Preface

This methodology report outlines the methodology, assumptions, and data sources in The Self-Sufficiency Standard for Hawaii 2020. This measure calculates how much income a family must earn to meet basic needs, with the amount varying by family composition and county. The Standard is a tool that can be used in a variety of ways—by clients of workforce and training programs seeking paths to self-sufficiency, by program managers to evaluate program effectiveness, and by policymakers and legislators seeking to create programs and pathways that lead to self-sufficiency for working families.

The Self-Sufficiency Standard for Hawaii was previously published in 2003. As with all Self-Sufficiency Standard reports, this one was authored by Dr. Diana M. Pearce and produced by the Center for Women’s Welfare at the University of Washington. This report, plus tables providing county-specific information for over 700 family types, is available online at www.selfsufficiencystandard.org/hawaii.

Over the past 23 years the Standard has been calculated in 41 states as well as the District of Columbia and New York City. Its use has transformed the way policies and programs for low-income workers are structured and has contributed to a greater understanding of what it takes to have adequate income to meet one’s basic needs in the United States. For further information about any of the other states with the Standard, including the latest reports, the Standard data itself, and related publications such as demographic reports (which analyze how many and which households are above and below the Standard), please see www.selfsufficiencystandard.org. Questions can be directed to Lisa Manzer with the Center at lmanzer@uw.edu or the report author and Center Director, Dr. Diana Pearce, at pearce@uw.edu.

Dr. Diana Pearce developed the Self-Sufficiency Standard while she was the Director of the Women and Poverty Project at Wider Opportunities for Women (WOW). The Ford Foundation provided funding for the Standard’s original development.

A number of other people have also contributed to the development of the Standard, its calculation, and the writing of state reports over the past 23 years. Jennifer Brooks, Maureen Golga, and Kate Farrar, former Directors of Self-Sufficiency Programs and Policies at WOW, were key to the early development of initiatives that promoted the concept of self-sufficiency and the use of the Standard, and were instrumental in facilitating and nurturing state coalitions. Additional past contributors to the Standard have included Laura Henze Russell, Janice Hamilton Outtz, Roberta Spalter-Roth, Antonia Juhasz, Alice Gates, Alesha Durfee, Melanie Lavelle, Nina Dunning, Maureen Newby, and Seok Jeong. The conclusions and opinions contained within this document do not necessarily reflect the opinions of those listed above. Any mistakes are the author’s responsibility.
Methodology and Data Sources for the Hawaii Self-Sufficiency Standard

This appendix explains the methodology, assumptions, and sources used to calculate the Self-Sufficiency Standard. We begin with a discussion of our general approach, followed by the specifics of how each cost is calculated, ending with a list of data sources. Making the Standard as consistent and accurate as possible, yet varied by geography and the age of children, requires meeting several different criteria. To the extent possible, the data used in the Standard are:

- Collected or calculated using standardized or equivalent methodology nationwide
- Obtained from scholarly or credible sources such as the U.S. Census Bureau
- Updated regularly
- Geographically and age-specific (as appropriate)

Costs that vary substantially by place, such as housing and child care, are calculated at the most geographically specific level for which data are available. Other costs, such as health care, food, and transportation, are varied geographically to the extent there is variation and appropriate data available. In addition, as improved or standardized data sources become available, the methodology used by the Standard is refined accordingly, resulting in an improved Standard that is comparable across place as well as time.

The Self-Sufficiency Standard assumes adult household members work full time and therefore includes all major costs associated with employment for every adult household member (i.e., taxes, transportation, and child care for families with young children). The Self-Sufficiency Standard does not calculate costs for adults with disabilities or elderly household members who no longer work. It should be noted that for families with persons with disabilities or elderly family members there are costs that the Standard does not account for, such as increased transportation and health care costs.

The Standard assumes adults work eight hours per day for 22 days per month and 12 months per year. Each cost component in the Standard is first calculated as a monthly cost. Hourly and annual Self-Sufficiency Wages are calculated based on the monthly Standard by dividing the monthly Self-Sufficiency Standard by 176 hours per month to obtain the hourly wage and multiplying by 12 months to obtain the annual wage.

The Self-Sufficiency Standard differentiates costs by the number of adults plus the number and age of children in a family. The four ages of children in the Standard are: (1) infants—0 to 2 years old (meaning 0 through 35 months), (2) preschoolers—3 to 5 years old, (3) school-age children—6 to 12 years old, and (4) teenagers—13 to 18 years old.

The 2020 edition of the Hawaii Self-Sufficiency Standard is calculated for over 700 family types. The family types include all one, two, and three adult families with zero to six children and range from a single adult with no children, to one adult with one infant, one adult with one preschooler, and so forth, up to three-adult families with six teenagers. Additionally, Standards are calculated based on a weighted average cost per child for families with one, two, and three adults with seven to ten children and families with four to ten adults with zero to ten children.\(^1\)

All adults in one- and two-adult households are working full time. For households with more than two adults, it is assumed that all adults beyond two are non-working dependents of the first two working adults, as household composition analysis has shown that a substantial proportion of additional adults are under 25, often completing school, unemployed, or underemployed.\(^2\) The main effect of this assumption is that the costs for these adults do not include transportation (but do include all other costs such as food, housing, health care, and miscellaneous expenses).

The cost components of *The Self-Sufficiency Standard for Hawaii 2020* and the assumptions included in the calculations are described below.
Housing

The Standard uses the most recent Fiscal Year (FY) Fair Market Rents (FMRs), calculated annually by the U.S. Department of Housing and Urban Development (HUD), to calculate housing costs for each state’s metropolitan and non-metropolitan areas, and are used to determine the level of rent for those receiving housing assistance through the Housing Choice Voucher Program. Section 8(c)(1) of the United States Housing Act of 1937 (USHA) requires the Secretary to publish Fair Market Rents (FMRs) periodically, but not less than annually, to be effective on October 1 of each year. Housing costs in the 2020 Hawaii Self-Sufficiency Standard are calculated using the FY 2020 HUD Fair Market Rents.

The FMRs are based on data from the 1-year and 5-year American Community Survey, and are updated for inflation using the Consumer Price Index. The survey sample includes renters who have rented their unit within the last two years, excluding new housing (two years old or less), substandard housing, and public housing. FMRs, which include utilities (except telephone and cable), are intended to reflect the cost of housing that meets minimum standards of decency. In most cases, FMRs are set at the 40th percentile; meaning 40% of the housing in a given area is less expensive than the FMR. All of Hawaii’s FMRs are set at the 40th percentile.

The FMRs are calculated for Metropolitan Statistical Areas (MSAs), HUD Metro FMR Areas (HMFAs), and non-metropolitan counties. The term MSA is used for all metropolitan areas. HUD calculates one set of FMRs for an entire metropolitan area.

To determine the number of bedrooms required for a family, the Standard assumes that parents and children do not share the same bedroom and no more than two children share a bedroom. Therefore, the Standard assumes that single persons and couples without children have one-bedroom units, families with one or two children require two bedrooms, families with three or four children require three bedrooms, and families with five or six children require four bedrooms. Because there are few efficiencies (studio apartments) in some areas, and their quality is very uneven, the Self-Sufficiency Standard uses one-bedroom units for the single adult and childless couple.

Data Sources


Child Care

The Family Support Act, in effect from 1988 until welfare reform in 1996, required states to provide child care assistance at market rate for low-income families in employment or education and training. States were also required to conduct cost surveys biannually to determine the market rate (defined as the 75th percentile) by facility type, age, and geographical location or set a statewide rate. The Child Care and Development Block Grant (CCDBG) Act of 2014 reaffirms that the 75th percentile is an important benchmark for gauging equal access. The CCDBG Act requires states to conduct a market rate survey every three years for setting payment rates. Thus, the Standard assumes child care costs at the 75th percentile, unless the state sets a higher definition of market rate.

Child care costs for the 2020 Hawaii Standard have been calculated using 75th percentile data from the Hawaii Department of Human Services. Rates are updated for inflation from the data collection period using the Consumer Price Index. Hawaii child care costs are updated for inflation from February 2019. Due to small sample sizes, statewide rates were substituted for Maui and Kauai school-age children and Kauai infant center care.

Infant and preschooler costs are calculated assuming full-time care, and costs for school-age children are calculated using part-time rates during the school year and full-time care during the summer. Costs were calculated based on a weighted average of family child care and center child care. 43% of infants are in family child care and 57% are in child care centers. These proportions are 26% and 74% respectively, for preschoolers, and 46% and 54% for school-age children.

Since one of the basic assumptions of the Standard is that it provides the cost of meeting needs without
public or private subsidies, the “private subsidy” of free or low-cost child care provided by older children, relatives, and others is not assumed.

**Data Sources**


**Food**

Although the Supplemental Nutrition Assistance Program (SNAP, formerly the Food Stamp Program) uses the U.S. Department of Agriculture (USDA) Thrifty Food Plan to calculate benefits, the Standard uses the Low-Cost Food Plan for food costs. While both of these USDA diets were designed to meet minimum nutritional standards, SNAP (which is based on the Thrifty Food Plan) is intended to be only a temporary safety net.\(^6\)

The Low-Cost Food Plan costs 25% more than the Thrifty Food Plan, and is based on more realistic assumptions about food preparation time and consumption patterns, while still being a very conservative estimate of food costs. For instance, the Low-Cost Food Plan also does not allow for any take-out, fast-food, or restaurant meals, even though, according to the Consumer Expenditure Survey, the average American family spends about 44% of their food budget on food prepared away from home.\(^7\)

The USDA Low-Cost Food Plan costs vary by month and the USDA does not give an annual average food cost; therefore, the Standard follows the SNAP protocol of using June data of the current year to represent the annual average.

Both the Low-Cost Food Plan and the Standard’s budget calculations vary food costs by the number and ages of children and the number and gender of adults. The Standard assumes that a single-person household is one adult male and the single-parent household is one adult female. A two-adult household is assumed to include one adult male and one adult female. Additional adults (greater than two) are calculated using an average of the cost for an adult male and an adult female.

Geographic differences in food costs within Hawaii are varied using Map the Meal Gap data provided by Feeding America. To establish a relative price index that allows for comparability between counties, Nielsen assigns every sale of UPC-coded food items in a county to one of the 26 food categories in the USDA Thrifty Food Plan (TFP). The cost to purchase a market basket of these 26 categories is then calculated for each county. Because not all stores are sampled, in low-population counties this could result in an inaccurate representation of the cost of food. For this reason, counties with a population less than 20,000 have their costs imputed by averaging them with those of the surrounding counties.\(^8\)

A county index is calculated by comparing the county market basket price to the national average cost of food. The county index is applied to the Low-Cost Food Plan.

**Data Sources**


**County Index.** Gundersen, C., A. Dewey, M. Kato, A. Crumbaugh & M. Strayer. Map the Meal Gap 2019: A Report on County and Congressional District Food Insecurity and County Food Cost in the United States in 2017. Feeding America, 2019, received from research@feedingamerica.org (September 23, 2019).

**Transportation**

**Public Transportation.** If there is an “adequate” public transportation system in a given area, it is assumed that workers use public transportation to get to and from work. A public transportation system is considered “adequate” if it is used by a substantial percentage of the working population to commute to work. According to a study by the Institute of Urban and Regional Development, University of California, if about 7% of the general public uses public...
transportation, then approximately 30% of the low- and moderate-income population use public transit. The Standard assumes private transportation (a car) in counties where less than 7% of workers commute by public transportation.

The 2019 Standard uses the 2013-2017 American Community Survey 5-Year Estimates to calculate the percentage of the county population that commutes by public transportation. In Hawaii, Honolulu County qualifies for the public transportation assumption. An adult unlimited bus pass is $70 per month. Additionally, school bus service has an annual fee of $270 which is added to the transit cost for school-age children and teenagers.

**Private Transportation.** For private transportation, the Standard assumes that adults need a car to get to work. Private transportation costs are based on the average costs of owning and operating a car. One car is assumed for households with one adult and two cars are assumed for households with two adults. It is understood that the car(s) will be used for commuting five days per week, plus one trip per week for shopping and errands. In addition, one parent in each household with young children is assumed to have a slightly longer weekday trip to allow for “linking” trips to a day care site.

Per-mile driving costs (e.g., gas, oil, tires, and maintenance) are from the American Automobile Association. The commuting distance is computed from the 2017 National Household Travel Survey (NHTS). The Hawaii statewide average round trip commute to work distance is 19.96 miles.

In Hawaii, the average expenditure for auto insurance was $65 per month in 2016 based on data from the National Association of Insurance Commissioners (NAIC). County variation in the cost of auto insurance for Hawaii is calculated using rates filed with the Hawaii Department of Commerce and Consumer Affairs.

The fixed costs of car ownership such as fire, theft, property damage and liability insurance, license, registration, taxes, repairs, monthly payments, and finance charges are also included in the cost of private transportation for the Standard. However, the initial cost of purchasing a car is not. Fixed costs are from the 2018 Consumer Expenditure Survey data for families with incomes between the 20th and 40th percentile living in the Census West region of the United States. Auto insurance premiums and fixed auto costs are adjusted for inflation using the most recent and area-specific Consumer Price Index.

**Data Sources**


**Per-Mile Costs.** American Automobile Association, “Your Driving Costs: How Much are you Really Paying to Drive?” 2019 Edition, AAA Association Communication,
Health Care

The Standard assumes that an integral part of a Self-Sufficiency Wage is employer-sponsored health insurance for workers and their families. In Hawaii, 72% of non-elderly individuals in households with at least one full-time worker have employer-sponsored health insurance (nationally 65% have employer sponsored health insurance). The full-time worker’s employer pays an average of 88% of the insurance premium for the employee and 69% for the family in Hawaii. Nationally, the employer pays 79% of the insurance premium for the employee and 72% of the insurance premium for the family.

Health care costs are calculated by taking 10% of all other costs. This percentage is a conservative estimate in comparison to estimates in other basic needs budgets, which commonly use 15% and account

Data Sources


for other costs such as recreation, entertainment, savings, or debt repayment.  

Federal Taxes

Federal taxes calculated in the Standard include income tax and payroll taxes. The first two adults in a family are assumed to be a married couple and taxes are calculated for the whole household together (i.e., as a family), with additional adults counted as additional (adult) tax exemptions.

Indirect taxes (e.g., property taxes paid by the landlord on housing) are assumed to be included in the price of housing passed on by the landlord to the tenant. Taxes on gasoline and automobiles are included in the calculated cost of owning and running a car.

The Standard includes federal tax credits (the Earned Income Tax Credit, the Child Care Tax Credit, and the Child Tax Credit) and applicable state tax credits. Tax credits are shown as received monthly in the Standard.

The Earned Income Tax Credit (EITC), or as it is also called, the Earned Income Credit, is a federal tax refund intended to offset the loss of income from payroll taxes owed by low-income working families. The EITC is a “refundable” tax credit, meaning working adults may receive the tax credit whether or not they owe any federal taxes.

The Child Care Tax Credit (CCTC), also known as the Child and Dependent Care Tax Credit, is a federal tax credit that allows working parents to deduct a percentage of their child care costs from the federal income taxes they owe. Like the EITC, the CCTC is deducted from the total amount of money a family needs to be self-sufficient. Unlike the EITC, the federal CCTC is not a refundable federal tax credit; that is, a family may only receive the CCTC as a credit against federal income taxes owed. Therefore, families who owe very little or nothing in federal income taxes will receive little or no CCTC. Up to $3,000 in child care costs are deductible for one qualifying child and up to $6,000 for two or more qualifying children.

The Child Tax Credit (CTC) is like the EITC in that it is a refundable federal tax credit. Since 2018, the CTC provides parents with a nonrefundable credit up to $2,000 for each child under 17 years old and up to $1,400 as a refundable credit. For the Standard, the CTC is shown as received monthly.

Data Sources


State Taxes

State taxes calculated in the Standard include income tax, payroll taxes, and state and local sales tax where applicable.

If the state has an EITC, child tax credit, child care tax credit, or similar family or low-income credit, it is included in the tax calculations. Renter’s credits and other tax credits that would be applicable to the population as a whole are included as well.

Data Sources


Emergency Savings Fund

The Self-Sufficiency Standards are basic needs, no-frills budgets created for all family types in each county in a given state. As such, the Standard does not allow for anything extra beyond daily needs, such as saving for retirement, education expenses, or emergencies. Of course, without question families need more resources if they are to maintain economic security and be able to weather any unexpected income loss. Therefore, the Self-Sufficiency Standard now includes the calculation of the most universal of economic security needs after basic needs are met at the Self-Sufficiency Standard level—that of savings for emergencies.

The emergency savings amount is calculated to make up for the earnings of one adult becoming unemployed over the average job loss period, less the amount expected to be received in unemployment benefits. In two-adult households, it is assumed that the second adult continues to be employed, so that the savings only need to cover half of the family’s basic living expenses over the job loss period. Since the median length of job tenure among Hawaii workers is five years, it is assumed that workers save for job loss over the course of five years.

To determine the amount of resources needed, this estimate uses the average period of unemployment and assumes that the minimal cost of basic needs that must be met will stay the same, i.e., the family’s Self-Sufficiency Standard. Since the monthly emergency savings contribution requires additional earnings, the estimate includes the calculation of taxes and tax credits of current earnings (at the Self-Sufficiency Standard level). Savings are assumed to have accumulated based on average savings account interest rates.

The emergency savings calculation is based on all current expenses in the Self-Sufficiency Standard.14 The adult may not be commuting to work five days a week; however, the overall transportation expenses may not change significantly. A weekly shopping trip is still a necessity, as is driving young children to child care. Actively seeking employment requires being available for job interviews, attending job fairs, and engaging in networking opportunities, in addition to the time spent looking for and applying for positions. Therefore, saving enough to cover the cost of continuing child care if unemployed is important for supporting active job seeking as well as the benefit of keeping children in their normal routine during a time of crisis.

In addition to the income needed to cover the costs of housing, food, child care and transportation, families need health insurance. The Standard assumes that adults work full time and in jobs that provide employer-sponsored health insurance. In households with two adults, it is assumed that if one adult loses employment the spouse’s health insurance will provide coverage for the entire family at no additional cost. In a one-adult household, it is assumed coverage will be provided through the state-operated Affordable Insurance Exchanges under the Patient Protection and Affordable Care Act, at approximately the same cost as when employed.15 In some cases, children, or the whole family, may be covered under state Medicaid or the Children Health Insurance Program, depending upon income, resources, and eligibility requirements in effect at the time, which would decrease health care costs below these estimates.16

Data Sources


ENDNOTES FOR APPENDIX A

1. The Standard was originally designed to provide calculations for 70 family configurations, which includes all one- and two-adult families with zero to three children (in four different age groups).


14. This amount excludes taxes and tax credits (which are in the Standard), as the family would be living on savings, on which taxes and tax credits have already been paid when earned, as described above.


The Center for Women’s Welfare

The Center for Women’s Welfare at the University of Washington School of Social Work is devoted to furthering the goal of economic justice for women and their families. The main work of the Center focuses on the development of the Self-Sufficiency Standard and related measures, calculations, and analysis. Under the direction of Dr. Diana Pearce, the Center partners with a range of government, non-profit, women’s, children’s, and community-based groups to:

- research and evaluate public policy related to income adequacy;
- create tools, including online calculators, to assess and establish income adequacy and benefit eligibility;
- develop programs and policies that strengthen public investment in low-income women and families.

For more information about the Center’s programs, or work related to the Self-Sufficiency Standard, call (206) 685-5264. This report and more can be viewed at www.selfsufficiencystandard.org.