Adults, Families, and Communities

INTRODUCTION

The early decades of the twenty-first century have presented new challenges along with renewed resilience and hope for our Native Hawaiian ʻohana (family). Among today's mākua (adults, parents) are four generations that have guided the lāhui (nation, people) through continuous and tremendous change, reflective of a strong and determined people. Each generation is a product of different realities and brings different life experiences and gifts to our communities.

The "silent generation"—which witnessed Hawaiʻi's transition into a territorial government and then US statehood—was the last generation to live at a time when (Native speakers) were abundant. These mākua, and their children, the baby boomers born between 1946 and 1964, were faced with the marginalization of our Native language and traditional practices (Wilson and Kamanā 2006) as Hawaiʻi became part of a larger American society.

Growing up, many baby boomers were raised in rural areas with strong, extended ʻohana and community networks. A heightened sense of community and desire for social and environmental justice propelled this generation to lead the Hawaiian Renaissance and aloha ʻāina (love for the land) movements in the 1970s, which in turn led to revitalizing and restoring ʻōlelo Hawaiʻi (Hawaiian language), loʻi (irrigated terraces for taro), waʻa (canoes), loko iʻa (fishponds), hula kahiko (traditional hula), and other cultural practices (Laenui 2019). These cultural kahua (foundations) have allowed today's younger generations greater access to ʻike Hawaiʻi (Hawaiian knowledge) and prompted a resurgence in ʻōlelo Hawaiʻi and traditional practices.

Those born after 1964 have been raised in increasingly diverse settings. Major social and technological changes and rapidly shifting networks and influences characterize Generation X (born between 1965 and 1980), Generation Y, a.k.a. millennials (born between 1981 and 1996), and Generation Z (born after 1997). Compared with previous times, today's lifestyles

are more urban, ethnically diverse, gentrified, technologically connected, and "blended," playing out in a globalized social milieu. The transition from Gen X to Y saw the world's first digital natives grow up and enter the workplace, bringing perspectives and tech savvy informed by a lifetime of internet access. Generation Z is often dubbed "social justice warriors," as evidenced by participation in community mobilizations throughout Hawaiʻi today. We also see signs of younger generations leaning on their elder generations for guidance and inspiration (Fujikane 2019)—a critical element to ensure both transmission of knowledge, strengthening of intergenerational pilina (bonds), and necessary support systems in times of change (Saffery 2019). This dynamic must be reinforced as a necessary ingredient for lāhui resiliency in light of persistent and unacceptable issues facing our families.

Though the strong social fabric of Native Hawaiian ʻohana and extended kauhale (community, neighborhood) remains intact, it has been stretched thin by multiple challenges, such as growing wealth divides in one of the world's most expensive places to own a home. Native Hawaiians are experiencing increasing financial and food insecurity, limited access to traditional practices and foods, limited ʻohana time because of the need to work multiple jobs, changing community demographics, and disproportionately high rates of poor health, incarceration, and drug and alcohol abuse. These factors create tensions in informal systems of support for ʻohana and kauhale, such as child-rearing and shared parenting, and contribute to a host of intergenerationally transmitted negative outcomes that have proven difficult to reverse.

Broader demographic trends also affect today's Native Hawaiian families in other ways. For example, compared with previous generations, millennials wait longer to marry and have children later (Kamehameha Schools 2019). Millennials also face increasingly tenuous prospects for homeownership and earnings, with some becoming economic refugees driven to leave Hawaiʻi in search of a better economic future on the US continent.

Given recent trends, it is not unforeseeable that more than half of the Native Hawaiian population may be living outside Hawaiʻi by 2030. The effect of out-migration on our Native Hawaiian ʻohana has created a diaspora of families and communities living in distant places separated from each other and our ʻāina (Vaughn 2019). By better understanding the strengths and challenges presented in the following sections, we can help Native Hawaiian mākua—both in present and future generations—to achieve greater well-being, allowing us to thrive as Kānaka Maoli (Native, Indigenous people) in our homeland and beyond.

Any discussion of the well-being of adults, families, and communities in Hawaiʻi must take into account the historical trauma and dispossession of Native Hawaiians that manifests in a range of negative socioeconomic, cognitive, and emotional outcomes. For example, although the traditional diet and working lifestyle of Native Hawaiians are known to be healthy by most standards, the negative health indicators among contemporary Native Hawaiians, as a whole, can be traced to the severance of traditional practices for much of our population. This manifests in ongoing health inequities by income and educational attainment, where those with less money and education have fewer resources to support

healthy lifestyles. At the time of this writing, the COVID-19 pandemic appears to be disproportionately affecting Native peoples and people of color, potentially amplifying the inequities that are already present. Recent data also show that increases in life expectancy have plateaued among Native Hawaiians, unlike other ethnic groups in Hawai'i who tend to live longer lives.

Still, we are seeing bright spots and progress among Native Hawaiians. For example, in higher education, more Kānaka Maoli are in positions of greater influence at the University of Hawai'i than in previous times. Our findings show that the proportion of tenured faculty who are Native Hawaiian has increased from 6 to 10 percent in recent years. As of 2020, two of ten chancellors in the public university system are Native Hawaiian, as are three of the twelve members of the UH board of regents. Recent years have also seen the UH system prioritizing being a leader in Hawaiian and Indigenous education.[1] Perhaps as a result, we find enrollment among Native Hawaiians in the UH system increased by 6 percentage points between 2008 and 2019. This mirrors trends in overall Native Hawaiian college enrollment (not exclusive to the UH system), contrasting with the national decline in college enrollment since the 2008 recession. Overall college and graduate degree attainment among Native Hawaiians—while still lower than that of most other ethnicities, also increased between 2008 and 2017.

Educational attainment, in this context, is closely connected to income, which in turn can impact financial stability and a person's ability to live comfortably and provide for their ʻohana. Together with changes needed to shift social and institutional structures to be reflective and supportive of Native Hawaiians, further progress to address the continuum between education and career pathways is important to achieve equitable representation and overall socioeconomic stability of Native Hawaiians relative to the total population in Hawai'i.

In a broader context, Hawaiian culture-based education—including strengthened ʻōlelo Hawai'i—is gaining momentum in both public and private school systems. Initiatives based on Hawaiian values, language, culture, and history, such as Nā Hopena Aʻo (HĀ), are being prioritized in the Hawai'i Department of Education (DOE) and augmented by community-based organizations and strategic partners such as Kamehameha Schools. The development of tools to gauge the efficacy of Hawaiian culture-based education, and innovations in culturally relevant assessment, are being led by Hawaiian-focused charter schools and are gaining traction nationally.[2]

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[1] One example of structural changes at the University of Hawai'i is the creation of Hawai'i Papa o ke Ao, which has direct implications for teaching, learning, and assessment. This kind of institutional commitment may reveal inherent tensions within a system that perpetuates traditional Western models of higher education while at the same time educating system-changers and empowering disruptors, especially with regard to Native Hawaiian and Indigenous models of learning.

[2] For more on culturally relevant assessments and innovations, see this Education Week blog.

Civic engagement—which is also an important educational outcome—is another area gathering energy among Native Hawaiians. Ongoing efforts to protect wahi pana (culturally significant sites) and to strengthen community resources such as Mauna Kea, Nā Wai ʻEhā, Lāʻau Point, and others, are mobilizing multiple generations, islands, and communities. As media sources have pointed out, this groundswell in activism has increased Native Hawaiian political presence (Lovell 2020). Indeed, experiences with disasters like hurricanes and pandemics sometimes create new ways to work together. For example, as the COVID-19 pandemic exposed the fragility of our food supply, many local farmers and fishers reconnected with the community and found a foothold in community-supported agriculture (CSA) boxes and straight-to-consumer fish.

Leadership conversations and planning around sustainability, climate change, and conservation have become more urgent and have resulted in greater environmental/cultural regulation and protection in Hawaiʻi. A more sustained Indigenous voice, especially from younger generations, is influencing multiple segments of society, including how ʻāina is (and is not) developed. There are also efforts to account for "blended returns" on ʻāina as a way to generate social impact without subjugating Indigenous values and priorities to a financial bottom line. For example, Kamehameha Schools' management of Kawailoa Ahupuaʻa counts natural/cultural resources and educational assets in addition to its more standard measure of income assets. In the broader community, the onset of COVID-19 has brought heightened awareness of the role of ʻāina in collective well-being. This connection is articulated in the *ʻĀina Aloha Economic Futures Declaration* which, at the time of this writing, has gained momentum toward envisioning a stronger, more sustainable Hawaiʻi. ʻĀina-based education continues to expand, as evidenced by a growing number of learning and innovation centers rooted in loko iʻa (subsistence fishing), loʻi kalo (taro patch), māla ʻai (food garden), and native ecosystem restoration. In addition to locally based initiatives, we celebrate the global reach of Native Hawaiian expeditions such as the Mālama Honua Worldwide Voyage that took place from 2013 to 2017.

Such trends invite pressing questions: What does strong material and economic well-being look like for our lāhui in the twenty-first century? Where—and how—does Hawaiian self-sufficiency fit in this economic reality? Answers to these questions revolve around the concept of choice. Strong economic well-being means Native Hawaiians are able to choose a life path and attain a desired lifestyle and livelihood. Strong material well-being for Native Hawaiians means housing options that are part of supportive community and ʻāina systems and fulfilling jobs within an economic landscape supportive of and led by Native Hawaiians. It means a sustainable Hawaiʻi, as manifested via mālama ʻāina (caring for the land) and aloha ʻāina values, including water, food, waste, and energy. For Native Hawaiians, strong economic well-being means that our youngest and oldest are cared for, and that our people can persist through adversity, including global threats such as the COVID-19 pandemic. It means an abundance of and access to native flora and fauna as part of a Hawaiian landscape of medicine, food, fiber, and other natural and cultural resources.

A rich backdrop of Native Hawaiian intellectual achievement provides a template for sustaining natural resources from generation to generation (Blaisdell 1993b; Kanahele 1986). Traditional practices and trades such as engineering, aquaculture, agriculture, horticulture, ocean navigation, water systems, and art represent a sophistication unmatched in Polynesia, and in some cases, the world (Abbot 1992; Finney 1992).

It follows that a key element of a strong Native Hawaiian economy is thriving ʻāina. Healthy and sustainable ʻāina and kai (oceans) are essential in providing food, water, recreation, cultural practices, and a healthy ecosystem. Traditionally, Hawaiʻi's land and ocean resources provided for all the needs of Native Hawaiian society. However, a dramatic shift in land use and stewardship practices over the past two hundred years has made Hawaiʻi heavily dependent on external resources. In addition, more than a century of plantation agriculture, cattle, disease (avian and plant), invasive species, and unregulated harvesting has led to serious degradation of land and water resources, including native flora and fauna. This deterioration threatens our relationship with and dependence on the ʻāina and kai—which, for Native Hawaiians, are considered "extended ʻohana"—and impedes our islands' ability to thrive into the future.

From a contemporary economic perspective, a degraded ʻāina hurts key industries like sustainable tourism, agriculture, renewable energy and aquaculture, and jeopardizes our ability to weather current economic and environmental crises. Given the immense challenges of climate change and sea level rise, paired with the socioeconomic aftermath of COVID-19 (Hawaiʻi Island Native Hawaiian Chamber of Commerce et al. 2020), ensuring resilient and healthy ʻāina is an increasingly critical concern.

These issues have prompted interventions and progress in the areas of renewable energy, ʻāina-based engagement for learners and community, and local food security. For example, the Aloha+ Challenge, a multisector voluntary partnership that was launched in 2014 by Hawaiʻi Green Growth, represents a statewide commitment to achieve six interconnected sustainability targets by 2030: increase clean energy, increase local food production, improve natural resource management, reduce waste, establish smart and sustainable communities, and increase local green jobs and education. Each metric is tracked and displayed in an online dashboard and marks an important step forward in our collective efforts to ensure and sustain healthy ʻāina.

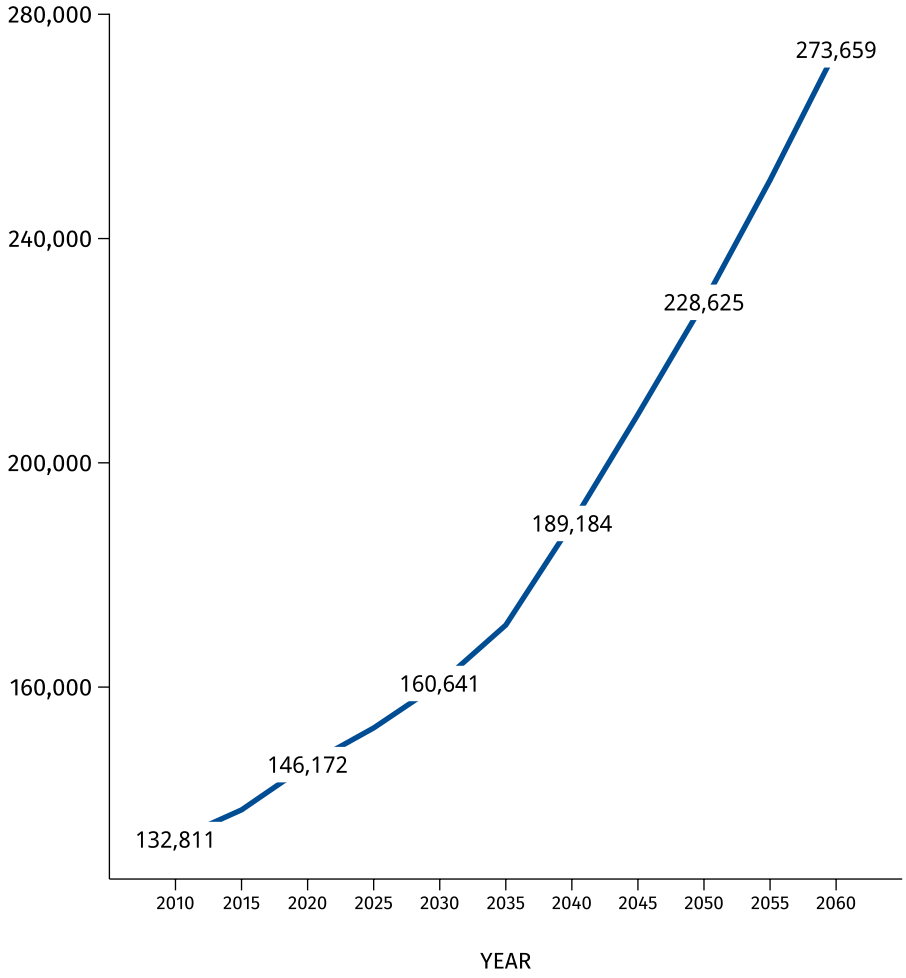
The well-being of Native Hawaiian adults, families, and communities is multifaceted and rich. It can and should be examined from many different angles, over multiple generations and contexts. We begin with population characteristics and estimates to establish baseline information about the growing population of Native Hawaiians. We then discuss the social, economic, physical, spiritual/emotional, and educational well-being of Native Hawaiian adults, families, and communities. This context sets the stage for understanding the well-being of young keiki and school-age children in subsequent chapters. Although the data we present here do not fully capture the richness of our community, these sources provide important clues in our collective quest to be informed and innovative on our journey to becoming a thriving lāhui.

POPULATION—ADULTS, FAMILIES, AND COMMUNITIES

Over time, the Native Hawaiian population has demonstrated strength and resilience. Despite the loss of the vast majority of Native Hawaiians in the eighteenth and nineteenth centuries mainly due to foreign disease, the total number of Native Hawaiians is on the rise, both in Hawaiʻi and on the US continent. With a growing population that has expanding influence, Native Hawaiians are poised to pursue collective identity and self-determination in Ka Pae ʻĀina Hawaiʻi (the Hawaiian Islands) and among other Indigenous peoples (Vaughn 2019).

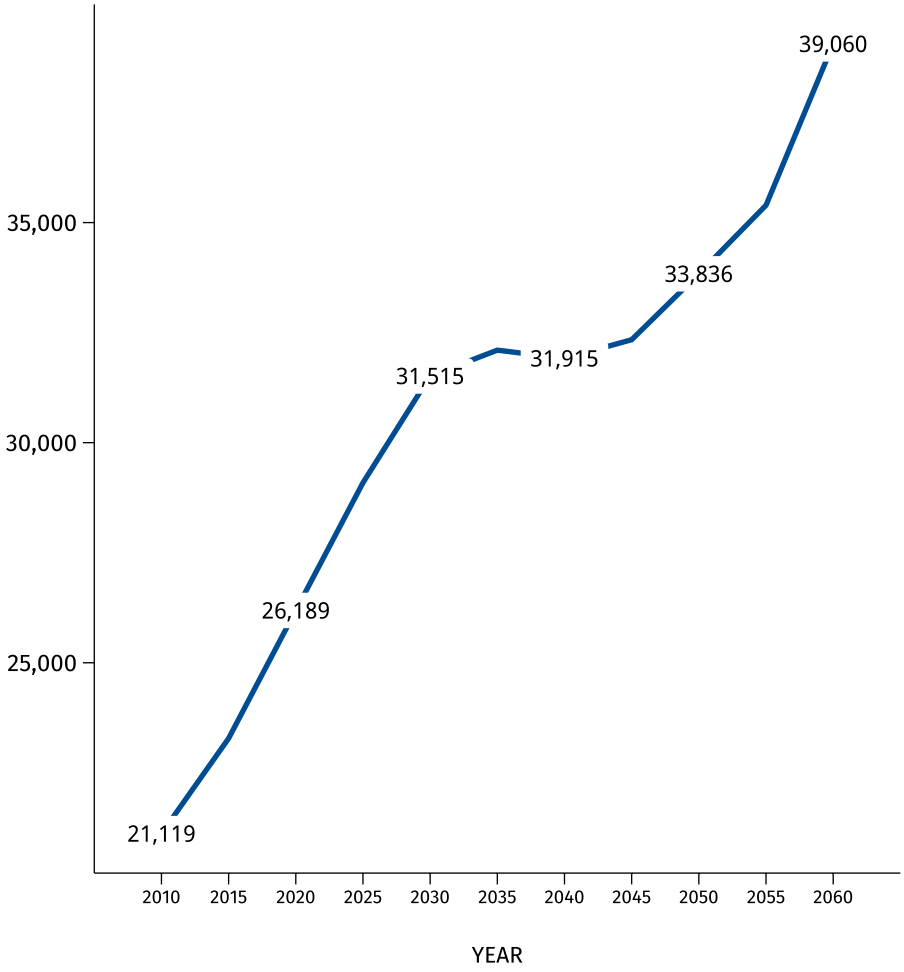
Looking within subgroups of the adult population, we expect steady growth over time among the working-age population (fig. 1.1). For the population of retirement-age kūpuna (grandparents, elders), short-term growth is expected over the next decade, followed by a plateau from 2030 to 2045 and sustained increases thereafter, reaching nearly forty thousand by 2060 (fig. 1.2). These projections are based on the most recent available census data from 2010 and may vary with more recent estimates based on population samples. Forthcoming Census 2020 data will provide actual population counts and be available to calculate updated population projections.

FIGURE 1.1 Projected number of working-age Native Hawaiian adults in Hawai'i
[Native Hawaiian adults ages 25–64, 2010 to 2060]



Data source: Hong 2012

FIGURE 1.2 Projected number of retirement-age Native Hawaiian adults in Hawaiʻi
[Native Hawaiian adults ages 65 years and older, 2010 to 2060]



Data source: Hong 2012

Who leaves and who stays in Ka Pae ʻĀina Hawaiʻi? Using American Community Survey data from the US Census, we find that more people are staying in Hawaiʻi, rather than leaving, and that the gap is narrowing over time (Kekahio, Kanaʻiaupuni, and Hong, forthcoming).[3] Non-Hispanic Whites make up the largest volume of migration coming to Hawaiʻi, comprising more than half of in-migrants, whereas Native Hawaiians are relatively less likely to return home when they leave, leading to a radical transformation of Hawaiʻi's ethnic composition. In recent times, Native Hawaiians are the only major ethnicity in Hawaiʻi with consistent negative net migration, meaning that there are more Native Hawaiians leaving than entering Hawaiʻi. On the whole, nearly two thousand Native Hawaiians leave Hawaiʻi each year. Even when subtracting the number of those leaving for military and college, the annual out-migration of Native Hawaiians is about one thousand each year (Kekahio, Kanaʻiaupuni, and Hong, forthcoming).

These trends in migration highlight a long-standing challenge, as increased numbers of Kānaka Maoli living away from the homeland can result in disconnection from ʻāina and ʻohana—two key anchors of Native Hawaiian well-being. In addition, at the time of this writing, economic predictions suggest that thirty thousand residents, including Native Hawaiians, may leave Hawaiʻi by 2022 due to the recession caused by COVID-19 (Finnerty 2020). Despite these patterns and predictions, new norms brought about by COVID-19 are demonstrating that digital platforms and creative approaches (e.g., virtual concerts, cultural activities, learning opportunities) can increase connectivity across islands and oceans, and anecdotal evidence suggests a desire to sustain this momentum. Recent scholarship also revisits the idea of disconnection, arguing that Indigenous identity and kuleana (privilege, responsibility) remain strong and connected, no matter where Native Hawaiians live (Vaughn 2019).

[3] This migration pattern has been consistent from 2005 to 2017. Our calculations combine data into three successive five-year intervals to increase the reliability of estimates. This method allows separate analyses for migration of smaller ethnic groups or regions. Migrants who left for domestic locations are included in our calculations; however, those who left for international locations are not. See the Introduction to this volume for more information.

SOCIAL WELL-BEING

Social well-being indicators—the nature of relationships within ʻohana, communities, and the larger society—tell us much about how the lāhui is doing. The social and cultural connections that tie Native Hawaiians to one another form a network of emotional and practical support that sustains individuals in their life goals, educational and otherwise.

Social well-being begins at home. ʻOhana, in Native Hawaiian scholarship, is "an inclusive Hawaiian concept of family that emphasizes mutual respect for all individuals making up the extended family and kinship network" (Young 2019, 16–17). The strength and cohesion of the family are the cornerstones of a healthy, resilient, and abundant community.

Research shows that the quality of family relationships and the stability of families have significant effects on the development and educational outcomes of children (Craigie, Brooks-Gunn, and Waldfogel 2012; Lee and McLanahan 2015). Data presented in this section and in later chapters show that conditions such as single-parent households, unemployment, financial insecurity, incarceration, and chronic illness are more prevalent within the Native Hawaiian community than they are among other major ethnicities in Hawaiʻi. Taken together, the weight and breadth of these stressors can breed frustration, anxiety, and poor mental health outcomes that accompany disproportionately high rates of domestic abuse, substance abuse, arrest, and incarceration among Native Hawaiians (Office of Hawaiian Affairs et al. 2010). As is true for many Indigenous peoples, these conditions are rooted in the persistent effects of historical trauma and oppression. As a result, many of the existing well-being measures indicate that Native Hawaiians disproportionately experience social and economic hardships.

Despite these hardships, Native Hawaiians display remarkable resilience and continue to draw on traditional cultural values and the influence of kūpuna to strengthen the social systems that serve as a primary source of support, not only for families but also for communities. Social connections across a community are one of several key protective factors[4] that offer a buffer and increase kōkua (help, assistance) through strong relationships and collective efficacy. Contemporary examples of collective efficacy include the Kū Kiaʻi Mauna Kea movement and the Mālama Honua Worldwide Voyage. These social markers, along with the COVID-19-inspired call to action captured in the *ʻĀina Aloha Economic Futures Declaration*, illustrate how collective ideals and community mobilization can lead Hawaiʻi toward a future rooted in mālama ʻāina, social equity, and justice.

[4] Other protective factors include parental resilience, knowledge of parenting and child development, concrete supports for parents, and social and emotional competence of children (Center for the Study of Social Policy, n.d.).

Thus, for Native Hawaiian adults, families, and communities, cultural traditions—including our values, language, and rich history—continue to serve as buffers and wellsprings of well-being. In the following discussion of social well-being, we begin with an analysis of family characteristics. We then review strengths and challenges facing Native Hawaiians, both at the family and community level.

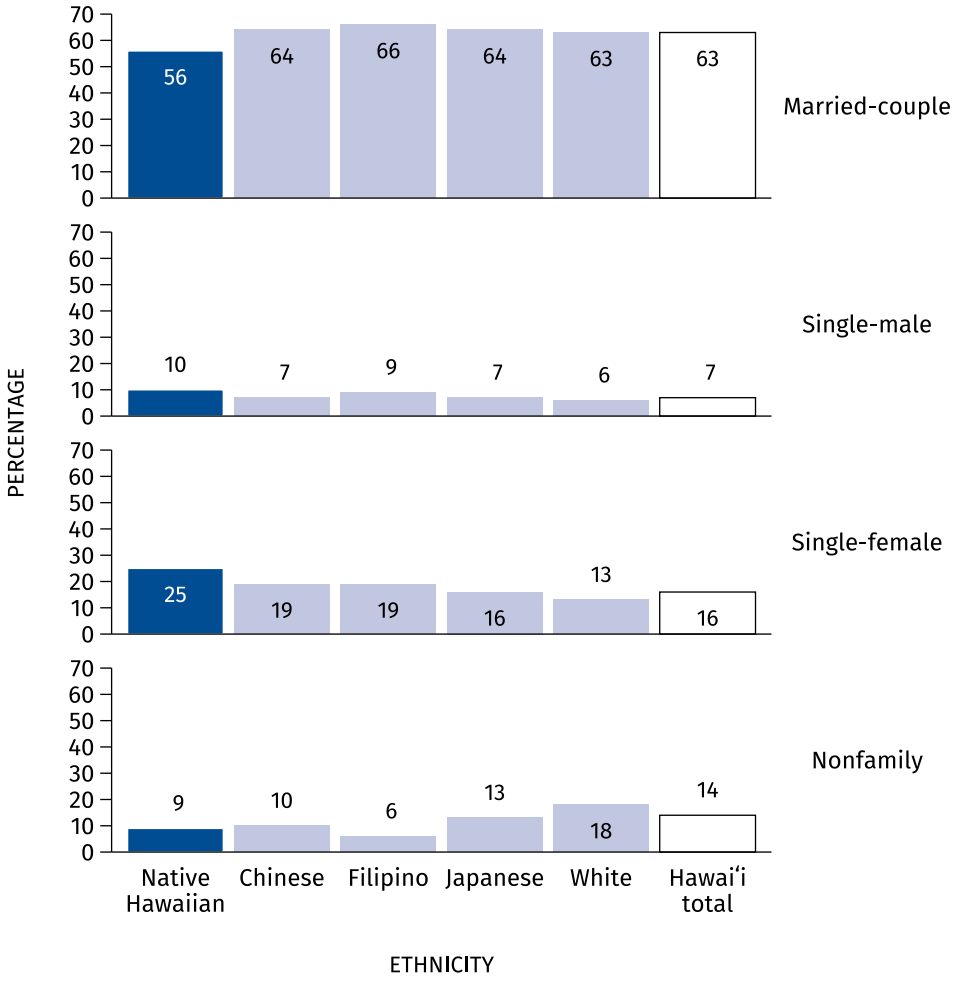
Family Structure

Strong and healthy families provide positive support, wisdom, and a sense of unity and belonging. Here we examine available data on the structure of Native Hawaiian families, first among individuals, then from the perspective of the head of a household. We then discuss the size and density of households based on coresidency and the number of occupants per room.

In this publication, a family (or family unit) refers to two or more individuals living together related by birth, marriage, or adoption. A nonfamily refers to a person who either lives alone or shares a home with people to whom they are not related by marriage, birth, or adoption. For more information, see "Methods, Data Sources, and Definitions" at the end of this volume.

Among adults in Hawai'i, Native Hawaiians are the second-most likely to live in either in a married-couple, single-male, or single-female family (fig. 1.3). Figure 1.4 shows that these rates have remained stable over the past decade.

FIGURE 1.3 Family types of individuals
[as a percentage of individuals, by ethnicity, Hawaiʻi, 2017]



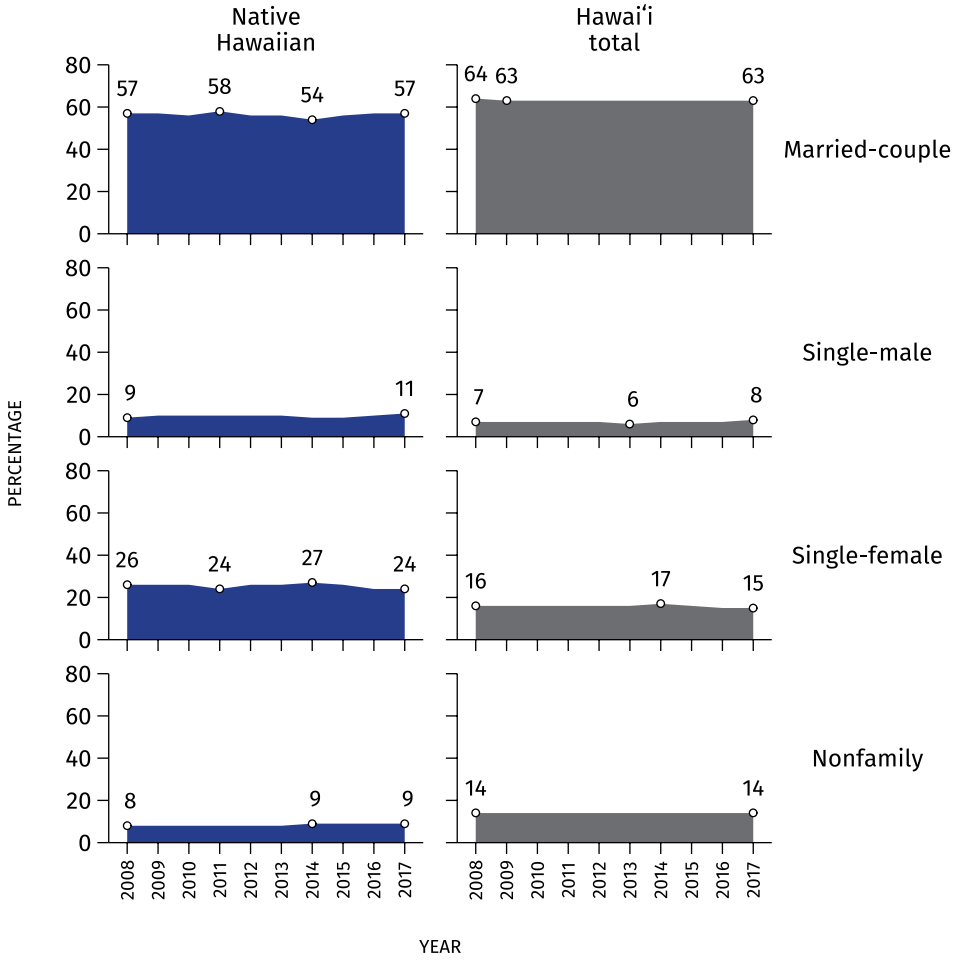
Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 5-year file

Note 1: Nonfamily refers to a person who either lives alone or shares a home with people to whom they are not related by marriage, birth, or adoption.

Note 2: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

- Among the major ethnicities in Hawaiʻi, Native Hawaiians are the second-most likely to live within a family—91 percent live in married-couple, single-male, or single-female families.
- Out of all Native Hawaiians who do not live in a nonfamily, more than one-third (38 percent) live in single-parent families (not shown).
- Of Hawaiʻi's major ethnicities, Whites are the least likely to live in a family, with 18 percent living in nonfamilies.

FIGURE 1.4 Trends in family types of individuals
[as a percentage of individuals, by Native Hawaiian and Hawai'i total, 2008 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

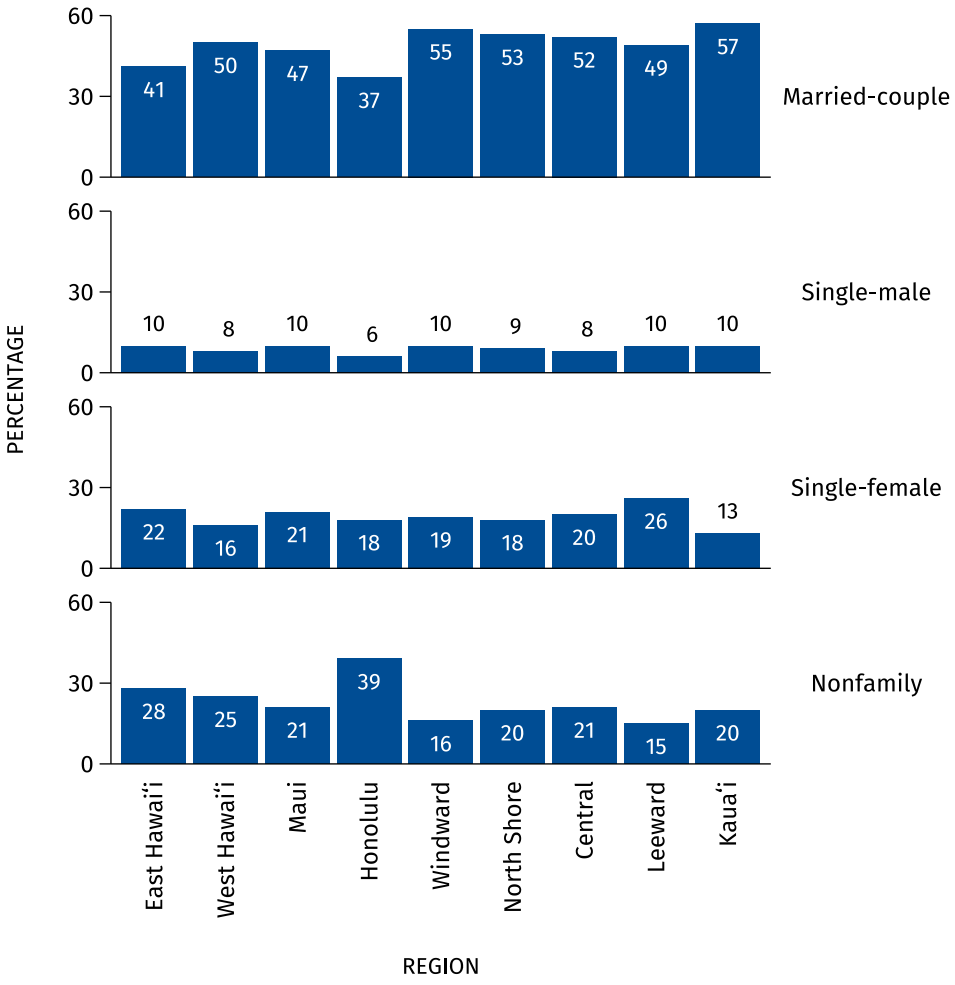
Note 1: Nonfamily refers to a person who either lives alone or shares a home with people to whom they are not related by marriage, birth, or adoption.

Note 2: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- From 2008 to 2017, there has been relative stability in the percentages of Native Hawaiian individuals living in nonfamily, married-couple, single-female, and single-male families.

We now turn to an analysis of households based on the ethnicity of the head of the household. Figure 1.5 provides a distribution of Native Hawaiian household types by region. Across all regions except for Kaua'i, there was a decrease in the percentage of Native Hawaiian married-couple households between 2000 and 2015 (fig. 1.6).

FIGURE 1.5 Regional distribution of household types among Native Hawaiian households
[as a percentage of households headed by a Native Hawaiian, by region, Hawaiʻi, 2015]

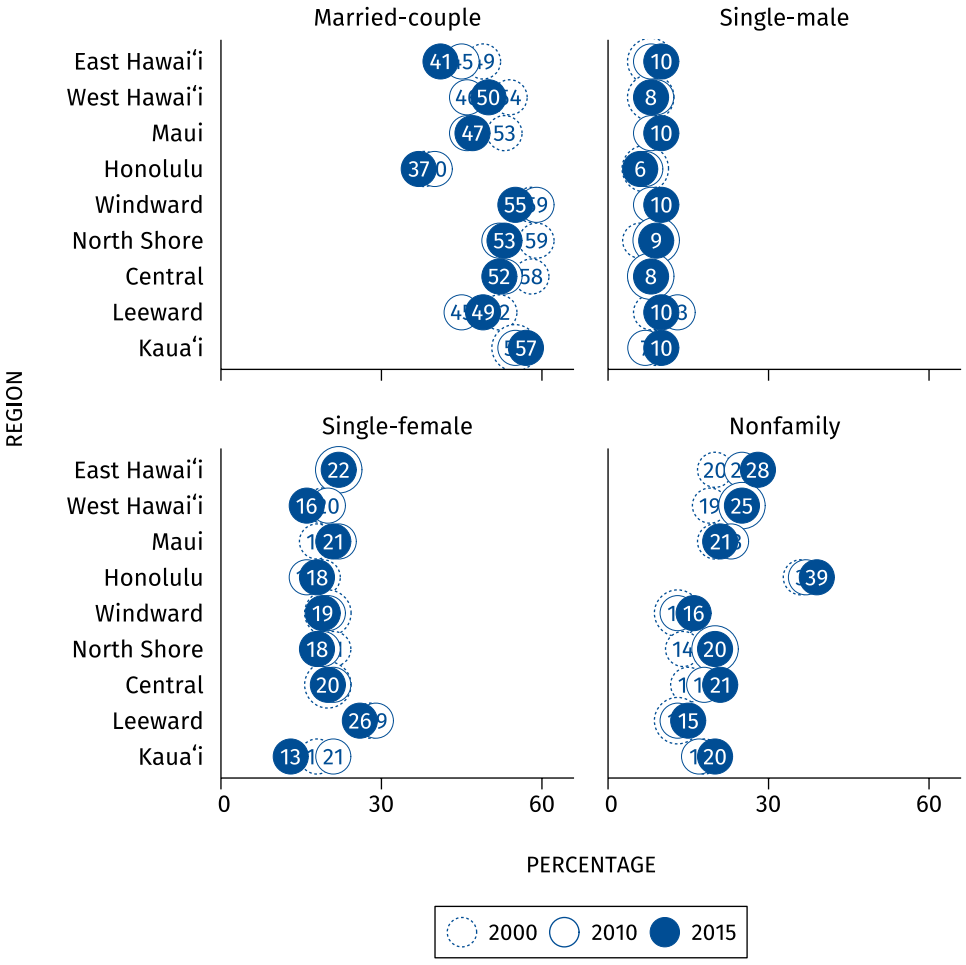


Data source: US Census Bureau, American Community Survey, Selected Population Tables

Note 1: Nonfamily refers to a person who either lives alone or shares a home with people to whom they are not related by marriage, birth, or adoption.

- Comparing regions, Leeward has the highest combined percentage (85 percent) of married-couple, single-male, and single-female households headed by a Native Hawaiian, followed by Windward (84 percent).
- Looking across regions, Leeward has the highest proportion of single-female households (26 percent) and the highest combined percentage of single-female and single-male households (36 percent).
- Among households headed by a Native Hawaiian, the highest percentage of nonfamily households is in the Honolulu region (39 percent).

FIGURE 1.6 Trends in the regional distribution of household types among Native Hawaiian households
[as a percentage of households headed by a Native Hawaiian, by region, Hawai'i; 2000, 2010, and 2015]



Data source: US Census Bureau, 2011–15 American Community Survey, Selected Population Tables; US Census Bureau, 2006–10 American Community Survey, Selected Population Tables; Census 2000, Summary File 4

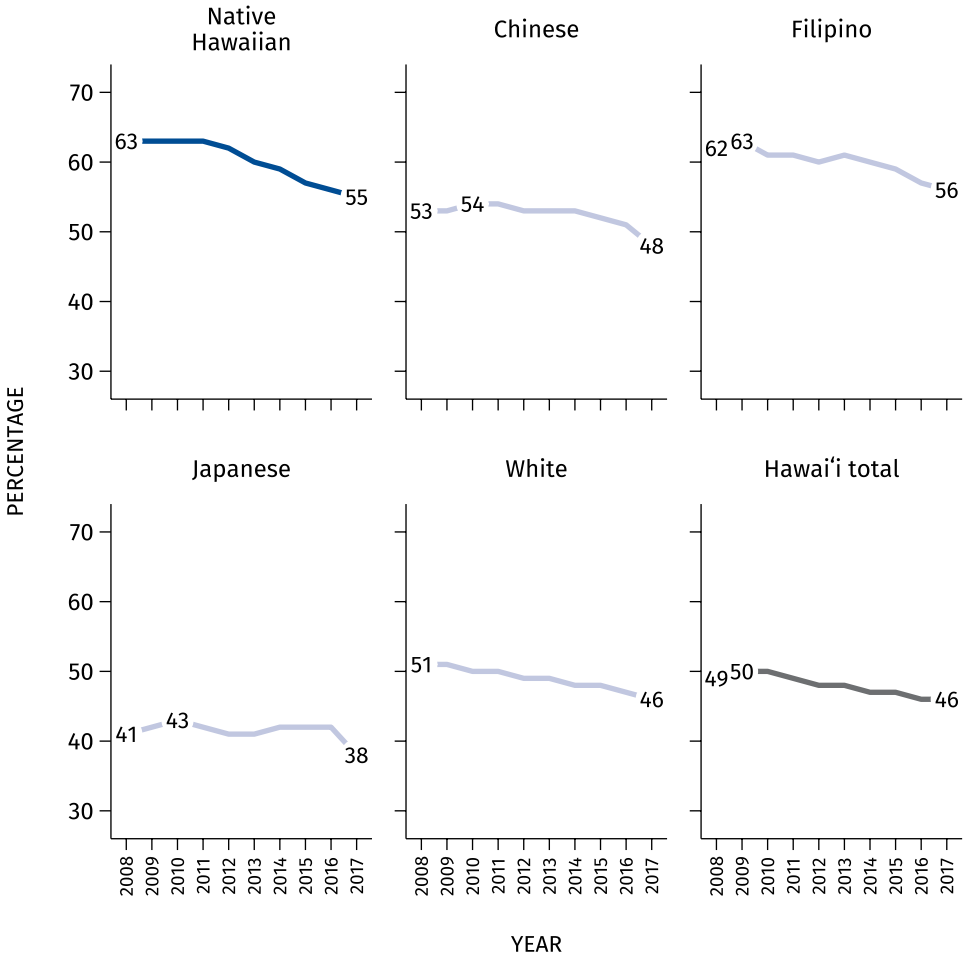
Note 1: Nonfamily refers to a person who either lives alone or shares a home with people to whom they are not related by marriage, birth, or adoption.

Note 2: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

- Among households headed by a Native Hawaiian, all regions except Kaua'i had a decrease in the percentage of married-couple households between 2000 and 2015.
- From 2000 to 2015, the proportion of single-female households headed by a Native Hawaiian decreased or remained the same in all regions except Maui.
- The percentage of nonfamily households headed by a Native Hawaiian increased across all regions between 2000 and 2015.
- Between 2000 and 2015, the proportion of single-male households headed by a Native Hawaiian increased or remained the same in all regions except Honolulu.

Looking at the prevalence of families that have children ages seventeen and younger, we see a downward trend in Hawaiʻi and among Native Hawaiian family households in particular. From 2008 to 2017, Native Hawaiian family households had the largest decrease in the percentage of family households with children, compared with Hawaiʻi's other major ethnicities (fig. 1.7). The same pattern is seen among Native Hawaiian family households with keiki ages four and younger (see fig. 2.3).

FIGURE 1.7 Trends in family households with children
[as a percentage of family households, by family household ethnicity, Hawaiʻi, 2008 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

Note 1: A family household consists of a family and may also include people not related to the householder.

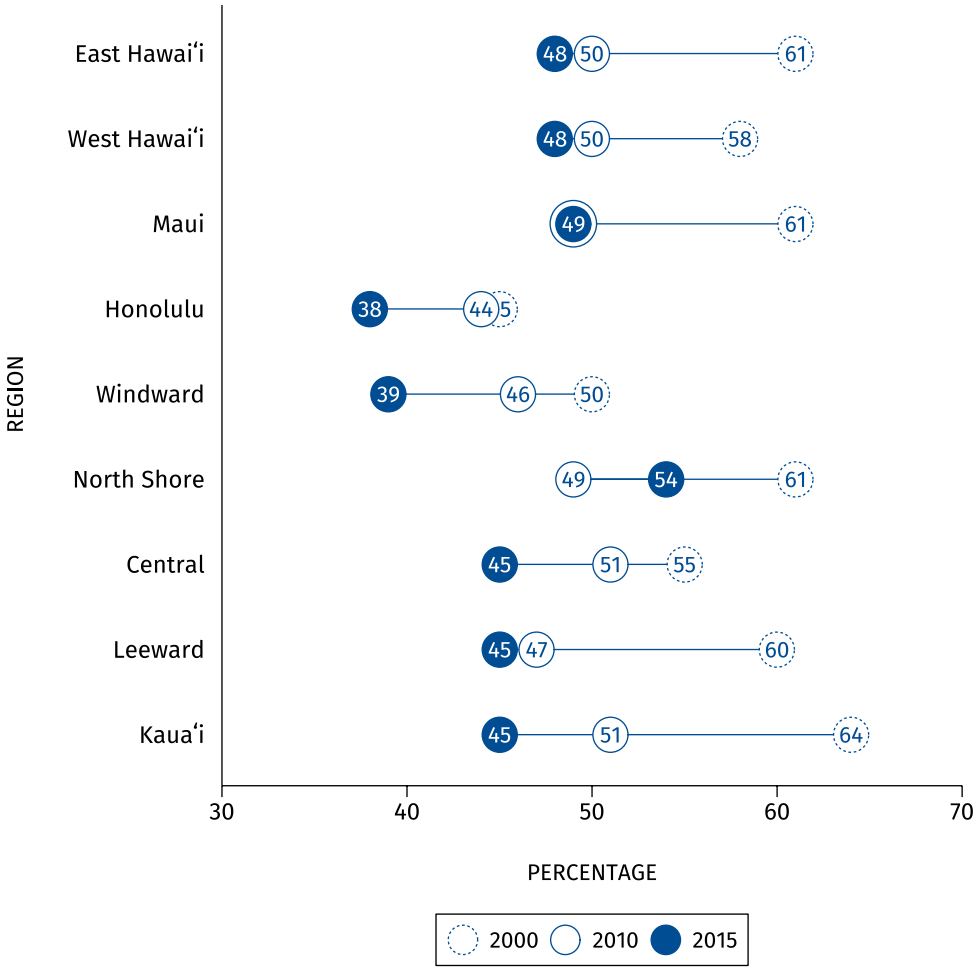
Note 2: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

Note 3: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- Comparing households across Hawai‘i, Native Hawaiians had the greatest decrease in the percentage of family households with children, declining from 63 to 55 percent between 2008 and 2017.
- From 2008 to 2017, the percentage of family households with children decreased significantly among all major ethnicities in Hawai‘i.

A regional perspective affirms that across all regions from 2000 to 2015, there has been a decline in the prevalence of Native Hawaiian-headed family households with children, with the greatest decreases in Kaua‘i and Leeward (fig. 1.8). In general, there is a clear trend showing that Native Hawaiian family households in 2000 were more likely than today's households to have children.

FIGURE 1.8 Trends in Native Hawaiian-headed family households with children—regional comparison
[as a percentage of family households headed by a Native Hawaiian, by region, Hawaiʻi; 2000, 2010, 2015]



Data source: US Census Bureau, 2011–2015 American Community Survey, Selected Population Tables; US Census Bureau, 2006–2010 American Community Survey, Selected Population Tables; Census 2000, Summary File 4

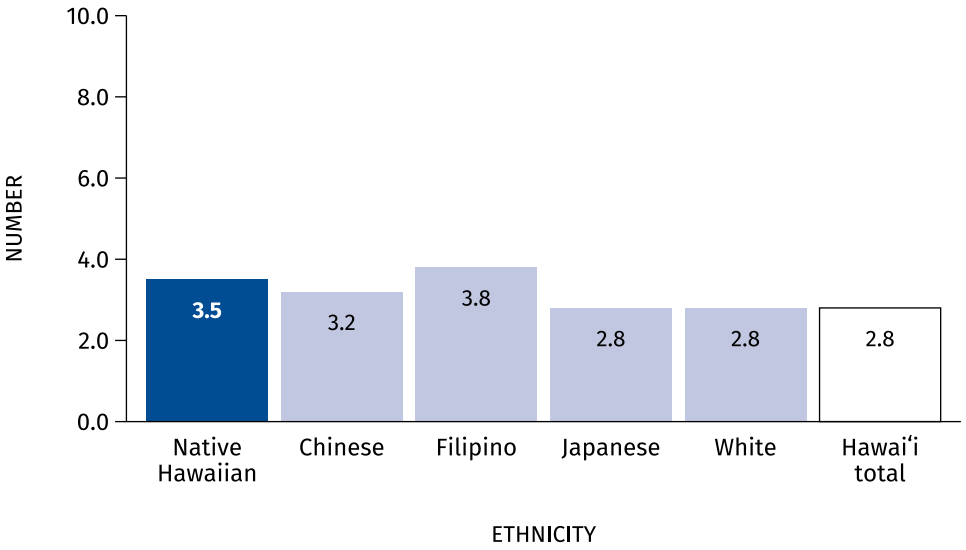
Note 1: A family household consists of a family and may also include people not related to the householder.

- The percentage of Native Hawaiian-headed family households with children decreased in all regions from 2000 to 2015.
- From 2000 to 2015, the regions with the largest decreases in the percentage of Native Hawaiian-headed family households with children were Kauaʻi (19 percentage points) and Leeward (16 percentage points).

HOUSEHOLD DENSITY

The number of people in a household influences the availability of resources and is also related to educational outcomes. For example, children growing up in crowded households have lower high school graduation rates and overall educational completion (Lopoo and London 2016). Native Hawaiian households tend to be slightly larger than most households in Hawai‘i (fig. 1.9), a characteristic that has persisted since 2000 (not shown).

FIGURE 1.9 Average number of persons per household
[by ethnicity, Hawai‘i, 2017]



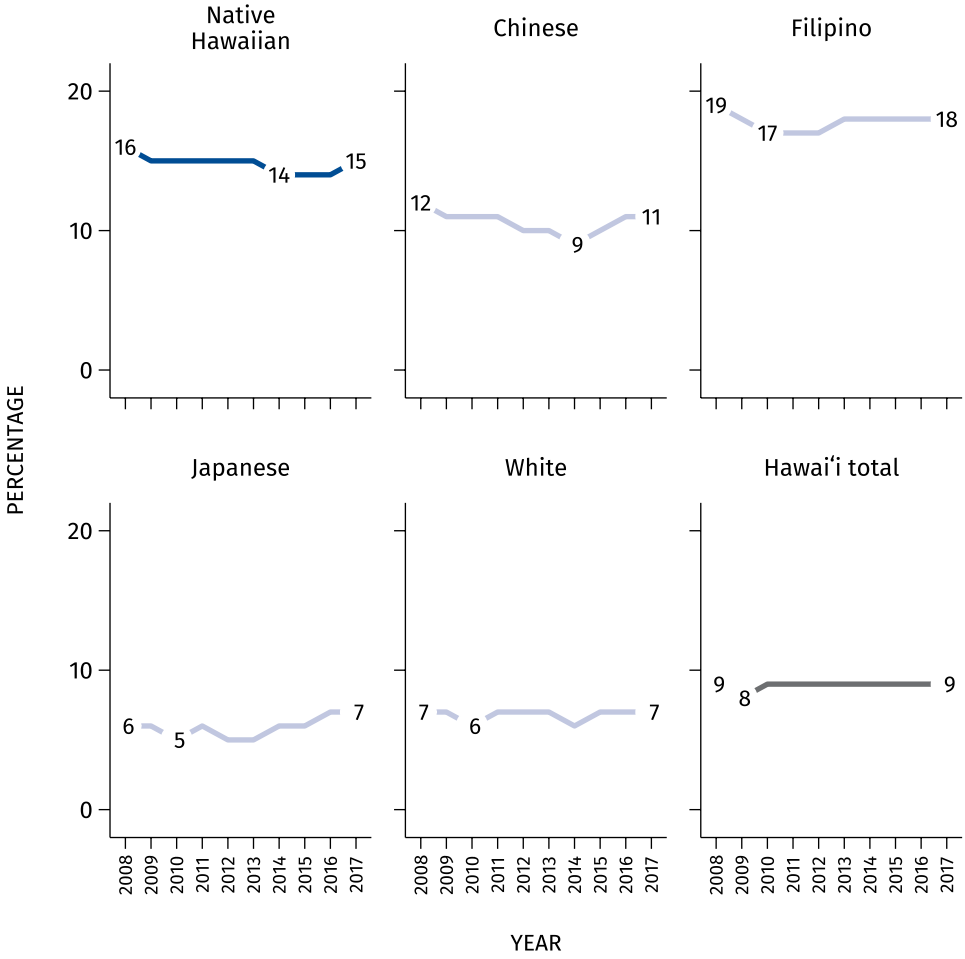
Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 5-year file

Note 1: The designation “White” in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

- Comparing Hawai‘i’s major ethnicities, Native Hawaiians have the second-largest average household size (3.5 people per household).
- Filipinos have the largest average household size in Hawai‘i (3.8 people per household).

As of 2017, nearly one in seven Native Hawaiian households (15 percent) have more than one occupant per room. Trend data indicate that the percentage of crowded Native Hawaiian households remained relatively consistent from 2008 to 2017 (fig. 1.10). This crowding, which is common among low-income families and concentrated among younger people, often results from the lack of affordable housing and can disguise the effects of “hidden homelessness,” or couch surfers. Research on the impact of household crowding on educational outcomes shows that children who live in a crowded household before reaching age nineteen are comparatively less likely to graduate from high school and have relatively lower educational attainment at age twenty-five (Lopoo and London 2016).

FIGURE 1.10 Trends in households with more than one occupant per room
[as a percentage of households, by household ethnicity, Hawaiʻi, 2008 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

Note 1: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

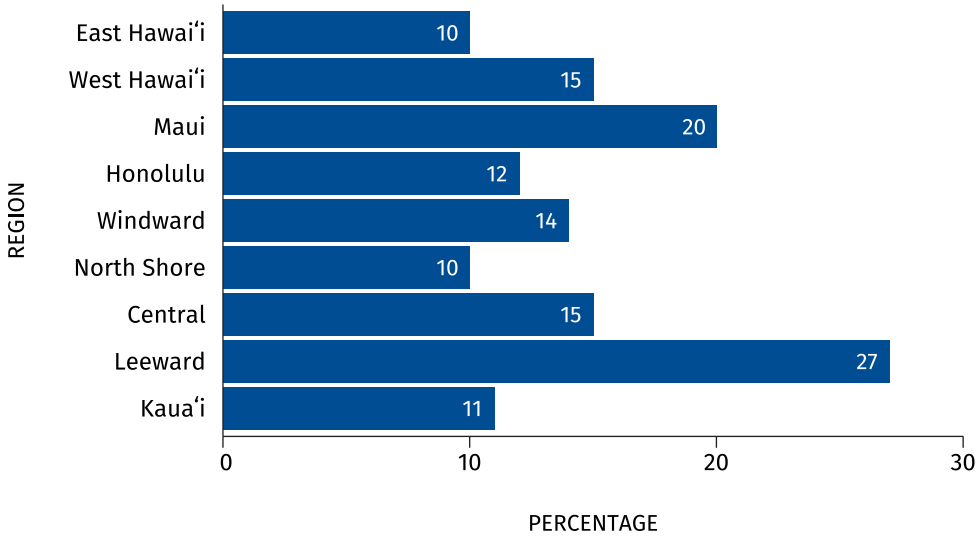
Note 2: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- From 2008 to 2017, the percentage of Native Hawaiian households with more than one occupant per room did not change significantly—similar to trends among other major ethnicities in Hawaiʻi.

Household Density—Regional Highlights

Looking more specifically at housing units of Native Hawaiian-headed households across regions, the most crowding occurs in Leeward (27 percent) and Maui (20 percent) (fig. 1.11). Over time and across most regions, household density of Native Hawaiian housing units decreased from 2000 to 2015 (fig. 1.12). Further research is needed to explore what factors caused the change.

FIGURE 1.11 Native Hawaiian housing units with more than one occupant per room—regional comparison
[as a percentage of housing units occupied by Native Hawaiian-headed households, by region, Hawai'i, 2015]

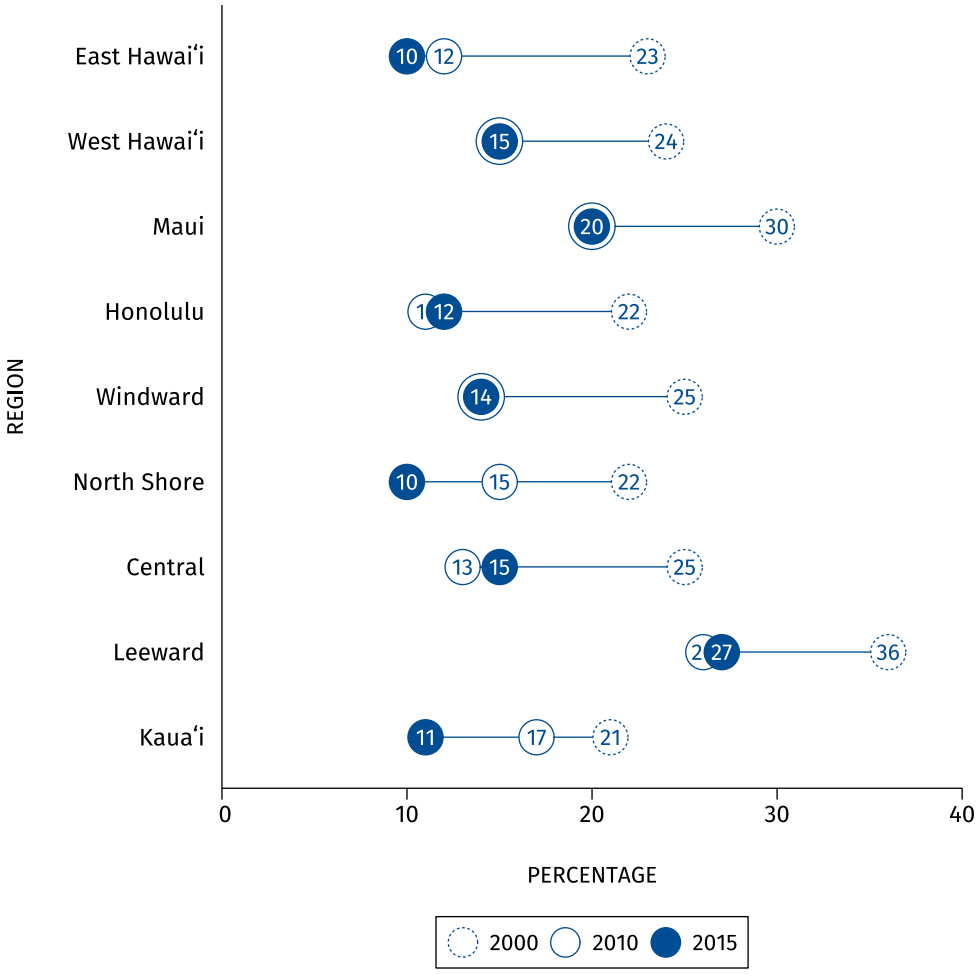


Data source: US Census Bureau, American Community Survey, Selected Population Tables

Note 1: A housing unit is a house, apartment, mobile home, group of rooms, or a single room that is occupied (or intended for occupancy) as separate living quarters.

- Across Hawai'i, the percentage of Native Hawaiian housing units with more than one occupant per room is highest in Leeward (27 percent) and Maui (20 percent).
- Regions where Native Hawaiian housing units are the least likely to have more than one occupant per room are East Hawai'i, North Shore, and Kaua'i.

FIGURE 1.12 Trends in Native Hawaiian housing units with more than one occupant per room—regional comparison
[as a percentage of housing units occupied by Native Hawaiian-headed households, by region, Hawaiʻi; 2000, 2010, 2015]



Data source: US Census Bureau, 2011–2015 American Community Survey, Selected Population Tables; US Census Bureau, 2006–2010 American Community Survey, Selected Population Tables; Census 2000, Summary File 4

Note 1: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

- On the whole, housing units occupied by Native Hawaiian-headed households became less densely populated from 2000 to 2015.
- From 2000 to 2015, the percentage of Native Hawaiian housing units with more than one occupant per room decreased in all regions by at least 9 percentage points.
- Across regions, East Hawaiʻi had the biggest change in the percentage of Native Hawaiian housing units with more than one occupant per room, decreasing from 23 to 10 percent between 2000 and 2015.

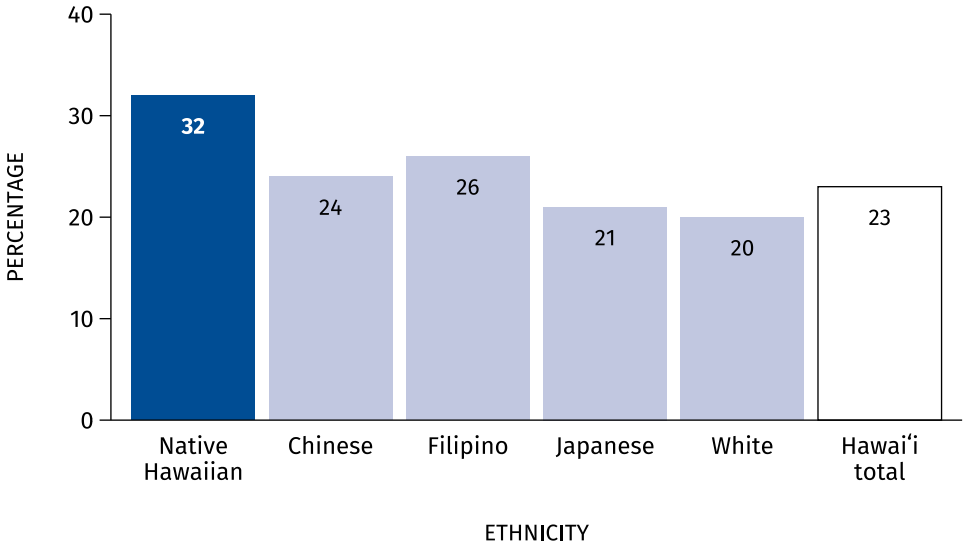
SINGLE-MOTHER FAMILIES

Research suggests that, on average, the stressors faced by single parents are especially challenging and are greater than those faced by conventional married-couple families. Examples include increased financial burdens, chronic stress (Cairney et al. 2003), loneliness (Baranowska-Rataj, Matysiak, and Mynarska 2014), and depression (Jackson et al. 2000). Because educational outcomes are related to these family conditions, it becomes increasingly important for single-parent caregivers to have social and emotional support beyond the immediate family unit, in addition to material and economic resources (Stack and Meredith 2018). Additionally, recent research on the economic mobility of US youth finds that the low prevalence of single-parent households in a neighborhood is the best predictor of one's ability to move from a low-income category to a higher income category, even after controlling for other socioeconomic factors (Wilcox, Price, and Van Leeuwen 2018).

In *Ka Huakaʻi*, we focus primarily on single-mother families, given that much of the research and scholarship on single parenthood focuses on mothers (Lancet Public Health 2018). This focus may be due to the fact that most custodial parents—those who share a home with a child and generally have legal custody—are mothers. For example, in 2018, of the 12.9 million custodial parents in the United States, 80 percent were mothers, compared with 20 percent who were fathers (Grall 2020). Further research and attention are needed, given that single-father households have been increasing steadily since 1960 (Livingston 2013).

Recent data from the US Census, which combine five years of survey results, show that Native Hawaiian families, on average, are the most likely to be single-mother families, compared with families of other major ethnicities in Hawaiʻi (fig. 1.13). This is congruent with our trend data mapped back to 2008 (fig. 1.14).

FIGURE 1.13 Single-mother families
[as a percentage of families, by family ethnicity, Hawaiʻi, 2017]



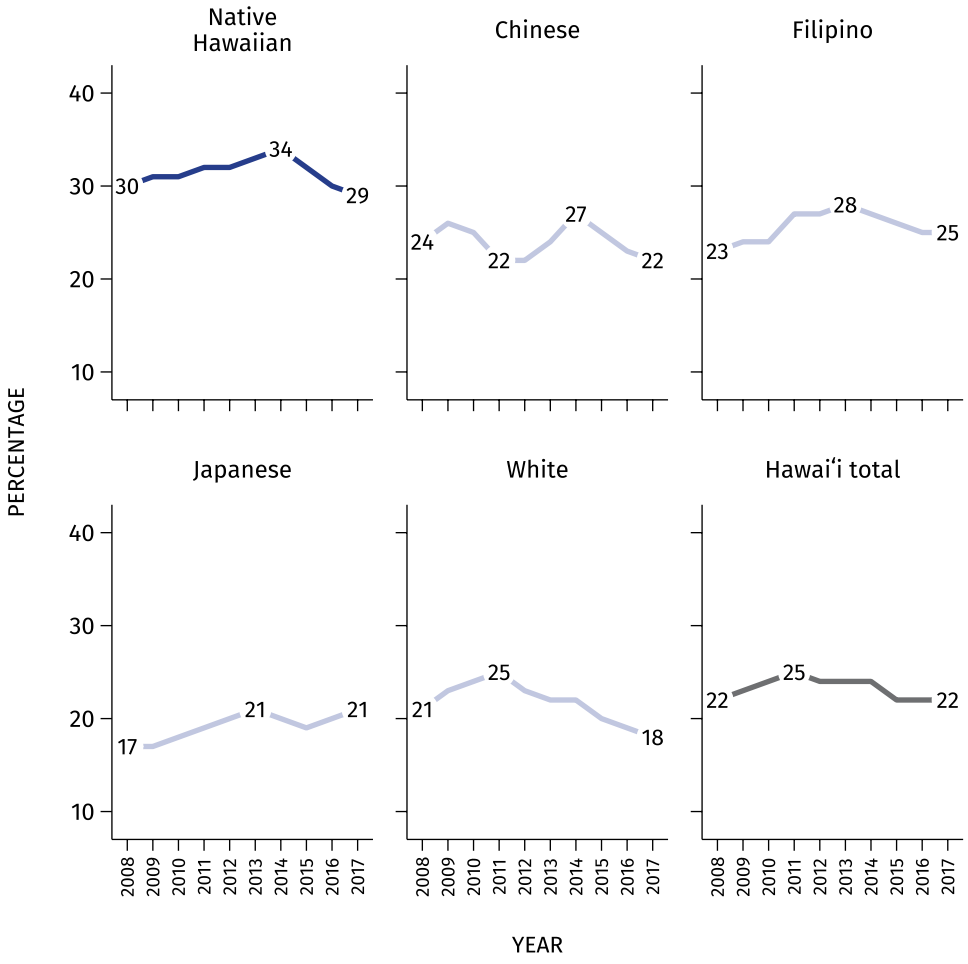
Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 5-year file

Note 1: The data include subfamilies, which are defined as families that do not maintain their own household but live in a household where the householder or householder's spouse is a relative.

Note 2: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

- Nearly one-third (32 percent) of Native Hawaiian families are single-mother families—the highest percentage among the major ethnicities in Hawaiʻi.
- Among Hawaiʻi's major ethnic groups, those with the lowest rates of single-mother families are Whites (20 percent) and Japanese (21 percent).

FIGURE 1.14 Trends in single-mother families
[as a percentage of families, by family ethnicity, Hawai'i, 2008 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

Note 1: The data include subfamilies, which are defined as families that do not maintain their own household but live in a household where the householder or householder's spouse is a relative.

Note 2: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

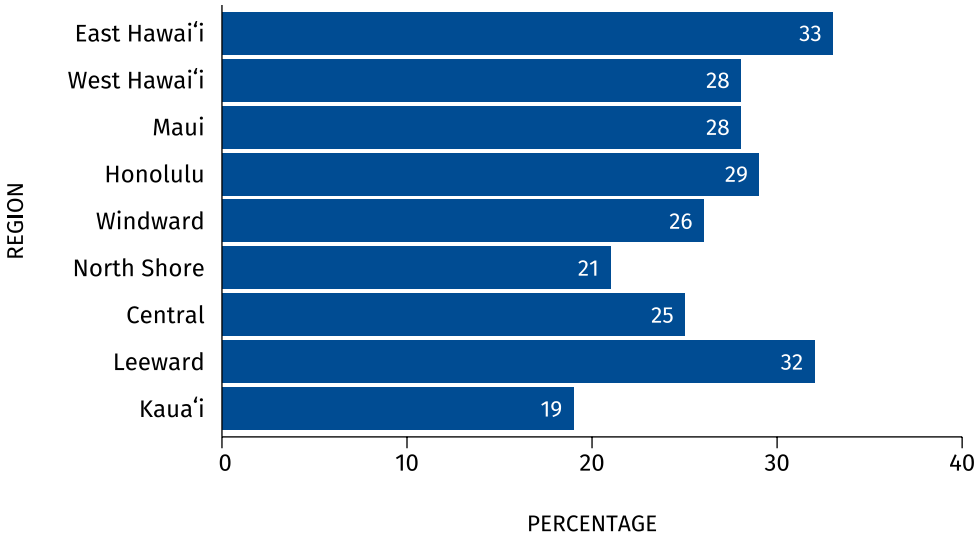
Note 3: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- Comparing 2008 with 2017, the proportion of single-mother families among Native Hawaiians did not change significantly.
- The percentage of Native Hawaiian single-mother families increased from 30 to 34 percent between 2008 and 2014, followed by a decrease of 5 percentage points from 2014 to 2017.

Single-Mother Families—Regional Highlights

Based on regional data from 2015, East Hawaiʻi and Leeward have the highest percentage of Native Hawaiian family households led by a single mother (fig. 1.15). Trend data reveal that from 2000 to 2015, the proportion of single-mother households headed by a Native Hawaiian increased in regions such as Windward and decreased in regions such as the North Shore (fig. 1.16).

FIGURE 1.15 Native Hawaiian family households headed by a single mother—regional comparison
[as a percentage of family households headed by a Native Hawaiian (with own children), by region, Hawaiʻi, 2015]



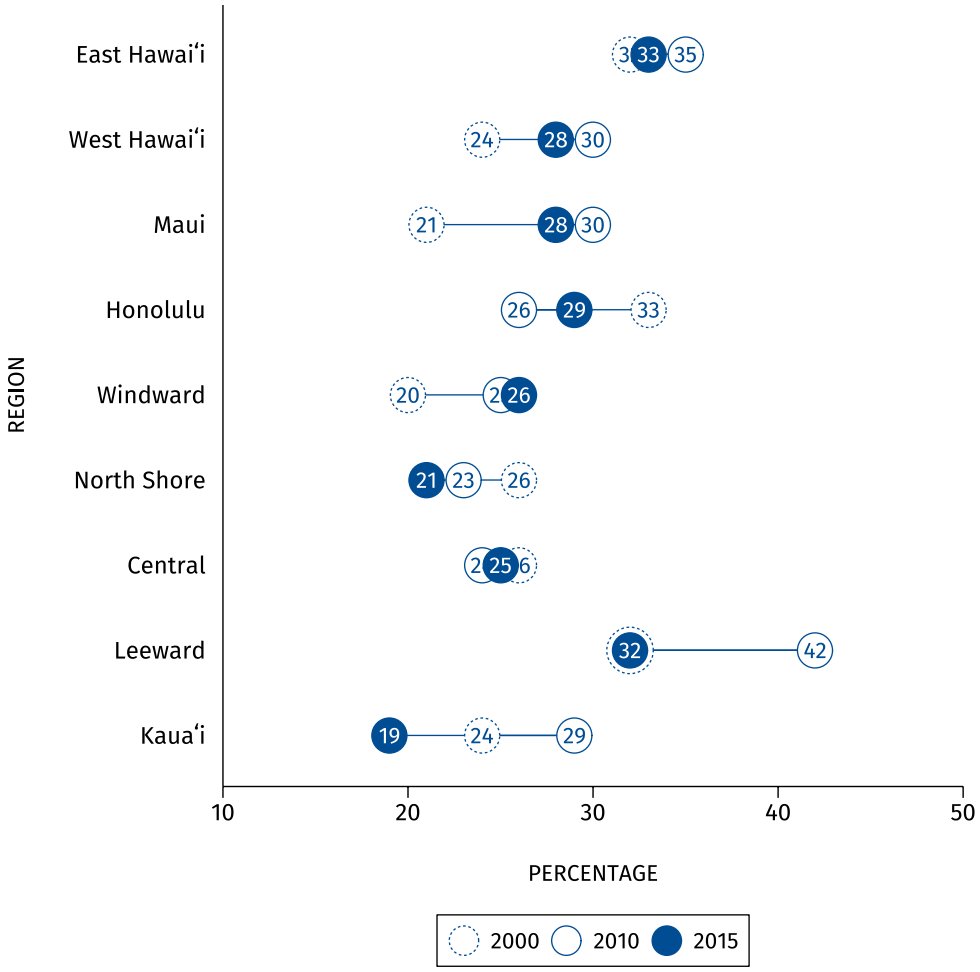
Data source: US Census Bureau, American Community Survey, Selected Population Tables

Note 1: A family household consists of a family and may also include people not related to the householder.

- Comparing family households headed by a Native Hawaiian, Kauaʻi has the lowest percentage of single-mother family households (19 percent), although this percentage is not significantly lower than that of the Windward, North Shore, and Central regions.
- Among family households headed by a Native Hawaiian, East Hawaiʻi and Leeward regions have a significantly greater proportion of single-mother households, compared with Kauaʻi, North Shore, and Central.

FIGURE 1.16 Trends in Native Hawaiian family households headed by a single mother—regional comparison

[as a percentage of households headed by a Native Hawaiian (with own children), by ethnicity, Hawai'i; 2000, 2010, 2015]



Data source: US Census Bureau, 2011–15 American Community Survey, Selected Population Tables; US Census Bureau, 2006–10 American Community Survey, Selected Population Tables; Census 2000, Summary File 4

Note 1: A family household consists of a family and may also include people not related to the householder.

Note 2: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

- From 2000 to 2015, the percentage of Native Hawaiian households headed by a single mother decreased in Honolulu, North Shore, Central, and Kaua'i.
- Over the same time period, East and West Hawai'i, Maui, and Windward saw an increase in the percentage of Native Hawaiian families headed by a single mother, though all of these regions except for Windward saw a slight decrease from 2010 to 2015.

HOUSEHOLDS WHERE GRANDPARENTS RESIDE

With the relatively high likelihood of single-mother families among Native Hawaiians, grandparents can play a critical role in caring for minor children. In multigenerational households, where grandparents reside with both their children and their grandchildren, grandparents may mitigate family stressors by sharing some of the household's financial and caregiving responsibilities. In instances where a child's parent is absent, grandparents may step in as the sole caregiver for the child.

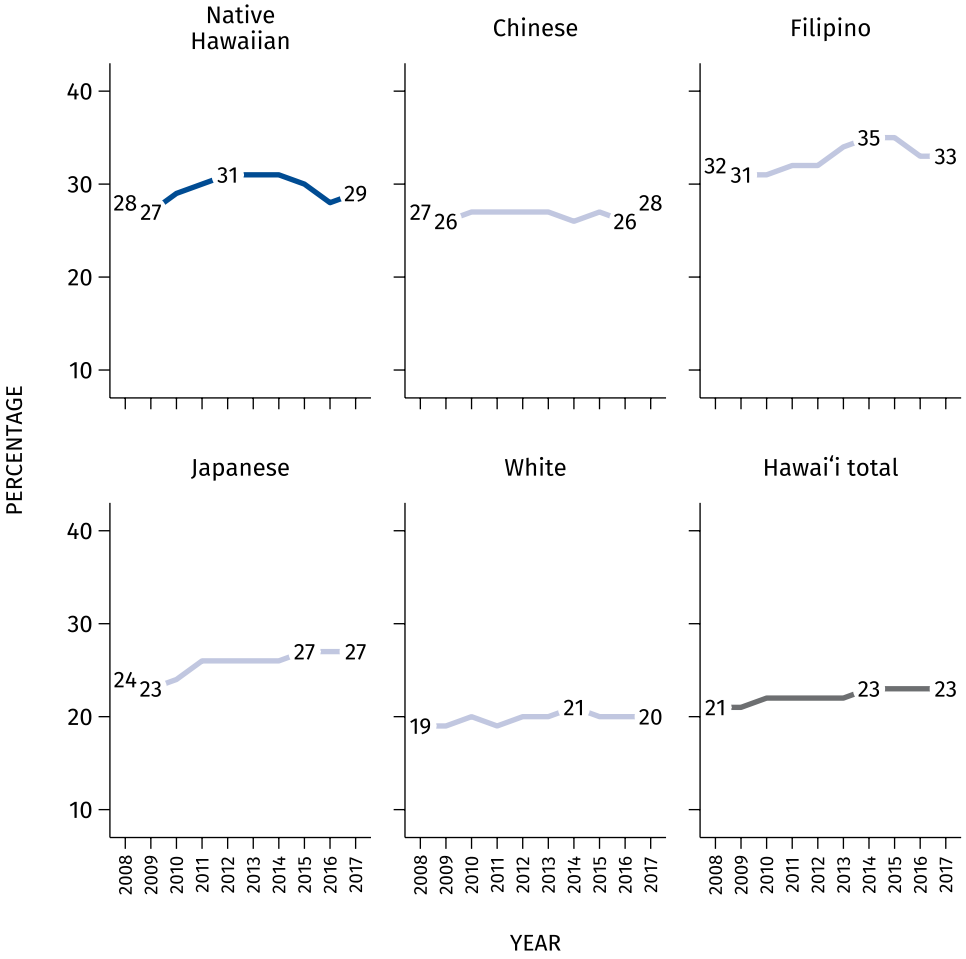
The beneficial effect of kūpuna in children's lives is well established in the Native Hawaiian community and is consistent with traditional cultural values emphasizing the importance of ʻohana. For Native Hawaiian children, kūpuna represent a critical link to one's ancestors and act as caregivers, protectors, and sources of wisdom.

However, scholarship also notes the reality of age-related challenges that some kūpuna face when assuming the caregiving role of parents (Mokuau et al. 2015). Kūpuna may also experience health risks from contagious illnesses in multigenerational households, as seen during the global pandemic of 2020. A recent article suggests that kūpuna[5] in multigenerational households are more likely than kūpuna living alone to report COVID-19 symptoms (Hawaiʻi Data Collaborative 2020). Although the proportion of Native Hawaiian households with children where a grandparent is present was not significantly different in 2017 than it was in 2008, for the Hawaiʻi total, there is an upward trend in the percentage of households with children where grandparents are present (fig. 1.17).

Nearly one-third (29 percent) of Native Hawaiian households with children have a grandparent present—6 percentage points higher than the Hawaiʻi total.

[5] In this particular article, the term "kūpuna" refers to grandparents and seniors in general, not just those who are Native Hawaiian.

FIGURE 1.17 Trends in households with children where a grandparent is present
[as a percentage of households with children ages 0–17, by household ethnicity, Hawai'i, 2008 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

Note 1: Grandchildren are defined as the grandparents' own grandchildren who are younger than 18 years old.

Note 2: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

Note 3: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- Among Native Hawaiian households with children ages seventeen and younger, the proportion of households where a grandparent is present peaked at 31 percent from 2012 to 2014.
- In 2017, the percentage of Native Hawaiian households with children where a grandparent is present (29 percent) was higher than the Hawai'i total (23 percent).
- Relative to other households with children, Japanese households experienced the greatest sustained increase in the prevalence of a grandparent being present, increasing by 4 percentage points from 2009 to 2017.

Families Living with Grandparents—Regional Highlights

Looking across regions, Leeward has the highest rate (15 percent) of grandparents and grandchildren living together (see fig. 2.9). Over time, the percentage of kūpuna coresiding with their moʻopuna (grandchildren) has decreased in most regions; Maui, West Hawaiʻi, and Central were the only regions that did not experience this downward trend (see fig. 2.10). The cause for these changes may be attributed to the overall decrease in the number of households with children (see fig. 1.8) and possibly because young people are increasingly moving to urban areas for enhanced career opportunities.

Family Strengths and Challenges

FAMILY INTERACTION

Strong family ties and relationships support children through their growth and education. Conversely, neuropsychological research shows that disruptive experiences and family instability can hinder child development (Noble, Tottenham, and Casey 2005; Craigie, Brooks-Gunn, and Waldfogel 2012). Various studies have identified common traits that characterize a strong family, such as spending time together, showing appreciation, communication, shared values and beliefs, effective coping with stress, and expressed commitment to one another (DeFrain 1999; Stern, Yuen, and Hartsock 2004; Stinnett and DeFrain 1985).

The Hawaiʻi Family Touchstones project (Stern and Min 2010) identifies several key areas of family strength in Hawaiʻi:

- Nearly three-quarters (71 percent) of Hawaiʻi's families eat dinner together on a regular basis.
- Three in four families (76 percent) regularly spend time together doing something fun (with the highest rate in Hawaiʻi county).
- More than one-third (36 percent) of families regularly attend religious services (with the highest rate in Maui county).
- Nearly one in five families (18 percent) engage in regular cultural practices (with the highest rate in Hawaiʻi county).
- Families in Hawaiʻi maintain frequent contact with ʻohana—70 percent spend time with grandparents at least once a week, and 60 percent are in regular contact with aunties and uncles.
- Parents maintain community connections, with 60 percent serving as volunteers (with the highest rate in Kauaʻi county).

- Social capital is highly valued, with 89 percent of respondents saying they can rely on another person in their community outside of their family.
- Most families (72 percent) feel safe in their communities (with the highest rate in Kauaʻi county).

DOMESTIC VIOLENCE

Despite indications of strength and cohesion of the ʻohana, stressors faced by many Native Hawaiian families sometimes lead to unhealthy family dynamics, conflict, and physical violence. Child and domestic abuse have devastating effects on children's development, whether the acts of violence are directed at the children themselves or toward other members of the family.

Generally speaking, the number of Native Hawaiian child abuse victims, relative to the overall population of keiki ages zero to seventeen, is low. Still, the numbers are sobering: In 2015, child abuse and neglect reached a high point among Native Hawaiian keiki, affecting 702 unique Native Hawaiian victims (Hawaiʻi Department of Human Services 2015). Furthermore, Native Hawaiian keiki have been historically overrepresented in abuse cases, constituting 40 percent of all cases affecting children ages seventeen and younger in 2018 (see fig. 2.6).

Across Hawaiʻi and among confirmed reports of Native Hawaiian children, the most common precipitating factors leading to child abuse and neglect include the inability to cope with parenting responsibility (contributing to nearly one-quarter of all reported causes), unacceptable child-rearing method, and drug abuse. Based on 2017 data provided by the Hawaiʻi Department of Human Services, regional differences emerge among Native Hawaiian children in West Hawaiʻi, where factors related to parental stress (i.e., heavy, continuous childcare responsibility, loss of control during discipline, lack of tolerance of child's behavior, inability to cope with parenting responsibility, unacceptable child-rearing method) make up 79 percent of all reported causes of child abuse and neglect, compared with 55 percent for the Hawaiʻi total and 39 percent in the North Shore[6] region, which has the lowest rate.

The prevalence of child abuse and neglect underscores the high value of community-based programs that educate and reinforce protective factors such as encouraging parental resilience and building social and emotional competence for keiki.

Spousal abuse, or the abuse of an intimate partner, is more prevalent among Native Hawaiians than it is among most other major ethnicities in Hawaiʻi. In a survey of adult men and women in Hawaiʻi, Native Hawaiian and Caucasian respondents reported the highest

[6] The percentage for the North Shore region reflects counts for Wahiawa and Waialua combined.

rates of physical abuse by an intimate partner (13 percent), compared with 6 percent among Japanese and Filipinos, and 4 percent among Chinese (Hawaiʻi Health Data Warehouse 2015a). Data on reported sexual abuse by an intimate partner reveal a similar pattern: Among Native Hawaiian and Caucasian respondents, one in twenty (5 percent) has experienced sexual abuse, compared with 3 percent among Japanese, 2 percent of Chinese, and 1 percent of Filipinos (Hawaiʻi Health Data Warehouse 2015b).

It has been noted that some Native Hawaiians may be reluctant to report abuse to officials and may prefer to resolve domestic issues within the family, suggesting that rates of actual abuse may be higher. Additionally, findings from interviews and a focus group involving ten Native Hawaiian women found that most women struggled to disclose violence to their health provider unless they had developed a trusting relationship with the provider (Oneha, Magnussen, and Shoultz 2010). Further, formal Western systems of care, such as shelters and support groups, may be lacking, "because infrastructure does not address historical trauma caused by colonization" (Oetzel and Duran 2004, 58). Accordingly, several social services programs incorporate culturally based interventions and traditional Hawaiian methods for resolving family issues, including hoʻoponopono, meaning "to set right" (Mokuau 1990).

Community Strengths

As a natural extension of the ʻohana, the larger community is highly valued in Native Hawaiian culture, whether at the scale of a kauhale, comprising a few families, or at the scale of the entire pae ʻāina or greater lāhui. In addressing community strengths, we describe traits and trends at the community level regarding connectedness to ʻāina, ʻohana, and kaiāulu (greater community); perceptions of community safety; ʻŌiwi (Native, Indigenous) leadership; the revitalization of ʻōlelo Hawaiʻi; and community access to cultural resources.

CONNECTIONS TO ʻĀINA, ʻOHANA, AND KAIĀULU

In Native Hawaiian worldview, space and time are intertwined such that land and sea are linked by past, present, and future as part of a community with inherent cultural and spiritual significance that transcends physical traits. Navigator Nainoa Thompson illustrates the significance of this connection to identity:

> If you cannot connect to your ancestors, what can you connect to? We become Hawaiians because we come from the land and the oceans, and I believe there is a need to be connected to our land and the oceans. So when we are disconnected from that, that part of us, we are wandering. (Thompson 2016, 160)

This understanding is reflected in the strong ties many Native Hawaiians feel for Ka Pae ʻĀina Hawaiʻi, the ancestral home to Kānaka Maoli. Scholars note that the land and sea of Hawaiʻi are tied genealogically to Native Hawaiians and are an integral part of spiritual beliefs, cultural practices, oral traditions, and recurrent pan-Polynesian interaction (Oliveira 2014; Kameʻeleihiwa 1992; Kanahele 1986; Cachola-Abad 1993). As a result, connections to the ʻāina solidify Native Hawaiian identity through genealogical, spiritual, and physical practices and beliefs (Kanaʻiaupuni and Liebler 2005).

Research confirms the strong ties Native Hawaiians have for the islands of Hawaiʻi (Oneha 2001; Kanaʻiaupuni and Liebler 2005) and speaks to the draw of many Native Hawaiians to remain among—or return to—the ʻāina and the people of the islands. Studies of the Native Hawaiian diaspora reveal how economic forces drove many to leave, but only physically, as they remain loyal to the collective and strongly bonded by ancestral and community ties to the homeland (Halualani 2002; Kanaʻiaupuni and Liebler 2005; Kauanui 1998, 2007; Oneha 2001).

In a recent survey about decisions related to migration, Native Hawaiians were much more likely than other respondents to cite strong ties to ʻohana and ʻāina as reasons to stay in the islands (Pagud, Kekahio, and Kanaʻiaupuni, forthcoming). While economics plays a role in the choice to return to the islands, social connections to family, friends, and community were primary reasons for returning. As one respondent put it, “I rather come home to my family. I want to come home to my people. All the people that live on the island are my people. My family.” For some, these connections outweigh the high cost of living in Hawaiʻi. These findings highlight that while economic conditions may drive many to leave for better opportunities, community and family ties exert a strong pull, bringing back many to this island home.

Connections to people are equally important. Traditional Hawaiian values promote the importance of social relationships and the collective group (Kanahele 1986; Mokuau 1990). Culturally, interdependence and shared obligations are encouraged, and the greater good of the community is placed above individual interests. Community bonds provide belonging, safety, protection, and a wealth of capital and resources. A 2018 statewide survey of more than three thousand Hawaiʻi residents found that Native Hawaiians are more likely than others to feel connected to their community. Among survey respondents, 46 percent of Native Hawaiians indicated being “extremely” or “quite a bit” connected to the communities they live in, compared with 33 percent of non-Hawaiian respondents (Kekahio 2020).

Linked to feelings of community connectedness are perceptions of community safety, a key component of well-being. A 2013 study of Native Hawaiian and Asian American communities in Hawaiʻi found that perceptions of safety are adversely impacted by youth violence and delinquency, but strengthened through positive relations with neighbors (Hishinuma, Chang, and Soli 2011). Findings from the 2018 Hawaiʻi Well-being Study (SMS Research 2018) suggest that Native Hawaiians have more positive perceptions of community safety than do their non-Native Hawaiian peers in the following dimensions:

- Knowing and trusting their neighbors (71 percent of Native Hawaiians, compared with 64 percent of non-Native Hawaiians)
- Feeling safe walking in their communities at night (79 percent versus 64 percent)
- "Never" or "very rarely" felt worried about being a victim of a crime in the community where they live (72 percent versus 63 percent)

ʻŌIWI LEADERSHIP

The value of servant leadership underscores Hawaiian perspectives that promote interdependence and a shared obligation for community well-being. Service-oriented activism benefits both the volunteer and the larger public. Those directly involved derive personal satisfaction and growth, new social networks, and improved health, and the community as a whole thrives with the contributions of its active members (Boehnke and Wong 2011; Vestergren, Drury, and Hammar 2019).

In a recollection of his father's advice on leadership, Nainoa Thompson recalls principles of selflessness, the importance of values, and the strength of community building.

> My father [Pinky Thompson] was constantly saying, "This voyage is not about you".... He told us to look to our core, to the common values that are so precious and so meaningful that you'll never let them go for anything. He said this community will challenge you.... This community that you need to rebuild, make sure the rebuilding process is simple. Give them your vision. Articulate your values. Let them come. Never allow your community to be defined and split off by geography or by race. Hold them together by common vision and shared values. They will come. Define them as people who want to learn, people who want to work, and people who want to give back. Go build your community. (2016, 169–70)

ʻŌiwi leadership is multidimensional and can overlap with Western definitions. From a Native Hawaiian perspective, however, leadership goes beyond capitalism-driven notions of individual achievement, status, and success. For example, ʻŌiwi leadership prioritizes

community service, civic engagement, and connectedness between past and future generations. In the section that follows, we present findings from three surveys on community well-being and Native Hawaiian community engagement. A more thorough review of Hawaiian civic engagement and collective efficacy in action is included in the Introduction of this publication.

A recent report based on the 2018 Hawai'i Index of Well-Being Survey points to "serving others and improving one's community" as one aspect of 'Ōiwi leadership (Caparoso et al. 2020). Survey responses give insights into how and where Native Hawaiians serve as leaders in their communities. For example, compared with non-Native Hawaiians, Native Hawaiians are equally likely to report serving others and improving one's community "at work" (27 percent) and "among business/professional networks" (11 percent). However, Native Hawaiians are more likely to report servant leadership "at home or with family" (41 versus 39 percent) and "in the neighborhood (church, sports, clubs)" (35 versus 28 percent)—a pattern that holds true for all counties with reportable data. Hawai'i county has the highest reported rate of leadership among Native Hawaiians at home or with family (52 percent) and in neighborhoods (41 percent). When asked, "If leadership means serving others and improving your community, where do you act as a leader?" the only context in which Native Hawaiians are less likely than non-Native Hawaiians to report doing so is "among friends."

In an evaluation study that surveyed adults on Kaua'i (with 691 respondents, 166 of whom are Native Hawaiian), 86 percent of Native Hawaiians agreed or strongly agreed that, "I know I can make a difference in my community," compared with 77 percent of non-Native Hawaiians (Kamehameha Schools 2018a). Voting is one way to make a difference, and Native Hawaiians on Kaua'i are equally likely, compared with non-Native Hawaiians, to have voted in the last twelve months (68 percent). These data, together with findings from the 2018 Hawai'i Index of Well-Being Survey mentioned above, indicate that Native Hawaiians display high rates of community engagement, service, and leadership.

Older generations have invested significant hana (work) in developing leadership skills and mindsets in today's 'ōpio, or youth. An example of the importance of leadership that extends beyond one's own generation is seen in the findings of a 2018 Kamehameha Schools Young Alumni Survey (Kamehameha Schools 2018b). This survey, which draws from a Native Hawaiian leadership scale developed a decade earlier (Borofsky 2010), shows that 91 percent of respondents agreed or strongly agreed that "part of my kuleana is to be a leader (where appropriate)." Nine out of ten respondents agreed or strongly agreed that "I lead by example." Among graduates of Kamehameha Schools, 85 percent said they "pass on knowledge from my ancestors to younger generations." Similarly, 86 percent reported, "I am not afraid to take a stand (for what I believe in)." These signs of 'Ōiwi leadership among young adults, particularly in recognizing the kuleana to bridge knowledge between older and younger generations, are encouraging evidence of the strength of Native Hawaiian communities.

Overall, these data indicate that Native Hawaiians are more likely than non-Native Hawaiians to engage in community service and leadership at home and in community settings—a finding that also is seen in the rising generation of leaders who are now young adults.

ʻŌLELO HAWAIʻI

ʻŌlelo Hawaiʻi immersion preschools, which were initially inspired by Māori language revitalization in New Zealand, have continued to grow since their inception in 1985. Across Ka Pae ʻĀina Hawaiʻi, there are now twelve pūnana leo, or language nests, and twenty-four kula kaiapuni, or k–12 public schools, that use ʻōlelo Hawaiʻi exclusively as a medium of instruction (ʻAha Pūnana Leo 2018). ʻOhana with keiki enrolled in these schools are supported and encouraged to learn and use ʻōlelo Hawaiʻi at home, extending the schools' reach into the community. Early studies indicate that these programs are effective learning environments for Native Hawaiian haumāna (students) to acquire their heritage language, despite ongoing funding challenges and lack of instructional materials relative to what is available in English (Housman et al. 2011; Okura 2017).

With more than thirty-five years of ʻōlelo Hawaiʻi immersion education in Hawaiʻi, many of today's parents and instructors in these programs are graduates of immersion programs themselves. The pūnana leo of Hawaiʻi have also inspired other Indigenous language immersion programs beyond Hawaiʻi, including in the Ojibway and Saami communities (Okura 2017). Based on a recent ʻAha Pūnana Leo annual report (2018), highlights of the leadership role of Hawaiian immersion schools include:

- Various immersion sites on different islands have received nearly 150 visitors from Indigenous organizations from around the world.
- ʻAha Pūnana Leo was invited to the United Nations as a subject matter expert on Indigenous language revitalization, which led to the proclamation of the "International Year of Indigenous Languages" in 2019.
- The Mokuola Honua Global Center for Indigenous Language Excellence was established in Hilo by ʻAha Pūnana Leo.

Progress in revitalizing ʻōlelo Hawaiʻi is apparent not only in enrollment and global influence, but also in the numbers of Kānaka Maoli who currently report at least some familiarity with the language. Based on a community survey of about three thousand respondents in Hawaiʻi (Kamehameha Schools, Liliʻuokalani Trust, and the Office of Hawaiian Affairs 2018), 11 percent of Native Hawaiian respondents reported that they or someone in their household "have full conversations with other Hawaiian speakers." Two-thirds of Native Hawaiian respondents said they understand or use some words or phrases in ʻōlelo Hawaiʻi. Only 22 percent of Native Hawaiians reported using ʻōlelo Hawaiʻi "not at all," compared with 54

percent of non-Native Hawaiians. At the county level, Native Hawaiians in Hawai‘i county were the least likely to use ‘ōlelo Hawai‘i “not at all.” On the whole, increased engagement with ‘ōlelo Hawai‘i will likely lead to increased access to other speakers and resources.

COMMUNITY ACCESS TO CULTURAL RESOURCES

Papakilo, an online “database of databases,” provides public access to a variety of data resources relating to Hawaiian culture, land, and identity. Launched in 2011 and maintained by the Office of Hawaiian Affairs, this website allows users to search for information in historical collections of newspapers, Māhele (land division) records, genealogy indexes, and museum collections. The historical newspaper collection represents one of the largest collections of text written by Native speakers of any Polynesian language and is increasingly used by students and scholars to reclaim cultural knowledge that has been obscured due to colonial practices that attempted to suppress Native Hawaiian culture, especially in the twentieth century.

“Kani‘āina: Voices of the Land,” is a digital archive of the Ka Leo Hawai‘i radio program in ‘ōlelo Hawai‘i, which was broadcast from the 1970s to the 1990s and is now maintained by the University of Hawai‘i. Users can listen to 393 episodes of the program, which include interviews with, and musical performances by, mānaleo from every region of Hawai‘i. Another cultural resource, Kumukahi, was developed by Kamehameha Schools as a bilingual, community-based website that presents living Hawaiian culture and its connections to a rich ancestral past. Together, these and many other digital resources represent increasing opportunities for Kānaka Maoli and others around the world to listen to and learn from the voices of kūpuna and cultural practitioners.

Technology has also expanded opportunities for people of all ages to learn basic and intermediate ‘ōlelo Hawai‘i. Kanaeokana, a collaborative network of Native Hawaiian schools, partnered with Duolingo to develop ‘ōlelo Hawai‘i learning software for smartphones to allow free access to those motivated to learn, including Kānaka Maoli in the diaspora. The interactive app was launched in October of 2018, and as of August 2020 has more than 600,000 active users (Duolingo 2020).

Another recent achievement for increasing community access to resources is the 2018 publication of *Ka Baibala Hemolele*, the ‘ōlelo Hawai‘i translation of the Bible. This latest edition makes studying the Bible in ‘ōlelo Hawai‘i accessible to more readers, especially those who are still learning the language. Parallel text in ‘ōlelo Hawai‘i and English allows readers to compare the same verse in the two languages, and diacritical markings (i.e., ‘okina and kahakō) make the text more readable for today’s ‘ōlelo Hawai‘i learners. *Ka Baibala Hemolele* is a resource for Kānaka Maoli who identify as Christian to study the Bible in their ancestral language, even if they are not yet fluent, which can lead to new insights and perspectives based on cultural and linguistic differences embedded in the text.

In summary, Native Hawaiian strengths at the community scale include ʻŌiwi leadership and community engagement; cultural connections through ʻohana, ʻōlelo, and ʻāina; and increasing access to cultural resources and educational opportunities. By leveraging new technologies, ʻike kupuna (ancestral wisdom), and collective expertise, Native Hawaiians are increasingly able to socially engage with one another in culturally meaningful ways across geographic and generational boundaries.

COVID-19 RESPONSE

The COVID-19 pandemic of 2020 generated immediate threats and challenges to well-being. Kanaka Maoli communities and organizations responded in numerous ways, committing to protect the well-being of all Hawaiʻi residents, especially vulnerable kūpuna. This commitment was evident in the thirty-day Lāhui Kānaka kapu (prohibition) proclaimed by a number of kumu hula (hula teachers) in response to the 2020 summer surge of COVID-19 cases across Ka Pae ʻĀina Hawaiʻi. The Office of Hawaiian Affairs supported the kumu hula and other ʻŌiwi leaders in providing free webinars centered on the concept of pālama, a protected space, to support healthy behaviors, Hawaiian perspectives, and family and community well-being (Office of Hawaiian Affairs 2019).

Native Hawaiian-serving organizations also led discussions with the Department of Health, stressing the need for COVID-19 data and reporting to include ethnic breakdowns. Once these data became available, the vulnerability of the Pacific Islander population in Hawaiʻi (not including Native Hawaiians) became clear (KITV 2020), and government and community groups directed needed resources to those communities. Based on available data as of September 11, 2020, Native Hawaiians have had comparatively low rates of COVID-19, with 12 percent of cumulative cases despite being 21 percent of the population (Hawaiʻi Department of Health 2020).

Community Challenges

At a macro level, a significant challenge facing Native Hawaiian communities is the effect of historical trauma and racism. Historical events such as the US occupation of the Hawaiian Islands continue to affect Native Hawaiian communities and have led to mistrust, discrimination, racism, feelings of inferiority, and minority status in our own homeland. In an essay about his grandfather, ʻŌiwi scholar Gushiken (2019) describes the relationship between colonial injustices and cycles of violence:

> The truth is that each abuse, each incensed fit that he threw, was caused by something greater. When we, as Hawaiians, live in a world where we are not allowed to connect with our land and determine, for ourselves, how and why we live on this earth, we cannot find peace and harmony in the chaos of loss. (161)

Despite these obstacles, scholar and musician Jon Osorio remains hopeful.

> I believe we are making progress. I no longer worry that people outside our community dismiss our protests when construction digs up ancestral bones. For one thing, I know that we Kānaka have become more articulate about how the iwi (bones) of the body retain the sacredness and house the spirit of the departed. But we also know that bones deposit nutrients into the earth and make it more productive. The story and the practice of the sacredness of iwi, like so many of our stories and practices, have practical applications. (Osorio and Osorio 2016, 193)

Native Hawaiian communities continue to work collectively to heal from historical injustices and current systemic inequities. In this section we describe two ongoing social community challenges in the Native Hawaiian community: crime and social justice, and incarceration.

CRIME AND SOCIAL JUSTICE

Native Hawaiians are disproportionately represented in the criminal justice system. For example, compared with other ethnicities, Native Hawaiians are more likely to be sentenced to prison, to receive longer prison sentences and probation terms, and to have their parole revoked (Office of Hawaiian Affairs 2010). This disproportionate impact accumulates at each stage, meaning that the proportion of Native Hawaiians who are incarcerated (39 percent), or have their parole revoked (41 percent) is greater than the proportion of Native Hawaiians who are arrested (25 percent) (Office of Hawaiian Affairs 2010).

The effects of parental incarceration can have negative implications on the well-being of children and can be associated with increased risk of trauma, emotional difficulties among younger school-age children, and an increased likelihood of having school problems for children ages six to seventeen (Murphey and Cooper 2015). Conservative estimates suggest that among children in Hawai‘i, 5 percent, or sixteen thousand children, have had a parent in jail or prison at some point in their childhood (Annie E. Casey Foundation 2016). As of 2015, one in fourteen children across the United States experiences parental incarceration in their lifetime, with odds increasing among children who are black, live in poverty, live outside of metropolitan areas, and whose parents have little education (Murphey and Cooper 2015).

As shown below, rates of arrest and incarceration for Native Hawaiians are among the highest of all major ethnic groups in Hawai‘i. When compared with data published in *Ka Huaka‘i 2014*, we find increases in both arrest rates and percentages of the incarcerated Native Hawaiian population. The increasingly disproportionate number of young Native Hawaiian men and women in Hawai‘i’s correctional system has profound implications for Native Hawaiian education. Not only are educational and other opportunities severely limited for incarcerated adults, but Native Hawaiian children of inmates are also at increased risk of growing up without a parent to support them through critical stages of development.

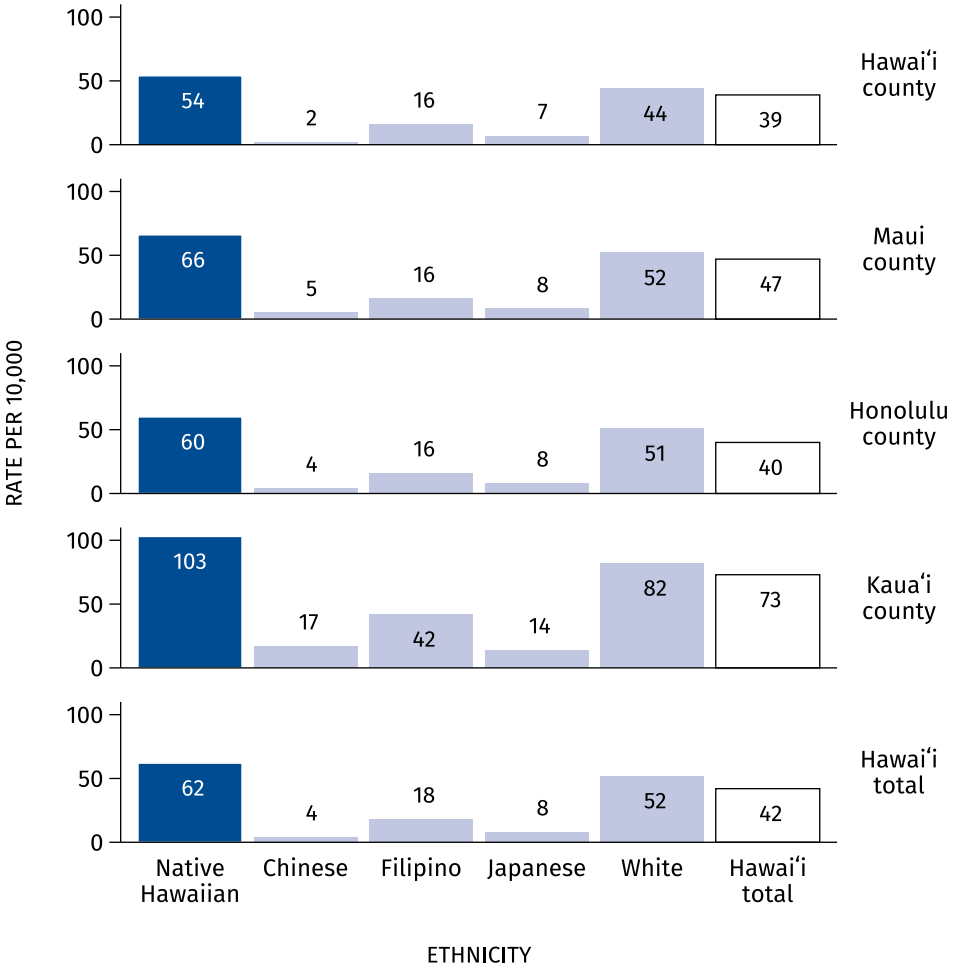
Moreover, the criminal activities that lead to arrests and incarceration—such as crime and drug use—directly influence the safety and stability of communities, which may further hinder the educational prospects for Native Hawaiian children and adults.

Arrest Rates

Across Hawaiʻi, arrest rates among Native Hawaiian adults and juveniles represent the largest proportion of arrests for all types of offenses including violent crime, aggravated assault, robbery, and drug manufacturing and sales. Overrepresentation in the criminal justice system has far-reaching consequences for Native Hawaiians and severely limits an incarcerated person's ability to finish school, have a driver's license, find stable employment, and provide financially for self and family (Office of Hawaiian Affairs 2010).

The following figures show the combined rates of Native Hawaiian juvenile and adult arrests by type (violent crime, aggravated assault, robbery, and drug manufacturing or sales). Rates are defined as the number of arrests per ten thousand individuals in that ethnic group's local population. Across all types and in all counties, Native Hawaiians generally have the highest arrest rates relative to other ethnicities, often followed by Whites. Figure 1.18 shows arrest rates for violent crime.

FIGURE 1.18 Arrests for violent crime (juveniles and adults combined)—county comparison
[arrests as a rate per 10,000 juveniles and adults, by ethnicity and county, Hawai'i, 2016]

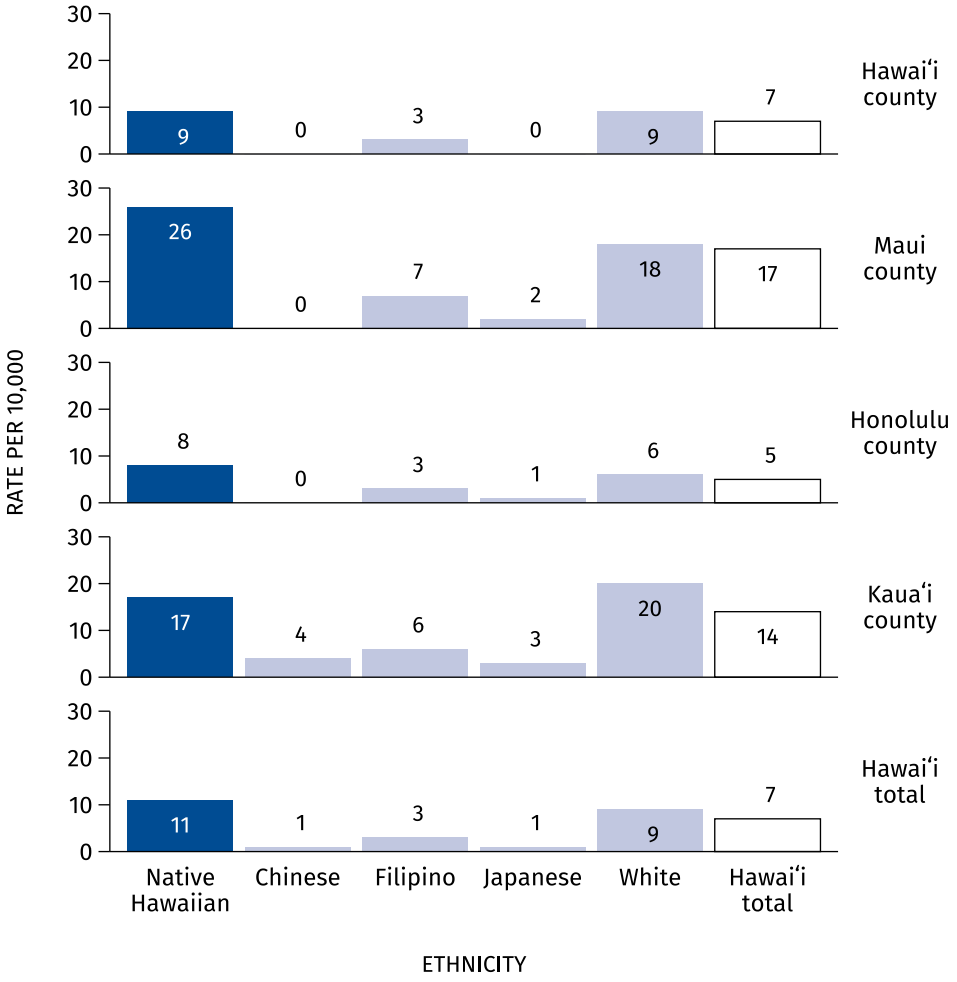


Data source: A Review of Uniform Crime Reports (years 2015 and 2016 combined), Hawai'i Department of the Attorney General, Crime Prevention and Justice Assistance Division, Research and Statistics Branch

- In all counties, Native Hawaiians have the highest arrest rates for violent crime, compared with juveniles and adults from Hawai'i's other major ethnicities.
- For the Hawai'i total, the arrest rate for violent crime among Native Hawaiians is 62 per 10,000 juveniles and adults.

Figure 1.19 shows a county comparison of arrests made for aggravated assault, by ethnicity.

FIGURE 1.19 Arrests for aggravated assault (juveniles and adults combined)—county comparison
[arrests as a rate per 10,000 juveniles and adults, by ethnicity and county, Hawaiʻi, 2016]

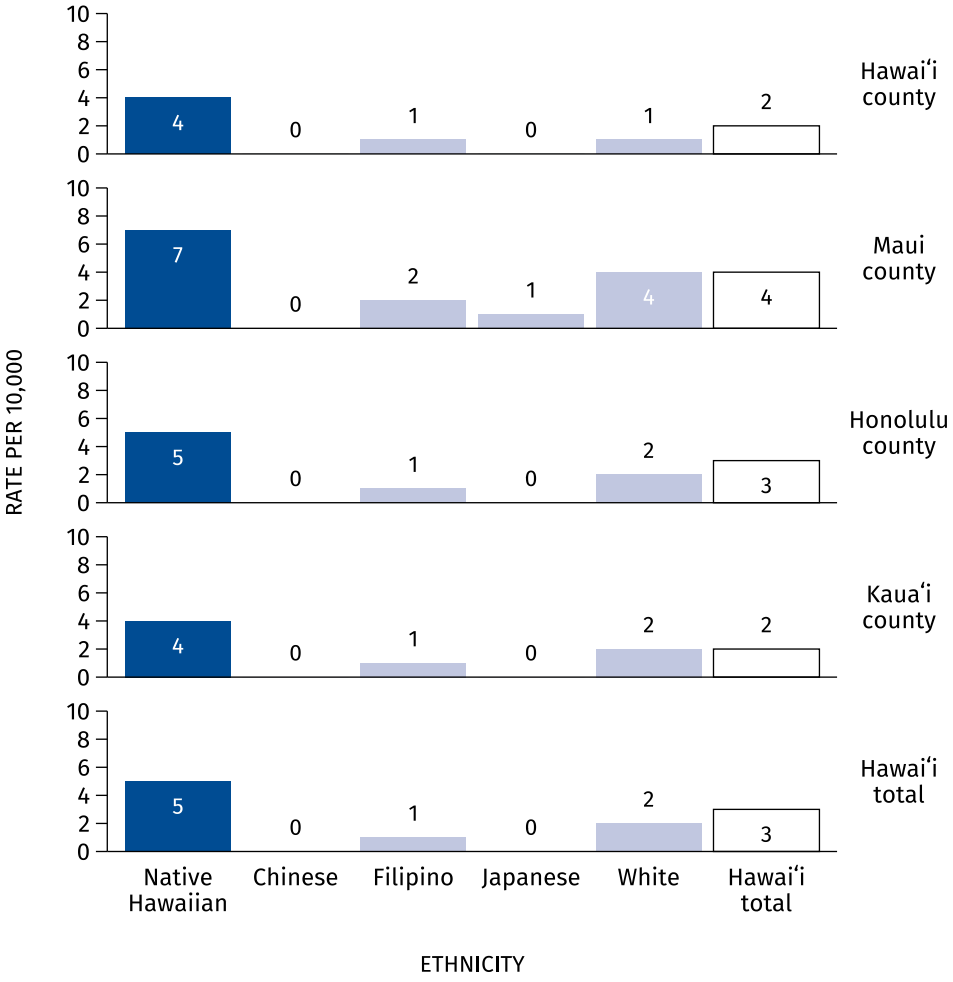


Data source: A Review of Uniform Crime Reports (years 2015 and 2016 combined), Hawai'i Department of the Attorney General, Crime Prevention and Justice Assistance Division, Research and Statistics Branch

- In all counties except Kauaʻi, Native Hawaiians have the highest arrest rates for aggravated assault, compared with juveniles and adults from Hawaiʻi's other major ethnicities.
- For the Hawaiʻi total, the arrest rate for aggravated assault among Native Hawaiians is 11 per 10,000 juveniles and adults.

Figure 1.20 summarizes arrest rates for robbery offenses, by county.

FIGURE 1.20 Arrests for robbery (juveniles and adults combined)—county comparison
[arrests as a rate per 10,000 juveniles and adults, by ethnicity and county, Hawai'i, 2016]



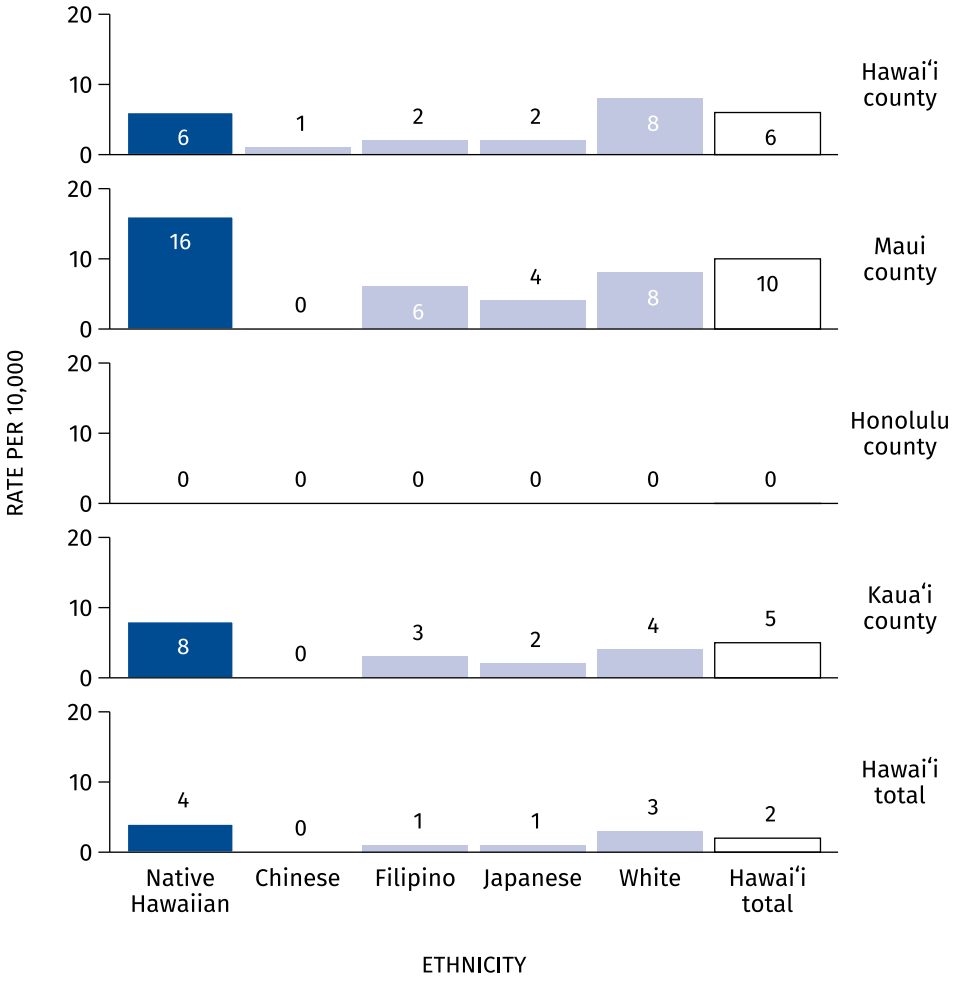
Data source: A Review of Uniform Crime Reports (years 2015 and 2016 combined), Hawai'i Department of the Attorney General, Crime Prevention and Justice Assistance Division, Research and Statistics Branch

- Across all counties, Native Hawaiians have the highest arrest rates for robbery, compared with juveniles and adults from Hawai'i's other major ethnicities.
- In Hawai'i county, the arrest rate for robbery among Native Hawaiians is twice as high as the Hawai'i total.

Figure 1.21 shows arrest rates for drug manufacturing or sales, by county.

FIGURE 1.21 Arrests for drug manufacturing or sales (juveniles and adults combined)—county comparison

[arrests as a rate per 10,000 juveniles and adults, by ethnicity and county, Hawaiʻi, 2016]



Data source: A Review of Uniform Crime Reports (years 2015 and 2016 combined), Hawai'i Department of the Attorney General, Crime Prevention and Justice Assistance Division, Research and Statistics Branch

Note 1: Zeros in this figure are accurate numbers that reflect either a large or a small population in a category, given the rate per 10,000.

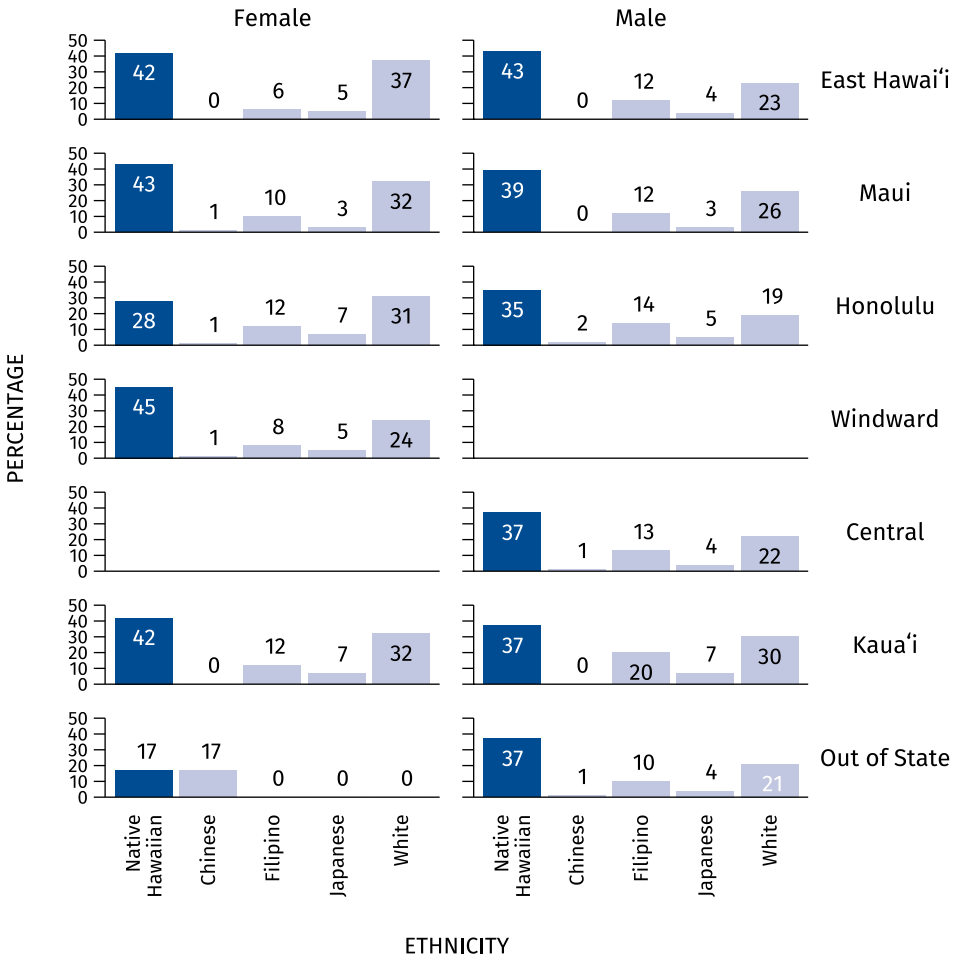
- In Maui and Kauaʻi counties, Native Hawaiians have the highest arrest rates for drug manufacturing and sales, compared with juveniles and adults from Hawaiʻi's other major ethnicities.

INCARCERATION

Elevated arrest rates among Native Hawaiians and a criminal justice system with acknowledged inequities (Office of Hawaiian Affairs 2012; Umemoto et al. 2012; Office of Hawaiian Affairs 2010) contribute to the overrepresentation of Native Hawaiians in Hawai'i's prison system. Native Hawaiians constitute the largest share of Hawai'i's adult incarcerated population (Hawai'i Concurrent Resolution 85 Task Force 2018). The overrepresentation of Native Hawaiians in Hawai'i's prison system is consistent across males and females (fig. 1.22). The *Hawai'i State House Task Force on Prison Reform* final report proposes the following recommendations specifically to reduce the number of Native Hawaiians in the prison system:

1. Develop evidence-based early intervention strategies that are focused on diverting Native Hawaiian youth away from the criminal justice system and toward pathways for success.
2. Create cultural courts in the criminal justice system.
3. Expand in-prison Native Hawaiian educational and cultural programs.
4. Make culturally relevant reentry programs available to Native Hawaiians.
5. Implement the recommendations of the 2012 Native Hawaiian Justice Task Force (Hawai'i Concurrent Resolution 85 Task Force 2018, xix).

FIGURE 1.22 Ethnic distribution of the incarcerated population—regional comparison
[as a percentage of the incarcerated population, by sex and region, Hawaiʻi, 2015 and 2017 combined]



Data source: Hawaiʻi Department of Public Safety

Note 1: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

Note 2: Zeros in this figure are accurate numbers that reflect either a large or a small population in a category, given the rate per 10,000.

- Native Hawaiians are disproportionately represented among incarcerated males and females across all regions and in out-of-state facilities.
- Looking across regions, Honolulu has the lowest proportion of incarcerated Native Hawaiian females (28 percent).

Our understanding of social and criminal justice relating to Kānaka Maoli is increasing, yet systemic change has remained elusive. Further research and analysis are needed to better understand and account for the socioeconomic variables influencing criminal behavior and resulting in the disproportionate representation of Native Hawaiians in the criminal justice system.

While there is evidence of strong social well-being in our Native Hawaiian communities, there are challenges that prevent optimal well-being for many ʻohana. Native Hawaiian households continue to be larger than households of most other ethnicities in Hawaiʻi, and crowding may be an issue, suggesting a lack of affordable housing. That said, household density is showing signs of improvement, as housing units occupied by Native Hawaiian-headed households—across all regions—have become less likely to have more than one occupant per room since the year 2000.

Compared with other major ethnicities in Hawaiʻi, Native Hawaiian families are the most likely to be single-mother families, to experience loved ones being arrested or incarcerated, and to endure domestic and child abuse. As the ʻohana is the key to the well-being of our keiki, a systems perspective is needed to address these significant impediments to learning and life.

There are positive countervailing forces at the community level that continue to break down these obstacles to well-being, such as a strong sense of place and belonging, high rates of leadership and service, and cultural awareness and pride. Both research and lived experience demonstrate that Native Hawaiians continue to draw from and contribute to traditional cultural values and practices, kinship connections, kupuna supports, spirituality, and community as sources of strength and resilience.

MATERIAL AND ECONOMIC WELL-BEING

Culturally, Native Hawaiians view economic well-being holistically, including measures of financial health and the drivers of those measures, such as the health and well-being of society and the environment within which the economy thrives.

This integration can be literal, as seen in the relationship between the word wai, which means water, and waiwai, which means wealth. From a Hawaiian perspective, material and economic well-being, embodied in the term waiwai, signifies abundance and sufficiency, and relates to the broader concept of lawa pono. Lawa pono suggests being sufficient, having a balanced supply, where "enough is plenty." Recent scholarship articulates this economic principle with regard to lawaiʻa, or Hawaiian fishing practices: "To fish in a Hawaiian way—isn't about the take. Rather, it's about taking care. Lawaiʻa pono is about our responsibility to practice restraint and make sacrifices today for the long-term benefit of generations to follow" (Blake and Young 2019, 79). Such practices are evident among many within Native Hawaiian and other Indigenous communities today, despite a narrower societal framing of material well-being influenced by consumerism and Western capitalism.

Household income and the material resources available to a family can influence the academic achievement of children. In a study looking at associations between family income and children's school readiness, researchers found that for children from low-income families, higher incomes were associated with higher reading and math scores (Isaacs and Magnuson 2011). Over time, gaps in achievement between high-income and low-income families have widened, perhaps caused by a rise in income inequality, the difficulty of upward mobility, and the evolving structure of families (Reardon 2013).

Hawaiʻi is no stranger to income inequality. For example, while the economic status of Native Hawaiians has improved in recent years, marked by an upward trend in families with a livable income (see fig. 1.24), Native Hawaiians continue to experience disproportionately adverse material and economic conditions, compared with other major ethnicities in Hawaiʻi. In addressing Native Hawaiian economic well-being, we look to established data sources that, while valid, tend to highlight deficits. The following section examines available data on income, employment, earnings, poverty, public assistance, and housing.

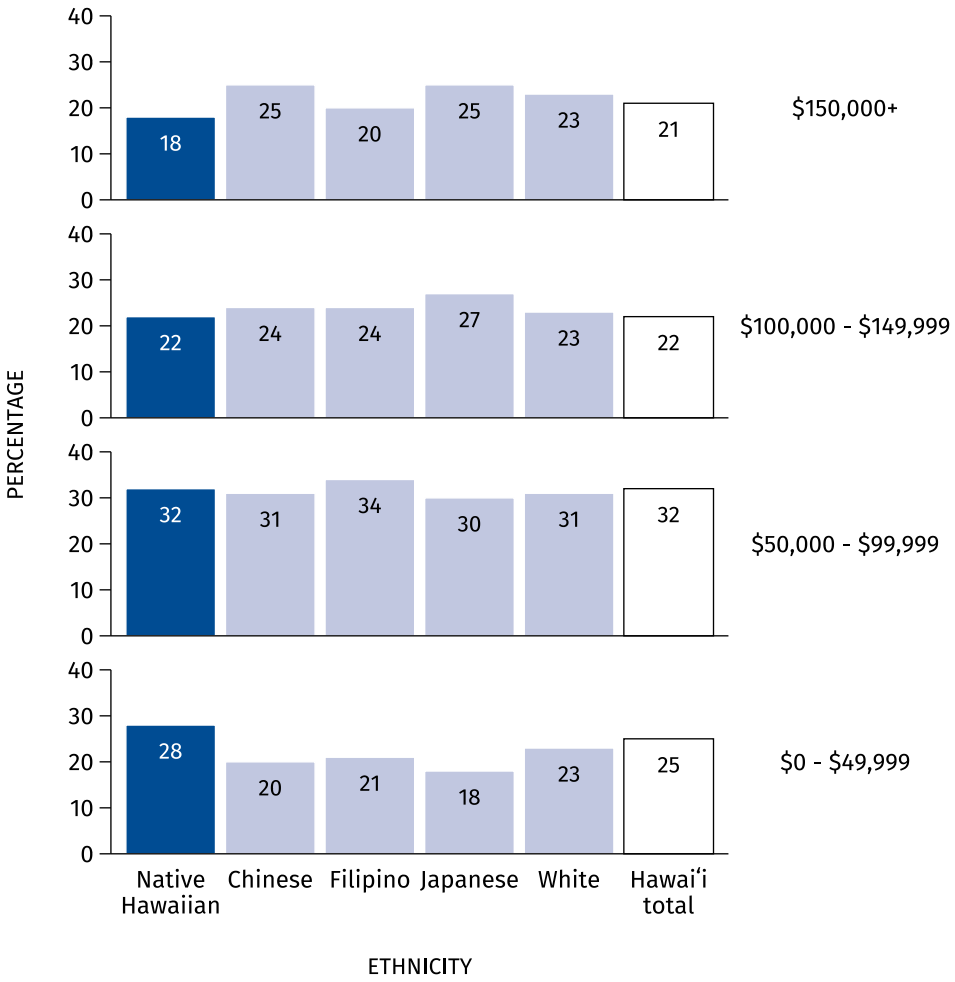
Income, Employment, and Earnings

Household income, though not always equivalent to wealth and happiness, is a conventional measure of economic well-being and includes earnings from wages and salary, Social Security payments, public assistance, and investment income. In Hawai‘i, where the cost of living is among the highest in the United States, a higher income often translates into more life options for families. Livable, stable, and meaningful employment is associated with greater economic well-being. Because of Hawai‘i’s high cost of living, unemployment, under normal circumstances, is rare.

INCOME

Income is related directly to employment and is a key factor in measuring economic well-being. Relative to other major ethnicities in Hawai‘i, Native Hawaiians have the lowest average family income (Kamehameha Schools 2019) and the greatest proportion of family households earning $49,999 or less per year (fig. 1.23).

FIGURE 1.23 Family income of family households
[by ethnicity, Hawaiʻi, 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 5-year file

Note 1: A family household consists of a family and may also include people not related to the householder.

Note 2: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

- Across Hawaiʻi's major ethnicities, Native Hawaiians have the smallest percentage of family households (18 percent) earning $150,000 or more annually, and the largest percentage (28 percent) with a family income of $49,999 or less.
- The combined percentage of Native Hawaiian family households with a family income of $50,000 to $149,999 is the same as the Hawaiʻi total (54 percent).

We also examine income using the following categories:

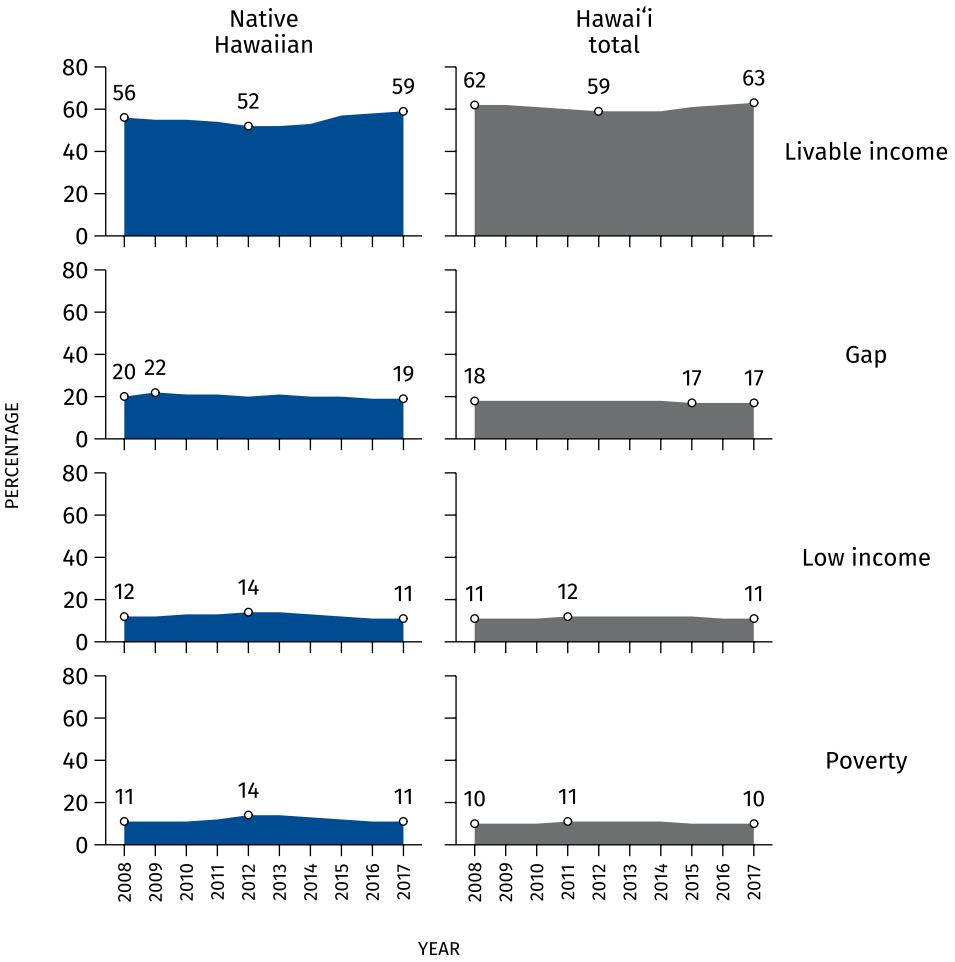
1. Livable income: annual income required to provide the basic necessities for a comfortable life (based on the concept of living wage)
2. Gap: income that is more than 185 percent of the poverty guideline, but below the threshold for a livable income
3. Low income: income between 101 and 185 percent of the poverty guideline (the cutoff used for most income subsidy benefits in Hawai‘i)
4. Poverty: income at or below federal poverty guidelines defined for Hawai‘i by the US Department of Health and Human Services[7]

Trend data from 2008 to 2017 show that the percentage of Native Hawaiian families with a livable income has increased in recent years (fig. 1.24). However, compared with other ethnic groups in Hawai‘i, Native Hawaiian families are the least likely to have a livable income (fig. 1.25).

The past decade has seen a rise in the percentage of Native Hawaiian families with a livable income, particularly among families with school-age children.

[7] The US Census Bureau takes several economic variables into account when classifying households that experience poverty. In terms of income, the poverty threshold for a family of four (with two children under the age of eighteen) is about $26,000 a year. The US Census does not differentiate thresholds geographically.

FIGURE 1.24 Trends in income categories of families
[among families, by Native Hawaiian and Hawaiʻi total, 2008 to 2017]



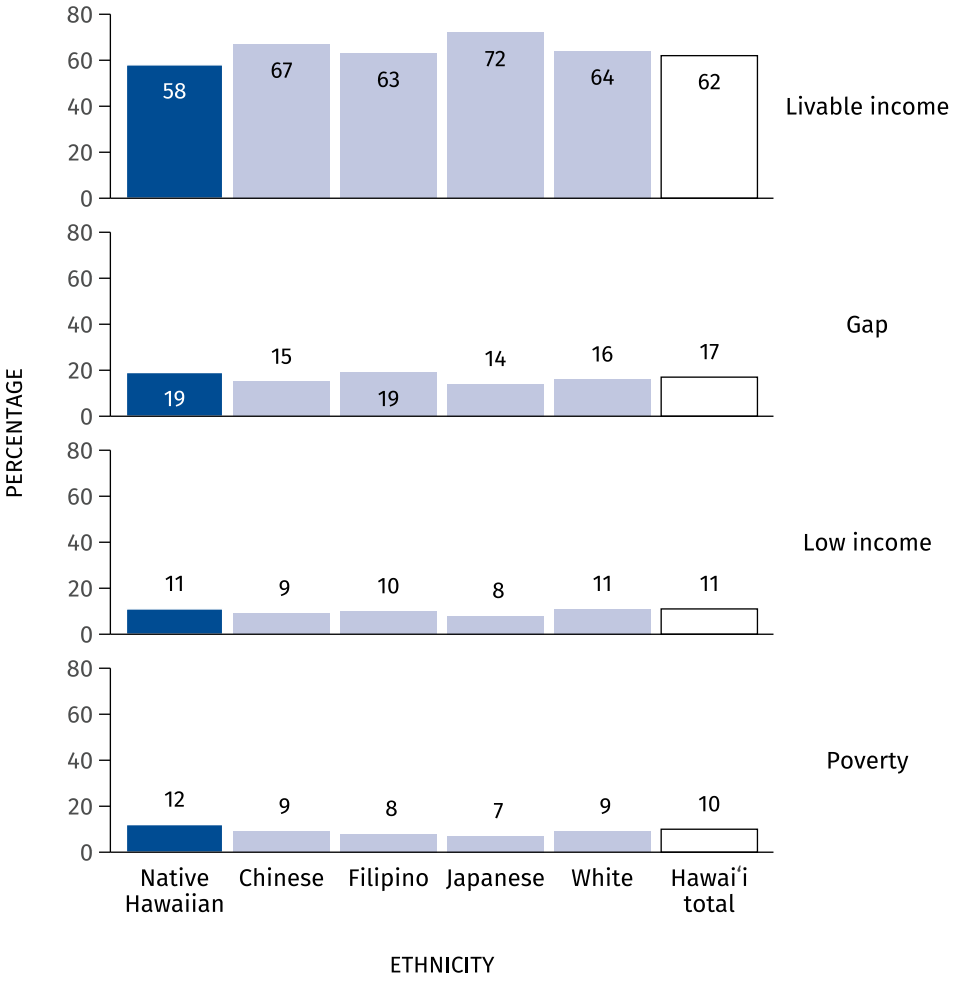
Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

Note 1: The data include subfamilies, which are defined as families that do not maintain their own household but live in a household where the householder or householder's spouse is a relative.

Note 2: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- Over a ten-year period, there was an increase in the percentage of Native Hawaiian families with a livable income, rising from 56 to 59 percent between 2008 and 2017.
- Between 2008 and 2012, the percentage of Native Hawaiian families with a livable income declined by 4 percentage points.
- Similar decreases between 2008 and 2012 were observed among Chinese, Filipino, and White families, though to a slightly lesser extent (not shown).
- Poverty rates among Native Hawaiian families increased from 11 to 14 percent between 2008 and 2012.

FIGURE 1.25 Income categories of families
[among families, by ethnicity, Hawai'i, 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 5-year file

Note 1: The data include subfamilies, which are defined as families that do not maintain their own household but live in a household where the householder or householder's spouse is a relative.

Note 2: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

- Among the major ethnicities in Hawai'i, Native Hawaiians have the highest percentage of families in poverty (12 percent) and the lowest percentage of families with a livable income (58 percent).
- About one in five Native Hawaiian and Filipino families (19 percent) is in the gap group—the highest rate among the major ethnicities in Hawai'i.
- The proportion of families with low income is similar among Native Hawaiians (11 percent), Filipinos (10 percent), and Whites (11 percent).

Employment, education, age, and occupation all contribute to the livable income status of families. For example, our internal research indicates that families with children, where the parents are older and have higher educational attainment and higher-paying jobs, are more likely to have a livable income. The growing trend to delay marriage and childbearing is another factor related to higher levels of education and earnings (Kamehameha Schools 2019).

A measure that is increasingly used to gauge economic well-being comes from ALICE (asset limited, income constrained, employed) research conducted by Aloha United Way. ALICE provides information about households that are above the federal poverty level but are unable to afford the basic cost of living in Hawaiʻi. This metric is known as the ALICE threshold (Aloha United Way 2020). According to the 2020 ALICE report, roughly four in every seven Native Hawaiian households are below the ALICE threshold, meaning that the majority of Native Hawaiian households in Hawaiʻi struggle to make ends meet financially (Aloha United Way 2020).

From 2000 to 2015, Honolulu, Windward, Central, and Kauaʻi regions exhibited improved income trends for Native Hawaiian family households.

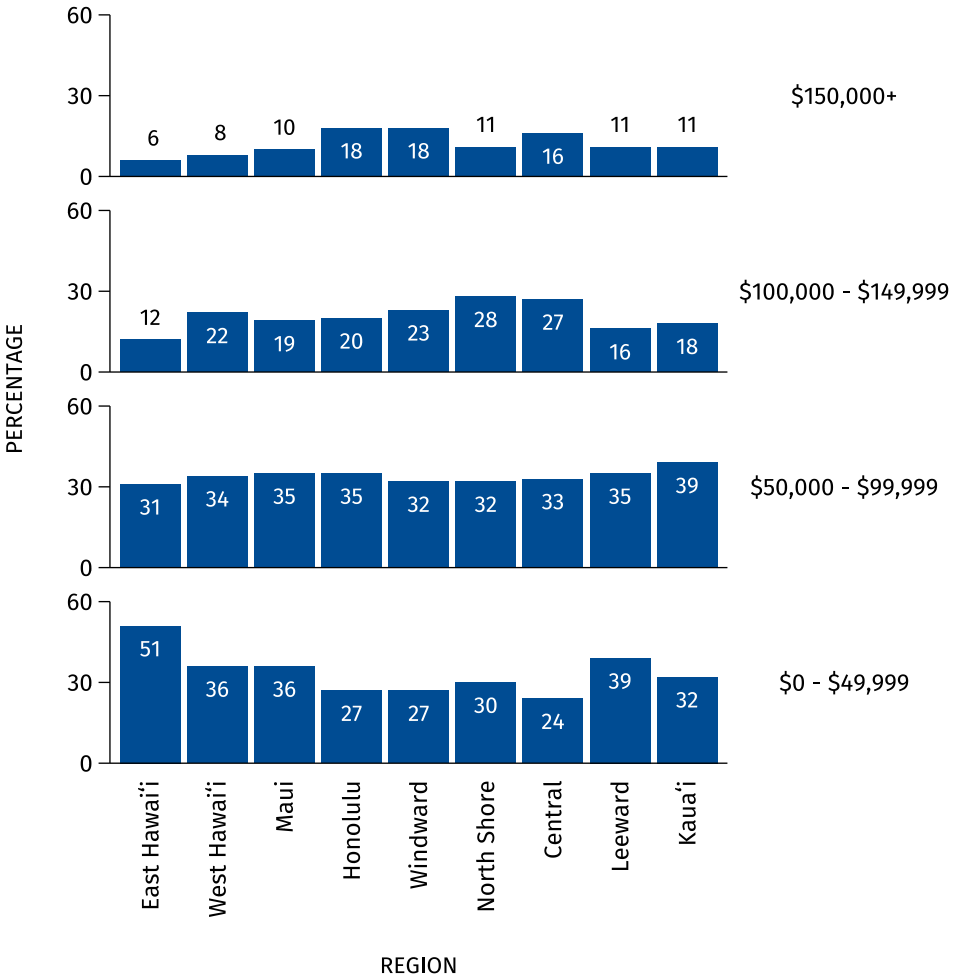
Income—Regional Highlights

Comparing the distribution of income among family households headed by a Native Hawaiian across regions, East Hawaiʻi has the highest percentage (51 percent) of households making $49,999 or less per year and the lowest proportion (6 percent) of households earning $150,000 or more. By contrast, the Honolulu, Windward, and Central regions have a comparatively lower percentage of Native Hawaiian households earning $49,999 or less annually and a higher percentage making $150,000 or more. North Shore and Central have the highest proportion of Native Hawaiian households in the $100,000 to $149,999 category (fig. 1.26)

Looking at trends in income over time, Kauaʻi had the greatest decrease in the proportion of Native Hawaiian family households earning $49,999 or less per year, declining from 59 to 32 percent between 2000 and 2015. From 2000 to 2015, the greatest gains among Native Hawaiian family households earning $150,000 or more per year were in Windward (14 percentage points), Central (13 percentage points), and Honolulu (11 percentage points) (not shown).

In terms of livable income, the majority of Native Hawaiian family households across regions have a livable income, except for in East Hawaiʻi and Leeward (fig. 1.27).

FIGURE 1.26 Regional distribution of income of family households headed by a Native Hawaiian
[by region, Hawai'i, 2015]

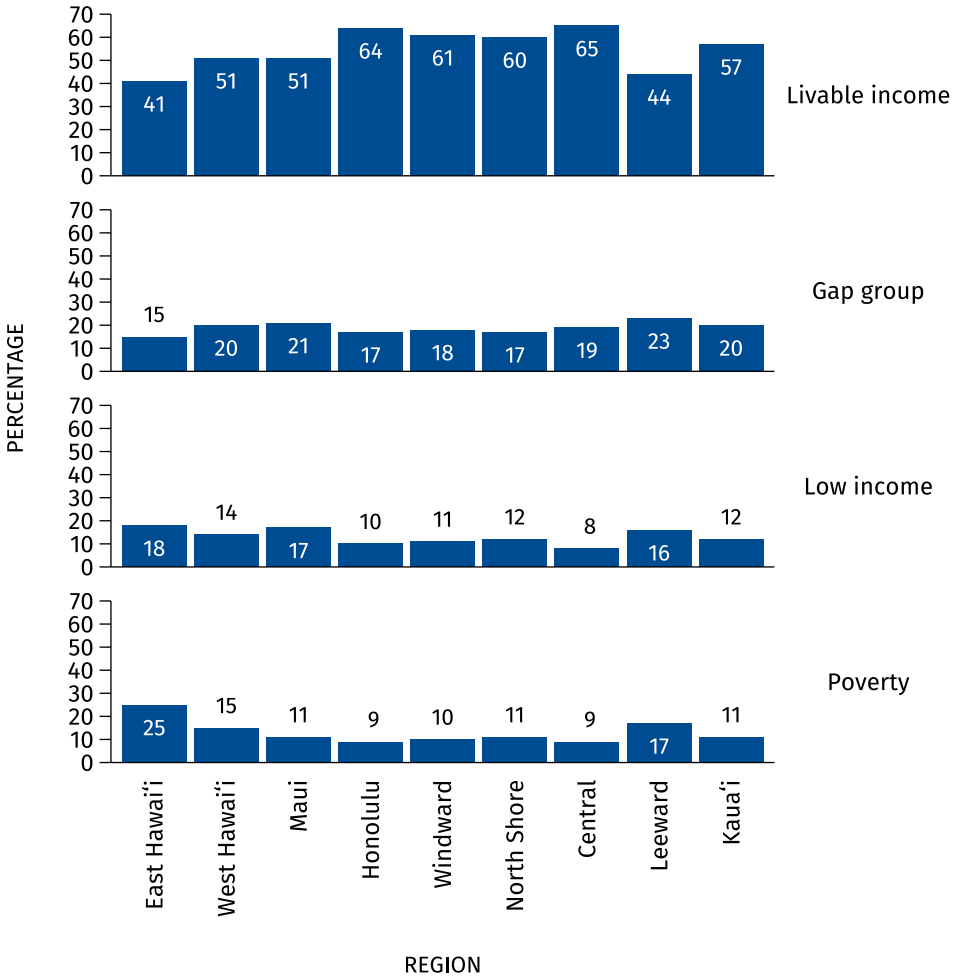


Data source: US Census Bureau, American Community Survey, Selected Population Tables

Note 1: A family household consists of a family and may also include people not related to the householder.

- Comparing regions, East Hawai'i has the highest proportion (51 percent) of family households headed by a Native Hawaiian where the income is $49,999 or less annually, and the lowest percentage (6 percent) with a family income of $150,000 or more per year.
- By contrast, family households headed by a Native Hawaiian in the Honolulu, Windward, and Central regions tend to have comparatively higher rates of family income over $150,000 and are less represented in the lower income range.

FIGURE 1.27 Income categories among Native Hawaiian family households—regional comparison
[among family households headed by a Native Hawaiian, by region, Hawaiʻi, 2015]



Data source: US Census Bureau, American Community Survey, Selected Population Tables

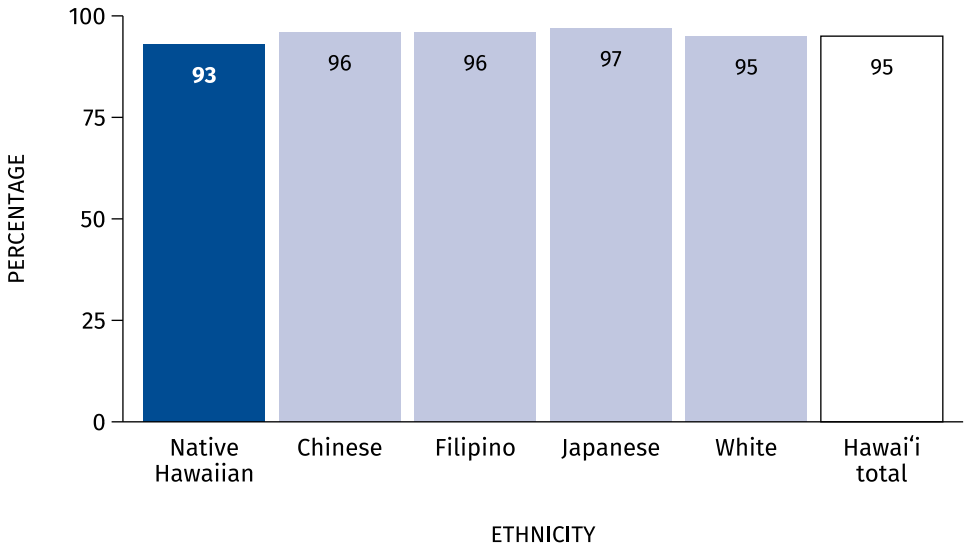
Note 1: A family household consists of a family and may also include people not related to the householder.

- In all regions except East Hawaiʻi and Leeward, the majority of family households headed by a Native Hawaiian have a livable income.
- Across regions, Leeward has the largest percentage of Native Hawaiian-headed family households in the gap group (23 percent).
- Compared with other regions, East Hawaiʻi has the largest percentage of Native Hawaiian-headed family households facing poverty (25 percent) and low income (18 percent).

EMPLOYMENT

The employment rate of Native Hawaiians (93 percent) is lower than that of other groups and the overall Hawai'i total (95 percent) (fig. 1.28). However, the employment rate represents only the population that is in the labor force. Native Hawaiian participation in the labor force is lower than the Hawai'i total. In addition, rates of underemployment (i.e., working less than full time or thirty-five hours per week, when a person otherwise could be working at that level) are also slightly lower among Native Hawaiians, compared with the Hawai'i total (Kamehameha Schools 2019). These findings suggest that addressing employment disparities between Native Hawaiians and other ethnicities in Hawai'i must take into account more than just employment rates.

FIGURE 1.28 Employment rates
[among the civilian population in the labor force, by ethnicity, Hawai'i, 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 5-year file

Note 1: The labor force is defined as civilians ages 16 and older.

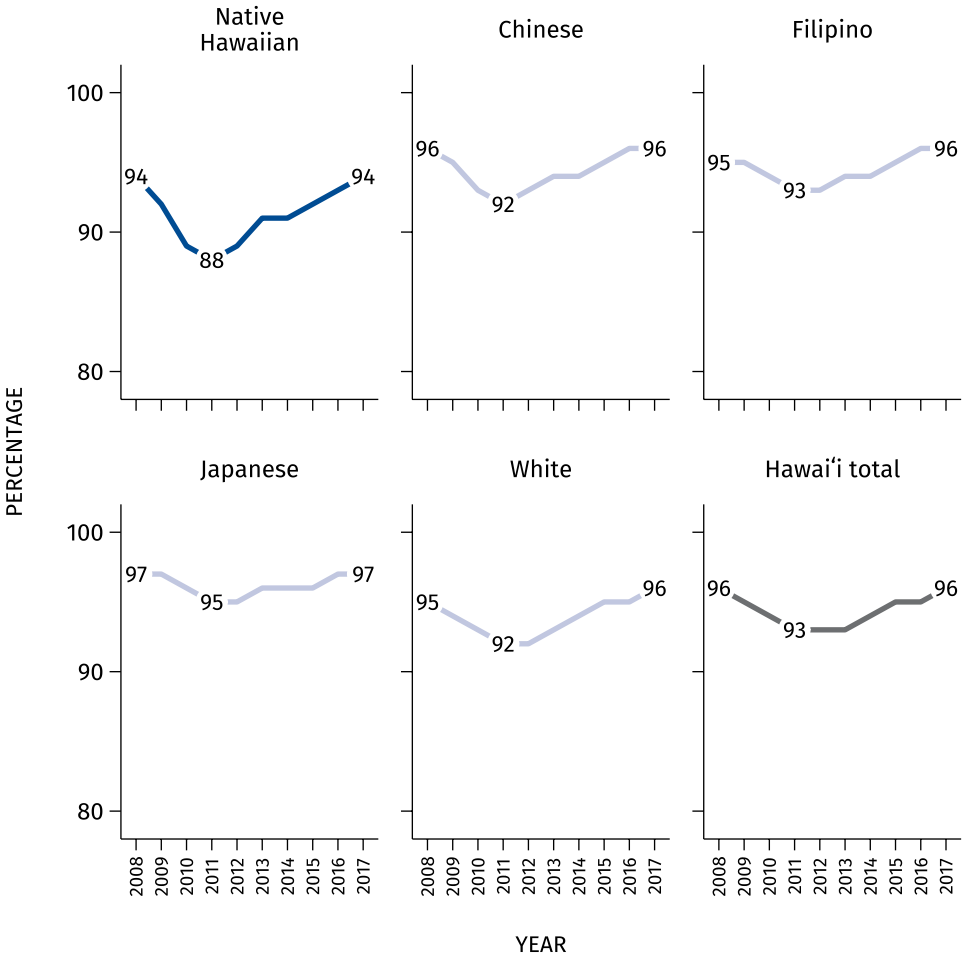
Note 2: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

- Compared with other major ethnicities in Hawai'i, Native Hawaiians have the lowest employment rate (93 percent).
- The Japanese employment rate is 4 percentage points higher than that of Native Hawaiians; however, this difference is not statistically significant.
- The Hawai'i total employment rate is 95 percent.

The 2008 recession had a greater effect on the employment rates of Native Hawaiians than it did on the rates of other ethnic groups in Hawaiʻi (fig. 1.29). Looking across time and Hawaiʻi, some regions were more affected by the recession than others, in particular, regions that typically have the heaviest reliance on tourism (see fig. 1.31). Early observations suggest that a similar pattern may ensue in the wake of COVID-19. In a national ranking of "recession-vulnerable" metropolitan areas, Kahului-Wailuku-Lahaina came in second of 382, with a 40 percent share of jobs in 2019 at high risk to be negatively impacted by COVID-19 (Muro, Maxim, and Whiton 2020).

Despite being hit disproportionately hard by the 2008 recession, Native Hawaiians returned to pre-recession employment levels (94 percent) by 2017.

FIGURE 1.29 Trends in employment rates
[among the civilian population in the labor force, by ethnicity, Hawai'i, 2008 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

Note 1: The labor force is defined as civilians ages 16 and older.

Note 2: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

Note 3: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- Between 2008 and 2011, employment rates decreased among all major ethnic groups in Hawai'i.
- Native Hawaiian employment rates fell from 94 to 88 percent between 2008 and 2011—the greatest decrease among Hawai'i's major ethnic groups.
- Among Japanese individuals, the employment rate went down by 2 percentage points between 2008 and 2011—the smallest decrease among Hawai'i's major ethnic groups.
- By 2017, all of the major ethnicities in Hawai'i had recovered from the decline in employment experienced between 2008 and 2011.

Slightly lower employment rates among the Native Hawaiian population may partially explain the lower average income among Native Hawaiian families (see fig. 1.23), higher poverty (see fig. 1.34), and lower livable income rates (see fig. 1.25), compared with Hawaiʻi's other ethnicities.

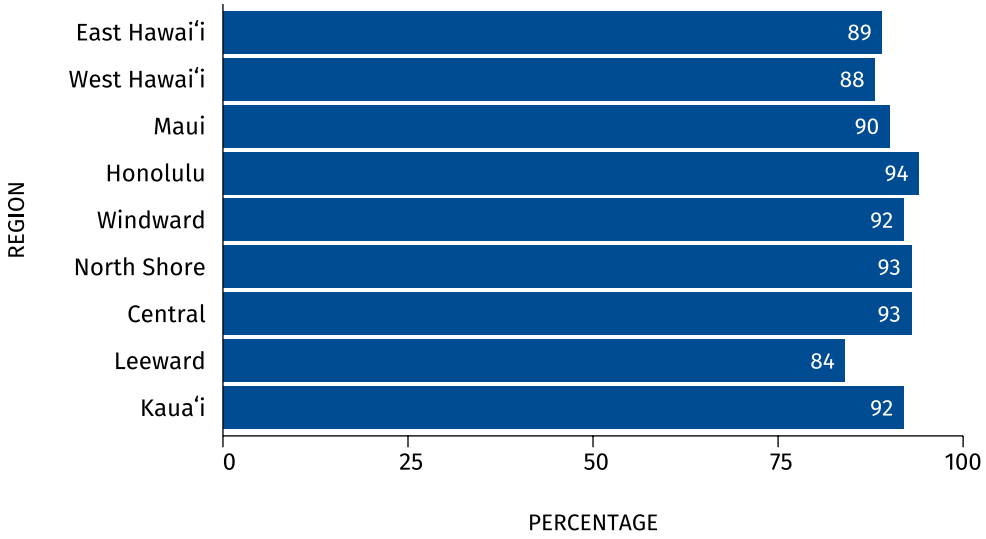
Other employment data further demonstrate ways in which Native Hawaiian families with children were affected by the 2008 recession. Our analysis shows that from 2008 to 2017, the percentage of children who had at least one working parent fluctuated more among Native Hawaiians than it did among Hawaiʻi's other major ethnicities. For example, between 2008 and 2012, the proportion of Native Hawaiian children who had at least one working parent decreased from 89 to 85 percent (the greatest decrease among all major ethnicities) and, starting in 2014, began to increase, reaching a high of 90 percent by 2017 (not shown).

Employment—Regional Highlights

The region where Native Hawaiians have the highest employment rates is Honolulu, followed by North Shore, Central, and Windward. Across all regions, the lowest employment rate among Native Hawaiians is in Leeward (84 percent)—10 percentage points lower than that of Honolulu (fig. 1.30).

Between 2000 and 2015, East Hawaiʻi, Honolulu, Leeward, and Kauaʻi regions saw improved employment rates among Native Hawaiians.

FIGURE 1.30 Native Hawaiian employment rates—regional comparison
[as a percentage of the Native Hawaiian civilian labor force, by region, Hawai'i, 2015]



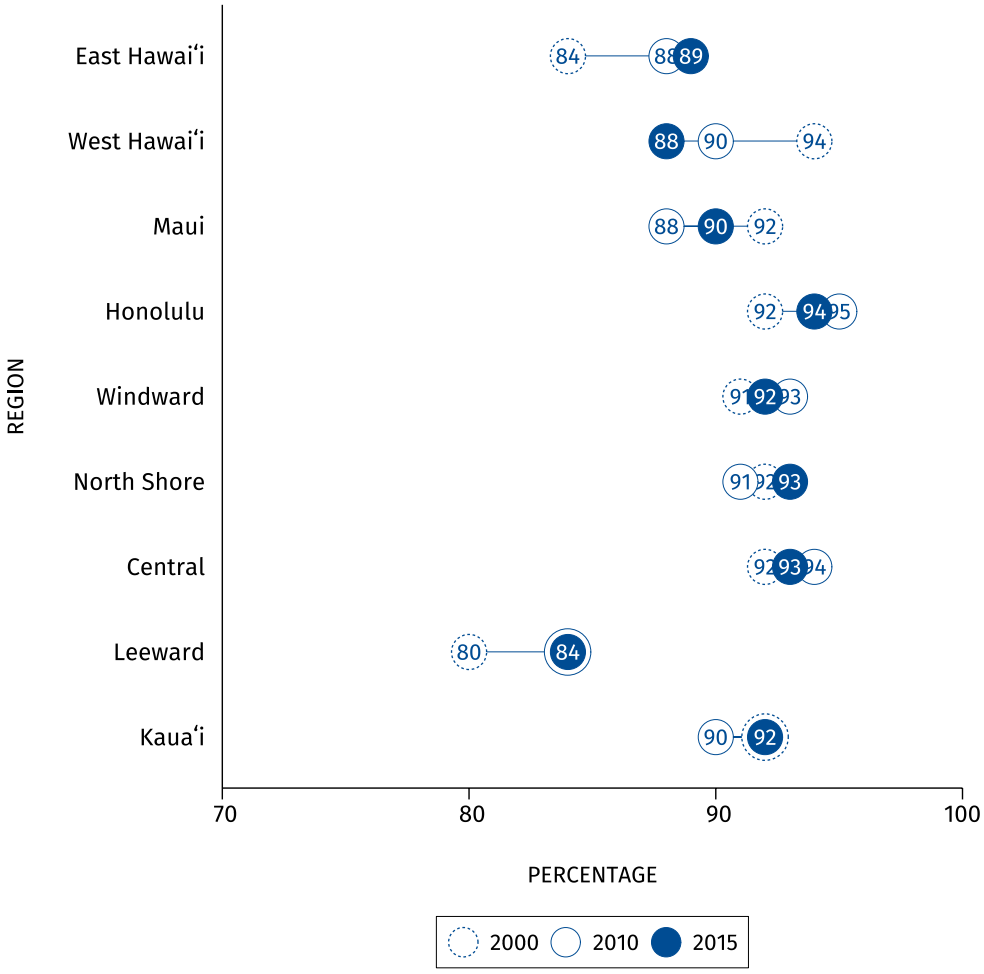
Data source: US Census Bureau, American Community Survey, Selected Population Tables

Note 1: The labor force is defined as civilians ages 16 and older.

- Four O'ahu regions have the highest Native Hawaiian employment rates: Honolulu (94 percent), North Shore (93 percent), Central (93 percent), and Windward (92 percent).
- The Native Hawaiian employment rate for Leeward is 84 percent—the lowest rate among regions and 10 percentage points lower than the region with the highest rate of employment (Honolulu).
- Native Hawaiian employment rates in East Hawai'i, West Hawai'i, and Maui are significantly lower than those on Kaua'i and O'ahu (except Leeward).

Between 2000 and 2015, changes in Native Hawaiian employment rates varied from region to region. All regions, except East Hawai'i, Honolulu, Kaua'i, and Leeward, saw decreases in Native Hawaiian employment rates during this time. On Hawai'i Island, employment increased steadily among Native Hawaiians in East Hawai'i, while West Hawai'i experienced a dramatic decrease (6 percentage points). By contrast, employment rates for Native Hawaiians did not change significantly in any region between 2010 and 2015 (fig. 1.31).

FIGURE 1.31 Trends in Native Hawaiian employment rates—regional comparison
[as a percentage of the Native Hawaiian civilian labor force, by region, Hawaiʻi; 2000, 2010, 2015]



Data source: US Census Bureau, 2011–2015 American Community Survey, Selected Population Tables; US Census Bureau, 2006–2010 American Community Survey, Selected Population Tables; Census 2000, Summary File 4

Note 1: The labor force is defined as civilians ages 16 and older.

Note 2: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

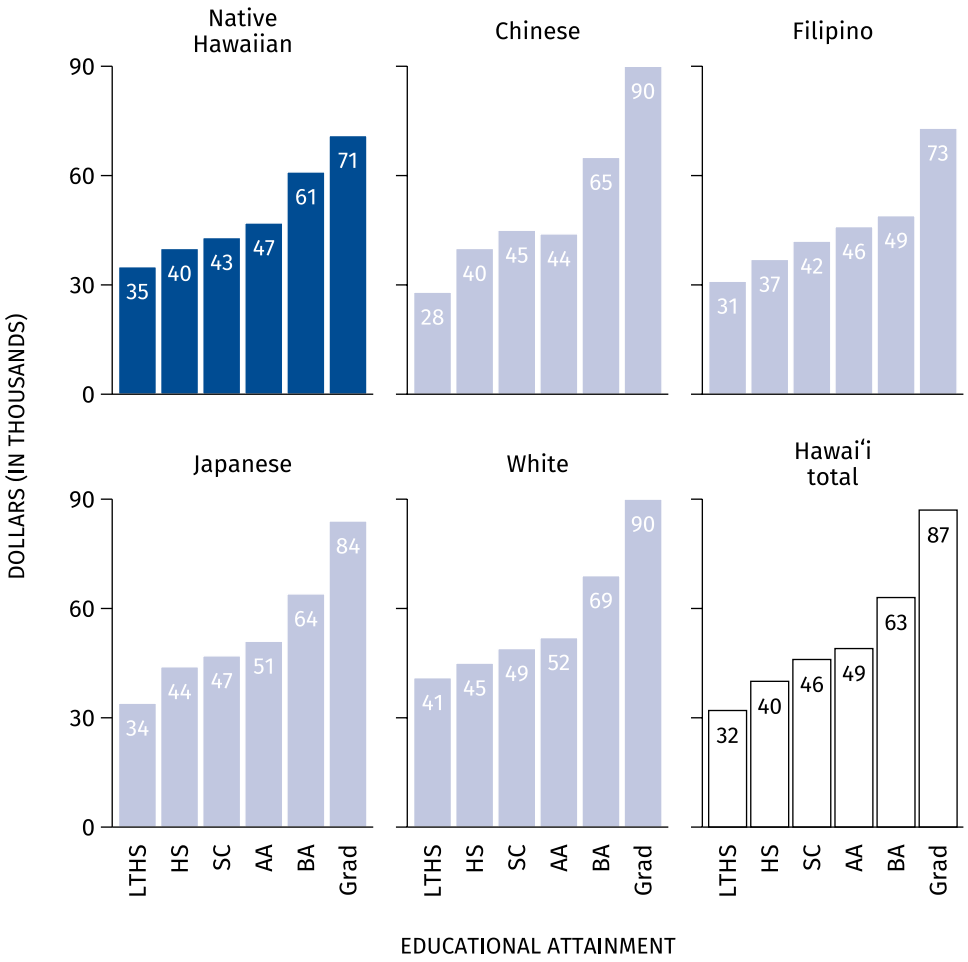
- Between 2000 and 2015, most regions—with the exception of East Hawaiʻi, Honolulu, Kauaʻi, and Leeward—saw decreases in the employment rate.
- The employment rate of Native Hawaiians in East Hawaiʻi increased steadily from 2000 to 2015; however, Native Hawaiians in West Hawaiʻi experienced a dramatic decline in employment during the same period, decreasing from 94 to 88 percent between 2000 and 2015.

EARNINGS AND OCCUPATION

It is widely acknowledged that educational attainment is associated with earnings. Having a college degree, for example, generally results in increased annual earnings and greater earnings over one's life span. The level of education also matters. For instance, over a lifetime of living and working in Hawai'i, an adult with an associate's degree from the University of Hawai'i makes $360,000 more, on average, than an adult whose highest degree is a high school diploma. The lifetime earnings gap increases to $950,000 for an adult with a bachelor's degree and $1,560,000 for an adult with a postgraduate degree (Page et al. 2016). Factors beyond one's level of education also influence earnings, such as age, sex, race/ethnicity, and occupation (Carnevale, Rose, and Cheah 2011).

On the whole, the level of educational attainment and household income among Native Hawaiians is generally lower than that of other major ethnicities (see figs. 1.23 and 1.95). An in-depth analysis reveals that Native Hawaiians who complete college and earn a degree do not always follow the typical education-to-workforce pathway. For example, compared with other ethnicities, Native Hawaiian graduates who hold degrees with higher earning potential are more likely to be in occupations with lower average earnings. More specifically, Native Hawaiians who graduate with a science, engineering, or related degree are relatively more likely to go into the service industry or work for a nonprofit or government organization. We also find that Native Hawaiians who complete college are more likely than their non-Hawaiian counterparts to obtain a degree in education, art, or the humanities (Kamehameha Schools 2019). This may partially explain why Native Hawaiians with college and graduate degrees do not generally realize the same earning gains as other groups (fig. 1.32).

FIGURE 1.32 Average earnings, by educational attainment
[in 2017 dollars, among employed individuals ages 25 and older, by ethnicity, Hawaiʻi, 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 5-year file

Note 1: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

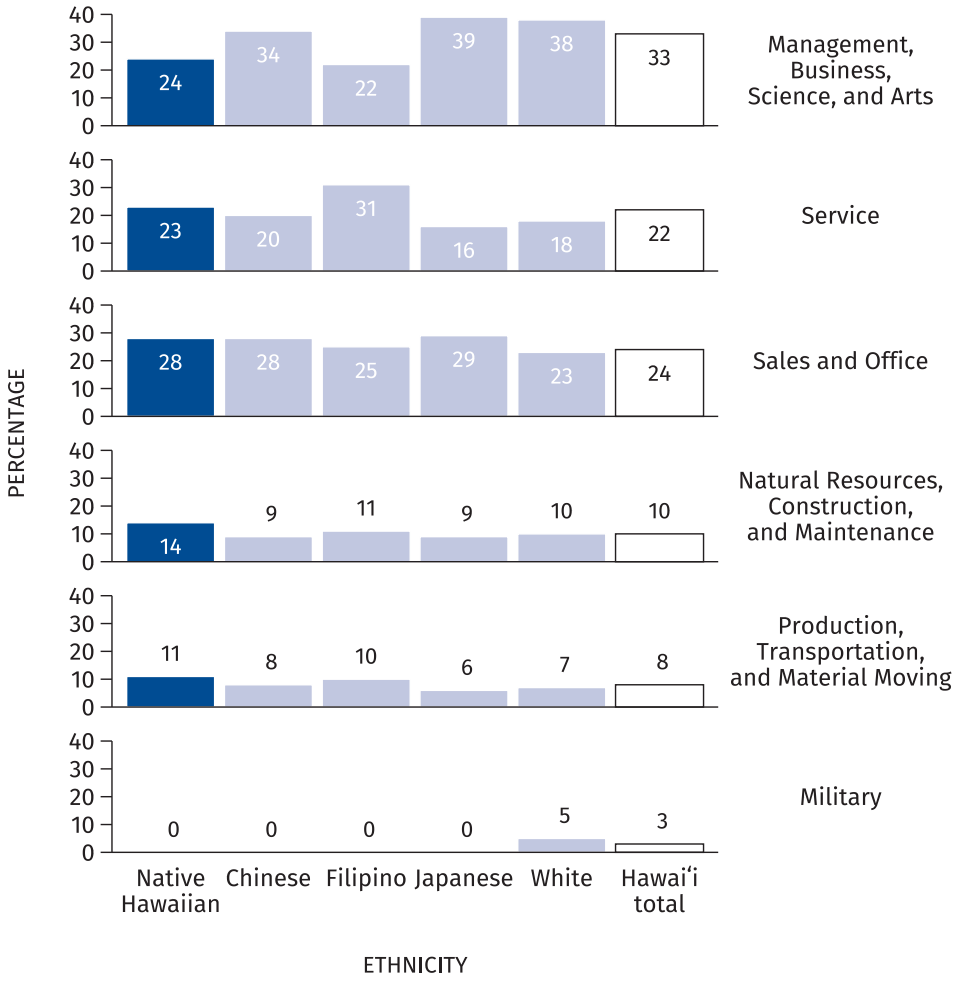
Note 2: LTHS = Less than high school; HS = High school; SC = Some college; AA = Associate's degree; BA = Bachelor's degree; Grad = Graduate degree.

- Higher earnings are consistently associated with higher levels of educational attainment.
- Based on the Hawaiʻi total, individuals with a graduate degree earn more than $20,000 more per year than do those with a bachelor's degree.
- Among Native Hawaiians, those with a bachelor's degree earn nearly $20,000 more than individuals whose highest degree is a high school diploma.

While we do not have data that specifically explain the differences in the levels of education and earnings among Native Hawaiians, possible reasons may include potential discriminatory practices, lack of the right type of jobs in Hawai‘i, lack of “connections” to higher-paying industries, and easier money from manual labor jobs. Regarding the latter point, our internal analysis shows that one-quarter of occupations held by Native Hawaiians are manual labor jobs (Kamehameha Schools 2019). Manual jobs generally pay more than jobs in the Service or Sales and Office categories and do not require postsecondary education. In fact, there are diminishing returns on wages with higher education in these types of jobs. This means that there is not as much incentive to pursue higher education for those working or planning to work in these occupations. In other words, Native Hawaiians in occupations other than manual labor are relatively more likely to experience the gains associated with higher educational attainment.

Looking more broadly across occupations, the most common occupation category among Native Hawaiians is Sales and Office—which happens to be the second-lowest paying occupation category (Kamehameha Schools 2019). Among other ethnic groups in Hawai‘i (except Filipinos), jobs in Management, Business, Science, and Arts are the most common occupations (fig. 1.33).

FIGURE 1.33 Occupation categories of employed individuals
[among employed individuals, by ethnicity, Hawaiʻi, 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 5-year file

Note 1: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

- More than one-fourth (28 percent) of employed Native Hawaiians work in Sales and Office—the most common occupation category among Native Hawaiians.
- Among employed Native Hawaiians, occupations in the Service category (23 percent) are as common as occupations in Management, Business, Science, and Arts (24 percent).
- Compared with Hawaiʻi's other major ethnic groups, Native Hawaiians have the highest combined proportion (25 percent) of employed individuals working in Natural Resources, Construction, and Maintenance or Production, Transportation, and Material Moving occupations.
- For the Hawaiʻi total, one-third (33 percent) of employed individuals work in Management, Business, Science, and Arts—the most common occupation category in Hawaiʻi.

Based on data from the US Census, educational attainment is the most significant predictor of occupation category. The second-most significant predictor is sex, as males are much more likely to perform jobs involving manual labor (Kamehameha Schools 2019).

In a separate analysis, we find that Native Hawaiian males are more likely than Native Hawaiian females to be in labor-intensive jobs in Natural Resources, Construction, and Maintenance, and in Production, Transportation, and Material Moving (Kamehameha Schools 2019). As a group, these job categories include the second- and third-highest paying jobs in Hawai'i, excluding military (Kamehameha Schools 2019). Many of these occupations do not require a college degree. As a result, there may be economic incentives for some Native Hawaiian males to enter directly into the workforce and begin earning wages, taking advantage of relatively higher-paying occupations that do not require college degrees.

Poverty and Public Assistance

Poverty is described as "a denial of choices and opportunities, a violation of human dignity. It means lack of basic capacity to participate effectively in society. It means not having enough to feed and clothe a family" (United Nations 1998, under "The Challenge"). The US Census Bureau takes several economic variables into account when classifying households that experience poverty. In terms of income, the poverty threshold for a family of four (with two children under the age of eighteen) is about $26,000 a year. The US Census does not differentiate thresholds geographically.

In Hawai'i, where the cost of living is disproportionately higher than what is typical on the US continent, the poverty threshold is closer to about $27,900 for a family of four (Aloha United Way 2020). However, the basic household expenses for a family of four are about $72,350, which is more than double the adjusted federal poverty guideline. This would mean one parent would need to earn $36.17 per hour—a significant challenge considering that more than half of all jobs in Hawai'i do not exceed $20 per hour. This explains why a significant number of families are identified as being asset limited, income constrained, employed—or "ALICE households" (Aloha United Way 2020).

To support those in poverty, public assistance programs are made available to individuals and families that demonstrate financial need. Public assistance programs have shown both short-term effects (e.g., helping to immediately reduce poverty and encourage working opportunities) and long-term effects (e.g., contributing to health, educational, and employment outcomes) (Sherman, Trisi, and Parrott 2013). It is important to keep in mind, however, that a majority of assistance is generally allocated toward healthcare spending and services, resulting in gaps for those who require assistance with other basic needs such as housing and childcare (Aloha United Way 2017).

POVERTY

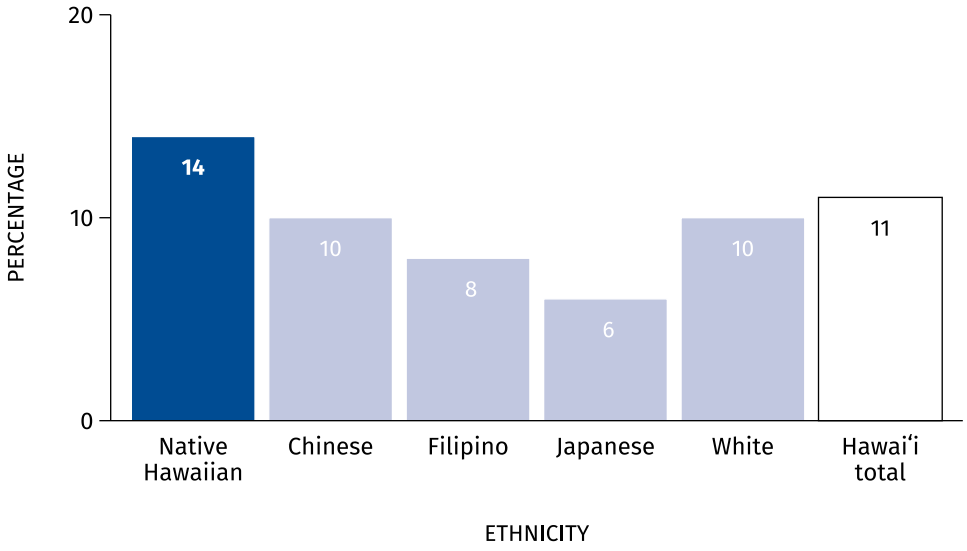
Compared with other ethnic majority groups in Hawaiʻi, Native Hawaiians continue to be more economically disadvantaged as evidenced by lower incomes, higher reliance on public assistance, and higher poverty rates (US Department of Housing and Urban Development 2017). Understanding this economic disadvantage can be explained, in part, by the lingering and persistent effects of the 2008 recession, which disproportionately affected Native Hawaiian communities with higher rates of unemployment and lower levels of income (Hostetter 2014; US Department of Housing and Urban Development 2017).

Employment is often viewed as a means to escape poverty. In 2016, more than half of the 40.6 million Americans living in poverty were working-age adults (Stevens 2018). An internal report by Kamehameha Schools (2019) found that among Native Hawaiian individuals in poverty, about one-third work, and among those who work, about one-third are employed full time. However, the report also noted that Native Hawaiians in poverty who are employed tend to have jobs in lower-paying occupations (e.g., Service or Sales and Office).

These findings suggest two things: (1) A number of adults in poverty are working or are able to work, and (2) Native Hawaiians in poverty encounter barriers to working full time and finding higher-paying positions. Therefore, while policies supporting employment opportunities—as a means to reduce poverty—may be favorable, they must account for the broader socioeconomic conditions that may impact the type of work individuals are able to engage in (e.g., costs of childcare, dealing with illness and disability, educational attainment, etc.).

In Hawaiʻi, 14 percent of Native Hawaiian individuals live in poverty—a higher rate than that of other major ethnicities and the Hawaiʻi total (fig. 1.34). While the poverty rate among Native Hawaiian individuals in recent years does not differ significantly from that of a decade ago, there was an increase in poverty rates from 2008 to 2013, similar to what most of Hawaiʻi's other major ethnicities experienced (fig. 1.35). Individuals who are young and female make up a disproportionate percentage of Native Hawaiians living in poverty (Kamehameha Schools 2019).

FIGURE 1.34 Individuals in poverty
[as a percentage of individuals, by ethnicity, Hawai'i, 2017]



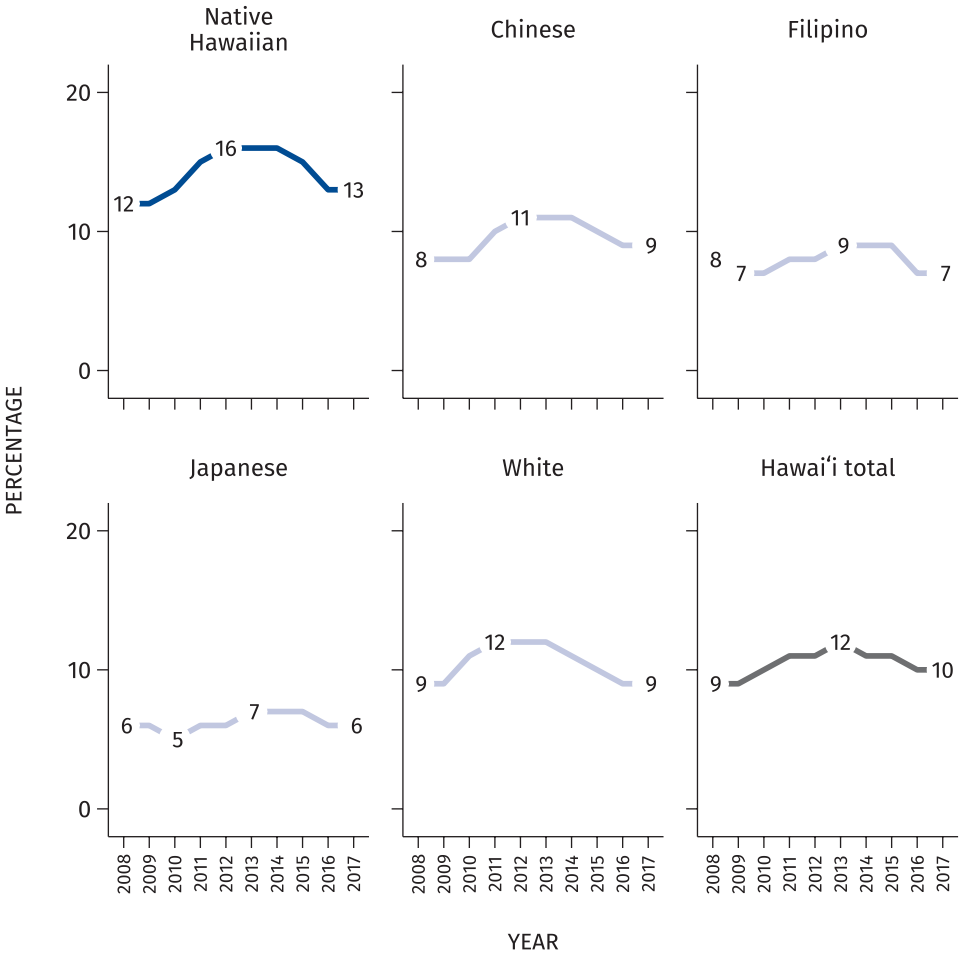
Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 5-year file

Note 1: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

Note 2: These calculations exclude people who are institutionalized, in military group quarters, in college dormitories, and unrelated individuals younger than age fifteen.

- Among Native Hawaiian individuals, one in seven (14 percent) lives in poverty—the highest percentage among all major ethnicities in Hawai'i.
- Japanese have the lowest poverty rate (6 percent) among the major ethnicities in Hawai'i.
- For the Hawai'i total, one in nine individuals (11 percent) is in poverty.

FIGURE 1.35 Trends in individuals in poverty
[as a percentage of individuals, by ethnicity, Hawaiʻi, 2008 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

Note 1: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

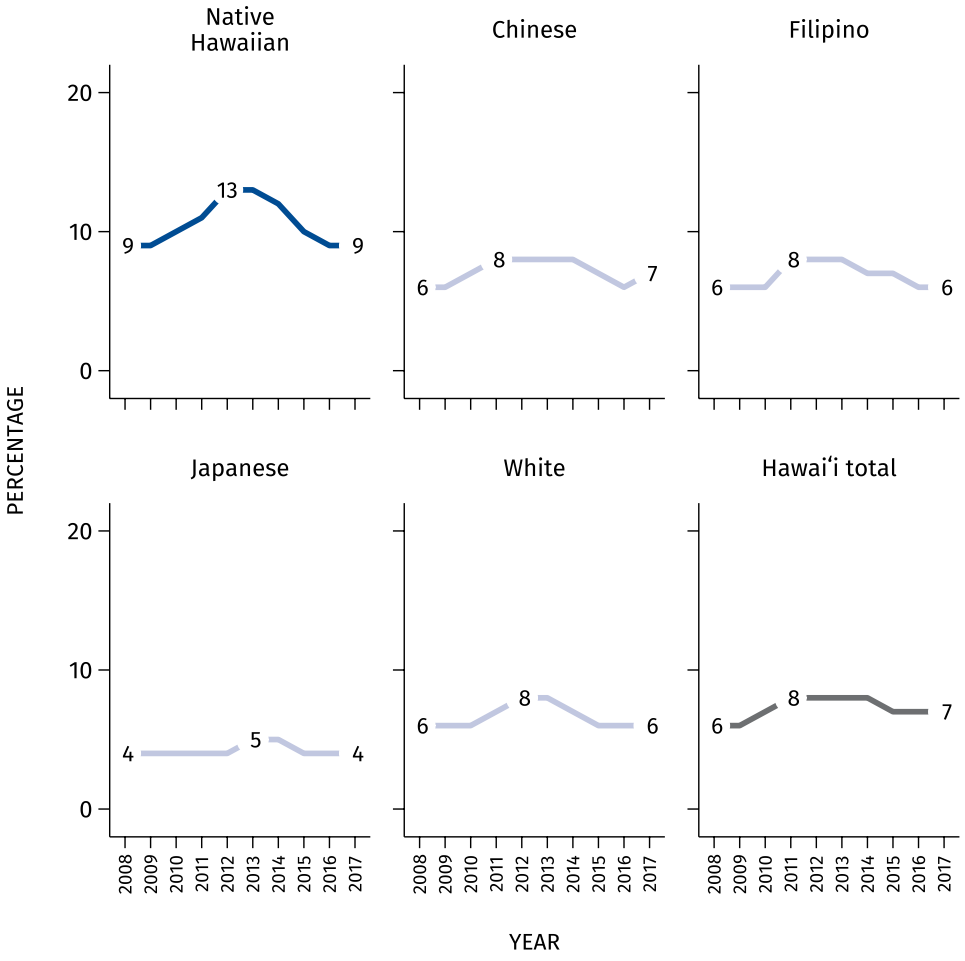
Note 2: These calculations exclude people who are institutionalized, in military group quarters, in college dormitories, and unrelated individuals younger than age fifteen.

Note 3: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- Comparing 2008 and 2017, poverty rates for Native Hawaiian individuals—and for the Hawaiʻi total—did not change significantly.
- Over a six-year period, the poverty rate among Native Hawaiians increased more than that of other major ethnicities in Hawaiʻi—from 12 to 16 percent between 2008 and 2013.
- From 2008 to 2013, individual poverty rates increased among all of Hawaiʻi's major ethnic groups (except Filipinos, where the increase was not statistically significant).
- Starting in 2013, poverty rates decreased for all major ethnicities in Hawaiʻi; among Native Hawaiians, the poverty rate decreased from 16 to 13 percent between 2014 and 2017.

Among Native Hawaiian family households, the poverty rate was the same in 2017 as it was in 2008 (fig. 1.36). However, there was a 4 percent increase in poverty between 2009 and 2013, likely due to the impacts of the 2008 recession.

FIGURE 1.36 Trends in family households in poverty
[as a percentage of family households, by household ethnicity, Hawai'i, 2008 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

Note 1: A family household consists of a family and may also include people not related to the householder.

Note 2: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

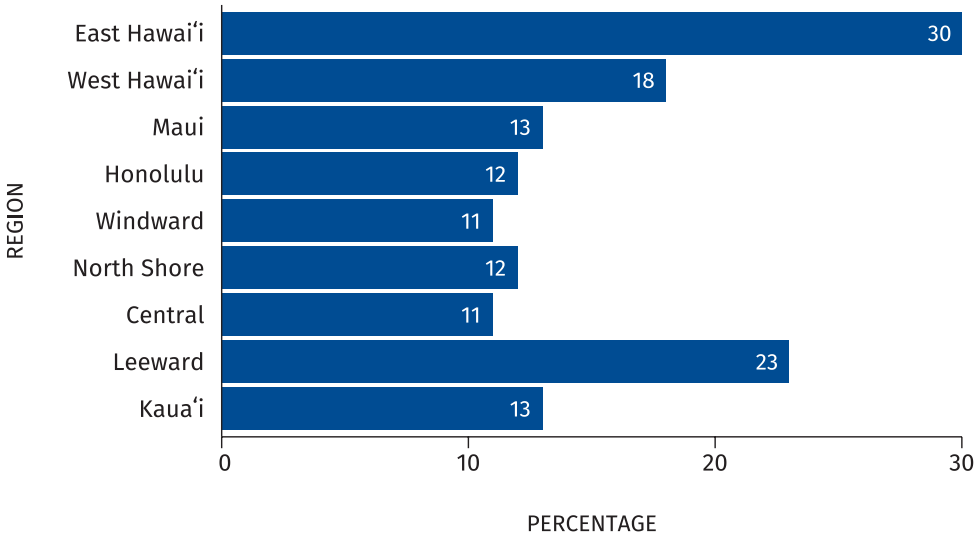
Note 3: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- Looking at the decade spanning 2008 to 2017, poverty rates of Native Hawaiian family households (9 percent) did not change.
- From 2009 to 2013, poverty rates of Native Hawaiian family households climbed 4 percentage points—a greater increase than that of any other major ethnicity in Hawaiʻi.
- From 2013 to 2016, family household poverty rates declined for all major ethnicities in Hawaiʻi (except Japanese, where the decrease was not statistically significant).
- Poverty rates for Japanese family households did not change significantly between 2008 and 2017.

Poverty—Regional Highlights

The section above summarizes patterns of poverty among Native Hawaiians and other ethnic groups across Hawaiʻi as a whole. These data tend to track closely with data for urban Honolulu, due to its relatively high population. However, when taking a regional perspective, differences among Native Hawaiians in poverty emerge, both at the individual and household level. For example, the highest percentages of Native Hawaiian individuals living in poverty are in East Hawaiʻi (30 percent), Leeward (23 percent), and West Hawaiʻi (18 percent). Conversely, Native Hawaiians in the Windward and Central regions have the lowest poverty rates (11 percent) (fig. 1.37). Looking at the years spanning 2010 to 2015, data show an increase in the percentage of Native Hawaiian individuals in poverty in Kauaʻi and West Hawaiʻi (fig. 1.38).

FIGURE 1.37 Native Hawaiians in poverty—regional comparison
[as a percentage of Native Hawaiians, by region, Hawai'i, 2015]

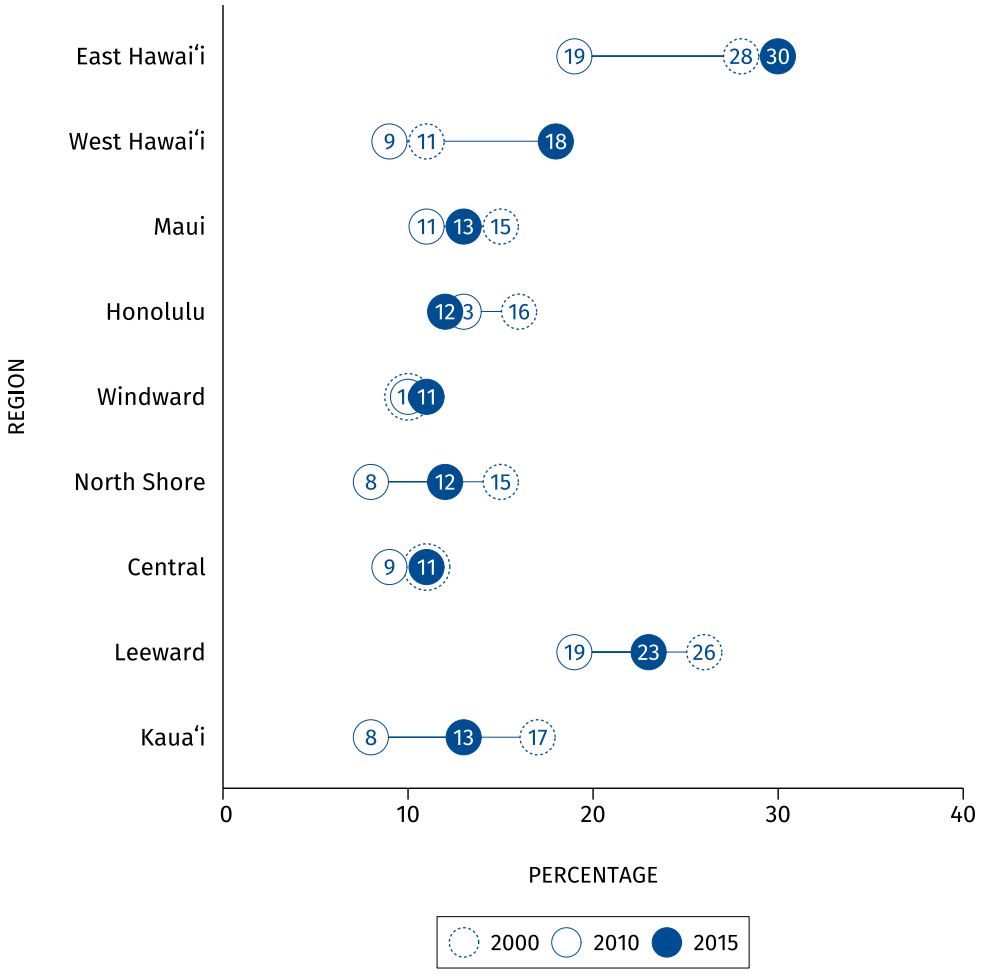


Data source: US Census Bureau, American Community Survey, Selected Population Tables

Note 1: These calculations exclude people who are institutionalized, in military group quarters, in college dormitories, and unrelated individuals younger than age fifteen.

- Across regions, poverty rates among Native Hawaiians are highest in East Hawai'i (30 percent), Leeward (23 percent), and West Hawai'i (18 percent).
- The Native Hawaiian poverty rates in Maui, Honolulu, Windward, North Shore, Central, and Kaua'i regions are not significantly different from each other.

FIGURE 1.38 Trends in Native Hawaiians in poverty—regional comparison
[as a percentage of Native Hawaiians, by region, Hawaiʻi; 2000, 2010, 2015]



Data source: US Census Bureau, 2011–2015 American Community Survey, Selected Population Tables; US Census Bureau, 2006–2010 American Community Survey, Selected Population Tables; Census 2000, Summary File 4

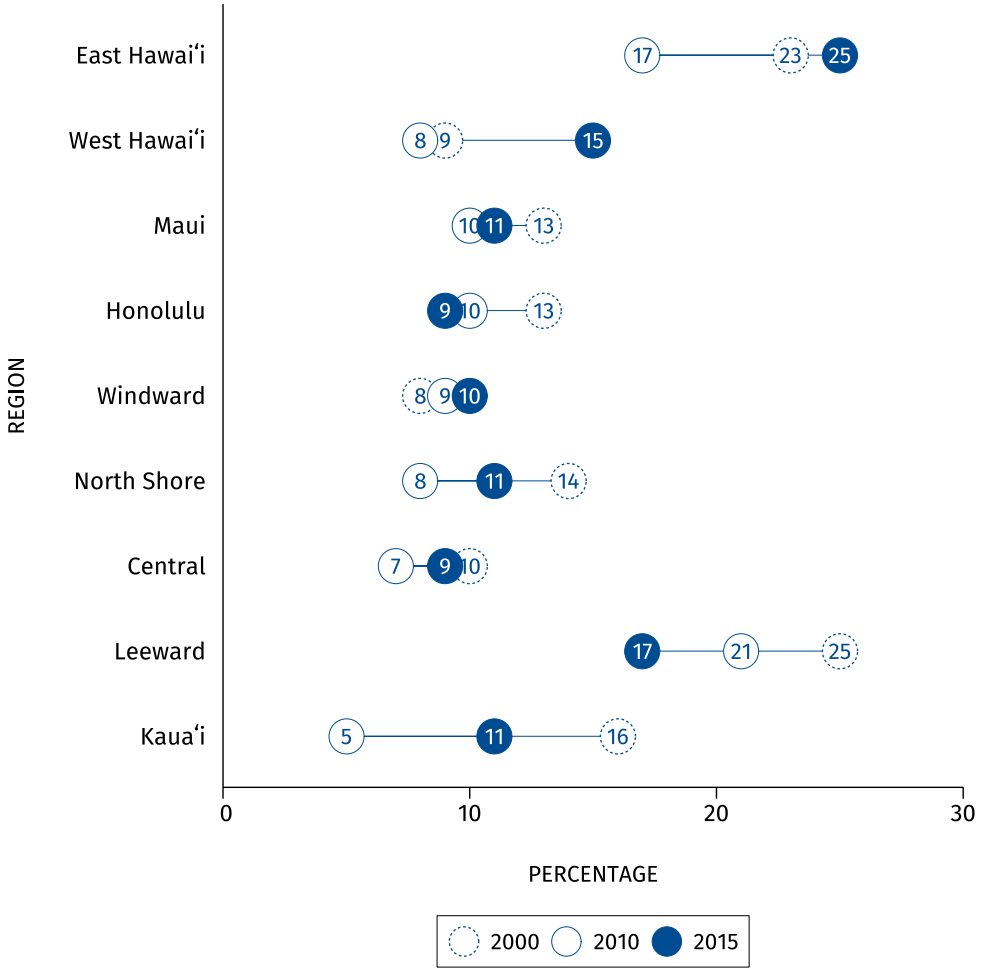
Note 1: These calculations exclude people who are institutionalized, in military group quarters, in college dormitories, and unrelated individuals younger than age fifteen.

- Among Native Hawaiians in West Hawaiʻi, the individual poverty rate increased 7 percentage points, rising from 11 to 18 percent between 2010 and 2015.
- Individual poverty rates also increased significantly among Native Hawaiians in the Kauaʻi region—from 8 to 13 percent between 2010 and 2015.
- Maui, Honolulu, Windward, North Shore, and Central regions had relatively consistent rates of poverty between 2010 and 2015.

Regional differences in poverty rates are also evident among Native Hawaiian family households. For example, between 2000 and 2015, the Leeward region saw a downward trend in poverty rates for Native Hawaiian family households, declining from 25 to 17 percent. However, during the same period, Native Hawaiian households on Hawai'i Island saw increases in family poverty, with a large jump in West Hawai'i (fig. 1.39).

In the Leeward region, poverty rates for Native Hawaiian family households decreased from 25 to 17 percent between 2000 and 2015.

FIGURE 1.39 Trends in Native Hawaiian family households in poverty—regional comparison
[as a percentage of households headed by a Native Hawaiian, by region, Hawaiʻi; 2000, 2010, 2015]



Data source: US Census Bureau, 2011–2015 American Community Survey, Selected Population Tables; US Census Bureau, 2006–2010 American Community Survey, Selected Population Tables; Census 2000, Summary File 4

Note 1: A family household consists of a family and may also include people not related to the householder.

- From 2010 to 2015, poverty rates of family households headed by a Native Hawaiian increased significantly in East Hawaiʻi (17 to 25 percent), West Hawaiʻi (8 to 15 percent), and Kauaʻi (5 to 11 percent).
- From 2000 to 2015, the Leeward region saw a downward trend in the poverty rate among family households headed by a Native Hawaiian.
- In the Maui, Honolulu, Windward, North Shore, Central, and Leeward regions, poverty rates of family households headed by a Native Hawaiian did not change significantly from 2010 to 2015.

PUBLIC ASSISTANCE

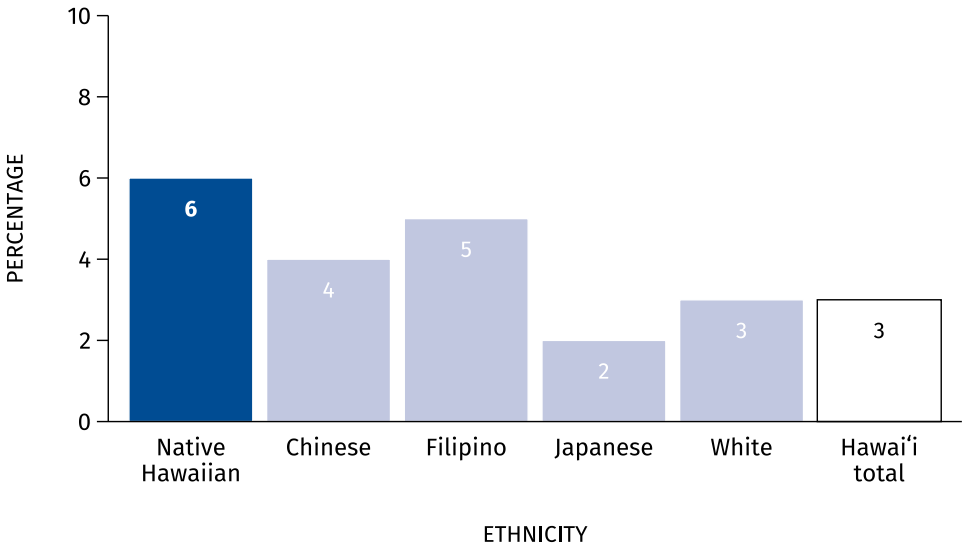
Among Native Hawaiians, the general profile of those receiving public assistance is similar to those who are in poverty: female, young, and working relatively few hours (Kamehameha Schools 2019). In addition, Native Hawaiians receiving public assistance are likely to live in single-female families with children.

In this section, we present data on two key federal programs in Hawai'i: public assistance income and food stamps recipiency.

Public Assistance Income

Public assistance income includes cash benefits for basic needs and essentials, as well as temporary assistance to needy families (TANF), which is a time-limited welfare reform program for adults with children. In Hawai'i, Native Hawaiian households are more likely than households of other ethnicities to receive public assistance income (fig. 1.40).

FIGURE 1.40 Households with public assistance income
[as a percentage of households, by household ethnicity, Hawai'i, 2017]



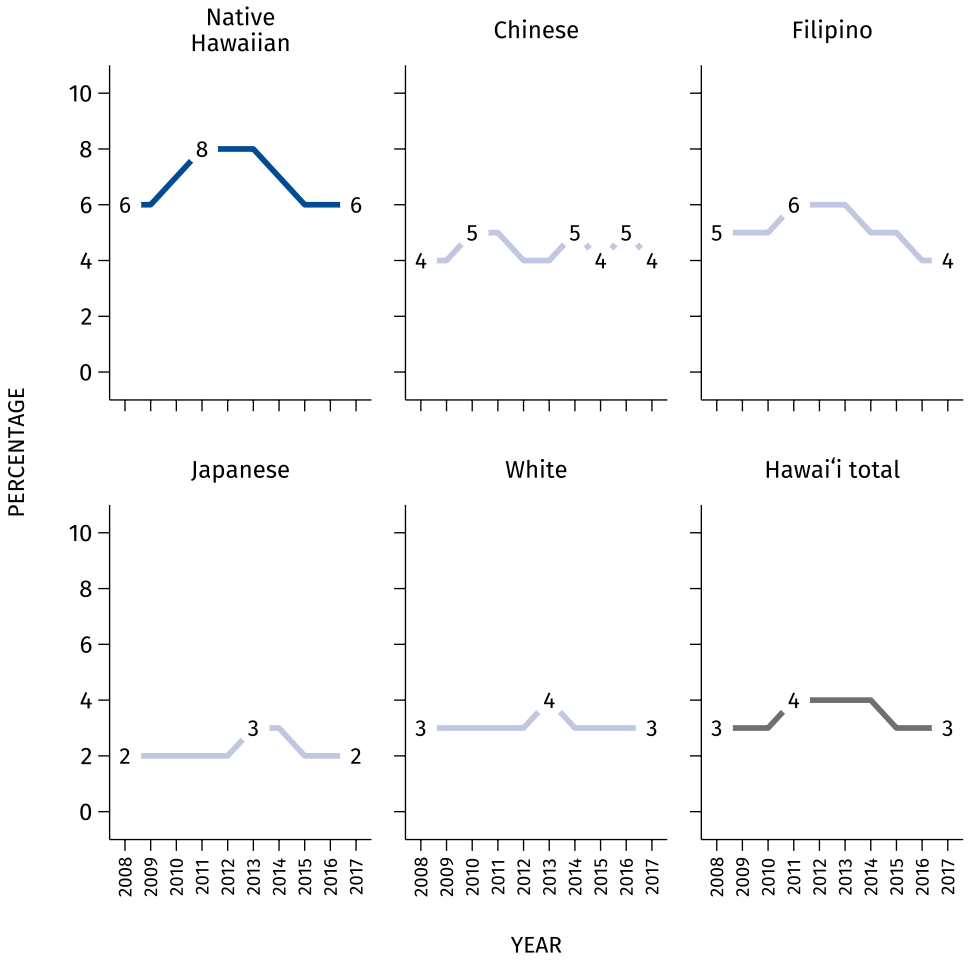
Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 5-year file

Note 1: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

- Among Native Hawaiian households, approximately one in seventeen (6 percent) receives public assistance income—twice the rate of the Hawai'i total (3 percent).

Trends for Native Hawaiian households receiving public assistance income indicate little change over the past decade. Despite increased rates following the 2008 recession,[8] the proportion of Native Hawaiians receiving public assistance income in 2017 returned to a similar rate as it was in 2008 (fig. 1.41). Still, when compared with other ethnicities and the Hawaiʻi total, Native Hawaiian households were more likely to receive public assistance income.

FIGURE 1.41 Trends in households with public assistance income
[as a percentage of households, by household ethnicity, Hawaiʻi, 2008 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

Note 1: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

Note 2: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

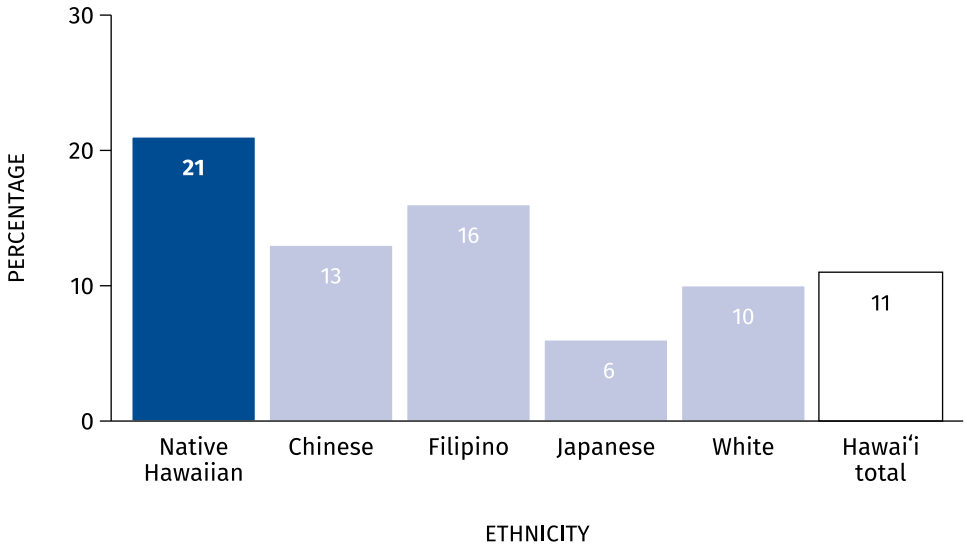
[8] From about 2007 to 2011, there were large increases nationwide in the number of low-income households that qualified for help due to rising unemployment rates, as well as the number of already eligible households that signed up for assistance. At the same time, safety net programs saw significant spending (e.g., SNAP funding increased significantly as part of the Recovery Act).

- By 2017, the percentage of Native Hawaiian households receiving public assistance was the same as it was in 2008 (6 percent).
- In the years following the recession, there was an increase in public assistance recipiency among Native Hawaiian households, going from 6 to 8 percent between 2008 and 2011.
- From 2008 to 2011, public assistance recipiency increased 1 percentage point for the Hawai‘i total—a small but significant difference.
- By 2017, rates of public assistance recipiency for all households in Hawai‘i had returned to their 2008 levels.

Food Stamps

Food stamps are part of the Supplemental Nutrition Assistance Program (SNAP). As with public assistance income, food stamp recipiency is higher among Native Hawaiian households than it is among other ethnicities (fig. 1.42).

FIGURE 1.42 Households receiving food stamps
[as a percentage of households, by household ethnicity, Hawaiʻi, 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 5-year file

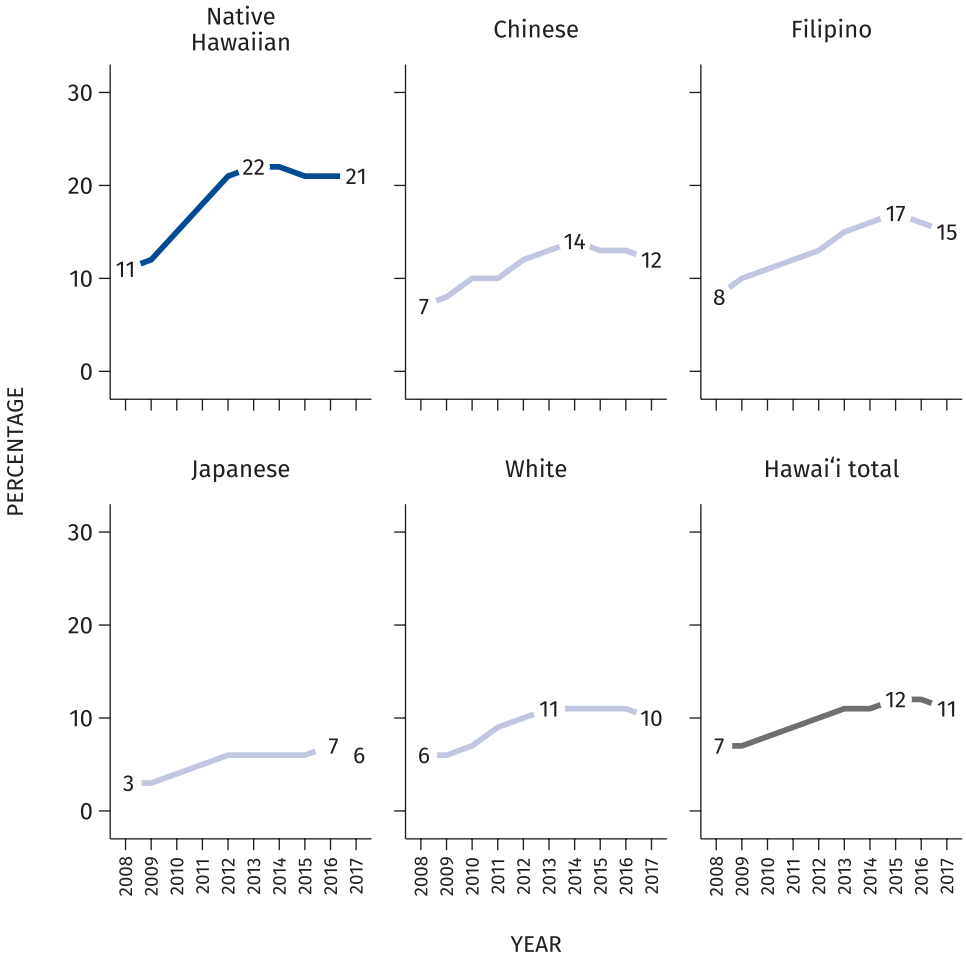
Note 1: Food stamps are part of the Supplemental Nutrition Assistance Program (SNAP).

Note 2: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

- About one in five Native Hawaiian households (21 percent) receives food stamps—nearly twice the rate of the Hawaiʻi total (11 percent).
- There is a significant difference from ethnicity to ethnicity in the proportion of households receiving food stamps, with Native Hawaiian households being the most likely to receive such assistance.

Trend data reveal a significant increase in the proportion of Native Hawaiian households receiving food stamps, nearly doubling from 2008 to 2017 (fig. 1.43).

FIGURE 1.43 Trends in households receiving food stamps
[as a percentage of households, by household ethnicity, Hawai'i, 2008 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

Note 1: Food stamps are part of the Supplemental Nutrition Assistance Program (SNAP).

Note 2: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

Note 3: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- From 2008 to 2017, the proportion of Native Hawaiian households receiving food stamps increased significantly, going from 11 to 21 percent over a ten-year period.
- Among Native Hawaiian households, the food stamp recipiency rate has remained at an elevated level since 2013.
- In 2017, the proportion of Native Hawaiian households that received food stamps (21 percent) was almost double that of the Hawai'i total (11 percent).
- Between 2008 and about 2014, food stamp recipiency increased significantly among all of Hawai'i's major ethnicities.

It is important to acknowledge that program structure and policy changes from 2000 to 2015 may be the cause of some of the changes reflected in the preceding public assistance data. For example, during the 2008 recession, some public assistance programs responded to families in need more adequately than others did. While SNAP benefited an estimated 8.4 million people (likely due to flexible eligibility requirements), TANF benefited 1.3 million people. Some scholars conclude that TANF was not designed to support extreme economic hardship due to its block grant structure that limited access and its work requirements, which were difficult to meet given the lack of available jobs (Hall 2015; Pavetti, Trisi, and Schott 2011). In late 2008, an additional stipulation was added, requiring applicants to undergo a compliance period before benefits approval (Kamehameha Schools 2019).

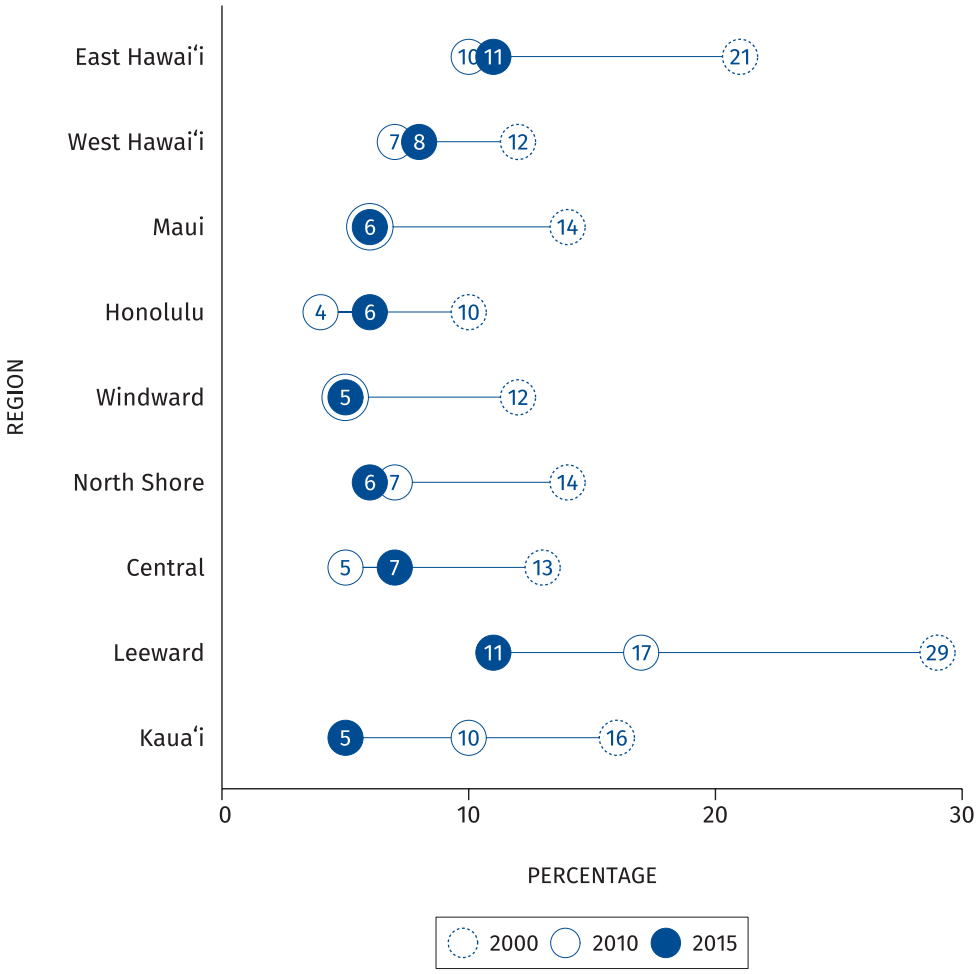
The resulting impact was that some families benefited more from public assistance programs than others did. For instance, between 2004 and 2010, poor, single-mother households received, on average, 25 percent more in assistance, while those with slightly higher incomes received, on average, 54 percent more in assistance (Moffitt 2014).

Public Assistance—Regional Highlights

American Community Survey data from 2000 to 2015 highlight regional trends in the prevalence of Native Hawaiian-headed households receiving public assistance income. On the whole, the percentage of Native Hawaiian-headed households receiving public assistance decreased in all regions between 2000 and 2015. The greatest decrease was in the Leeward region, which declined from 29 to 11 percent between 2000 and 2015. During the same period, Honolulu had the smallest decrease (4 percentage points) in Native Hawaiian-headed households receiving public assistance (fig. 1.44).

Given the upward trend in poverty rates among Native Hawaiian households in several regions during the same period (see fig. 1.39), the decrease in public assistance income may not necessarily translate to improved economic status. One possible reason for this is related to the percentage of households headed by a single mother. Households headed by a single mother, compared with married-couple households, generally have higher poverty rates (Danziger, Chavez, and Cumberworth 2012) and received less public assistance during the 2008 recession due to TANF restrictions. Our data suggest that regions such as East Hawaiʻi and Leeward, which have the highest poverty rates compared with other regions (see fig. 1.39), also have higher proportions of Native Hawaiian family households led by a single mother (see fig. 1.15).

FIGURE 1.44 Trends in Native Hawaiian-headed households with public assistance income—regional comparison
[as a percentage of households headed by a Native Hawaiian, by region, Hawai'i; 2000, 2010, 2015]

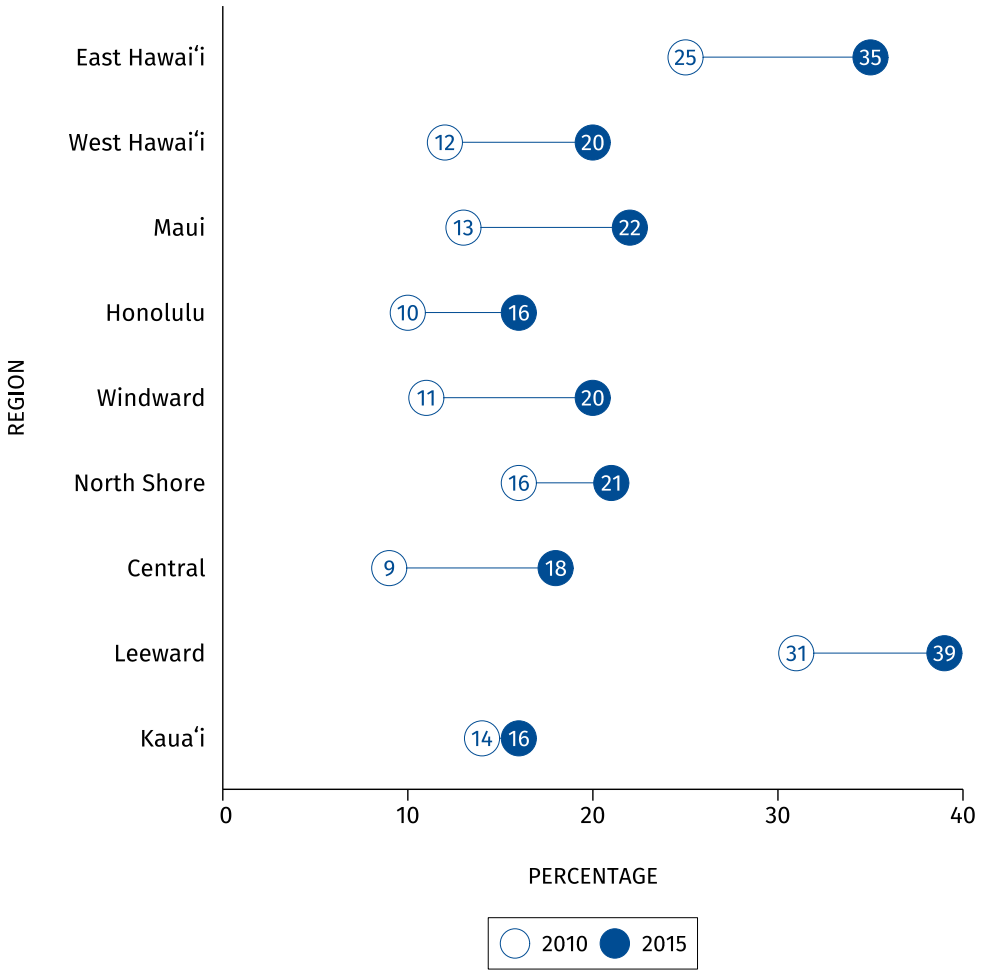


Data source: US Census Bureau, 2011–2015 American Community Survey, Selected Population Tables; US Census Bureau, 2006–2010 American Community Survey, Selected Population Tables; Census 2000, Summary File 4

- Since 2000, the percentage of Native Hawaiian-headed households receiving public assistance income has decreased in all regions.
- The Leeward region had the largest decline in the proportion of Native Hawaiian-headed households with public assistance income—decreasing from 29 to 11 percent between 2000 and 2015.
- From 2010 to 2015, the percentage of Native Hawaiian-headed households receiving public assistance increased significantly in Honolulu but decreased significantly in Leeward and Kaua'i.
- In 2010 and 2015, the Maui, Honolulu, Windward, North Shore, and Central regions all had similar rates of public assistance recipiency among households headed by a Native Hawaiian.

In contrast to declining rates of public assistance income across regions, the proportion of Native Hawaiian-headed households receiving food stamps increased in all regions from 2010 to 2015, in many cases by 7 to 10 percent. North Shore and Kauaʻi were the only regions where the increase was not statistically significant (fig. 1.45).

FIGURE 1.45 Trends in Native Hawaiian-headed households receiving food stamps—regional comparison
[as a percentage of households headed by a Native Hawaiian, by region, Hawaiʻi; 2010, 2015]



Data source: US Census Bureau, 2015 American Community Survey (years 2011 to 2015 combined), Selected Population Tables; US Census Bureau, 2010 American Community Survey (years 2006 to 2010 combined), Selected Population Tables

Note 1: Food stamps are part of the Supplemental Nutrition Assistance Program (SNAP).

- From 2010 to 2015, the percentage of Native Hawaiian-headed households receiving food stamps increased significantly in all regions except North Shore and Kauaʻi.
- Comparing 2010 with 2015, East Hawaiʻi experienced an increase of 10 percentage points in the proportion of Native Hawaiian-headed households receiving food stamps.
- The East Hawaiʻi and Leeward regions had the greatest proportions of Native Hawaiian-headed households receiving food stamps in both 2010 and 2015.

Housing

Housing is a centerpiece of a family's material well-being. When housing needs are met, families are better able to provide safe, stable environments that allow children and other members of the ʻohana to develop. As stated by the Hawaiʻi Department of Business, Economic Development and Tourism (2018), homeownership allows individuals to "pass their homes on to their children, creating wealth opportunities for multiple generations of families" (14).

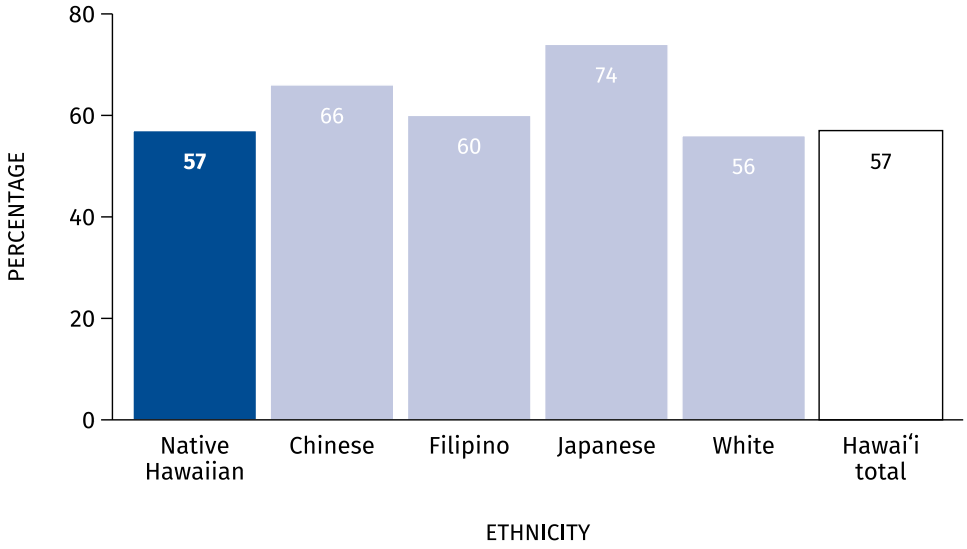
The cost of housing continues to escalate in Hawaiʻi, where the 2019 median price of a single-family home on Oʻahu was $835,000 (Hawaiʻi News Now 2019). The inflated cost of living in Hawaiʻi translates into housing challenges for many residents. Rents and property values continue to rise, and homeownership is often out of reach, even for those with a living wage. Income is a key factor in homeownership. For example, among Native Hawaiians, the median income of owner-occupied households is nearly twice that of renter-occupied households (Kamehameha Schools 2019).

In addition to high home prices, other issues such as the availability of jobs, the quality of schools, and the affordability of childcare have an impact on where Native Hawaiians live. It is likely that people are increasingly residing where they can afford to live—rather than where they would choose to live—because of prohibitively high socioeconomic barriers.

For Native Hawaiians, the Department of Hawaiian Home Lands also plays an important role in homeownership. Of the 38,088 Native Hawaiian owner-occupied households in Hawaiʻi, 5,643 (15 percent) are part of the Hawaiian Home Lands program (Kamehameha Schools 2019).

To determine trends in homeownership among various ethnic groups, a commonly referenced measure is "owner-occupied households" from US Census data. Among Native Hawaiian households, the owner-occupancy rate is 57 percent—the same as the Hawaiʻi total (fig. 1.46)—a percentage that has not changed significantly for Native Hawaiians over the recent decade (fig. 1.47).

FIGURE 1.46 Owner-occupied households
[as a percentage of households, by household ethnicity, Hawaiʻi, 2017]



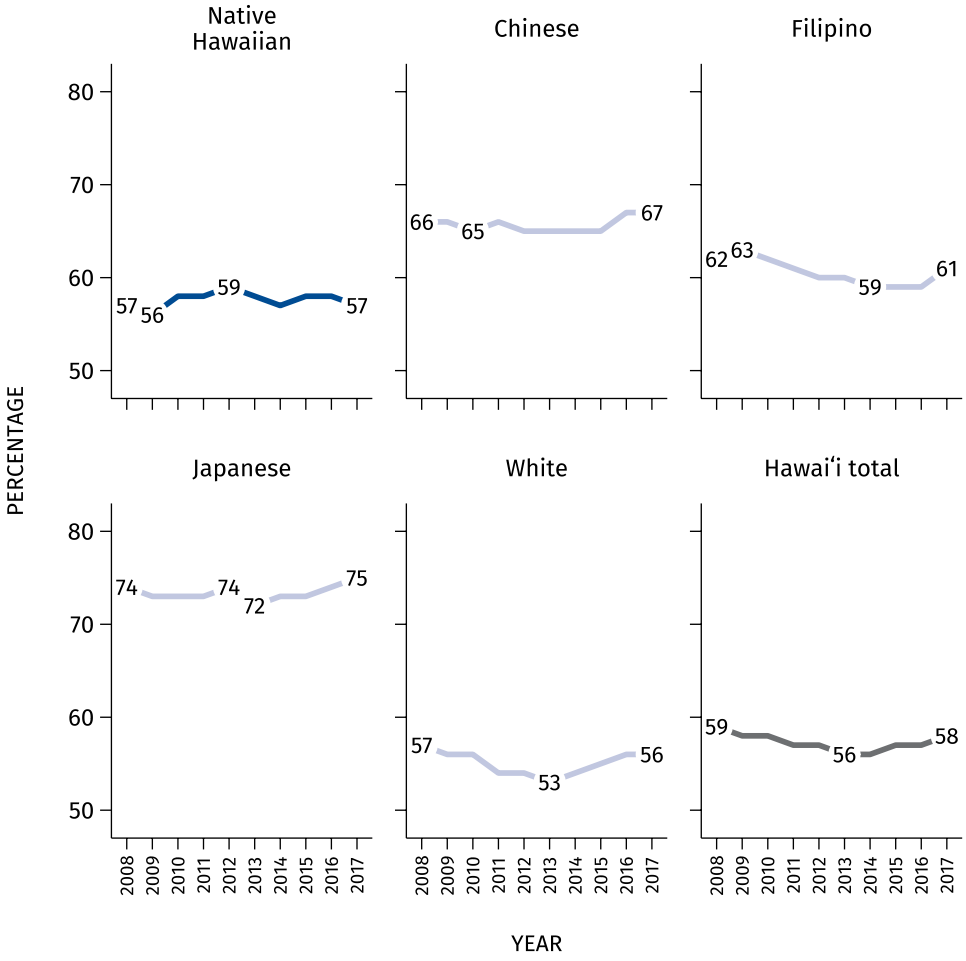
Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 5-year file

Note 1: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

- The owner-occupancy rate among Native Hawaiian households is equivalent to the Hawaiʻi total (57 percent) and is similar to that of Whites (56 percent).
- Japanese households have the highest owner-occupancy rates in Hawaiʻi (74 percent).
- There is a difference of 18 percentage points in the proportion of owner-occupied Japanese households (74 percent) and owner-occupied White households (56 percent).

Across regions, Kauaʻi has the highest owner-occupancy rate (66 percent) among Native Hawaiians and was the only region with a significant increase in recent years, rising from 58 to 66 percent between 2010 and 2015 (see page 130).

FIGURE 1.47 Trends in owner-occupied households
[as a percentage of households, by household ethnicity, Hawai'i, 2008 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

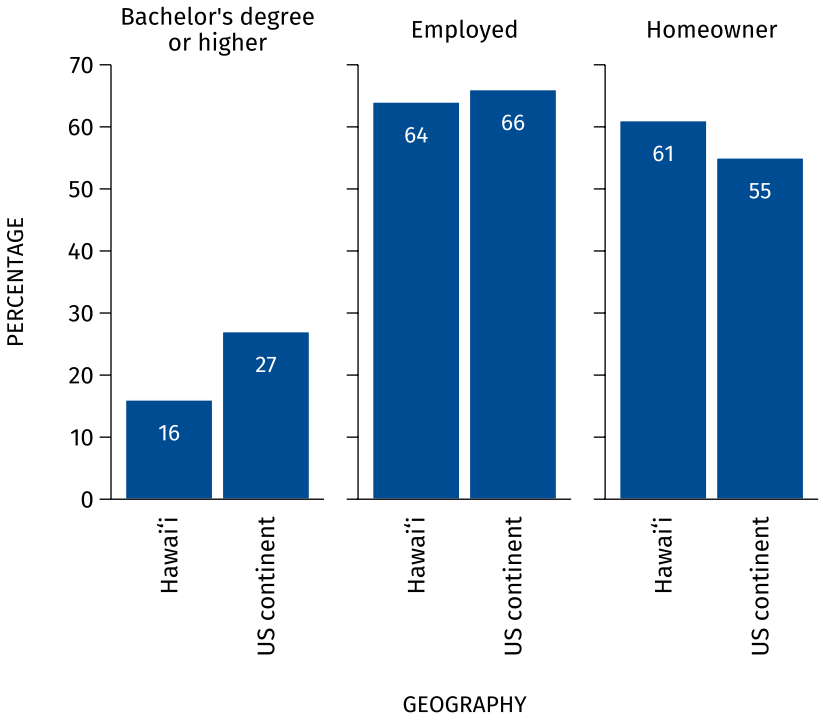
Note 1: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

Note 2: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- From 2008 to 2017, there has been no significant difference in the owner-occupancy rate of Native Hawaiian households.
- The owner-occupancy rate of Native Hawaiian, Chinese, and Japanese households was relatively consistent from 2008 to 2017.
- For the Hawai'i total, the rate of owner-occupied households decreased significantly from 2008 to 2013, before recovering in 2017.
- During this time, the owner-occupancy rate of Native Hawaiian households was similar to the Hawai'i total.

Data further show that Native Hawaiians who live in Hawaiʻi have higher rates of homeownership (perhaps facilitated through access to homestead lands), compared with Native Hawaiians who live on the US continent (61 percent versus 55 percent) (fig. 1.48). This may seem counterintuitive, given that many Native Hawaiians and other residents are known to leave Hawaiʻi due to the high cost of living. Also, a greater proportion of Native Hawaiians on the US continent have a bachelor's degree or higher, compared with those living in Hawaiʻi. However, the data may also suggest another possibility to explain migration patterns: Homeownership—once acquired or inherited—might serve as a reason for staying in Hawaiʻi (Pagud, Kekahio, and Kanaʻiaupuni, forthcoming). Taken together, these data highlight how economic factors, including homeownership, can influence Native Hawaiians' decisions to leave or stay in Hawaiʻi.

FIGURE 1.48 College degree, employment, and homeownership status among Native Hawaiians in Hawai'i and on the US continent
[as a percentage of the civilian Native Hawaiian population ages 25 and older not enrolled in school, by location, United States, 2017]



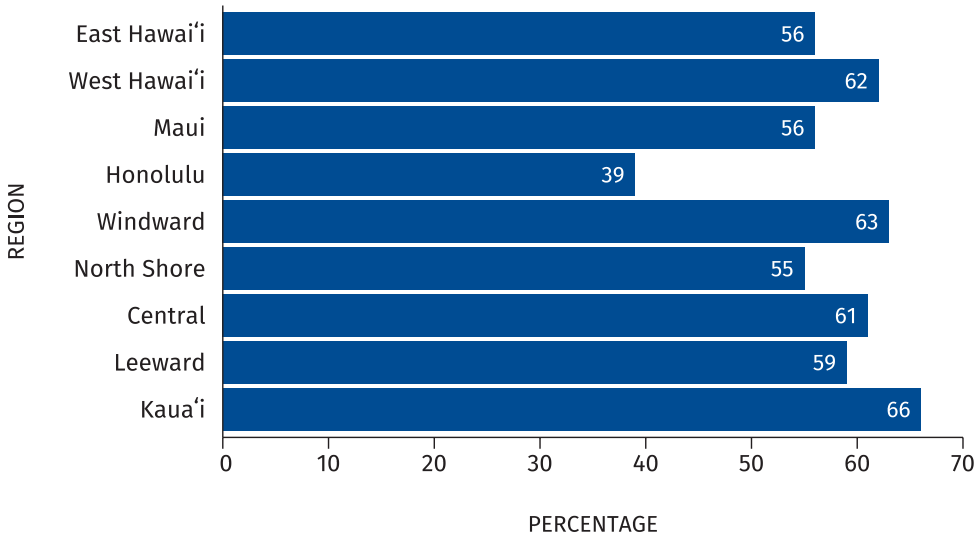
Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 5-year file

- The proportion of Native Hawaiians ages twenty-five and older who have a bachelor's degree or higher is greater on the US continent (27 percent) than it is in Hawai'i (16 percent).
- Among Native Hawaiians ages twenty-five and older, those living on the continent are slightly more likely to be employed (66 percent) than are those living in Hawai'i (64 percent).
- For Native Hawaiians ages twenty-five and older, the homeownership rate is higher among those living in Hawai'i (61 percent), compared with those living on the continent (55 percent).

HOUSING—REGIONAL HIGHLIGHTS

Across regions, Kauaʻi has the highest owner-occupancy rate (66 percent) among households headed by a Native Hawaiian, and Honolulu has the lowest rate (39 percent). All regions, except Honolulu, have Native Hawaiian owner-occupancy rates that exceed 50 percent (fig. 1.49).

FIGURE 1.49 Owner-occupied Native Hawaiian households—regional comparison
[as a percentage of households headed by a Native Hawaiian, by region, Hawaiʻi, 2015]

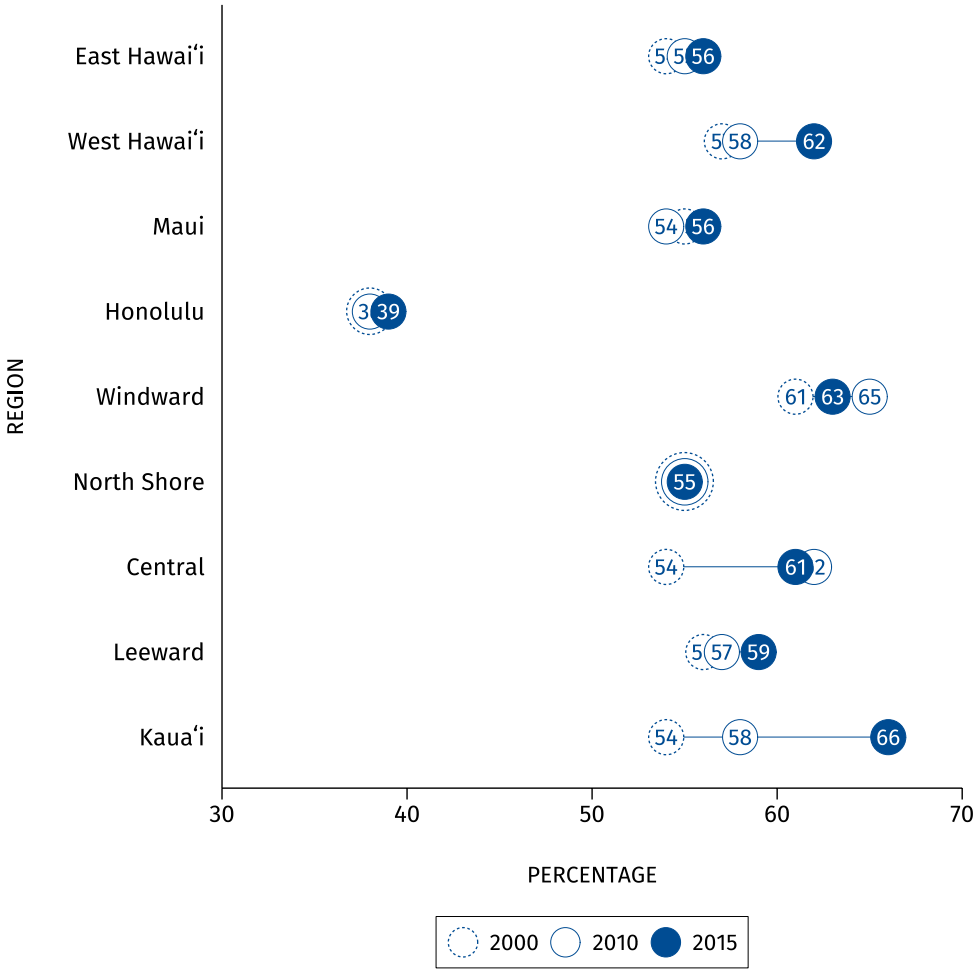


Data source: US Census Bureau, American Community Survey, Selected Population Tables

- Among Native Hawaiian households, the owner-occupancy rates are highest in Kauaʻi (66 percent), Windward (63 percent), and West Hawaiʻi (62 percent).
- Honolulu has the lowest owner-occupancy rate (39 percent) among Native Hawaiian households—22 percentage points lower than that of the neighboring Central region (61 percent).
- In all regions except Honolulu, the rates of owner-occupied Native Hawaiian households are above 50 percent.

When examining data from 2000 to 2015, regional trends emerge regarding Native Hawaiian owner-occupied households. During this period, Kauaʻi had the greatest increase (12 percentage points) in owner-occupancy rates among Native Hawaiians, followed by Central, West Hawaiʻi, and Leeward. Honolulu and North Shore realized the smallest increases relative to other regions (fig. 1.50).

FIGURE 1.50 Trends in Native Hawaiian owner-occupied households—regional comparison
[as a percentage of households headed by a Native Hawaiian, by region, Hawai'i; 2000, 2010, 2015]



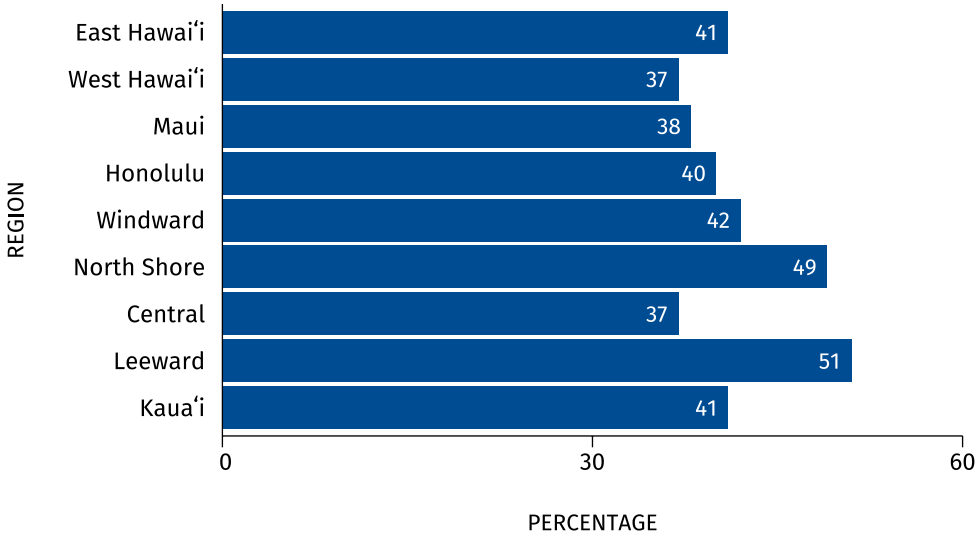
Data source: US Census Bureau, 2011–2015 American Community Survey, Selected Population Tables; US Census Bureau, 2006–2010 American Community Survey, Selected Population Tables; Census 2000, Summary File 4

Note 1: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

- Between 2010 and 2015, Kaua'i was the only region with a significant increase (8 percentage points) in owner-occupied Native Hawaiian households, rising from 58 to 66 percent.
- In the Central, West Hawai'i, and Leeward regions, there was an upward trend in the proportion of owner-occupied Native Hawaiian households between 2000 and 2015.
- Relative to other regions, Honolulu and North Shore had the smallest increases in the proportion of owner occupancy among Native Hawaiian households.

Where it is cost prohibitive to purchase a home, families often choose to rent. With Hawaiʻi's high housing costs, many Native Hawaiian households direct more than 35 percent of their income toward rent, which places a strain on family budgets. This in turn, leads to difficulties affording necessities (Office of Hawaiian Affairs, n.d.[b]) and may contribute to higher stress levels. In the Leeward and North Shore regions, approximately half of Native Hawaiian renter-occupied households spend 35 percent or more of their income on rent, while such households in West Hawaiʻi and Central are less likely to do so (fig. 1.51).

FIGURE 1.51 Native Hawaiian households that spend 35 percent or more of income on rent—regional comparison
[as a percentage of renter-occupied households headed by a Native Hawaiian, by region, Hawaiʻi, 2015]



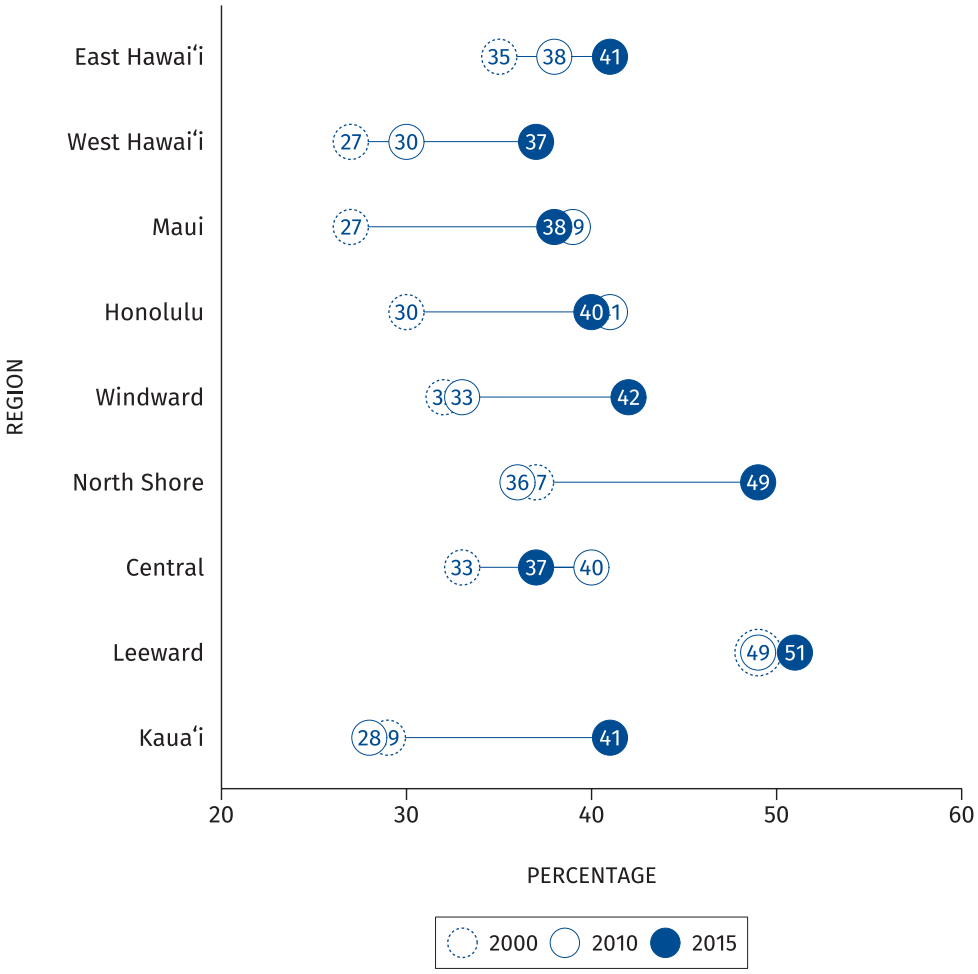
Data source: US Census Bureau, American Community Survey, Selected Population Tables

- In the Leeward and North Shore regions, approximately half of the renter-occupied households headed by a Native Hawaiian spend 35 percent or more of their income on rent.

A few trends can be observed for Native Hawaiian renter-occupied households from 2000 to 2015. During that time, all regions experienced an upward trend in the proportion of Native Hawaiian renter-occupied households that spend more than 35 percent of their income on rent. Changes in the proportion of such households were also apparent from 2010 to 2015, but these changes are not statistically significant (fig. 1.52).

FIGURE 1.52 Trends in Native Hawaiian households that spend 35 percent or more of income on rent—regional comparison

[as a percentage of renter-occupied households headed by a Native Hawaiian, by region, Hawai'i; 2000, 2010, 2015]



Data source: US Census Bureau, 2011–2015 American Community Survey, Selected Population Tables; US Census Bureau, 2006–2010 American Community Survey, Selected Population Tables; Census 2000, Summary File 4

Note 1: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

- Comparing 2000 with 2015, all regions experienced an increase in the proportion of renter-occupied households headed by a Native Hawaiian where rent was 35 percent or more of household income.

Much work remains to attain a state of strong economic well-being such that Native Hawaiians will have housing options within sustainable community and ʻāina systems. Similarly, more progress is needed so that Native Hawaiians will have fulfilling jobs within an economic landscape supportive of and led by Native Hawaiians. Significant economic barriers persist among some Native Hawaiians, including high levels of poverty, low rates of homeownership, and relatively low prevalence of high-paying jobs, even for those with higher levels of education.

However, at the time of this writing, rates of livable income are trending upward among Native Hawaiians. We also note the impact of agencies like the Department of Hawaiian Home Lands in providing homes for Native Hawaiians. Stronger material and economic well-being for Native Hawaiian families and communities will require building on these opportunities while at the same time moving the overall job and industry landscape to reflect Native Hawaiian concepts of waiwai.

As the COVID-19 pandemic has highlighted, Hawaiʻi must diversify its economy in ways that produce a more resilient and sustainable future for our children. Native Hawaiian values and people must be a part of this equation. Fulfilling jobs that align to a strong sense of community and ʻāina will result in a thriving Native Hawaiian workforce and better outcomes for all of Hawaiʻi.

Native Hawaiian innovation, social entrepreneurship, and aloha ʻāina initiatives acknowledge economic disparities and are accelerating efforts to make the Hawaiʻi economic landscape stronger and more diversified.

PHYSICAL WELL-BEING

Hawaiian tradition has long understood physical health to be broader than the absence or presence of physical ailments. Physical health is indistinguishable from ecosystems and is based on sustainability, perpetuity, and lōkahi (harmony) among all facets of well-being. This view differs from mainstream notions of physical health that prioritize a "healthy body" (Global Wellness Institute, n.d.).

"Without lōkahi, there is illness" (Hilgenkamp and Pescaia 2003, 35). Examples of this holistic perspective of health can be found throughout Hawaiian cultural traditions and practices. It is also captured in the ʻōlelo noʻeau (wise saying, proverb) "Ka lā i ka Mauliola—*The sun at the source of life*" (Pukui 1983, 154), reflecting the interrelationship of people, ʻāina, natural elements, and spirituality as integral to health and well-being.

For many Native Hawaiians who continue to experience ongoing disparities in well-being, the pathway to optimal physical health has been challenging. Still, there are signs of progress. One area of progress in physical wellness is trend data that show an increase in the proportion of Native Hawaiians who have health insurance. Our findings also indicate that there has been a decrease in recent years in the proportion of Native Hawaiians who missed a doctor's visit because of cost. Additionally, smoking and alcohol consumption have declined, and Native Hawaiians have the second-lowest rates of high cholesterol among the major ethnicities in Hawaiʻi. Native Hawaiians, compared with other major ethnic groups in Hawaiʻi, are also among the most likely to engage in muscle-strengthening activities.

Despite these areas of progress, many alarming health conditions persist. For example, compared with Hawaiʻi's other major ethnicities, Native Hawaiians continue to lead in rates of obesity, smoking (despite a decline in recent years), high blood pressure, disability, diabetes, and heart disease. Native Hawaiians also are more likely than other major ethnicities in Hawaiʻi to be in poor physical health, despite a slight decline between 2013 and 2015. Such health challenges can be more prevalent in certain geographies. For instance, in Hawaiʻi county there is a concerning uptick among Native Hawaiian adults experiencing poor health, diabetes, heart attacks, and obesity.

The causes of these health disparities stem from outside influences in previous centuries, when foreign disease decimated the Native population in Hawaiʻi, triggering historical trauma and a resulting wave of negative health outcomes. Health disparities among Indigenous people are also tied to resource alienation, political oppression, racism and discrimination, and socioeconomic disadvantage.

Resource alienation refers to the degradation of, and inaccessibility to, ʻāina and all of its natural resources, which impacts cultural, spiritual, and physical wellness. Political oppression speaks to how "loss of sovereignty along with dispossession (of lands, waterways, customary laws) has created a climate of material and spiritual oppression with increased susceptibility to disease and injury" (Durie 2003). Studies regarding racism and discrimination and their impact on physical health have found associations in symptoms such as high blood pressure, high cortisol (Kaholokula 2014), and obesity (McCubbin and Antonio 2012)—which can be risk factors for long-term health ailments such as heart disease, stroke, and diabetes. Additionally, "The impact of historical trauma may be community-wide depression" (Liu and Alameda 2011). Socioeconomic disadvantage posits that physical health shapes and is shaped by one's environment, educational attainment, income, and other factors impacting lifestyle.

Finally, physical well-being may also be related to differing cultural backgrounds among physicians, the prevalence of Western medical practices, and the effects of Western compartmentalizations of physical wellness measures that often rely on deficits. These Western measures, though far from ideal for gauging the physical well-being of Native Hawaiians, are relatively abundant and form the majority of our analysis in this section.

It is clear that improving physical health outcomes requires a shift from mainstream Western medical paradigms toward the concept of holistic wellness—ʻike our ancestors have always known. Doing so suggests the need to acknowledge the social and cultural conditions of one's life (Artiga and Hinton 2018), which can affect physical health, including the way one's genetics work (Centers for Disease and Control 2019b). A framework based on social determinants of health (US Department of Health and Human Services 2020d; Centers for Disease Control and Prevention 2020f; World Health Organization, n.d.) reinforces this notion, positing that a person's physical health outcomes are impacted by genetic history, mental health, physical environment, housing conditions, social relationships, historical connections, lifestyle, educational attainment, and access to quality healthcare. More importantly, the framework highlights the interconnectedness of health and the ways in which social, political, cultural, and environmental conditions—particularly for disadvantaged populations—can predispose individuals and communities to disease and injury.

The following section addresses the physical well-being of Native Hawaiian adults, families, and communities by examining four health indicators: access to healthcare and preventative care; nutrition, physical activity, and obesity; substance abuse; and disease and disability. Consistent with the aims of the social determinants of health framework, we also analyze the relationship between select health outcomes, educational attainment, and income.[9]

[9] Because *Ka Huakaʻi* is an educational assessment, this section includes figures that illustrate the relationship between health and educational attainment; income associations are generally articulated in the narrative but not in charts.

Access to Healthcare and Preventative Care

Research has shown that Native Hawaiians face ongoing barriers in accessing quality healthcare and health services (Morisako et al. 2017, Ambrose et al. 2012). Increasing access to healthcare is a vital step toward improving health outcomes. Access to quality healthcare is important for promoting and maintaining health, as well as preventing, maintaining, and reducing the likelihood of disease and disability (US Department of Health and Human Services 2020a).

Access to healthcare takes a number of factors into account, such as health insurance coverage, services, timeliness, and workforce (e.g., a competent, qualified, and culturally relevant provider) (US Department of Health and Human Services 2020a). For Native Hawaiians, connecting with a physician on a cultural level and having access to traditional Hawaiian healing practices (e.g., lāʻau lapaʻau) provides Native Hawaiians with multiple options to have "an active role in planning their plan of treatment and prevention programs" (Hilgenkamp and Pescaia 2003, 38). Providing options is key for strengthening agency (i.e., self-determination) as a means to address health disparities (Harfield et al. 2018).

In the analysis below, we examine two dimensions of access to healthcare: health insurance coverage and missed doctor visits due to cost.

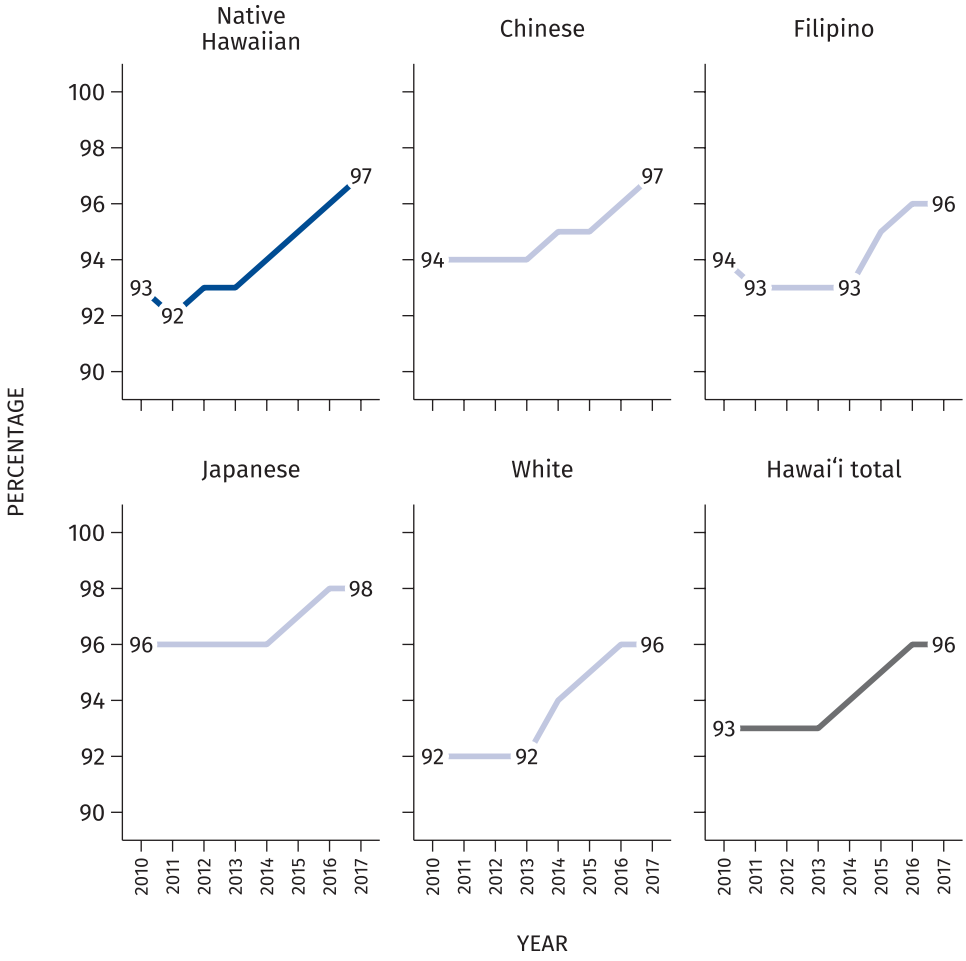
HEALTH INSURANCE COVERAGE

Health insurance coverage is a critical factor in maintaining well-being. It guards against unplanned medical costs, assists with preventative care, and alleviates financial burden that can accompany disease and illness. Research links uninsured individuals to less access to medical care and, therefore, a higher likelihood of negative health outcomes (US Department of Health and Human Services 2020a).

Trend data show that the insured rate among Native Hawaiian individuals increased from 93 to 97 percent between 2010 and 2017 (fig. 1.53), which is on par with the Hawaiʻi total. However, a separate analysis shows comparatively lower levels of health coverage for Native Hawaiians living in poverty (Kamehameha Schools 2019).

Between 2010 and 2017, the insured rate of Native Hawaiian individuals increased from 93 to 97 percent, making health insurance coverage for Native Hawaiians on par with the Hawaiʻi total.

FIGURE 1.53 Trends in individuals with health insurance coverage
[as a percentage of individuals, by ethnicity, Hawaiʻi, 2010 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

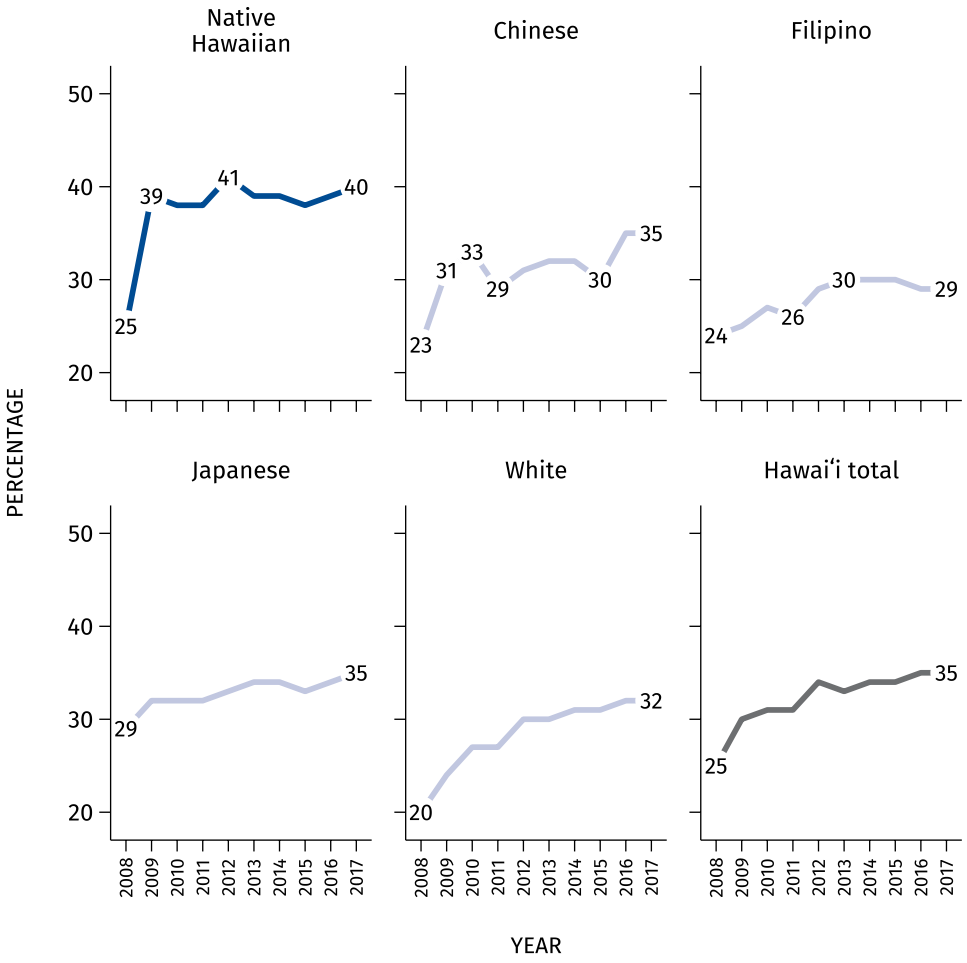
Note 1: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

Note 2: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- From 2010 to 2017, the rate of health insurance coverage increased among all of Hawaiʻi's major ethnic groups.
- Among Native Hawaiians, the percentage of individuals covered by health insurance increased from 93 to 97 percent between 2010 and 2017—an increase of 4 percentage points.
- For the Hawaiʻi total, the rate of individual health coverage increased from 93 to 96 percent between 2010 and 2017.

Among Native Hawaiians who had health insurance in 2017, four in ten (40 percent) had public health coverage (e.g., Medicaid), which is subsidized by the government and is available to individuals and families demonstrating financial need (fig. 1.54).

FIGURE 1.54 Trends in individuals with public health coverage
[as a percentage of individuals with health insurance coverage, by ethnicity, Hawai'i, 2008 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

Note 1: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

Note 2: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- In Hawai'i, the rates of public health coverage increased dramatically between 2008 and 2009—particularly among Native Hawaiians, who saw an increase of 15 percentage points.
- In 2008, the rate of public health coverage among Native Hawaiians was equivalent to the Hawai'i total (25 percent); by 2017, public health coverage among insured Native Hawaiians had reached 40 percent, compared with the Hawai'i total of 35 percent.
- The rate of public health coverage among insured Native Hawaiians has remained relatively steady since 2009; during the same time period, the rate of public health coverage across Hawai'i has risen steadily.

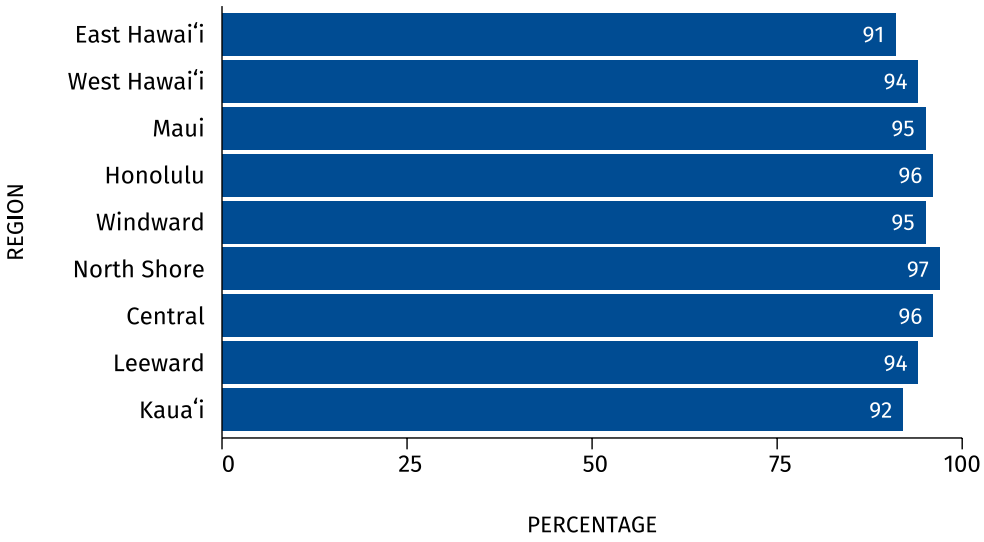
The proportion of Native Hawaiians receiving public health coverage is higher than that of Hawaiʻi's major ethnic groups and, with the exception of 2008, has been relatively consistent in recent years. The higher rates of public health coverage in Hawaiʻi as a whole are perhaps attributable to the Affordable Care Act (Obamacare), leading to significant expansion of health coverage for low-income Asian American, Native Hawaiian, and Pacific Islander adults (Park et al. 2018).

On one hand, the relatively high prevalence of public insurance among Native Hawaiians may be viewed as unfavorable because of socioeconomic implications and perceptions about overreliance on the government. However, public health coverage can also be seen as beneficial, as it provides an opportunity for some Native Hawaiians to receive healthcare that otherwise might not be available. Research identifies significant gains from expanding public health insurance, such as increased coverage for low-income, high-risk individuals, improved access to affordable care and services, financial security, positive health outcomes, and economic savings and growth (Antonisse et al. 2018). Other studies suggest that expanding public health coverage to low-income parents increases the number of insured children (Dubay and Kenney 2003; Hudson and Moriya 2017) and improves health outcomes for children (Venkataramani, Pollack, and Roberts 2017; Wherry, Kenney, and Sommers 2016). More research is needed to better understand the impact of public health insurance on Native Hawaiian families and communities.

Health Insurance Coverage—Regional Highlights

Looking across the islands, the regions where Native Hawaiians have the highest rates of health insurance coverage are North Shore (97 percent), Central and Honolulu (96 percent) and Windward and Maui (95 percent). Regions with the lowest proportion of Native Hawaiians covered by health insurance are East Hawaiʻi (91 percent) and Kauaʻi (92 percent) (fig. 1.55).

FIGURE 1.55 Native Hawaiians with health insurance coverage—regional comparison
[as a percentage of civilian noninstitutionalized Native Hawaiians, by region, Hawai'i, 2015]



Data source: US Census Bureau, American Community Survey, Selected Population Tables

- Looking across regions, East Hawai'i has the lowest percentage of Native Hawaiians with health insurance coverage (91 percent), while North Shore has the highest percentage (97 percent).
- Although there is regional variation in the percentage of health insurance coverage among Native Hawaiians, the differences are not statistically significant.

While the proportion of Native Hawaiians covered by health insurance is generally similar across regions (ranging from 91 to 97 percent), rates of public health coverage differ significantly. For example, East Hawai'i and Leeward have the highest rates of public health coverage among Native Hawaiians (47 percent and 46 percent, respectively) (not shown). Conversely, 26 percent of Native Hawaiians in the North Shore region have public health coverage—the lowest rate among regions (not shown). These findings are generally consistent with regional differences in income (see fig. 1.26), which show East Hawai'i as having the highest percentage of Native Hawaiian-headed family households making $49,999 or less per year, while North Shore has the highest percentage of households in the $100,000 to $149,999 category.

DOCTOR VISITS

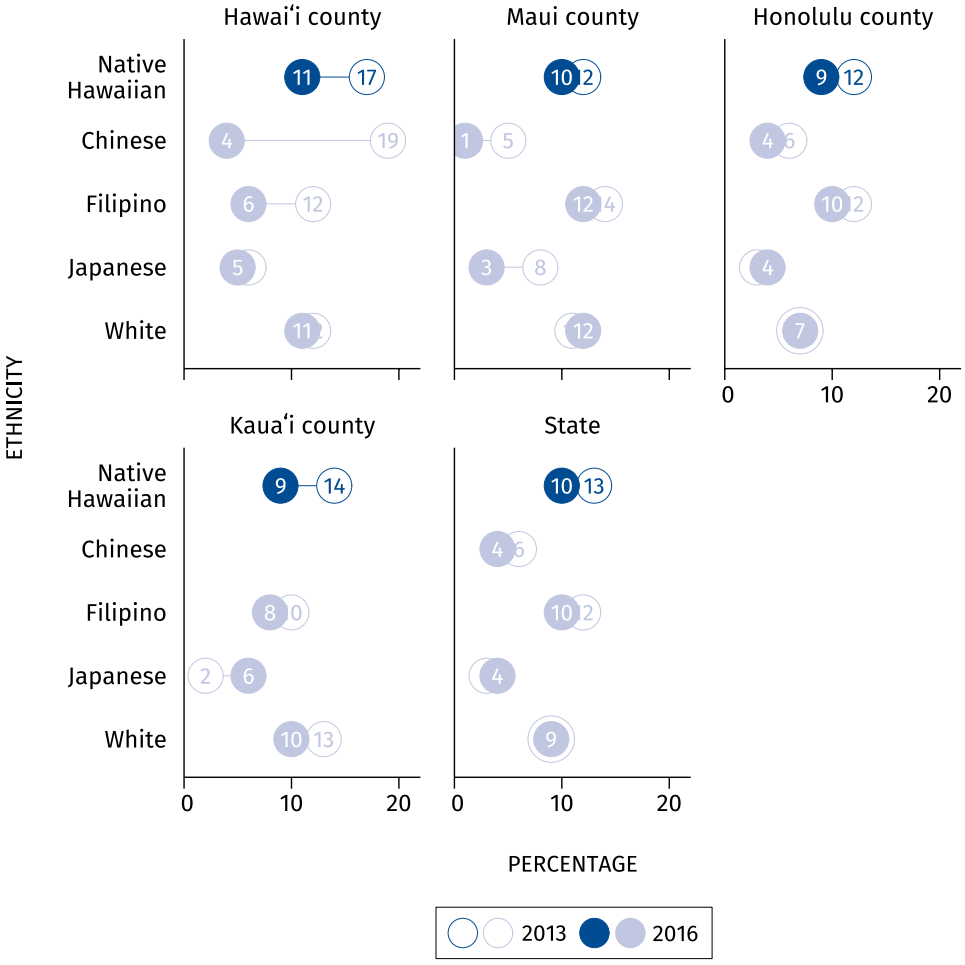
Regular doctor visits are a vital component of physical wellness. Doctor visits are a means to identifying risk factors, providing preventative care, and diagnosing illnesses before they become serious. For Kānaka Maoli, visits with a Native Hawaiian doctor can be a venue to access both healing and cultural exchange (Cruz 2019; Goodyear-Kaʻōpua 2019). Although the exact number of Kānaka Maoli who are doctors is not known, the proportion of Native Hawaiian doctors, relative to all physicians in Hawaiʻi, is much higher than it was in 1975, when "fewer than 1 percent of the state's physicians were of Hawaiian ancestry" (Young 2016, 51). A study from 2012 reported that "Native Hawaiian physicians make up 3.4 percent of the total physician workforce" (Ambrose et al. 2012, 15). More recently, in 2019, twelve Native Hawaiian kauka ʻōpio (young doctors) graduated from the University of Hawaiʻi John A. Burns School of Medicine, doubling the number of kauka ʻōpio who graduated in 2018 and setting a new record for the university (Dimaya 2019; Dimaya 2018).

Recent data show positive trends in the ability of Native Hawaiians to access healthcare, which may correspond with increased health insurance coverage (see fig. 1.53). For example, at the state level there was a significant decrease in the proportion of Native Hawaiians who missed a needed doctor's visit because of cost, declining from 13 to 10 percent between 2013 and 2016. A similar pattern occurred across all counties, with significant improvement in Hawaiʻi county (fig. 1.56).

However, compared with other major ethnicities across Hawaiʻi, Native Hawaiians were among the most likely not to visit a doctor because of cost. This finding may seem counterintuitive, given that 97 percent of Native Hawaiians have health insurance (see fig. 1.53). Possible reasons for this discrepancy may include high out-of-pocket expenses or deductibles, needed services not being covered by the insurance plan, or other expenses related to getting to a doctor's appointment (e.g., transportation).

Transportation issues are related to the distribution of practicing physicians in Hawaiʻi. For example, many practicing physicians are centered in urban Oʻahu; Native Hawaiians and other Pacific Islanders residing in rural communities and on neighbor islands must travel beyond their communities to see a doctor (Ambrose et al. 2012). Telehealth and virtual care, which have seen an uptick in utilization due to the COVID-19 pandemic, may help to address travel concerns and costs among Native Hawaiians. However, while telehealth can provide increased access, known barriers include clinician willingness, appropriate funding and reimbursement, digital equity and infrastructure, and integration into healthcare systems (Smith et al. 2020; Wosik et al. 2020).

FIGURE 1.56 Adults who did not visit the doctor because of cost—county comparison
[as a percentage of adults ages 18 and older, by ethnicity, county, and year, Hawai'i, 2013 and 2016]



Data source: Hawai'i Behavioral Risk Factor Surveillance System, 2013 (years 2011 to 2013 combined) and 2016 (years 2014 to 2016 combined), Hawai'i Department of Health

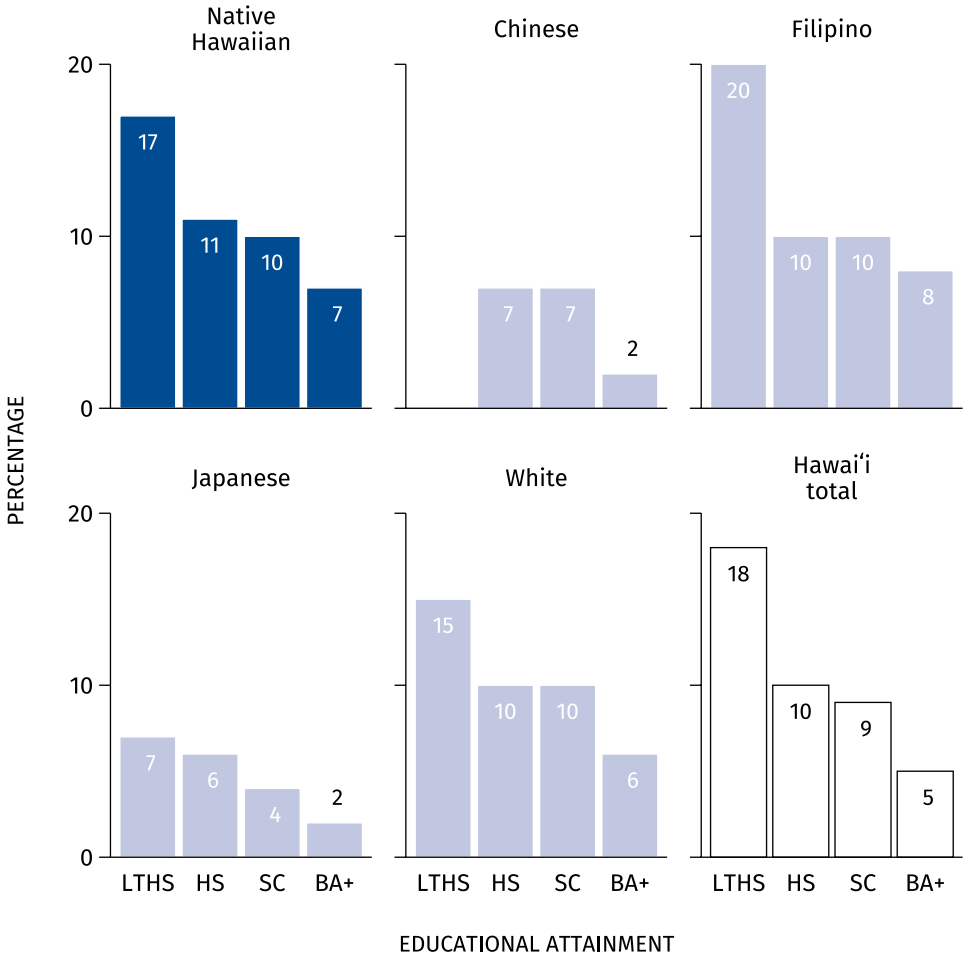
Note 1: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

Note 2: Missing circles indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- In 2016, at the state level, 10 percent of Native Hawaiian adults did not visit the doctor because of cost—down from 13 percent in 2013.
- Hawai'i county made significant improvement in the proportion of Native Hawaiian adults who did not visit the doctor due to cost, decreasing from 17 to 11 percent between 2013 and 2016.
- In 2016, there was no significant difference from county to county in the proportion of Native Hawaiian adults who did not visit the doctor because of cost.
- Compared with other major ethnicities in Hawai'i, Native Hawaiian adults are the most likely (along with Filipinos) not to visit the doctor because of cost.

Further analysis shows that income and educational attainment are correlated with the likelihood of making a needed visit to the doctor. For example, among Native Hawaiians making less than $50,000 annually, 15 percent did not visit the doctor because of cost, compared with 5 percent of those earning $50,000 or more (not shown). Similarly, for Native Hawaiians, the higher the level of educational attainment, the less likely a person will miss a doctor's visit due to cost (fig. 1.57).

FIGURE 1.57 Adults who could not visit the doctor because of cost, by educational attainment
[as a percentage of adults ages 18 and older, by ethnicity and educational attainment, Hawaiʻi, 2016]



Data source: Hawaiʻi Behavioral Risk Factor Surveillance System, 2016 (years 2011 to 2016 combined), Hawaiʻi State Department of Health

Note 1: LTHS = Less than high school; HS = High school; SC = Some college; BA+ = Bachelor's degree or higher.

Note 2: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Across ethnicities, higher levels of educational attainment are associated with lower likelihood of missing a doctor's visit due to cost.
- Among Native Hawaiians with a bachelor's degree or higher, 7 percent missed a needed visit to the doctor because of cost, compared with 11 percent of Native Hawaiians whose highest degree is a high school diploma.

Nutrition, Physical Activity, and Obesity

The National Heart, Lung, and Blood Institute notes that "healthy body weight, good nutrition, and physical activity can help prevent or manage serious and chronic cardiovascular diseases, high blood pressure, heart disease, and stroke" (n.d., under "Obesity, Nutrition, and Physical Activity"). These three facets of physical health are highly correlated and reflect genetics, behaviors, and environmental factors.

Unlike genetics, behavioral and environmental influences are considered to be modifiable risk factors. This is consistent with the social determinants of health framework, which posits that modifiable risk factors are aligned "with the social, demographic, environmental, economic, and attributes of the neighborhoods where people live and work" (Yoon et al. 2014, 372). For example, to address risk factors related to nutrition, physical activity, and obesity, environmental modifications could include ensuring access to affordable and healthy foods in schools and communities; safe pathways for walking, biking, exercising, and playing; and parks and recreation centers.

The traditional Native Hawaiian lifestyle included plentiful physical activity and a rich and nutritious diet. Native Hawaiians were routinely engaged in fishing, farming, gathering, paddling, hula, and many other forms of work and recreation (McGregor 2013). The traditional diet consisted of raw or steamed foods, including mostly complex carbohydrates such as kalo (taro), poi (mashed taro), ʻuala (sweet potato), and ʻulu (breadfruit) (Fujita, Braun, and Hughes 2004).

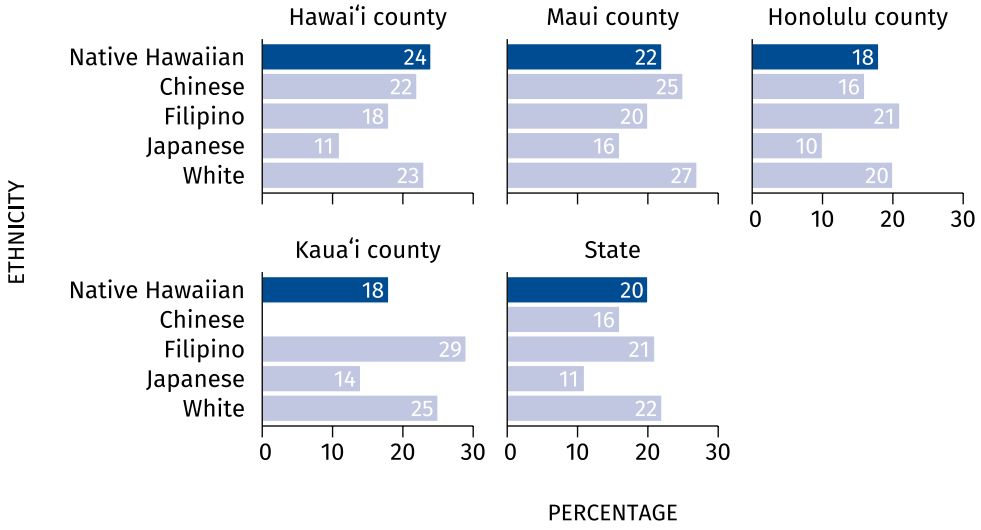
Today, Native Hawaiian communities face disproportionate rates of obesity and diabetes (McCubbin and Antonio 2012; Braden and Nigg 2016). These disparities have been attributed to socioeconomic obstacles (Kaholokula, Nacapoy, and Dang 2009); the adoption of Western lifestyles, including higher availability and consumption of unhealthy foods (Blaisdell 1993a; McEligot et al. 2010; Mau et al. 2008); and limited access to exercise resources (McEligot et al. 2010). The associations between environmental factors and health outcomes reinforce the need to consider various social determinants of health to improve Native Hawaiian wellness.

FRUITS AND VEGETABLES

Poor diet quality is associated with a number of illnesses and disabilities (Lim et al. 2012). Eating fruits and vegetables is part of an overall healthy diet that can help reduce rates of chronic illness such as heart disease, cancer, diabetes, and obesity. Federal guidelines generally recommend that adults eat at least one and a half to two cups of fruits per day, and two to three cups of vegetables per day (US Department of Agriculture, n.d.), which equates to at least four to five servings of fruit and vegetables daily. Barriers to eating fruits and vegetables include high cost, limited access and availability, and perceived preparation time. Approximately one in ten adults in the United States meets the recommended level of fruit and vegetable consumption (Centers for Disease Control and Prevention 2017c).

At the state level, 20 percent of Native Hawaiian adults eat five or more fruits and vegetables per day—higher than the rates seen among Japanese and Chinese adults. Compared with other counties, Hawaiʻi county has the largest proportion of Native Hawaiian adults (24 percent) who eat five or more fruits and vegetables daily (fig. 1.58).

FIGURE 1.58 Adults who eat five or more fruits and vegetables per day—county comparison
[as a percentage of adults ages 18 and older, by ethnicity and county, Hawaiʻi, 2015]



Data source: Hawaiʻi Behavioral Risk Factor Surveillance System, 2015 (years 2011, 2013, 2015 combined), Hawaiʻi State Department of Health

Note 1: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Comparing counties, the greatest difference in the proportion of Native Hawaiian adults who eat five or more fruits and vegetables per day is between Hawaiʻi (24 percent) and Honolulu (18 percent).
- At the state level, Native Hawaiian adults are more likely to eat five or more fruits and vegetables per day (20 percent) than are Chinese (16 percent) and Japanese (11 percent) adults.

While fruit and vegetable consumption is generally higher among Native Hawaiian adults than it is among Chinese and Japanese adults, Native Hawaiians also report relatively higher rates of chronic illnesses such as obesity (see fig. 1.61) and cardiovascular disease (see fig. 1.74). This suggests that nutrition alone is not sufficient for preventing illness and must be coupled with holistic approaches and healthy behaviors such as physical activity and sleep.

Our analyses indicate that among Native Hawaiians, factors such as income and educational attainment are not related to the likelihood of eating five or more fruits and vegetables per day.

PHYSICAL ACTIVITY

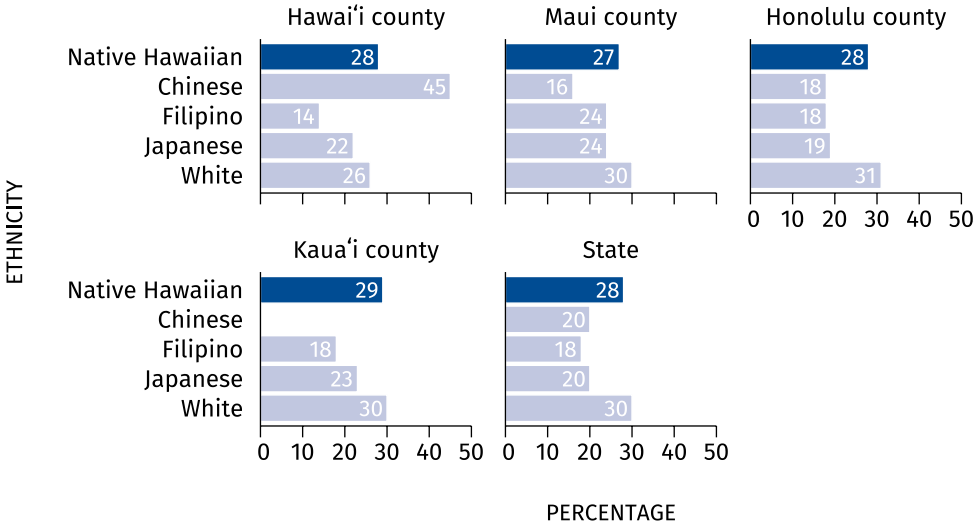
Physical activity can have multiple benefits, such as decreasing the incidence of coronary heart disease, high blood pressure, stroke, and other diseases, as well as increasing healthy body mass and composition, which contributes to higher levels of cardiorespiratory and muscular fitness (Centers for Disease Control and Prevention 2020b). Regular physical activity is related to mental and emotional benefits such as improved sleep, energy, and mood. Socially, physical activity can also provide a means of supporting and connecting with others.

The environment, including built infrastructure, influences levels of physical activity (Humpel, Owen, and Leslie 2002). The presence of walking and cycling paths and recreation centers can encourage physical activity, as can social support from family and friends. Other factors, such as traffic, public transportation, crime, and pollution, can deter activity.

The US Department of Health and Human Services (2018) recommends that adults engage in both muscle-strengthening activities (two or more days per week) and aerobic activity, of moderate intensity (150+ minutes per week) or vigorous intensity (75+ minutes per week). At the state level, the percentage of Native Hawaiian adults who meet this federal guideline for physical activity (28 percent) is among the highest (along with Whites) across ethnic groups (fig. 1.59).

The percentage of Native Hawaiian adults who meet the federal guideline for physical activity (28 percent) is among the highest across Hawai‘i's major ethnic groups.

FIGURE 1.59 Adults who meet the federal guideline for physical activity—county comparison
[as a percentage of adults ages 18 and older, by ethnicity and county, Hawaiʻi, 2015]



Data source: Hawaiʻi Behavioral Risk Factor Surveillance System, 2015 (years 2011, 2013, 2015 combined), Hawaiʻi Department of Health

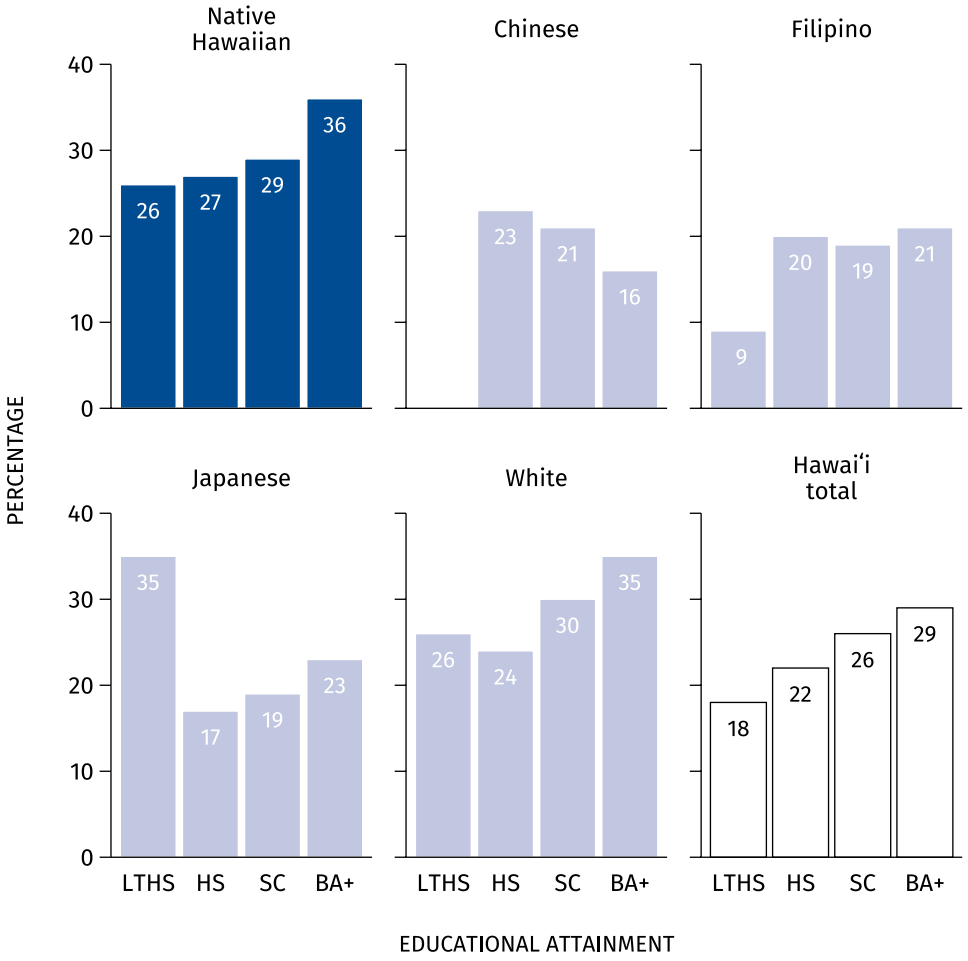
Note 1: Meeting the federal guideline is defined as both engaging in muscle-strengthening activities (2+ days per week) and aerobic physical activity, of moderate intensity (150+ minutes per week) or vigorous intensity (75+ minutes per week).

Note: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Across counties, a similar proportion of Native Hawaiian adults meet the federal guideline for physical activity.
- At the state level, the percentage of Native Hawaiians who meet the federal guideline for physical activity (28 percent) is among the highest of Hawaiʻi's major ethnicities.
- Among Native Hawaiian adults across the state, 76 percent engaged in physical activity outside of their work, compared with the Hawaiʻi total of 79 percent (not shown).

Our analysis shows that levels of educational attainment and income are related to levels of physical activity: Native Hawaiian adults with comparatively higher levels of education (fig. 1.60) and income (not shown) are more likely to meet the federal guideline for physical activity.

FIGURE 1.60 Adults who meet the federal guideline for physical activity, by educational attainment
[as a percentage of adults ages 18 and older, by ethnicity and educational attainment, Hawai'i, 2015]



Data source: Hawai'i Behavioral Risk Factor Surveillance System, 2015 (years 2011, 2013, 2015 combined), Hawai'i Department of Health

Note 1: Meeting the federal guideline is defined as both engaging in muscle-strengthening activities (2+ days per week) and aerobic physical activity, of moderate intensity (150+ minutes per week) or vigorous intensity (75+ minutes per week).

Note 2: LTHS = Less than high school; HS = High school; SC = Some college; BA+ = Bachelor's degree or higher.

Note 3: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Among Native Hawaiians with a bachelor's degree or higher, 36 percent meet the federal guideline for physical activity, compared with 27 percent of Native Hawaiians whose highest degree is a high school diploma.
- For Native Hawaiian adults, higher educational attainment is correlated with greater likelihood of engaging in physical activity outside of work (not shown).

OVERWEIGHT OR OBESE

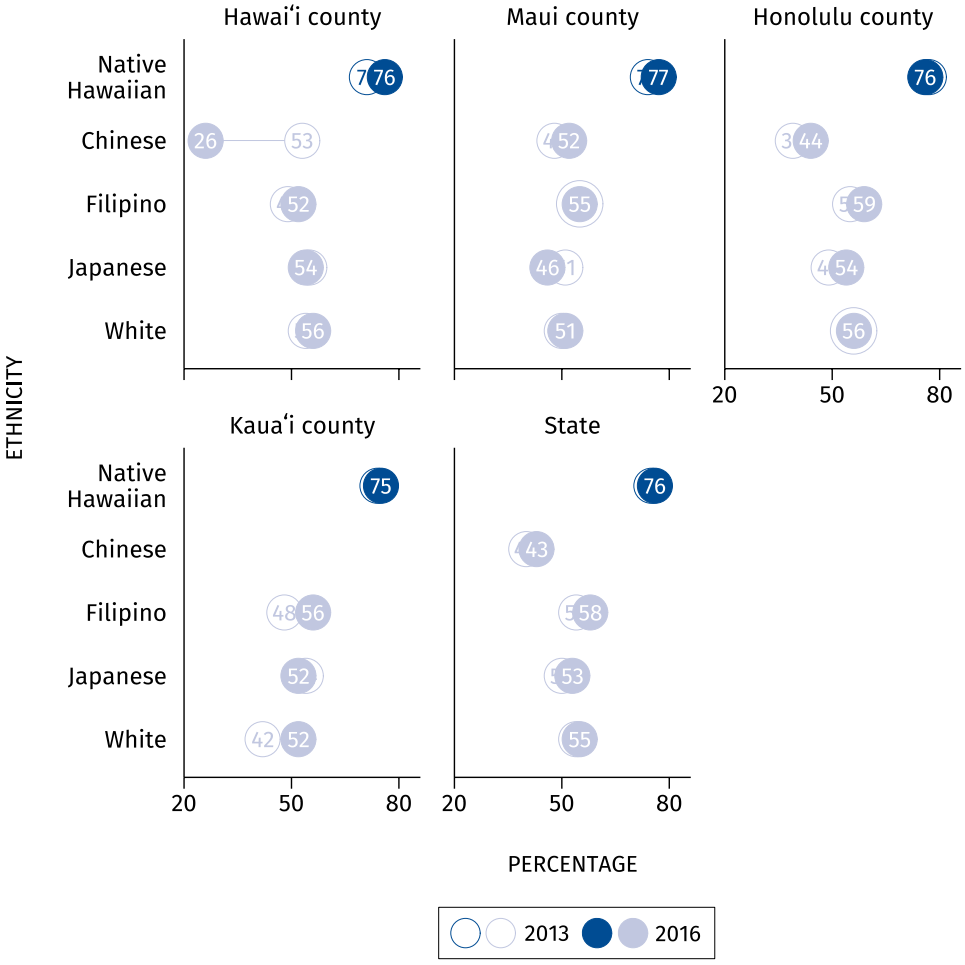
Obesity is a medical condition of having an excess of body fat that can increase the risk of other health problems. Obesity typically results from inherited genetics, environment, and lifestyle activities such as diet and exercise.

Obesity tends to be seen among families due to shared genetic makeup and similar diet and exercise habits. Social connections also play a role, with a higher risk of obesity seen among those whose friends or relatives are obese. Economics and environmental conditions can have an impact on the availability of safe spaces to exercise, access to healthy foods, and time needed for food preparation.

Research has further supported culturally responsive approaches as a means to improve obesity, diabetes, and hypertension among Native Hawaiians and Pacific Islanders. Kaholokula et al. (2018) note the importance of modifying evidence-based practices to include culturally responsive elements such as involving stakeholders throughout all aspects of the research and intervention, employing qualitative methods to collect participant data, and ensuring that curriculum and programming reflect cultural values and beliefs.

The US Department of Health and Human Services (2020c) reported Native Hawaiians and Pacific Islanders are 80 percent more likely than non-Hispanic Whites to be obese. In 2016, approximately three out of four Native Hawaiian adults were overweight or obese, a percentage that is significantly higher than that of other major ethnicities in Hawaiʻi. For Native Hawaiians in Hawaiʻi county, the percentage of adults who are overweight or obese increased significantly in recent years, rising from 71 to 76 percent between 2013 and 2016 (fig. 1.61).

FIGURE 1.61 Adults who are overweight or obese—county comparison
[as a percentage of adults ages 18 and older, by ethnicity, county, and year, Hawai'i, 2013 and 2016]



Data source: Hawai'i Behavioral Risk Factor Surveillance System, 2013 (years 2011 to 2013 combined) and 2016 (years 2014 to 2016 combined)

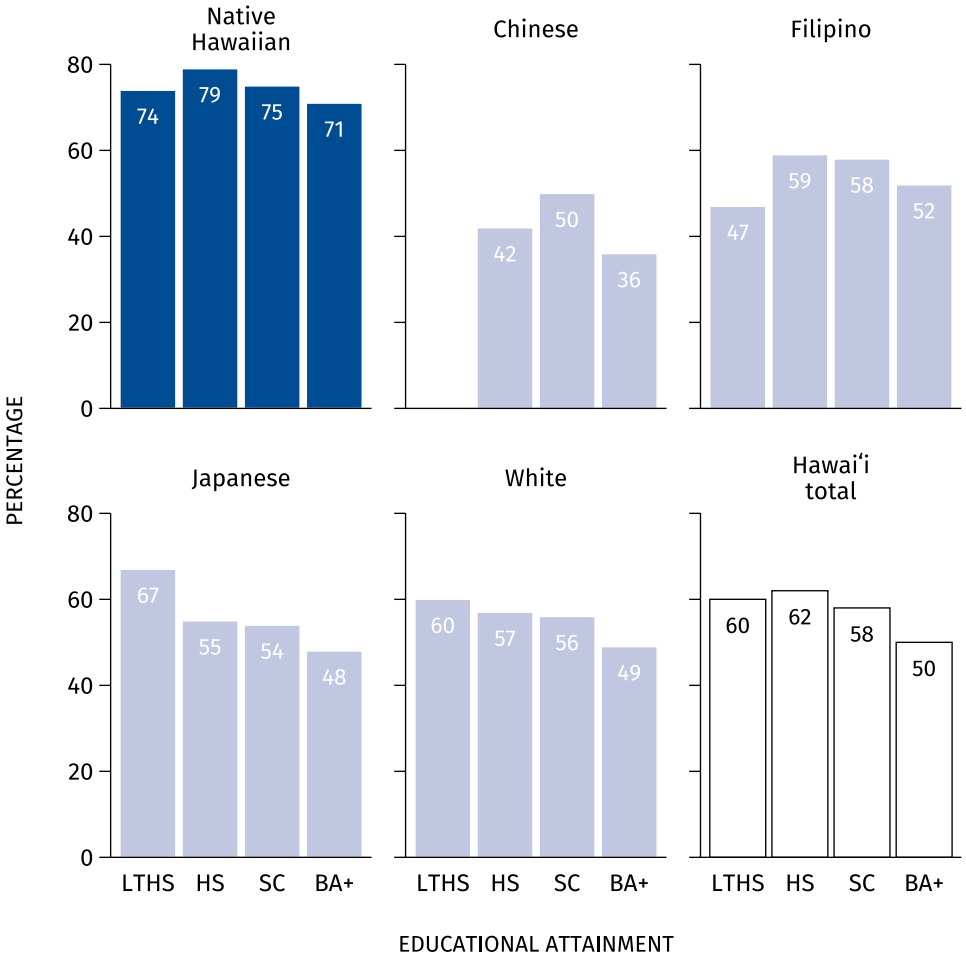
Note 1: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

Note 2: Missing circles indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- In Hawai'i county, the percentage of Native Hawaiian adults who are overweight or obese increased significantly from 2013 to 2016.
- In 2016, there was no significant difference from county to county in the proportion of Native Hawaiian adults who are overweight or obese.
- Comparing the major ethnicities across the state, Native Hawaiian adults are the most likely to be overweight or obese.

Our analysis shows a correlation between educational attainment and obesity: Native Hawaiian adults with a bachelor's degree or higher are less likely than adults without a bachelor's degree to be obese (fig. 1.62).

FIGURE 1.62 Adults who are overweight or obese, by educational attainment
[as a percentage of adults ages 18 and older, by ethnicity and educational attainment, Hawaiʻi, 2016]



Data source: Hawaiʻi Behavioral Risk Factor Surveillance System, 2016 (years 2011 to 2016 combined), Hawaiʻi Department of Health

Note 1: LTHS = Less than high school; HS = High school; SC = Some college; BA+ = Bachelor's degree or higher.

Note 2: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- On the whole, higher educational attainment is associated with lower incidence of being overweight or obese.
- Among Native Hawaiians, 71 percent of adults with a bachelor's degree or higher are overweight or obese, compared with 79 percent of adults whose highest degree is a high school diploma.

Substance Abuse

Substance abuse affects all domains of well-being for individuals, families, and communities. For Native Hawaiian adults and youth, substance and illicit drug abuse are associated with violent behavior (Austin 2004), unsafe sexual practices (Edwards, Giroux, and Okamoto 2010), increased rates of suicide and depression (Nishimura et al. 2005), stressful life events and poor academic achievement (Mikini et al. 2001), and high incarceration rates (Office of Hawaiian Affairs 2010).

Risks and causes of substance abuse include factors that are biological (Wu et al. 2013; Sakai, Wang, and Price 2010) as well as social and cultural, such as the effects of historical and cultural trauma (Cook, Withy, and Tarallo-Jensen 2003; Pokhrel and Herzog 2014; Aboriginal Healing Foundation 2004). Other factors include poor social determinants of health (e.g., unfavorable environmental, economic, social, and educational conditions that predispose an individual to developing negative health behaviors) and inadequate access to healthcare (Substance Abuse and Mental Health Services Administration 2015).

Research has also identified protective factors among Native Hawaiians and other Indigenous populations that promote resiliency against negative social behaviors such as substance abuse. These include family cohesion and support (McCubbin et al. 1998; Mikini et al. 2001; Helm et al. 2008; Okamoto et al. 2009), parental educational attainment (Mikini et al. 2001), and ethnic identification and pride (Austin 2004; Kulis, Napoli, and Marsiglia 2001).

Risk and protective factors are often intertwined (Okamoto et al. 2009; Ungar 2004). For example, in a study of drug use among Native Hawaiian rural youth, a participant's brother engaged in smoking and was therefore a risk factor—but he did not want the participant to smoke, thus also serving as a protective factor for his brother (Okamoto et al. 2009). This illustrates the multifaceted influences on social behaviors and health outcomes and reinforces the importance of holistic approaches to addressing substance abuse and physical well-being.

In the following section, we draw on current available data to examine two forms of substance abuse: cigarette smoking and alcohol consumption.

SMOKING

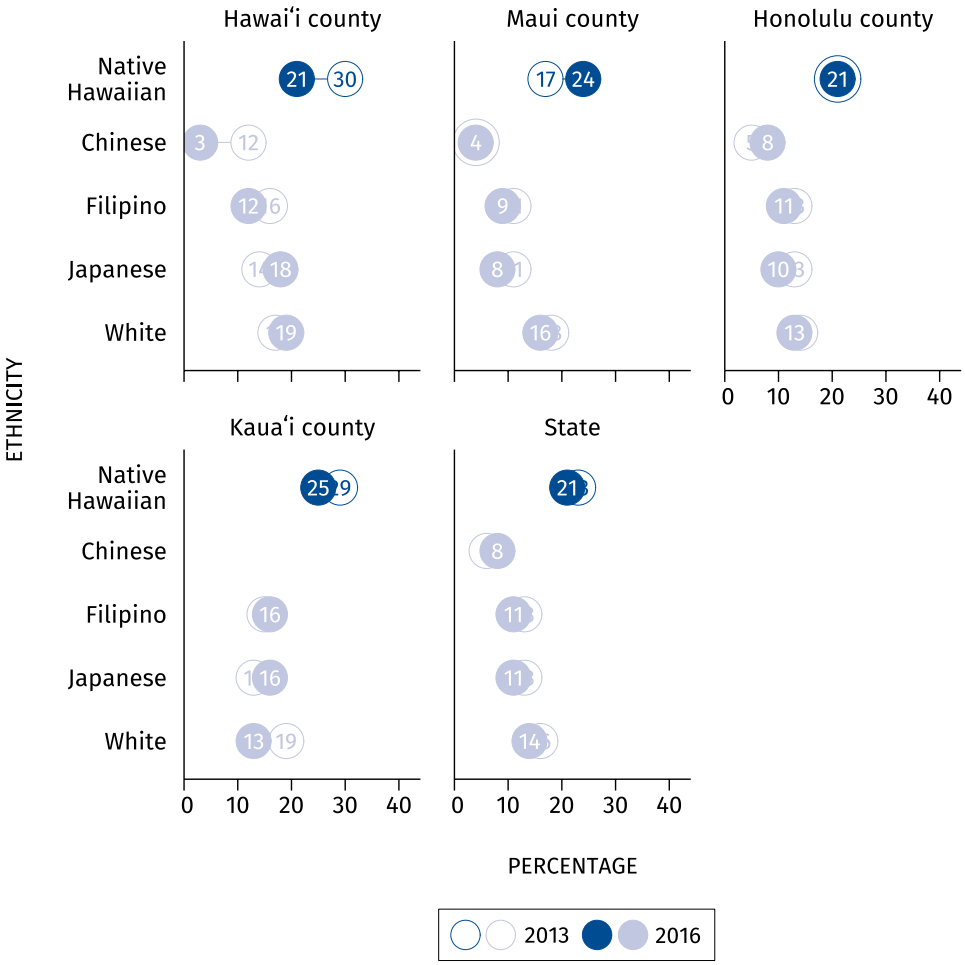
Cigarette smoking causes nearly one in five deaths in the United States, making it the most preventable cause of death. Smoking harms a person's overall health and increases the risk of illnesses such as heart disease, stroke, and lung cancer (Centers for Disease Control and Prevention 2020e). Hawai'i legislation from 2006 prohibits smoking in enclosed and partially enclosed areas (Hawai'i Department of Health, n.d.). These laws were expanded to include e-cigarettes in 2016.

Of the major ethnicities in Hawaiʻi, Native Hawaiians are the most likely to smoke (fig. 1.63). Based on 2016 data, more than one-fifth (21 percent) of Native Hawaiian adults smoke—7 percentage points higher than the Hawaiʻi total (14 percent).

When comparing 2016 findings across counties, the differences in the proportion of Native Hawaiians who smoke are not statistically significant. However, when comparing smoking rates from 2013 to 2016 within particular counties, Hawaiʻi saw a significant decrease (9 percentage points) in the proportion of Native Hawaiian adults who smoke in that region, while Maui county saw a significant increase (7 percentage points). Both of these findings warrant further research.

In Hawaiʻi county, the proportion of Native Hawaiian adults who smoke decreased significantly, declining from 30 to 21 percent between 2013 and 2016.

FIGURE 1.63 Adults who smoke—county comparison
[as a percentage of adults ages 18 and older, by ethnicity, county, and year, Hawai'i, 2013 and 2016]



Data source: Hawai'i Behavioral Risk Factor Surveillance System, 2013 (years 2011 to 2013 combined) and 2016 (years 2014 to 2016 combined), Hawai'i Department of Health

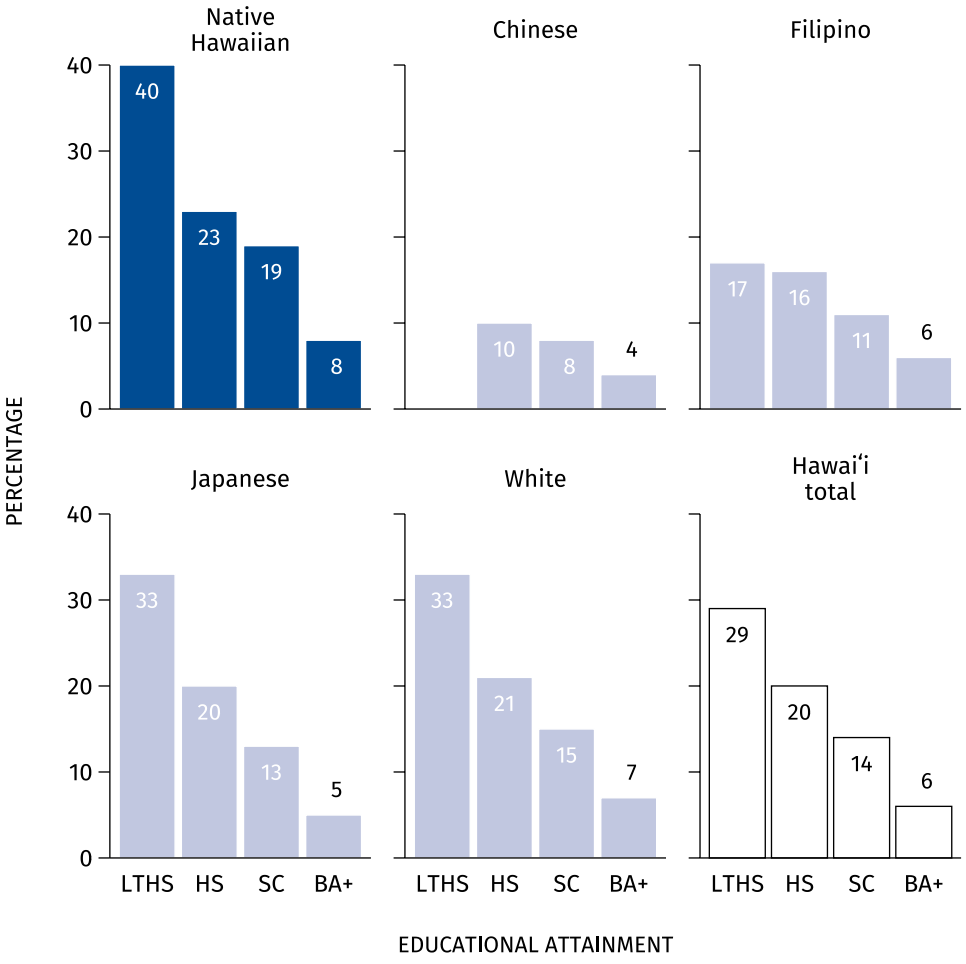
Note 1: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

Note 2: Missing circles indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- In Hawai'i county, the percentage of Native Hawaiian adults who smoke decreased significantly between 2013 and 2016; however, during the same period, the percentage of Native Hawaiian adults in Maui county who smoke increased significantly.
- Smoking is more prevalent among Native Hawaiians than it is among adults of other major ethnicities in Hawai'i.
- In 2016, there was no significant difference between counties in the percentage of Native Hawaiian adults who smoke.

The prevalence of smoking is associated with educational attainment and income. For example, Native Hawaiian adults whose highest degree is a high school diploma are nearly three times as likely to smoke as are those who have a bachelor's degree or higher (fig. 1.64). Similarly, Native Hawaiian adults who earn less than $50,000 annually are more than twice as likely as higher earners to smoke (not shown).

FIGURE 1.64 Adults who smoke, by educational attainment
[as a percentage of adults ages 18 and older, by ethnicity and educational attainment, Hawaiʻi, 2016]



Data source: Hawaiʻi Behavioral Risk Factor Surveillance System, 2016 (years 2011 to 2016 combined), Hawaiʻi Department of Health

Note 1: LTHS = Less than high school; HS = High school; SC = Some college; BA+ = Bachelor's degree or higher.

Note 2: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

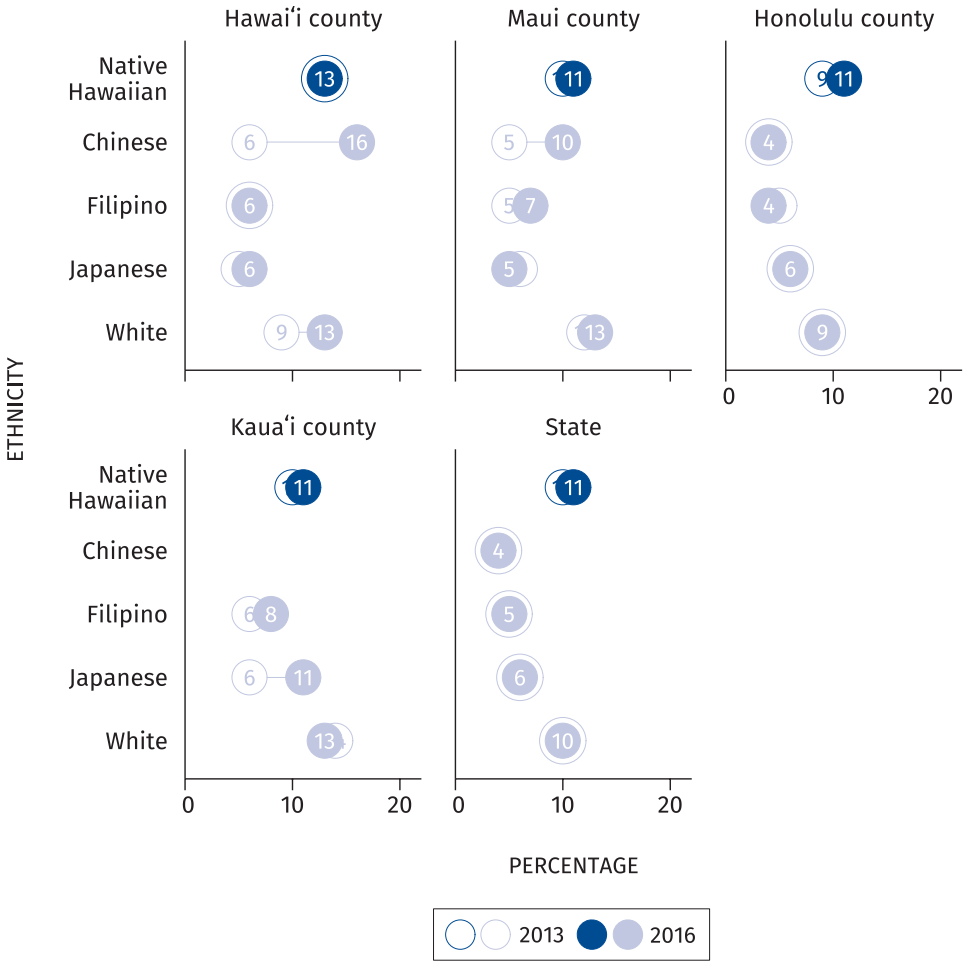
- Overall, higher levels of educational attainment are associated with lower rates of smoking.
- Among Native Hawaiians, adults whose highest degree is a high school diploma are nearly three times as likely to smoke as adults who have a bachelor's degree or higher.
- Across all levels of educational attainment, the percentage of Native Hawaiians who smoke is greater than the Hawai'i total; however, among those with a bachelor's degree or higher, the difference is not statistically significant.

DRINKING AND ALCOHOL CONSUMPTION

Moderate alcohol consumption among adults is generally defined as one drink a day for women and two drinks a day for men (Centers for Disease Control and Prevention 2019a). While moderate alcohol consumption continues to be studied for possible health benefits, heavy drinking can increase the risk of serious health problems. Heavy drinking is generally defined as more than one alcoholic drink per day for women and more than two alcoholic drinks per day for men. Heavy alcohol use can increase the risk of a multitude of health problems including stroke, high blood pressure, suicide, and accidental serious injury or death.

From 2013 to 2016, there was a slight uptick in the prevalence of heavy drinking among Native Hawaiians. At the state level, 11 percent of Native Hawaiian adults are considered heavy drinkers. This proportion is similar to that of White adults and higher than that of other major ethnicities in Hawai'i (fig. 1.65).

FIGURE 1.65 Prevalence of heavy drinking—county comparison
[as a percentage of adults ages 18 and older, by ethnicity, county, and year, Hawaiʻi, 2013 and 2016]



Data source: Hawaiʻi Behavioral Risk Factor Surveillance System, 2013 (years 2011 to 2013 combined) and 2016 (years 2014 to 2016 combined), Hawaiʻi Department of Health

Note 1: Heavy drinking is defined as having more than two alcoholic drinks per day (men) or more than one alcoholic drink per day (women).

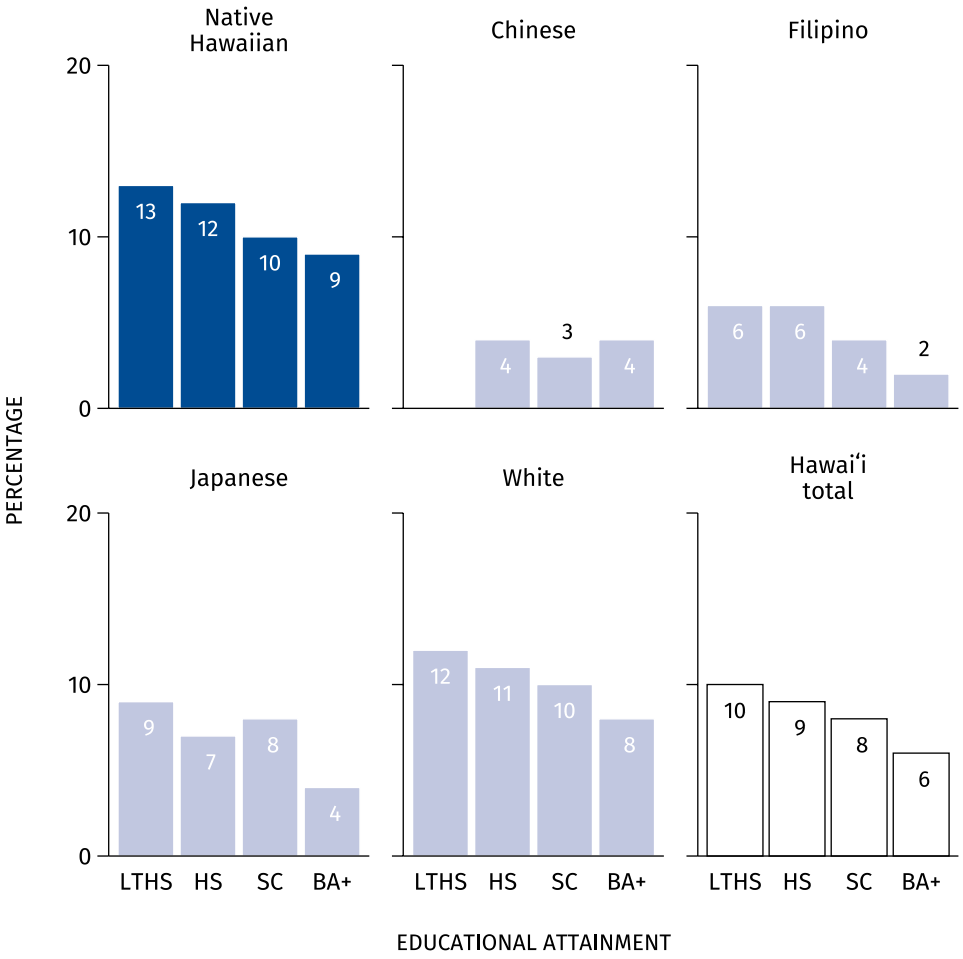
Note 2: Statistically significant findings are called out in the bullets below. Other seemingly noteworthy data points are not statistically significant due to a small sample size or other data limitations.

Note 3: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time. Missing circles indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Overall, the percentage of Native Hawaiian adults who are heavy drinkers is similar to that of White adults and higher than that of Chinese, Filipino, and Japanese adults.
- From 2013 to 2016, there was a significant increase in the prevalence of heavy drinking among White adults in Hawaiʻi county.
- Apparent increases among other ethnicities in various counties are not statistically significant.

Heavy drinking among Native Hawaiians is not associated with income (not shown). However, higher levels of education are associated with lower prevalence of heavy drinking among Native Hawaiian adults (fig. 1.66). This finding aligns with research suggesting that individuals with lower levels of education are more likely to engage in heavy or binge drinking (Anderson 2006; Huckle, You, and Casswell 2010).

FIGURE 1.66 Prevalence of heavy drinking, by educational attainment
[as a percentage of adults ages 18 and older, by ethnicity and educational attainment, Hawaiʻi, 2016]



Data source: Hawaiʻi Behavioral Risk Factor Surveillance System, 2016 (years 2011 to 2016 combined), Hawaiʻi Department of Health

Note 1: Heavy drinking is defined as having more than two alcoholic drinks per day (men) or more than one alcoholic drink per day (women).

Note 2: LTHS = Less than high school; HS = High school; SC = Some college; BA+ = Bachelor's degree or higher.

Note 3: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- On the whole, the proportion of adults who are heavy drinkers decreases with higher levels of educational attainment.
- Among Native Hawaiians with a bachelor's degree or higher, 9 percent are heavy drinkers, compared with 12 percent of Native Hawaiians whose highest degree is a high school diploma.

At the time of this writing, significant increases in alcohol sales (but not consumption, per se) have been reported by various countries during the COVID-19 pandemic (Chodkiewicz et al. 2020). While still too early to determine the impact of the coronavirus on drinking, previous research shows connections between pandemics or economic crises and alcohol consumption. For example, increased psychological distress is correlated with higher alcohol use, while unemployment and the closing of manufacturing sites—resulting in income reductions—are associated with a decrease in alcohol use (Rehm et al. 2020).

Disease and Disability

Access to healthcare and positive modifiable health behaviors are important for preventing or reducing the risk of serious health conditions. Serious health conditions, such as obesity, high blood pressure, and high cholesterol are concerning because they serve as "intermediate risk factors" of chronic disease (World Health Organization 2005; Office of Hawaiian Affairs 2015).

Chronic diseases progress slowly (usually over the course of one year or longer) and are responsible for the majority of deaths and disability in the United States (Centers for Disease Control and Prevention 2020a). Chronic disease is an urgent health issue among Native Hawaiians, who have some of the highest rates of chronic diseases relative to other ethnic groups (Office of Hawaiian Affairs 2015; Look et al. 2013), along with resulting mortality from chronic disease (Healthcare Association of Hawai'i 2015; Look et al. 2013).

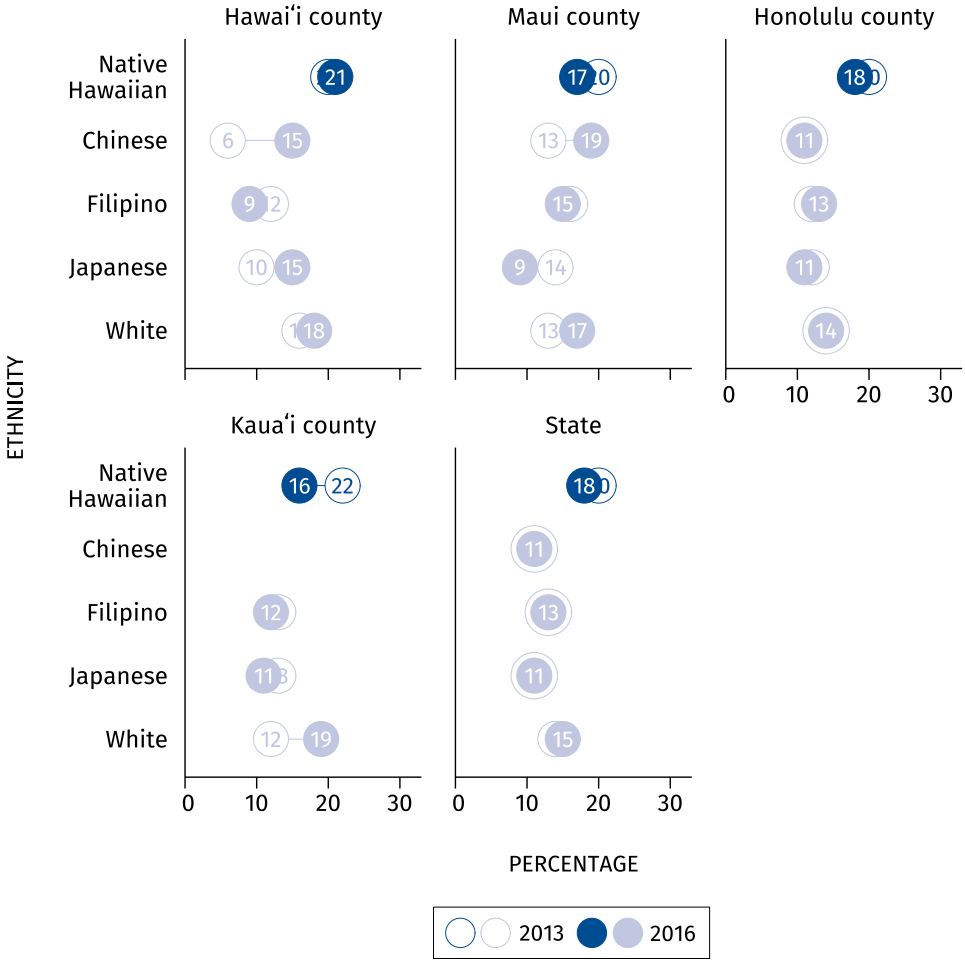
Below, we present data on overall poor physical health, select diseases and associated health conditions, and different forms of disability.

POOR PHYSICAL HEALTH

Hawai'i is generally recognized as one of the healthier states in the United States (United Health Foundation 2020). Out of the major ethnic groups in Hawai'i, Native Hawaiians are the most likely to be in poor physical health (i.e., self-reporting health as being "not good" due to physical illness and injury). In 2016, 18 percent of Native Hawaiians were in poor physical health for at least six days in the previous month, compared with the Hawai'i total of 14 percent (not shown). The results were more pronounced in Hawai'i county, where 21 percent of Native Hawaiian adults were in poor health for at least six days (fig. 1.67). Hawai'i county also saw a similar pattern for longer-term illness, with 16 percent of Native Hawaiian adults reporting that they were in poor health for at least fourteen days of the previous month (not shown).

FIGURE 1.67 Adults with poor physical health for at least six days in the past month—county comparison

[as a percentage of adults ages 18 and older, by ethnicity, county, and year, Hawaiʻi, 2013 and 2016]



Data source: Hawaiʻi Behavioral Risk Factor Surveillance System, 2013 (years 2011 to 2013 combined) and 2016 (years 2014 to 2016 combined), Hawaiʻi Department of Health

Note 1: Poor physical health is measured by respondents who self-report their health as being "not good" due to physical illness or injury.

Note 2: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

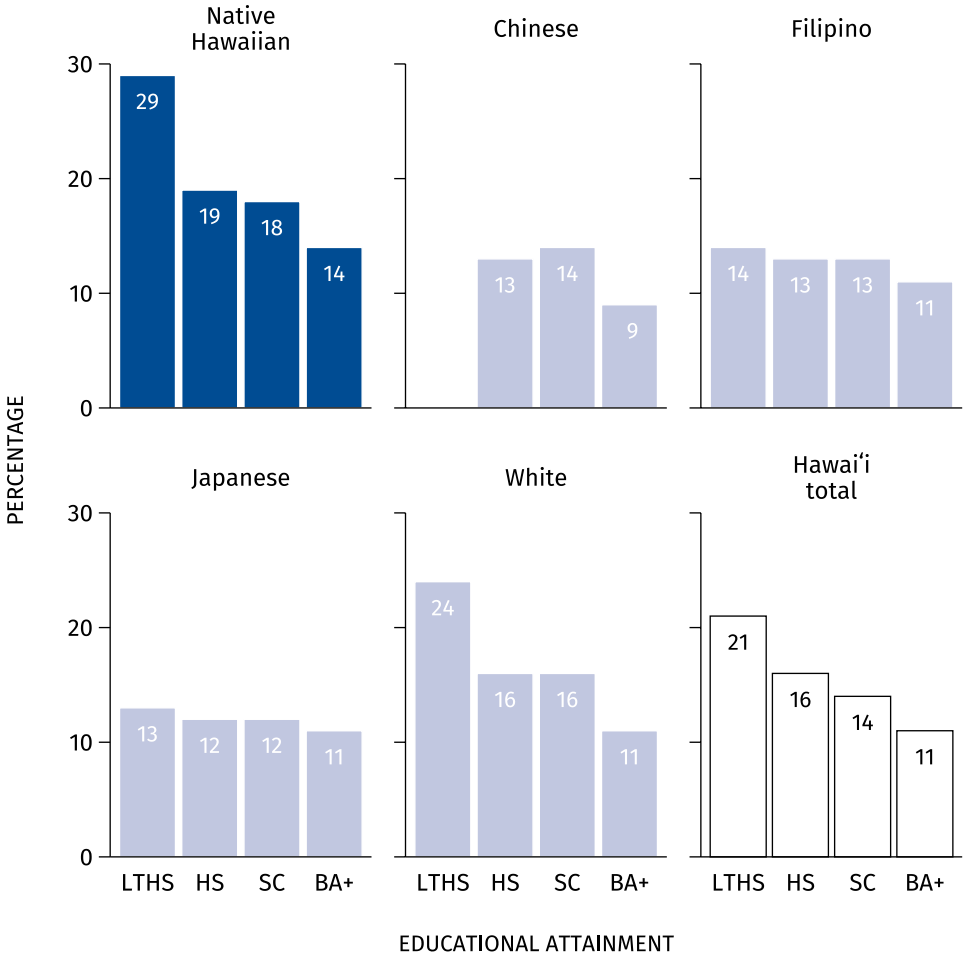
Note 3: Missing circles indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Across counties, there were changes between 2013 and 2016 in the percentage of Native Hawaiian adults with poor health for at least six days in the past month; however, the differences are not statistically significant.
- Among Native Hawaiians, the percentage of adults with poor health for at least six days in the past month does not differ significantly by county.

For Native Hawaiian adults, higher levels of educational attainment correlate with a lower likelihood of having poor health (fig. 1.68). There is a similar correlation among Native Hawaiian adults with higher levels of income (not shown).

FIGURE 1.68 Adults with poor physical health for at least six days in the past month, by educational attainment

[as a percentage of adults ages 18 and older, by ethnicity and educational attainment, Hawai'i, 2016]



Data source: Hawai'i Behavioral Risk Factor Surveillance System, 2016 (years 2011 to 2016 combined), Hawai'i Department of Health

Note 1: Poor physical health is measured by respondents who self-report their health as being "not good" due to physical illness or injury.

Note 2: LTHS = Less than high school; HS = High school; SC = Some college; BA+ = Bachelor's degree or higher.

Note 3: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

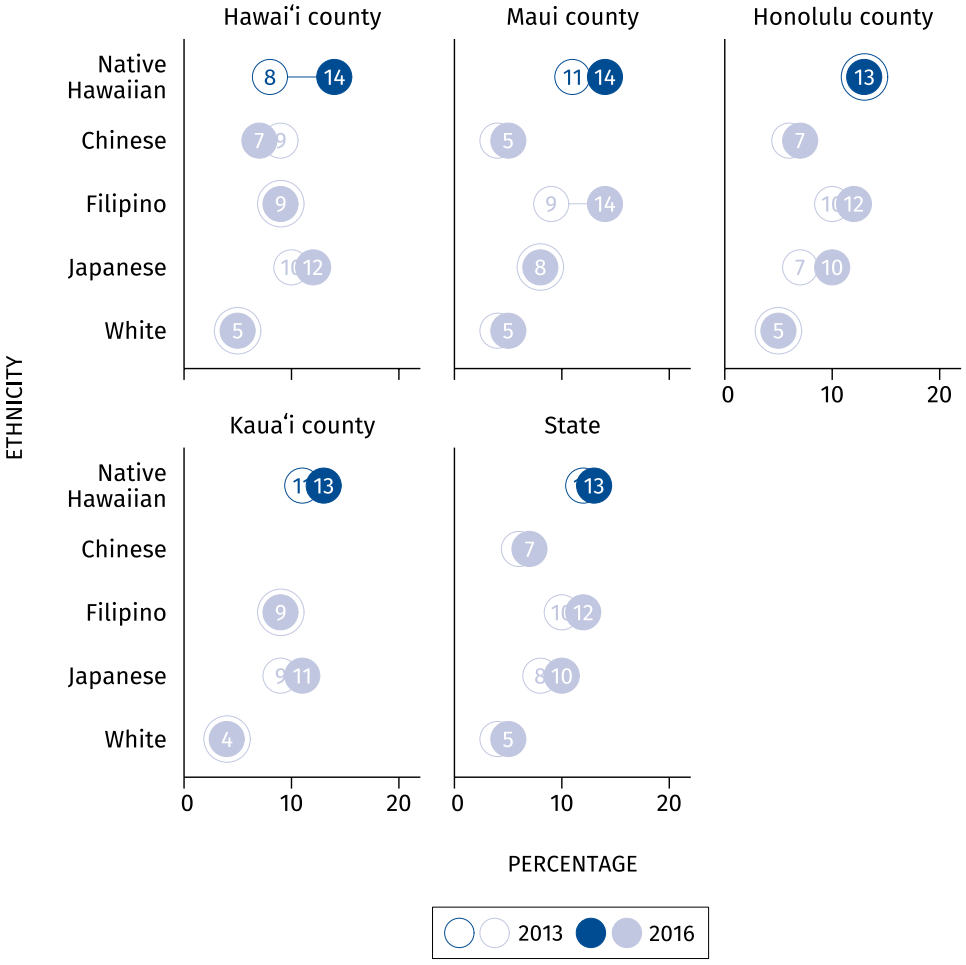
- Higher educational attainment is generally associated with lower likelihood of poor health.
- Among Native Hawaiians with a bachelor's degree or higher, 14 percent report being in poor health for at least six days in the past month, compared with 19 percent of those whose highest degree is a high school diploma.

DIABETES

Diabetes affects millions of people and is the seventh-leading cause of death in the United States. It is a gateway disease that is correlated with risk of other health problems such as heart disease and stroke. While diabetes is typically a long-lasting condition, it can be managed by lifestyle changes such as losing weight, being active, and changing one's diet (Centers for Disease Control and Prevention 2020h).

The prevalence of diabetes is increasing in Hawaiʻi, affecting nearly one-tenth (9 percent) of the total adult population (Kamehameha Schools 2019). Native Hawaiians continue to have the highest incidence of diabetes relative to other ethnicities in Hawaiʻi (fig. 1.69). Hawaiʻi county has seen an uptick in diabetes rates among Native Hawaiian adults, increasing from 8 to 14 percent between 2013 and 2016.

FIGURE 1.69 Prevalence of diabetes—county comparison
[as a percentage of adults ages 18 and older, by ethnicity, county, and year, Hawai'i, 2013 and 2016]



Data source: Hawai'i Behavioral Risk Factor Surveillance System, 2013 (years 2011 to 2013 combined) and 2016 (years 2014 to 2016 combined), Hawai'i Department of Health

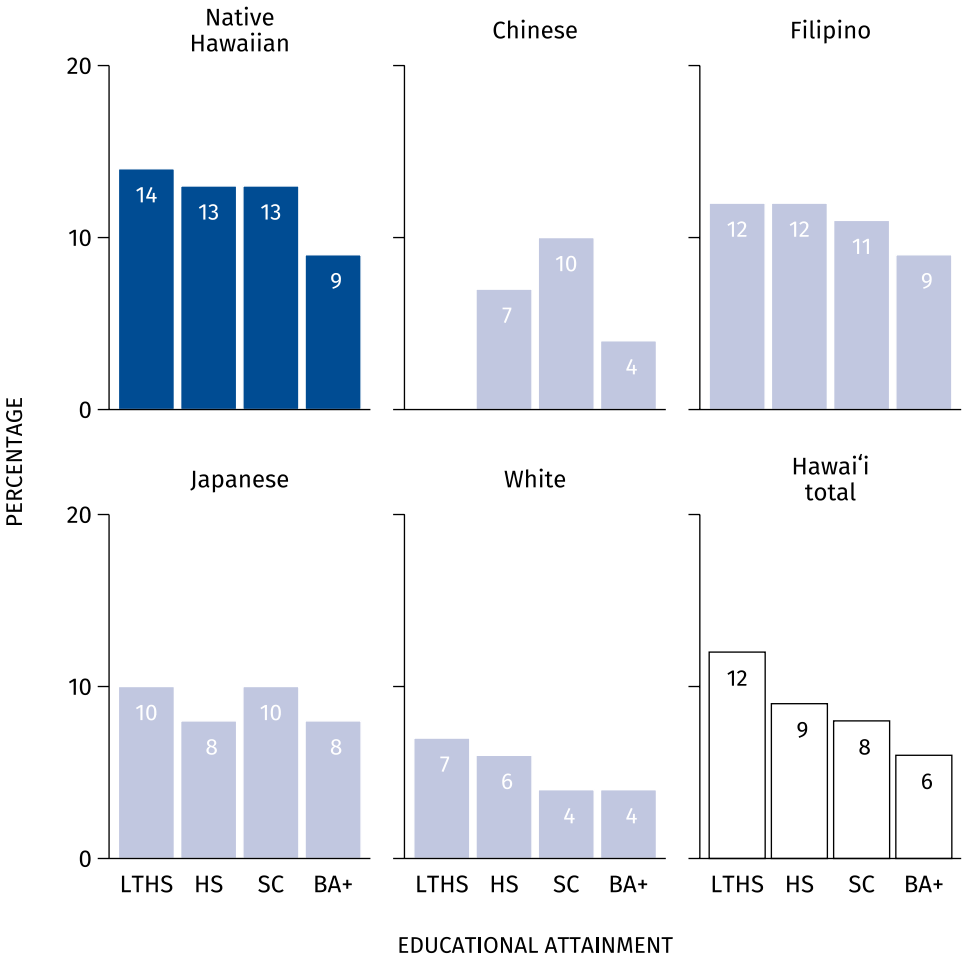
Note 1: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

Note 2: Missing circles indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- At the state level, Native Hawaiians have the highest prevalence of diabetes among Hawai'i's major ethnicities (except Filipinos).
- Over a three-year period, Hawai'i county had a significant increase in the prevalence of diabetes among Native Hawaiian adults, rising from 8 to 14 percent between 2013 and 2016.
- In 2016, the prevalence of diabetes among Native Hawaiian adults did not differ significantly from county to county.
- For the Hawai'i total (not shown), there was an increase in the prevalence of diabetes, going from 7 to 9 percent between 2013 and 2016.

For Native Hawaiian adults, the prevalence of diabetes is lowest among those who have higher levels of education. For example, in 2016, 9 percent of Native Hawaiians with a bachelor's degree or higher had diabetes, compared with 13 percent among those whose highest degree is a high school diploma (fig. 1.70). Income is also related to the prevalence of diabetes: Among Native Hawaiians earning $50,000 or more annually, 10 percent have diabetes, compared with 14 percent of those with an annual income of less than $50,000 (not shown).

FIGURE 1.70 Prevalence of diabetes, by educational attainment
[as a percentage of adults ages 18 and older, by ethnicity and educational attainment, Hawaiʻi, 2016]



Data source: Hawaiʻi Behavioral Risk Factor Surveillance System, 2016 (years 2011 to 2016 combined), Hawaiʻi Department of Health

Note 1: LTHS = Less than high school; HS = High school; SC = Some college; BA+ = Bachelor's degree or higher.

Note 2: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

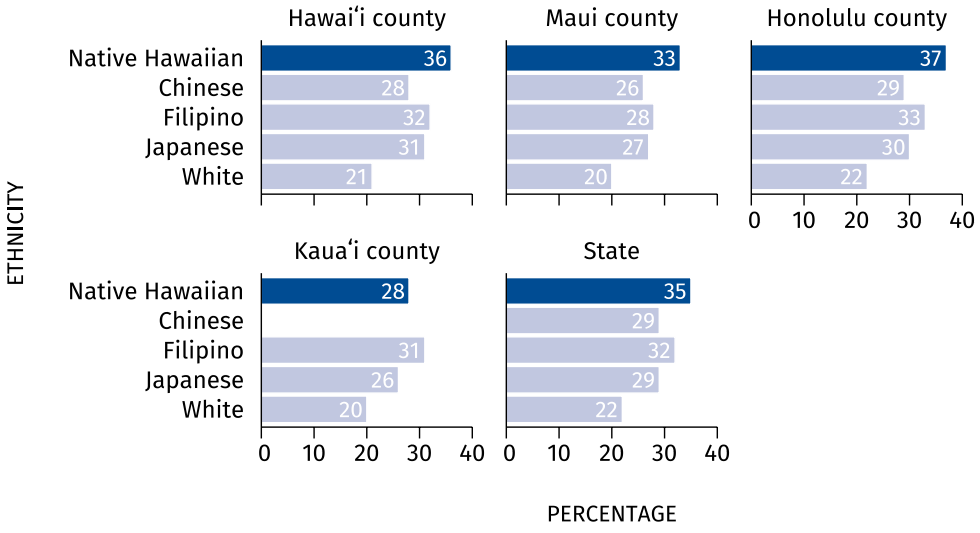
- Among adults in Hawai'i, higher educational attainment generally corresponds with lower prevalence of diabetes.
- Among Native Hawaiians with a bachelor's degree or higher, 9 percent have diabetes, compared with 13 percent of Native Hawaiians whose highest degree is a high school diploma.

HIGH BLOOD PRESSURE

According to the Mayo Clinic (2018a), high blood pressure can develop over time and can be easily detected and monitored. Risk factors for high blood pressure include age, race, family history, diet, level of physical activity, and stress levels. Over time, high blood may eventually lead to heart disease. For Native Hawaiians, activities such as hula have been shown to successfully lower high blood pressure (Kaholokula et al. 2017).

Comparing adults from Hawai'i's major ethnicities, Native Hawaiians have the highest rates of high blood pressure. At the state level, more than one-third (35 percent) of Native Hawaiians have high blood pressure (fig. 1.71), compared with the Hawai'i total of 28 percent (not shown).

FIGURE 1.71 Prevalence of high blood pressure—county comparison
[as a percentage of adults ages 18 and older, by ethnicity and county, Hawai'i, 2015]



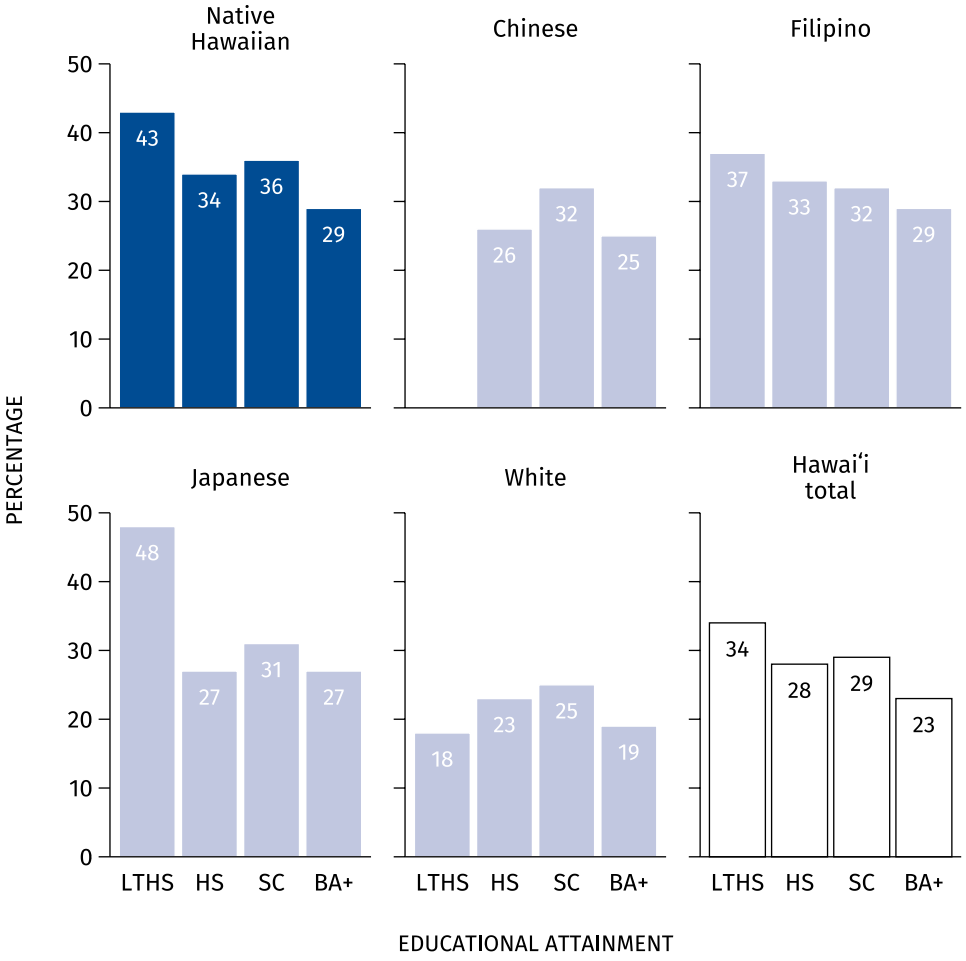
Data source: Hawai'i Behavioral Risk Factor Surveillance System, 2015 (years 2011, 2013, 2015 combined), Hawai'i Department of Health

Note 1: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Across counties, Kaua'i has the lowest proportion of Native Hawaiians with high blood pressure (28 percent).
- At the state level, 35 percent of Native Hawaiian adults have high blood pressure, compared with the Hawai'i total of 28 percent (not shown).

Among Native Hawaiians, higher rates of high blood pressure are associated with lower levels of educational attainment. For example, among Native Hawaiian adults whose highest degree is a high school diploma, 34 percent have high blood pressure, compared with 29 percent of those who have a bachelor's degree or higher (fig. 1.72). High blood pressure is not associated with income (not shown).

FIGURE 1.72 Prevalence of high blood pressure, by educational attainment
[as a percentage of adults ages 18 and older, by ethnicity and educational attainment, Hawaiʻi, 2015]



Data source: Hawaiʻi Behavioral Risk Factor Surveillance System, 2015 (years 2011, 2013, 2015 combined), Hawaiʻi Department of Health

Note 1: LTHS = Less than high school; HS = High school; SC = Some college; BA+ = Bachelor's degree or higher.

Note 2: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

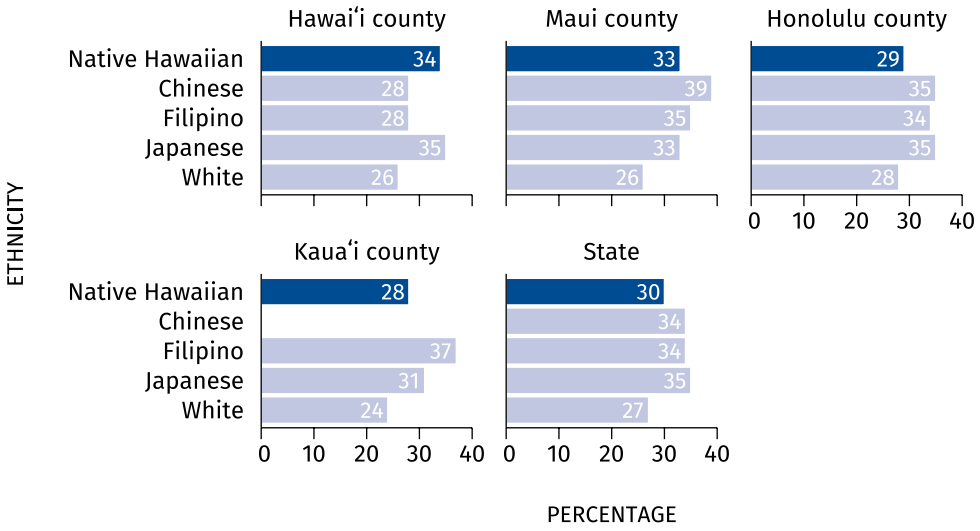
- In general, high blood pressure is less prevalent among adults with higher levels of educational attainment.
- Among Native Hawaiians with a bachelor's degree or higher, 29 percent have high blood pressure, compared with 34 percent of Native Hawaiians whose highest degree is a high school diploma.

HIGH CHOLESTEROL

Similar to high blood pressure, high cholesterol can increase the risk of heart disease and can lead to a heart attack or stroke. High cholesterol can be reduced through a healthy diet, regular exercise, limiting alcohol consumption, and by not smoking. Cholesterol levels can be monitored through blood tests and doctor visits, further emphasizing the importance of access to quality healthcare.

Looking across Hawai'i's major ethnicities, the lowest rates of high cholesterol are among Whites (27 percent) and Native Hawaiians (30 percent) (fig. 1.73). Our analysis does not show an association between high cholesterol rates and educational attainment or income.

FIGURE 1.73 Prevalence of high cholesterol—county comparison
[as a percentage of adults ages 18 and older, by ethnicity and county, Hawai'i, 2015]



Data source: Hawai'i Behavioral Risk Factor Surveillance System, 2015 (years 2011, 2013, 2015 combined), Hawai'i Department of Health

Note 1: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- At the state level, the prevalence of high cholesterol among Native Hawaiian adults (30 percent) does not differ significantly from the Hawai'i total of 31 percent (not shown).
- Across ethnicities, the prevalence of adults with high cholesterol does not differ significantly from region to region.

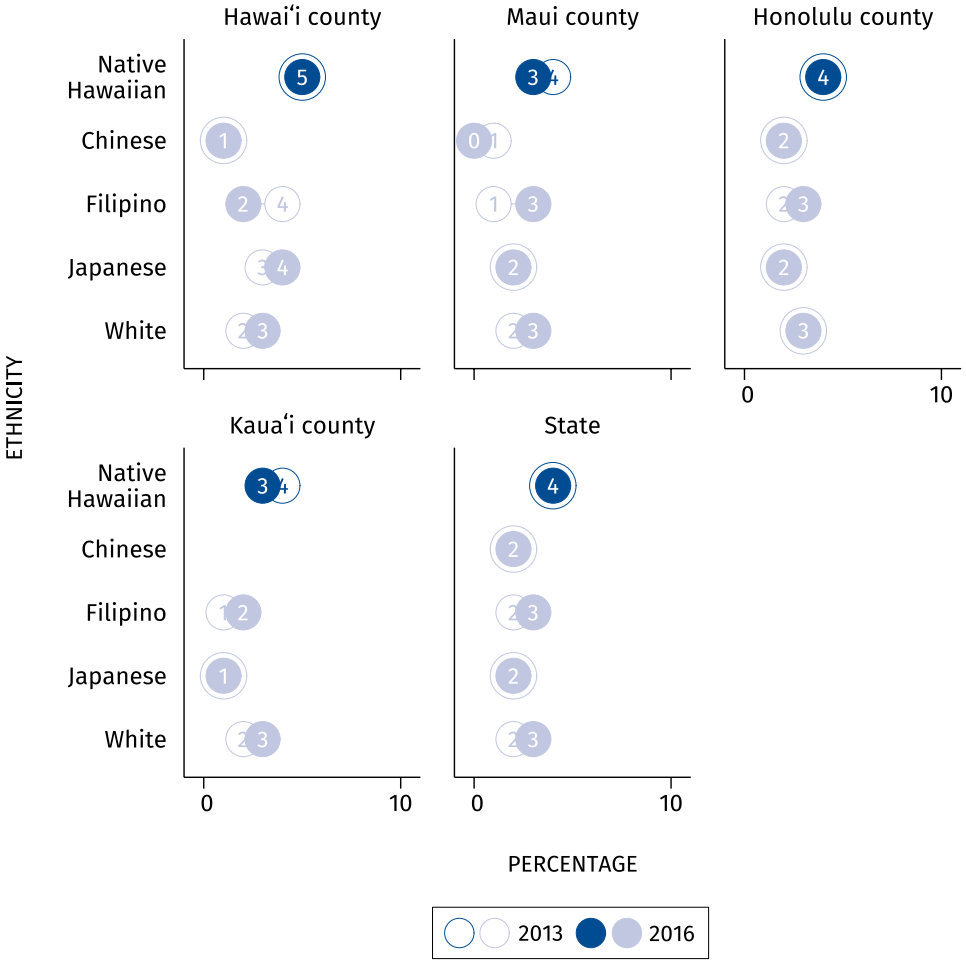
Compared with Hawaiʻi's other major ethnicities, Native Hawaiians have the second-lowest rates of high cholesterol (30 percent).

ANGINA OR CORONARY HEART DISEASE

Coronary heart disease (or cardiovascular disease) is often caused by smoking, high blood pressure, high cholesterol, diabetes, or an inactive lifestyle. Diet also plays a role. Angina, a symptom of coronary heart disease, is a type of chest pain that can occur during physical or emotional stress. Common symptoms of coronary heart disease include heart attacks and strokes (Mayo Clinic 2020a).

The Healthcare Association of Hawaiʻi (2015) reports that in Hawaiʻi, the death rate due to heart disease among Native Hawaiians and other Pacific Islanders is more than three times higher than that of Hawaiʻi's overall population. Our data show that in 2016, one in twenty-five Native Hawaiian adults experienced angina or coronary heart disease, constituting the highest rates among Hawaiʻi's other major ethnic groups. For Native Hawaiian adults at the state level, there was no change in the prevalence of angina or coronary heart disease between 2013 and 2016 (fig. 1.74).

FIGURE 1.74 Prevalence of angina or coronary heart disease—county comparison
[as a percentage of adults ages 18 and older, by ethnicity, county, and year, Hawai'i, 2013 and 2016]



Data source: Hawai'i Behavioral Risk Factor Surveillance System, 2013 (years 2011 to 2013 combined) and 2016 (years 2014 to 2016 combined), Hawai'i Department of Health

Note 1: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

Note 2: Missing circles indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Among Native Hawaiians, the prevalence of angina or coronary heart disease did not change significantly between 2013 and 2016.
- At the state level, the prevalence of angina or coronary heart disease is higher among Native Hawaiians than among other major ethnic groups in Hawai'i.

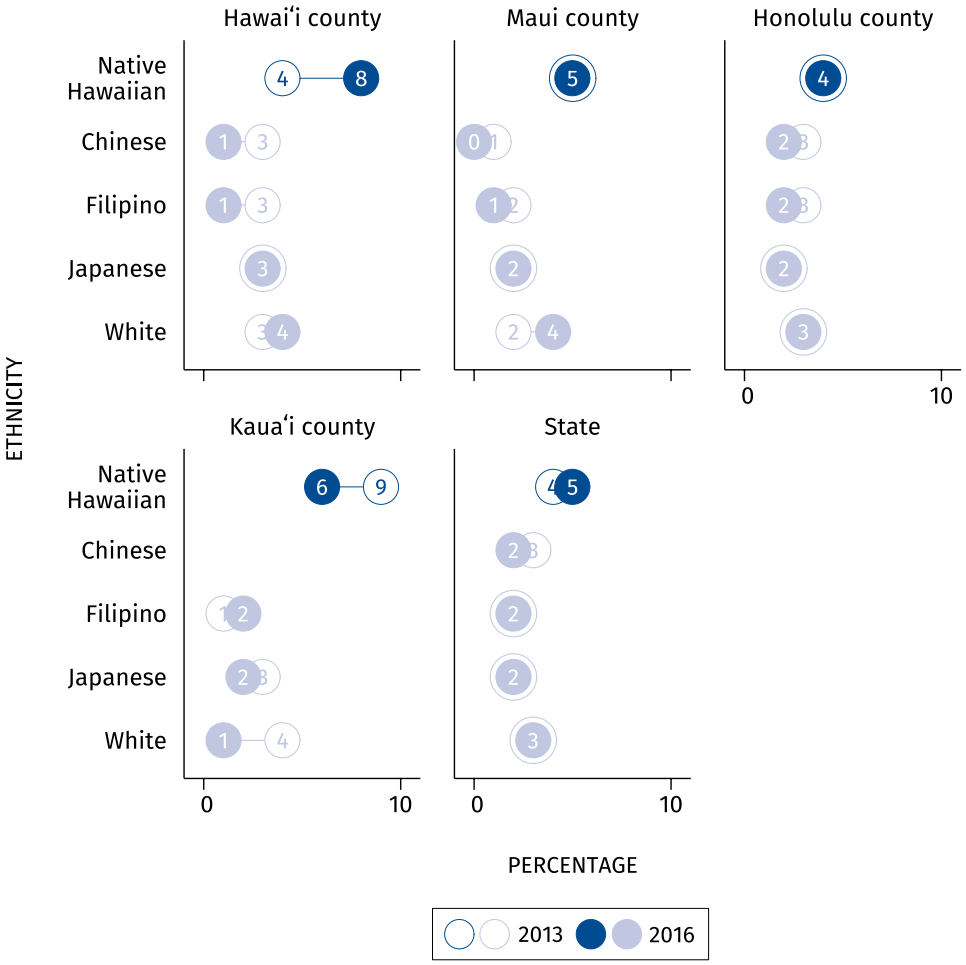
The prevalence of angina or coronary heart disease is not associated with educational attainment; however, there is a correlation with income. For example, among Native Hawaiians with an annual income of $50,000 or more, 3 percent have angina or coronary heart disease, compared with 5 percent among those making less than $50,000 a year (not shown).

HEART ATTACK AND STROKE

Like angina, heart attacks and strokes can be symptoms of, or risk factors for, coronary heart disease. Both occur when arteries become blocked. Other types of stroke involve the rupturing of an artery in the brain, or mini-strokes, which cut off oxygen and nutrients to the brain for a short duration (Centers for Disease Control and Prevention 2020g). Not all strokes lead to heart disease.

One in twenty Native Hawaiian adults had a heart attack in 2016—a higher proportion than that of all major ethnicities in Hawaiʻi (fig. 1.75). From 2013 to 2106, across counties and at the state level, heart attack rates generally remained stable or declined slightly among Hawaiʻi's major ethnic groups. However, for Native Hawaiians in Hawaiʻi county, heart attack prevalence increased significantly, from 4 to 8 percent between 2013 and 2016. Given the relatively high proportion of Native Hawaiians in Hawaiʻi county, additional analysis is needed to understand these adverse trends.

FIGURE 1.75 Prevalence of heart attack—county comparison
[as a percentage of adults ages 18 and older, by ethnicity, county, and year, Hawai'i, 2013 and 2016]



Data source: Hawai'i Behavioral Risk Factor Surveillance System, 2013 (years 2011 to 2013 combined) and 2016 (years 2014 to 2016 combined), Hawai'i Department of Health

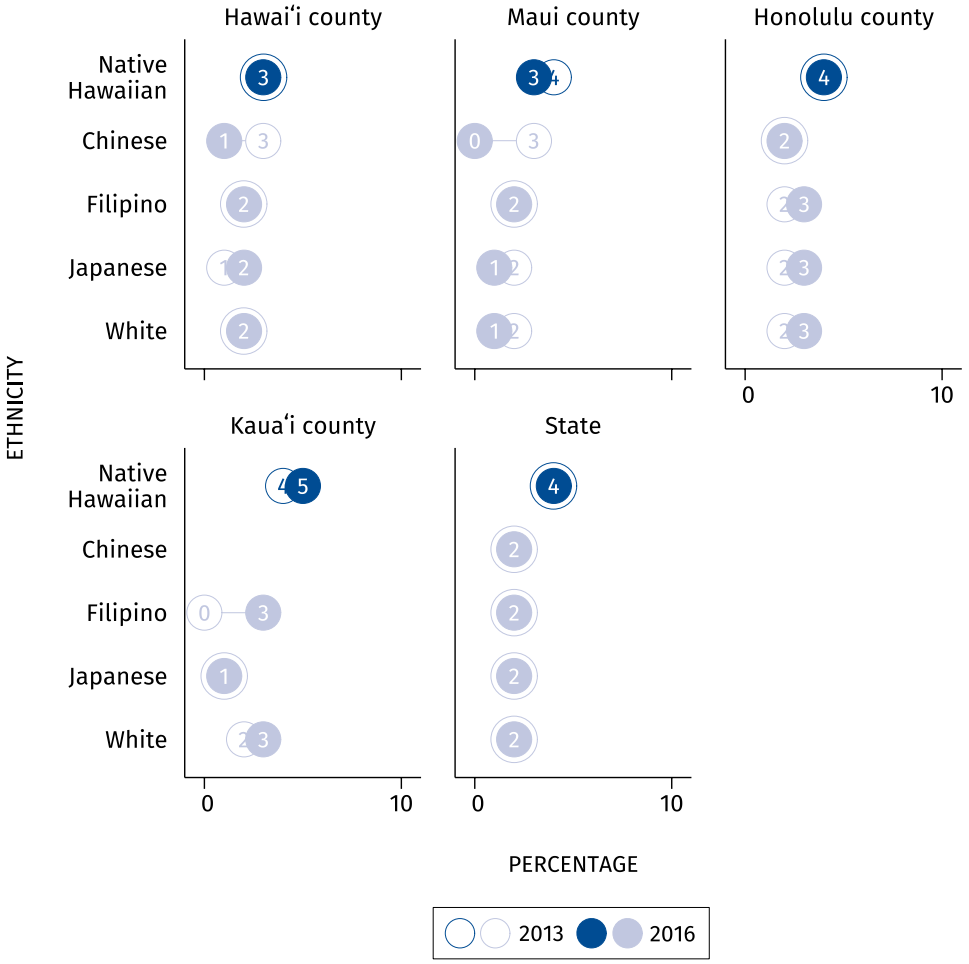
Note 1: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

Note 2: Missing circles indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Between 2013 and 2016, Hawai'i county had a significant increase in the prevalence of heart attack among Native Hawaiians.
- Compared with Native Hawaiians in other counties, Native Hawaiians in Hawai'i county had the highest prevalence of heart attack in 2016.
- At the state level in 2016, one in twenty Native Hawaiian adults (5 percent) had a heart attack—the greatest proportion among all major ethnicities in Hawai'i.

At the state level, the prevalence of stroke among Native Hawaiians is slightly higher than that of other ethnicities, but the difference is not statistically significant. Among all of Hawaiʻi's major ethnic groups, rates of stroke have not changed at the state level since 2013 (fig. 1.76).

FIGURE 1.76 Prevalence of stroke—county comparison
[as a percentage of adults ages 18 and older, by ethnicity, county, and year, Hawaiʻi, 2013 and 2016]



Data source: Hawaiʻi Behavioral Risk Factor Surveillance System, 2013 (years 2011 to 2013 combined) and 2016 (years 2014 to 2016 combined), Hawaiʻi Department of Health

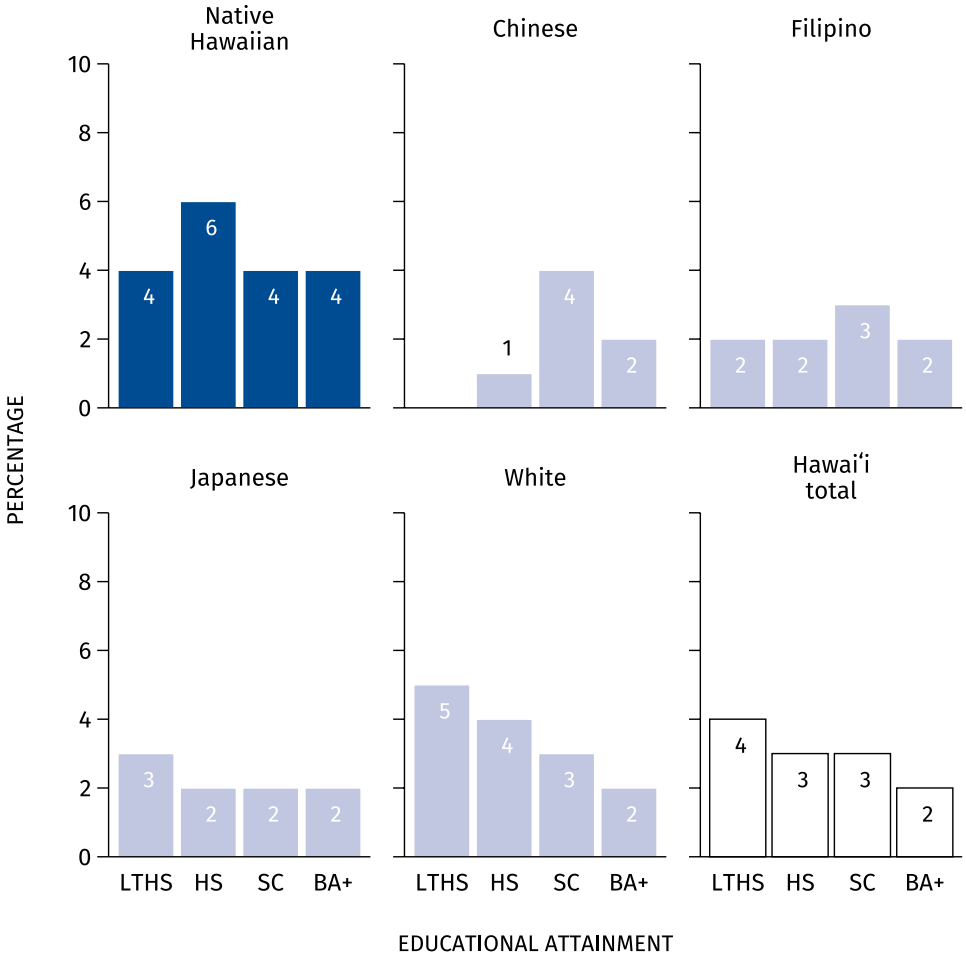
Note 1: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

Note 2: Missing circles indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Compared with other major ethnicities in Hawaiʻi, Native Hawaiians have the highest prevalence of stroke; however, the differences are not statistically significant.
- Among Native Hawaiian adults, the prevalence of stroke does not differ significantly from region to region.
- From 2013 to 2016, the prevalence of stroke did not change significantly among Hawaiʻi's major ethnic groups.

Among Native Hawaiian adults, educational attainment data show no relation to rates of heart attacks (fig. 1.77) but are correlated with rates of stroke (fig. 1.78). More specifically, Native Hawaiians with higher levels of education are at less risk of having a stroke. Similarly, higher income is correlated with lower rates of both heart attack and stroke among Native Hawaiians (not shown).

FIGURE 1.77 Prevalence of heart attack, by educational attainment
[as a percentage of adults ages 18 and older, by ethnicity and educational attainment, Hawai'i, 2016]



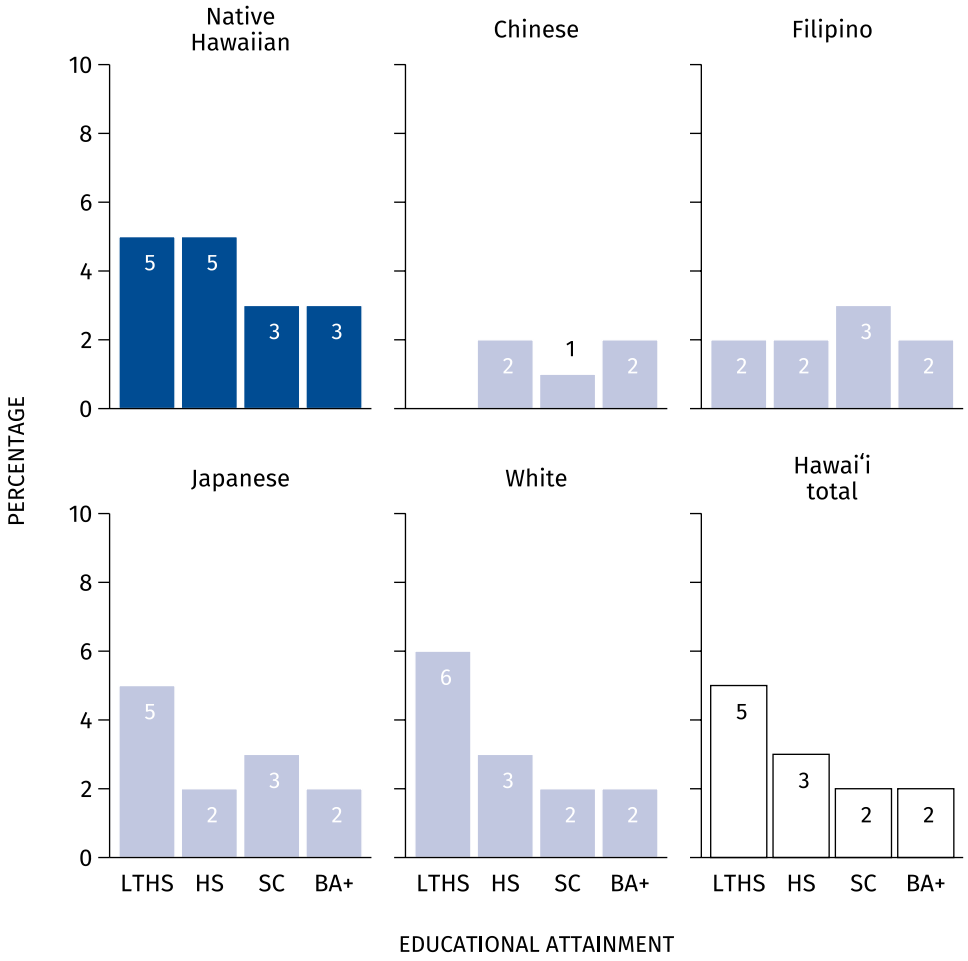
Data source: Hawai'i Behavioral Risk Factor Surveillance System, 2016 (years 2011 to 2016 combined), Hawai'i Department of Health

Note 1: LTHS = Less than high school; HS = High school; SC = Some college; BA+ = Bachelor's degree or higher.

Note 2: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Among Native Hawaiians, educational attainment does not significantly correlate with heart attack prevalence.
- Looking at the Hawai'i total, the prevalence of heart attack decreases with higher levels of educational attainment.

FIGURE 1.78 Prevalence of stroke, by educational attainment
[as a percentage of adults ages 18 and older, by ethnicity and educational attainment, Hawaiʻi, 2016]



Data source: Hawaiʻi Behavioral Risk Factor Surveillance System, 2016 (years 2011 to 2016 combined), Hawaiʻi Department of Health

Note 1: LTHS = Less than high school; HS = High school; SC = Some college; BA+ = Bachelor's degree or higher.

Note 2: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Among adults in Hawaiʻi, higher levels of educational attainment generally correspond with lower prevalence of stroke.
- For adults with a bachelor's degree or higher, the prevalence of stroke among Native Hawaiians (3 percent) is significantly higher than that of the Hawaiʻi total (2 percent).

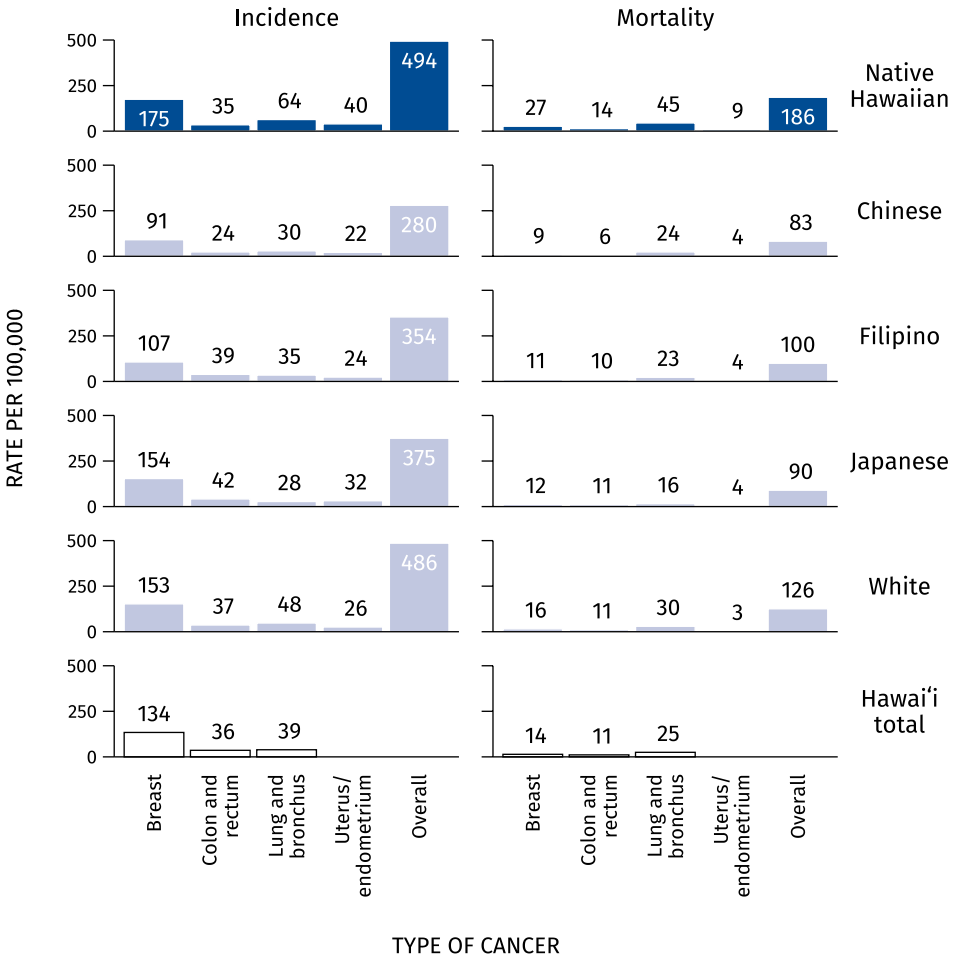
CANCER AND MORTALITY RATES

Cancer comes at a high cost to individuals, families, and communities. According to Tsark and Braun (2009), Native Hawaiians and other Pacific Islanders are more likely than other ethnic groups in the United States to die due to cancer. Cancer, as a collection of related diseases, is associated with a number of internal, external, and lifestyle risk factors (ʻImi Hale 2015). Some risk factors are unavoidable, such as growing older or inherited family genetics. Known risk factors include cigarette smoking, tobacco use, infections, radiation, and immunosuppressive medicines after organ transplant. Other factors that may affect the risk of cancer include diet, alcohol, physical activity, obesity, and diabetes. Preventative measures such as changes in diet, lifestyle, and early diagnosis may lower the number of new cancer cases.

Research has shown that compared with other ethnicities, Native Hawaiians and other Pacific Islanders are more likely to engage in behaviors associated with high rates of cancer (Tsark 1998; Mokuau et al. 2012). Ongoing disparities in healthcare access, utilization, and quality also impact an individual's ability to receive timely and preventative care. For example, Tsark and Braun (2009) and Mokuau, Braun, and Daniggelis (2012) found that Native Hawaiians and other Pacific Islanders are relatively less likely to be current on cancer screenings, which may be partially explained by an uneven distribution of cancer care resources, particularly among patients on neighbor islands. Braun et al. (2002) also found that limited access to healthcare was a significant obstacle to cancer recovery. Another challenge is the scarcity of culturally appropriate interventions across all stages of cancer prevention, diagnosis, and treatment (Mokuau, Braun, and Daniggelis 2012).

Our analysis shows that Native Hawaiians—both females and males—have the highest rates of mortality due to cancer among the major ethnicities in Hawaiʻi. Among females in Hawaiʻi, the cancer incidence rate among Native Hawaiians (494 per 100,000) is similar to that of Whites (486 per 100,000) (fig. 1.79).

FIGURE 1.79 Selected cancer incidence and mortality rates among females
[as a rate per 100,000, age-adjusted to US 2000 standard population, by type of cancer, 2013]



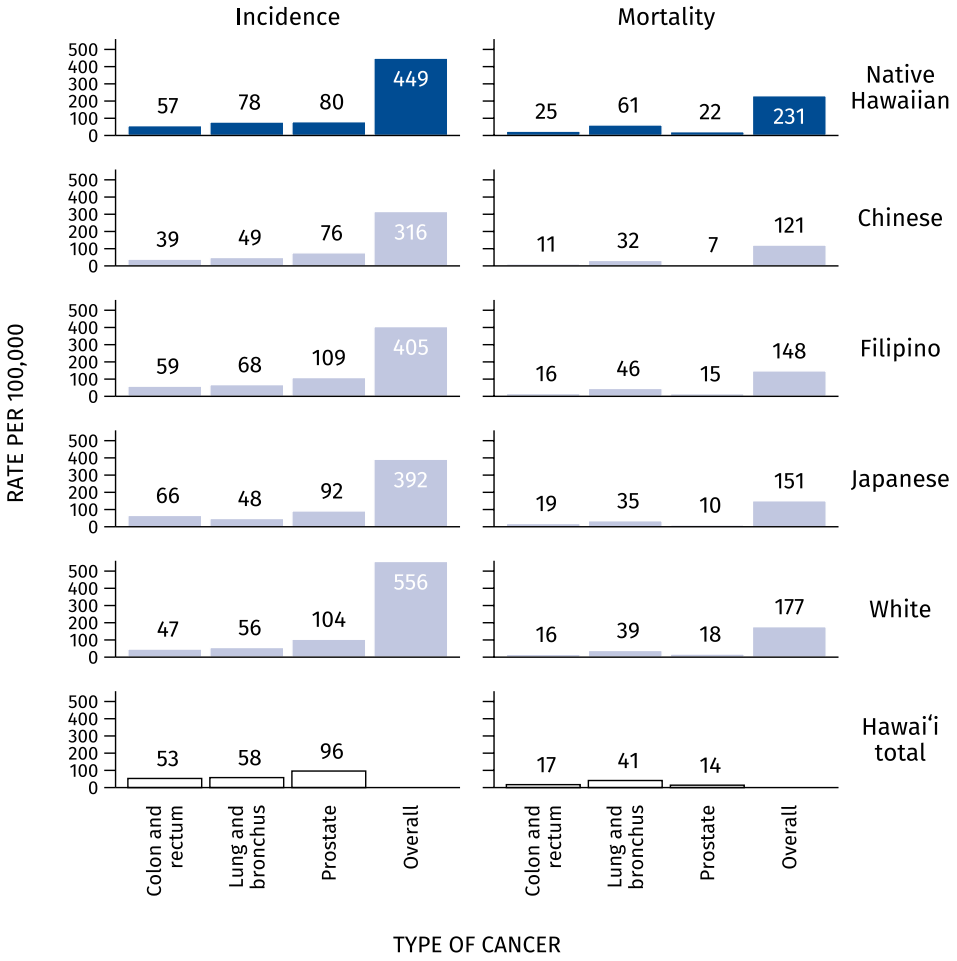
Data source: Hawaiʻi Tumor Registry, University of Hawaiʻi Cancer Center, via "Hawaiʻi Cancer at a Glance, 2009–2013"

Note 1: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Among females in Hawaiʻi, the incidence of breast cancer is the highest of the four types of cancer.
- Across ethnicities, Native Hawaiian females have the highest incidence of breast cancer.
- Among females in Hawaiʻi, lung and bronchus cancer have the highest mortality rate, relative to other cancers.
- The mortality rate for lung and bronchus cancer among Native Hawaiian females (45 per 100,000) is higher than that of women from other ethnicities and is nearly double the Hawaiʻi total (25 per 100,000).

Among males in Hawai'i, the cancer incidence rate of Native Hawaiians (449 per 100,000) is lower than that of Whites (556 per 100,000). However, compared with other major ethnic groups in Hawai'i, Native Hawaiian males have the highest rates of mortality due to cancer (231 per 100,000) (fig. 1.80).

FIGURE 1.80 Selected cancer incidence and mortality rates among males
[as a rate per 100,000, age-adjusted to US 2000 standard population, by type of cancer, 2013]



Data source: Hawai'i Tumor Registry, University of Hawai'i Cancer Center, via "Hawai'i Cancer at a Glance 2009–2013"

Note 1: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Among males in Hawai'i, the incidence of prostate cancer is the highest of the three types of cancer.
- The incidence of prostate cancer among Native Hawaiian males (80 per 100,000) is lower than the Hawai'i total (96 per 100,000) and slightly higher than that of Chinese males (76 per 100,000).

- Among males in Hawaiʻi, lung and bronchus cancer have the highest mortality rate, relative to other cancers.
- The mortality rate for lung and bronchus cancer among Native Hawaiian males (61 per 100,000) is higher than that of males from other ethnicities in Hawaiʻi.

DISABILITY

Definitions of disability have evolved over time and now extend beyond notions of perceived internal deficiency to include deeper understandings of multiple, contributing environmental factors (Pobutsky, Hirokawa, and Reyes-Savail 2003). The Institute of Medicine and the International Classification of Functioning, Disability, and Health describe disability as a product of interactions among three factors: individuals' bodies; their physical, emotional, and mental health; and the physical and social environment in which they live, work, or play (Stucki 2005). Disability exists where such interactions result in limitations of activities and restrictions to full participation at school, work, home, or in the community. For example, disability may arise when a person is limited in their ability to work due to job discrimination against persons with specific health conditions. Disability could also exist where a child has difficulty learning because the school cannot accommodate the child's deafness.

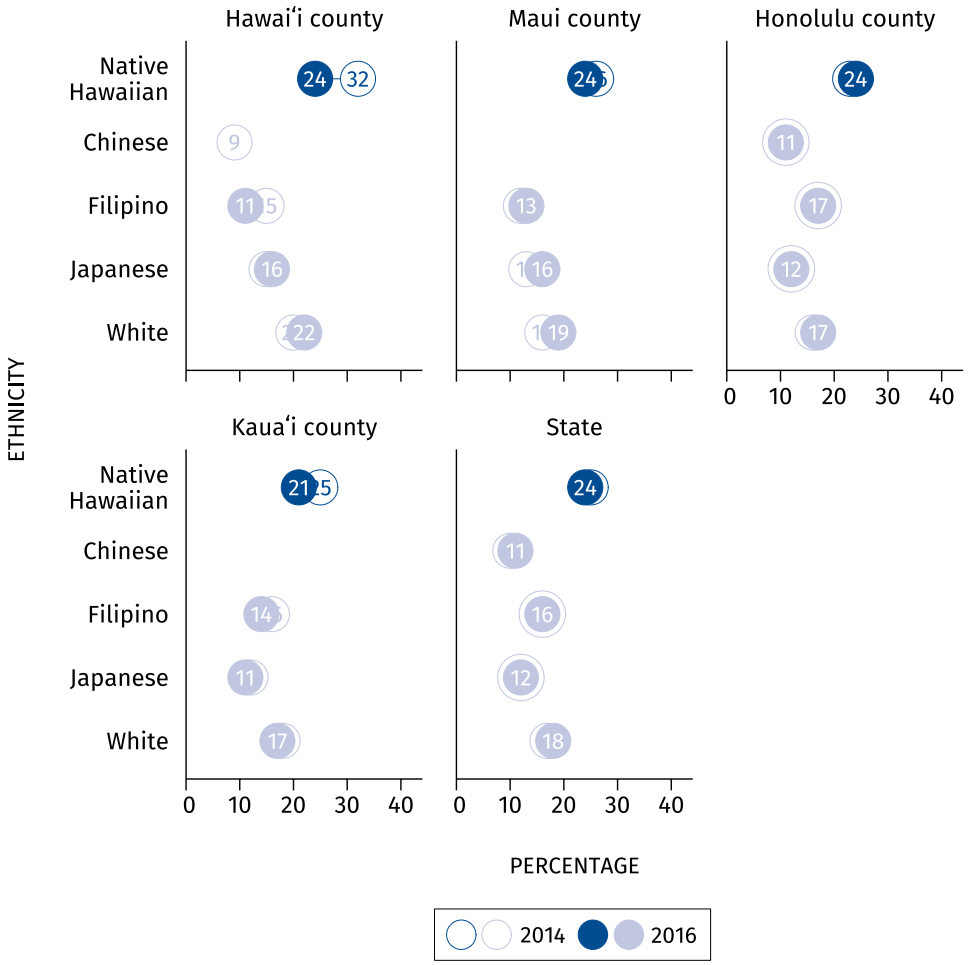
Disability is a dynamic concept that changes over time as one's health improves or declines, as technology advances, and as social structures adapt. As such, disability exists along a continuum, where the degree of difficulty may also increase or decrease.

The Centers for Disease Control and Prevention (2020d) categorize adult disability into six broad types (listed in order of prevalence): mobility, cognition, independent living, hearing, vision, and self-care. In Hawaiʻi, disability is monitored by the Hawaiʻi Behavioral Risk Factor Surveillance System, using self-reported "activity limitations." In the analysis that follows, we address disability in general terms, based on individuals who report any degree of difficulty or impairment. Subsequent sections present data specific to cognitive disability and independent living.

Among Native Hawaiians of all ages in Hawaiʻi, 10 percent have a disability (Kamehameha Schools 2019). Based on 2016 data, among the Native Hawaiian adult population across the state, 24 percent have at least one disability (fig. 1.81)—the highest rate among other major ethnicities and 7 percentage points higher than the Hawaiʻi total of 17 percent (not shown). The most prevalent disabilities among Native Hawaiians are ambulatory disability (having serious difficulty walking or climbing stairs), cognitive disability, and difficulty with independent living (not shown).

At the county level, Hawai'i county has seen positive change in recent years in the proportion of Native Hawaiians with a disability. For example, the percentage of Native Hawaiian adults in Hawai'i county who have at least one disability decreased by 8 percentage points—declining from 32 to 24 percent between 2014 and 2016.

FIGURE 1.81 Adults with at least one disability—county comparison
[as a percentage of adults ages 18 and older, by ethnicity, county, and year, Hawai'i, 2014 and 2016]



Data source: Hawai'i Behavioral Risk Factor Surveillance System, 2014 (years 2013 to 2014 combined) and 2016 (years 2015 to 2016 combined), Hawai'i Department of Health

Note 1: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

Note 2: Missing circles indicate data that are unavailable, not applicable, or suppressed due to small sample size.

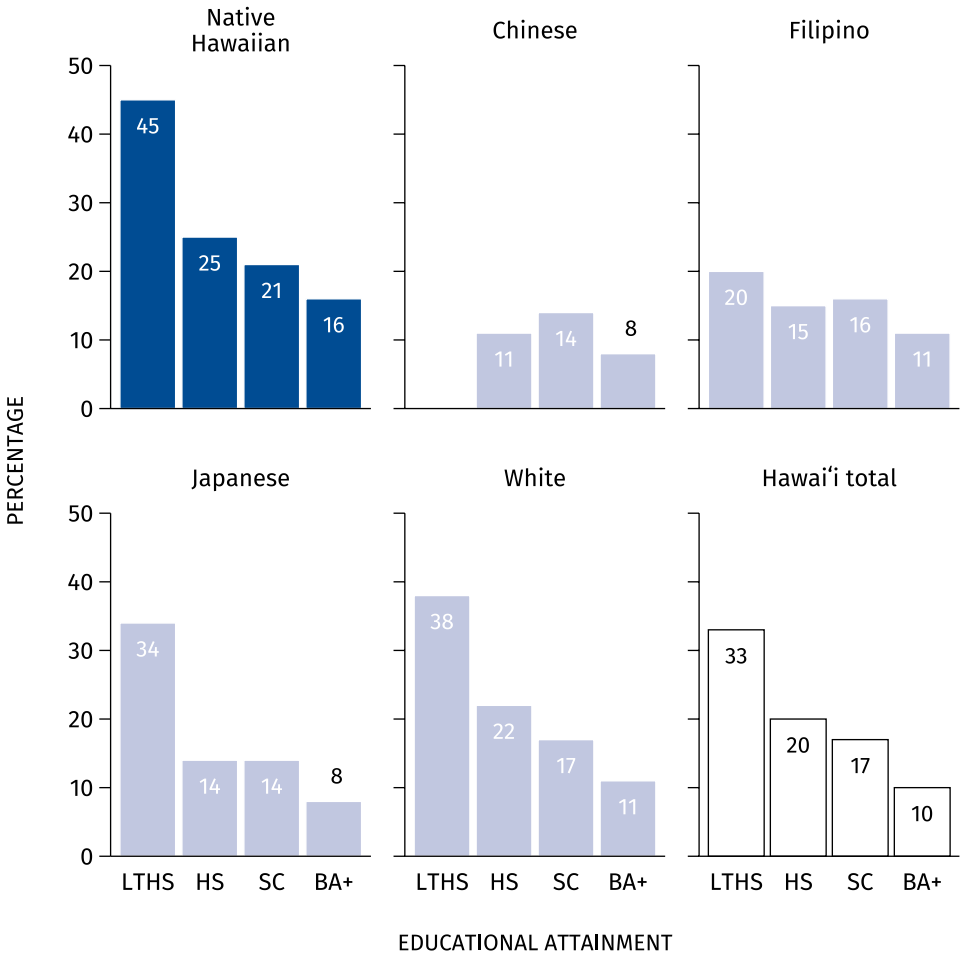
- In Hawai'i county, the proportion of Native Hawaiians with at least one disability decreased significantly from 2014 to 2016.
- In 2016, there were no significant differences between counties in the percentage of Native Hawaiian adults with a least one disability.
- At the state level, Native Hawaiians have the greatest proportion of adults (24 percent) with at least one disability.

- Ambulatory disability is the most common disability among Native Hawaiians, affecting 14 percent of the adult population, compared with the Hawaiʻi total of 9 percent (not shown).
- The percentage of Native Hawaiians with an ambulatory disability did not change significantly from 2014 to 2016 (not shown).

Among Native Hawaiian adults, educational attainment and income are correlated with having a disability or ambulatory disability. For example, among Native Hawaiian adults whose highest degree is a high school diploma, 25 percent have at least one disability, compared with 16 percent of adults with a bachelor's degree or higher (fig. 1.82). Native Hawaiian adults earning less than $50,000 annually are twice as likely as higher earners to have a disability or ambulatory disability (not shown).

In Hawaiʻi county, the percentage of Native Hawaiian adults with at least one disability decreased from 32 to 24 percent between 2014 and 2016.

FIGURE 1.82 Adults with at least one disability, by educational attainment
[as a percentage of adults ages 18 and older, by ethnicity and educational attainment, Hawai'i, 2016]



Data source: Hawai'i Behavioral Risk Factor Surveillance System, 2016 (years 2013 to 2016 combined), Hawai'i Department of Health

Note 1: LTHS = Less than high school; HS = High school; SC = Some college; BA+ = Bachelor's degree or higher.

Note 2: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

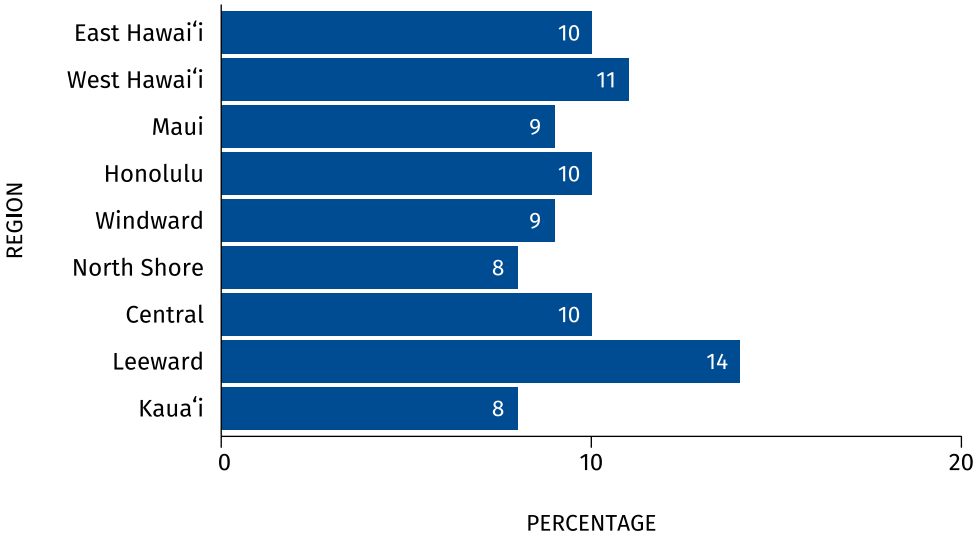
- Lower levels of educational attainment are generally associated with a greater likelihood of having at least one disability.
- Among Native Hawaiians whose highest degree is a high school diploma, 25 percent have at least one disability, compared with 16 percent of Native Hawaiians who have a bachelor's degree or higher.
- The prevalence of ambulatory disability follows a similar pattern: Among Native Hawaiians whose highest degree is a high school diploma, 14 percent have an ambulatory disability, compared with 9 percent of those who have a bachelor's degree or higher (not shown).

The likelihood of disability generally increases with age. The most common disabilities for adults are physical, while cognitive disabilities are more common among children. Current data show that among Native Hawaiian students, those with a disability are less likely than their peers who do not have a disability to complete high school. Among Native Hawaiian adults (ages twenty-five to sixty-four), those with a disability are about half as likely as those without a disability to obtain a college degree (not shown).

Disability—Regional Highlights

Looking across specific regions, Leeward has the highest rate of reported disabilities (14 percent), which is 6 percentage points higher than that of Kauaʻi and North Shore (fig. 1.83).

FIGURE 1.83 Native Hawaiians with a disability—regional comparison
[as a percentage of civilian noninstitutionalized Native Hawaiians, by region, Hawaiʻi, 2015]



Data source: US Census Bureau, American Community Survey, Selected Population Tables

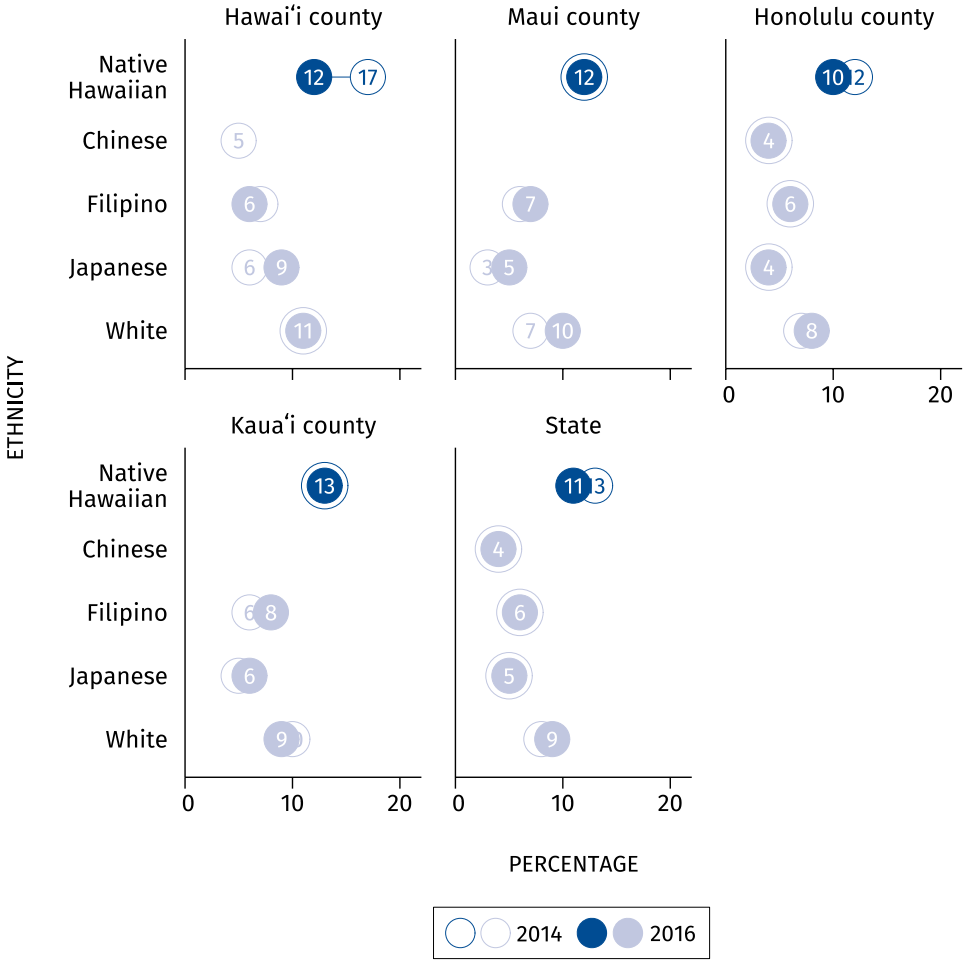
- Compared with other regions, Leeward has the highest proportion of Native Hawaiians with a disability (14 percent).
- Relative to other regions, North Shore and Kauaʻi have the lowest percentage of Native Hawaiians with a disability (8 percent).
- Based on county-level data, Kauaʻi has the smallest proportion (10 percent) of Native Hawaiian adults with an ambulatory disability (not shown).

COGNITIVE DISABILITY

Cognitive disability refers to limitations in areas such as mental functioning, communication, self-care, and social interaction. Cognitive disability is the second-most prevalent type of disability affecting adults in the United States (Centers for Disease Control and Prevention 2020d).

Our findings show that Native Hawaiians are more likely than other major ethnicities in Hawai‘i to experience cognitive disability. However, recent data also indicate that cognitive disability may be trending downward among Native Hawaiians at the state level, with a slight decrease from 2014 to 2016. In Hawai‘i county, there was significant decrease in the percentage of Native Hawaiian adults with a cognitive disability, declining from 17 to 12 percent between 2014 and 2016 (fig. 1.84).

FIGURE 1.84 Adults with a cognitive disability—county comparison
[as a percentage of adults ages 18 and older, by ethnicity, county, and year, Hawaiʻi, 2014 and 2016]



Data source: Hawaiʻi Behavioral Risk Factor Surveillance System, 2014 (years 2013 to 2014 combined) and 2016 (years 2015 to 2016 combined), Hawaiʻi Department of Health

Note 1: Cognitive disability is defined as having serious difficulty concentrating, remembering, or making decisions because of a physical, mental, or emotional condition (self-reported).

Note 2: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

Note 3: Missing circles indicate data that are unavailable, not applicable, or suppressed due to small sample size.

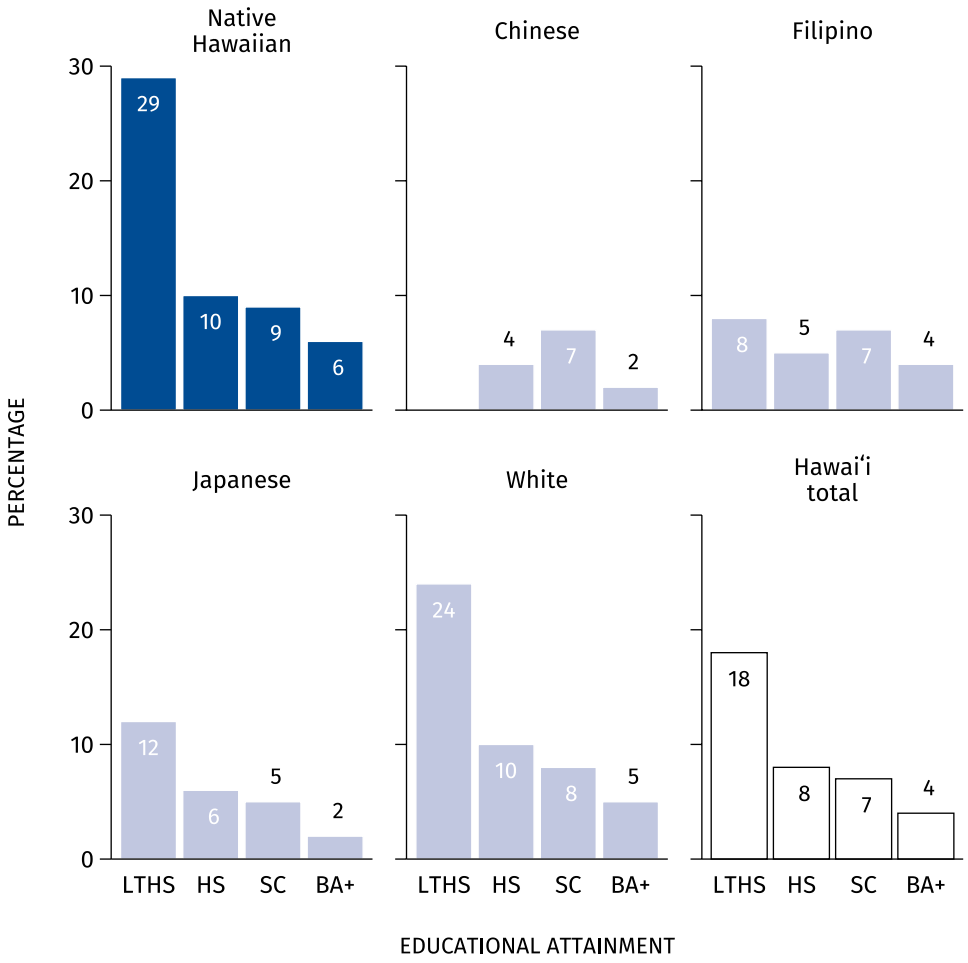
- Among Hawaiʻi's major ethnic groups, Native Hawaiians have the highest percentage of adults with a cognitive disability.
- In Hawaiʻi county, the percentage of Native Hawaiian adults with a cognitive disability decreased significantly between 2014 and 2016.
- In 2016, there was no significant difference from county to county in the percentage of Native Hawaiian adults with a cognitive disability.

Income is associated with cognitive disability. Among Native Hawaiians—as with adults from other ethnicities in Hawai'i—those with higher incomes have lower rates of cognitive disability. For example, among Native Hawaiians who earn $50,000 or more annually, 5 percent have a cognitive disability, compared with 16 percent of those making less than $50,000 (not shown). For Native Hawaiians earning less than $50,000 annually, the percentage of adults with a cognitive disability (16 percent) is significantly higher than the Hawai'i total (11 percent) (not shown).

While the reasons for higher-earning Native Hawaiians having lower rates of cognitive disability may not be established based on these data points alone, a possible explanation is that lower income leads to stressors, which can result in cognitive disabilities. Another possibility is that those with cognitive disability will experience lower incomes. More research is needed to better understand these correlations among Native Hawaiian adults.

Similar to income, education is also correlated with cognitive disability. Among Native Hawaiians, for example, the higher the educational attainment, the lower the likelihood of having a cognitive disability. More specifically, among Native Hawaiians with a bachelor's degree or higher, 6 percent have a cognitive disability, compared with 10 percent of those whose highest degree is a high school diploma (fig. 1.85).

FIGURE 1.85 Adults with a cognitive disability, by educational attainment
[as a percentage of adults ages 18 and older, by ethnicity and educational attainment, Hawaiʻi, 2016]



Data source: Hawaiʻi Behavioral Risk Factor Surveillance System, 2016 (years 2013 to 2016 combined), Hawaiʻi Department of Health

Note 1: Cognitive disability is defined as having serious difficulty concentrating, remembering, or making decisions because of a physical, mental, or emotional condition (self-reported).

Note 2: LTHS = Less than high school; HS = High school; SC = Some college; BA+ = Bachelor's degree or higher.

Note 3: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

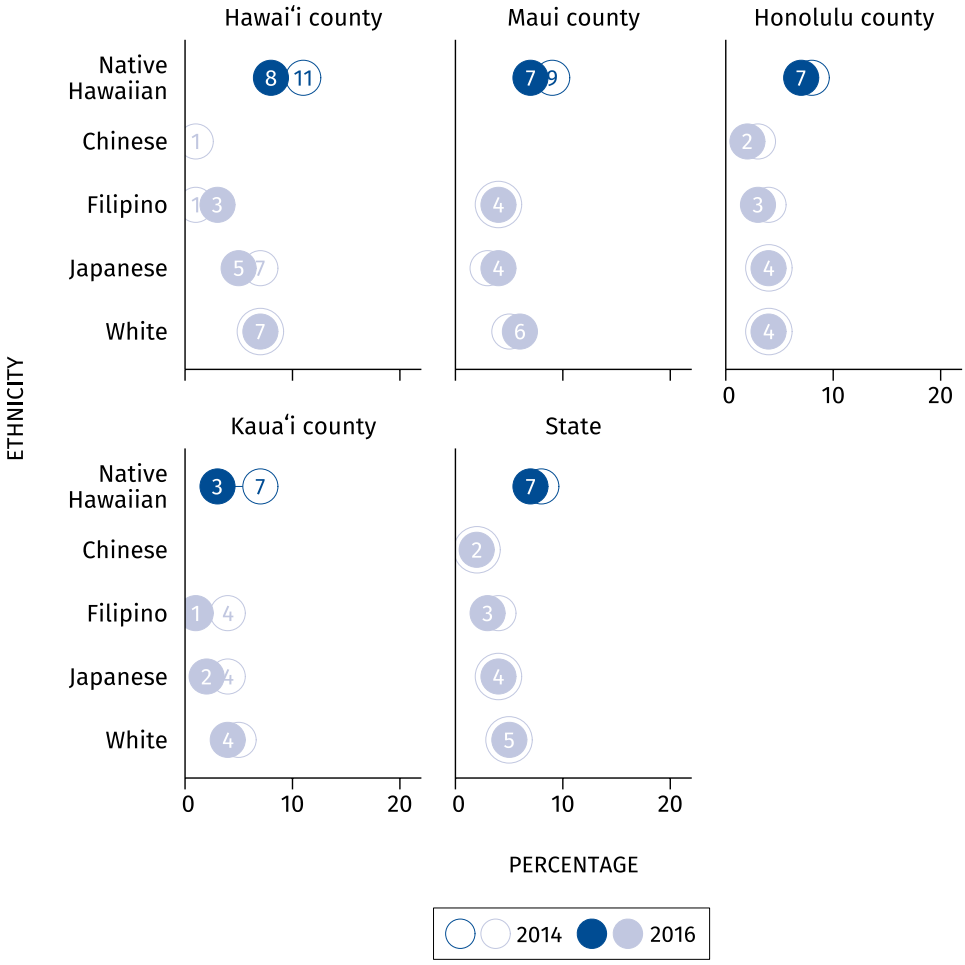
- Cognitive disability is generally more prevalent among adults with lower levels of educational attainment.
- Among Native Hawaiians whose highest degree is a high school diploma, 10 percent have a cognitive disability, compared with 6 percent of Native Hawaiians who have a bachelor's degree or higher.

INDEPENDENT LIVING

According to the Disability Community Resource Center, independent living is "a philosophy, a way of looking at society and disability, and a worldwide movement of people with disabilities working for equal opportunities, self-determination, and self-respect" (n.d., under "What is Independent Living?"). Independent living means having opportunities to exert "voice, choice, and control" in one's everyday life (Centers for Disease Control and Prevention 2020c, under "Independent Living"). For an adult, being able to do errands alone and engage in activities of their choosing is an important dimension of independent living and can facilitate increased family and community engagement.

In Hawai'i, Native Hawaiians are more likely than adults from other ethnicities to have difficulty doing errands alone (fig. 1.86). Consistent with a 2018 community well-being study of adults in Hawai'i, 62 percent of Native Hawaiians (compared with 59 percent of non-Native Hawaiians) reported that physical and mental health barriers prevent them from doing things that other people their age could normally do (SMS Research 2018).

FIGURE 1.86 Adults who have difficulty doing errands alone—county comparison
[as a percentage of adults ages 18 and older, by ethnicity, county, and year, Hawaiʻi, 2014 and 2016]



Data source: Hawaiʻi Behavioral Risk Factor Surveillance System, 2014 (years 2013 to 2014 combined) and 2016 (years 2015 to 2016 combined), Hawaiʻi Department of Health

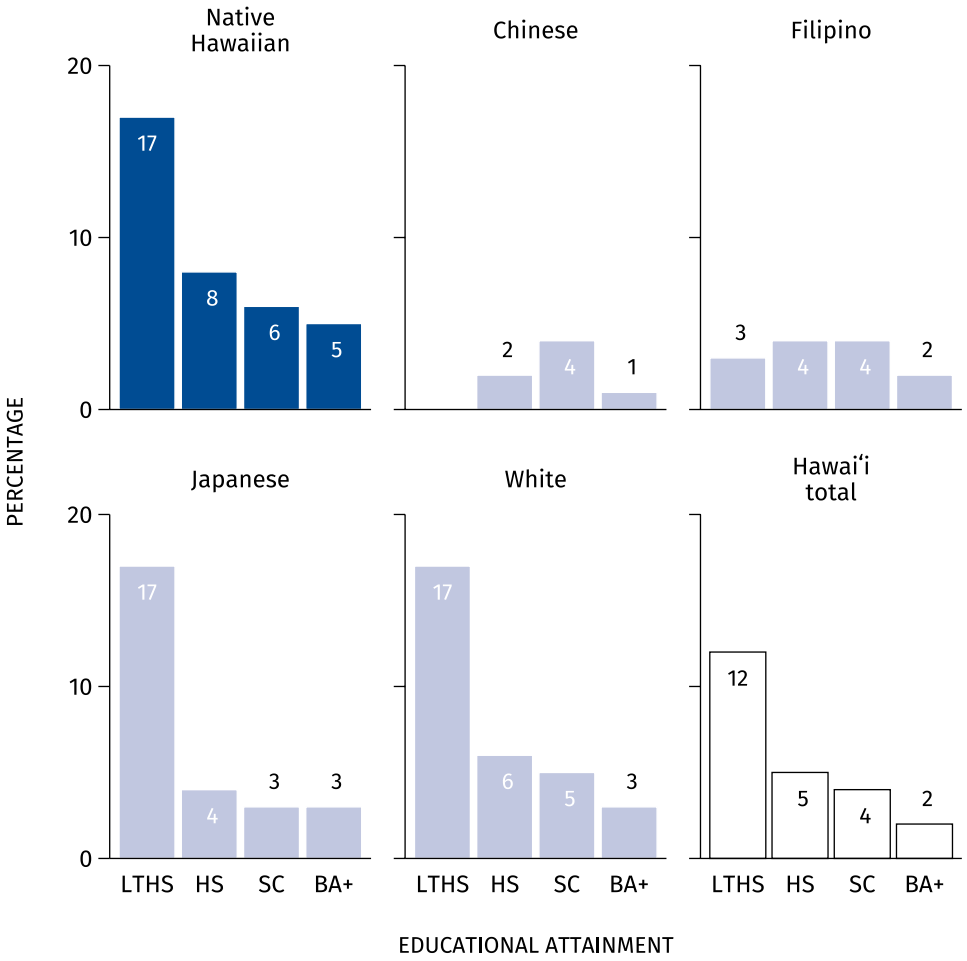
Note 1: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

Note 2: Missing circles indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- At the state level in 2016, Native Hawaiians had the highest proportion of adults who have difficulty doing errands alone (7 percent), compared with other major ethnicities across Hawaiʻi.
- Across Hawaiʻi's major ethnicities at the state level, the percentage of adults who have difficulty doing errands alone did not change significantly from 2014 to 2016.

Among Native Hawaiian adults, higher educational attainment, on average, is associated with less difficulty in doing errands alone (fig. 1.87). A similar pattern exists with regard to income: Among Native Hawaiians, those making $50,000 or more per year are nearly three times as likely than those with lower earnings to be able to do errands alone without difficulty (not shown).

FIGURE 1.87 Adults who have difficulty doing errands alone, by educational attainment
[as a percentage of adults ages 18 and older, by ethnicity and educational attainment, Hawai'i, 2016]



Data source: Hawai'i Behavioral Risk Factor Surveillance System, 2016 (years 2013 to 2016 combined), Hawai'i Department of Health

Note 1: LTHS = Less than high school; HS = High school; SC = Some college; BA+ = Bachelor's degree or higher.

Note 2: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Generally speaking, higher educational attainment is associated with a lower likelihood of having difficulty doing errands alone.
- Among Native Hawaiians with a bachelor's degree or higher, 5 percent have difficulty doing errands alone, compared with 8 percent of Native Hawaiians whose highest degree is a high school diploma.

Physical Health, Educational Attainment, and Income

The preceding analysis of physical well-being has examined associations between health outcomes and two social determinants: educational attainment and income. Here, we provide a summary of our findings, confirming that physical health outcomes are often influenced by a person's educational attainment and level of income.

For example, we find that increased education levels are correlated with lower rates of diabetes, disabilities, obesity, smoking, high blood pressure, heavy alcohol consumption, and overall poor physical health, among other outcomes. Increased income is related to decreased rates of coronary heart disease, heart attack, diabetes, smoking, and overall poor physical health, among other outcomes. The table below summarizes these relationships among Native Hawaiian adults.

TABLE 1.1 How do higher education and higher income relate to health outcomes among Native Hawaiian adults?

	Higher educational attainment generally means...	Higher income generally means...
PREVENTATIVE CARE		
Missing a doctor's visit	↓	↓
NUTRITION, PHYSICAL ACTIVITY, AND OBESITY		
Fruits and vegetables consumption	—	—
Physical activity	↑	↑
Obesity	↓	—
SUBSTANCE ABUSE		
Smoking	↓	↓
Heavy drinking	↓	—
Disability	↓	↓
PHYSICAL ILLNESS		
Poor physical health	↓	↓
Diabetes	↓	↓
High blood pressure	↓	—
High cholesterol	—	—
Angina or coronary heart disease	—	↓
Heart attack	—	↓
Stroke	↓	↓

↓ less likely ↑ more likely — not related

Note: For the purposes of this summary table, "higher educational attainment" refers to those who have a bachelor's degree or higher, as compared with those whose highest degree is a high school diploma. "Higher income" refers to making $50,000 or more per year, compared with an annual income of less than $50,000.

Acknowledging the various social determinants of health reaffirms what Native Hawaiians have always known—that health, wellness, and well-being are the result of complex and intricate relationships between physical, spiritual, social, emotional, and cognitive dimensions. As such, Native Hawaiian voices, leadership, and advocacy are essential in public health, medicine, and wellness arenas.

The COVID-19 pandemic and resulting economic shutdown have magnified systemic inequities across sectors and exacerbated existing disparities for vulnerable communities. For example, we are witnessing numerous examples of how underserved communities of color around the globe are at greater risk for COVID-19 exposure, infection, lack of medical insurance, and further health complications, thereby increasing the likelihood of mortality. These realities point to greater urgency to broaden our perceptions of health and wellness and to better account for the profound impact of social and cultural determinants on health outcomes.

As demonstrated in this section, much of the data for Native Hawaiian health is sobering. Kānaka Maoli are generally the most likely of Hawaiʻi's major ethnicities to be in poor health and to have higher rates of smoking, obesity, diabetes and high blood pressure. Native Hawaiians also experience comparatively higher rates of heart disease, heart attack, disability, and cancer mortality. At the county level, adverse findings such as relatively high incidence of obesity, heart attack, and stroke—combined with the fact that Native Hawaiian high schoolers in Hawaiʻi county are comparatively more likely to be at risk for substance abuse disorders (Kamehameha Schools 2019) and are decreasingly likely to eat five fruits or vegetables per day (see fig. 3.26)—suggest a pressing need for further analysis and action.

On the positive side, there has been an increase in health insurance coverage for Native Hawaiians, which is on par with the rest of Hawaiʻi. Physical activity and consumption of fruits and vegetables for Native Hawaiian adults are also on par with the rest of Hawaiʻi and are better than national averages. These positive trends suggest hope for future progress and reduction of negative health outcomes that continue to persist in our Native Hawaiian communities.

The path toward optimal physical health is not simple. We must continue to understand health statistics within a multifaceted historical and present context. We must also celebrate and uplift areas of growth and continue to scale culturally responsive ways of enhancing well-being for Native Hawaiians. We must act now to reverse unhealthy trends and strengthen healthy trends for our next generation—their lives literally depend on it.

SPIRITUAL AND EMOTIONAL WELL-BEING

I ka wā kahiko, in historical times, a wise and generous person was said to have "He ʻōpū aliʻi—*the heart of a chief*." This ʻōlelo noʻeau emphasizes a key standard by which aliʻi (chiefs) were often judged. When making critical decisions, would the aliʻi be able to manage their emotions and lean upon spiritual guidance? Or would they give in to selfish impulses, anger, and arrogance?

Upholding he ʻōpū aliʻi, whether as a chief or a commoner, requires self-awareness, self-management, a sense of belonging, and faith. These factors highlight lōkahi and pono (righteousness), which are key elements of spiritual and emotional well-being for Kānaka Maoli.

Native Hawaiians often view well-being holistically, emphasizing physical, emotional, and spiritual balance. This approach contrasts with Western assumptions that tend to see health and illness mainly through a biomedical lens (Mark and Lyons 2010). For Native Hawaiians, positive spiritual and emotional well-being unites the mind, body, and spirit, balancing personal needs with those of others, the community, and the ʻāina (Look et al. 2013; Pukui, Haertig, and Lee 1979). Indeed, the well-being of an individual is often tied to the well-being of the ʻohana and the community in which they live, work, and belong (Theodori 2001).

Maintaining balance in the face of adversity is a challenge. Psychological resilience—the ability to maintain, recover, or achieve positive mental health (Lee Kum Sheung Center for Health and Happiness, n.d.)—is a necessary and powerful capability that allows individuals to recover from traumatic events. Native Hawaiians and other Polynesians share a host of protective variables, for example, "personal fortitude, familial support, political advocacy and community partnerships, [which] all contribute to Native Hawaiians and Māori 'rising from the trauma.' The[se] culturally based solutions…might be seen as a decolonizing approach to the worst vestiges of historical trauma" (Mokuau and Mataira 2013, 151).

Close ties among extended ʻohana—kūpuna, mākua (uncles and aunties), cousins, and other relatives—foster emotional and spiritual well-being. These support systems, embodied in the traditional kauhale way of life, play a key role in mitigating the many negative stressors children and young adults often face today. Whether the need is for someone to help with childcare, or an elder to seek advice from, or a cousin to spend time with, a robust ʻohana serves as a buffer to life's ups and downs.

Despite growing recognition of the significance of emotional and spiritual well-being, the availability of relevant data for Native Hawaiians is severely limited. The prevailing literature centers on cognition, mental health, and spiritual beliefs and practices, with a greater focus on individuals than on families and communities. Within this limited body of research, we find that Native Hawaiians generally tend to be overrepresented in indicators of poor mental health such as depression and suicide (Goebert et al. 2018). However, compared with non-Hawaiians, Native Hawaiians report higher rates of spirituality and assign greater significance of spirituality in their lives (Kamehameha Schools, Liliʻuokalani Trust, and the Office of Hawaiian Affairs 2018).

The following analyses explore concepts of spirituality, identity, and other factors related to the emotional well-being of Native Hawaiians such as mental health, depression, and suicide. On the whole, results for spiritual well-being are favorable for Native Hawaiians, while results for emotional well-being are not. These findings are perplexing and prompt a fundamental question: Given the strong spiritual foundations that characterize Kānaka Maoli, why are mental health indicators often so low? This imbalance suggests the need to develop and track data that build on community strengths and examine the relationships between spirituality and mental health for Native Hawaiians.

Two in three Native Hawaiians (66 percent) say that ʻāina has important cultural, spiritual, and subsistence purposes, compared with 41 percent among non-Native Hawaiians.

Spirituality

Spirituality, in its many forms, provides strength, hope, and a sense of purpose for Native Hawaiians. In a survey of more than three thousand Native Hawaiian adults in 2018, nearly nine in ten (89 percent) said they believe in a "higher power" (loosely defined as referring to God, Ke Akua, or personal or family deities), compared with 71 percent of non-Native Hawaiians. When asked if connecting to this higher power is important for well-being, 97 percent of Native Hawaiians responded that it was somewhat or very important, compared with 94 percent of non-Hawaiians (Kamehameha Schools, Liliʻuokalani Trust, and the Office of Hawaiian Affairs 2018).

Many Indigenous groups have an enduring and ancestral relationship with the land; Native Hawaiians are no exception (Kanaʻiaupuni and Malone 2006). ʻĀina in all of its manifestations—from the ocean shallows to the deep moana lipolipo (great ocean), from the vast kula (plains, open fields) to the quiet uplands, from the youngest ʻōhiʻa growing on the lava to the oldest koa tree towering in the forest—is central to Native Hawaiian identity and well-being. This long-standing tradition acknowledges ʻāina as a literal extension of our ʻohana. It is also a site of moʻokūʻauhau (genealogy), where manifestations of akua (gods) are part of the natural landscape (Fujikane 2019; La Valle et al. 2019).

Traditional Native Hawaiian religious and cultural practices experienced extreme change and denigration over recent centuries, resulting in cultural-historical trauma. All living Native Hawaiians share this traumatic past. Similarly, we are linked by combined efforts in the present to live our cultural values and restore our collective well-being. As Queen Liliʻuokalani reflected,

> I could not turn back the time for the political change, but there is still time to save our heritage. You must remember to never cease to act because you fear to fail. The way to lose an earthly kingdom is to be inflexible, intolerant, and prejudicial. Another way is to be too flexible, tolerant of too many wrongs and without judgment at all. It is a razor's edge. It is the width of a blade of pili grass. To gain the kingdom of heaven is to hear what is not said, to see what cannot be seen, and to know the unknowable—that is Aloha. (Queen Liliʻuokalani, as cited in Coffman 2009, xi)

Today, these efforts are evident as Kānaka Maoli maintain a reverence for the sacred while respecting and engaging in a wide range of spiritual and religious practices.

Based on findings from a recent statewide survey, the majority of Native Hawaiians report that ʻāina has important cultural, spiritual, and subsistence purposes—66 percent, compared with 41 percent of non-Native Hawaiians. Religious engagement with the ʻāina is another important dimension of well-being, with 38 percent of Native Hawaiians interacting with the land for spiritual or religious reasons, compared with 21 percent among non-Native Hawaiians (Kamehameha Schools, Liliʻuokalani Trust, and the Office of Hawaiian Affairs 2018).

Spiritual practice may provide a coping strategy to deal with life's challenges. Studies note that, compared with other major ethnicities in Hawaiʻi, Native Hawaiians are more likely to turn to spirituality for support. For example, among Native Hawaiians, nearly half (49 percent) reported that they pray or meditate when faced with difficulties, compared with 36 percent of non-Hawaiians (Kanaʻiaupuni, Malone, and Ishibashi 2005). A recent study of health and well-being across Hawaiʻi revealed that 69 percent of Native Hawaiians draw inspiration from the lives of ancestors when making a difficult decision or taking on a challenging task, compared with 53 percent of non-Native Hawaiians (Kamehameha Schools, Liliʻuokalani Trust, and the Office of Hawaiian Affairs 2018).

Organized religion also factors into emotional and spiritual well-being among Kānaka Maoli. Across Hawaiʻi, about one-third of parents regularly attend religious services (Stern and Min 2010). For many Native Hawaiians, faith-based activities serve as a mechanism to gather family and community and provide a weekly opportunity to connect with extended ʻohana and strengthen social and emotional ties. Research finds that roughly half of Native Hawaiian adults (51 percent) participate in community organizations inclusive of religious/spiritual groups, and that more than two-thirds (71 percent) of those participating serve in leadership roles (Kanaʻiaupuni, Malone, and Ishibashi 2005).

Hawaiian Identity

Cultural identity is a critical factor in the personal development and growth of Native Hawaiian keiki. Identity starts with knowing who you are and where you come from. At its core, it means belonging to a people, to a place, and to a culture. Relationships to the land, knowledge and beliefs, language, self-determination, family and kinship networks, and cultural expression (e.g., arts and ritual) are meaningful because they connect to a wider world. Scholar and musician Jonathan Osorio writes about identity for Native people:

> Ultimately, it is about reverence. Revering ancestors, sacred places and revering the life around us are necessary to revering ourselves, to seeing and knowing ourselves as splendid products of three billion years of evolution and thousands and thousands of years of cultivating human relationships. Native people, almost by definition, are connected to land and to nature and to one another enabled by that reverence. Seeing all of these living beings as connected to us brings a dignity and meaning to our lives that is so very much richer than thinking of ourselves as consumers and commodities. (Osorio and Osorio 2016, 193)

Strong identification and pride in one's ethnic and cultural roots increase self-esteem, providing children with a boost against social and economic obstacles (Phinney 1995; Phinney and Alipuria 1990; Phinney, Cantu, and Kurtz 1997; Phinney and Chavira 1992). Recent research on cultural connectedness among Indigenous communities around the world shows an overwhelmingly positive association with well-being outcomes (Bourke et al. 2018). Social and emotional well-being, physical health, and avoiding risky behaviors such as substance abuse, are all associated with strong Indigenous connections.

Contemporary social movements shine a light on the accomplishments of Kanaka Maoli leaders and the broader lāhui, which helps to strengthen Hawaiian identity. From the successful completion of the Mālama Honua Worldwide Voyage, to the establishment of a framework of Hawaiian culture-based standards across Hawaiʻi public schools (HĀ), to the global mobilization for Mauna Kea, Native Hawaiians have many positive examples of cultural vibrancy to embrace today.

Growth in Native Hawaiian scholarship adds critical new Kanaka voices to our knowledge of culture, connectedness, and identity. For example, in 2019, Kamehameha Publishing released the eleventh volume of *Hūlili*, a peer-reviewed academic journal devoted to multidisciplinary studies of Native Hawaiian well-being. In 2019, the Office of Hawaiian Affairs published a landmark study, *Mana Lāhui Kānaka*. Results of a 2013 Kamehameha Schools Alumni Survey suggest graduates have strong cultural identity, active engagement in traditional Hawaiian practices, and ongoing interest in learning about cultural heritage. These results are echoed by a Hawaiʻi Pacific University study of one thousand self-identified Native Hawaiians, where 72 percent agreed or strongly agreed that they are active in Hawaiian organizations, social events, or cultural activities (Phan 2020).

Emotional Well-Being

Emotional well-being refers to the ability of an individual "to practice stress-management techniques, be resilient, and generate the emotions that lead to good feelings" (Davis 2019). The National Institutes of Health articulate six strategies for improving emotional health: reducing stress, getting quality sleep, brightening your outlook, coping with loss, strengthening social connections, and being mindful (National Institutes of Health 2018). In a study of Native Hawaiian college students, cultural affiliation was shown to have a positive impact on psychological well-being (Scanlan 2013). Several measures are conventionally used to assess emotional health including mental health, depression, and suicide.

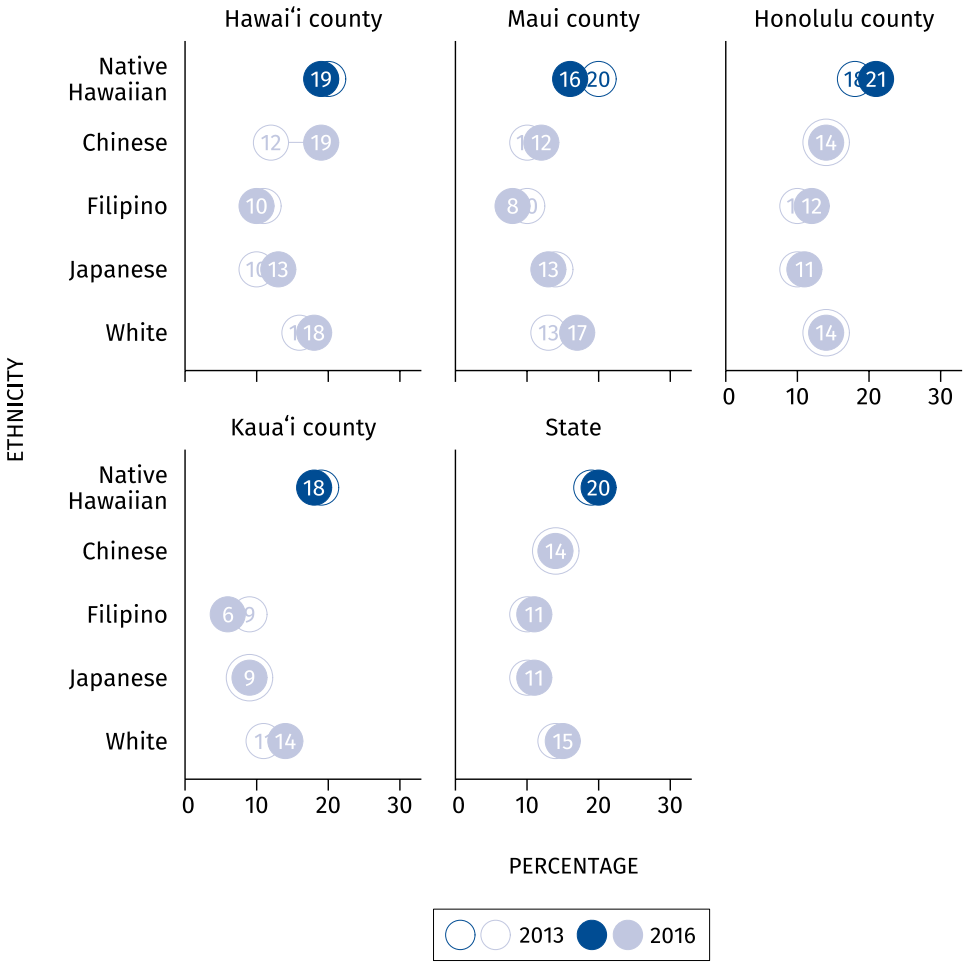
Mental Health

Poor mental health is a broad category that includes moodiness, anger, despondency, and anxiety. Ultimately, poor mental health affects people's ability to concentrate, maintain healthy relationships, and fully participate in society. In the United States, as many as one in five adults experiences mental illness (National Institute of Mental Health 2020). Hawai'i faces an alarming shortage of mental health workers and psychiatrists relative to demand (Lyte 2018). The greatest scarcity exists in rural areas of Kaua'i and Hawai'i Island (Aaronson and Withy 2017). Mental health providers across the state "are reporting heightened levels of anxiety, loneliness, depression and stress" among their patients as a result of pandemic-induced hardships such as job loss, financial worries, and the "psychologically isolating effects" of stay-at-home orders (Lyte 2020). Nationally, as a result of COVID-19, it has been estimated that "as many as one in three children may exhibit serious mental health challenges" (Keels 2020). Receiving care is critical, given the harm that undiagnosed or mismanaged mental illness can be for healthy child development (Kataoka, Zhang, and Wells 2002).

Growing mental health needs have stimulated new programs, initiatives, and ways of working together. For example, increased collaboration between state and private providers, along with new partnerships with homelessness outreach groups and the expansion of telemedicine, make it possible for patients to continue to receive therapy at home and without the added hassle of coordinating transportation and childcare needs (Lyte 2020).

Prior to the COVID-19 pandemic, data indicated that one-fifth (20 percent) of Native Hawaiian adults had poor mental health for at least six days a month—a rate that remained relatively stable from 2013 to 2016 and is significantly higher than the Hawai'i total (14 percent) (fig. 1.88). Among Native Hawaiian adults, those with less than a high school education are more likely to report having poor mental health (33 percent), compared with those who completed high school or some college (18 percent) and those who earned a bachelor's degree or higher (16 percent) (fig. 1.89). The same is true among those who earn less than $50,000 annually (23 percent) as compared with higher earners (14 percent) (not shown).

FIGURE 1.88 Adults with poor mental health for at least six days in the past month—county comparison
[as a percentage of adults ages 18 and older, by ethnicity, county, and year, Hawaiʻi, 2013 and 2016]



Data source: Hawaiʻi Behavioral Risk Factor Surveillance System, 2013 (years 2011 to 2013 combined) and 2016 (years 2014 to 2016 combined), Hawaiʻi Department of Health

Note 1: Poor mental health is measured by respondents who self-report their mental health as being "not good" due to stress, depression, and problems with emotions.

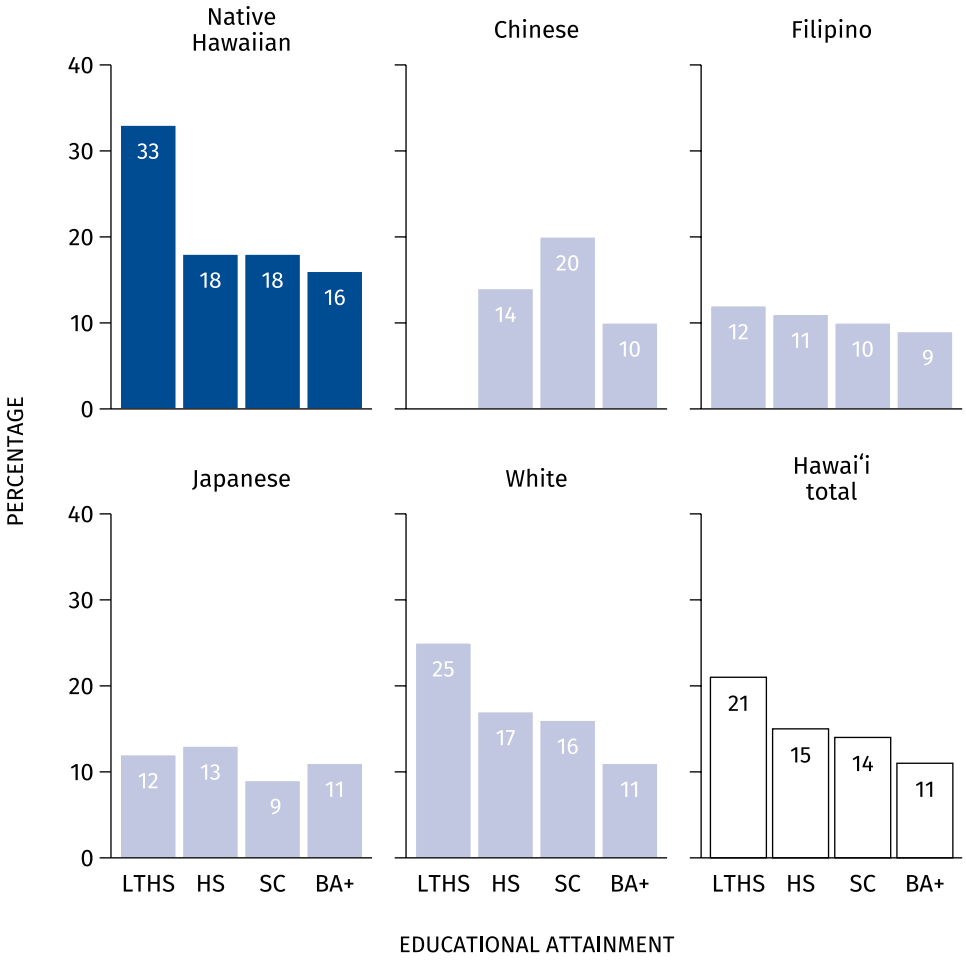
Note 2: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

Note 3: Missing circles indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- At both the state and county level, there was not a statistically significant change from 2013 to 2016 in the proportion of Native Hawaiian adults who reported having poor mental health for at least six days in the past month.
- In 2016, the percentage of Native Hawaiian adults with poor mental health in Maui county (16 percent) was lower than that of Honolulu (21 percent) and the state (20 percent).
- Compared with other major ethnicities in Hawaiʻi in 2016, Native Hawaiians had the greatest proportion of adults who report having poor mental health for at least six days in the past month.

FIGURE 1.89 Adults with poor mental health for at least six days in the past month, by educational attainment

[as a percentage of adults ages 18 and older, by ethnicity and educational attainment, Hawai'i, 2016]



Data source: Hawai'i Behavioral Risk Factor Surveillance System, 2016 (years 2011 to 2016 combined), Hawai'i Department of Health

Note 1: Poor mental health is measured by respondents who self-report their mental health as being "not good" due to stress, depression, and problems with emotions.

Note 2: LTHS = Less than high school; HS = High school; SC = Some college; BA+ = Bachelor's degree or higher.

Note 3: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Among Native Hawaiians who have a high school diploma, some college, or a bachelor's degree or higher, there is not a statistically significant difference in the percentage of adults who report having poor mental health for at least six days in the past month.
- For the Hawai'i total, there is a correlation between educational attainment and the prevalence of poor mental health.

Depression

Symptoms of depression can vary from mild to severe and may include feelings of sadness or despondency, loss of appetite, changes in sleeping habits, difficulty concentrating, and thoughts about death or suicide. To be diagnosed with a major depressive disorder, an individual must experience symptoms that last longer than two weeks.

Whites and Native Hawaiians have the highest rates of depression in Hawaiʻi. Among Native Hawaiians, there was a notable increase in the statewide percentage of adults diagnosed with depression, from 12 to 14 percent between 2013 and 2016 (fig. 1.90).

Native Hawaiian adults in Hawaiʻi county witnessed a decrease in rates of depression, declining from 18 to 14 percent between 2013 and 2016.

FIGURE 1.90 Adults with a depressive disorder—county comparison
[as a percentage of adults ages 18 and older, by ethnicity, county, and year, Hawai'i, 2013 and 2016]

Data source: Hawai'i Behavioral Risk Factor Surveillance System, 2013 (years 2011 to 2013 combined) and 2016 (years 2014 to 2016 combined), Hawai'i Department of Health

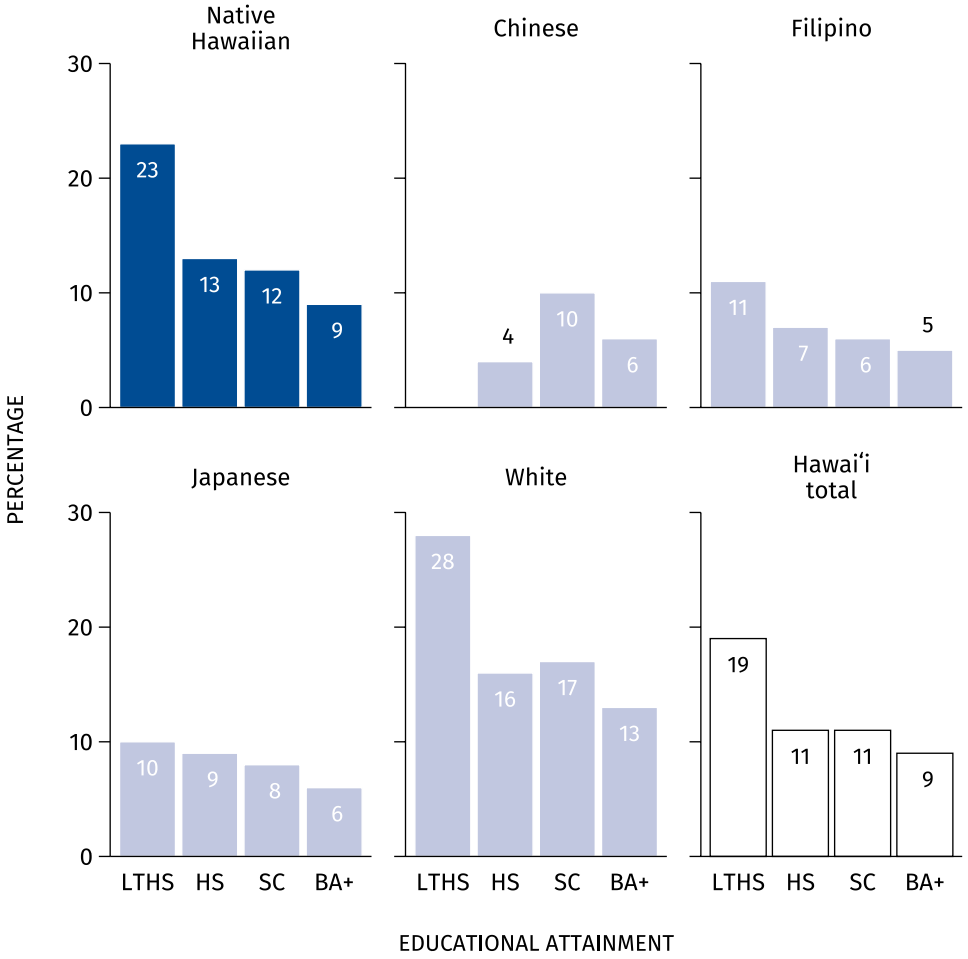
Note 1: This chart includes overlapping and sometimes obscured data points. The most recent data points are all visible; older data points that are not discernible suggest little or no change over time.

Note 2: Missing circles indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- In Hawai'i county, the percentage of Native Hawaiian adults with a depressive disorder decreased significantly between 2013 and 2016.
- Between 2013 and 2016, Kaua'i county experienced a significant increase in the percentage of Native Hawaiian adults with a depressive disorder.
- On the whole, Native Hawaiians and Whites had the highest percentage of adults with a depressive disorder in 2016.

From 2013 to 2016, the prevalence of depression among Native Hawaiian adults increased in all counties except Hawaiʻi county, where there was a significant decrease of 4 percentage points. During the same time period, Kauaʻi county saw a drastic increase in depressive disorders among Native Hawaiian adults, going from 8 to 18 percent between 2013 and 2016. Education and income are important factors to consider when examining the prevalence of depression. In general, higher educational attainment corresponds with lower rates of depression. For example, Native Hawaiians with a bachelor's degree or higher have lower rates of depression (9 percent) compared with those whose highest degree is a high school diploma (13 percent) (fig. 1.91). Among Native Hawaiians, adults making less than $50,000 a year are more than twice as likely to have a depressive disorder when compared with those making $50,000 or more (not shown).

FIGURE 1.91 Adults with a depressive disorder, by educational attainment
[as a percentage of adults ages 18 and older, by ethnicity and educational attainment, Hawai'i, 2016]



Data source: Hawai'i Behavioral Risk Factor Surveillance System, 2016 (years 2011 to 2016 combined), Hawai'i Department of Health

Note 1: LTHS = Less than high school; HS = High school; SC = Some college; BA+ = Bachelor's degree or higher.

Note 2: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Higher educational attainment generally corresponds with lower rates of depressive disorders.
- Among Native Hawaiians with a bachelor's degree or higher, 9 percent have a depressive disorder, compared with 13 percent of Native Hawaiians whose highest degree is a high school diploma.
- The proportion of Native Hawaiians with a depressive disorder does not differ significantly from the Hawai'i total.

Adult depression is linked to adverse childhood experiences (ACEs). For example, one study finds, "The presence of ACEs among women in Hawaiʻi was indicative of current depressive symptoms in adulthood, notably verbal abuse" (Remigio-Baker, Hayes, and Reyes-Salvail 2014).

Suicide

Besides in extreme settings such as war, suicide was virtually nonexistent in ka wā kahiko. However, suicide rates among Native Hawaiians have increased every year since statistics were first gathered in 1908. The prevalence of suicide among Indigenous and minority groups is a byproduct of historical trauma. Extreme despondency, which can sometimes result in suicide, is one of many negative social and health outcomes of colonization and institutional racism (Brave Heart et al. 2011).

Native Hawaiian and Pacific Islander youth are among the highest risk for suicide-related behaviors in the United States (Goebert et al. 2018). Native Hawaiians living in rural communities are at the greatest risk for suicide and attempted suicide. Outside of Honolulu, Hawaiʻi communities are federally designated as Health Professional Shortage Areas and Medically Underserved Populations, and therefore access to services are severely limited (Chung-Do et al. 2014).

Spiritual and emotional well-being continue to be critical components of the healthy development of individuals, families, and communities. For Native Hawaiians, the significance of these concepts is reflected in cultural values like aloha, lōkahi, and pono. These and other cultural beliefs have successfully guided Native Hawaiians through tremendous change in the past, giving comfort and assurance in our ability to deal with upheaval and uncertainty today and in the future.

At the same time, the data we have regarding spiritual and emotional well-being for Native Hawaiians paint a mixed picture. On the one hand, Native Hawaiians continue to experience comparatively poor mental health outcomes. Disproportionate rates of depression and suicide are especially worrisome. As scholars suggest, these outcomes likely originate in historical trauma and are often exacerbated by discrimination and systemic inequities.

On the other hand, however, Native Hawaiian ʻohana continue to find strength in spirituality. Hopeful promise exists in the kinship Native Hawaiians feel with the ʻāina as an integral link to spiritual and ancestral assets. It is these sacred ties that encourage us to gather as ʻohana, to express gratitude, and to remain steadfast in our commitment to strengthening our lāhui.

EDUCATIONAL WELL-BEING

Lifelong learning, in Native Hawaiian tradition, is rooted firmly in ʻohana, kaiāulu, and ʻāina. Deeper learning comes from diverse sources, as reflected in the saying, "ʻAʻohe pau ka ʻike i ka hālau hoʻokahi—*All knowledge is not taught in the same school*" (Pukui 1983, 24). The ʻohana is a keiki's first kumu (teacher), where young learners are taught to listen, observe, demonstrate, and then act.

Kupuna Ilei Beniamina described "tēnā," a practice of knowledge acquisition that begins in the ʻohana: "Tēnā is a Hawaiian learning style. One is sent on errands to complete simple to multicomplex tasks. After which, one evolves to be the learner, the practitioner, the teacher, and finally the nurturer of generations" (Beniamina 2010, 10). Conversely, keiki have the kuleana to seek out and obtain wisdom. From a cultural standpoint, keiki learn important skills and knowledge by interacting with the ʻāina (Ledward 2013). ʻĀina serves as a living, breathing, and giving classroom that provides opportunities to learn sophisticated sciences, arts, and culture using observation and hands-on experience. The ʻōlelo noʻeau, "Ma ka hana ka ʻike—*In working one learns*" (Pukui 1983, 227) captures the guiding philosophy of applied learning through practice.

Transitioning to adulthood brings additional kuleana to provide for families and sustain healthy communities. In the Western educational system, following a learning trajectory through completion of a postsecondary degree is a huge differentiator of lifetime opportunities, earnings, and other outcomes.[10] Enrolling in college and obtaining a degree opens the door to a wide range of possibility, choice, and participation over a person's lifetime. Research has shown connections between obtaining a college degree and a variety of aspects of life and livelihood, including economic security (Carnevale, Jayasundara, and Cheah 2013; Tamborini, Kim, and Sakamoto 2015), social relationships (Huang, Van den Brink, and Groot 2009), civic engagement and political participation (Baum, Ma, and Payea 2005; Flanagan and Levine 2010; Newell 2014; Perrin and Gillis 2019), physical health (Hummer and Hernandez 2013), and life satisfaction (Trostel 2015). As seen in our earlier findings on adult emotional well-being, research suggests that a quality college education can strengthen a person's overall life satisfaction and well-being.

In Hawaiʻi, college, career, and community readiness are measures of student success (Hawaiʻi Department of Education, n.d.[i]). The state's "55 by '25" goal is led by a statewide partnership to achieve 55 percent of the population with a college degree by 2025. Partners

[10] The authors acknowledge that quality educational experiences and pathways come from a diversity of environments extending beyond college. College attainment is featured prominently in this chapter due to data availability and access.

include the University of Hawaiʻi, educational organizations, and the business community in working to strengthen the education pipeline from early childhood through higher education "so that all students achieve career and college success" (Hawaiʻi P–20 Partnerships for Education n.d.[b], under "About Us"). Enhancing Native Hawaiian postsecondary success is also a strategic priority for the Office of Hawaiian Affairs (Office of Hawaiian Affairs 2014) and Kamehameha Schools.

For Native Hawaiians, data suggest that pathways to postsecondary achievement are complex. Despite relatively low rates of high school completion (see Chapter 3), data show upward trends in college enrollment and completion of undergraduate and advanced degrees over the past decade. Native Hawaiian females, in particular, are experiencing gains in college degree attainment, a finding consistent with college trends across Hawaiʻi and nationally (US Department of Labor, Bureau of Labor Statistics 2017; Fry 2019).

Despite signs of progress, when compared with other major ethnicities in Hawaiʻi, disparities exist for Native Hawaiians in postsecondary success, suggesting persistent barriers on the journey to completing a college degree. For example, financial constraints are one of the most significant obstacles to postsecondary education for Native Hawaiians and other groups who experience socioeconomic disadvantage (Hagedorn et al. 2003; Makuakane-Drechsel and Hagedorn 2000; Freitas and Balutski 2011). Equally important is how college campuses welcome Indigenous students and create an environment for them to belong and thrive (Thomas et al. 2012).

We begin this section with a brief discussion of the pathways students take upon completing their high school experience. With respect to post-high success, we first look at the broad landscape of Native Hawaiian postsecondary attainment using US Census data, which tracks Native Hawaiians attending any college or university. Detailed data are then presented from the University of Hawaiʻi (UH) system, which enrolls roughly eleven to twelve thousand Native Hawaiian students at any given time. This section, titled "A Closer Look at Native Hawaiian Students in Public Higher Education," provides a more detailed and comprehensive view of Native Hawaiian college enrollment, retention, transfers, and degree completion. We also examine degree types, employment status while in school, financial aid, and representation of Native Hawaiian faculty in the UH system.

Post-High School Decisions and Transitions

The decisions students make following high school represent a developmental transition from young adulthood to adulthood. Many students, especially those who obtain their high school diploma, enroll in a college or university to further their education. The college-bound pathway is generally expected of most US high school students (Goyette 2008; Venezia and Jaegar 2013), likely due to the numerous individual, institutional, and societal benefits associated with earning a college degree.

Recent data from the Hawai'i P–20 Partnerships for Education (n.d.[a]) suggest that more than half of high school students in Hawai'i pursue higher education. For example, of the 85 percent of students who earned their high school diploma or equivalent credential on time in 2018, the majority (55 percent) enrolled immediately in college, leaving almost half who delayed entry or did not enter college.[11] Among Native Hawaiians, about 40 percent of high school graduates also go on to enroll in postsecondary studies, on average. Conversely, about one in five Native Hawaiian youth does not graduate from high school on time, making the college-bound path much more difficult, if it happens at all.

Entering directly into the workforce may be a more viable and favorable option for some high school graduates. According to the US Bureau of Labor Statistics (2020), in 2019, nearly three-quarters (72 percent) of recent high school graduates not enrolled in college were working. Career and technical education (CTE) programs play a pivotal role in providing students with opportunities to explore career pathways based on their interests, while gaining relevant skills and experience. CTE experiences include cooperative education, internships, apprenticeships, and mentorships that can occur in high school, during college, or in adult education (Institute for Research on Poverty 2019). Research shows that high school CTE programs not only increase postsecondary enrollment and attainment but also help to place students directly into apprenticeships or employment (US Department of Education 2019a). Research has further suggested the promise of CTE programs for young adults who choose work over college: High school graduates who enter directly into the workforce are more likely to remain employed if they took high school CTE courses, compared with those who did not (US Department of Education 2020a).

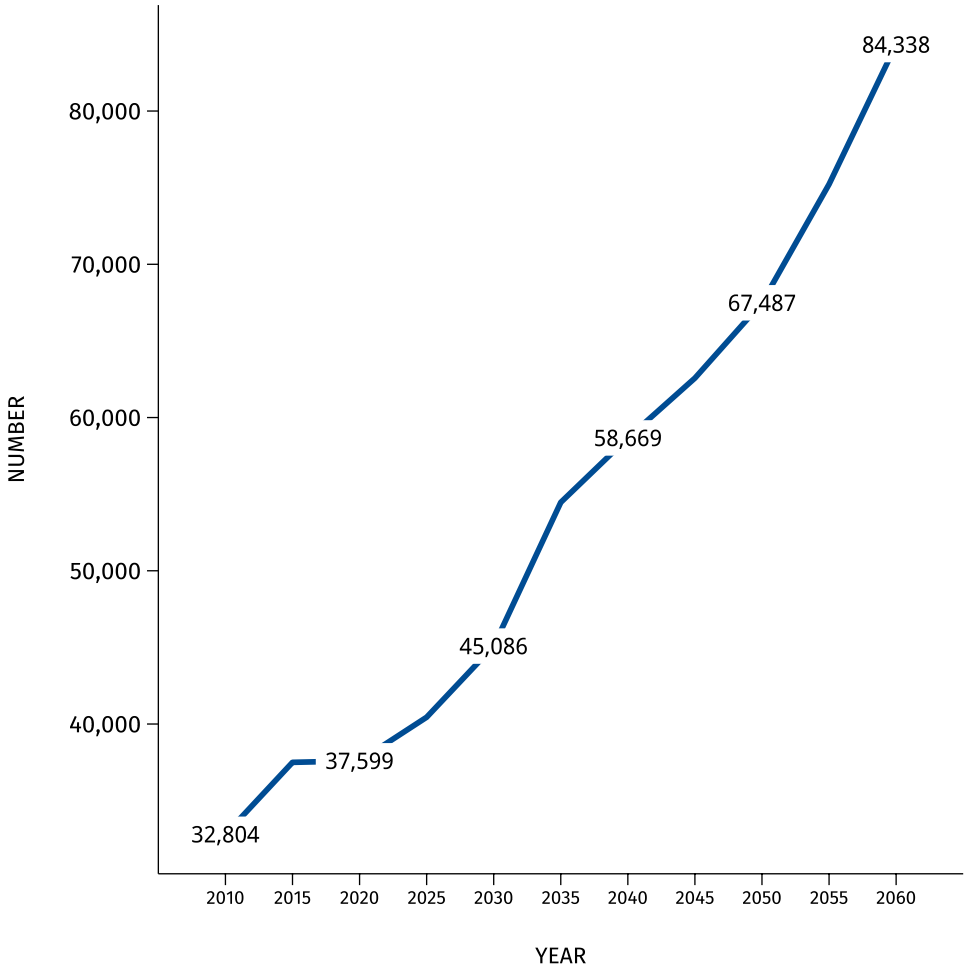
A more concerning pathway involves young people ages sixteen to twenty-four who are neither enrolled in school nor working—often referred to as "opportunity youth" or sometimes "disconnected youth" (Institute for Research on Poverty 2019). Opportunity youth are more likely to have dropped out of high school, have a disability, and live in poverty, compared with young adults of the same age who are in school or working (Measure of America 2020a). Many have also experienced trauma or adverse childhood experiences. Data on this group are hard to come by, given that they are disconnected from most mainstream institutions.

[11] Immediate enrollment is defined as enrolling into a postsecondary institution in the first fall following high school graduation.

One estimate suggests that in 2018, nearly one in ten (9 percent) of youth were disconnected throughout Hawaiʻi. Each of the counties reports about 15 percent of youth who are disconnected, except Honolulu, which reports a lower proportion (10 percent) (Measure of America 2020b).

Relatively little is known about the well-being of Native Hawaiian opportunity youth and of those who begin working straight out of high school. Both represent discrete demographics that warrant further research to guide appropriate policies and programs to help young Native Hawaiian adults reach their full potential. These two groups represent a significant, albeit less visible, population among all Native Hawaiians ages eighteen to twenty-four, which, as a whole, rose from 32,804 to 37,599 between 2010 and 2020 (fig. 1.92). Our estimates suggest that this population is projected to increase steadily through 2060.

FIGURE 1.92 Projected numbers of Native Hawaiian youth ages 18–24 in Hawaiʻi
[Native Hawaiian adults ages 18–24, 2010 to 2060]



Data source: Hong 2012

Native Hawaiian College Students

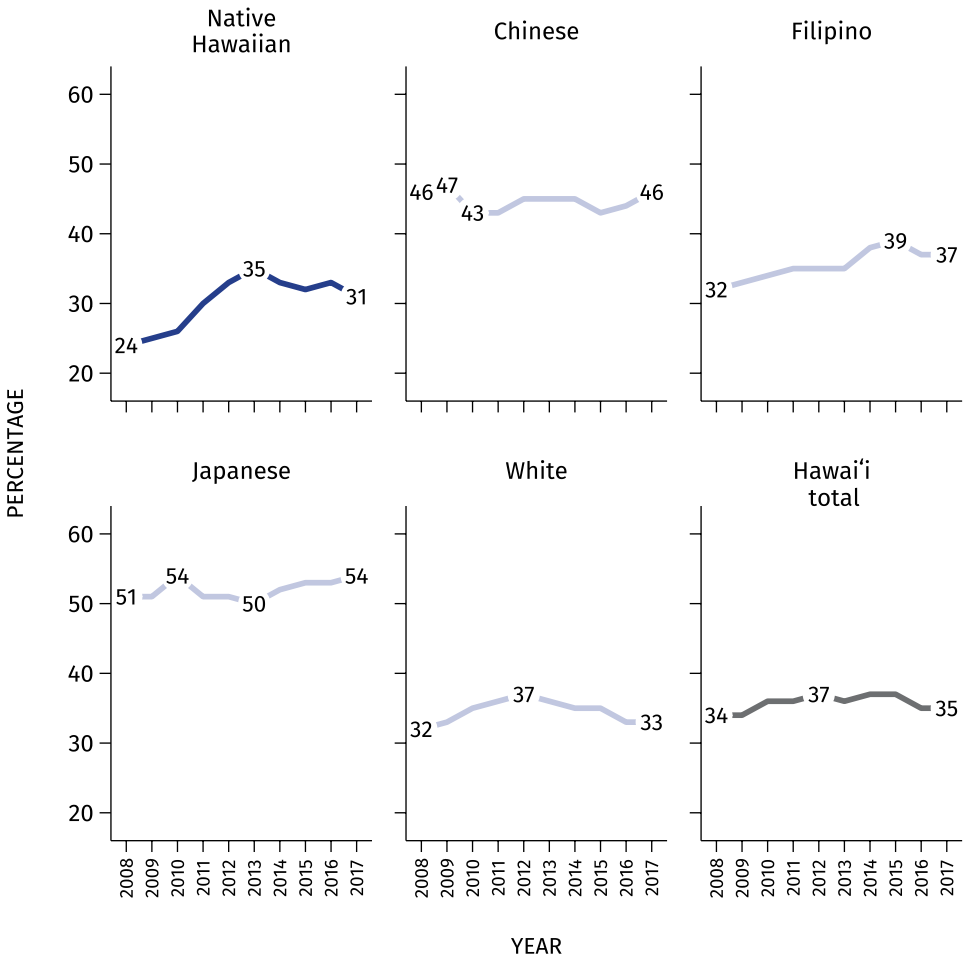
COLLEGE ENROLLMENT

US colleges and universities have experienced an overall decline in enrollment since the 2008 recession (US Department of Education 2020b). Still, college enrollment is considered a leading indicator of a population's educational well-being and is an important step toward completing a postsecondary degree.

As of 2017, nearly one-third (31 percent) of Native Hawaiians ages eighteen to twenty-four were enrolled in college—the lowest enrollment rate among Hawai'i's major ethnicities. However, trend data for the past decade show an increase in Native Hawaiian college enrollment between 2008 and 2017, reaching a high point of 35 percent in 2013 before declining in the following years (fig. 1.93). The overall increase in Native Hawaiian college enrollment contrasts with the experience of most other ethnicities in Hawai'i during the same period. These results show that Native Hawaiian college enrollment rates are approaching the Hawai'i total and are on par with those of the White population. Because college enrollment may correspond with broader economic patterns, we may expect fluctuations in Native Hawaiian college enrollment in the coming decade due to COVID-19.

Native Hawaiian college enrollment in Hawai'i increased from 24 to 31 percent between 2008 and 2017, defying national trends during the same period.

FIGURE 1.93 Trends in college enrollment
[as a percentage of young adults ages 18–24, by ethnicity, Hawaiʻi, 2008 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

Note 1: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

Note 2: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- Over the past decade, college enrollment among Native Hawaiians in Hawaiʻi grew by 7 percentage points, increasing from 24 to 31 percent between 2008 and 2017.
- The proportion of Native Hawaiian young adults enrolled in college reached a high point of 35 percent in 2013, before declining to 31 percent in the following years.
- Despite marked improvement over time, Native Hawaiians continue to have the lowest rates of college enrollment among Hawaiʻi's major ethnic groups.
- College enrollment among Native Hawaiian, Filipino, and White students has varied over the years, while enrollment of Chinese and Japanese students has remained relatively consistent and higher than the Hawaiʻi total.
- Although the Hawaiʻi total increased slightly between 2011 and 2015, college enrollment among young adults in Hawaiʻi has not changed significantly from 2008 to 2017.

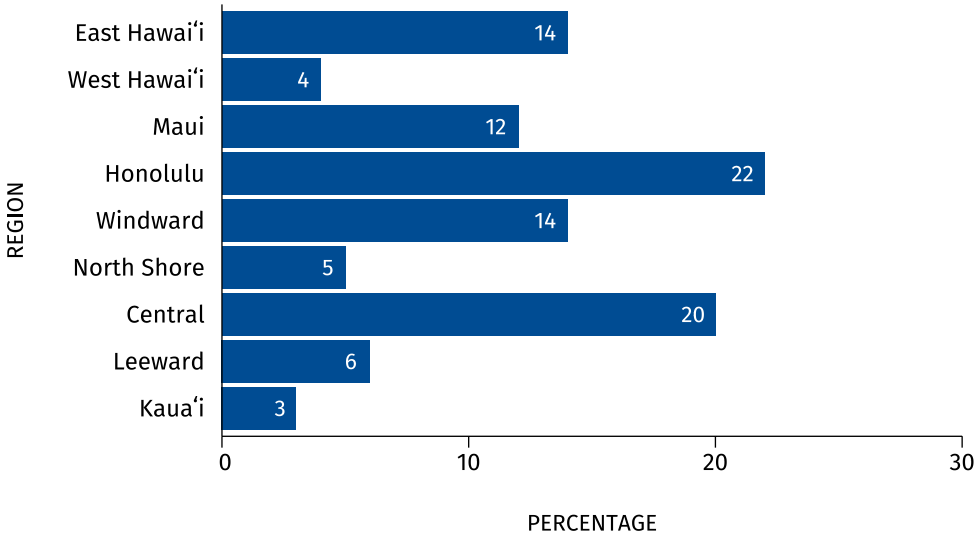
The timing of college enrollment (i.e., delayed entry) among the college-going population in Hawai‘i does not seem to differ between major ethnic groups (not shown). However, sex differences among Native Hawaiian college students exist. Females are more likely than males to enroll—mirroring statewide trends (Kamehameha Schools 2019) and national statistics (Hussar et al. 2020). Over time, both male and female Native Hawaiian college students have seen an increase in college enrollment, with a notable spike between 2010 and 2013, in part owing to a surge in female enrollment (Kamehameha Schools 2019).

Once enrolled, Native Hawaiian students attending college in Hawai‘i are more likely than other college students to live at home or with a relative (Kamehameha Schools 2019). Living at home while earning a degree can help defray college expenses, particularly for low-income students who have fewer economic resources (Bozick 2007). Research confirms that being near family generally serves as a positive factor in supporting degree persistence and completion among Native Hawaiian and Pacific Islander students—even though living with family may entail balancing familial roles and school obligations (Vakalahi 2009). Native Hawaiian college students who live at home also are less likely to be employed, compared with those who are heads of households and live with relatives or somewhere other than with their parents (Kamehameha Schools 2019).

College Enrollment—Regional Highlights

Important differences can be seen in college enrollment at the regional level. Out of the total population of Native Hawaiian college students in Hawai‘i, about two-thirds (67 percent) reside on O‘ahu—the island with the most college campuses and the largest population in Hawai‘i. As a result, the largest share of college-enrolled Native Hawaiians is in the Honolulu and Central regions (42 percent, combined), followed by East Hawai‘i and Maui. The West Hawai‘i and Kaua‘i regions have the smallest percentage of Native Hawaiian college students, proportionate to the population (fig. 1.94).

FIGURE 1.94 Regional distribution of college enrollment among Native Hawaiians
[as a percentage of Native Hawaiians enrolled in college, by region, Hawaiʻi, 2015]



Data source: US Census Bureau, American Community Survey, Selected Population Tables

- Of all Native Hawaiians enrolled in college, two-thirds (67 percent) live on Oʻahu.
- Among Native Hawaiians enrolled in college, more than four in ten (42 percent) live in Honolulu or Central Oʻahu.
- Nearly one in five Native Hawaiians (18 percent) who are enrolled in college lives on Hawaiʻi Island.
- Kauaʻi has the smallest percentage of Native Hawaiians enrolled in college.

The proportion of college-enrolled Native Hawaiians in a given geography is related to the presence of a physical college campus and the accompanying "college town" culture and mindset. For instance, regions such as Honolulu and Central, with their larger, established campuses, contrast with West Hawaiʻi and Kauaʻi, which have smaller community colleges, and are also different from North Shore and Leeward, which do not have physical campuses.

COLLEGE COMPLETION

Turning now to college completion as a key population-level indicator of health and success, the 32 percent of Native Hawaiians who went on to complete a college degree did so between the ages of nineteen and twenty-six (Kamehameha Schools 2019). More importantly, data demonstrate a growing gap in completion rates between Native Hawaiian females and males: Native Hawaiian females are more likely than Native Hawaiian males to obtain a college degree (particularly, a bachelor's degree or higher). Various factors may influence these trends, such as employment opportunities and age of marriage and childbearing (Kamehameha Schools 2019).

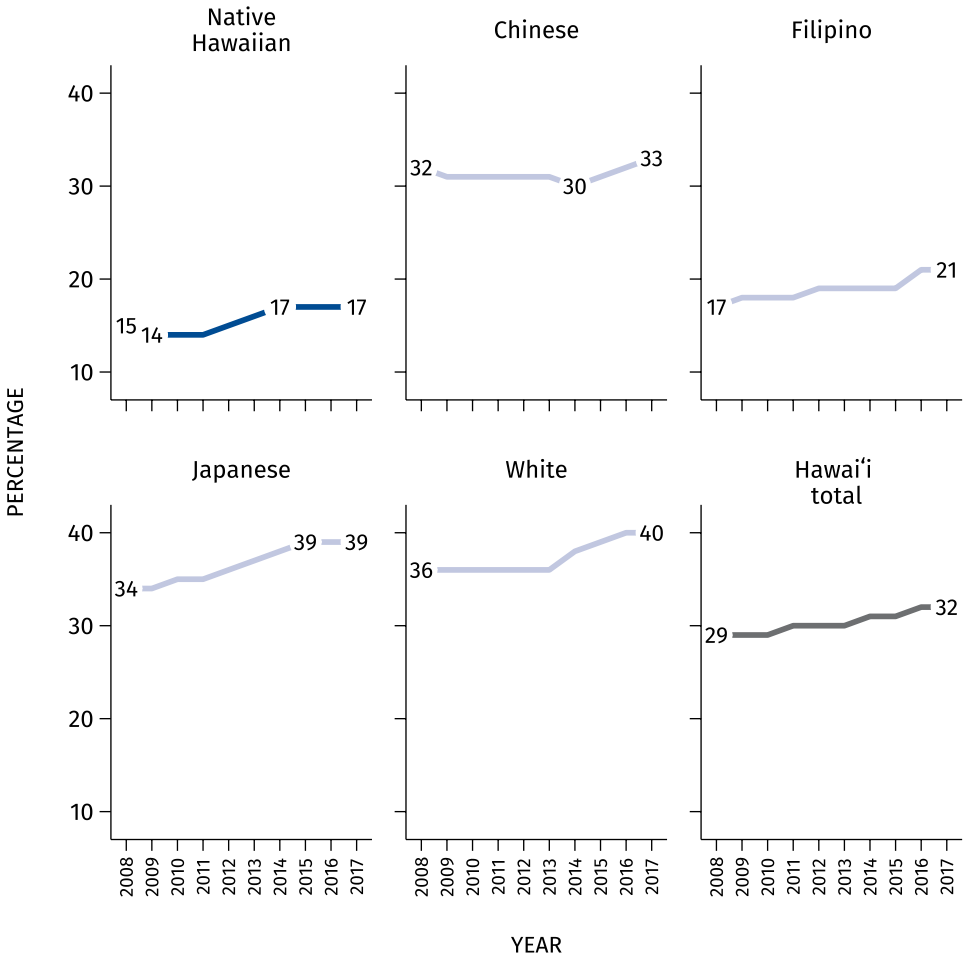
Completion of Bachelor's Degree or Higher

Earning a bachelor's degree or higher requires financial fortitude, a commitment to learning, and perseverance. Between 2008 to 2017, young people of all ethnicities in Hawai'i realized gains in bachelor's degree completion or higher. For Native Hawaiians, a slight downturn in college completion rates began in 2009 but started to reverse in 2011, with 17 percent of adults attaining a bachelor's degree or higher in 2014, up from 14 percent in 2011, and remaining steady through 2017 (fig. 1.95). Comparatively, for the Hawai'i total, the percentage of adults with a bachelor's degree or higher climbed steadily, increasing from 29 to 32 percent between 2008 and 2017. During the same period, Japanese adults realized the greatest increase in the attainment of a bachelor's degree or higher, followed by Filipinos, Whites, Native Hawaiians, and Chinese.

On the whole, Native Hawaiians have the lowest rate of attaining a bachelor's degree or higher among Hawai'i's major ethnicities. The disparity is especially sharp when comparing the Native Hawaiian rate (17 percent) against the Hawai'i total (32 percent).

Across regions, the Central region realized the largest gains in the proportion of Native Hawaiians with a bachelor's degree or higher, growing from 12 to 18 percent between 2000 and 2015.

FIGURE 1.95 Trends in attainment of a bachelor's degree or higher
[as a percentage of adults ages 25 and older, by ethnicity, Hawaiʻi, 2008 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

Note 1: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

Note 2: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

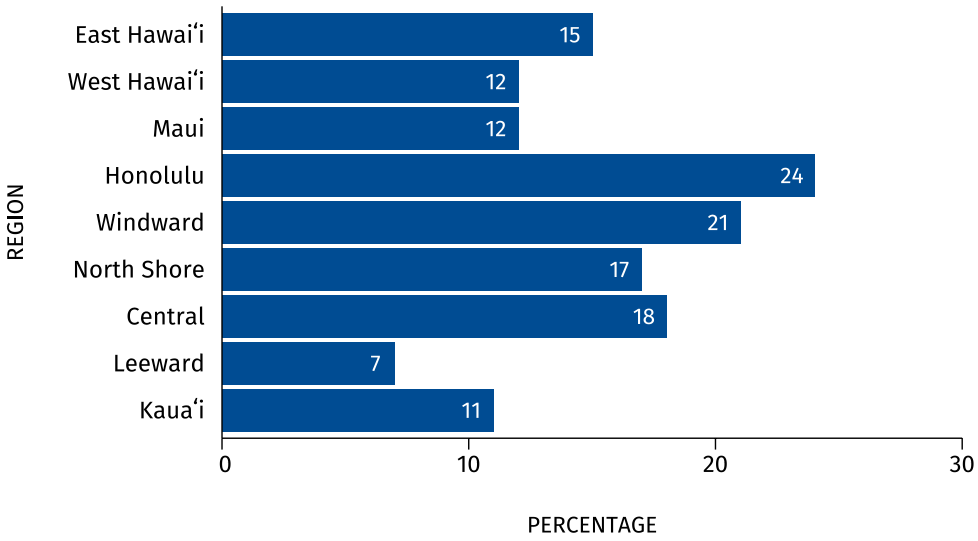
- The proportion of Native Hawaiians with a bachelor's degree or higher increased over a ten-year period, rising from 15 to 17 percent between 2008 and 2017.
- The years 2011 to 2014 saw the greatest gains in the percentage of Native Hawaiians with a bachelor's degree or higher, increasing by 3 percentage points over a four-year period.
- For the Hawaiʻi total, there has been a steady rise in the percentage of adults with a bachelor's degree or higher—from 29 to 32 percent between 2008 and 2017.
- Between 2008 and 2017, all major ethnicities in Hawaiʻi realized gains in the attainment of a bachelor's degree or higher (although the increase was only marginal for Chinese adults).
- Japanese adults realized the greatest increase in the attainment of a bachelor's degree or higher between 2008 and 2017, followed by Filipinos, Whites, Native Hawaiians, and Chinese.

Completion of Bachelor's Degree or Higher—Regional Highlights

Regions that have the highest proportion of Native Hawaiians with a bachelor's degree or higher are Honolulu (24 percent) and Windward (21 percent) (fig. 1.96). These regions also have the highest percentage of Native Hawaiian family households earning $150,000 or more annually (see fig. 1.26). Income and educational attainment are directly related.

Looking at regional trend data from 2000 to 2015, the percentage of Native Hawaiians earning a bachelor's degree or higher increased across Hawai'i. The Central region realized the largest gains (6 percentage points), rising from 12 to 18 percent between 2000 and 2015. Possibly contributing to this growth is the addition of the University of Hawai'i West O'ahu campus, which was built to serve a greater proportion of learners in the Central region. East Hawai'i and Windward also experienced positive growth during this period (5 percentage points). West Hawai'i, Kaua'i, and Leeward saw more modest increases (fig. 1.97).

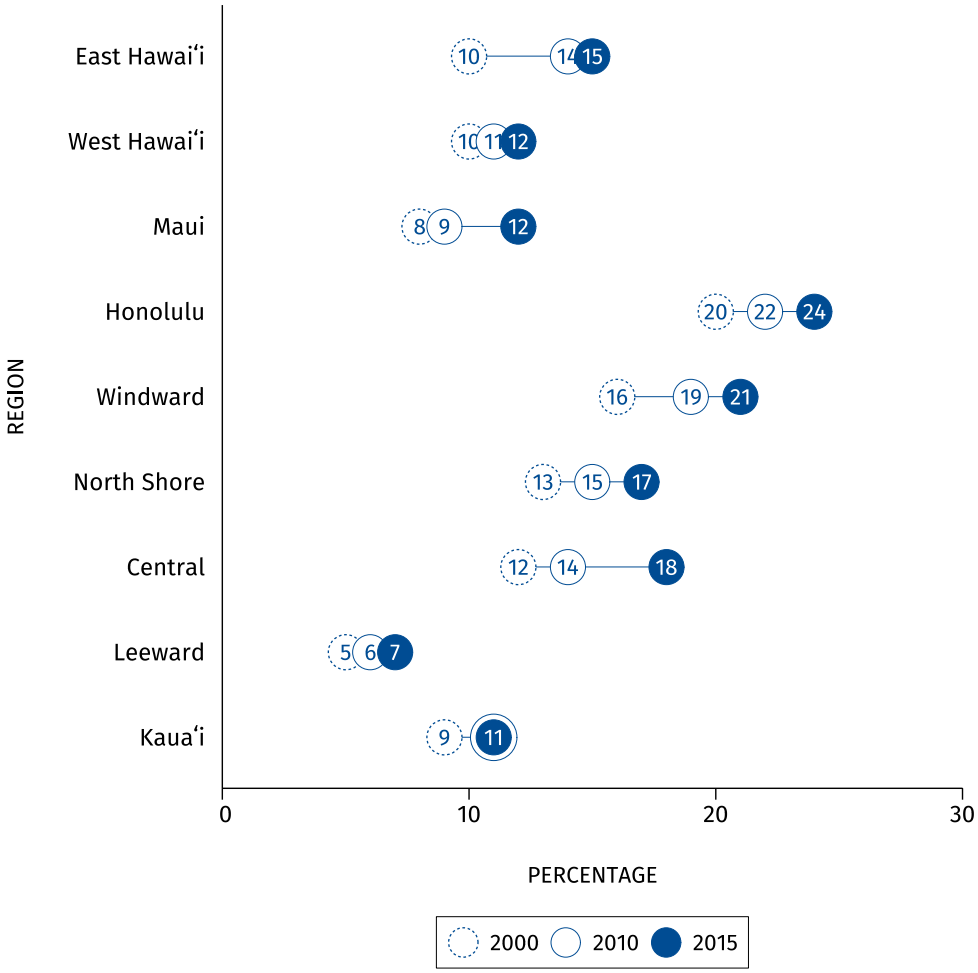
FIGURE 1.96 Attainment of a bachelor's degree or higher among Native Hawaiians—regional comparison
[as a percentage of Native Hawaiian adults ages 25 and older, by region, Hawai'i, 2015]



Data source: US Census Bureau, American Community Survey, Selected Population Tables

- The Honolulu region has the highest rate of attainment of a bachelor's degree or higher among Native Hawaiian adults (24 percent).
- Four of the five O'ahu regions have the highest proportion of Native Hawaiians with a bachelor's degree or higher.
- Higher educational attainment is lowest in the Leeward region, where 7 percent of Native Hawaiian adults have a bachelor's degree or higher.
- Native Hawaiian adults in West Hawai'i, Maui, and Kaua'i have similar rates of attainment of a bachelor's degree or higher (12 percent, 12 percent, and 11 percent, respectively).

FIGURE 1.97 Trends in attainment of a bachelor's degree or higher among Native Hawaiians—regional comparison
[as a percentage of Native Hawaiian adults ages 25 and older, by region, Hawaiʻi; 2000, 2010, 2015]



Data source: US Census Bureau, 2011–2015 American Community Survey, Selected Population Tables; US Census Bureau, 2006–2010 American Community Survey, Selected Population Tables; Census 2000, Summary File 4

- Across regions, Central realized the greatest gains in the percentage of Native Hawaiians with a bachelor's degree or higher, increasing from 12 to 18 percent between 2000 and 2015.
- From 2000 to 2015, East Hawaiʻi and Windward realized 5-point increases in the percentage of Native Hawaiians with a bachelor's degree or higher, while Honolulu, Maui, and North Shore increased by 4 percentage points.
- In the same period, attainment of a bachelor's degree or higher among Native Hawaiians increased by 2 percentage points in West Hawaiʻi, Leeward, and Kauaʻi.

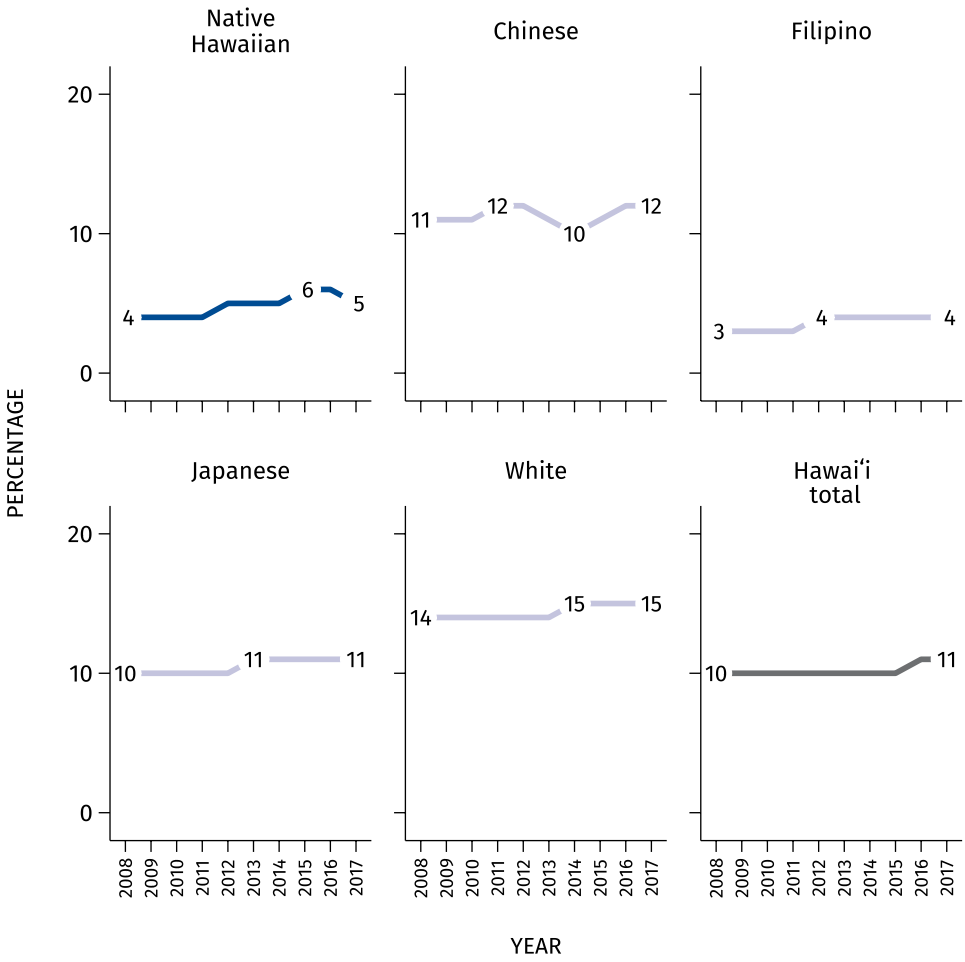
Completion of Graduate or Professional School

Individuals with graduate or professional diplomas typically earn higher wages and exercise greater choice over their careers, compared with their peers who do not have an advanced degree (Zumeta et al. 2012). While the percentage of Native Hawaiians with a graduate or professional degree has increased modestly since 2008, it is still less than half the rate of the Hawaiʻi total (5 percent versus 11 percent) (fig. 1.98).

In Hawaiʻi, Whites have the highest rate of attaining a graduate or professional degree (15 percent), whereas Filipinos have the lowest percentage of completers (4 percent). From 2008 to 2017, all major ethnicities in Hawaiʻi realized increases in the attainment of a graduate or professional degree, with an increase of 1 percentage point for the Hawaiʻi total.

From 2000 to 2015, East Hawaiʻi, Maui, Honolulu, and Windward were the regions with the largest increases (3 percentage points) in the proportion of Native Hawaiians with a graduate or professional degree.

FIGURE 1.98 Trends in attainment of a graduate or professional degree
[as a percentage of adults ages 25 and older, by ethnicity, Hawaiʻi, 2008 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

Note 1: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

Note 2: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

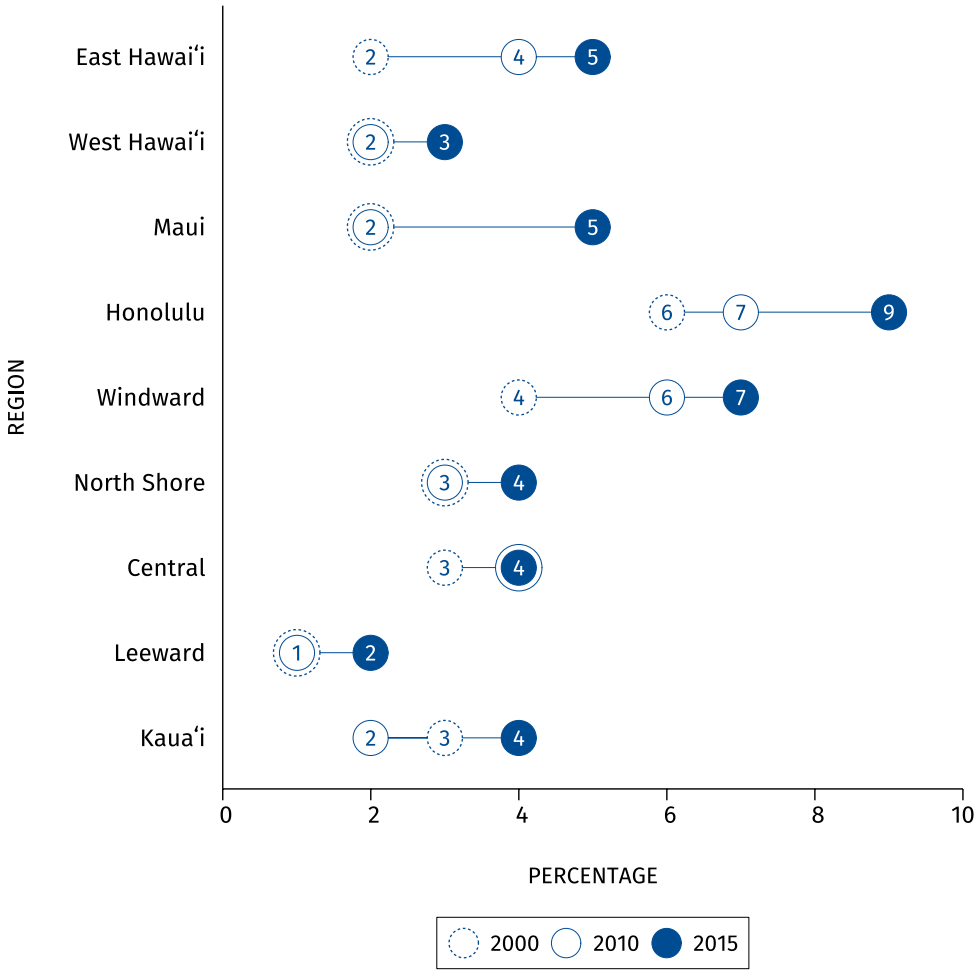
- Among all major ethnicities in Hawaiʻi, there was a slight increase from 2008 to 2017 in the percentage of adults who have a graduate or professional degree.
- For the Hawaiʻi total, the rate of graduate or professional degree attainment is more than twice that of Native Hawaiians—a disparity that has been consistent over the ten-year period.

COMPLETION OF GRADUATE OR PROFESSIONAL DEGREE—REGIONAL HIGHLIGHTS

Among regions, Honolulu had the highest proportion (9 percent) of Native Hawaiian adults with a graduate or professional degree in 2015 (fig. 1.99)—a rate that begins to approach the Hawai‘i total of 11 percent (not shown). This may correlate with the fact that Native Hawaiian households in Honolulu, on average, have relatively high income, compared with that of other regions (see fig. 1.26).

A slight upward trend is evident in graduate or professional degree completion across regions. Between 2000 and 2015, East Hawai‘i, Honolulu, Maui, and Windward saw the largest increases (3 percentage points) in the proportion of Native Hawaiians with a graduate or professional degree. By 2015, the North Shore, Central, and Kaua‘i regions had achieved the same rate of Native Hawaiian advanced degree attainment (4 percent) as Windward had seen in 2000—an indication of small but notable educational gains occurring across regions (fig. 1.99).

FIGURE 1.99 Trends in attainment of a graduate or professional degree among Native Hawaiians—regional comparison
[as a percentage of Native Hawaiian adults ages 25 and older, by region, Hawaiʻi; 2000, 2010, 2015]



Data source: US Census Bureau, 2011–2015 American Community Survey, Selected Population Tables; 2006–2010 American Community Survey, Selected Population Tables; Census 2000, Summary File 4

- All regions experienced a small increase in the percentage of Native Hawaiians with a graduate or professional degree between 2000 and 2015.
- Over a shorter time period, from 2010 to 2015, the greatest increases in the proportion of Native Hawaiian graduate or professional degree attainment were in Maui (3 percentage points) and Honolulu (2 percentage points).

COLLEGE SURVIVAL RATES

We measure college survival rates as the proportion of students who make it to the next step in progressing from enrollment to graduation. Detailed analyses show that Native Hawaiian college students have a 50 percent survival rate between each step, from college enrollment to graduate degree attainment (Kamehameha Schools 2019). That is, half of all college-age Native Hawaiians enroll in college at some point; half of those who enroll, complete a degree (associate's or higher); slightly more than half of those who complete a degree earn a bachelor's or higher; and almost half of those who earn a bachelor's degree go on to complete a graduate degree. By comparison, the survival rates of Japanese students in Hawai'i, a group with generally higher educational attainment, are closer to 75 percent at each stage leading up to a bachelor's degree (Kamehameha Schools 2019).

These disparate findings suggest systematic inequities in Native Hawaiian educational outcomes, requiring focused attention and programmatic interventions to support the 50 percent of Native Hawaiians who never enroll in college or who enroll but do not complete a degree.

A Closer Look at Native Hawaiian Students in Public Higher Education

The UH system is Hawai'i's single public higher education system and is the postsecondary choice for the majority of local high school graduates. The UH system includes ten institutions across six islands. The main University of Hawai'i campuses are in Mānoa (UH–Mānoa), Hilo (UH–Hilo), and West O'ahu (UH–West O'ahu), which is the newest campus in the UH system. Community colleges include Hawai'i Community College, Honolulu Community College, Kapi'olani Community College, Kaua'i Community College, Leeward Community College, Maui College,[12] and Windward Community College.

From 2004 to 2018, the proportion of tenured faculty at UH who are Native Hawaiian increased from 6 to 10 percent.

[12] Maui College offers (mostly) two-year and four-year programs and is referred to as the system's only "college" (as opposed to a university or community college). Maui College is listed with the community colleges in this analysis.

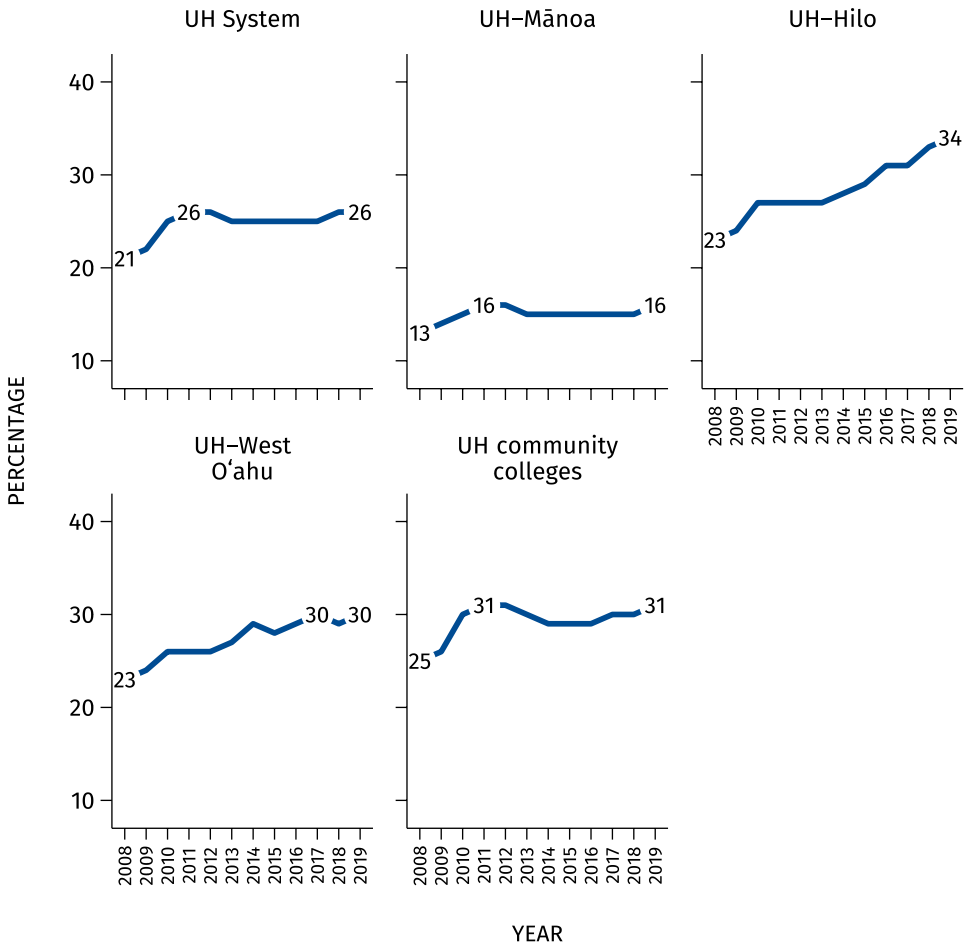
In recent years, the University of Hawaiʻi has made efforts to better support postsecondary completion among Native Hawaiian students. For example, as part of the 2015–21 priorities, the university implemented the Hawaiʻi Graduation Initiative to increase the "participation and completion of students, particularly Native Hawaiians, low-income students and those from underserved regions and populations and preparing them for success in the workforce and their communities" (University of Hawaiʻi 2016, HGI Goal and Context). Representation among UH's tenure-track faculty has also improved somewhat, with Native Hawaiian associate professors and professors constituting 10 percent of the university's tenured faculty—up from 6 percent in 2004 (see fig. 1.116). As a result, recent times have seen an upsurge of Native Hawaiian scholarship and publishing in the fields of political science, education, and Hawaiian studies. Taken together, these examples reflect UH–Mānoa's commitment to being a "Hawaiian place of learning" to support Native Hawaiian students and to ensure learning outcomes that result in all undergraduate students having an understanding of Hawaiian culture and history (University of Hawaiʻi at Mānoa 2019).

UH ENROLLMENT

Campuses within the UH system serve diverse communities with diverse student populations. Trend data from 2008 to 2019 show an increase in Native Hawaiian enrollment, relative to the total undergraduate and graduate student population in the UH system (figs. 1.100, 1.101). During the same period, UH–Hilo experienced the largest increase in the proportion of Native Hawaiian students as a percentage of total enrollment, both at the undergraduate and graduate levels. These gains suggest a potential inflection point as families, communities, and systems come together to improve the historically low college participation rates among Native Hawaiians.

Native Hawaiian enrollment in the UH system, as a proportion of all students, increased from 21 to 26 percent between 2008 and 2019.

FIGURE 1.100 Trends in Native Hawaiian undergraduate enrollment as a percentage of total enrollment at the University of Hawai'i
[by University of Hawai'i campus, Hawai'i, 2008 to 2019]

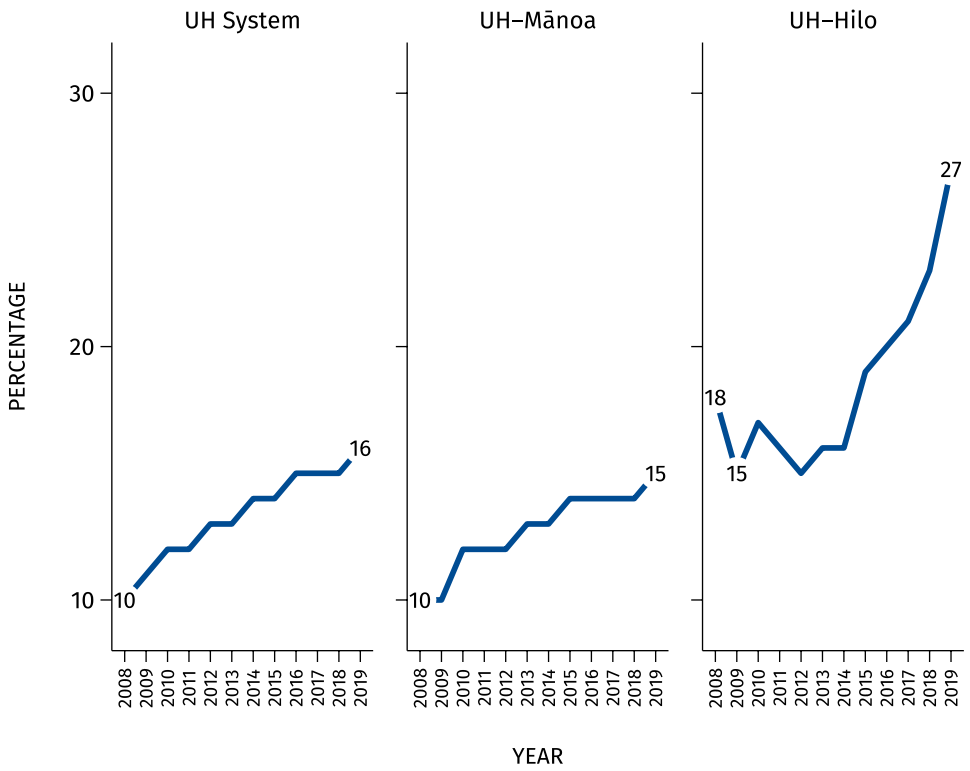


Data source: University of Hawai'i, Institutional Research and Analysis Office, Enrollment Table 4, fall 2008 to fall 2019

Note 1: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- The proportion of Native Hawaiian college students within the UH system, relative to the total undergraduate population, has increased over time.
- From 2008 to 2019, the proportion of Native Hawaiian undergraduates in the UH system, as a percentage of the total college student population, increased from 21 to 26 percent.
- Compared with other UH campuses and the system as a whole, UH–Hilo realized the greatest gains in the proportion of Native Hawaiian undergraduate enrollment between 2008 and 2019.

FIGURE 1.101 Trends in Native Hawaiian graduate enrollment as a percentage of total enrollment at the University of Hawaiʻi
[by University of Hawaiʻi campus, Hawaiʻi, 2008 to 2019]



Data source: University of Hawaiʻi, Institutional Research and Analysis Office, Enrollment Table 4, fall 2008 to fall 2019

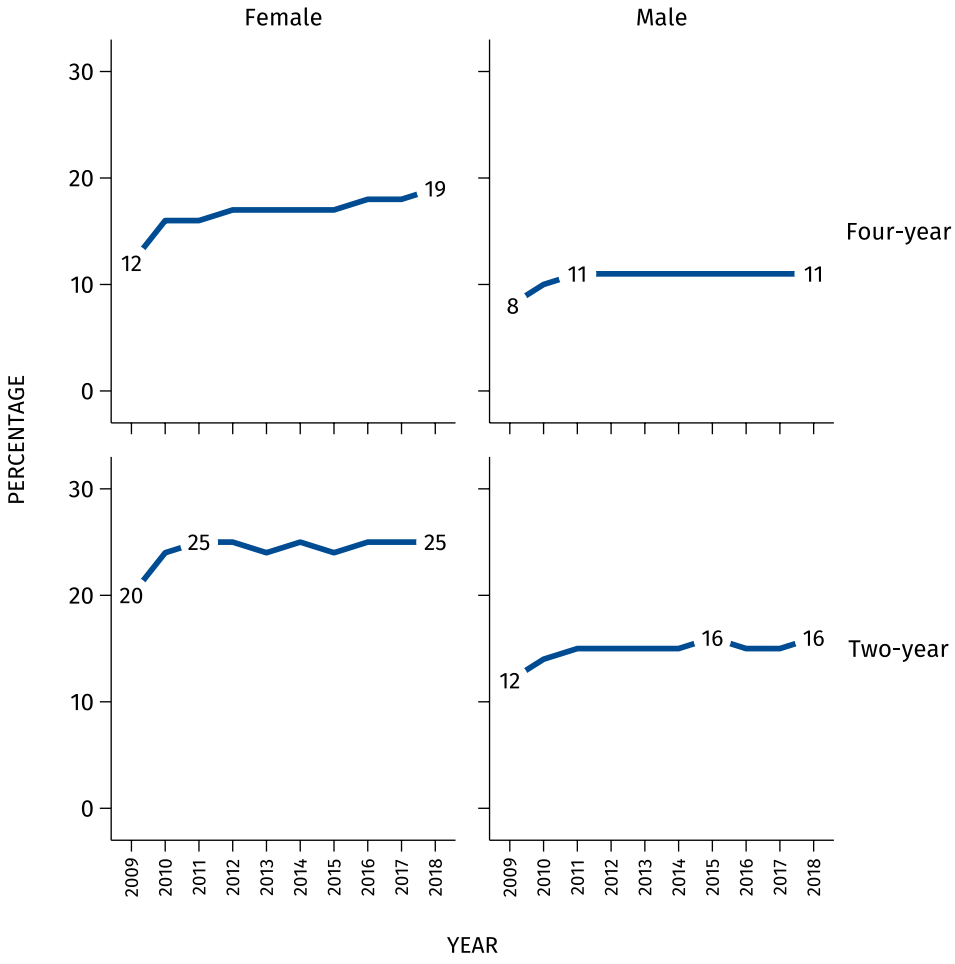
Note 1: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- The proportion of Native Hawaiian graduate students within the UH system, relative to the total graduate student population, has increased over time.
- From 2008 to 2019, the proportion of Native Hawaiian graduate students, as a percentage of total graduate students in the UH system, increased from 10 to 16 percent.
- Between 2008 and 2019, UH–Hilo grew by 9 percentage points, realizing the greatest gains in the proportion of Native Hawaiian graduate students enrolled, compared with other UH campuses.

UH Undergraduate Enrollment

When examining undergraduate enrollment within the UH system, the data show greater proportions of Native Hawaiian female and male students over the past decade, relative to the total undergraduate enrollment for four-year and two-year campuses. And, female Native Hawaiian undergraduates consistently represent a higher proportion of total enrollment, compared with that of their male counterparts (fig. 1.102). Also promising is that more Native Hawaiian students are transferring from two-year to four-year colleges within the UH system, growing from 350 transfers in school year 2009–10, to 624 transfers in school year 2014–15, and then declining to 521 transfers in school year 2018–19 (not shown).

FIGURE 1.102 Trends in Native Hawaiian undergraduate enrollment at the University of Hawaiʻi
[as a percentage of enrolled undergraduate students, by college type, ethnicity, and sex, Hawaiʻi, 2009 to 2018]



Data source: University of Hawaiʻi—data prepared at the request of Kamehameha Schools

Note 1: Percentages are based on fall semester enrollment.

Note 2: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

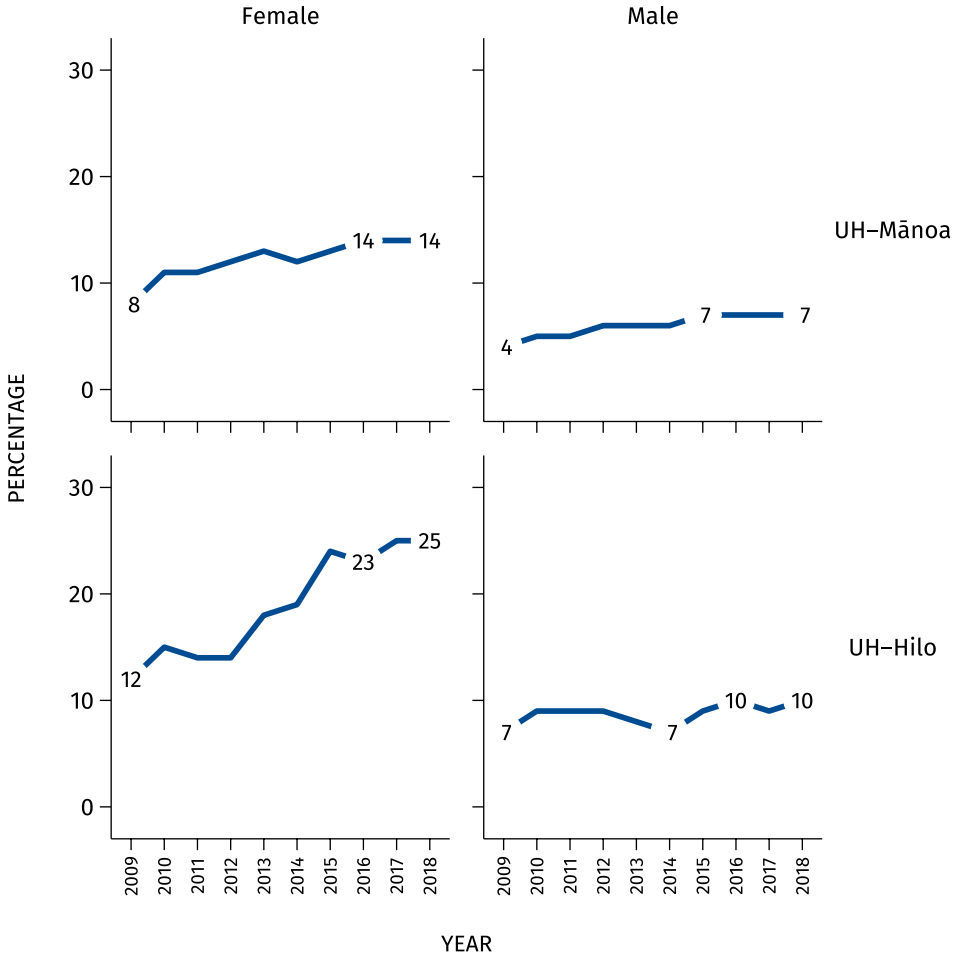
- From 2009 to 2018, the proportion of Native Hawaiian undergraduate students enrolled at two-year and four-year UH campuses—relative to total undergraduate enrollment on each campus—increased for both females and males.
- From 2009 to 2018, the proportion of Native Hawaiian females enrolled at four-year UH campuses increased by 7 percentage points.
- In comparing female undergraduates at two-year UH campuses, Native Hawaiians had the greatest increase (5 percentage points) in the proportion of total undergraduate enrollment among the major ethnicities from 2009 to 2018 (not shown).

- Among male undergraduates at two-year UH campuses, Native Hawaiians had the greatest increase in the proportion of total undergraduate enrollment among the major ethnicities (not shown), going from 12 to 16 percent between 2009 and 2018—though most of these gains were realized between 2009 and 2015.
- The proportion of Native Hawaiian male students at four-year UH campuses increased from 8 to 11 percent between 2009 and 2018.

UH Graduate Enrollment

Similar to enrollment trends among UH undergraduates, enrollment of Native Hawaiian graduate students seeking advanced degrees at UH–Hilo and UH–Mānoa increased for females and males between 2009 and 2018 (fig. 1.103).

FIGURE 1.103 Trends in Native Hawaiian graduate enrollment at the University of Hawaiʻi
[as a percentage of enrolled graduate students, by campus, ethnicity, and sex, Hawaiʻi, 2009 to 2018]



Data source: University of Hawaiʻi—data prepared at the request of Kamehameha Schools

Note 1: Percentages are based on fall semester enrollment.

Note 2: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- Between 2009 and 2018, the proportion of Native Hawaiian graduate students enrolled at UH–Hilo and UH–Mānoa—relative to the total graduate enrollment on each campus—increased for both females and males.
- UH–Hilo had the greatest increase in the proportion of Native Hawaiian students as a percentage of total graduate enrollment, with Native Hawaiian female enrollment increasing by 13 percentage points and Native Hawaiian male enrollment increasing by 3 percentage points from 2009 to 2018.
- Comparing all graduate students (not shown), Native Hawaiian females experienced the greatest gains in the proportion of total enrollment at both UH–Hilo and UH–Mānoa.

- Compared with all male graduate students (not shown) at UH–Hilo, Native Hawaiians had the greatest gains in the proportion of total graduate enrollment, increasing from 7 to 10 percent between 2009 and 2018.
- Comparing male graduate students of Hawai'i's major ethnicities at UH-Mānoa (not shown), Native Hawaiians had the highest increase (3 percentage points) in the proportion of total enrollment from 2009 to 2018.

UH NATIVE HAWAIIAN COLLEGE RETENTION AND COMPLETION

Retention rates provide an important window into the quality of students' experiences with an institution and how well students are supported by their campus community. Decades of research on retention, persistence,[13] and completion show that when students are engaged, attached, and supported in learning by their institutions, they are less likely to drop out and, therefore, more likely to earn a degree (Astin 1999; Spady 1970, 1971; Tinto 1975, 1982, 1987, 1993; Bean 1980, 1982a, 1982b, 1983; Cabrera et al. 1992; Pascarella 1980; Museus 2014; Thomas et al. 2012).

Retention rates are often calculated as a percentage of a student cohort that has been retained throughout the system over a particular interval of time. It is most common for institutions to report one-year retention rates (the percentage of students who completed their first year of college and enrolled for fall semester of their second year) as a metric of institutional success. One-year retention rates are collected and reported by the National Center for Education Statistics, the leading federal entity that analyzes education data in the United States (Hagedorn 2006). Generally, research shows a strong association between the first-year experience and the likelihood of degree completion (Adelman 1999, 2006; Attewell, Heil, and Reisel 2012).

In this section, we present one-year college retention rates and college completion rates, side by side and over time, for several student cohorts.[14] Our intent is to provide an overview of retention and completion patterns across Hawai'i's public university campuses, which is where most Native Hawaiians attend college.

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[13] Persistence is a student-level measure that refers to a student persisting and working through challenges (e.g., at school, home, and in their communities) to achieve their postsecondary endeavors. Persistence is generally calculated as the percentage of students (in a cohort) who return to college following previous consecutive enrollment (the institution may or may not be the same as the one previously enrolled in). Retention is an institutional-level measure that refers to an institution's ability and kuleana to support and retain students once they are enrolled in college.

[14] Our analyses do not address causality between retention and completion. Moreover, student-level data limitations and additional variables (e.g., drop out rates, stop out rates, and transfer rates) limit the ability to develop and test comprehensive models of student retention and completion.

At a system level, one-year retention rates at four-year colleges generally decline from year to year as students graduate, transfer to other schools, or otherwise discontinue their studies.[15] Differences are apparent between cohorts. For example, at UH–Mānoa, retention rates among the 2009 cohorts of Native Hawaiian students were noticeably lower than those of the 2008 cohorts. During the same period, Native Hawaiian enrollment rates increased (see "UH Enrollment" above). These patterns are consistent with national trends following the 2008 recession, where more students enrolled in college, but fewer completed their degree—a phenomenon that likely is correlated with retention rates observed within the UH system.

With regard to completion rates, Native Hawaiian students at UH campuses generally do not graduate within the intended parameters of two-year and four-year programs. For example, at UH community colleges, 14 percent of Native Hawaiian students, on average, graduate in three years or less. At UH–Mānoa, an average of 51 percent of Native Hawaiian college students graduate in six years or less. And at UH–Hilo, an average of 38 percent of Native Hawaiian students complete their bachelor's degree in six years or less (table 1.2).[16]

[15] All of the data presented in this section come from the University of Hawaiʻi via a special request by Kamehameha Schools.

[16] College completion data for UH–West Oʻahu are not included because it is the newest institution in the UH system and data were not available. However, retention data for UH–West Oʻahu are included in the analysis.

TABLE 1.2 Native Hawaiian retention and completion rates across the University of Hawai'i system, 2008 to 2015*

UH COMMUNITY COLLEGES**	Average 1-year retention rate % (2nd fall)	Average completion rates (%)		
		GRAD IN 2 YEARS	GRAD IN 3 YEARS	GRAD IN 4 YEARS
All Native Hawaiian students	55	4	14	13
Native Hawaiian females	58	4	15	14
Native Hawaiian males	51	5	13	13

UH–MĀNOA	Average 1-year retention rate % (2nd fall)	Average completion rates (%)		
		GRAD IN 4 YEARS	GRAD IN 6 YEARS	GRAD IN 8 YEARS
All Native Hawaiian students	76	24	51	56
Native Hawaiian females	77	27	54	58
Native Hawaiian males	75	20	48	53

UH–HILO	Average 1-year retention rate % (2nd fall)	Average completion rates (%)		
		GRAD IN 4 YEARS	GRAD IN 6 YEARS	GRAD IN 8 YEARS
All Native Hawaiian students	66	12	38	39
Native Hawaiian females	69	14	38	43
Native Hawaiian males	61	9	37	33

UH–WEST O'AHU***	Average 1-year retention rate % (2nd fall)	Average completion rates (%)		
		GRAD IN 4 YEARS	GRAD IN 6 YEARS	GRAD IN 8 YEARS
All Native Hawaiian students	60	–	–	–
Native Hawaiian females	61	–	–	–
Native Hawaiian males	59	–	–	–

* Information in this table is based on cohorts of Native Hawaiian students. Specific years associated with various cohorts are detailed in figures 1.104 to 1.111.

** Maui College is included in the UH community college data.

*** For UH–West O'ahu, retention rates span 2012 to 2015. Graduation data are unavailable.

Native Hawaiians at UH Community Colleges (Two-Year Colleges)

Community colleges play an important role in higher education and in the economy. Almost half of postsecondary students in the United States are enrolled in community colleges (Shapiro et al. 2014). In addition to awarding associate's degrees and certificates, community colleges provide designations for vocational training and offer support for matriculating to a four-year campus to earn a bachelor's degree (Cohen, Brawer, and Kisker 2013). Open admission and enrollment policies, relatively low tuition rates, and being physically located in the hearts of communities (Ma and Baum 2016) ease the pathway to obtaining a higher education for many students who otherwise might not attend college.

Overall, between 2008 and 2015, the average one-year retention rate for Native Hawaiian students at UH community colleges was 55 percent (see table 1.2).

Native Hawaiian community college students made considerable improvements in two-year and three-year graduation rates between 2008 to 2015, with increases ranging from 5 to 10 percentage points.

NATIVE HAWAIIAN FEMALES—DETAILED DATA ON UH COMMUNITY COLLEGES

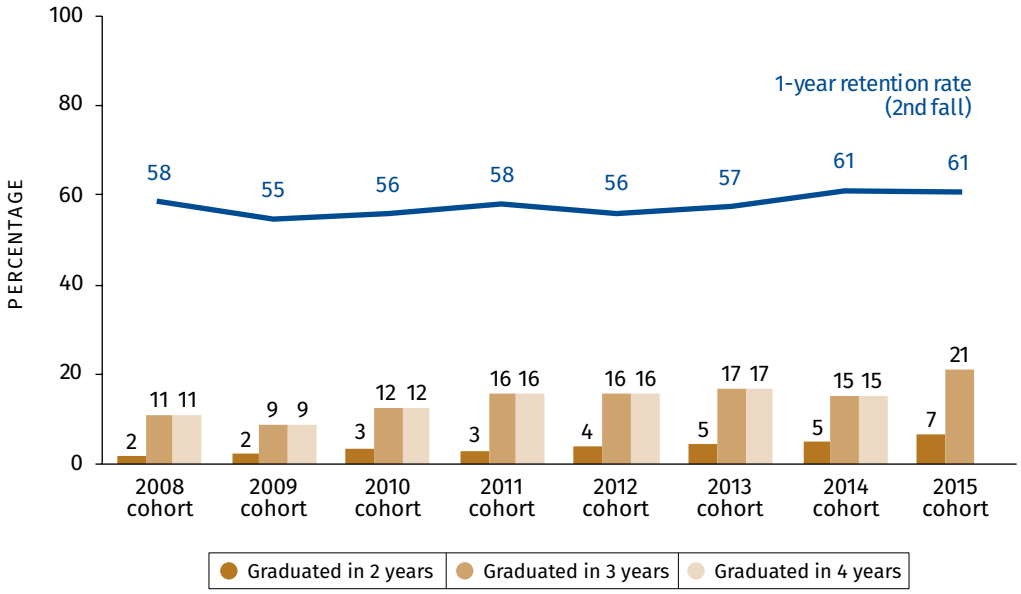
For Native Hawaiian female students at UH community colleges, the average one-year retention rate is 58 percent—meaning that nearly three in five enroll for the fall semester of their second year of studies (see table 1.2). Among cohorts of female students at UH community colleges, Native Hawaiians and Whites are the least likely to enroll for their second year of college (not shown).

In our comparison of completion rates among eight cohorts of first-time, full-time community college students (entering from 2008 to 2015), we are encouraged to see higher rates of Native Hawaiian females graduating in three-years, rising from 11 percent among the 2008 cohort to 21 percent among the more recent 2015 cohort (fig. 1.104), totaling an average of 15 percent across all eight cohorts (see table 1.2). Native Hawaiian females in more recent cohorts also saw higher graduation rates from two-year community college programs, with 7 percent of the 2015 cohort finishing in two years, compared with 2 percent among the 2008 cohort (fig. 1.104). Overall, far too few Native Hawaiian females complete in two years, averaging a troubling 4 percent at UH community colleges across all eight cohorts (see table 1.2).

Considering trends in retention and graduation simultaneously, we do not see a clear, positive relationship for Native Hawaiian females at UH community colleges. However, the relationship may be masked in these broad, descriptive statistics. Individual-level analyses are required to tease out the statistical relationships to help understand predictors of success.

FIGURE 1.104 Retention and graduation rates of Native Hawaiian female students at UH community colleges

[percentage, by cohort, retention into 2nd fall, and years taken to graduate, Hawai'i, 2008 to 2015]



Data source: Institutional Research and Analysis Office, University of Hawai'i; prepared at the request of Kamehameha Schools

Note 1: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Generally, two-year graduation rates are low among Native Hawaiian female students at UH community colleges. Three-year graduation rates are slightly better, with the 2015 cohort of Native Hawaiian females showing the highest rate (21 percent) and the 2009 cohort, the lowest (9 percent).
- Based on graduation data across eight cohorts, an average of 4 percent of Native Hawaiian females at UH community colleges graduate within two years, and 15 percent graduate within three years (see table 1.2).
- The average one-year retention rate is 58 percent for Native Hawaiian female students at UH community colleges, based on data from eight cohorts, meaning slightly more than one in two enroll in the following fall semester for their second year of community college (see table 1.2).

NATIVE HAWAIIAN MALES—DETAILED DATA ON UH COMMUNITY COLLEGES

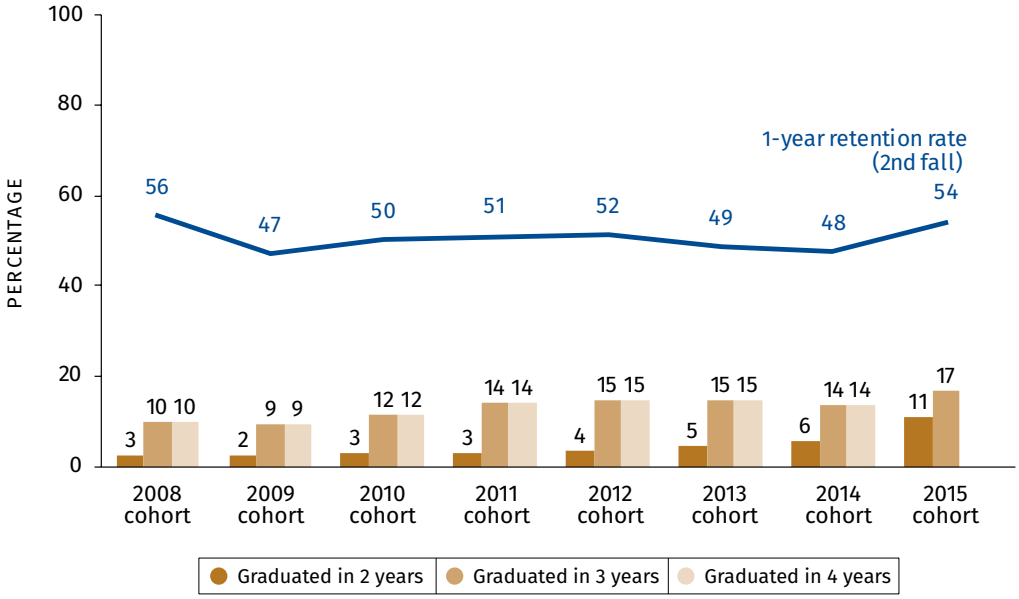
Data indicate that Native Hawaiian males have lower retention rates at public community colleges in Hawaiʻi, relative to female students (see fig. 1.104). Averaging across the 2008 to 2015 cohorts, about half of Native Hawaiian males persist to the second year of college—51 percent, or 7 percentage points lower than rates of female students at UH community colleges (see table 1.2). One-year retention rates of Native Hawaiian males have remained relatively consistent. Starting at 56 percent with the 2008 cohort, the rate dropped to 47 percent for the 2009 cohort, and rebounded to 54 percent for the 2015 cohort (fig. 1.105).

As with female students, the data show positive trends in Native Hawaiian males graduating from public community colleges: The two-year graduation rate improved by 8 percentage points—increasing from 3 to 11 percent for the cohort starting in 2008 versus 2015. As for the three-year graduation rate, 17 percent of the 2015 cohort of Native Hawaiian males graduated in three years or less, up from 10 percent of the 2008 cohort. Overall, worrisome disparities still persist, with 5 percent of Native Hawaiian males graduating in two years averaged across all cohorts, and 13 percent graduating in three years (see table 1.2).

When taken side by side, as seen with the preceding analysis of female students, the broad descriptive statistics are perplexing with regard to retention and graduation rates for Native Hawaiian males at community colleges: Retention rates dipped from the 2008 cohort to the 2015 cohort, while graduation rates increased. Again, we caution that more in-depth, individual-level analyses are required to control for factors explaining this relationship in predicting successful college completion.

FIGURE 1.105 Retention and graduation rates of Native Hawaiian male students at UH community colleges

[percentage, by cohort, retention into 2nd fall, and years taken to graduate, Hawai'i, 2008 to 2015]



Data source: Institutional Research and Analysis Office, University of Hawai'i; prepared at the request of Kamehameha Schools

Note 1: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- The two-year graduation rate of Native Hawaiian males at UH community colleges increased by 8 percentage points, from 3 percent among the 2008 cohort to 11 percent among the 2015 cohort.
- Based on graduation data across eight cohorts, an average of 5 percent of Native Hawaiian males at UH community colleges graduate in two years, and an average of 13 percent graduate in three years (see table 1.2).
- The average one-year retention rate of Native Hawaiian males at UH community colleges, based on data from eight cohorts, is 51 percent. This means that approximately one in two enrolls in the following fall semester for their second year of community college (see table 1.2).

Native Hawaiians at UH Four-Year Colleges

Research shows it takes an average of 5.1 years to graduate with a bachelor's degree in the United States (Shapiro et al. 2016). About 10 percent of students obtain their degree within four years, 39 percent in five years, and 50 percent in six years. In this section we examine retention and completion rates for Native Hawaiian students attending Hawai'i's public four-year colleges, UH–Mānoa and UH–Hilo, between 2008 to 2015. Because UH–West O'ahu is relatively new, only retention rates are available from 2012 to 2015.

Retention and graduation rates vary between the two four-year colleges and, on the whole, tend to be higher among female students than among male students (which is consistent with US Census data presented above). At UH–Mānoa, three in four Native Hawaiian students (76 percent) persist through the first year and enroll in the second year of college, which represents an increase over time. Across the five cohorts, about half of all Native Hawaiian students (51 percent) graduate in six years or less. At UH–Hilo, the cohort data evidence that two-thirds of Native Hawaiian students (66 percent) are retained through the first year, and an average of 38 percent of all Native Hawaiian students graduate in six years or less (see table 1.2).

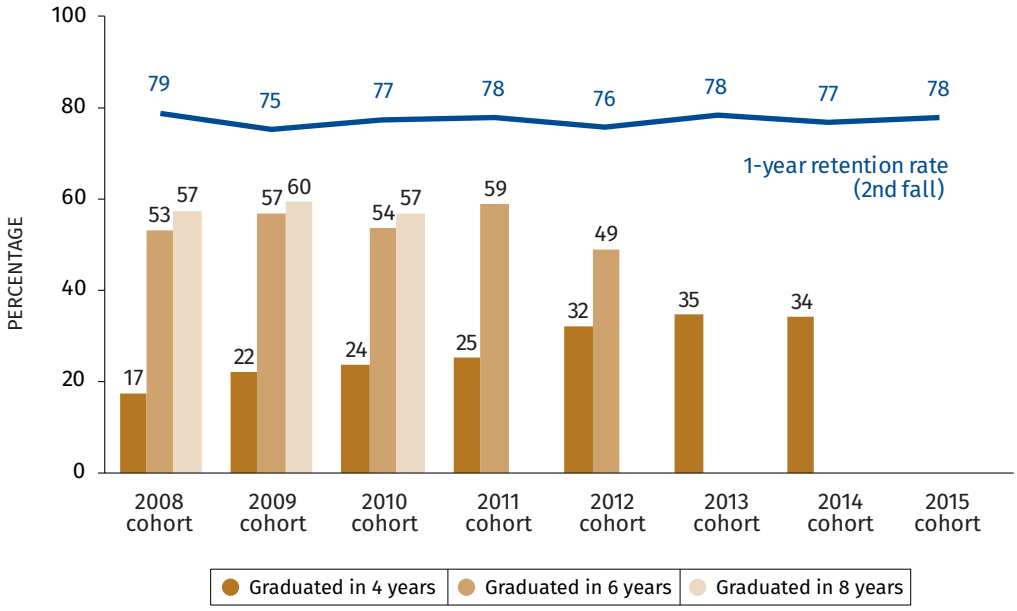
NATIVE HAWAIIAN FEMALES—DETAILED DATA ON UH FOUR-YEAR COLLEGES

About 77 percent of Native Hawaiian female students complete the first year at UH–Mānoa in the cohorts starting in 2008 through 2015, resulting in slightly more than three in four enrolling for the fall semester of their second year of college and one in four not persisting (see table 1.2). One-year retention rates remain relatively consistent from the 2008 to 2015 cohorts, ranging from 75 to 79 percent of Native Hawaiian female students returning for their second year of studies (fig. 1.106).

Native Hawaiian female students were much more likely to graduate in four years at UH–Mānoa in the most recent 2014 cohort, compared with earlier cohorts. Over time, the four-year graduation rate doubled, from 17 percent in the earlier 2008 cohort to 34 percent in the later 2014 cohort, with an average of 27 percent across these cohorts (not shown). We also observe an increase in the six-year graduation rate to a high of 59 percent for the 2011 cohort, then a sharp decline to 49 percent for the 2012 cohort (fig. 1.106). Among all Native Hawaiian female students at UH–Mānoa, the overall six-year graduation rate is 54 percent (see table 1.2).

On the surface, no obvious relationship appears between retention and graduation rates of Native Hawaiian females at UH–Mānoa. Between 2008 and 2015, one-year retention rates among cohorts remained relatively stable, while graduation rates steadily increased. Individual-level analyses are needed to determine the factors underlying improved graduation rates.

FIGURE 1.106 Retention and graduation rates of Native Hawaiian female students at UH–Mānoa
[percentage, by cohort, retention into 2nd fall, and years taken to graduate, Hawai'i, 2008 to 2015]



Data source: Institutional Research and Analysis Office, University of Hawai'i; prepared at the request of Kamehameha Schools

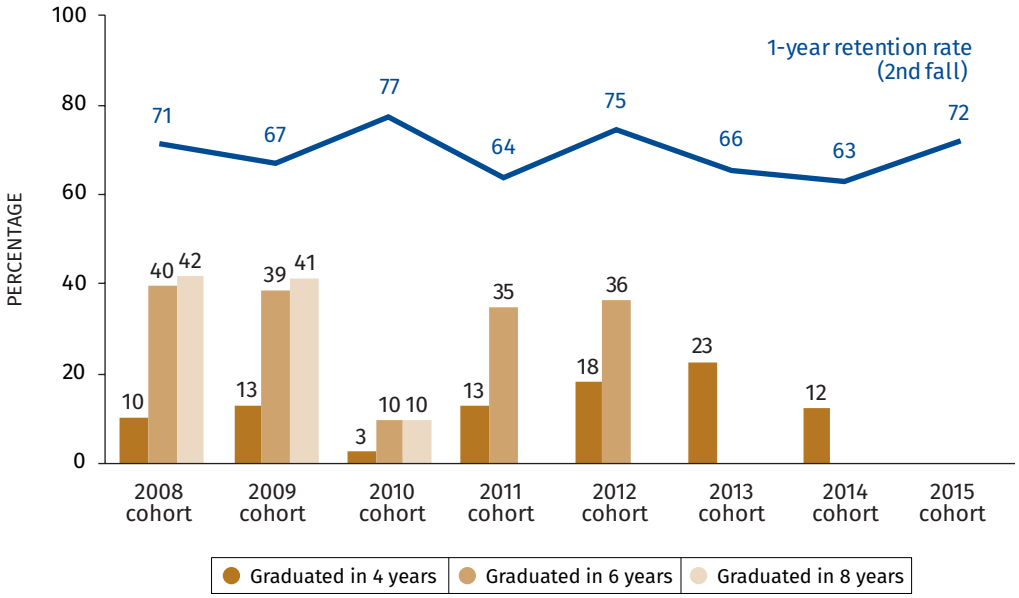
Note 1: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- Generally, we see four-year graduation rates increasing among Native Hawaiian female students at UH–Mānoa, doubling from 17 percent among the 2008 cohort to 34 percent among the 2014 cohort.
- Based on graduation data across five cohorts, an average of 27 percent of Native Hawaiian females at UH–Mānoa graduate in four years, with 54 percent graduating in six years (see table 1.2).
- The average one-year retention rate of Native Hawaiian female students is 77 percent at UH–Mānoa, based on data from eight cohorts starting between 2008 and 2015 (see table 1.2).

At UH–Hilo, most Native Hawaiian female students make it through the first year, with 69 percent enrolling in the fall semester of their second year (see table 1.2) and 31 percent not enrolling. The trends show fluctuation, with one-year retention rates increasing and decreasing slightly from cohort to cohort (fig. 1.107). Nearly one-quarter (23 percent) of Native Hawaiian females in the 2013 cohort graduated in four years, up from 10 percent of the earlier cohorts, dropping back again to 12 percent among the 2014 cohort, averaging 14 percent across all cohorts. Six-year graduation rates decreased slightly for the 2008 to 2012 cohorts, from 40 to 36 percent, averaging 38 percent across all five cohorts (see table 1.2).

Perhaps because of smaller numbers, we see a high degree of fluctuation in the retention and graduation rates of Native Hawaiian females at UH–Hilo between the 2008 and 2015 cohorts.

FIGURE 1.107 Retention and graduation rates of Native Hawaiian female students at UH–Hilo
[percentage, by cohort, retention into 2nd fall, and years taken to graduate, Hawaiʻi, 2008 to 2015]



Data source: Institutional Research and Analysis Office, University of Hawaiʻi; prepared at the request of Kamehameha Schools

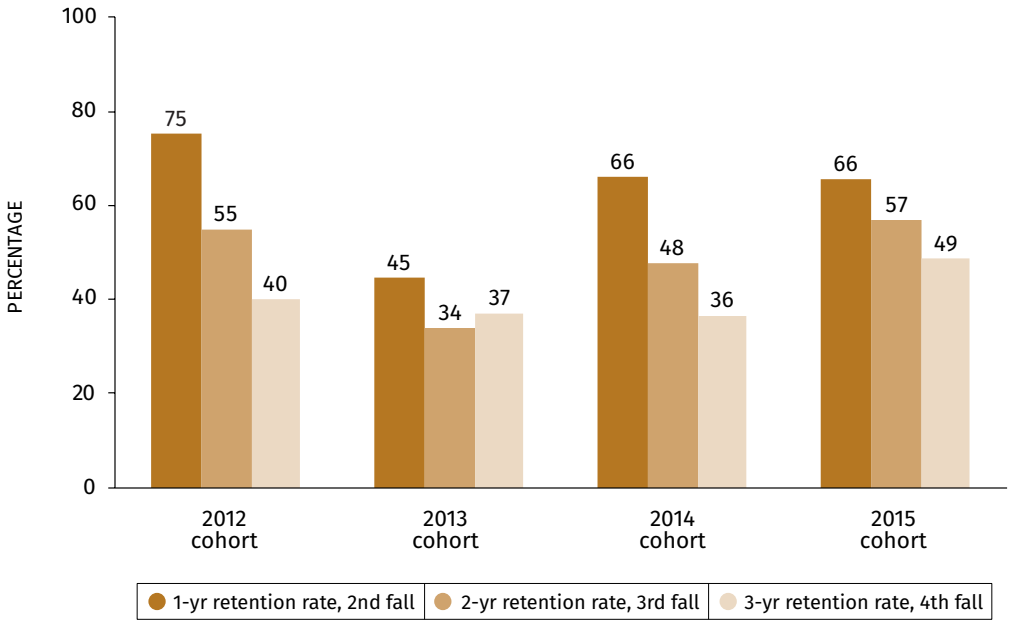
Note 1: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- The four-year graduation rate of Native Hawaiian female students at UH–Hilo increased from 10 percent among the 2008 cohort to 23 percent among the 2013 cohort, before declining to 12 percent among the 2014 cohort.
- Based on graduation data across multiple cohorts, an average of 14 percent of Native Hawaiian females at UH–Hilo graduate in four years, and 38 percent graduate in six years, on average (see table 1.2).
- The average one-year retention rate is 69 percent of Native Hawaiian female students at UH–Hilo, based on data from eight cohorts. This means that slightly more than two in three enroll in the following fall semester for their second year of college (see table 1.2).

As mentioned above, for UH–West Oʻahu, data are available for retention rates but not graduation rates. Figure 1.108 shows three retention rates for Native Hawaiian females at UH–West Oʻahu: one-year retention (second fall enrollment), two-year retention (third fall enrollment), and three-year retention (fourth fall enrollment). We compare each of these rates among four cohorts of Native Hawaiian female students.

At UH–West Oʻahu, an average of nearly two-thirds (61 percent) of Native Hawaiian females persisted into the second year of college, across the 2012 to 2015 cohorts (see table 1.2). While fewer students made it to the third year in the 2015 cohort, compared with the 2012 cohort (dropping from 75 to 66 percent), female students at UH–West Oʻahu saw more persisting into their fourth year, increasing from 40 percent for the 2012 cohort to 49 percent for the 2015 cohort. Among the four cohorts of Native Hawaiian female students, the 2012 cohort had the highest one-year retention rate (75 percent), while the 2013 cohort had the lowest one-year retention rate (45 percent)—a difference of 30 percentage points from one year to the next.

FIGURE 1.108 Retention rates of Native Hawaiian female students at UH–West Oʻahu
[percentage, by cohort and years retained, Hawaiʻi, 2012 to 2015]



Data source: Institutional Research and Analysis Office, University of Hawaiʻi; prepared at the request of Kamehameha Schools

- Among four cohorts of Native Hawaiian female students at UH–West Oʻahu, the 2013 cohort had the lowest rates of retention, with 45 percent enrolling in the fall semester of their second year of college, 34 percent enrolling in the fall semester of their third year, and 37 percent enrolling in the fall semester of their fourth year.
- Generally, in these same four cohorts, retention rates decreased for Native Hawaiian female students at UH–West Oʻahu over a three-year period.
- The average one-year retention rate is 61 percent of Native Hawaiian female students at UH–West Oʻahu (see table 1.2), based on data from four cohorts.

NATIVE HAWAIIAN MALES—DETAILED DATA ON UH FOUR-YEAR COLLEGES

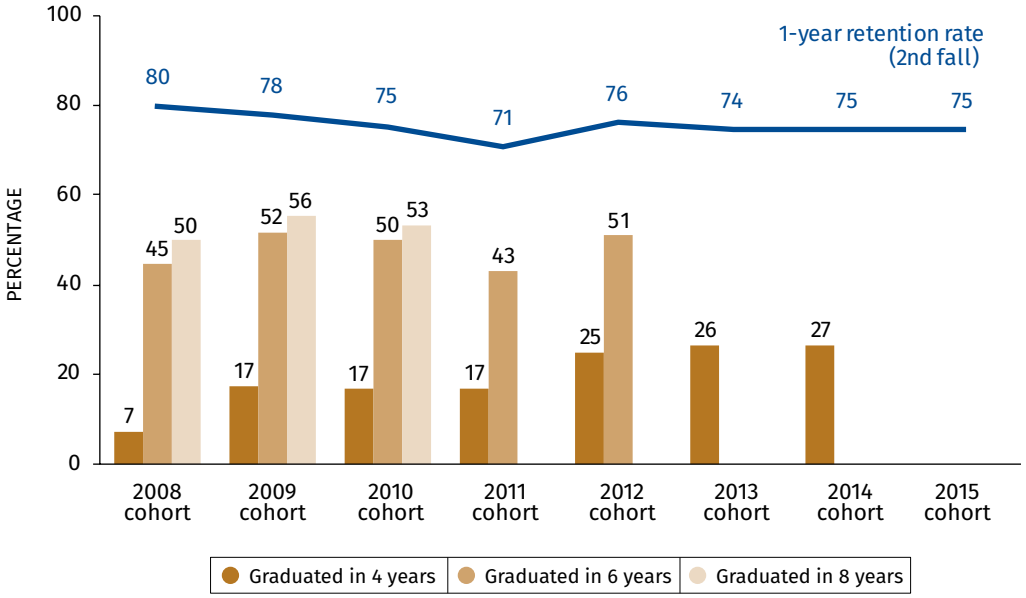
Among Native Hawaiian males who are first-time, full-time students at UH–Mānoa, three in four (75 percent), on average, go on to enroll for the fall semester of their second year of college (see table 1.2). Whereas 71 percent of the 2011 cohort of Native Hawaiian male students enrolled in fall of year two at UH–Mānoa—a decrease from 80 percent among the 2008 cohort—retention rates rebounded in the 2012 cohort (76 percent) and remained relatively steady thereafter (fig. 1.109). On average, about 25 percent of Native Hawaiian male students at UH–Mānoa do not make it to fall of their second year of college (not shown).

Completion data illustrate tremendous progress for Native Hawaiian males earning their bachelor's degree at UH–Mānoa: Between the 2008 and 2014 cohorts, the four-year graduation rate among Native Hawaiian male students nearly quadrupled, increasing from 7 to 27 percent. This improvement points to notable gains for Native Hawaiian males at UH–Mānoa, though the results are comparatively lower (7 percentage points) than the four-year completion rate of Native Hawaiian females in the 2014 cohort. About half of Native Hawaiian males took six or fewer years to graduate at UH–Mānoa, with an overall rate of 48 percent across the five cohorts (see table 1.2).

Generally, one-year retention rates decreased, and four-year graduation rates increased among cohorts of Native Hawaiian male students at UH–Mānoa between the 2008 and 2015 cohorts.

Between 2008 and 2014, the four-year graduation rate for Native Hawaiian students at UH–Mānoa doubled for females (increasing from 17 to 34 percent) and nearly quadrupled for males (increasing from 7 to 27 percent).

FIGURE 1.109 Retention and graduation rates of Native Hawaiian male students at UH–Mānoa
[percentage, by cohort, retention into 2nd fall, and years taken to graduate, Hawaiʻi, 2008 to 2015]



Data source: Institutional Research and Analysis Office, University of Hawaiʻi; prepared at the request of Kamehameha Schools

Note 1: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

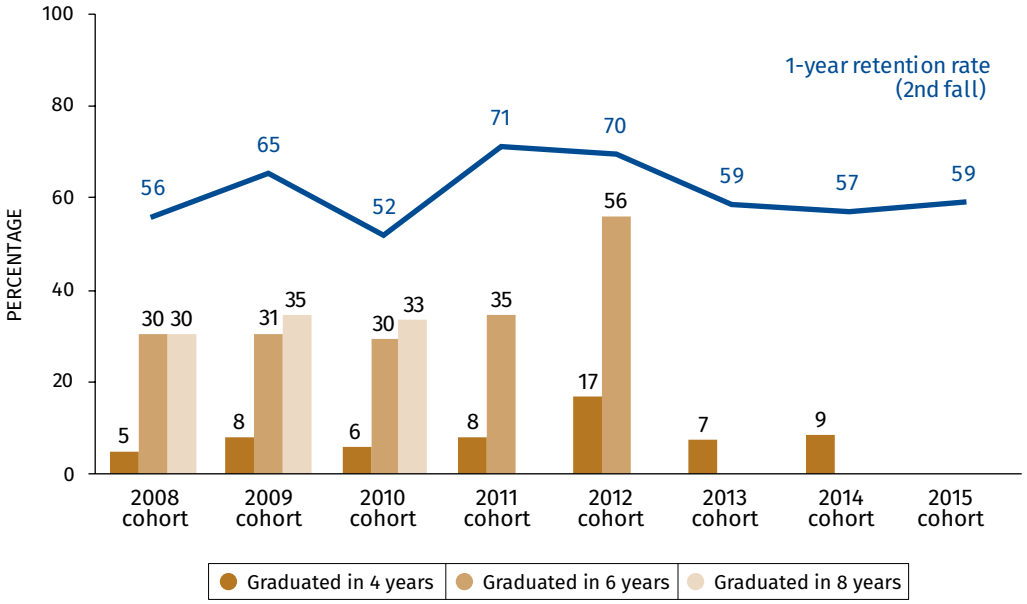
- Generally, we see four-year graduation rates increasing among Native Hawaiian male students at UH–Mānoa, nearly quadrupling from 7 percent among the 2008 cohort to 27 percent among the 2014 cohort.
- Based on graduation data across multiple cohorts, an average of 20 percent of Native Hawaiian males at UH–Mānoa graduate in four years, and 48 percent graduate in six years (see table 1.2).
- The average one-year retention rate is 75 percent of Native Hawaiian male students at UH–Mānoa, based on data from eight cohorts. This means that three in four enroll in the following fall semester for their second year of college (see table 1.2).

At UH–Hilo, 61 percent of Native Hawaiian male students, on average, persisted through the first year of college among cohorts from 2008 to 2015 (see table 1.2). One-year retention rates were notably lower for Native Hawaiian male students in the 2008 cohort (56 percent) and the 2010 cohort (52 percent), followed by a dramatic increase in 2011 (71 percent) (fig. 1.110). Since then, retention declined again and has remained steady at just under 60 percent. The fluctuation observed between 2009 and 2011 is consistent with rates observed nationally in the wake of the 2008 recession.

About 9 percent of Native Hawaiian males graduate in four years at UH–Hilo, based on cohort data from 2008 to 2015 (see table 1.2), whereas 91 percent do not. The data show changes in four-year graduation rates from 5 percent of the 2008 cohort to 17 percent of the 2012 cohort, dropping sharply again to 7 percent of the 2013 cohort. About half of the 2012 cohort had completed their degree in six years (56 percent), which was the highest six-year completion rate, compared with other cohorts. On average, 37 percent of Native Hawaiian male students graduated in six years across the 2008 to 2012 cohorts at UH–Hilo (see table 1.2), whereas 63 percent did not—almost identical to that of Native Hawaiian females at UH–Hilo (38 percent) and 12 percentage points lower than the rate for Native Hawaiian males at UH–Mānoa (48 percent).

When viewed together, retention and graduation rates among Native Hawaiian males at UH–Hilo show considerable fluctuation between 2008 and 2015—similar to patterns seen among Native Hawaiian female students at UH–Hilo (see fig. 1.107).

FIGURE 1.110 Retention and graduation rates of Native Hawaiian male students at UH–Hilo
[percentage, by cohort, retention into 2nd fall, and years taken to graduate, Hawaiʻi, 2008 to 2015]



Data source: Institutional Research and Analysis Office, University of Hawaiʻi; prepared at the request of Kamehameha Schools

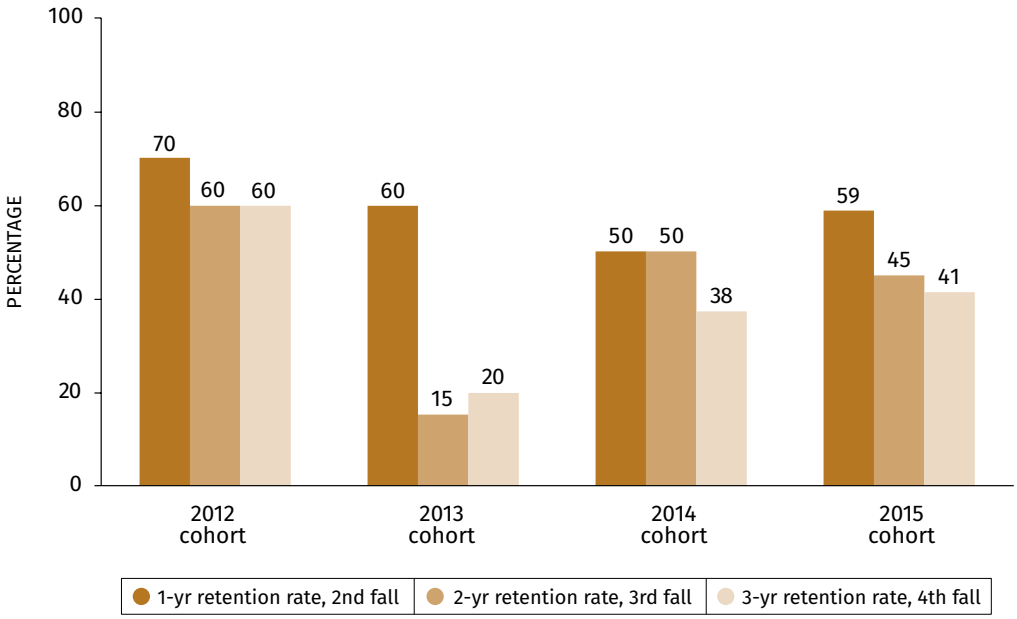
Note 1: Missing lines or bars indicate data that are unavailable, not applicable, or suppressed due to small sample size.

- The four-year graduation rate of Native Hawaiian male students at UH–Hilo increased from 5 percent among the 2008 cohort to 17 percent among the 2012, before declining to 9 percent among the 2014 cohort.
- Based on graduation data across multiple cohorts, an average of 9 percent of Native Hawaiian males at UH–Hilo graduate in four years, and 37 percent graduate in six years (see table 1.2).
- The eight-year graduation rate of Native Hawaiian male students at UH–Hilo increased from 35 percent among the 2011 cohort to 56 percent among the 2012 cohort.
- The average one-year retention rate is 61 percent of Native Hawaiian male students at UH–Hilo, based on data from eight cohorts. This means that approximately three in five enroll in the fall semester of their second year of college (see table 1.2).

At UH–West Oʻahu, the average one-year retention rate among Native Hawaiian male students in the cohorts of 2012 to 2015 is 59 percent (see table 1.2). This means that nearly three in five students enroll for the fall semester of their second year of college, whereas 41 percent do not. UH–West Oʻahu saw fluctuation in one-year retention rates, decreasing from 70 percent among the 2012 cohort to 50 percent for the 2014 cohort, before climbing to 59 percent for the 2015 cohort (fig. 1.111).

The 2012 cohort, compared with other cohorts of Native Hawaiian male students at UH–West Oʻahu, had the highest one-, two-, and three-year retention rates. Students in the 2013 cohort saw a decrease of 45 percentage points between the one-year (60 percent) and two-year retention rate (15 percent). More study is needed to determine how much of this decline is due to students dropping out versus transferring to another college or university.

FIGURE 1.111 Retention rates of Native Hawaiian male students at UH–West Oʻahu
[percentage, by cohort, retention into 2nd fall, Hawaiʻi, 2012 to 2015]



Data source: Institutional Research and Analysis Office, University of Hawaiʻi; prepared at the request of Kamehameha Schools

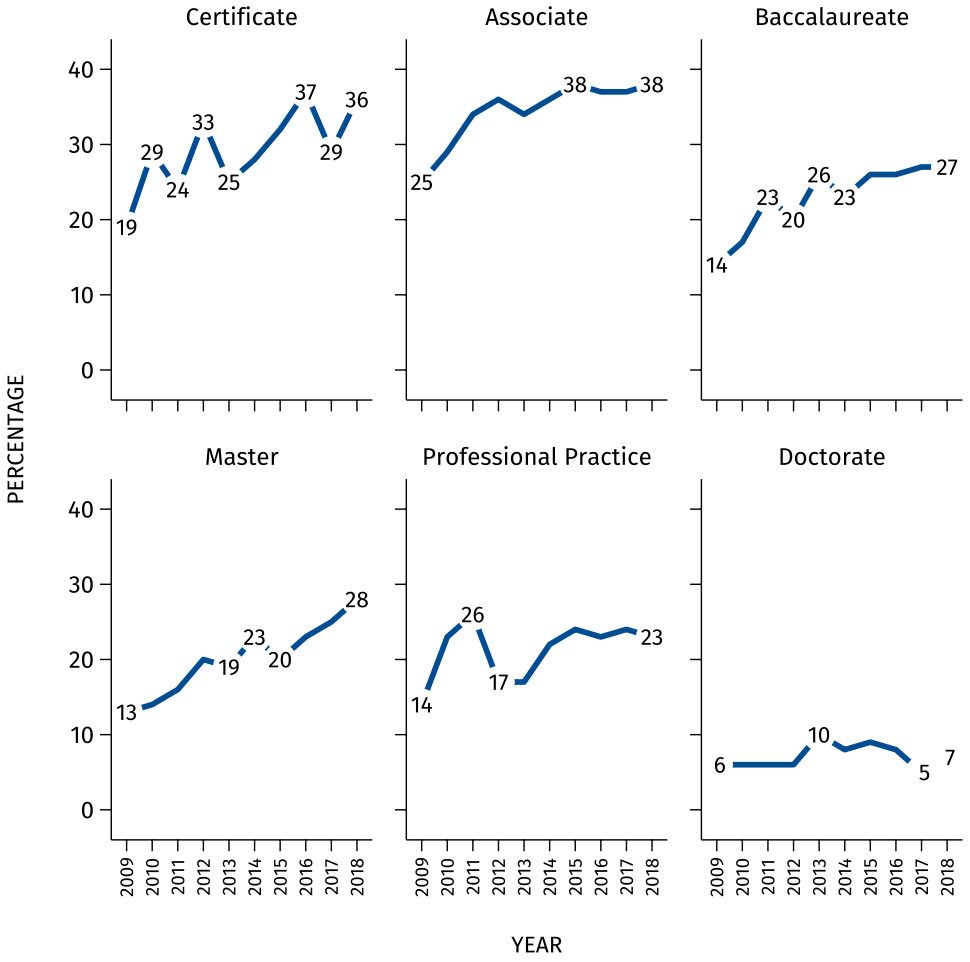
- The highest rates of retention are seen among the 2012 cohort of Native Hawaiian male students at UH–West Oʻahu, with 70 percent enrolling in the fall semester of their second year of college, 60 percent enrolling in the fall semester of their third year, and 60 percent enrolling in the fall semester of their fourth year.
- Generally, based on data from four cohorts, retention rates of Native Hawaiian male students at UH–West Oʻahu decreased over a three-year period.
- The average one-year retention rate is 59 percent of Native Hawaiian male students at UH–West Oʻahu, based on data from four cohorts. This means that approximately three in five enroll in the fall semester of their second year of college (see table 1.2).

UH DEGREES CONFERRED TO NATIVE HAWAIIANS

We now turn to trends in types of degrees earned by Native Hawaiians in the UH system. The decade spanning 2009 to 2018 saw an increase in degrees conferred to Native Hawaiians across all types except for doctorate degrees. The greatest gains emerged among master's degrees, with 28 percent of all master's degrees conferred in 2018 being awarded to Native Hawaiians—more than double the rate (13 percent) in 2009. At the undergraduate level, Native Hawaiians earned more than one-quarter (27 percent) of all bachelor's degrees conferred by the University of Hawai'i—13 percentage points more than that in 2009 (14 percent). Professional practice degrees earned by Native Hawaiians rose from 14 to 23 percent of all degrees conferred between 2009 and 2018, while doctorate degrees conferred increased by only 1 percent (fig. 1.112).

Native Hawaiians received a greater share of degrees conferred by UH between 2009 and 2018, with increases in the proportion of bachelor's degrees (13 percentage points), master's degrees (15 percentage points), and professional degrees (9 percentage points).

FIGURE 1.112 Trends in the proportion of degrees conferred by the University of Hawaiʻi to Native Hawaiians
[as a percentage of degrees awarded, by degree type, Hawaiʻi, 2009 to 2018]



Data source: University of Hawaiʻi—data prepared at the request of Kamehameha Schools

Note 1: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- Within the UH system from 2009 to 2018, there was an increase in the proportion of degrees conferred to Native Hawaiians at all degree levels except at the doctorate level.
- Of all the bachelor's degrees conferred by the UH system in 2009, 14 percent were conferred to Native Hawaiians; by 2018, the proportion had risen to 27 percent.
- A similar trend is seen at the graduate level, with an increase of 15 percentage points in the proportion of master's degrees awarded to Native Hawaiian students from 2009 to 2018.

Select Factors Impacting College Success

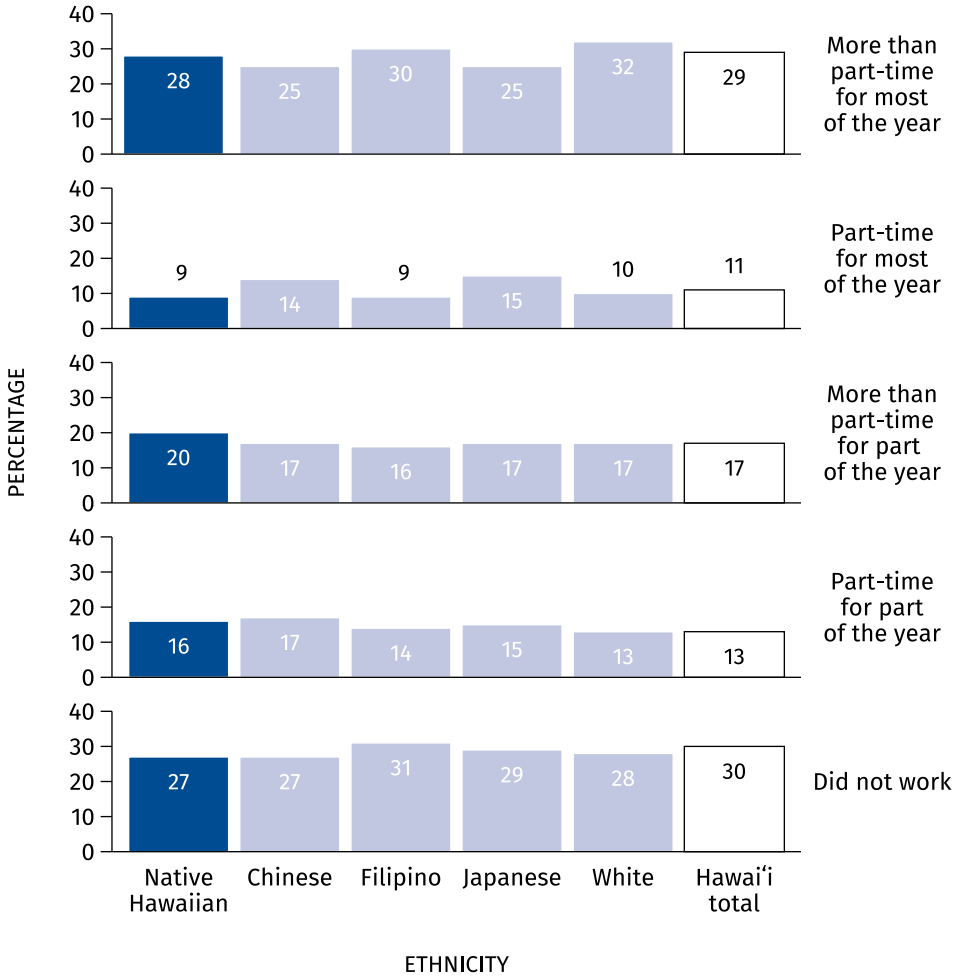
The journey to college completion is impacted by a myriad of individual, institutional, and ecological factors. In this section, we highlight data on several factors known to influence college success: working while in college, financial aid, transferring, and instructional faculty representation. These variables—although not representative of all the factors that affect postsecondary enrollment, retention, and completion—are included due to current availability of data.

WORKING WHILE IN COLLEGE

Working while in school is becoming more common among college students—often to cover rising tuition costs and diminishing public financial assistance (Goldrick-Rab 2016). Studies have shown that employed college students are more likely to attend part time, demonstrate lower academic achievement outcomes, and are less likely to finish school on time, compared with their peers who are not employed (Pascarella and Terenzini 2005; Stinebrickner and Stinebrickner 2003). This may be mitigated by working fewer than twenty hours per week, which is typically the structure of many on-campus jobs versus off-campus employment (Pike, Kuh, and Massa-McKinley 2008).

Among Native Hawaiian college students in general, nearly three in four (73 percent) work at least part of the year, and more than one in four (28 percent) work more than part time for most of the year (fig. 1.113). However, compared with other ethnicities (e.g., Filipino and White students), Native Hawaiian college students work fewer hours (Kamehameha Schools 2019). Looking specifically at Native Hawaiian college students who did not work, trend data show fluctuation over the past decade, with a significant decrease from 2012 to 2017. The percentage of nonworking Native Hawaiian college students (22 percent) in 2017 was 6 percentage points lower than the Hawai‘i total (28 percent) (fig. 1.114).

FIGURE 1.113 Work status of enrolled students
[as a percentage of young adults ages 18–24 who are enrolled in college, by ethnicity, Hawaiʻi, 2017]

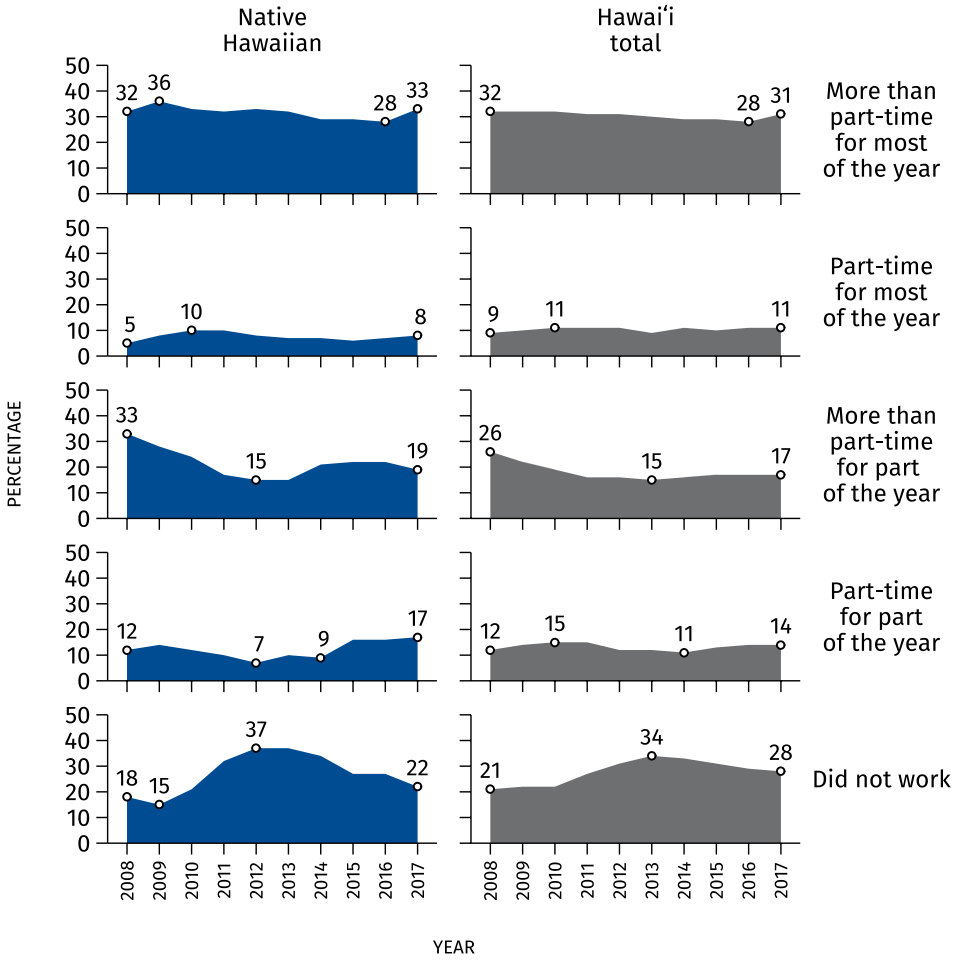


Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 5-year file

Note 1: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

- About three-quarters of Native Hawaiian college students (73 percent) work at least part of the year—a rate comparable to that of other major ethnicities in Hawaiʻi.
- More than one-quarter of Native Hawaiian college students (28 percent) work more than part time throughout the year, a rate similar to the Hawaiʻi total.
- The percentages of students who did not work or worked for part of the year are relatively similar across ethnicities; however, there is greater variability among ethnicities for college students who worked for most of the year.
- Among Native Hawaiian college students, 9 percent work part time for most of the year, compared with 15 percent of Japanese students and 14 percent of Chinese students.

FIGURE 1.114 Trends in work status of enrolled students
[as a percentage of young adults ages 18–24 who are enrolled in college, Hawai'i, 2008 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

Note 1: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- When looking at the ten-year period spanning 2008 to 2017, there was an upward trend in the proportion of Native Hawaiian college students who did not work.
- From 2009 to 2013, the percentage of Native Hawaiian college students who were not working increased from 15 percent to 37 percent—a trend similar to that of other ethnicities, though somewhat less pronounced among Filipino, Japanese, and Whites (not shown).
- The increase from 2009 to 2013 in the percentage of Native Hawaiian college students who did not work is explained by decreases in the percentage of those who worked for "part of the year."
- The percentage of nonworking Native Hawaiian college students decreased significantly in recent years and was 6 percentage points lower than the Hawai'i total in 2017.

FINANCIAL AID (PELL GRANTS)

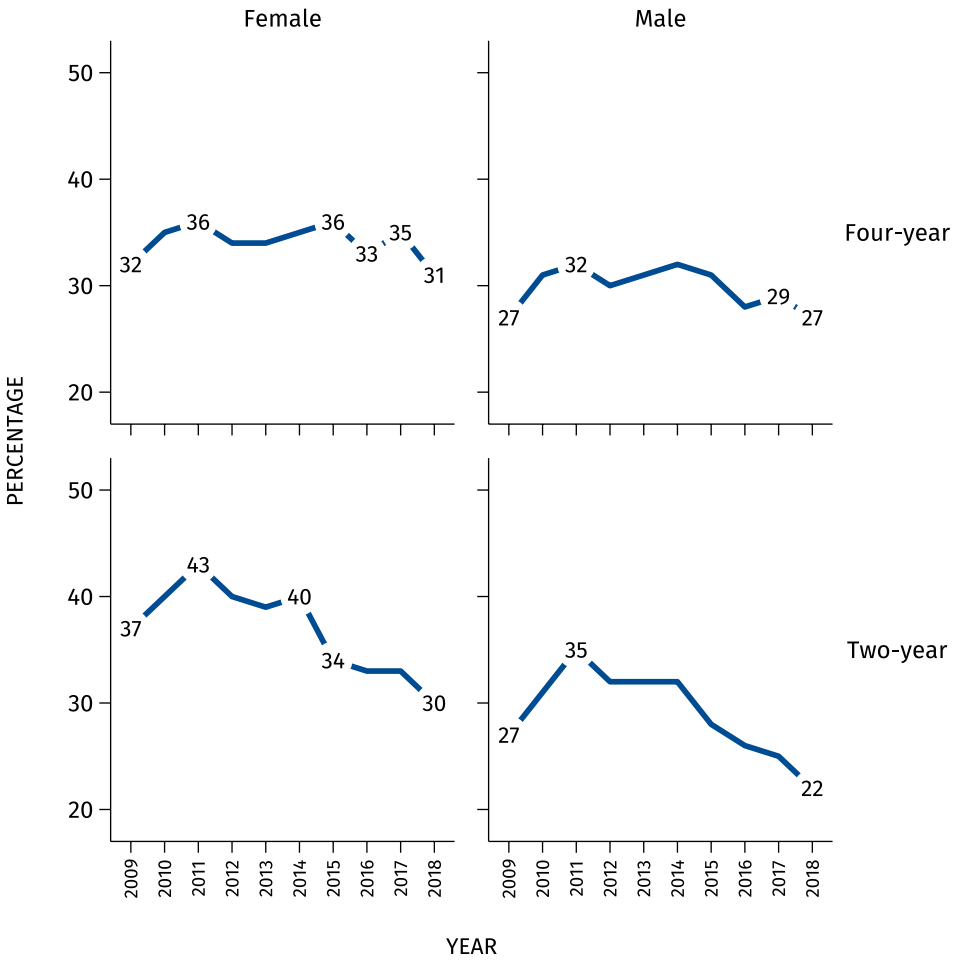
Financial aid has a direct impact on student success. Students who receive some form of financial aid—whether in loans, grants, or scholarships—tend to show higher persistence and completion rates, compared with students without financial aid (Chen and DesJardins 2010; Dynarski and Scott-Clayton 2013).

The Federal Pell Grant program provides tuition support for students attending college full time, which is defined as enrolling in at least twelve credits per semester. Within the UH system, 42 percent of full-time undergraduates received Pell grant assistance in fall 2018 (University of Hawaiʻi 2020). More female students receive Pell grants than do male students, likely reflecting relatively higher rates of female college enrollment.

Compared with their peers, a greater percentage of Native Hawaiians receive Pell grants, both at two-year and four-year campuses (not shown). Trend data for community colleges show fewer Native Hawaiians receiving Pell grants between 2011 and 2018, dropping by 13 percentage points for both female and male students. Although we are unable to confirm this relation at the time of writing, the decrease may be related to the overall decline of public financial assistance (Goldrick-Rab 2016).

At UH four-year institutions, changes in the percentage of Native Hawaiian students receiving Pell grants are less pronounced. For example, Pell grant recipiency among Native Hawaiian females peaked in 2015 at 36 percent, decreasing by 5 percentage points by 2018. For Native Hawaiian males, Pell grant recipiency reached 32 percent in 2013, dropping by 5 percentage points by 2018.

FIGURE 1.115 Trends in Native Hawaiian Pell grant recipients at the University of Hawai'i
[as a percentage of enrolled students, by sex and college type, Hawai'i, 2009 to 2018]



Data source: University of Hawai'i—data prepared at the request of Kamehameha Schools

Note 1: Percentages are based on Pell grants received in fall semesters.

Note 2: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- On the whole, female students at the University of Hawai'i are more likely than their male counterparts to receive Pell grant funding.
- Among Native Hawaiians at two-year UH colleges, Pell grant recipiency peaked in 2011 and 2014.
- In general, Native Hawaiian students at two-year and four-year UH colleges are more likely to receive Pell grants, compared with their peers from other ethnic groups (not shown).

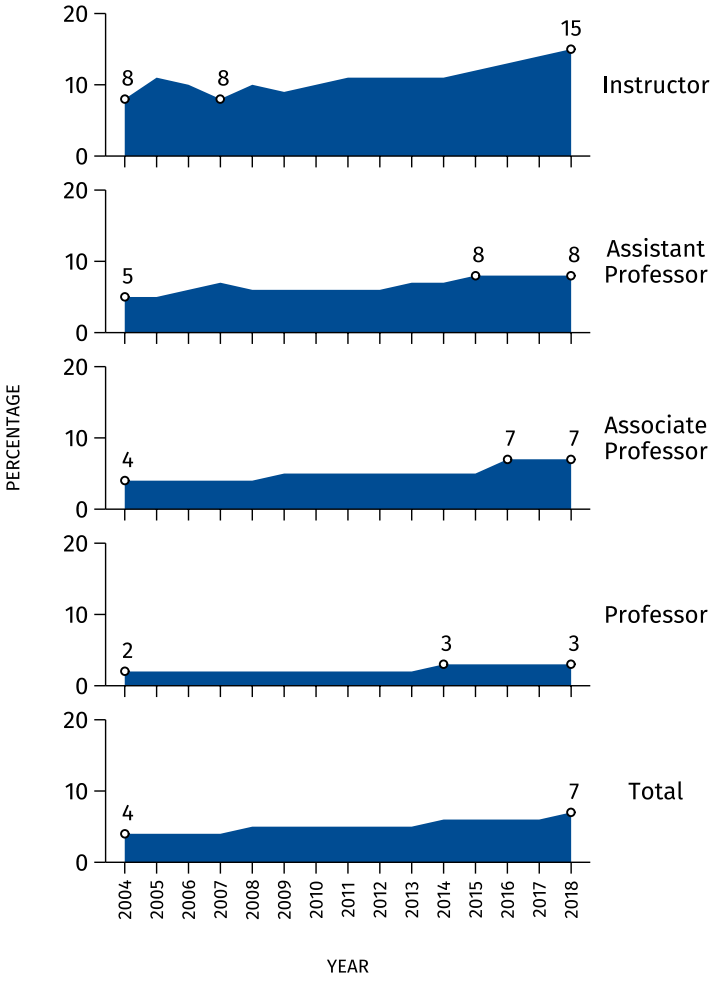
INSTRUCTIONAL FACULTY REPRESENTATION

A diverse and well-represented faculty is a critical element to cultivating learning environments that validate, affirm, and nurture students' identity and development. For Native Hawaiian and other Indigenous learners, continuity and relevance between home and college environments are important for fostering a sense of belonging and for supporting academic achievement (Museus and Quaye 2009; Museus and Neville 2012). A diverse faculty increases the visibility of academia as a career path for minority students and can also perpetuate inclusive decision-making and policy planning by offering diverse perspectives and interaction that benefit all students.

Our findings indicate an upward trend in Native Hawaiians being hired into UH faculty positions at all levels (fig. 1.116). On the whole, the percentage of Native Hawaiian instructional faculty in the UH system has nearly doubled, increasing from 4 to 7 percent between 2004 and 2018. These gains are positive; however, instructors, unlike professors, are not tenure-track positions and typically are paid per credit instead of receiving a steady salary and benefits. Moreover, Native Hawaiians are still deeply underrepresented among tenure-track faculty members, comprising only 3 percent of full professors in the UH system despite being 21 percent of Hawaiʻi's overall population. White faculty members continue to be the most prevalent in all position types in the UH system (not shown).

Native Hawaiian representation among UH instructional faculty has nearly doubled, growing from 4 to 7 percent between 2004 and 2018.

FIGURE 1.116 Trends in Native Hawaiian instructional faculty at the University of Hawai'i
[as a percentage of all instructional faculty in the UH system, by position, Hawai'i, 2004 to 2018]



Data source: UH, OHR Data Warehouse

Note 1: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

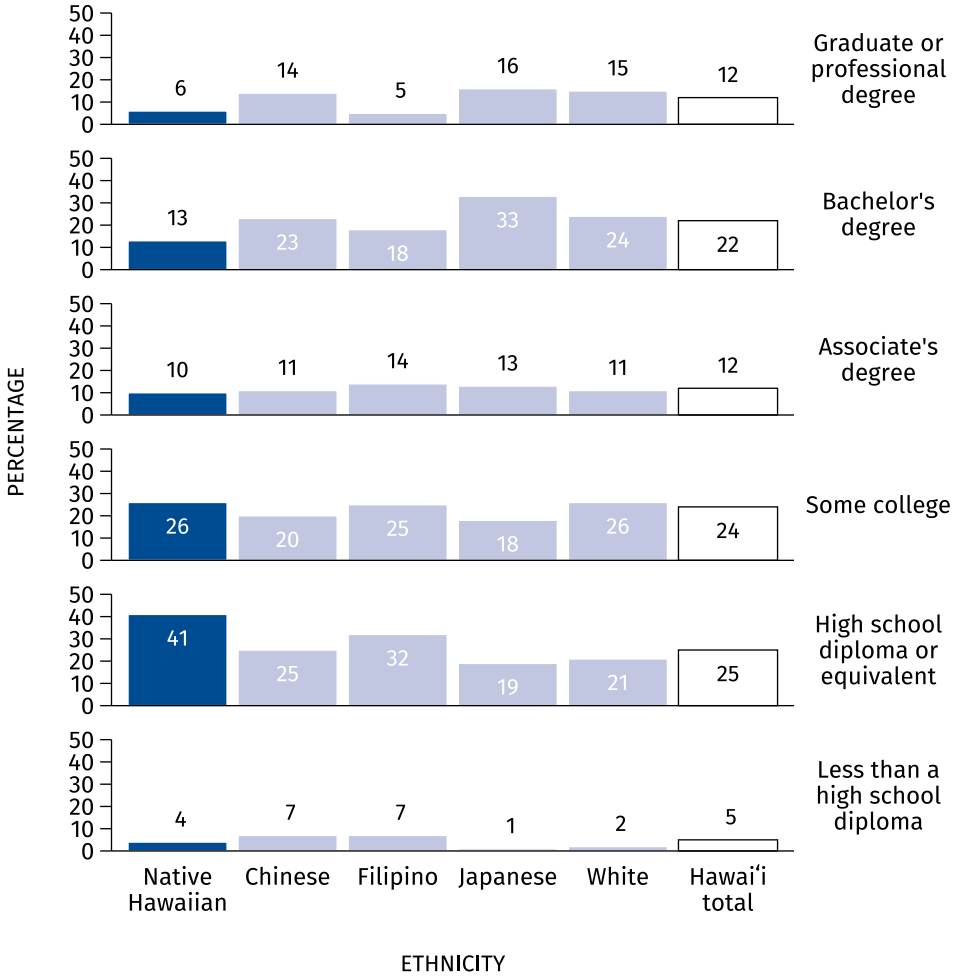
- Over the past fifteen years, Native Hawaiians have been increasingly represented among UH instructional faculty at all levels.
- The total percentage of Native Hawaiian instructional faculty has nearly doubled—from 4 to 7 percent between 2004 and 2018.
- The proportion of tenured faculty (professors and associate professors) who are Native Hawaiian has increased from a combined 6 percent to 10 percent between 2004 and 2018.
- The greatest gains in the proportion of Native Hawaiian faculty at UH have been made at the less stable instructor level—8 percent of instructors were Native Hawaiian in 2004, compared with 15 percent in 2018.
- The percentage of White faculty members at UH decreased from 62 to 50 percent between 2004 and 2018; however, Whites are still the most represented ethnic group among UH instructional faculty (not shown).

Parental Educational Attainment

Parental educational attainment is one of the strongest predictors of a child's future educational attainment and overall well-being. Compared with their counterparts among Hawaiʻi's other major ethnicities, Native Hawaiian parents with children living at home are the least likely to have a college degree. For example, a combined 29 percent of Native Hawaiian parents with children living at home have a college degree (i.e., an associate's degree or higher), compared with the Hawaiʻi total of 46 percent (fig. 1.117).

Although the proportion of Native Hawaiian parents with a bachelor's degree was higher in 2016 than it was in 2008 (fig. 1.118), degree completion is a persistent challenge. For instance, about one in four Native Hawaiian parents has attended but not finished college (fig. 1.117). Generally, college degree attainment among Native Hawaiians is most likely to happen at younger ages, and particularly before childbirth (Kamehameha Schools 2019).

FIGURE 1.117 Educational attainment of parents with children living at home
[as a percentage of parents with children ages 17 and younger living at home, by ethnicity, Hawai'i, 2017]

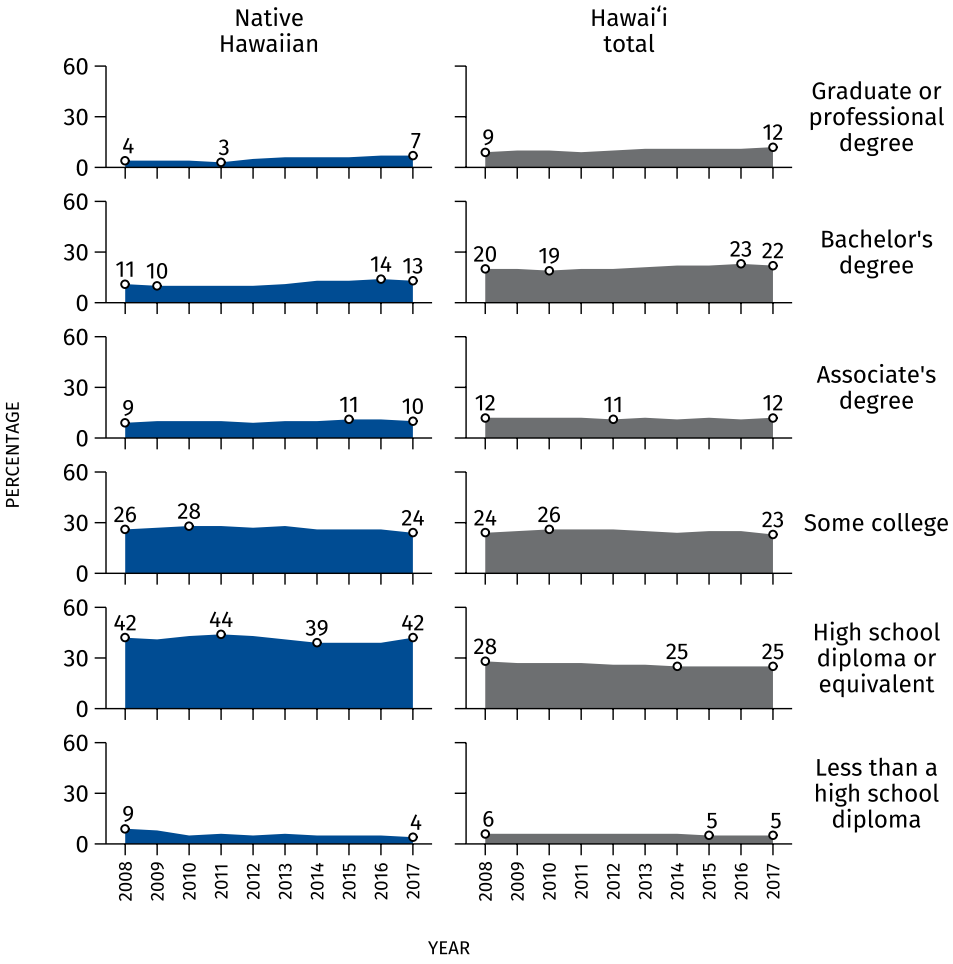


Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 5-year file

Note 1: The designation "White" in this chart refers to non-Hispanic Whites, alone or in combination with other ethnicities, as defined by the American Community Survey.

- Compared with their counterparts among Hawai'i's other major ethnicities, Native Hawaiian parents with children ages seventeen and younger living at home have the lowest rate of college degree attainment, with a combined 29 percent having earned an associate's degree or higher.
- Among Native Hawaiian parents with children living at home, nearly one in five (19 percent) has a bachelor's degree or higher.
- Among Native Hawaiian parents with children living at home, about one in four (26 percent) has attended but not completed college.

FIGURE 1.118 Trends in educational attainment of Native Hawaiian parents with children living at home
[as a percentage of parents with children ages 17 and younger living at home, by Native Hawaiian and Hawaiʻi total, 2008 to 2017]



Data source: US Census Bureau, American Community Survey, Public Use Microdata Sample 1-year files

Note 1: Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

- Among Native Hawaiian parents with children ages seventeen and younger living at home, gains were realized in the attainment of a bachelor's or graduate degree, from a combined 15 percent to 20 percent between 2008 and 2017—an increase similar to that of the Hawaiʻi total.
- Among Native Hawaiian parents with children living at home, college degree attainment (i.e., associate's, bachelor's, and graduate degree) is on the rise, increasing from a combined 24 percent to 30 percent between 2008 and 2017.

- From 2008 to 2017, the percentage of parents whose highest level of educational attainment was an associate's degree did not change significantly among any ethnicity in Hawai'i (not shown).
- The percentage of Native Hawaiian parents whose highest degree is a high school diploma remained stable over time, whereas the proportion of those with less than a high school diploma declined by 5 percentage points, from 9 to 4 percent between 2008 and 2017.

Although postsecondary attainment has been the focus of our analysis of the educational well-being of adults, families, and communities, we acknowledge that quality educational experiences and pathways come from a variety of environments beyond mainstream classrooms. For Native Hawaiians, the educational journey begins with ʻohana and is augmented by kaiāulu and connections to the ʻāina that surrounds us. Our formal learning also extends into diverse workspaces such as apprenticeships, internships, and employment. Key across all environments is that learners be provided with equitable opportunities to develop and facilitate character, knowledge, skills, abilities, and competencies to pursue their goals and kuleana. Ensuring access to a full range of learning opportunities prepares Native Hawaiian learners to thrive professionally and culturally in the twenty-first century and beyond.

Specific to higher education, our findings suggest some advancements in college enrollment and completion within our Native Hawaiian communities. More work is needed to improve retention and graduation rates of Native Hawaiians enrolled in the public university system of Hawai'i. We hope to see an upward trend in learning and life success as the next generation of Native Hawaiians accesses greater educational opportunities and can support the educational success of their own children. Moreover, we believe the strong, prevalent, culture-based opportunities and community efficacy will drive positive change.

On the other hand, there is still much work to be done. Native Hawaiians continue to demonstrate lower educational attainment and earnings, compared with other major ethnicities in Hawai'i. This affects the livelihood and overall well-being of Native Hawaiians and raises implications for Hawai'i's economy and industries. As a college degree generally serves as a "ticket" for greater participation in the economy and workforce, the relatively low proportion of college-educated Native Hawaiians may suggest negative impacts for Native Hawaiians' overall ability to earn livable wages. In addition to supporting college-bound pathways for Native Hawaiian learners, it is equally important that we continue to equip our Native Hawaiian youth and adults with relevant twenty-first century skills and experience so that they have opportunities to become creators of Hawai'i's future. Our kuleana extends beyond college, career, and community readiness to transforming education systems that are informed by Native Hawaiian ʻike and mana'o (ideas).

Finally, the onset of the COVID-19 pandemic has had a devastating effect on our islands and beyond. But it has also presented an opportunity to reimagine Hawaiʻi, including the educational pathways that lead to lifelong success and fulfillment. Indeed, with significant ancestral knowledge of these islands, and equipped with a wider educational toolset, Native Hawaiians are in a position to actively catalyze and lead in the rebuilding and directing of Hawaiʻi's future. The rich, innovative culture and learning systems of our ancestors have allowed our lands to thrive, and abundant lands, in turn, have nourished and inspired a robust population engaged in lifelong learning and excellence.

CONCLUSION

Today's lāhui includes four generations of mākua, representing a wealth of intelligence, experience, and valuable relationships. Native Hawaiian well-being is rooted in relationships—with one's moʻokūʻauhau, ʻāina, and extended ʻohana. These relationships are in our DNA, mutually reinforcing, and critically tied to a sense of kuleana and collective purpose in working toward a thriving lāhui.

Measuring the health of foundational relationships between people, genealogy, land, and family is a work in progress. There is still much work to be done to quantify what Native Hawaiians value most and to render a complete picture of Native Hawaiian well-being among adults, families, and communities. Nonetheless, while conventional data collection is limited, the available data enable us to assess some important areas of stagnation, progress, and worsening conditions among Native Hawaiian adults.

In a broad sense, we have reviewed how Native Hawaiian families draw upon their faith and each other as sources of strength. Overall well-being is mixed, in terms of outcomes. Our families are less likely to have children, compared with previous decades, and are increasingly likely to live outside Hawaiʻi, where they are able to find higher income and educational attainment. Despite facing disproportionate rates of illness, poverty, and systemic disadvantage in school settings, today's ʻohana have relatively stable health insurance coverage and employment, and growing options for Hawaiian culture-based education, civic engagement, and participation in shaping Hawaiʻi's future.

During the past five or ten years, the overall situation has not changed significantly across many facets of Native Hawaiian well-being. For Native Hawaiians, poverty rates and trends in households receiving public assistance are about the same as they were in 2008. Trends in employment rates among Native Hawaiians vary across regions but have had only minor ups and downs, with outliers in West Hawaiʻi (significant decrease) and East Hawaiʻi (significant increase). Most indicators of physical and mental health for Native Hawaiians have not changed significantly and continue to suggest that Native Hawaiians are generally less healthy, compared with other major ethnicities in Hawaiʻi.

Areas of progress include higher education, where Kānaka Maoli are seeing increased rates of enrollment, retention, and degree completion, as well as higher representation among instructional faculty as an entryway into the UH system. Other highlights include notable increases in degree attainment for Native Hawaiian parents with children living at home, and increased graduation rates of Native Hawaiian students across UH campuses. For social well-being, we are seeing less household density among housing units occupied by Native Hawaiian-headed households. In terms of health, Native Hawaiians are seeing gains in

physical activity, healthy diet, health insurance coverage, and access to doctors. Financially, Native Hawaiians are showing resilience in employment, having experienced relatively greater losses following the 2008 recession and yet returning to an employment rate of 94 percent by 2017.

Areas where Native Hawaiians have lost ground include access to higher education funding, evidenced by a significant decrease of Native Hawaiian Pell grant recipients between 2012 and 2018. From a health perspective, the prevalence of heart attacks is on the rise for Native Hawaiians. Financially, the percentage of Native Hawaiian households receiving food stamps nearly doubled in the past decade. From a socioemotional standpoint, the overrepresentation of Native Hawaiians in child abuse and suicide rates—especially youth—is of particular concern.

In reflecting on the mixed results presented in this chapter, it is useful to refocus on the destination of overall well-being—being able to choose a life path, attain a desired lifestyle and livelihood, and do so in a way that is rooted in one's belief systems and worldview. For Native Hawaiians, we must capitalize on intergenerational strengths and collective efficacy to create a better future, where attainable housing options are part of supportive community and ʻāina systems, and fulfilling jobs are embedded within an economic landscape supportive of, and led by, Native Hawaiians. There is strong momentum and civic engagement in our Native Hawaiian community for a sustainable Hawaiʻi, as manifested via mālama ʻāina and aloha ʻāina values and endeavors. These efforts help drive an abundance of, and access to, native flora and fauna as part of a Hawaiian landscape of medicine, food, fiber, and other natural and cultural resources. This future-forward view means that Kānaka Maoli are healthy, and that our youngest and oldest are cared for as they were in days of old, and that our people can persist through adversity, including global threats such as the COVID-19 pandemic. E ola mau ka ʻohana Hāloa—the generations of Hāloa, our first ancestor, persist!