2019 COMMUNITY PROFILE SERIES:

Technical Report

Inform programs & policies
Support community efforts
Promote quality of life
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Having an informed understanding of a community helps in the planning, implementation, and evaluation of programs and services that support the quality of life of its residents. The concepts of quality of life and well-being are closely intertwined and interchangeable, often referring to the general welfare of individuals or societies and their environments, which are shaped by the interactions of various social, economic, health, and environmental factors.

The 2019 Community Profile Series presents measures of quality of life and well-being for 42 communities in the state of Hawai‘i. It is the latest edition of the Community Profiles, with previous editions including the 2018 and 2003 series. In 2018, the Center on the Family worked in collaboration with the YMCA of Honolulu, to create profiles for 11 communities surrounding the YMCA branches on O‘ahu. The first series was completed in 2003, providing community-specific data for 43 school complexes across the state.

All 42 community profiles, a state profile, and this technical report are available on the Center on the Family website at uhfamily.hawaii.edu/community-profiles.

Geographic boundaries are often defined by local governments (e.g., towns or cities). Data sources, such as the U.S. Census, also provide smaller boundary definitions based on how data are made available (e.g., Census tracts). For the 2019 Community Profile Series, the Hawai‘i State Department of Education (HIDOE) public school complex was used to delineate community boundaries (see Figure 1). The HIDOE defines their public school complex boundaries as a high school plus the regional elementary and middle schools. The HIDOE data are available at the school complex level, and other data sources can be aggregated or disaggregated to this geographic boundary without causing a significant impact on data quality. In addition, using HIDOE school complex boundaries allowed for consistency with prior community profiles produced by the Center on the Family.
Figure 1. Community Boundaries

Legend
‘Aiea 01
Baldwin 02
Campbell 03
Castle 04
Farrington 05
Hāna 06
Hilo 07
Honoka’a 08
Kahuku 09
Kailua 10
Kaimuki 11
Kaiser 12
Kalaheo 13
Kalani 14
Kapa’a 15
Kapolei 16
Ka’ū 17
Kaua’i (Līhu’e) 18
Kea’au 19
Kealakehe 20
Kekaulike 21
Kohala 22
Konawaena 23
Lahainaluna 24
Lāna’i 25
Laupāhoehoe 26
Leilehua 27
Maui (Kahului) 28
McKinley 29
Mililani 30
Moanalua 31
Moloka’i 32
Nānākuli 33
Pāhoa 34
Pearl City 35
Radford 36
Roosevelt 37
Waiākea 38
Waiau 39
Waianae 40
Waiʻanae 41
Waimea 42
Waiʻalae 43
Grounded in the quality of life and well-being research, objective measures were selected based on the following criteria:

1. Relevance: measures a concept or issue that is clearly relevant to the community;
2. Validity: accurately reflects or assesses the specific concept or issue that it is measuring;
3. Acceptability: can be easily understood or accepted by the community;
4. Reliability: is comparable across time and geographic locations; and
5. Availability: has data available in a timely, efficient and cost-effective manner.

A total of 38 indicators were selected and organized into five key domains: family and social environment, economic well-being, education, health, and community. The definition of each indicator and why it is important to the well-being of a community and its residents are presented in Appendix A.

In addition, a few populations and housing characteristics—race, age, veteran status, household type, household size, and housing value—were selected to provide basic information about the community and its residents (see Appendix B).

DATA SOURCE

Indicator and population data at the community-level were gathered from the following sources:

- American Community Survey (ACS), U.S. Census Bureau
- Hawai‘i Department of Education (HIDOE)
- Hawai‘i Department of Health (HIDOH)
- Department of Liquor Control of Hawai‘i
- Department of Liquor Control of Kaua‘i
- Department of Liquor Control of Maui
- Honolulu Liquor Commission
- Hawai‘i Department of the Attorney General
- Honolulu Police Department (HPD)
- Kaua‘i Police Department (KPD)
- Maui Police Department (MPD)
- Zillow Real Estate Research

Details of the sources for the indicators and population characteristics are presented in Appendix A and Appendix B, respectively.
METHODS

Using a variety of data sources presents significant challenges as geographic boundaries of community data varied across data sources. The following section provides background on each data source and the methods used to derive data for each community.

Deriving indicator data from the American Community Survey estimates

The Census Bureau’s American Community Survey (ACS) estimates a broad range of topics about social, economic, demographic, and housing characteristics of the U.S. population over a specific time period. Each year, the ACS produces 1-year and 5-year estimates for different geographical levels. The 5-year estimates—collected over a 5-year period ending December 31st of the reference year—are the most reliable and precise estimates for areas and subgroups with smaller population sizes. The ACS 5-year estimates can be retrieved from data.census.gov (data.census.gov/cedsci/).

The indicator data for each community were derived from the census tract level of the ASC 5-year estimates by aggregating data across tracts within each community. There were a number of census tracts that did not align with community boundaries (see examples shown in Figure 2). For census tracts that were not aligned, estimates were allocated to their corresponding communities using dasymetric mapping techniques, with the use of real property data as ancillary sources (i.e., when a census tract area consists of parts of multiple communities, information about housing locations and housing density was used to proportionately allocate the tract estimates to each community).

Figure 2. Examples of alignment issue: ‘Aiea area with census tract overlay’
Deriving indicator data from Hawai‘i Department of Education reports

The Hawai‘i Department of Education (HIDOE) publishes a series of reviews and reports, which contain descriptions of the schools and their settings, student achievement, safety and well-being, and vital signs of school performance. The performance and school safety indicators at the school complex level were obtained from reports posted on the HIDOE website (arch.k12.hi.us/).

Deriving indicator data from Hawai‘i Department of Health data

The Behavioral Risk Factor Surveillance System (BRFSS) is a national telephone survey that collects data about health risk behaviors, chronic health conditions, and use of preventive services among adult residents in the United States. Hawai‘i Health Data Warehouse of the Department of Health presents BRFSS data at the school complex level (ibis.hhdw.org/ibisph-view/). However, data for a few communities were available only as larger combined areas due to the small sample size; these combined areas are Nānākuli-Wa‘ianae, Moanalua-Radford, and Hilo-Waiakea. Therefore, the chronic health data of each combined area are presented in the respective community profiles. In addition, data for adults who have diabetes were not available for the Waialua community due to small sample size (less than 50) or large relative standard error (larger than 30%).

Deriving indicator data from the Liquor Commissions

The Department of Liquor Control of Hawai‘i, Kaua‘i and Maui counties, and the Honolulu Liquor Commission process and issue all liquor licenses and permits (for manufacturing, dispensing, retailing, wholesaling, shipping, storing, etc.). Information on active alcohol licenses was obtained from each county’s regulatory agency. The addresses of the off-premise outlets were geocoded and counted for each community.

Deriving indicator data from the Honolulu Police Department of counties

Sub-county level crime data were available for Honolulu, Kaua‘i and Maui Counties, but were unavailable for Hawai‘i County. The Honolulu Police Department (HPD) reports crime statistics annually to the FBI’s Uniform Crime Reporting Program and publishes them on the HPD website (honolulupd.org/information/index.php?page=crimemapping). Crime statistics for Kaua‘i and Maui counties were obtained from their respective police departments. Data from these sources included four types of violent crimes (i.e., murder, forcible rape, robbery, and aggravated assault) and three types of property crimes (i.e., burglary, larceny-theft, and motor vehicle theft), broken down by police districts and beat.

The crime data for each community is derived from the beat-level data. The beat boundaries were obtained by geo-referencing the digitized images of the police beat maps. The crime indicators for each community were calculated by aggregating the beat-level data within a community. When the beat and community boundaries did not align, the community data were derived by applying the dasymetric mapping technique with real property data as ancillary sources.
Deriving indicator data from the Zillow Real Estate Research data

Zillow calculates home value estimates for more than 100 million homes in the United States. Home value estimates are based on “automated valuation models” (AVM) developed by Zillow. The company publishes the monthly median of all estimates by home type and price level at the ZIP code level (www.zillow.com/research/data/). The median condo value and median single-family home value presented in the community profiles were calculated based on monthly median values from January to December. The ZIP code boundaries were overlaid with community boundaries and residential housing data to derive data for each community. However, the 2017 data for specific communities were not available separately; therefore, data for the combined areas—Nānākuli-Wai‘anae and Hilo-Wai‘akea—were reported in the respective community profiles.

METHODS OF ASSESSING COMMUNITIES

COMPARISON WITH THE STATE

In the 2019 profile series, the relative conditions of each community are presented in comparison with the state averages and described as “better than,” “worse than,” or “similar to” the state. The designation of “worse” (compared to the state) in a community refers to the need for more resources and services to better serve the people of this community.

For data generated from a population-based survey (e.g., ACS and BRFSS), statistical tests were performed to assess if any differences between a community and the state average are significant or if they are merely by chance. Of the 38 indicators, 29 were survey-based and 26 were tested using the margin of error (MOE) at 95% confidence level. Statistical tests were not performed on three survey-based indicators (“per capita income” and “mean travel time to work” from ACS, and “students who feel safe at school” from HIDOE) because their MOE data were not available at the community level.

To prepare the ACS tabular data for statistical tests, the following procedures were applied:

1. Recalculated the MOE for each community after aggregating census tract-level estimates for each area (see the formula in Appendix C).
2. Converted the MOEs from 90% confidence level to 95% level (see the formula in Appendix C).

For the BRFSS data, the above procedures were not required because the estimates and MOEs were readily available for each community and the MOEs were at the 95% confidence level.
For the remaining 12 indicators where the statistical test of difference cannot be done, a community’s condition is regarded as different from the state’s if the percentage difference is 5% or greater. The percentage difference is the difference between the community’s and the state’s indicator values divided by the state’s indicator value, then multiplied by 100 percent.

RANKING OF COMMUNITIES

The 42 communities are grouped into five tiers based on the level of community well-being, from the highest (tier 1) to the lowest (tier 5). Community well-being is measured by a summary score. This score is based on the normalized indicator values (rates) on a scale of 0 (the best) to 100 (the worst) for 38 indicators in five domains. For each community, a domain score is derived by taking the average of the normalized values of all indicators within a domain. A summary score is the average of all five domain scores of a community. The summary scores of all communities are then divided into five equal intervals to define five tiers of community well-being. Each community is finally assigned to a tier based on its summary score.
Families (with own children) that are married-couple families

Family structure can impact access to economic and human resources. For example, married-couple families have higher median family incomes compared to single-parent families, and more time to supervise their children and take an active part in their education and other activities. In contrast, single-parent families are more likely to experience economic hardship that may negatively impact child well-being. This indicator may also reflect demographic shifts and changing family structure. Due to higher rates of non-marital childbearing over the past several decades, more children are raised in single-parent families.

Families (with own children) that have young children (under age 6)

In today’s economy, most parents must work even when their children are young. Many parents of young children face the challenge of having to balance parenting during this critical developmental period in their children’s lives and the demands of their employer. Research suggests that many families with young children are particularly vulnerable to economic insecurity. Low wages, unstable work schedules, a lack of paid leave, and a severe shortage of high quality, affordable childcare often intensify the challenges that many families with young children face. 
Older adults who live alone may experience unmet care needs when they do not have assistance to perform daily activities on their own, such as eating, walking, bathing, or using the toilet. Older adults are at greater risk of falling, which can be detrimental to their physical health. Many may also be at higher risk of depressive symptoms.

Children with all available parents in the labor force

- **Definition:** Number of children in families with all available parents in the labor force
- **Rate:** Percent of children (under age 18) in families who have all available parents in the labor force
- **Universe:** Own children under 18 years in families and subfamilies
- **Data source:** ACS 5-Year Estimates: Data table B23008
- **Year:** 2012–2016
- **Why it is important:** Parental employment is important for overall child well-being as it increases the likelihood of family economic security, good nutrition, decent and stable housing, and adequate health care. Due to increased rates of labor force participation among women and the increasing number of children growing up in single-parent families, more children have all available parents in the workforce. The cost of affordable, high-quality childcare presents a challenge for many working parents of young children, especially those in low-income jobs. Additionally, too many working parents do not have access to paid leave when they need to take time off from work to care for new or sick children.

Older adults who live alone

- **Definition:** Number of persons aged 65 and over who are living alone
- **Rate:** Percent of persons aged 65 and over who are living alone
- **Universe:** Population 65 years and over
- **Data source:** ACS 5-Year Estimates: Data table B09020
- **Year:** 2012–2016
- **Why it is important:** Older adults who live alone may experience unmet care needs when they do not have assistance to perform daily activities on their own, such as eating, walking, bathing, or using the toilet. Older adults are at greater risk of falling, which can be detrimental to their physical health. Many may also be at higher risk of depressive symptoms.

Adults aged 30+ living with grandchildren

- **Definition:** Number of persons aged 30 and over living with own grandchildren (under age 18)
- **Rate:** Percent of persons aged 30 and over who are living with own grandchildren (under age 18)
- **Universe:** Population 30 years and over
- **Data source:** ACS 5-Year Estimates: Data table B10050
- **Year:** 2012–2016
- **Why it is important:** The prevalence of adults living with grandchildren may reflect grandparents’ roles in family functioning and trends towards multigenerational households. Adults may live with grandchildren as a result of unexpected events, such as financial crises or diminished health, which lead them to move in with their children and, in turn, their grandchildren. Alternatively, grandparents may live with grandchildren for whom they provide full-time care in the absence of the middle generation. In Hawai‘i, extended family members sharing living quarters may also be reflective of the islands’ cultural values.
### Indicator: Co-resident grandparents raising grandchildren

**Definition:** Number of co-resident grandparents who are responsible for the care of own grandchildren (under age 18)

**Rate:** Percent of co-resident grandparents who are responsible for the care of own grandchildren (under age 18)

**Universe:** Population 30 years and over living with own grandchildren under 18 years

**Data source:** ACS 5-Year Estimates: Data table B10050

**Year:** 2012–2016

**Why it is important:** The number of grandparents raising grandchildren has increased in recent decades. Research findings on the well-being of children raised by grandparents are mixed as well-being is influenced by a variety of factors such as children’s age, ethnicity, gender, residence, level of grandparents’ education, and socioeconomic status, and reasons they were raised by grandparents. Other research points to poor outcomes for the grandparents, such as higher levels of caregiver depression. Nevertheless, these alternative family structures may be the best setting to raise children when parents are not available, or able to do so.

### Indicator: Residents who are new immigrants (entered since 2000)

**Definition:** Number of foreign-born residents who entered the U.S. since 2000

**Rate:** Percent of residents who are foreign born and entered the U.S. since 2000

**Universe:** Total population

**Data source:** ACS 5-Year Estimates: Data table B05007

**Year:** 2012–2016

**Why it is important:** New immigrants are diverse in terms of socioeconomic status, race and ethnicity, gender, religion, and legal status. Certain immigrant groups are at a disproportionate risk of economic hardship and poverty. Many new immigrants face challenges associated with socioeconomic attainment, language barriers, discrimination, and housing segregation. Higher socioeconomic status upon arrival to the U.S. positively affects new immigrants’ future health trajectories, and being bilingual is linked with better self-rated mental health among immigrants.

### Indicator: Children in immigrant families

**Definition:** Number of children (under age 18) in families with at least one foreign-born parent

**Rate:** Percent of children (under age 18) in families who have at least one foreign-born parent

**Universe:** Own children under 18 years in families and subfamilies

**Data source:** ACS 5-Year Estimates: Data table B05009

**Year:** 2012–2016

**Why it is important:** The number and share of children in immigrant families have increased rapidly since 1990. Children of immigrants are more likely to be low-income and experience economic hardship, and more likely to have parents with low educational attainment. The challenges they face may often be compounded by language barriers, citizenship issues, and discrimination.
## ECONOMIC WELL-BEING DOMAIN

### Per capita income

**Indicator:** Per capita income  
**Definition:** Average income per resident in the past 12 months (in 2016 inflation-adjusted dollars)  
**Rate:** Average income per resident  
**Universe:** Total population  
**Data source:** ACS 5-Year Estimates: Data table B19301  
**Year:** 2012–2016  
**Why it is important:** Per capita income reflects the economic health of a population. Income affects quality of life by determining access to resources such as healthcare, housing, higher education, safety, nutritious food, and clean water.

### Civilians unemployed

**Indicator:** Civilians unemployed  
**Definition:** Number of unemployed civilian population aged 16 to 64  
**Rate:** Percent of civilian population aged 16 to 64 who are unemployed  
**Universe:** Civilian Population 16 years and over in labor force  
**Data source:** ACS 5-Year Estimates: Data table B23001  
**Year:** 2012–2016  
**Why it is important:** Employment matters for individual well-being and economic security. Being unemployed can make it difficult for people to meet basic needs and can also lead to changes in physical and mental health, and in family dynamics. At the community level, higher unemployment rates are linked with increased property crime.

### Teens (aged 16–19) not in school and not working

**Indicator:** Teens (aged 16–19) not in school and not working  
**Definition:** Number of persons aged 16 to 19 who are not in school and not working  
**Rate:** Percent of persons aged 16 to 19 who are not in school and not working  
**Universe:** Population 16 to 19 years  
**Data source:** ACS 5-Year Estimates: Data table B14005  
**Year:** 2012–2016  
**Why it is important:** Teenagers who are not in school and not working, also known as “disconnected youth,” are at increased risk of negative outcomes in the transition from adolescence to adulthood. These young people may experience difficulty in gaining the skills and knowledge necessary in order to become self-sufficient. They are more likely to live in poverty, experience mental health problems and substance abuse, and lack health insurance. Children in low-income families are at increased risk of dropping out of high school and not working during the teenage years.
Occupied housing units that are owner-occupied

**Definition:** Number of owner-occupied housing units

**Rate:** Percent of occupied housing units that are occupied by owners

**Universe:** Occupied housing units

**Data source:** ACS 5-Year Estimates: Data table B25106

**Year:** 2012–2016

**Why it is important:** Homeownership is viewed as a significant asset and an important component to building savings and individual wealth. Homeownership can also provide for secure residential tenure. However, not everyone has equal access to homeownership. Certain racial groups have lower rates of homeownership and experience fewer returns on this asset compared to whites. The high cost of property in Hawai‘i makes homeownership particularly challenging for younger residents.

Households with a high housing cost burden

**Definition:** Number of households paying 30% or more of household income for housing in the past 12 months

**Rate:** Percent of households that are paying 30% or more of household income for housing in the past 12 months

**Universe:** Occupied housing units

**Data source:** ACS 5-Year Estimates: Data table B25106

**Year:** 2012–2016

**Why it is important:** The cost of basic needs matters for financial security and housing is often one of the largest expenses families face. Low-income households are more likely to have larger portions of their income spent on housing, which can make it difficult to meet other basic needs. In addition, renters are more likely than homeowners to experience high housing cost burdens.

Children in families receiving public assistance

**Definition:** Number of persons under age 18 in family households receiving SSI, cash assistance, and SNAP

**Rate:** Percent of persons under age 18 in family households who receive SSI, cash assistance, and SNAP

**Universe:** Population under 18 years in family households

**Data source:** ACS 5-Year Estimates: Data table B09010

**Year:** 2012–2016

**Why it is important:** Public assistance programs provide benefits that help eligible families meet basic needs. Children in financially vulnerable families are at risk of food insecurity and economic hardship and therefore, may rely on public assistance to access nutritious food and other resources their families may not otherwise be able to afford. However, eligibility for public assistance is increasingly limited due to welfare reform and divestment in programs dedicated to childhood well-being.
Indicator: Families (with related children) in poverty

Definition: Number of families with related children (under age 18) that have a household income below federal poverty level in the past 12 months

Rate: Percent of families with related children (under age 18) that have a household income below federal poverty level in the past 12 months

Universe: Families with related children

Data source: ACS 5-Year Estimates: Data table B17010

Year: 2012–2016

Why it is important: Of all age groups, children are most likely to live in poverty. Growing up in poverty is one of the greatest threats to healthy child development. Families in poverty are more likely to have an inadequate standard of living and unmet needs for food, clothing, shelter, healthcare, education, and employment opportunity. Poverty also increases the risk of stressors including strained family relationships, unsafe environment, transportation difficulties, and inability to afford childcare.

Indicator: Children in low-income households

Definition: Number of persons under age 18 in low-income households (an income to poverty level less than 2.0) in the past 12 months

Rate: Percent of persons under age 18 who are in low-income households (an income to poverty level less than 2.0) in the past 12 months

Universe: Population under 18 years for whom poverty status is determined

Data source: ACS 5-Year Estimates: Data table B17024

Year: 2012–2016

Why it is important: The federal poverty rate may understate the proportion of children growing up in economic hardship. Research shows that families need an income at least twice the poverty level – probably more in Hawai‘i due to the high cost of living – just to cover basic living expenses like food, housing, transportation, and childcare. Children growing up in low-income households face financial hardship that can have profound effects, especially when the hardship occurs early in life, impacting their cognitive, social, emotional, and physical development.
Indicator: Older adults in low-income households

Definition: Number of persons aged 65 and over in low-income households (an income to poverty level less than 2.0) in the past 12 months

Rate: Percent of persons aged 65 and over who are in low-income households (an income to poverty level less than 2.0) in the past 12 months

Universe: Population 65 years and over for whom poverty status is determined

Data source: ACS 5-Year Estimates: Data table B17024

Year: 2012–2016

Why it is important: Many older adults in low-income households struggle to make ends meet and lack access to basic resources. Low-income households are less likely to own their own home, more likely to live in smaller, crowded housing, and experience housing cost burdens. Many older adults are economically vulnerable due to a lack of investment in social programs for the growing population of older adults.

Indicator: Older adults in the labor force

Definition: Number of persons aged 65 and over who are in the labor force

Rate: Percent of persons aged 65 and over who are in the labor force

Universe: Population 65 years and over

Data source: ACS 5-Year Estimates: Data table B23001

Year: 2012–2016

Why it is important: People over age 65 represent the fastest-growing segment of the population employed in the labor force. Older adults may remain in the labor force because they are healthier and have longer life expectancy than in the past. However, many older adults are in the workforce due to economic reasons including uncertainty about retirement plans, to avoid reduced Social Security benefits from retiring early, or to access employer-based health insurance.
## Indicator: Students (K–12) who are English language learners

**Definition:** Number of public school students (kindergarten through grade 12) who are receiving English as a Second Language services

**Rate:** Percent of public school students (kindergarten through grade 12) who are receiving English as a Second Language services

**Universe:** Total number of children grade K-12

**Data source:** HIDOE Trend Reports, Strive HI School Performance Report for Charter School—Laupāhoehoe,¹ Complex Area Superintendent Report: Special Education in the Hāna-Lahainaluna-Lāna‘i-Moloka‘i Complex Area²

**Year:** 2017

**Why it is important:** Students who are English language learners are a fast-growing population in public schools. While these students can benefit from school programs dedicated to improving language proficiency, many attend public schools that lack needed resources, which in turn contributes to an achievement gap between English language learners and other students.

**Notes:**¹Laupāhoehoe School Complex data are not available from the Trend Report since the school became a charter school in 2013. Data for Laupāhoehoe were obtained from the Strive HI School Performance Report.

²Data for Hāna and Moloka‘i School Complexes in Maui County were not reported by HIDOE to protect student identity, in accordance with the Family Educational Rights and Privacy Act (FERPA). To include these complexes in the state- and county-level estimates, the Hāna-Lahainaluna-Lāna‘i-Moloka‘i Complex Area Superintendent Report were used.

## Indicator: Students (grades 3–8 & 11) meeting Language Arts grade level standards

**Definition:** Public school students (grades 3–8 and grade 11) meeting Language Arts grade level standards

**Rate:** Percent of public school students (grades 3–8 and grade 11) meeting Language Arts grade level standards

**Universe:** Total number of public school students tested in grades 3–8 and grade 11

**Data source:** HIDOE Smarter Balanced Assessment Data File

**Year:** 2017

**Why it is important:** Language arts proficiency, which assesses students’ knowledge and capabilities in reading, spelling, composition, and public speaking, reflects the quality of the education system and how prepared students are for the workforce and civic engagement. By the end of third grade, children should be able to use reading to learn other subjects, but low-income students and some racial/ethnic groups are at a disproportionate risk of lacking reading proficiency by this time. Students who enter the fourth grade without meeting grade-level standards are more likely to drop out of high school and have lower earnings in the future.

**Note:** The state and Hawai‘i county estimates do not include Laupāhoehoe School Complex since Laupāhoehoe became a charter school in 2013.
### Indicator: Students (grades 3–8 & 11) meeting Math grade level standards

**Definition:** Public school students (grades 3–8 and grade 11) meeting Math grade level standards

**Rate:** Percent of public school students (grades 3–8 and grade 11) meeting Math grade level standards

**Universe:** Total number of public school students tested in grades 3–8 and grade 11

**Data source:** HIDOE Smarter Balanced Assessment Data File

**Year:** 2017

**Why it is important:** Math proficiency, which assesses students’ knowledge and capabilities in mathematics, reflects the quality of the education system and how prepared students are for the workforce and civic engagement. The proportion of students meeting grade level standards reflects schools’ success in developing higher academic standards. As early as kindergarten, number competence is important for children’s future learning trajectories. Competence in mathematics is a critical component to success in the workforce and students with advanced math proficiency are more likely to pursue college and have higher earnings in the future.

**Note:** The state and Hawai‘i county estimates do not include Laupāhoehoe School Complex since Laupāhoehoe became a charter school in 2013.

### Indicator: Students (K–12) in special education

**Definition:** Number of public school students (kindergarten through grade 12) who are receiving special education services

**Rate:** Percent of public school students (kindergarten through grade 12) who are receiving special education services

**Universe:** Total number of children grade K–12

**Data source:** HIDOE Trend report, Strive HI School Performance Report for Charter School—Laupāhoehoe

**Year:** 2017

**Why it is important:** Students with disabilities need access to high-quality general education as well as special education programs to help ensure their success. However, there are disparities in disability identification by race and ethnicity, with some groups disproportionately overrepresented among children with disabilities. Many of these children experience a segregated education system, which results in poorer educational outcomes.

**Note:** ¹Laupāhoehoe School Complex data are not available from the Trend Report since the school became a charter school in 2013. Data for Laupāhoehoe were obtained from the Strive HI School Performance Report.
### Indicator: High school seniors graduating with diploma

**Definition:** Number of public high school seniors graduating with a diploma

**Rate:** Percent of public high school seniors graduating with a diploma

**Universe:** Total number of high school seniors who are graduating

**Data source:** HIDOE School Status and Improvement Report

**Year:** 2017

**Why it is important:** A high school education expands access for learning and job opportunities for individuals, and lays the foundation for a community’s economic growth and competitiveness. Having less than a high school education is associated with lower earnings, less favorable working conditions, higher unemployment rates, and lower civic participation. Low-income students, some racial/ethnic groups, students with limited English proficiency, and those with disabilities have lower than average graduation rates.

### Indicator: High school students graduating on time

**Definition:** Number of public high school seniors graduating within four years of the first time they entered the 9th grade

**Rate:** Percent of public high school seniors who graduated within four years of the first time they entered the 9th grade

**Universe:** Total number of first time freshmen in the cohort four years ago

**Data source:** HIDOE Trend report, Strive HI School Performance Report for Charter School—Laupāhoehoe

**Year:** 2017

**Why it is important:** Students who graduate from high school on time are more likely to pursue postsecondary training and higher education. They are also more likely to have better employment, economic, civic life, and health outcomes than high school dropouts and late completers.

**Note:** Each year’s on-time graduation rate is based on a cohort of first-time 9th graders in the school year represented by the graduating year minus three, with the exception of the charter school Laupāhoehoe. Students who transfer out of state or to another county during the four years are not used in county rate calculations. Students who transfer-in after the official enrollment rosters are established in the 9th grade cohort’s year are not added to the cohort. The rate for Laupāhoehoe is derived from the percent of students graduating on-time provided by the Strive HI School Performance Report.
**Indicator:** Adults (aged 25+) who have a Bachelor’s degree or more education

**Definition:** Number of persons aged 25 and over who have a bachelor-level education or higher

**Rate:** Percent of persons aged 25 and over who have a bachelor-level education or higher

**Universe:** Population 25 years and over

**Data source:** ACS 5-Year Estimates: Data table B15001

**Year:** 2012–2016

**Why it is important:** Adults with a Bachelor’s Degree or more education have higher earnings, lower unemployment rates, and are less likely to live in poverty compared to those with a two-year degree and high school graduates. Education beyond high school is increasingly critical to ensuring employment at a livable wage. Higher education also improves the overall economy by equipping the workforce with the innovative skills and knowledge necessary for the development of technology, products, and services.
HEALTH DOMAIN

Indicator: Children who have health insurance
Definition: Number of noninstitutionalized persons under age 18 covered by any health insurance
Rate: Percent of noninstitutionalized persons under age 18 who are covered by any health insurance
Universe: Civilian noninstitutionalized population under 18 years
Data source: ACS 5-Year Estimates: Data table B27001
Year: 2012–2016
Why it is important: Health insurance provides access to health care services that can directly impact children’s well-being. Children with health insurance are more likely to receive preventative care and needed, timely treatment than those without, which leads to a healthier population and more cost-effective health care. Uninsured children in need of medical care are more vulnerable to health crises.

Indicator: Young adults (aged 18–34) who have health insurance
Definition: Number noninstitutionalized civilians aged 18 to 34 covered by any health insurance
Rate: Percent noninstitutionalized civilians aged 18 to 34 who are covered by any health insurance
Universe: Civilian noninstitutionalized population 18 to 34 years
Data source: ACS 5-Year Estimates: Data table B27001
Year: 2012–2016
Why it is important: Health insurance affects the likelihood of seeking preventative care, including health screenings, which makes healthcare more cost-effective in the long run. Those without health insurance are vulnerable to financial hardship given of the high cost of care, or health crises if care is delayed. By ensuring access to health care services, health insurance also improves population health.

Indicator: Adults (aged 18–64) who have a disability
Definition: Number of noninstitutionalized civilians aged 18 to 64 who have a disability as defined as having serious difficulty in one or more of the following functioning: hearing; seeing (even when wearing glasses); concentrating, remembering, or making decisions; walking or climbing stairs; dressing or bathing; and doing errands alone.
Rate: Percent of noninstitutionalized civilians aged 18 to 64 who have a disability
Universe: Civilian noninstitutionalized population 18 to 64 years
Data source: ACS 5-Year Estimates: Data table B18101
Year: 2012–2016
Why it is important: Adults with disabilities are at greater risk of health problems including heart disease, diabetes, and cancer. About half of adults with disabilities lack aerobic physical activity, which is important for protecting against health risks. Many people with disabilities also face barriers to education and employment, which further affects their overall health.
**Indicators:**

### Adults who have a depressive disorder

- **Definition:** Adults who reported “yes” to the question: “Have you ever been told by a doctor, nurse or other health professional that you have a depressive disorder, including depression, major depression, dysthymia, or minor depression?”
- **Rate:** Percent of persons aged 18 and over who have a depressive disorder
- **Universe:** Population 18 years and over
- **Data source:** Hawai‘i Health Data Warehouse, BRFSS
- **Year:** 2012–2016
- **Why it is important:** Many people who have a depressive disorder experience other mental health conditions. Traumatic and stressful events, such as the death of a loved one or financial problems, can trigger depressive symptoms. Depressive symptoms are also related to alcohol and drug use. Treatments including therapy and medications can help reduce symptoms and decrease the duration of depression.

### Adults who are overweight or obese

- **Definition:** Adults with a Body Mass Index (BMI) value falls between 25.0 and 29.9 is in the overweight range, and a BMI value of 30.0 or higher is in the obese range.
- **Rate:** Percent of persons aged 18 and over who are overweight or obese
- **Universe:** Population 18 years and over
- **Data source:** Hawai‘i Health Data Warehouse, BRFSS
- **Year:** 2012–2016
- **Why it is important:** Bodyweight can determine risks of certain chronic diseases. Compared to those with a healthy weight, people who are overweight or obese are at increased risks of heart disease, diabetes, some cancers, mental health disorders, and other health issues. Being overweight or obese also affects healthcare utilization and the need for preventative, diagnostic, and treatment services.

### Adults who have high cholesterol

- **Definition:** Adults who reported “yes” to the question: “Have you ever been told by a doctor, nurse or other health professional that your blood cholesterol is high?”
- **Rate:** Percent of persons aged 18 and over who have high cholesterol
- **Universe:** Population 18 years and over
- **Data source:** Hawai‘i Health Data Warehouse, BRFSS
- **Year:** 2011, 2013, 2016
- **Why it is important:** High cholesterol increases risks of heart disease and stroke, which are leading causes of death in the United States. Adults who have high cholesterol may have no symptoms and, as a result, many do not know when their cholesterol level is too high. Access to nutritious food and physical activity are important for decreasing the risk of high cholesterol.
Indicator: Adults who have diabetes

Definition: Adults who reported “yes” to the question: “Have you ever been told by a doctor, nurse or other health professional that you have diabetes?” (Excluded females told only during pregnancy)

Rate: Percentage of persons aged 18 and over who have diabetes

Universe: Population 18 years and over

Data source: Hawai‘i Health Data Warehouse, BRFSS

Year: 2012–2016

Why it is important: Risk factors for diabetes include smoking, being overweight or obese, and lack of physical activity. Adults with diabetes need access to nutritious food and physical activity as well as medication to help manage their symptoms. Socioeconomic and racial disparities in the prevalence of diabetes put those who are economically disadvantaged and minorities at increased risk.
**COMMUNITY DOMAIN**

<table>
<thead>
<tr>
<th>Indicator: Violent crime incident rate (per 1,000 residents)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition:</strong> Number of violent crime incidents, i.e., aggravated assault, forcible rape, murder, and robbery</td>
</tr>
<tr>
<td><strong>Rate:</strong> Number of violent crime incidents per 1,000 residents</td>
</tr>
<tr>
<td><strong>Denominator:</strong> Total population</td>
</tr>
<tr>
<td><strong>Data source:</strong> Honolulu Police Department’s Annual Report, special request data from Kaua’i and Maui Police Departments, Crime in Hawai’i Report by the Attorney General’s Crime Prevention and Justice Assistance Division, 1 ACS 5-Year Estimates: Data table B01001</td>
</tr>
<tr>
<td><strong>Year:</strong> 2016, 2012–2016 (ACS)</td>
</tr>
<tr>
<td><strong>Why it is important:</strong> Violent crimes cause physical, psychological, and economic harm to individuals and neighborhoods, and negatively affect how safe people feel at home and in their communities. Higher rates of violent crimes indicate a lack of socioeconomic opportunity, including barriers to employment and education. In addition, more violent crimes reflect ineffective public safety strategies and crime prevention.</td>
</tr>
<tr>
<td><strong>Note:</strong> The crime incidents data for the state and the counties were obtained from the Crime in Hawai’i Report by the Attorney General’s Crime Prevention and Justice Assistance Division. The crime incidents for the communities in Honolulu, Maui and Kaua’i were obtained from the respective county’s police department.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indicator: Property crime incident rate (per 1,000 residents)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition:</strong> Number of Property crime incidents, i.e., arson, burglary, larceny-theft, and motor vehicle theft</td>
</tr>
<tr>
<td><strong>Rate:</strong> Number of property crime incidents per 1,000 residents</td>
</tr>
<tr>
<td><strong>Denominator:</strong> Total population</td>
</tr>
<tr>
<td><strong>Data source:</strong> Honolulu Police Department’s Annual Report, special request data from Kaua’i and Maui Police Departments, Crime in Hawai’i Report by the Attorney General’s Crime Prevention and Justice Assistance Division, 1 ACS 5-Year Estimates: Data table B01001</td>
</tr>
<tr>
<td><strong>Year:</strong> 2016, 2012–2016 (ACS)</td>
</tr>
<tr>
<td><strong>Why it is important:</strong> Property crimes lead to feelings of insecurity and violation. Higher rates of property crime reflect social and economic stress within a community, which can damage perceptions about communities and lower property values. A lower property crime rate leads citizens to feel safer and also attracts business and development to communities.</td>
</tr>
<tr>
<td><strong>Note:</strong> The crime incidents data for the state and the counties were obtained from the Crime in Hawai’i Report by the Attorney General’s Crime Prevention and Justice Assistance Division. The crime incidents for the communities in Honolulu, Maui and Kaua’i were obtained from the respective county’s police department.</td>
</tr>
</tbody>
</table>
### Indicator: Off-premise alcohol outlet (per 1,000 residents aged 21+)

<table>
<thead>
<tr>
<th>Definition</th>
<th>Number of off-premise alcohol outlets per 1,000 residents aged 21 and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate</td>
<td>Number of off-premise alcohol outlets per 1,000 residents aged 21 and over</td>
</tr>
<tr>
<td>Denominator</td>
<td>Population 21 years and over</td>
</tr>
<tr>
<td>Data source</td>
<td>Honolulu Liquor Commission, Departments of Liquor Control: Hawai‘i, Kaua‘i and Maui, ACS 5-Year Estimates: Data table B01001</td>
</tr>
<tr>
<td>Year</td>
<td>2012–2016</td>
</tr>
</tbody>
</table>

#### Why it is important:
The density of off-premise alcohol outlets such as convenience and liquor stores affects the well-being of people in the area. Greater availability of alcohol outlets is associated with increased alcohol consumption, alcohol-related suicides, and interpersonal violence.
Mean travel time to work (minutes)

Travel time to work refers to the total number of minutes that it usually took the person to get from home to work each day during the reference week of the survey.

Rate: Mean/average travel time to work in minutes of workers aged 16 and over

Universe: Workers 16 year and over

Data source: ACS 5-Year Estimates: Data table DP03

Year: 2012–2016

Why it is important: Travel time to work impacts personal lives and productivity at work. People may choose longer commutes in exchange for lower housing costs or preferences for residential locations. Longer travel times to work may mean people have less time to spend with their families or volunteering in the community.

Residents who live in the same house 1 year ago

Number of residents who are living in same house in the past year

Rate: Percent of residents who are living in same house in the past year

Universe: Population 1 year and over

Data source: ACS 5-Year Estimates: Data table B07003

Year: 2012–2016

Why it is important: Secure and stable housing is important for individuals and family well-being, and helps to build social capital and community connectedness. However, those with low incomes often face challenges in finding secure and stable housing, especially when financial hardship or the housing market makes housing unaffordable. Frequent moves can impact children’s educational outcomes; however, moving from high poverty to low poverty neighborhoods improves educational outcomes among young children in economically vulnerable families.
# APPENDIX B - DEFINING POPULATION DATA

## DEMOGRAPHICS

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Definition</th>
<th>Data source</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population</td>
<td>Total number of residents</td>
<td>ACS 5-Year Estimates: Data table B01001</td>
<td>2012–2016</td>
</tr>
<tr>
<td>Population by race</td>
<td>Number of residents by race</td>
<td>ACS 5-Year Estimates: Data table B02015, B02016, B02019, B02001</td>
<td>2012–2016</td>
</tr>
<tr>
<td>Population by age</td>
<td>Number of residents by age group</td>
<td>ACS 5-Year Estimates: Data table B01001</td>
<td>2012–2016</td>
</tr>
<tr>
<td>Median age</td>
<td>Median age of residents</td>
<td>ACS 5-Year Estimates: Data table B01002</td>
<td>2012–2016</td>
</tr>
<tr>
<td>Children under age 18</td>
<td>Number of residents under the age of 18</td>
<td>ACS 5-Year Estimates: Data table B01001</td>
<td>2012–2016</td>
</tr>
<tr>
<td>Older adults 65 years and over</td>
<td>Number of residents aged 65 and over</td>
<td>ACS 5-Year Estimates: Data table B01001</td>
<td>2012–2016</td>
</tr>
<tr>
<td>Veterans</td>
<td>Number of veterans in civilian population 18 years and over</td>
<td>ACS 5-Year Estimates: Data table B21001</td>
<td>2012–2016</td>
</tr>
</tbody>
</table>
### HOUSEHOLDS

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Definition</th>
<th>Data source</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total households</td>
<td>Total number of households</td>
<td>ACS 5-Year Estimates: Data table B11016</td>
<td>2012–2016</td>
</tr>
<tr>
<td>Average household size</td>
<td>Average number of people per household</td>
<td>ACS 5-Year Estimates: Data table S1101</td>
<td>2012–2016</td>
</tr>
<tr>
<td>Family households</td>
<td>Total number of family households</td>
<td>ACS 5-Year Estimates: Data table B11016</td>
<td>2012–2016</td>
</tr>
<tr>
<td>Average family size</td>
<td>Average number of people per family</td>
<td>ACS 5-Year Estimates: Data table S1101</td>
<td>2012–2016</td>
</tr>
<tr>
<td>Family households by size</td>
<td>Number of people per family household</td>
<td>ACS 5-Year Estimates: Data table B11016</td>
<td>2012–2016</td>
</tr>
<tr>
<td>Families with own children</td>
<td>Number of families with own children (under age 18)</td>
<td>ACS 5-Year Estimates: Data table B11003</td>
<td>2012–2016</td>
</tr>
<tr>
<td>Families with related children</td>
<td>Number of families with related children (under age 18)</td>
<td>ACS 5-Year Estimates: Data table B11003</td>
<td>2012–2016</td>
</tr>
</tbody>
</table>
### HOUSING

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Total housing units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition</td>
<td>Number of housing units</td>
</tr>
<tr>
<td>Data source</td>
<td>ACS 5-Year Estimates: Data table B25001</td>
</tr>
<tr>
<td>Year</td>
<td>2012–2016</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Median condo value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition</td>
<td>Median estimated value for condos</td>
</tr>
<tr>
<td>Data source</td>
<td>Zillow Research</td>
</tr>
<tr>
<td>Year</td>
<td>2017</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Median single-family home value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition</td>
<td>Median estimated value for single-family homes</td>
</tr>
<tr>
<td>Data source</td>
<td>Zillow Research</td>
</tr>
<tr>
<td>Year</td>
<td>2017</td>
</tr>
</tbody>
</table>
Calculating MOEs 90% for divided tract (t) when a variance replicate estimates table is available:

\[
\text{Var}_a = \frac{4}{80} \sum_{i=1}^{80} \left( \omega \times (\text{Var}_\text{Rep}_i - X^t) \right)^2 \quad (1a)
\]

\[
\text{MOE}_a = 1.645 \times \sqrt{\text{Var}_a} \quad (1b)
\]

where \( \text{Var}_\text{Rep}_i \) is the \( i^{th} \) replicate estimate for tract \( t \), \( X^t \) is the estimate for the tract \( t \), \( \omega \) – apportionment for the tract \( t \), \( \text{Var}_a \) is the variance for the division the tract \( t \).

Calculating MOEs 90% for divided tract (t) when a variance replicate estimates table is not available:

\[
\text{MOE}_a = \frac{\omega_a}{\omega_b} \times \sqrt{\frac{\text{MOE}_b^2}{1 + \frac{\omega_a}{\omega_b}}} \quad (2)
\]

where \( \text{MOE}_b \) is the MOE for the tract \( t \), \( \omega_a \) and \( \omega_b \) are proportion is used to split tract \( t \).

Reference: