   | 450,000     | 521,203 | 500,000         | 550,294 | 450,000                        | 526,407 | 325,000       | 375,796 |
| \$100,000 to \$149,999 | 525,000     | 603,740 | 575,000         | 631,289 | 500,000                        | 613,806 | 350,000       | 406,576 |
| \$150,000 to \$199,999 | 600,000     | 690,598 | 650,000         | 702,406 | 550,000                        | 649,331 | 450,000       | 663,762 |
| \$200,000 or more      | 800,000     | 972,006 | 800,000         | 985,261 | 700,000                        | 947,914 | 505,000       | 891,800 |
| Total                  | 500,000     | 584,947 | 550,000         | 635,981 | 475,000                        | 588,777 | 300,000       | 380,429 |

Source: U.S. Census Bureau, 2011-2015 American Community Survey Public Use Microdata Sample (PUMS); calculations by the Hawaii State Department of Business, Economic Development & Tourism.

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## Appendix I: Data and Assumptions used to derive the Scenarios

|   | State Total              | HNL  | HI County               | KAUAI                   | MAUI                    |
|---|--------------------------|--|-------------------------|-------------------------|-------------------------|
| <b>Total Value:</b>                                 | <b>\$213,562,696,000</b> | <b>\$160,405,591,000</b>   | <b>\$19,265,496,000</b> | <b>\$10,644,425,000</b> | <b>\$23,247,354,000</b> |
| <b>Share of Homes Owned by Out-of-state Owners:</b> | 12.40%                   | 8.50%  | 21.80%                  | 15.80%                  | 18.70%                  |
| <b>Out-of-state Owner Value:</b>                    | <b>\$26,481,774,304</b>  | <b>\$13,634,475,235</b>  | <b>\$4,199,878,128</b>  | <b>\$1,681,819,150</b>  | <b>\$4,347,255,198</b>  |
| <b>Out-of-state Tax Paid:</b>                       | <b>\$219,148,110</b>     | \$63,291,821   | \$93,222,090            | \$16,953,325            | \$45,680,873            |
| <b>Out-of-state Tax Rate:</b>                       | 0.83%                    | 0.46%  | 2.22%                   | 1.01%                   | 1.05%                   |
|   |                          | <b><i>Out-of-state Taxes Paid under Scenario - Share of the Total by County:</i></b> |                         |                         |                         |
|   |                          | <b>28.88%</b>  | <b>42.54%</b>           | <b>7.74%</b>            | <b>20.84%</b>           |
|   | <b>\$269,148,110</b>     | \$77,732,242   | \$114,491,288           | \$20,821,331            | \$56,103,247            |
|   | <b>\$319,148,110</b>     | \$92,172,664   | \$135,760,486           | \$24,689,337            | \$66,525,622            |
|   | <b>\$419,148,110</b>     | \$121,053,506  | \$178,298,881           | \$32,425,350            | \$87,370,371            |

## Appendix II: TMKs with Mailing Addresses from Multiple Regions

As noted in the methodology section, in some cases there were multiple mailing addresses for one TMK and some of these had both in-state and out-of-state mailing addresses. In this case, the proportion of property taxes paid was allocated using equal shares for each location. As an example, if a certain TMK had one mailing address in Hawaii and one in California, 50 percent of the taxes paid was allocated to Hawaii and the other 50 percent was allocated to the Other U.S. category. The tables below break down the counts of TMKs with multiple region mailing addresses. It is important to note that the number of cases with multiple region mailing addresses was extremely small compared to the total number of TMKs.

Table A1. Number and Percentage of Addresses for Properties (TMKs) that are Jointly Owned or Managed by Hawaii Residents and Non-Residents, State Total (2016)

| Mailing Address Location | Property Tax Class    |       |                                |       |                              |       |   |       |              |       |
|--------------------------|-----------------------|-------|--------------------------------|-------|------------------------------|-------|---|-------|--------------|-------|
|                          | Residential & Related |       | Hotel/Resort & Tourism Related |       | Commercial/ Ind. & Pub. Svc. |       | Agriculture, Conservation, & Preservation |       | Total        |       |
|                          | # of Address          | %     | # of Address                   | %     | # of Address                 | %     | # of Address                              | %     | # of Address | %     |
| Hawaii                   | 3,259                 | 55.9  | 497                            | 55.0  | 644                          | 55.4  | 5,123                                     | 66.2  | 9,523        | 60.9  |
| Other U.S.               | 2,436                 | 41.8  | 382                            | 42.3  | 518                          | 44.5  | 2,523                                     | 32.6  | 5,859        | 37.5  |
| Foreign                  | 138                   | 2.4   | 24                             | 2.7   | 1                            | 0.1   | 87  | 1.1   | 250          | 1.6   |
| Total                    | 5,833                 | 100.0 | 903                            | 100.0 | 1,163                        | 100.0 | 7,733                                     | 100.0 | 15,632       | 100.0 |

Source: Real Property Assessment Divisions for Respective Counties and DBEDT calculation

Table A2. Number and Percentage of Addresses for Properties (TMKs) that are Jointly Owned or Managed by Other U.S. and Foreign Residents, State Total (2016)

| Mailing Address Location | Property Tax Class    |       |                                |       |                              |    |   |       |              |       |
|--------------------------|-----------------------|-------|--------------------------------|-------|------------------------------|----|---|-------|--------------|-------|
|                          | Residential & Related |       | Hotel/Resort & Tourism Related |       | Commercial/ Ind. & Pub. Svc. |    | Agriculture, Conservation, & Preservation |       | Total        |       |
|                          | # of Address          | %     | # of Address                   | %     | # of Address                 | %  | # of Address                              | %     | # of Address | %     |
| Other U.S.               | 42                    | 56.8  | 22                             | 61.1  | 0                            | NA | 45  | 51.1  | 109          | 55.1  |
| Foreign                  | 32                    | 43.2  | 14                             | 38.9  | 0                            | NA | 43  | 48.9  | 89           | 44.9  |
| Total                    | 74                    | 100.0 | 36                             | 100.0 | 0                            | NA | 88  | 100.0 | 198          | 100.0 |

Source: Real Property Assessment Divisions for Respective Counties and DBEDT calculation

Table B1. Number and Percentage of Addresses for Properties (TMKs) that are Jointly Owned or Managed by Hawaii Residents and Non-Residents, Honolulu County (2016)

| Mailing Address Location | Property Tax Class    |       |                                |       |                              |       |   |       |              |       |
|--------------------------|-----------------------|-------|--------------------------------|-------|------------------------------|-------|---|-------|--------------|-------|
|                          | Residential & Related |       | Hotel/Resort & Tourism Related |       | Commercial/ Ind. & Pub. Svc. |       | Agriculture, Conservation, & Preservation |       | Total        |       |
|                          | # of Address          | %     | # of Address                   | %     | # of Address                 | %     | # of Address                              | %     | # of Address | %     |
| Hawaii                   | 1,035                 | 54.4  | 69                             | 53.5  | 406                          | 51.9  | 200                                       | 69.7  | 1,710        | 55.1  |
| Other U.S.               | 795                   | 41.8  | 56                             | 43.4  | 375                          | 48.0  | 86  | 30.0  | 1,312        | 42.3  |
| Foreign                  | 74                    | 3.9   | 4                              | 3.1   | 1                            | 0.1   | 1   | 0.3   | 80           | 2.6   |
| Total                    | 1,904                 | 100.0 | 129                            | 100.0 | 782                          | 100.0 | 287                                       | 100.0 | 3,102        | 100.0 |

Source: City and County of Honolulu Real Property Assessment Division and DBEDT calculation

Table B2. Number and Percentage of Addresses for Properties (TMKs) that are Jointly Owned or Managed by Other U.S. and Foreign Residents, Honolulu County (2016)

| Mailing Address Location | Property Tax Class    |       |                                |       |                              |    |   |       |              |       |
|--------------------------|-----------------------|-------|--------------------------------|-------|------------------------------|----|---|-------|--------------|-------|
|                          | Residential & Related |       | Hotel/Resort & Tourism Related |       | Commercial/ Ind. & Pub. Svc. |    | Agriculture, Conservation, & Preservation |       | Total        |       |
|                          | # of Address          | %     | # of Address                   | %     | # of Address                 | %  | # of Address                              | %     | # of Address | %     |
| Other U.S.               | 9                     | 52.9  | 2                              | 50.0  | 0                            | NA | 1   | 50.0  | 12           | 52.2  |
| Foreign                  | 8                     | 47.1  | 2                              | 50.0  | 0                            | NA | 1   | 50.0  | 11           | 47.8  |
| Total                    | 17                    | 100.0 | 4                              | 100.0 | 0                            | NA | 2   | 100.0 | 23           | 100.0 |

Source: City and County of Honolulu Real Property Assessment Division and DBEDT calculation



Table C1. Number and Percentage of Addresses for Properties (TMKs) that are Jointly Owned or Managed by Hawaii Residents and Non-Residents, Maui County (2016)

| Mailing Address Location | Property Tax Class    |       |                                |       |                              |       |   |       |              |       |
|--------------------------|-----------------------|-------|--------------------------------|-------|------------------------------|-------|---|-------|--------------|-------|
|                          | Residential & Related |       | Hotel/Resort & Tourism Related |       | Commercial/ Ind. & Pub. Svc. |       | Agriculture, Conservation, & Preservation |       | Total        |       |
|                          | # of Address          | %     | # of Address                   | %     | # of Address                 | %     | # of Address                              | %     | # of Address | %     |
| Hawaii                   | 984                   | 63.9  | 84                             | 43.3  | 112                          | 68.3  | 2,436                                     | 74.0  | 3,616        | 69.7  |
| Other U.S.               | 541                   | 35.1  | 95                             | 49.0  | 52                           | 31.7  | 827                                       | 25.1  | 1,515        | 29.2  |
| Foreign                  | 15                    | 1.0   | 15                             | 7.7   | 0                            | 0.0   | 28  | 0.9   | 58           | 1.1   |
| Total                    | 1,540                 | 100.0 | 194                            | 100.0 | 164                          | 100.0 | 3,291                                     | 100.0 | 5,189        | 100.0 |

Source: Maui County Real Property Assessment Division and DBEDT calculation

Table C2. Number and Percentage of Addresses for Properties (TMKs) that are Jointly Owned or Managed by Other U.S. and Foreign Residents, Maui County (2016)

| Mailing Address Location | Property Tax Class    |       |                                |       |                              |    |   |       |              |       |
|--------------------------|-----------------------|-------|--------------------------------|-------|------------------------------|----|---|-------|--------------|-------|
|                          | Residential & Related |       | Hotel/Resort & Tourism Related |       | Commercial/ Ind. & Pub. Svc. |    | Agriculture, Conservation, & Preservation |       | Total        |       |
|                          | # of Address          | %     | # of Address                   | %     | # of Address                 | %  | # of Address                              | %     | # of Address | %     |
| Other U.S.               | 3                     | 50.0  | 10                             | 58.8  | 0                            | NA | 3   | 50.0  | 16           | 55.2  |
| Foreign                  | 3                     | 50.0  | 7                              | 41.2  | 0                            | NA | 3   | 50.0  | 13           | 44.8  |
| Total                    | 6                     | 100.0 | 17                             | 100.0 | 0                            | NA | 6   | 100.0 | 29           | 100.0 |

Source: Maui County Real Property Assessment Division and DBEDT calculation

Table D1. Number and Percentage of Addresses for Properties (TMKs) that are Jointly Owned or Managed by Hawaii Residents and Non-Residents, Hawaii County (2016)

| Mailing Address Location | Property Tax Class    |       |                                |       |                              |       |   |       |              |       |
|--------------------------|-----------------------|-------|--------------------------------|-------|------------------------------|-------|---|-------|--------------|-------|
|                          | Residential & Related |       | Hotel/Resort & Tourism Related |       | Commercial/ Ind. & Pub. Svc. |       | Agriculture, Conservation, & Preservation |       | Total        |       |
|                          | # of Address          | %     | # of Address                   | %     | # of Address                 | %     | # of Address                              | %     | # of Address | %     |
| Hawaii                   | 950                   | 51.4  | 45                             | 50.6  | 100                          | 58.5  | 2,340                                     | 59.9  | 3,435        | 57.1  |
| Other U.S.               | 854                   | 46.2  | 43                             | 48.3  | 71                           | 41.5  | 1,512                                     | 38.7  | 2,480        | 41.2  |
| Foreign                  | 45                    | 2.4   | 1                              | 1.1   | 0                            | 0.0   | 57  | 1.5   | 103          | 1.7   |
| Total                    | 1,849                 | 100.0 | 89                             | 100.0 | 171                          | 100.0 | 3,909                                     | 100.0 | 6,018        | 100.0 |

Source: Hawaii County Real Property Assessment Division and DBEDT calculation

Table D2. Number and Percentage of Addresses for Properties (TMKs) that are Jointly Owned or Managed by Other U.S. and Foreign Residents, Hawaii County (2016)

| Mailing Address Location | Property Tax Class    |       |                                |    |                              |    |   |       |              |       |
|--------------------------|-----------------------|-------|--------------------------------|----|------------------------------|----|---|-------|--------------|-------|
|                          | Residential & Related |       | Hotel/Resort & Tourism Related |    | Commercial/ Ind. & Pub. Svc. |    | Agriculture, Conservation, & Preservation |       | Total        |       |
|                          | # of Address          | %     | # of Address                   | %  | # of Address                 | %  | # of Address                              | %     | # of Address | %     |
| Other U.S.               | 26                    | 57.8  | 0                              | NA | 0                            | NA | 41  | 51.3  | 67           | 53.6  |
| Foreign                  | 19                    | 42.2  | 0                              | NA | 0                            | NA | 39  | 48.8  | 58           | 46.4  |
| Total                    | 45                    | 100.0 | 0                              | NA | 0                            | NA | 80  | 100.0 | 125          | 100.0 |

Source: Hawaii County Real Property Assessment Division and DBEDT calculation

Table E1. Number and Percentage of Addresses for Properties (TMKs) that are Jointly Owned or Managed by Hawaii Residents and Non-Residents, Kauai County (2016)

| Mailing Address Location | Property Tax Class    |       |                                |       |                              |       |   |       |              |       |
|--------------------------|-----------------------|-------|--------------------------------|-------|------------------------------|-------|---|-------|--------------|-------|
|                          | Residential & Related |       | Hotel/Resort & Tourism Related |       | Commercial/ Ind. & Pub. Svc. |       | Agriculture, Conservation, & Preservation |       | Total        |       |
|                          | # of Address          | %     | # of Address                   | %     | # of Address                 | %     | # of Address                              | %     | # of Address | %     |
| Hawaii                   | 290                   | 53.7  | 299                            | 60.9  | 26                           | 56.5  | 147                                       | 59.8  | 762          | 57.6  |
| Other U.S.               | 246                   | 45.6  | 188                            | 38.3  | 20                           | 43.5  | 98  | 39.8  | 552          | 41.7  |
| Foreign                  | 4                     | 0.7   | 4                              | 0.8   | 0                            | 0.0   | 1   | 0.4   | 9            | 0.7   |
| Total                    | 540                   | 100.0 | 491                            | 100.0 | 46                           | 100.0 | 246                                       | 100.0 | 1,323        | 100.0 |

Source: Kauai County Real Property Assessment Division and DBEDT calculation

Table E2. Number and Percentage of Addresses for Properties (TMKs) that are Jointly Owned or Managed by Other U.S. and Foreign Residents, Kauai County (2016)

| Mailing Address Location | Property Tax Class    |       |                                |       |                              |    |   |    |              |       |
|--------------------------|-----------------------|-------|--------------------------------|-------|------------------------------|----|---|----|--------------|-------|
|                          | Residential & Related |       | Hotel/Resort & Tourism Related |       | Commercial/ Ind. & Pub. Svc. |    | Agriculture, Conservation, & Preservation |    | Total        |       |
|                          | # of Address          | %     | # of Address                   | %     | # of Address                 | %  | # of Address                              | %  | # of Address | %     |
| Other U.S.               | 4                     | 66.7  | 10                             | 66.7  | 0                            | NA | 0   | NA | 14           | 66.7  |
| Foreign                  | 2                     | 33.3  | 5                              | 33.3  | 0                            | NA | 0   | NA | 7            | 33.3  |
| Total                    | 6                     | 100.0 | 15                             | 100.0 | 0                            | NA | 0   | NA | 21           | 100.0 |

Source: Kauai County Real Property Assessment Division and DBEDT calculation

## Appendix III: State and Local Government Finances of Hawaii

Table F1: State and Local Government Finances of Hawaii, 2014

|  | State & local<br>government<br>amount (\$1,000) | State<br>government<br>amount (\$1,000) | Local<br>government<br>amount (\$1,000) |
|--|---|---|---|
| <b>Revenue</b>                               | <b>18,637,812</b>                               | <b>15,055,561</b>                       | <b>3,812,189</b>                        |
| General revenue                              | 14,498,394                                      | 11,304,424                              | 3,423,908                               |
| Intergovernmental revenue                    | 3,127,142                                       | 2,810,537                               | 546,543                                 |
| From Federal Government                      | 3,127,142                                       | 2,804,017                               | 323,125                                 |
| From State government                        | 0   | 0                                       | 223,418                                 |
| From local governments                       | 0   | 6,520                                   | 0                                       |
| General revenue from own sources             | 11,371,252                                      | 8,493,887                               | 2,877,365                               |
| Taxes  | 8,102,950                                       | 6,033,331                               | 2,069,619                               |
| Property                                     | 1,391,717                                       | 0                                       | 1,391,717                               |
| Sales and gross receipts                     | 4,300,286                                       | 3,847,662                               | 452,624                                 |
| General sales                                | 3,043,432                                       | 2,825,041                               | 218,391                                 |
| Selective sales                              | 1,256,854                                       | 1,022,621                               | 234,233                                 |
| Motor fuel                                   | 167,590   | 93,598                                  | 73,992                                  |
| Alcoholic beverage                           | 48,305  | 48,305                                  | 0                                       |
| Tobacco products                             | 107,685   | 107,685                                 | 0                                       |
| Public utilities                             | 326,420   | 166,179                                 | 160,241                                 |
| Other selective sales                        | 606,854   | 606,854                                 | 0                                       |
| Individual income                            | 1,745,461                                       | 1,745,461                               | 0                                       |
| Corporate income                             | 126,045   | 126,045                                 | 0                                       |
| Motor vehicle license                        | 345,828   | 168,980                                 | 176,848                                 |
| Other taxes                                  | 193,613   | 145,183                                 | 48,430                                  |
| Charges and miscellaneous general<br>revenue | 3,268,302                                       | 2,460,556                               | 807,746                                 |

|                                      | State & local<br>government<br>amount (\$1,000) | State<br>government<br>amount (\$1,000) | Local<br>government<br>amount (\$1,000) |
|--------------------------------------|---|---|---|
| Current charges                      | 2,353,981                                       | 1,664,748                               | 689,233                                 |
| Education                            | 409,828   | 409,828                                 | 0                                       |
| Institutions of higher<br>education  | 378,077   | 378,077                                 | 0                                       |
| School lunch sales (gross)           | 23,492  | 23,492                                  | 0                                       |
| Hospitals                            | 621,720   | 621,720                                 | 0                                       |
| Highways                             | 25,304  | 0                                       | 25,304                                  |
| Air transportation (airports)        | 374,591   | 374,591                                 | 0                                       |
| Parking facilities                   | 11,618  | 2,844                                   | 8,774                                   |
| Sea and inland port facilities       | 118,340   | 118,340                                 | 0                                       |
| Natural resources                    | 20,713  | 20,713                                  | 0                                       |
| Parks and recreation                 | 42,699  | 11,458                                  | 31,241                                  |
| Housing and community<br>development | 20,862  | 19,316                                  | 1,546                                   |
| Sewerage                             | 456,106   | 0                                       | 456,106                                 |
| Solid waste management               | 150,315   | 0                                       | 150,315                                 |
| Other charges                        | 101,885   | 85,938                                  | 15,947                                  |
|                                      |   |   |   |
| Miscellaneous general revenue        | 914,321   | 795,808                                 | 118,513                                 |
| Interest earnings                    | 47,107  | 38,383                                  | 8,724                                   |
| Special assessments                  | 35,923  | 3,102                                   | 32,821                                  |
| Sale of property                     | 15,115  | 495                                     | 14,620                                  |
| Other general revenue                | 816,176   | 753,828                                 | 62,348                                  |
|                                      |   |   |   |
| Utility revenue                      | 388,281   | 0                                       | 388,281                                 |
| Water supply                         | 325,358   | 0                                       | 325,358                                 |
| Electric power                       | 0   | 0                                       | 0                                       |
| Gas supply                           | 0   | 0                                       | 0                                       |
| Transit                              | 62,923  | 0                                       | 62,923                                  |
|                                      |   |   |   |

|                                   | State & local<br>government<br>amount (\$1,000) | State<br>government<br>amount (\$1,000) | Local<br>government<br>amount (\$1,000) |
|-----------------------------------|---|---|---|
| Liquor store revenue              | 0   | 0                                       | 0                                       |
| Insurance trust revenue           | 3,751,137                                       | 3,751,137                               | 0                                       |
| Unemployment compensation         | 371,399   | 371,399                                 | 0                                       |
| Employee retirement               | 3,379,738                                       | 3,379,738                               | 0                                       |
| Workers' compensation             | 0   | 0                                       | 0                                       |
| Other insurance trust revenue     | 0   | 0                                       | 0                                       |
|                                   |   |   |   |
| <b>Expenditure</b>                | <b>15,929,566</b>                               | <b>12,548,539</b>                       | <b>3,636,526</b>                        |
|                                   |   |   |   |
| By character and object:          |   |   |   |
| Intergovernmental expenditure     | 386   | 255,885                                 | 0                                       |
| Direct expenditure                | 15,929,180                                      | 12,292,654                              | 3,636,526                               |
| Current operations                | 11,999,703                                      | 9,576,856                               | 2,422,847                               |
| Capital outlay                    | 1,848,812                                       | 852,098                                 | 996,714                                 |
| Construction                      | 1,596,005                                       | 668,209                                 | 927,796                                 |
| Other capital outlay              | 252,807   | 183,889                                 | 68,918                                  |
| Assistance and subsidies          | 151,888   | 151,888                                 | 0                                       |
| Interest on debt                  | 600,189   | 383,224                                 | 216,965                                 |
| Insurance benefits and repayments | 1,328,588                                       | 1,328,588                               | 0                                       |
| Exhibit: Salaries and wages       | 4,028,656                                       | 3,072,843                               | 955,813                                 |
|                                   |   |   |   |
| Direct expenditure by function    | 15,929,180                                      | 12,292,654                              | 3,636,526                               |
| Direct general expenditure        | 13,681,594                                      | 10,958,915                              | 2,722,679                               |
| Capital outlay                    | 1,453,513                                       | 849,543                                 | 603,970                                 |
| Other direct general expenditure  | 12,228,081                                      | 10,109,372                              | 2,118,709                               |
|                                   |   |   |   |
| Education services:               |   |   |   |
| Education                         | 3,388,604                                       | 3,388,553                               | 51                                      |
| Capital outlay                    | 401,659   | 401,659                                 | 0                                       |

|  | State & local<br>government<br>amount (\$1,000) | State<br>government<br>amount (\$1,000) | Local<br>government<br>amount (\$1,000) |
|--|---|---|---|
| Higher education                           | 1,133,626                                       | 1,133,575                               | 51                                      |
| Capital outlay                             | 184,096   | 184,096                                 | 0                                       |
| Elementary & secondary                     | 2,139,147                                       | 2,139,147                               | 0                                       |
| Capital outlay                             | 216,940   | 216,940                                 | 0                                       |
| Other education                            | 115,831   | 115,831                                 | 0                                       |
| Libraries                                  | 42,910  | 42,910                                  | 0                                       |
|  |   |   |   |
| Social services and income<br>maintenance: |   |   |   |
| Public welfare                             | 2,619,061                                       | 2,584,894                               | 34,167                                  |
| Cash assistance payments                   | 46,788  | 46,788                                  | 0                                       |
| Vendor payments                            | 2,244,212                                       | 2,236,345                               | 7,867                                   |
| Other public welfare                       | 328,061   | 301,761                                 | 26,300                                  |
| Hospitals                                  | 821,973   | 821,973                                 | 0                                       |
| Capital outlay                             | 48,798  | 48,798                                  | 0                                       |
| Health                                     | 541,995   | 515,435                                 | 26,560                                  |
| Employment security                        | 4,939   | 4,939                                   | 0                                       |
| administration                             |   |   |   |
| Veterans' services                         | 0   | 0                                       | 0                                       |
|  |   |   |   |
| Transportation:                            |   |   |   |
| Highways                                   | 717,381   | 422,348                                 | 295,033                                 |
| Capital outlay                             | 281,447   | 101,837                                 | 179,610                                 |
| Air transportation (airports)              | 355,178   | 355,178                                 | 0                                       |
| Parking facilities                         | 3,594   | 2,958                                   | 636                                     |
| Sea and inland port facilities             | 68,443  | 68,443                                  | 0                                       |
|  |   |   |   |
| Public safety:                             |   |   |   |
| Police protection                          | 452,670   | 36,941                                  | 415,729                                 |
| Fire protection                            | 192,267   | 0                                       | 192,267                                 |

|   | State & local<br>government<br>amount (\$1,000) | State<br>government<br>amount (\$1,000) | Local<br>government<br>amount (\$1,000) |
|---|---|---|---|
| Correction                              | 216,708   | 216,708                                 | 0                                       |
| Capital outlay                          | 1,406   | 1,406                                   | 0                                       |
| Protective inspection and<br>regulation | 43,032  | 38,254                                  | 4,778                                   |
|   |   |   |   |
| Environment and housing:                |   |   |   |
| Natural resources                       | 120,298   | 114,638                                 | 5,660                                   |
| Capital outlay                          | 17,387  | 12,212                                  | 5,175                                   |
| Parks and recreation                    | 280,132   | 92,808                                  | 187,324                                 |
| Capital outlay                          | 44,775  | 14,137                                  | 30,638                                  |
| Housing and community<br>development    | 280,345   | 181,411                                 | 98,934                                  |
| Sewerage                                | 358,771   | 20                                      | 358,751                                 |
| Capital outlay                          | 206,788   | 0                                       | 206,788                                 |
| Solid waste management                  | 232,753   | 0                                       | 232,753                                 |
| Capital outlay                          | 23,612  | 0                                       | 23,612                                  |
|   |   |   |   |
| Governmental administration:            |   |   |   |
| Financial administration                | 196,148   | 136,040                                 | 60,108                                  |
| Judicial and legal                      | 310,097   | 258,345                                 | 51,752                                  |
| General public buildings                | 161,312   | 71,856                                  | 89,456                                  |
| Other governmental<br>administration    | 146,693   | 30,005                                  | 116,688                                 |
| Interest on general debt                | 585,813   | 383,224                                 | 202,589                                 |
|   |   |   |   |
| General expenditure, n.e.c.:            |   |   |   |
| Miscellaneous commercial<br>activities  | 371   | 0                                       | 371                                     |
| Other and unallocable                   | 1,540,106                                       | 1,191,034                               | 349,072                                 |
|   |   |   |   |



|                                   | State & local<br>government<br>amount (\$1,000) | State<br>government<br>amount (\$1,000) | Local<br>government<br>amount (\$1,000) |
|-----------------------------------|---|---|---|
| Utility expenditure               | 918,998   | 5,151                                   | 913,847                                 |
| Capital outlay                    | 395,299   | 2,555                                   | 392,744                                 |
| Water supply                      | 313,872   | 5,151                                   | 308,721                                 |
| Electric power                    | 0   | 0                                       | 0                                       |
| Gas supply                        | 0   | 0                                       | 0                                       |
| Transit                           | 605,126   | 0                                       | 605,126                                 |
|                                   |   |   |   |
| Liquor store expenditure          | 0   | 0                                       | 0                                       |
|                                   |   |   |   |
| Insurance trust expenditure       | 1,328,588                                       | 1,328,588                               | 0                                       |
| Unemployment compensation         | 241,699   | 241,699                                 | 0                                       |
| Employee retirement               | 1,086,889                                       | 1,086,889                               | 0                                       |
| Workers' compensation             | 0   | 0                                       | 0                                       |
| Other insurance trust             | 0   | 0                                       | 0                                       |
|                                   |   |   |   |
| <b>Debt outstanding</b>           | <b>14,296,400</b>                               | <b>8,426,573</b>                        | <b>5,869,827</b>                        |
|                                   |   |   |   |
| Short-term                        | 85,517  | 0                                       | 85,517                                  |
| Long-term                         | 14,210,883                                      | 8,426,573                               | 5,784,310                               |
| Public debt for private purposes  | 432,612   | 389,339                                 | 43,273                                  |
| Long-term debt issued             | 1,050,212                                       | 946,198                                 | 104,014                                 |
| Long-term debt retired            | 1,109,026                                       | 838,028                                 | 270,998                                 |
|                                   |   |   |   |
| <b>Cash and security holdings</b> | <b>22,035,187</b>                               | <b>19,176,589</b>                       | <b>2,858,598</b>                        |
|                                   |   |   |   |
| Insurance trust funds             | 13,019,218                                      | 13,019,218                              | 0                                       |
| Unemployment compensation         | 358,556   | 358,556                                 | 0                                       |
| Employee retirement               | 12,660,662                                      | 12,660,662                              | 0                                       |
| Workers' compensation             | 0   | 0                                       | 0                                       |
| Miscellaneous                     | 0   | 0                                       | 0                                       |

|                                  | State & local<br>government<br>amount (\$1,000) | State<br>government<br>amount (\$1,000) | Local<br>government<br>amount (\$1,000) |
|----------------------------------|---|---|---|
| Other than insurance trust funds | 9,015,969                                       | 6,157,371                               | 2,858,598                               |
| By purpose:                      |   |   |   |
| Offsets to debt                  | 911,168   | 804,125                                 | 107,043                                 |
| Bond funds                       | 374,041   | 189,496                                 | 184,545                                 |
| Other                            | 7,730,760                                       | 5,163,750                               | 2,567,010                               |

Source: U.S. Census Bureau, 2014 Annual Surveys of State and Local Government Finances.

## Appendix IV: Rankings of Per Capita Government Spending and Per Capita Real Property Tax

Table F2: Ranking of Per Capita State and Local Government Spending, 2014

| Ranking   |                            | Total state &<br>local government<br>spending (\$1,000) | Population         | Per Capita<br>Spending (\$) |
|-----------|----------------------------|---|--------------------|-----------------------------|
|           | <b>United States Total</b> | <b>3,261,579,586</b>                                    | <b>318,857,056</b> | <b>10,229</b>               |
| <b>1</b>  | District of<br>Columbia    | 15,349,269  | 658,893            | 23,296                      |
| <b>2</b>  | Alaska                     | 16,773,713  | 736,732            | 22,768                      |
| <b>3</b>  | New York                   | 308,860,808   | 19,746,227         | 15,642                      |
| <b>4</b>  | Wyoming                    | 8,793,881   | 584,153            | 15,054                      |
| <b>5</b>  | North Dakota               | 9,107,358   | 739,482            | 12,316                      |
| <b>6</b>  | California                 | 473,515,694   | 38,802,500         | 12,203                      |
| <b>7</b>  | Massachusetts              | 82,164,376  | 6,745,408          | 12,181                      |
| <b>8</b>  | Vermont                    | 7,441,876   | 626,562            | 11,877                      |
| <b>9</b>  | Connecticut                | 42,673,529  | 3,596,677          | 11,865                      |
| <b>10</b> | New Jersey                 | 105,424,502   | 8,938,175          | 11,795                      |
| <b>11</b> | Delaware                   | 10,905,635  | 935,614            | 11,656                      |
| <b>12</b> | <b>Hawaii</b>              | <b>15,929,566</b>                                       | <b>1,419,561</b>   | <b>11,221</b>               |
| <b>13</b> | Nebraska                   | 20,900,603  | 1,881,503          | 11,108                      |
| <b>14</b> | Minnesota                  | 59,993,853  | 5,457,173          | 10,994                      |
| <b>15</b> | Washington                 | 77,626,574  | 7,061,530          | 10,993                      |
| <b>16</b> | Rhode Island               | 11,570,934  | 1,055,173          | 10,966                      |
| <b>17</b> | Oregon                     | 42,974,229  | 3,970,239          | 10,824                      |
| <b>18</b> | Illinois                   | 137,446,107   | 12,880,580         | 10,671                      |
| <b>19</b> | Maryland                   | 63,622,217  | 5,976,407          | 10,646                      |
| <b>20</b> | Iowa                       | 32,741,280  | 3,107,126          | 10,537                      |
| <b>21</b> | New Mexico                 | 21,710,145  | 2,085,572          | 10,410                      |
| <b>22</b> | Pennsylvania               | 131,870,456   | 12,787,209         | 10,313                      |
| <b>23</b> | Louisiana                  | 47,216,752  | 4,649,676          | 10,155                      |
| <b>24</b> | Ohio                       | 117,213,881   | 11,594,163         | 10,110                      |
| <b>25</b> | Colorado                   | 53,459,785  | 5,355,866          | 9,982                       |

| Ranking |                | Total state &<br>local government<br>spending (\$1,000) | Population | Per Capita<br>Spending (\$) |
|---------|----------------|---|------------|-----------------------------|
| 26      | Wisconsin      | 57,429,497  | 5,757,564  | 9,975                       |
| 27      | Maine          | 12,760,354  | 1,330,089  | 9,594                       |
| 28      | Montana        | 9,687,716   | 1,023,579  | 9,465                       |
| 29      | Kansas         | 27,300,292  | 2,904,021  | 9,401                       |
| 30      | Mississippi    | 27,841,610  | 2,994,079  | 9,299                       |
| 31      | South Carolina | 43,891,697  | 4,832,482  | 9,083                       |
| 32      | Virginia       | 75,615,115  | 8,326,289  | 9,081                       |
| 33      | West Virginia  | 16,757,409  | 1,850,326  | 9,056                       |
| 34      | Michigan       | 89,217,627  | 9,909,877  | 9,003                       |
| 35      | Kentucky       | 39,630,707  | 4,413,457  | 8,980                       |
| 36      | Alabama        | 42,869,408  | 4,849,377  | 8,840                       |
| 37      | New Hampshire  | 11,461,915  | 1,326,813  | 8,639                       |
| 38      | Texas          | 231,603,961   | 26,956,958 | 8,592                       |
| 39      | Tennessee      | 56,125,069  | 6,549,352  | 8,570                       |
| 40      | Utah           | 25,202,134  | 2,942,902  | 8,564                       |
| 41      | Oklahoma       | 33,210,365  | 3,878,051  | 8,564                       |
| 42      | South Dakota   | 7,261,303   | 853,175    | 8,511                       |
| 43      | Arkansas       | 25,137,369  | 2,966,369  | 8,474                       |
| 44      | North Carolina | 83,435,442  | 9,943,964  | 8,391                       |
| 45      | Missouri       | 50,587,347  | 6,063,589  | 8,343                       |
| 46      | Indiana        | 53,625,320  | 6,596,855  | 8,129                       |
| 47      | Florida        | 159,918,989   | 19,893,297 | 8,039                       |
| 48      | Arizona        | 52,969,802  | 6,731,484  | 7,869                       |
| 49      | Nevada         | 22,247,082  | 2,839,099  | 7,836                       |
| 50      | Georgia        | 78,805,741  | 10,097,343 | 7,805                       |
| 51      | Idaho          | 11,699,292  | 1,634,464  | 7,158                       |

Source: U.S. Census Bureau, 2014 Annual Surveys of State and Local Government Finances.

Table F3: Ranking of Per Capita Real Property Tax, 2014

| Ranking   |                            | Total real<br>property tax<br>(\$1,000) | Population         | Per capita real<br>property tax (\$) |
|-----------|----------------------------|---|--------------------|--------------------------------------|
|           | <b>United States Total</b> | <b>466,391,552</b>                      | <b>318,857,056</b> | <b>1,462.70</b>                      |
| <b>1</b>  | District of Columbia       | 2,070,974                               | 658,893            | 3,143.11                             |
| <b>2</b>  | New Jersey                 | 27,394,531                              | 8,938,175          | 3,064.89                             |
| <b>3</b>  | New Hampshire              | 3,798,843                               | 1,326,813          | 2,863.13                             |
| <b>4</b>  | Connecticut                | 9,970,863                               | 3,596,677          | 2,772.24                             |
| <b>5</b>  | Alaska                     | 1,945,407                               | 736,732            | 2,640.59                             |
| <b>6</b>  | New York                   | 50,981,214                              | 19,746,227         | 2,581.82                             |
| <b>7</b>  | Vermont                    | 1,465,891                               | 626,562            | 2,339.58                             |
| <b>8</b>  | Rhode Island               | 2,433,767                               | 1,055,173          | 2,306.51                             |
| <b>9</b>  | Massachusetts              | 14,732,296                              | 6,745,408          | 2,184.05                             |
| <b>10</b> | Wyoming                    | 1,232,157                               | 584,153            | 2,109.31                             |
| <b>11</b> | Illinois                   | 25,851,113                              | 12,880,580         | 2,006.98                             |
| <b>12</b> | Maine                      | 2,551,889                               | 1,330,089          | 1,918.59                             |
| <b>13</b> | Nebraska                   | 3,308,337                               | 1,881,503          | 1,758.35                             |
| <b>14</b> | Wisconsin                  | 9,544,083                               | 5,757,564          | 1,657.66                             |
| <b>15</b> | Texas                      | 44,108,867                              | 26,956,958         | 1,636.27                             |
| <b>16</b> | Iowa                       | 4,743,125                               | 3,107,126          | 1,526.53                             |
| <b>17</b> | Maryland                   | 8,911,048                               | 5,976,407          | 1,491.04                             |
| <b>18</b> | Montana                    | 1,499,299                               | 1,023,579          | 1,464.76                             |
| <b>19</b> | Virginia                   | 12,132,829                              | 8,326,289          | 1,457.17                             |
| <b>20</b> | Kansas                     | 4,165,885                               | 2,904,021          | 1,434.52                             |
| <b>21</b> | Minnesota                  | 7,699,536                               | 5,457,173          | 1,410.90                             |
| <b>22</b> | Pennsylvania               | 17,971,292                              | 12,787,209         | 1,405.41                             |
| <b>23</b> | California                 | 53,731,027                              | 38,802,500         | 1,384.73                             |
| <b>24</b> | Colorado                   | 7,310,674                               | 5,355,866          | 1,364.98                             |
| <b>25</b> | Washington                 | 9,633,480                               | 7,061,530          | 1,364.22                             |
| <b>26</b> | Oregon                     | 5,359,978                               | 3,970,239          | 1,350.04                             |
| <b>27</b> | Michigan                   | 13,241,325                              | 9,909,877          | 1,336.17                             |

| Ranking |                | Total real<br>property tax<br>(\$1,000) | Population       | Per capita real<br>property tax (\$) |
|---------|----------------|---|------------------|--------------------------------------|
| 28      | South Dakota   | 1,110,503                               | 853,175          | 1,301.61                             |
| 29      | Ohio           | 13,954,377                              | 11,594,163       | 1,203.57                             |
| 30      | Florida        | 23,577,987                              | 19,893,297       | 1,185.22                             |
| 31      | North Dakota   | 829,738                                 | 739,482          | 1,122.05                             |
| 32      | Georgia        | 10,980,226                              | 10,097,343       | 1,087.44                             |
| 33      | South Carolina | 5,215,064                               | 4,832,482        | 1,079.17                             |
| 34      | Arizona        | 6,635,169                               | 6,731,484        | 985.69                               |
| 35      | <b>Hawaii</b>  | <b>1,391,717</b>                        | <b>1,419,561</b> | <b>980.39</b>                        |
| 36      | Indiana        | 6,401,317                               | 6,596,855        | 970.36                               |
| 37      | Utah           | 2,853,123                               | 2,942,902        | 969.49                               |
| 38      | Missouri       | 5,822,222                               | 6,063,589        | 960.19                               |
| 39      | Nevada         | 2,703,774                               | 2,839,099        | 952.34                               |
| 40      | North Carolina | 9,457,263                               | 9,943,964        | 951.06                               |
| 41      | Idaho          | 1,516,715                               | 1,634,464        | 927.96                               |
| 42      | Mississippi    | 2,743,182                               | 2,994,079        | 916.20                               |
| 43      | West Virginia  | 1,575,658                               | 1,850,326        | 851.56                               |
| 44      | Louisiana      | 3,898,282                               | 4,649,676        | 838.40                               |
| 45      | Tennessee      | 5,432,791                               | 6,549,352        | 829.52                               |
| 46      | Delaware       | 775,062                                 | 935,614          | 828.40                               |
| 47      | Kentucky       | 3,253,092                               | 4,413,457        | 737.08                               |
| 48      | New Mexico     | 1,525,273                               | 2,085,572        | 731.35                               |
| 49      | Arkansas       | 2,001,147                               | 2,966,369        | 674.61                               |
| 50      | Oklahoma       | 2,418,249                               | 3,878,051        | 623.57                               |
| 51      | Alabama        | 2,529,891                               | 4,849,377        | 521.69                               |

Source: U.S. Census Bureau, 2014 Annual Surveys of State and Local Government Finances.

## Appendix V: Real Property Tax Related Data

Table G1: Real property tax valuations: 1986 to 2016

[In thousands of dollars. For fiscal year ending June 30. Government parcels assessed at \$1, 1985-1987, and at 100 percent thereafter]

| Year | Assessor's gross valuation |            |             | Valuation for tax rate purposes |
|------|----------------------------|------------|-------------|---------------------------------|
|      | Total                      | Land       | Improvement |                                 |
| 1986 | 51,231,020                 | 25,507,708 | 25,723,312  | 43,581,421                      |
| 1987 | 52,814,463                 | 26,442,872 | 26,371,591  | 45,222,885                      |
| 1988 | 54,655,038                 | 27,396,477 | 27,258,561  | 46,629,959                      |
| 1989 | 67,628,063                 | 36,730,370 | 30,897,693  | 50,219,249                      |
| 1990 | 76,926,745                 | 42,778,927 | 34,147,818  | 57,526,564                      |
| 1991 | 99,942,540                 | 61,554,968 | 38,387,572  | 71,080,524                      |
| 1992 | 132,952,299                | 88,359,248 | 44,593,051  | 95,943,417                      |
| 1993 | 130,733,131                | 84,299,686 | 46,433,445  | 111,593,106                     |
| 1994 | 136,239,310                | 87,785,946 | 48,453,364  | 115,954,097                     |
| 1995 | 137,202,083                | 86,552,575 | 50,649,508  | 116,389,670                     |
| 1996 | 136,153,769                | 84,102,966 | 52,050,803  | 115,115,001                     |
| 1997 | 135,073,354                | 82,035,301 | 53,038,053  | 114,303,125                     |
| 1998 | 131,536,224                | 78,049,699 | 53,486,525  | 110,955,447                     |
| 1999 | 125,412,154                | 72,253,741 | 53,158,413  | 105,184,585                     |
| 2000 | 120,687,029                | 67,673,347 | 53,013,682  | 100,906,373                     |
| 2001 | 118,929,005                | 65,241,123 | 53,687,882  | 98,984,387                      |
| 2002 | 123,394,937                | 66,563,433 | 56,831,504  | 103,313,817                     |
| 2003 | 131,562,028                | 69,116,128 | 62,445,900  | 110,384,134                     |
| 2004 | 141,029,581                | 73,014,576 | 68,015,005  | 119,254,215                     |
| 2005 | 162,787,538                | -          | -           | 138,383,238                     |
| 2006 | 199,525,855                | -          | -           | 171,105,210                     |
| 2007 | 254,954,333                | -          | -           | 220,731,778                     |
| 2008 | 292,830,383                | -          | -           | 253,358,852                     |
| 2009 | 297,908,333                | -          | -           | 257,714,285                     |
| 2010 | 298,084,580                | -          | -           | 255,749,570                     |
| 2011 | 274,149,769                | -          | -           | 232,482,952                     |
| 2012 | 267,181,978                | -          | -           | 226,552,118                     |
| 2013 | 265,105,539                | -          | -           | 226,611,749                     |
| 2014 | 270,900,638                | -          | -           | 231,756,610                     |
| 2015 | 293,088,510                | -          | -           | 251,793,531                     |
| 2016 | 312,643,577                | -          | -           | 270,329,448                     |

Source: Hawaii State Department of Business, Economic Development and Tourism, 2015 State of Hawaii Data Book: Table 9.42. <http://files.hawaii.gov/dbedt/economic/databook/2015-individual/09/094215.pdf>

Table G2: Real property tax valuation for the state, 2013 to 2016, and by county, 2016

[In thousands of dollars. For fiscal year ending June 30. Gross valuations exclude nontaxable (government) properties]

| <b>Subject</b>   | <b>2013</b>        | <b>2014</b>                            | <b>2015</b>                            | <b>2016</b>        |
|--|--------------------|--|--|--------------------|
| Assessor's gross valuation<br>Land<br>Improvement      | 265,105,539        | 270,900,638                            | 293,088,510                            | 314,906,372        |
| Exemption  | 37,104,305         | 37,697,576                             | 39,744,628                             | 41,157,593         |
| Assessor's net taxable valuation                       | 228,001,234        | 233,203,062                            | 253,343,881                            | 273,748,781        |
| Half of valuation on appeal<br>Number of appeals       | 1,389,485<br>2,541 | 1,446,451<br>2,452                     | 1,550,351<br>3,141                     | 1,666,887<br>3,991 |
| Valuation for tax rate purposes<br>Land<br>Improvement | 226,611,749        | 231,756,610                            | 251,793,531                            | 272,081,895        |
| Amount to be raised by taxation                        | 1,300,905          | 1,365,637                              | 1,506,478                              | 1,615,518          |
| <b>2016, by county</b>                                 | <b>Honolulu</b>    | <b>Maui</b>                            | <b>Hawaii</b>                          | <b>Kauai</b>       |
| Assessor's gross valuation<br>Land<br>Improvement      | 214,888,197        | 47,554,054<br>20,355,876<br>27,198,178 | 32,043,859<br>13,482,811<br>18,561,048 | 20,420,263         |
| Exemptions   | 26,253,925         | 6,279,830                              | 5,596,890                              | 3,026,948          |
| Assessor's net taxable valuation                       | 188,634,272        | 41,274,225                             | 26,446,969                             | 17,393,315         |
| Half of valuation on appeal<br>Number of appeals       | 915,437<br>2,071   | 562,504<br>1,254                       | 54,122<br>224                          | 134,822<br>442     |
| Valuation for tax rate purposes<br>Land<br>Improvement | 187,718,834        | 40,711,720<br>18,776,916<br>21,934,807 | 26,392,847<br>12,581,423<br>13,811,424 | 17,258,493         |
| Amount to be raised by taxation                        | 1,005,871          | 254,111                                | 242,717                                | 112,819            |

Source: Hawaii State Department of Business, Economic Development and Tourism, 2015 State of Hawaii Data Book: Table 9.43. <http://files.hawaii.gov/dbedt/economic/databook/2015-individual/09/094315.pdf>



Table G3: Real property tax exemptions, by type: 2015 and 2016

[For fiscal year ending June 30]

| Type of exemption                 | 2015    |                     | 2016    |                     |
|-----------------------------------|---------|---------------------|---------|---------------------|
|                                   | Number  | Amount<br>(\$1,000) | Number  | Amount<br>(\$1,000) |
| All exemptions, Statewide         | 263,638 | 71,675,408          | 263,432 | 74,963,484          |
| Federal government                | 611     | 6,648,520           | 621     | 7,205,554           |
| State government                  | 8,346   | 16,348,326          | 8,498   | 17,540,094          |
| County government                 | 3,956   | 6,038,609           | 3,977   | 6,426,054           |
| Government leases - total         | 139     | 122,447             | 142     | 125,200             |
| Government leases - portion       | 121     | 55,417              | 130     | 55,504              |
| Hawaiian Homes Commission         | 2,043   | 968,253             | 1,961   | 1,004,464           |
| Hawaiian Homes Land - basic       | 1,215   | 197,810             | 1,300   | 223,535             |
| Hawaiian Homes Land - multiple    | 635     | 120,203             | 699     | 135,561             |
| Hawaiian Homes Land - total land  | 5,573   | 1,698,095           | 6,019   | 2,004,546           |
| Hawaiian Homes Land - vacant land | 256     | 26                  | 250     | 25                  |
| Hawaiian Homes - 7 year           | 987     | 424,380             | 572     | 233,614             |
| Homes - fee (basic)               | 147,993 | 16,102,217          | 150,356 | 16,466,276          |
| Homes - fee (multiple)            | 61,808  | 8,393,411           | 60,452  | 8,255,278           |
| Homes - leasehold (basic)         | 3,376   | 348,766             | 3,354   | 353,850             |
| Homes - leasehold (multiple)      | 1,625   | 239,707             | 1,527   | 228,479             |
| In lieu of home ex - fee          | 2,209   | 381,197             | 1,678   | 291,404             |
| In lieu of home ex - lease        | 97      | 16,515              | 72      | 12,562              |
| Additional home exemption         | 1,310   | 145,560             | 1,604   | 184,088             |
| Blind                             | 394     | 10,899              | 353     | 9,998               |
| Deaf                              | 3,189   | 99,000              | 2,213   | 80,494              |
| Leprosy                           | 4       | 75                  | 4       | 100                 |
| Totally disabled                  | 3,052   | 82,153              | 2,949   | 81,018              |
| Totally disabled veterans         | 1,955   | 957,789             | 2,057   | 1,073,112           |
| Cemeteries                        | 110     | 53,297              | 110     | 56,611              |
| Charitable organizations          | 1,473   | 2,624,784           | 1,529   | 2,678,297           |
| Childcare                         | 18      | 900                 | 18      | 900                 |
| Child care center, non-profit     | 4       | 17,853              | 5       | 18,803              |
| Child care center, for-profit     | 7       | 12,535              | 8       | 15,047              |
| Churches                          | 1,551   | 2,379,061           | 1,546   | 2,529,364           |
| Civil - condemnation              | 28      | 38,352              | 24      | 25,097              |
| Credit unions                     | 138     | 218,928             | 126     | 224,740             |
| Crop shelters                     | 32      | 3,165               | 33      | 3,912               |
| Enterprize Zone                   | 1       | 532                 | 1       | 518                 |
| Foreign consulates                | 30      | 41,582              | 31      | 47,272              |

Continued on next page.

| Type of exemption                  | 2015   |                     | 2016   |                     |
|------------------------------------|--------|---------------------|--------|---------------------|
|                                    | Number | Amount<br>(\$1,000) | Number | Amount<br>(\$1,000) |
| Forest reserve                     | 5      | 6,651               | 5      | 6,674               |
| Historic residential properties    | 302    | 416,005             | 311    | 472,262             |
| Historic commercial properties     | 7      | 27,150              | 7      | 21,034              |
| Kuleana                            | 138    | 74,238              | 142    | 80,307              |
| Hospitals                          | 114    | 799,172             | 126    | 903,063             |
| Landscaping, open-space            | 28     | 27,274              | 24     | 21,433              |
| Low-moderate income housing        | 340    | 2,030,102           | 345    | 2,216,218           |
| Public utilities                   | 822    | 1,880,604           | 809    | 1,941,199           |
| Roadways and waterways             | 7,042  | 39,532              | 7,049  | 41,900              |
| Safe room                          | 49     | 1,960               | 52     | 2,080               |
| Schools                            | 237    | 1,185,863           | 250    | 1,270,494           |
| Setbacks                           | 1      | 298                 | 1      | 316                 |
| Slaughterhouse                     | 1      | 2,583               | 1      | 2,591               |
| Taro                               | 55     | 459                 | 52     | 88                  |
| Tree farm                          | 15     | 24,334              | 16     | 31,042              |
| Miscellaneous                      | 10     | 2,049               | 10     | 2,242               |
| Alternate energy                   | 8      | 348,687             | 8      | 348,686             |
| Commercial alternative energy      | 3      | 2,122               | 4      | 9,478               |
| Commercial alter. energy - in lieu | -      | -                   | 1      | 1,007               |
| Mult. bldg. pcl. income exemption  | 175    | 15,964              | -      | -                   |

Source: Hawaii State Department of Business, Economic Development and Tourism, 2015 State of Hawaii Data Book: Table 9.44. <http://files.hawaii.gov/dbedt/economic/databook/2015-individual/09/094415.pdf>

Table G4: Real property tax valuation, by land use class: 2015 and 2016

[In thousands of dollars. For fiscal year ending June 30. Assessed value for 2015 as of January 31, 2014 for Honolulu; February 20, 2014 for Kauai; April 19, 2014, for Maui; and April 21, 2014 for Hawaii County; and for 2016, as of January 29, 2015 for Honolulu; February 13, 2015 for Kauai; April 19, 2015, for Maui; and April 21, 2015 for Hawaii County. All counties use the land use class unless footnoted]

| Land use class             | Gross valuation | Net valuation | Valuation for tax rate | To be raised by taxation |
|----------------------------|-----------------|---------------|------------------------|--------------------------|
| 2015 - All classes         | 293,088,510     | 253,343,881   | 251,793,531            | 1,506,478                |
| Affordable rental          | 172,625         | 170,940       | 170,940                | 1,051                    |
| Residential                | 168,452,331     | 146,397,284   | 146,103,125            | 582,803                  |
| Residential A              | 13,853,970      | 13,283,828    | 13,202,440             | 79,215                   |
| Apartment                  | 9,123,590       | 8,937,117     | 8,925,889              | 73,047                   |
| Commercial                 | 22,562,609      | 19,872,105    | 19,586,724             | 224,094                  |
| Industrial                 | 12,022,616      | 11,216,646    | 11,059,465             | 125,028                  |
| Agricultural/native forest | 10,975,145      | 10,010,518    | 9,905,831              | 74,460                   |
| Vacant agricultural        | 80,561          | 80,561        | 79,546                 | 676                      |
| Conservation/preservation  | 1,406,709       | 1,290,682     | 1,192,077              | 8,460                    |
| Hotel and resort           | 21,074,239      | 21,013,838    | 20,517,628             | 223,988                  |
| Homeowner                  | 22,615,059      | 13,242,336    | 13,233,905             | 55,303                   |
| Homestead                  | 5,536,964       | 3,491,771     | 3,489,095              | 10,642                   |
| Public service             | 820,217         | -             | -                      | -                        |
| Time share                 | 1,595,127       | 1,595,127     | 1,591,353              | 23,982                   |
| Commercialized resid.      | 109,353         | 109,353       | 109,353                | 488                      |
| Vacation rental            | 2,687,393       | 2,631,776     | 2,626,161              | 23,242                   |
| 2016 - All classes         | 314,906,372     | 273,748,781   | 272,081,895            | 1,615,518                |
| Affordable rental          | 207,900         | 206,019       | 206,019                | 1,267                    |
| Residential                | 178,264,515     | 155,898,320   | 155,638,444            | 617,825                  |
| Residential A              | 15,373,451      | 14,789,620    | 14,634,916             | 87,809                   |
| Apartment                  | 10,072,046      | 9,875,500     | 9,840,510              | 78,673                   |
| Commercial                 | 24,359,663      | 21,461,926    | 20,999,621             | 236,460                  |
| Industrial                 | 12,611,254      | 11,769,965    | 11,628,561             | 130,609                  |
| Agricultural/native forest | 11,346,265      | 10,360,899    | 10,247,525             | 76,842                   |
| Vacant agricultural        | 62,140          | 62,140        | 60,689                 | 516                      |
| Conservation/preservation  | 1,460,007       | 1,323,646     | 1,236,114              | 8,700                    |
| Hotel and resort           | 22,713,274      | 22,646,347    | 22,342,228             | 243,997                  |
| Homeowner                  | 24,329,955      | 14,769,147    | 14,757,370             | 59,941                   |
| Homestead                  | 6,300,273       | 4,176,046     | 4,173,953              | 12,731                   |
| Public service             | 888,389         | 1             | 1                      | -                        |
| Time share                 | 120,166         | 120,166       | 120,166                | 523                      |
| Commercialized resid.      | 1,773,726       | 1,773,726     | 1,693,560              | 24,641                   |
| Vacation rental            | 1,215,341       | 853,491       | 853,279                | 4,309                    |
| Vacation rental            | 2,760,555       | 2,754,556     | 2,749,770              | 24,335                   |
| Residential investor       | 1,047,454       | 907,267       | 899,168                | 6,339                    |

Source: Hawaii State Department of Business, Economic Development and Tourism, 2015 State of Hawaii Data Book: Table 9.45. <http://files.hawaii.gov/dbedt/economic/databook/2015-individual/09/094415.pdf>

Table G5: Major real property taxpayers, for the city and county of Honolulu: 2012

[For fiscal year ending June 30]

| Rank | Taxpayer                                    | Original debit (dollars) | Land area (acres) | Gross assessed value (dollars) |
|------|---|--------------------------|-------------------|--------------------------------|
|      | Top 20 real property taxpayers              | 112,299,603              | 52,289.12         | 11,665,147,300                 |
| 1    | Kyo-Ya Company                              | 12,703,336               | 23.64             | 1,007,129,300                  |
| 2    | Bishop Estate                               | 12,437,203               | 39,967.02         | 1,339,214,700                  |
| 3    | Hilton Hawaiian Village                     | 11,076,557               | 20.14             | 908,020,100                    |
| 4    | Outrigger Hotels Hawaii                     | 7,243,937                | 9.22              | 593,277,800                    |
| 5    | First Hawaiian Bank                         | 5,841,875                | 48.02             | 472,437,400                    |
| 6    | Ko Olina Hotel                              | 5,609,593                | 407.48            | 449,340,300                    |
| 7    | Irongate                                    | 5,078,491                | 0.00              | 401,600                        |
| 8    | United States of America                    | 5,050,302                | 7,302.72          | 2,837,089,800                  |
| 9    | DEG, LLC                                    | 4,834,423                | 59.67             | 537,956,600                    |
| 10   | Reynolds/Shidler                            | 4,696,132                | 44.68             | 415,607,500                    |
| 11   | General Growth Properties                   | 4,685,639                | 37.36             | 385,412,400                    |
| 12   | Weinberg, Harry & Jeanette Foundation, Inc. | 4,613,637                | 1,817.53          | 407,263,500                    |
| 13   | Marriott Ownership Resorts                  | 4,324,131                | 33.85             | 348,699,500                    |
| 14   | Hawaii MMGD, LLC                            | 3,886,633                | 154.73            | 264,858,700                    |
| 15   | James Campbell Estate                       | 3,855,500                | 2,124.48          | 354,719,500                    |
| 16   | Bank of Hawaii                              | 3,519,072                | 111.36            | 302,667,300                    |
| 17   | Wal-Mart                                    | 3,394,548                | 73.18             | 273,681,700                    |
| 18   | W2007 WKH Owner, LLC                        | 3,375,022                | 4.02              | 272,179,200                    |
| 19   | Watercress Associates                       | 3,084,690                | 44.63             | 253,405,300                    |
| 20   | Halekulani Corp.                            | 2,988,883                | 5.39              | 241,785,100                    |

Source: Hawaii State Department of Business, Economic Development and Tourism, 2015 State of Hawaii Data Book: Table 9.46. <http://files.hawaii.gov/dbedt/economic/databook/2015-individual/09/094416.pdf>

Table G6: Residential property tax rates in Honolulu and the median of 51 major cities: 1985 to 2014

| Year | Effective tax rate per \$100 1/ |          |         | Nominal tax rate per \$100 | Assessment level (percent) |
|------|---------------------------------|----------|---------|----------------------------|----------------------------|
|      | Median 2/                       | Honolulu | Rank 3/ |                            |                            |
| 1985 | (NA)                            | 0.61     | 50      | 1.06                       | 61.2                       |
| 1986 | (NA)                            | 0.60     | 51      | 0.66                       | 90.8                       |
| 1987 | (NA)                            | 0.59     | 51      | 0.66                       | 89.0                       |
| 1988 | (NA)                            | 0.59     | 51      | 0.66                       | 89.0                       |
| 1989 | (NA)                            | 0.64     | 48      | 0.64                       | 100.0                      |
| 1990 | (NA)                            | 0.48     | 51      | 0.48                       | 100.0                      |
| 1991 | (NA)                            | 0.37     | 51      | 0.37                       | 100.0                      |
| 1992 | 1.49                            | 0.30     | 51      | 0.35                       | 84.3                       |
| 1993 | -                               | -        | -       | -                          | -                          |
| 1994 | 1.60                            | 0.33     | 51      | 0.35                       | 93.4                       |
| 1995 | 1.59                            | 0.33     | 51      | 0.35                       | 93.4                       |
| 1996 | 1.54                            | 0.33     | 51      | 0.35                       | 95.0                       |
| 1997 | 1.42                            | 0.39     | 51      | 0.39                       | 100.0                      |
| 1998 | 1.41                            | 0.46     | 51      | 0.46                       | 100.0                      |
| 1999 | 1.55                            | 0.37     | 51      | 0.37                       | 100.0                      |
| 2000 | 1.52                            | 0.37     | 51      | 0.37                       | 100.0                      |
| 2001 | 1.50                            | 0.37     | 51      | 0.37                       | 100.0                      |
| 2002 | 1.54                            | 0.37     | 51      | 0.37                       | 100.0                      |
| 2003 | 1.50                            | 0.38     | 51      | 0.38                       | 100.0                      |
| 2004 | 1.54                            | 0.38     | 51      | 0.38                       | 100.0                      |
| 2005 | 1.50                            | 0.38     | 51      | 0.38                       | 100.0                      |
| 2006 | 1.50                            | 0.36     | 51      | 0.36                       | 100.0                      |
| 2007 | 1.39                            | 0.33     | 51      | 0.33                       | 100.0                      |
| 2008 | 1.32                            | 0.33     | 51      | 0.33                       | 100.0                      |
| 2009 | 1.40                            | 0.34     | 51      | 0.34                       | 100.0                      |
| 2010 | 1.67                            | 0.34     | 51      | 0.34                       | 100.0                      |
| 2011 | 1.71                            | 0.35     | 51      | 0.35                       | 100.0                      |
| 2012 | 1.56                            | 0.35     | 50      | 0.35                       | 100.0                      |
| 2013 | 1.40                            | 0.35     | 48      | 0.35                       | 100.0                      |
| 2014 | 1.40                            | 0.35     | 50      | 0.35                       | 100.0                      |

Source: Hawaii State Department of Business, Economic Development and Tourism, 2015 State of Hawaii Data Book: Table 9.47. <http://files.hawaii.gov/dbedt/economic/databook/2015-individual/09/094417.pdf>

Table G7: Real property tax rates, by county: 2016

[In dollars per \$1,000 net taxable value. As of June 23, 2015. For fiscal year ending June 30]

| <b>Class</b>               | <b>Honolulu</b> | <b>Kauai</b>  |
|----------------------------|-----------------|---------------|
| Property                   |                 |               |
| Residential                | 3.50            | 6.05          |
| Vacation rental            | (X)             | 8.85          |
| Commercial                 | 12.40           | 8.10          |
| Industrial                 | 12.40           | 8.10          |
| Agricultural               | 5.70            | 6.75          |
| Preservation               | 5.70            | (X)           |
| Conservation               | (X)             | 6.75          |
| Hotel and resort           | 12.90           | 10.85         |
| Public service             | 0.00            | (X)           |
| Vacant agricultural        | 8.50            | (X)           |
| Homestead                  | (X)             | 3.05          |
| Residential A              | 6.00            | (X)           |
| Residential investor       | (X)             | 7.05          |
| Commercilized home use     | (X)             | 5.05          |
| <b>Class</b>               | <b>Maui</b>     | <b>Hawaii</b> |
| Building and land          |                 |               |
| Residential                | 5.40            | 10.05         |
| Apartment                  | 6.00            | 10.85         |
| Commercial                 | 6.60            | 10.05         |
| Industrial                 | 6.85            | 10.05         |
| Agricultural               | 5.75            | 9.25          |
| Conservation               | 5.90            | 10.85         |
| Hotel and resort           | 8.85            | 10.85         |
| Homestead                  | (X)             | (X)           |
| Homeowner                  | 2.75            | 6.15          |
| Time share                 | 14.55           | (X)           |
| Commercialized residential | 4.35            | (X)           |
| Affordable rental housing  | (X)             | 6.15          |

Source: Hawaii State Department of Business, Economic Development and Tourism, 2015 State of Hawaii Data Book: Table 9.48. <http://files.hawaii.gov/dbedt/economic/databook/2015-individual/09/094418.pdf>