



SELF-SUFFICIENCY INCOME STANDARD

Estimates for Hawaii 2016



Department of Business, Economic Development and Tourism

December 2017

This report was prepared by the Economic Analysis Division headed by Dr. Eugene Tian, Division Administrator. Data and analyses were developed and the report written by Dr. Binsheng Li, economist.

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I. Executive Summary

Hawaii Revised Statutes, 201-3(b) requires that, beginning in 2008, DBEDT establish and update biennially a self-sufficiency standard incorporating existing methods of calculation, and reflecting costs relating to housing, food, child care, transportation, health care, clothing and household expenses, taxes, children's ages, geography, and the number of household wage earners. The first report was published in January 2009 and the second report in December 2011, the third report in December 2012, the fourth report in December 2014, and the fifth report in December 2015. These reports can be accessed at http://dbedt.hawaii.gov/economic/reports_studies/self-sufficiency-income-study/. This report is an update on the performance of Hawaii's self-sufficiency standard.

Consistent with the Family Self-Sufficiency Study (FESS) methodology, **this study defines economic self-sufficiency as the amount of money that individuals and families require to meet their basic needs without government and/or other subsidies.** Also consistent with FESS, it is assumed that adults are working full-time (40-hour a week), with one or more jobs.

This study establishes Hawaii's self-sufficient family income standards for 2016 and compares self-sufficient family budgets with poverty thresholds, minimum wage level, median family income, and estimates for 2016 actual incomes for the five family types.

Major highlights of the study are that:

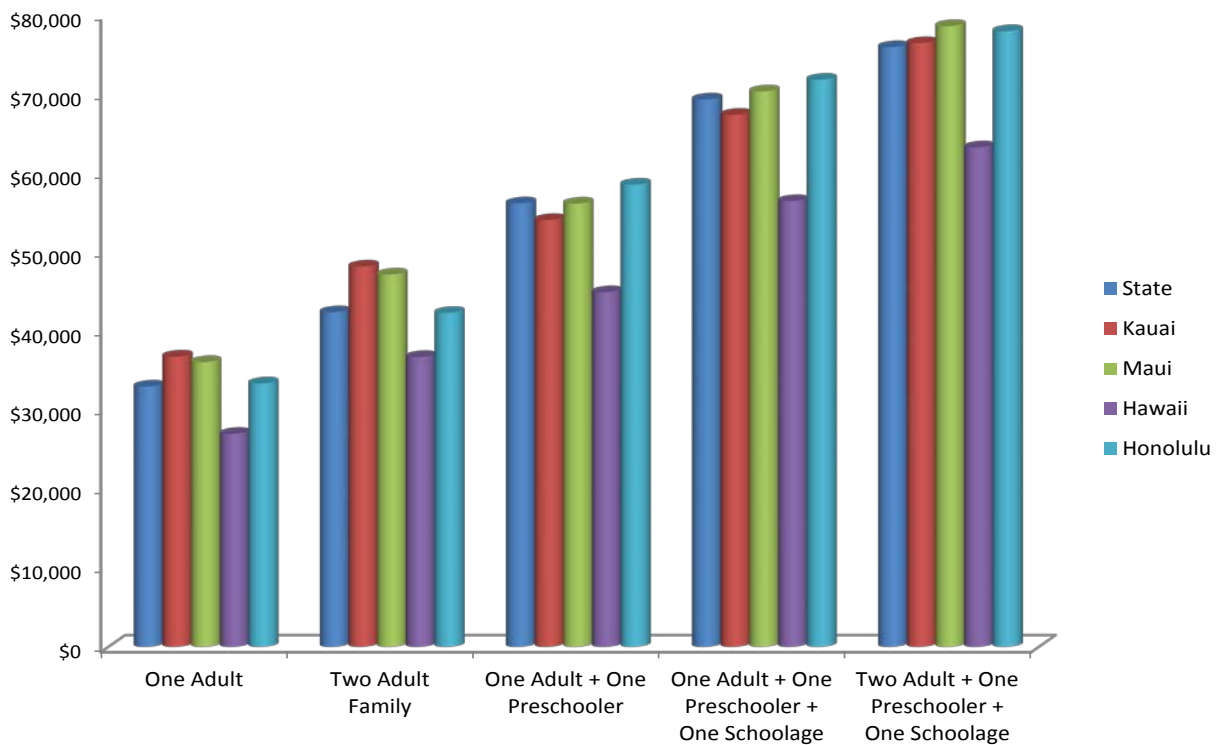
- Among all five family types, Hawaii County had the lowest self-sufficiency income requirements among all counties. For the single-adult and two-adult couple categories, Kauai had the highest self-sufficiency income requirements, followed by Maui. For the one-adult with one child and one-adult with two children categories, Honolulu had the highest self-sufficiency income requirements, followed by Maui. For the two-adult couples with two children category, Maui had the highest self-sufficiency income requirements, followed by Honolulu.
- The 2016 median income for families of single-adult, two-adult couple families without children, and two-adult couple families with two children exceeded self-sufficiency income needs. Median income for other family types were not available due to insufficient sample sizes.
- Statewide, about 21.5% of two-adult couples with no children and 31.7% of two-adult couples with two children had incomes below the self-sufficiency standard in 2016. For single-adult with no children and single-adult with one child, 44.1% and 50.8% had incomes in 2016 below the self-sufficiency level, respectively.

Total budget levels by family size are summarized by county in Table A and displayed in Figure A. Appendix B provides comparisons between the results of this update study and past studies, including the 2007 DBEDT results.

Table A. Annual Self-Sufficiency Family Budgets for Selected Family Types, 2016

County	Family Type				
	One Adult	Two Adult Family	One Adult + One Preschooler	One Adult + One Preschooler + One Schoolage	Two Adult + One Preschooler + One Schoolage
Honolulu	\$33,350	\$42,283	\$58,526	\$71,821	\$77,968
Hawaii	\$26,964	\$36,699	\$44,903	\$56,449	\$63,250
Maui	\$36,064	\$47,147	\$56,130	\$70,332	\$78,612
Kauai	\$36,761	\$48,153	\$54,055	\$67,371	\$76,465
State	\$32,957	\$42,371	\$56,157	\$69,318	\$75,947
Selected Income Benchmarks					
Poverty Threshold	\$13,670	\$18,430	\$18,430	\$23,190	\$27,950
Minimum Wage	\$17,952	\$35,904	\$17,952	\$17,952	\$35,904
Median Family Income	\$37,550	\$79,175	\$51,000	(NA)	\$96,700
% by Which Self-Sufficiency Income Is Above or Below (-) Selected Income Benchmarks					
Poverty Threshold	141.1%	129.9%	204.7%	198.9%	171.7%
Minimum Wage	83.6%	18.0%	212.8%	286.1%	111.5%
Median Family Income	-12.2%	-46.5%	10.1%	(NA)	-21.5%
% of Families with Income Below Self-Sufficiency Level (based on ACS-PUMS data)					
State Total	44.1%	21.5%	50.8%	(NA)	31.7%

Figure A. Annual Self-Sufficiency Family Budgets for Selected Family Types, 2016



II. Introduction

Hawaii Revised Statutes, 201-3(b) requires that, beginning in 2008, DBEDT establish and update biennially a self-sufficiency standard incorporating existing methods of calculation, and reflecting costs relating to housing, food, child care, transportation, health care, clothing and household expenses, taxes, children's ages, geography, and the number of household wage earners. The first report was published in January 2009, the second in December 2011, the third in December 2012, the fourth in December 2014, and the fifth in December 2015.

These reports can be accessed at

http://dbedt.hawaii.gov/economic/reports_studies/self-sufficiency-income-study/.

This report is an update on the performance of Hawaii's self-sufficiency standard.

The measurement of self-sufficient family budgets and living standards in the United States dates back to the late 19th century. The first standard family budgets, developed by the U.S. Bureau of Labor Statistics (BLS), were part of a study of the living conditions of cotton-mill workers in 1909. The budgets defined two levels of living standards: a 'minimum' standard of living consisting of bare essentials and a 'fair' standard of living that provided some allowances for comfort (Johnson, Rogers, & Tan, 2001). By the 1970s, the BLS had established three hypothetical budget levels measuring living costs for a family of four at what they termed low, intermediate, and higher living levels. These standards were measured for the U.S. and for most large metropolitan areas of the nation, including Honolulu. A major strength of the BLS four-person budget studies was the use of a consistent methodology and data sources. This permitted each metropolitan area to be readily compared with the others and to the national average. Unfortunately, budget constraints caused the Bureau to discontinue the four-person budget studies in the mid 1980s.

Since then, the official poverty thresholds produced by the U.S. Census Bureau have been the most universally cited measures of relative family well-being. However, the poverty thresholds measure only the cost of food based on the U.S. Department of Agriculture's Thrifty Food Plan, adjusting for family size, and family type composition. Food costs are then multiplied by three to estimate an overall poverty income threshold. The poverty thresholds are updated every year based on the consumer price index (CPI), and there have been only very minor changes on their calculation methodology since they were adopted in the late 1960s.

In recent years, several methodologies have been developed to estimate self-sufficient family budgets mainly based on the previous BLS methods, by summing up the family consumption expenditures of housing, childcare, food, transportation, health care, miscellaneous, and taxes. Two major efforts in this area were Family Self Sufficiency Study (FESS) project (Pearce & Brooks, 2003) and Economic Policy Institute's *Basic Family Budgets* (Bernstein, Brocht & Spade-Aguilar, 2000). The FESS methodology has been used as the basis for numerous studies across the mainland by Dr. Diana Pearce and has become a standard for similar studies conducted by others.

In July 2000, American Friends Services Committee (AFSC), Hawaii Area Program applied the FESS Self-Sufficiency Standard methodology directly with the childcare cost data from the Hawaii State Department of Human Services, Self-Sufficiency and Support Services Division's Childcare Market Rate Study Survey (AFSC-Hawaii, 2000).

In April 2003, the Hawaii State Commission on the Status of Women contracted Dr. Diana Pearce, then director of the Women and Poverty Project at Wider Opportunities for Women for a study. That study directly applied the FESS methodology. The childcare cost data were from the original Hawaii State Department of Human Services, Self-Sufficiency and Support Services Division's Childcare Market Rate Study Survey 2000 but updated using the Consumer Price Index (CPI), (Pearce & Brooks, 2003).

In March 2008, Aloha United Way and the University of Hawaii's Center on the Family and Hawaii Kids Count did an update for a limited set of 2005 Hawaii self-sufficient family budgets. That study used data sources not used in the previous studies, especially for housing rental and childcare cost data (He, Yuan, Illukpitiya & Yuen 2007). As a result of the differences in data sources, the three studies are not directly comparable, even though they share the same basic methodology and framework.

In January 2009, DBEDT updated Hawaii's self-sufficient family budgets and living standards to 2007 using the FESS methodology underlying the previous three studies. However, due to the need to find some alternative data sources, full compatibility between the new DBEDT report series and the earlier studies was not possible and, therefore, comparison of results to earlier studies is not recommended.

This current study is an update on the performance of Hawaii's self-sufficiency standard to 2016. As in the previous study, this update also compares self-sufficient family budgets with federal poverty thresholds, state minimum wage level and county median family income. Appendix A listed the different data sources used and Appendix B listed the estimates of these five studies.

By using the Census Bureau 2016 American Community Survey's Public Use Microdata Sample File (ACS-PUMS) and 2016 Current Population Survey (CPS) data, this study also analyzes the following demographic and socioeconomic characteristics of people living in Hawaii at different income levels: poverty threshold, minimum wage, median family income, and self-sufficient family budgets.

Finally, the update study also estimates the percentages of families whose actual incomes fell below the self-sufficiency family budget levels in 2016. This was accomplished using the U.S. Census Bureau 2016 American Community Survey's Public Use Microdata Sample File (ACS-PUMS) and the 2016 Current Population Survey (CPS) data. Only families and individuals with positive earnings for the five family prototypes were included in the income analysis. For some family types in the neighbor island counties, the percentages of families with income below the self-sufficiency level were not provided due to insufficient sample sizes of the types of families.

Appendix B provides comparisons between the results of this update study and past studies, including the 2007 DBEDT results.

III. Self-Sufficiency Family Budget Methodology

Consistent with the FESS methodology, this study defines economic self-sufficiency as the amount of money that individuals and families require to meet their basic needs without government and/or other subsidies. Also consistent with FESS, it is assumed that adults are working full-time (40-hours a week), at one or more jobs.

A. Family Types

This study focuses on estimating self-sufficiency budgets for five different family prototypes: single-adult, two-adult household without children (filing a joint income tax return), single-adult with one preschooler, single-adult with one preschooler and one school-aged child, and a two-adult couple (filing a joint income tax return) with one preschooler and one school-aged child. By following FESS' assumptions, we define preschool children as newborn to 5 years old, school-aged children as 6-12 years old, and adults as 19-64 years old.

B. Geographic Coverage

This study estimated the county-specific self-sufficiency family budgets for all four counties in Hawaii and also the weighted average for the state as a whole. As a comparison to the self-sufficiency family budgets, the data was also categorized and calculated by county, age, gender, marital status, and family size-specific median family income using Census Bureau's American Community Survey ACS-PUMS raw data. Kauai County was not included in the American Community Survey's PUMS data. Therefore, the Kauai County family-size-specific median income in 2016 was estimated based on the ACS-PUMS data and the ACS 2016 median income by family-size (ACS Table B19119 and Table B19019).

C. Budget Components

The following items represent the necessary components of the self-sufficiency family budget standard, with an explanation for the data sources and calculation methods. Appendix A lists the specific data sources and Appendix B compares differences in data sources among the four Hawaii studies on the self-sufficiency standard.

1. Housing

Housing cost refers to the rental cost (shelter rent plus utilities) for a privately owned, decent, structurally safe, and sanitary rental housing unit of a modest nature with suitable amenities. Both the Economic Policy Institute's Basic Family Budgets framework (Bernstein 2000, Allegretto 2005) and FESS Self-Sufficiency Standard (Pearce & Brooks 2003, AFSC-Hawaii 2000) used the U.S. Department of Housing and Urban Development's fair market rents (FMRs). The FMRs are based on data from the decennial census and the annual American Community Survey (ACS). This study used the U.S. Department of Housing and Urban Development's 50th percentile FMRs for each of Hawaii's four counties. At the 50th percentile level, half of the housing in a given area would be less expensive than the FMRs, while the remaining half would cost more than the FMRs. FMRs cover only housing that has been recently rented and thus depicts current

rental prices. It is assumed that parents and children do not share the same bedrooms. Therefore, housing for single persons and two-adult couples without children consist of one-bedroom units, while families with one or two children are housed in two bedroom units.

It is important to note that, while the self-sufficiency standards include the entire cost of maintaining a housing unit in each budget, this may not reflect actual living arrangements. For instance, many single adults share housing. Other family prototypes may also share housing, possibly making actual housing expenses less than indicated by the standard.

2. Food

Consistent with Pearce & Brooks, 2003, the food cost represents the expense of a family to meet “low-cost plan” nutritional standard as defined by the *U.S. Department of Agriculture’s Official USDA Food Plans: Cost of Food at Home at Four Levels* (USDA, 2016). The food plans assume that all ingredients for meals and snacks are purchased at stores and prepared at home. USDA’s estimates for the low-cost plan are for the United States as a whole. To reflect the higher food costs in the Honolulu Metropolitan area, USDA recommends increasing the national estimates by 63.0% (Nord, Andrews, & Carlson, 2010). To calculate the monthly food cost for different family prototypes, this study followed the procedures recommended by A UW-Hawaii and University of Hawaii Center on the family’s study (He, Yuan, Illukpitiya & Yuen 2007).

Several adjustments were made based on USDA recommendations and assumptions. First, USDA reports food costs for individuals in four-person families on a monthly basis. This study followed USDA’s recommendation to use food costs for June as the average annual monthly food cost and of adding a 5% adjustment to the cost for each individual in a three-person family.

Second, food costs for individual family members are based on age-specific estimates for children and age-specific and sex-specific estimates for adults as provided in USDA’s low-cost food plan. The food cost for a female adult was assumed for the adult in a single-parent family. The estimates for the following age groups were used: 19-50 years old (for adults), 6-8 years old and 9-11 years old (where the simple average was taken) for school-age children, and 4-5 years old (for pre-school children).

Third, county-specific food costs were calculated based on a ratio created by the 2000 American Friends Service Committee study (AFSC-Hawaii, 2000).

3. Transportation

Transportation costs are based on the cost of either public transportation or owning and operating an automobile. When public transportation is very limited or not available (as in the case of the neighbor islands), transportation costs were estimated based on the cost of owning, maintaining, and operating a private automobile. Depending on variations in geography and other factors, some two-parent families require two automobiles to meet basic needs for work, child care, etc., while others need only one. Therefore for the standard, it was assumed that on average 1.5 cars were needed for the two-parent family. Again, wherever public transportation is widely available (as in the case of Honolulu), the transportation needs of some families may be satisfied by the bus, while others may still require private

autos. Therefore, costs were estimated by averaging the cost of riding the bus and cost of owning, maintaining, and operating a private automobile.

Private transportation costs cover the fixed cost (registration, taxes, and insurance), and the operation or variable cost (fuel, maintenance, and repairs) of automobile ownership. The maintenance and repair costs cover normal and preventive maintenance to assure sound and economical operation during the retention cycle of the vehicle. It was assumed that the vehicle was acquired prior to the year for which the cost estimation is made and, therefore, no purchase and depreciation costs were included in the fixed cost.

For auto insurance, the 2016 Sample Annual Premiums from the Hawaii State Department of Commerce and Consumer Affairs (DCCA) was used. The sample premiums were based on a 2013 Honda Accord LX, 4-door sedan or equivalent, with a clean driving record (no accidents and no traffic convictions) assumed. The premiums were also based upon the following minimum coverage: \$20,000/40,000 Bodily Injury Liability, \$10,000 Property Damage Liability, \$10,000 Personal Injury Protection, \$20,000/40,000 Uninsured Motorist (optional) and \$20,000/40,000 Underinsured Motorist (optional).

Annual registration fees were estimated by dividing the state's annual registration fees and taxes received (U.S. Department of Transportation's Highway statistics, 2016) by the total number of passenger cars registered (DBEDT's Monthly Energy Trend).

The vehicle was assumed to run on regular gasoline. The fuel cost was calculated by multiplying the per-gallon gas price by the number of gallons of gas consumed. The average per-gallon price of regular gasoline for each county was obtained from DBEDT Monthly Energy Trend (MET).

Maintenance and repair costs (MC) were estimated by multiplying the per-mile maintenance cost by the number of miles traveled. The firm Runzheimer International estimated the per-mile maintenance cost for Hawaii using 2003 survey data (DBEDT State of Hawaii Data Book 2005). The estimated cost was based on a typical intermediate-size vehicle, represented by the 2003 Ford Taurus SEL sedan, driven 15,000 miles per year and retained for four years. The rate for 2003 was adjusted for 2016 using Honolulu Consumer Price Index for transportation. The annual average number of miles traveled per vehicle was obtained from DBEDT's State of Hawaii Data Book 2016.

4. Child Care

Child care expense is the cost incurred for families to keep children in private care and before and after-school child care programs while parents are at work. It was assumed that pre-school children receive full-time private care (8 hours/day, 5 days/week, and 4.33 weeks/month) from either family child care (FCC) homes or group child care (GCC) centers. School-age children, on the other hand, were assumed to receive two hours/day before-school private care and to be enrolled in the State Hawaii Department of Education's A-Plus after-school program during school days (9 months), and to receive full-time private care during school breaks and summer vacation (3 months).

Age-specific and county-specific child care costs for family child care and group child care for the year 2016 were obtained from the provider statistics provided by PATCH (People Attentive to Children), Hawaii

(PATCH-Hawaii, 2016). For a school-age child, the monthly rate of private care was the average cost of all types of private care for children 5–10 years old. Since PATCH reported on two districts for Hawaii County, the weighted average was taken as the county average.

5. Health Care

Health care costs include health-insurance premiums and out-of-pocket medical expenses. The employee's share of the premium was assumed for the premium cost, as employers in Hawaii are mandated to provide health insurance for all full-time employees, and all adults in our prototype families were assumed to work full time. Each family was assumed to purchase one family health plan providing coverage for every family member. The out-of-pocket medical expenses were payments by individual family members and families for medical and health services received and medicines purchased.

The health-insurance premium rate was a weighted average of the premiums for a family plan paid by employees in the private sector, state and local governments, and federal government. The average private-sector rates for Hawaii were obtained from the National Medical Expenditure Panel Survey (MEPS). The public-sector rate was the average of Kaiser and HMSA family plans offered to government employees in Hawaii. The rates for federal employees were those published by the U.S. Office of Personnel Management. The rates for state and local government employees were published by Hawaii Employer-Union Health Benefits Trust Fund (EUTF). The average employee premiums for the private sector, state and local governments, and federal government were first weighted by their respective proportions of total employees in each of these sectors in Hawaii, and then summed up to obtain the average health insurance cost. The weights were calculated based on 2016 employment statistics provided by Economic Modeling Specialists, Inc. (EMSI).

The out-of-pocket expenses for a family were the sum of such spending by individual family members. The National Medical Expenditure Panel Survey (MEPS) provides age-specific out-of-pocket Hawaii medical spending data for 2008. The age groups that represented the closest approximation for members of our prototype family were included in this calculation: 0-4 years (pre-school children), 5-17 years (school-age children), and 25-44 years and 45-64 years (combined for adults). The MEPS reports the amount of out-of-pocket spending in five categories, with the estimated number of people in each spending category. This study calculated the median spending for adults, pre-school children, and school-age children for 2008 and adjusted it to the 2016 level using the Hawaii CPI for medical care costs.

6. Miscellaneous

Included in the miscellaneous category are the costs of telephone, clothing, personal care expenses, household supplies, reading materials, school supplies, union dues, bank fees, television, music, internet connection, and other miscellaneous items. Consistent with the practice of past studies, this category is assumed to be 10% of the total of all other basic living costs (Pearce & Brooks 2003; AFSC-Hawaii 2000; He, Yuan, Illukpitiya & Yuen 2007).

7. Taxes

Taxes include the state general excise tax (GET), payroll taxes (Social Security and Medicare taxes), state income taxes, and federal income taxes. Unlike sales tax in other states, Hawaii's GET is applied to the sale of both goods and services and is a tax liability of the seller. The law neither requires nor prohibits the GET tax being passed on directly to the customer. According to the Pearce (2003) and University of Hawaii Center on Family (2007) studies, in practice businesses involved in child care, medical services, and renting or leasing real estate tend not to collect GET from their customers, while most other businesses in wholesale and retailing do. Thus, the methodology calls for GET to be calculated only for food and miscellaneous expenses for 2016 (Pearce & Brooks 2003; He, Yuan, Illukpitiya & Yuen 2007). Adjustments were made to account for the slightly higher GET rate on Oahu (4.5%) compared with the rate for the balance of the state (4.0%)

State income taxes were calculated based on the N-11 forms, instructions, and related schedules for 2016 from the Hawaii State Department of Taxation. Employees' contributions to the federal payroll taxes for Social Security and Medicare were calculated at 7.65% (6.2% & 1.45% respectively) for 2016. Federal income taxes were calculated based on 1040 forms, instructions, and related publications for 2016 from the Internal Revenue Service of the U.S. Department of the Treasury. For each family prototype, federal and Hawaii state income taxes were estimated, after considering all applicable standard deductions, exemptions, non-refundable tax credits, and refundable tax credits.

The prototype families that included children were eligible for two non-refundable tax credits for their federal tax return; Child and Dependent Care Expenses (CDCE) and Child Tax Credit (CTC). Additionally, families with children were eligible for Hawaii's Child and Dependent Care Expenses tax credits from the state. The federal CDCE tax credit allowed working parents to deduct a percentage of their child care costs from the income tax they owe. The federal CTC, on the other hand, allowed families with qualifying children to deduct up to \$1,000 per child for 2016. Hawaii's Child and Dependent Care Expenses tax credit allowed working parents to deduct a percentage of their child care costs from the state income tax they owe.

For tax and tax credit estimations, the study assumed that (a) single parents file as heads of household and two-adult couples file jointly for their income tax returns; (b) all adults are not qualifying children of another person; (c) the prototype families file resident income tax returns and claim standard deduction rather than itemized deduction; (d) the only sources of income are those wages, salaries, tips, etc. reported on the W-2 form; (e) the families have no income adjustment and no other tax liabilities; (f) all family members are U.S. citizens or resident aliens; (g) none of the family members is elderly or disabled; (h) the prototype families may be eligible for tax credits for child and dependent care expenses, child tax, earned income, low-income, low-income renters, and general income tax; and (i) the total income tax withholdings approximate the amount of owed tax minus refundable tax credits and, therefore, a family's tax refund in any specific year is approximately zero.

The estimations of taxes and tax credits were based on family income, family type, number of children, and other assumptions mentioned above. By definition, family self-sufficiency income must be able to cover the sum of living expenses and tax liabilities. To fulfill this condition, the estimation of taxes and tax credits were done via a series of iterations. The initial iteration took the total cost of housing, child care, food, transportation, health care, and miscellaneous as the initial estimate of a family's earned (consumption) income, based on which the applicable taxes and non-refundable and refundable tax credits were calculated. If the sum of income tax from earned (consumption) income and refundable tax credits was unable to balance the sum of total living costs and tax liabilities, the second iteration would take place using a revised estimate of earned income to re-estimate taxes and tax credits. The estimation iteration ended when the assumed condition of self-sufficiency was met (i.e. total family income = total living expenses + tax liabilities).

IV. 2016 Self-Sufficiency Family Budgets

A. State and County Overview

The Self-Sufficiency Family Standard budgets vary by family size, type, location, and the age of children. This study estimated budgets for the state and four counties and for five different family compositions.

The budgets for the state level were derived by weighted averages based on the counties' population percentage (DBEDT, State of Hawaii Data Book 2016). Included also was information on the federal poverty threshold, state minimum wage and county median family income information for comparison. In 2016, the minimum hourly wage in Hawaii was \$8.5. The federal poverty threshold information for Hawaii was from the U.S. Department of Health and Human Services' 2016 Poverty Guidelines. The Census Bureau provides county, family size-specific median family income estimates based on its decennial census and annual American Community Surveys, but it does not provide detailed information by differences in age, sex and marital status. This study calculated family size-specific median family income by county, age, sex, and marital status, for the five selected family prototypes using Census Bureau's 2016 American Community Survey ACS-PUMS raw data. This makes it possible to compare the calculated self-sufficiency income needs of the prototype families with the actual incomes of corresponding Hawaii families.

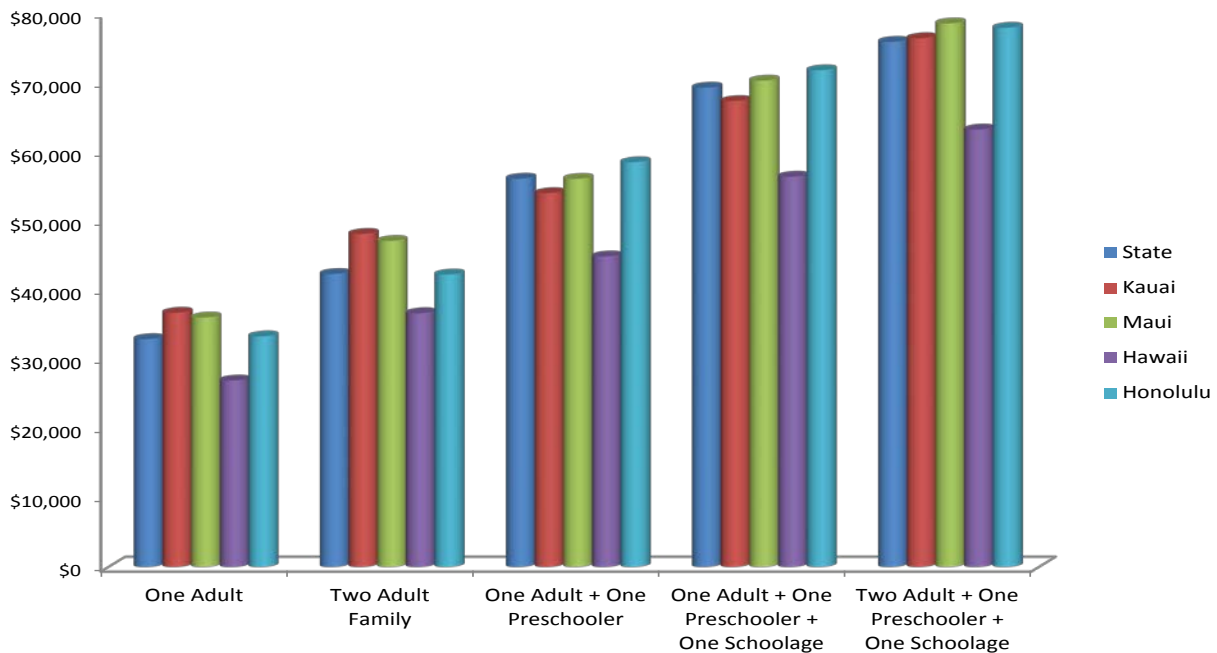
Table 1 and Figure 1 provide a comparison of annual Self-Sufficiency Family Budgets among four counties, state weighted averages, and five different family compositions.

- Among all five family types, Hawaii County had the lowest self-sufficiency income requirements among all counties. For the single-adult and two-adult couple categories, Kauai had the highest self-sufficiency income requirements, followed by Maui. For the one-adult with one child and one-adult with two children categories, Honolulu had the highest self-sufficiency income requirements, followed by Maui. For the two-adult couples with two children category, Maui had the highest self-sufficiency income requirements, followed by Honolulu.
- The 2016 median income for families of single-adult, two-adult couple families without children, and two-adult couple families with two children exceeded the self-sufficiency income needs. Median income for other family types are not available due to insufficient sample sizes, which have large margins of error.
- Statewide, about 21.5% of two-adult couples with no children and 31.7% of two-adult couples with two children had incomes below the self-sufficiency standard in 2016. For single-adult with no children and single-adult with one child, 44.1% and 50.8% had incomes in 2016 below the self-sufficiency level, respectively.

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County	Family Type				
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Honolulu	\$33,350	\$42,283	\$58,526	\$71,821	\$77,968
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State	\$32,957	\$42,371	\$56,157	\$69,318	\$75,947
Selected Income Benchmarks					
Poverty Threshold	\$13,670	\$18,430	\$18,430	\$23,190	\$27,950
Minimum Wage	\$17,952	\$35,904	\$17,952	\$17,952	\$35,904
Median Family Income	\$37,550	\$79,175	\$51,000	(NA)	\$96,700
% by Which Self-Sufficiency Income Is Above or Below (-) Selected Income Benchmarks					
Poverty Threshold	141.1%	129.9%	204.7%	198.9%	171.7%
Minimum Wage	83.6%	18.0%	212.8%	286.1%	111.5%
Median Family Income	-12.2%	-46.5%	10.1%	(NA)	-21.5%
% of Families with Income Below Self-Sufficiency Level (based on ACS-PUMS data)					
State Total	44.1%	21.5%	50.8%	(NA)	31.7%

Figure 1. Annual Self-Sufficiency Family Budgets for Selected Family Types, 2016



B. Honolulu County

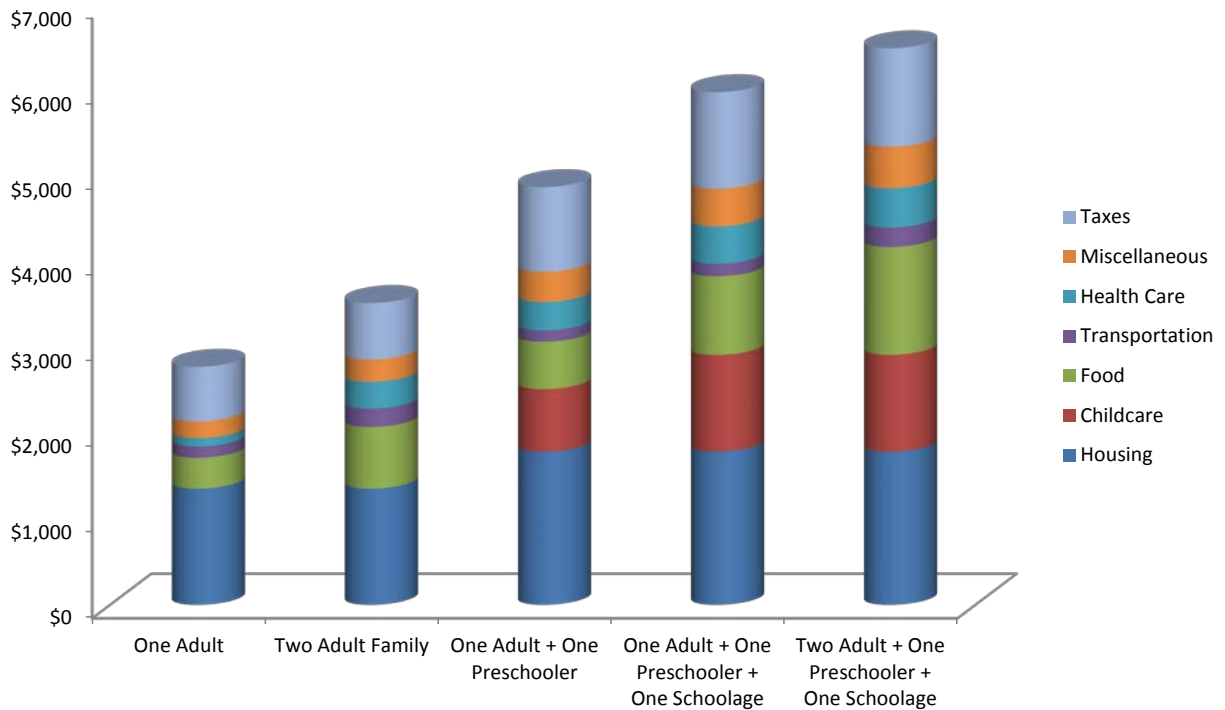
Honolulu County had the second lowest self-sufficiency income requirements for single-adult and two-adult couples. It had the highest self-sufficiency income requirements for the one-adult with one child and the one-adult with two children categories, and the second highest self-sufficiency income requirements for the one-adult with two children family. Honolulu also had the highest housing costs among the counties. The higher housing costs of Honolulu family budgets were offset by lower costs in most other categories, especially transportation. Other notable observations regarding Honolulu self-sufficiency levels were:

- A single adult with no children needed to earn an hourly wage of \$15.79 in 2016 to be able to meet his/her basic needs and to be economically self-sufficient.
- A two-adult couple with no children needed a combined hourly wage of \$20.02 (or \$10.01 each on average) to be able to be economically self-sufficient. That was 129.4% above the federal poverty threshold for Hawaii.
- A single adult with one preschooler needed to earn an hourly wage \$27.71 to be economically self-sufficient. That was 226.0% above state minimum wage level and 217.6% above the federal poverty threshold for Hawaii.
- A single adult with one preschool and one school-age child need to earn an hourly wage of \$34.01 to be economically self-sufficient. That was 300.1% above state minimum wage level and 209.7% above the federal poverty threshold for Hawaii.
- A two-adult family with one preschool and one school-age child needed to earn a combined hourly wage of \$36.92 (or \$18.46 each on average) to be economically self-sufficient. That was 179.0% above the federal poverty threshold for Hawaii.
- Among all five family types, one adult with two children and one adult with one child had the largest gap between required Self-Sufficiency Family income and the poverty threshold or federal minimum wage level. This was followed by two adults with two children, single-adult, and two-adult couples.

Table 2. Monthly Self-Sufficiency Family Budgets for Selected Family Types, Honolulu County, 2016

Category	Family Type				
	One Adult	Two Adult Family	One Adult + One Preschooler	One Adult + One Preschooler + One Schoolage	Two Adult + One Preschooler + One Schoolage
Housing	1,356	1,356	1,787	1,787	1,787
Childcare	0	0	731	1,131	1,131
Food	360	720	554	918	1,260
Transportation	132	212	132	147	227
Health Care	98	314	333	435	458
Miscellaneous	195	260	354	442	486
Taxes	638	660	988	1,126	1,149
Total	2,779	3,524	4,877	5,985	6,497
Self-Sufficiency Income Requirement					
Hourly	\$15.79	\$10.01	\$27.71	\$34.01	\$18.46
Monthly	\$2,779	\$3,524	\$4,877	\$5,985	\$6,497
Annual	\$33,350	\$42,283	\$58,526	\$71,821	\$77,968
% by Which Self-Sufficiency Income Is Above or Below (-) Selected Income Benchmarks					
Poverty Threshold	144.0%	129.4%	217.6%	209.7%	179.0%
Minimum Wage	85.8%	17.8%	226.0%	300.1%	117.2%

Figure 2. Monthly Self-Sufficiency Family Budgets for Honolulu County, 2016



C. Hawaii County

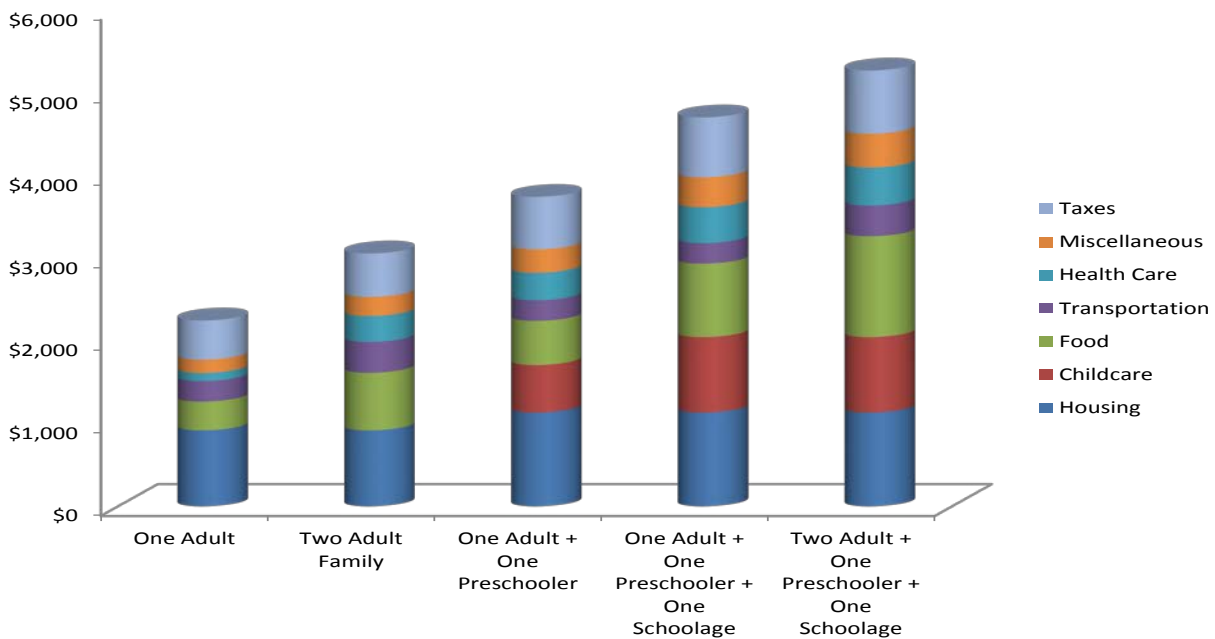
Hawaii County had the lowest overall self-sufficiency income requirements among the counties across all family types in the study. Hawaii County's self-sufficiency family budget levels were brought down by lower costs for housing, childcare and food categories. Other notable observations regarding Hawaii County's self-sufficiency levels were:

- A single adult with no children needed to earn an hourly wage of \$12.77 to be able to meet basic needs and to be economically self-sufficient. That was 50.2% above state minimum wage level, and 97.2% above the federal poverty threshold for Hawaii.
- A two-adult couple with no children needed combined hourly wages of \$17.38 (or \$8.69 each on average) to be economically self-sufficient. That was 2.2% above the state minimum wage level, and 99.1% above the federal poverty threshold for Hawaii.
- A single adult with one preschooler needed to earn an hourly wage \$21.26 to be economically self-sufficient. That budget was 150.1% above the state minimum wage level and 143.6% above the federal poverty threshold for Hawaii.
- A single adult with one preschool and one school age child needed to earn an hourly wage of \$26.73 to be economically self-sufficient. That was 214.4% above the state minimum wage level and 143.4% above the federal poverty threshold for Hawaii.
- A two-adult couple with one preschool and one school age child needed to earn a combined hourly wage of \$29.94 (or \$14.97 each on average) to be economically self-sufficient. That was 76.2% above the state minimum wage level and 126.3% above the federal poverty threshold for Hawaii.
- Among all five family types, one adult with two children and one adult with one child had the largest gap between the required Self-Sufficiency family income and the poverty threshold or the federal minimum wage level. This was followed by two adults with two children, single-adult, and two-adult couples.

Table 3. Monthly Self-Sufficiency Family Budgets for Selected Family Types, Hawaii County, 2016

Category	Family Type				
	One Adult	Two Adult Family	One Adult + One Preschooler	One Adult + One Preschooler + One Schoolage	Two Adult + One Preschooler + One Schoolage
Housing	918	918	1,134	1,134	1,134
Childcare	0	0	573	911	911
Food	349	698	536	889	1,220
Transportation	248	372	248	248	372
Health Care	98	314	333	435	458
Miscellaneous	161	230	282	362	410
Taxes	473	526	635	724	765
Total	2,247	3,058	3,742	4,704	5,271
Self-Sufficiency Income Requirement					
Hourly	\$12.77	\$8.69	\$21.26	\$26.73	\$14.97
Monthly	\$2,247	\$3,058	\$3,742	\$4,704	\$5,271
Annual	\$26,964	\$36,699	\$44,903	\$56,449	\$63,250
% by Which Self-Sufficiency Income Is Above or Below (-) Selected Income Benchmarks					
Poverty Threshold	97.2%	99.1%	143.6%	143.4%	126.3%
Minimum Wage	50.2%	2.2%	150.1%	214.4%	76.2%

Figure 3. Monthly Self-Sufficiency Family Budgets for Hawaii County, 2016



D. Maui County

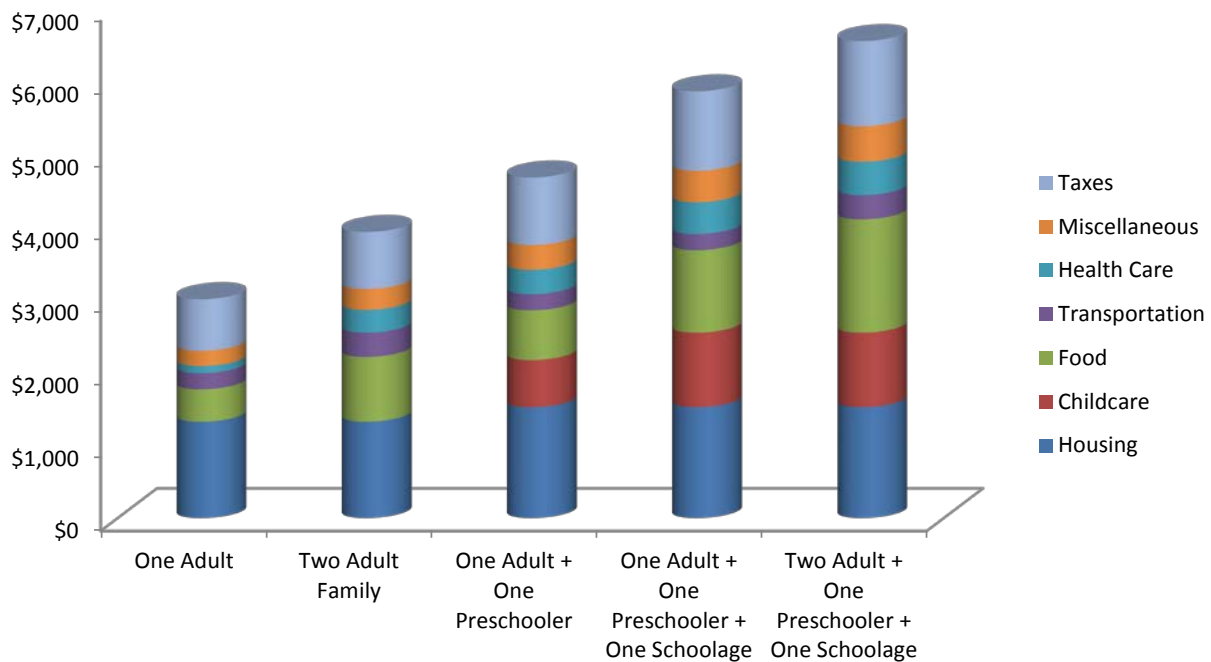
Maui County had the highest self-sufficiency income requirements for two-adult couples with two children, and the second highest for all other four family types. Maui County's self-sufficiency family budgets were impacted by relatively higher costs in food and childcare. Other notable observations regarding Maui County's self-sufficiency levels were:

- A single adult with no children needed to earn an hourly wage of \$17.08 to be able to meet its basic needs and to be economically self-sufficient. That was 100.9% above the state minimum wage level and 163.8% above the federal poverty threshold for Hawaii.
- A two-adult couple with no children needed combined hourly wages of \$22.32 (or \$11.16 each on average) to be economically self-sufficient. That was 31.3% above the state minimum wage level and 155.8% above the federal poverty threshold for Hawaii.
- A single adult with one preschooler needed to earn an hourly wage of \$26.58 to be economically self-sufficient. That was 212.7% above the state the minimum wage level and 204.6% above the federal poverty threshold for Hawaii.
- A single adult with one preschool and one school age child needed to earn an hourly wage of \$33.30 to be economically self-sufficient on Maui. That was 291.8% above the state minimum wage level and 203.3% above the federal poverty threshold for Hawaii.
- A two-adult couple with one preschool and one school age child needed to earn a combined hourly wage of \$37.22 (or \$18.61 each on average) to be economically self-sufficient. That was 118.9% above the state minimum wage level and 181.3% above the federal poverty threshold for Hawaii.
- Among all five family types, one adult with two children and one adult with one child had the largest gap between the required Self-Sufficiency family income and the poverty threshold or the federal minimum wage level. This was followed by two adults with two children, single-adult, and two-adult couples.

Table 4. Monthly Self-Sufficiency Family Budgets for Selected Family Types, Maui County, 2016

Category	Family Type				
	One Adult	Two Adult Family	One Adult + One Preschooler	One Adult + One Preschooler + One Schoolage	Two Adult + One Preschooler + One Schoolage
Housing	\$1,323	\$1,323	\$1,522	\$1,522	\$1,522
Childcare	\$0	\$0	\$648	\$1,024	\$1,024
Food	\$445	\$889	\$684	\$1,133	\$1,556
Transportation	\$222	\$333	\$222	\$222	\$333
Health Care	\$98	\$314	\$333	\$435	\$458
Miscellaneous	\$209	\$286	\$341	\$434	\$489
Taxes	\$708	\$783	\$928	\$1,090	\$1,168
Total	\$3,005	\$3,929	\$4,677	\$5,861	\$6,551
Self-Sufficiency Income Requirement					
Hourly	\$17.08	\$11.16	\$26.58	\$33.30	\$18.61
Monthly	\$3,005	\$3,929	\$4,677	\$5,861	\$6,551
Annual	\$36,064	\$47,147	\$56,130	\$70,332	\$78,612
% by Which Self-Sufficiency Income Is Above or Below (-) Selected Income Benchmarks					
Poverty Threshold	163.8%	155.8%	204.6%	203.3%	181.3%
Minimum Wage	100.9%	31.3%	212.7%	291.8%	118.9%

Figure 4. Monthly Self-Sufficiency Family Budgets for Maui County, 2016



E. Kauai County

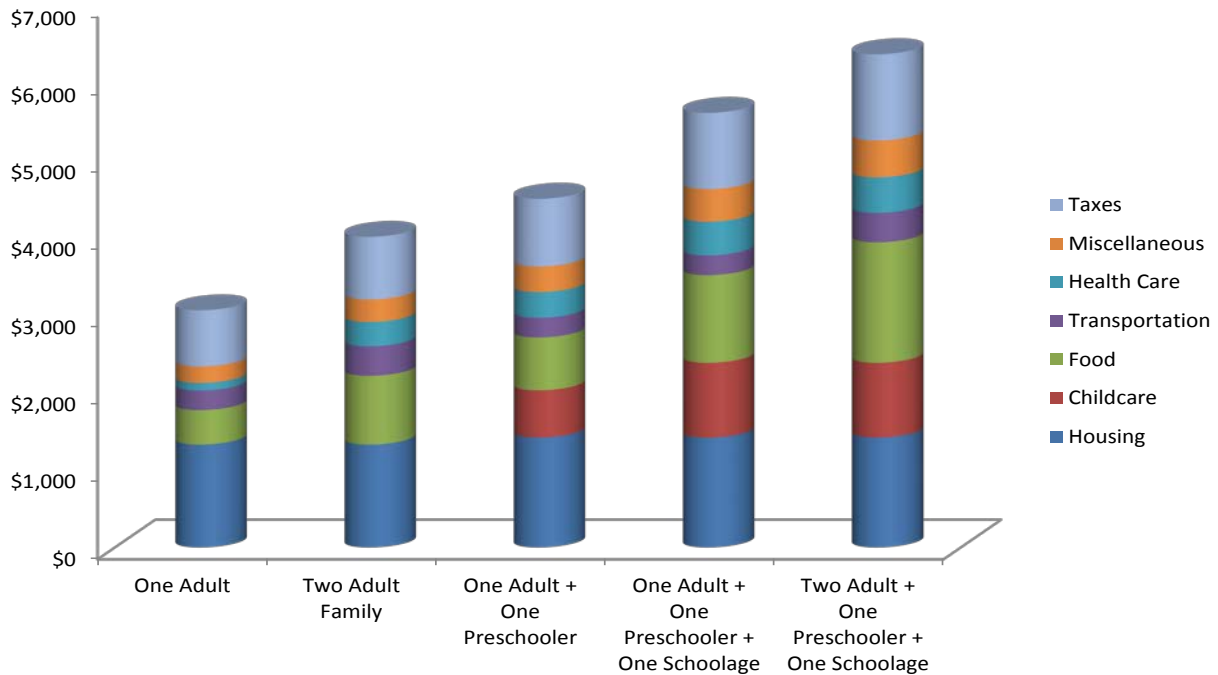
Kauai County had the highest self-sufficiency income requirements among the counties for single-adult and two-adult couple without children. For the three categories with children, Kauai had the third highest self-sufficiency income requirements. Kauai County's self-sufficiency family budgets were impacted by relatively higher costs in housing and transportation. Other notable observations regarding Kauai County's self-sufficiency levels were:

- A single adult with no children needed to earn an hourly wage of \$17.41 to be economically self-sufficient. That was 104.8% above the state minimum wage level and 168.9% above the federal poverty threshold for Hawaii.
- A two-adult couple with no children needed a combined hourly wage of \$22.80 (or \$11.40 each on average) to be economically self-sufficient. That was 34.1% above the state minimum wage level and 161.3% above the federal poverty threshold for Hawaii.
- A single adult with one preschooler needed an hourly wage of \$25.59 to be economically self-sufficient. That was 201.1% above the state minimum wage level and 193.3% above the federal poverty threshold for Hawaii.
- A single adult with one preschool and one school age child needed to earn an hourly wage of \$31.90 to be economically self-sufficient. That was 275.3% above the state minimum wage level and 190.5% above the federal poverty threshold for Hawaii.
- A two-adult couple with one preschool and one school age child needed to earn a combined hourly wage of \$36.20 (or \$18.10 each on average) to be able to be economically self-sufficient. That was 113.0% above the state minimum wage level and 173.6% above federal poverty threshold for Hawaii.
- Among all five family types, one adult with two children and one adult with one child had the largest gap between the required self-sufficiency family income and the poverty threshold or the federal minimum wage level. This was followed by two adults with two children, single-adult, and two-adult couples.

Table 5. Monthly Self-Sufficiency Family Budgets for Selected Family Types, Kauai County, 2016

Category	Family Type				
	One Adult	Two Adult Family	One Adult + One Preschooler	One Adult + One Preschooler + One Schoolage	Two Adult + One Preschooler + One Schoolage
Housing	\$1,328	\$1,328	\$1,420	\$1,420	\$1,420
Childcare	\$0	\$0	\$609	\$965	\$965
Food	\$445	\$889	\$684	\$1,133	\$1,556
Transportation	\$254	\$381	\$254	\$254	\$381
Health Care	\$98	\$314	\$333	\$435	\$458
Miscellaneous	\$213	\$291	\$330	\$421	\$478
Taxes	\$726	\$809	\$875	\$985	\$1,114
Total	\$3,063	\$4,013	\$4,505	\$5,614	\$6,372
Self-Sufficiency Income Requirement					
Hourly	\$17.41	\$11.40	\$25.59	\$31.90	\$18.10
Monthly	\$3,063	\$4,013	\$4,505	\$5,614	\$6,372
Annual	\$36,761	\$48,153	\$54,055	\$67,371	\$76,465
% by Which Self-Sufficiency Income Is Above or Below (-) Selected Income Benchmarks					
Poverty Threshold	168.9%	161.3%	193.3%	190.5%	173.6%
Minimum Wage	104.8%	34.1%	201.1%	275.3%	113.0%

Figure 5. Monthly Self-Sufficiency Family Budgets for Kauai County, 2016



V. Conclusions

The basic findings of this study were as follows:

- Statewide, the self-sufficiency income standard for 2016 ranged from \$26,964 for a single-adult family in Hawaii County to \$78,612 for a two-adult family with two children in Maui. The second and third highest self-sufficiency income standards were for single-adult families with 2 children in Honolulu (\$77,968) and in Kauai (\$76,465).
- Comparing 2016 family incomes with the self-sufficiency standards, 43.8% of single-adult families with no children, 47.8% of two-adult families with two children, and only 22.1% two-adult families without children had incomes below the relevant self-sufficiency standard statewide in 2016.
- Among all five family types, Hawaii County had the lowest self-sufficiency income requirements among all counties. For the single-adult and two-adult couple categories, Kauai had the highest self-sufficiency income requirements, followed by Maui. For the one-adult with one child and one-adult with two children categories, Honolulu had the highest self-sufficiency income requirements, followed by Maui. For the two-adult couples with two children category, Maui had the highest self-sufficiency income requirements, followed by Honolulu.
- Among all five family types, one adult with two children and one adult with one child had the largest gap between the annual Self-Sufficiency Family Budgets and both the federal poverty threshold and Hawaii's minimum wage level.
- Self-sufficiency budgets ranged from 129.9% to 204.7% above the federal poverty threshold in 2016.

VI. Cautions and Recommendations for Future Work

In addressing the requirements of Hawaii Revised Statutes 201-3(b), this study has utilized generally accepted methodology similar to that employed in previous Hawaii-focused studies to estimate the most recent (2016) self-sufficiency budget standards for five prototype family structures and for all four counties.

It is recommended that future studies adhere to the FESS methodology and data sources established in this study, incorporating suggestions by reviewers and stakeholders as warranted and practical. This methodology can be implemented without the need for consultant services to conduct specialized surveys. No federal funds were available to the department to assist in this study.

Appendix A. Data Sources

Table A-1. Data Sources

Data Type	AFSC Hawaii 2000	Pearce, Brooks 2003	AUW/UH 2005	DBEDT 2016
Housing	U.S. Department of Housing and Urban Development: Fair Market Rents	U.S. Department of Housing and Urban Development: Fair Market Rents	Newspaper advertisement rates compiled by Hawaii Information Service and Prudential Locations, LLC.	U.S. Department of Housing and Urban Development: Fair Market Rents
Food	USDA Low-Cost Food Plan	USDA Low-Cost Food Plan	USDA Low-Cost Food Plan	USDA Low-Cost Food Plan
Transportation	Private auto insurance agency quotes; \$100 per year for maintenance and repairs; no public transportation.	Hawaii State Department of Consumer Affairs. Sample auto rates from November 1, 2001. National Household Transportation Survey, 2001. Add-on Program for Honolulu and the neighbor islands. State Averages Expenditures; & Premiums for Personal Automobile Insurance in 1998, April 1998. National Association of Insurance Commissioners. www.naic.org ; Oahu Transit Services, Inc. for bus	American Automobile Association (AAA) for gas price; Hawaii State Department of Commerce and Consumer Affairs for auto insurance rates; DBEDT State of Hawaii Databook for bus pass price, average milages, maintenance and repair costs; U.S. Department of Transportation Highway Statistics for auto registration fees and taxes.	DBEDT Monthly Energy Trend (MET) for gas price; Hawaii State Department of Commerce and Consumer Affairs for auto insurance rates; DBEDT State of Hawaii Databook for bus pass price, average milages, maintenance and repair costs; U.S. Department of Transportation Highway Statistics for auto registration fees and taxes.
Child Care	Child Care Market Rate Study Survey, conducted by Department of Human Services, State of Hawaii & SMS, 2000.	Child Care Market Rate Study Survey, conducted by Department of Human Services, State of Hawaii & SMS, 2000. It was updated to 2003 with the Consumer Price Index.	Hawaii State Department of Education for after-school A+; PATCH-Hawaii Provider Statistics for private childcare costs	Hawaii State Department of Education for after-school A+; PATCH-Hawaii Provider Statistics for private childcare costs
Health Insurance	Assume \$28/month per person for health insurance premiums, and \$50/year per person for out-of-pocket medical expenses.	Kaiser Foundation, State Health Facts Online, Hawaii: Employment-Based Premiums 2000 for health insurance premiums; Medical Expenditure Panel Survey for out-of-pocket expenses.	National Medical Expenditure Panel Survey (MEPS) for out-of-pocket expenses and average private sector rates; U.S. Office of Personnel Management for federal employee rates; Hawaii State Employer-Union Health Benefits Trust Fund (EUTF) for state and local government employee	National Medical Expenditure Panel Survey (MEPS) for out-of-pocket expenses and average private sector rates; U.S. Office of Personnel Management for federal employee rates; Hawaii State Employer-Union Health Benefits Trust Fund (EUTF) for state and local government employee
Miscellaneous	10% of all other costs.	10% of all other costs.	10% of all other costs.	10% of all other costs.
Taxes	38% of all other costs.	U.S. Department of Treasury - IRS 1040 Form and Instructions; Hawaii State Department of Taxation - State Income Tax Form and Instructions; other items include Social Security tax, Medicare tax, State Excise tax.	U.S. Department of Treasury - IRS 1040 Form and Instructions for federal tax, childcare tax, child tax; Hawaii State Department of Taxation - State Income Tax Form and Instructions for state tax and state child tax; other items include Social Security tax, Medicare tax, State Excise tax.	U.S. Department of Treasury - IRS 1040 Form and Instructions for federal tax, childcare tax, child tax; Hawaii State Department of Taxation - State Income Tax Form and Instructions for state tax and state child tax; other items include Social Security tax, Medicare tax, State Excise tax.

Appendix B. County Estimates of Different Studies**Table B-1. Self-Sufficiency Income for Honolulu County, by Different Studies**

Study	One Adult	Married Couple	One Adult + One Preschooler	One Adult + One Preschooler + One Schoolage	Two Adult + One Preschooler + One Schoolage
DBEDT 2016	\$33,350	\$42,283	\$58,526	\$71,821	\$77,968
DBEDT 2007	\$25,605	\$33,906	\$42,189	\$50,731	\$55,688
AUW/UH 2005	NA	NA	NA	\$54,161	\$57,893
Pearce 2003	\$22,615	\$27,821	\$35,930	\$41,978	\$45,977
AFSC Hawaii 2000	\$19,369	\$24,041	\$31,780	\$37,010	\$41,683

Table B-2. Self-Sufficiency Income for Hawaii County, by Different Studies

Study	One Adult	Married Couple	One Adult + One Preschooler	One Adult + One Preschooler + One Schoolage	Two Adult + One Preschooler + One Schoolage
DBEDT 2016	\$26,964	\$36,699	\$44,903	\$56,449	\$63,250
DBEDT 2007	\$23,885	\$33,498	\$36,355	\$43,314	\$49,667
AUW/UH 2005	NA	NA	NA	\$46,658	\$53,909
Pearce 2003	\$21,619	\$31,460	\$32,576	\$37,961	\$46,898
AFSC Hawaii 2000	\$16,672	\$20,430	\$27,968	\$32,534	\$36,292

Table B-3. Self-Sufficiency Income for Maui County, by Different Studies

Study	One Adult	Married Couple	One Adult + One Preschooler	One Adult + One Preschooler + One Schoolage	Two Adult + One Preschooler + One Schoolage
DBEDT 2016	\$36,064	\$47,147	\$56,130	\$70,332	\$78,612
DBEDT 2007	\$31,457	\$42,619	\$45,195	\$51,429	\$60,527
AUW/UH 2005	NA	NA	NA	\$54,644	\$63,257
Pearce 2003	\$28,873	\$39,265	\$42,217	\$48,937	\$58,112
AFSC Hawaii 2000	\$24,181	\$29,446	\$38,259	\$43,897	\$49,162

Table B-4. Self-Sufficiency Income for Kauai County, by Different Studies

Study	One Adult	Married Couple	One Adult + One Preschooler	One Adult + One Preschooler + One Schoolage	Two Adult + One Preschooler + One Schoolage
DBEDT 2016	\$36,761	\$48,153	\$54,055	\$67,371	\$76,465
DBEDT 2007	\$28,278	\$39,586	\$42,750	\$51,634	\$59,159
AUW/UH 2005	NA	NA	NA	\$50,920	\$58,635
Pearce 2003	\$27,726	\$37,805	\$40,274	\$47,478	\$56,304
AFSC Hawaii 2000	\$23,141	\$28,315	\$37,129	\$42,887	\$48,062

Note: due to differences in data sources and assumptions, only the two DBEDT studies are directly comparable.

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