

Introduction

Me ‘oukou ka welina o ke aloha—warm greetings to you all.

THE JOURNEY

This publication continues a forty-year journey to gather and share data about Native Hawaiian education and well-being. Our Kānaka Maoli worldview encourages us to always nānā i ke kumu—look to the source, to learn from our past (Pukui 1983). The mo‘okū‘auhau (lineage, genealogy) of *Ka Huaka‘i 2021* began in 1983 with the first *Native Hawaiian Educational Assessment*.

Having data available to understand the conditions and needs of our people was crucial in guiding policy and programs designed to lift and support Native Hawaiian families and communities. Each decade since has marked a milestone revisiting of these data, with new systems and technology allowing more frequent updates. What remains unchanged, however, is our commitment to highlight the unique strengths and challenges of Kānaka Maoli and to identify opportunities to generate greater well-being. *Ka Huaka‘i*, which means “the journey,” documents this commitment and our ongoing march toward becoming a thriving lāhui (nation, people).

Within “huaka‘i” are two powerful Hawaiian words that underscore the purpose of this publication. One of the many meanings of “hua” is fruit or seed, which references the potential for growth and change. It is our hope that the data and findings within *Ka Huaka‘i 2021* germinate new ways of thinking and catalyze bold action to uplift our people. The word “ka‘i” also has several meanings, including to lead, to carry, and to walk in formation. Similarly, the information within this volume requires people who are willing to be “lifters” to carry forward ideas that inspire diverse and inclusive coalitions that improve education for Kānaka Maoli.

Ka Huaka'i 2021 offers:

1. Multidisciplinary analysis of educational outcomes of Kānaka Maoli
2. Assessment of changes in Kanaka Maoli well-being
3. Identification of gaps in our knowledge
4. New areas of energy and promise that may not be captured in available data sources

A note on terms: Throughout *Ka Huaka'i 2021*, we use various references for Native Hawaiians, including “Kānaka Maoli,” “Kānaka 'Ōiwi,” or simply “Kānaka” and “'Ōiwi.” For our purposes, these terms are used interchangeably and describe any individual who can trace their genealogy to the original inhabitants (or their descendants) of the Hawaiian Islands, regardless of blood quantum or racial/ethnic identity. Data sources consulted for this volume use different definitions to identify and report on Native Hawaiians, resulting in occasional inconsistencies. For more information on data sources, terms, and definitions, see “[Methods, Data Sources, and Definitions](#)” at the end of this volume.

The story of Kanaka Maoli well-being is one of resistance, resilience, and resurgence. Every Native Hawaiian living today is a survivor, and our vibrancy as Kānaka Maoli still shines, despite systemic forces that attempt to silence or oppress. The energy inspired through growth and regrowth is palpable in the relentless pursuit of 'ike kupuna (ancestral knowledge and wisdom), aloha 'āina (patriotism, love for the land), and kūpono (uprightness), and in the call that many of our people answer to serve as leaders in their communities. The increase in cultural vibrancy and cultural practices among Native Hawaiians in recent generations is a promising indicator of well-being for our lāhui. Not all of these important markers are easily quantified, but the hō'ailona (signs) are there.



The Native Hawaiian population is growing and expanding its ability to pursue collective identity and self-determination.



We say, “He ‘onipa‘a ka ‘oia‘i‘o—*Truth is steadfast and not changeable*” (Pukui 1983, 94). This belief highlights our reverence for facts and, by extension, justice. Truth and justice are sometimes incomplete, misunderstood, or even purposely withheld. As aboriginal people whose nation was illegally overthrown and whose language and culture were forcibly oppressed, we know the agony of colonization and historical trauma. We understand the word extinction, as it occurs daily throughout our ‘āina (land). We know too well the destruction caused by pandemics and political divisiveness. And far too many continue to struggle to exist every day in our homeland. Nevertheless, we persist and remain ‘onipa‘a (steadfast), willing to ‘ai pōhaku (eat stones) to ensure the legacy of our people.

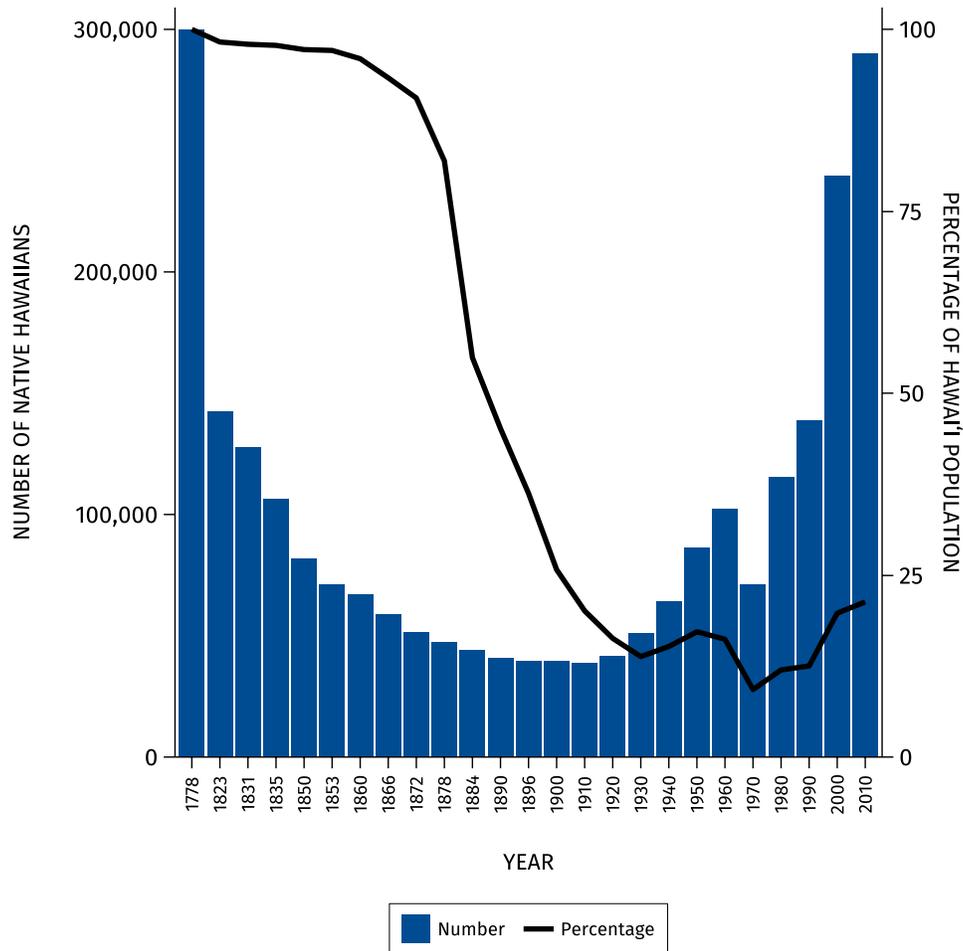
‘Onipa‘a was the motto of Queen Lili‘uokalani, the last reigning monarch of the Hawaiian Kingdom. Her love for her people led her to cede the throne temporarily to avoid bloodshed. Nearly 130 years later, we remain steadfast in our desire for justice to be restored through a more equitable and culturally revitalizing education and social system.

Data and trends play a critical role in understanding social change and community well-being. At the same time, models are inherently incomplete and partial. To examine educational outcomes of Native Hawaiians, it is not enough to disaggregate the data; we must contextualize it and scrutinize it for gaps and biases.

For example, figure 0.1 depicts population trends for Native Hawaiians in Hawai‘i from 1778 to 2010. It is well documented that Kānaka Maoli suffered a massive population decline that started with Western contact and extended into the early twentieth century. The bars represent the total number of Native Hawaiians in the islands over a period of two hundred-plus years. The curving line indicates Kānaka Maoli as a percentage of Hawai‘i’s total population.

Considerable disagreement exists among scholars about the size of the Native Hawaiian population at the time of Western contact. Approximations range from Nordyke’s (1989) conservative estimate of 300,000 to Swanson’s (2019) more recent estimate of 683,200 to Stannard’s (1989) figure of 800,000. According to the US Census Bureau, there were 289,970 Native Hawaiians living in Hawai‘i in 2010—a number that approaches Nordyke’s estimate of the Native Hawaiian population in 1778.

FIGURE 0.1 Trends in the Native Hawaiian population in Hawai'i [1778 to 2010]



Data source: Nordyke 1989; 1990, 2000, 2010 Census

Note 1: Figures for 1970 are not directly comparable with those of other years due to changes in census definitions of race that year.

- Without immunity to foreign diseases, the Native Hawaiian population suffered tremendously from Western contact.
- The Native Hawaiian population increased steadily after 1910.
- By 2010, Native Hawaiians were similar in number to 1778 estimates but comprised less than a quarter of Hawai'i's total population.

There are many ways to interpret this chart. For example, the decline—or the resurgence—in overall numbers of Kānaka Maoli could be highlighted. Health and epidemiology inferences could be made, as could connections regarding the broader economic and political changes that occurred during this period. This figure could also call attention to the fact that Kānaka ‘Ōiwi, the descendants of the aboriginal population, are now less than a quarter (21.3 percent) of Hawai‘i’s total population. What cannot be seen in this chart, however, is the lived experience of Native Hawaiian people. This absence is a reminder that the perspectives and actual experiences of Indigenous peoples often exist outside conventional data structures.

Presently, data on Native Hawaiian well-being are drawn almost exclusively from sources funded by federal and state governments. As a result, the ways in which the data are collected, analyzed, and reported are often based on assumptions that (1) success defined from a White or Euro-American worldview represents the best outcome for all groups, and (2) if other racial and ethnic groups behaved more like Whites and Euro-Americans, they would experience better outcomes.

Given this backdrop, we caution against mistaking correlation for causality when interpreting findings in *Ka Huaka‘i 2021*. We also reject inferences that higher rates of negative outcomes experienced by Kānaka Maoli are attributable to intrinsic characteristics or cultural values and practices. Additionally, we advocate for known protective factors among Kānaka Maoli to be considered as pathways to reduce the disproportionality of negative outcomes for Native Hawaiians.

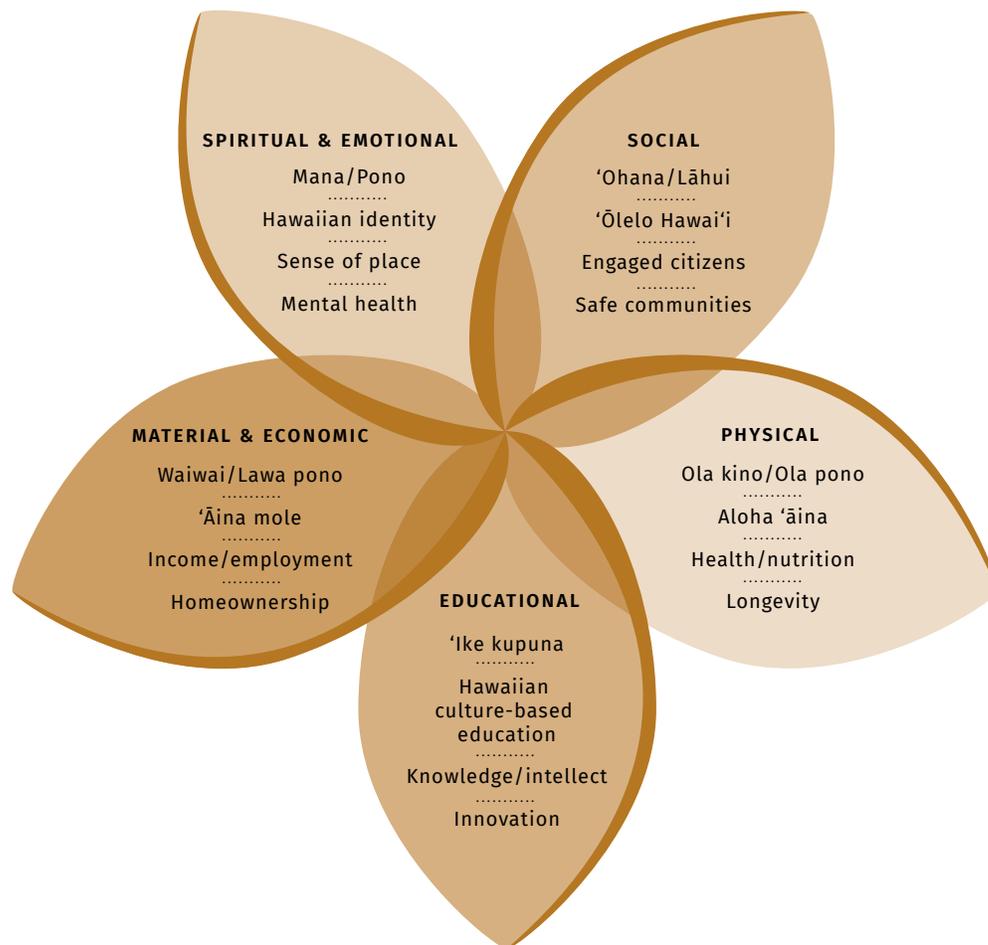
Available data clearly indicate that, as a group, Kānaka Maoli fare less well than most major ethnic groups on measures of well-being. While individual agency and responsibility for our choices are important, it is also critical to note that the effects of historical trauma, linked to legacies of colonization, imperialism, and dispossession of land, are important parts of the context in which we make choices. This legacy of historical injustice is amplified in the present by limited access to culturally based education, social services, medical and mental healthcare, and by persistent racialized structures of inequality.

NATIVE HAWAIIAN WELL-BEING

Today, Kānaka Maoli face a world that is increasingly complex and uncertain. Our ability to survive—and indeed thrive in the future—rests on the collective well-being of our lāhui. For Native Hawaiians, well-being manifests when we find pono (balance) and lōkahi (harmony) among the many aspects of our lives. A holistic and reciprocal understanding of well-being is common among Indigenous peoples, where the health of people is tied closely to the health of the land (Barnhardt and Kawagley 2005; United Nations 2006; Vanuatu National Statistics Office 2012; Statistics New Zealand 2013).

Recent decades have seen a renewed interest in describing and understanding Kanaka Maoli well-being. As we did in 2005, *Ka Huaka'i 2021* uses a pua (flower) to illustrate Native Hawaiian well-being with five interconnected petals: Social, Physical, Educational, Material and Economic, and Spiritual and Emotional (fig. 0.2). Unlike *Ka Huaka'i 2005*, where social and cultural well-being were combined, cultural well-being is integral across all petals. This model resonates with mo'olelo (histories) and scholarship that emphasize dimensions of Indigenous well-being that are ecological (McGregor et al. 2003), epistemological ('Aha Pūnana Leo and Ka Haka 'Ula o Ke'elikōlani 2009; Lili'uokalani Trust, and Culturally Relevant Evaluation and Assessment Hawai'i 2019), and spiritual (Meyer 2004; Kūkulu Kumuhana Planning Committee 2017). As described by a hui (group) of 'Ōiwi researchers and allies, "The desire to improve Native Hawaiian well-being is our unifying force. It brings communities together, merges missions of organizations, and bridges professional fields" (Kūkulu Kumuhana Planning Committee 2017, 2).

FIGURE 0.2 The Pua Model
[a Native Hawaiian perspective on well-being]



In the following section, we introduce five dimensions of well-being couched within a Native Hawaiian historical and cultural context. Findings from each dimension clearly demonstrate that colonization and US occupation left no aspect of Kanaka Maoli well-being unaffected. In addition to foreign diseases that decimated our population, the imposition of Western education and land reforms played pivotal roles in the dispossession of Kānaka 'Ōiwi and the suppression of our identity. Native Hawaiians are the pulapula (descendants, offspring) of those who fought against foreign systems designed to subjugate our language, identity, and culture—a struggle that continues to this day.

Social Well-Being

In a Kanaka Maoli world, social relationships are inseparable from individual health and well-being. Connections to 'ohana (families), kaiāulu (communities), 'āina, and pili 'uhane (spirituality) form the foundation on which an individual's identity is grounded. These connections are elevated by mana (life force, energy found in all things) and reinforce a deep kuleana (responsibility, obligation) to mālama (care for) others and our honua (world). For Native Hawaiians, individual identity is rooted in collective identity; personhood is peoplehood; and the health of the land is the health of the people. A rich social fabric—which weaves together ancestry and genealogy, traditions and culture, relationships and obligation—contributes to Kanaka Maoli social well-being.

HISTORICAL AND CULTURAL CONTEXT

Religion and spirituality governed the social, political, and economic conditions of human relationships in ancient Hawai'i. Native Hawaiian epistemology and ontology underscore the interdependence of akua (gods), kānaka (humans), and 'āina. For kānaka, assignment into a social class was determined by genealogy, not wealth or gender. Each class carried kuleana that served society. Classes also determined the allocation, appropriation, and distribution of land and goods (Kame'eleihiwa 1992).

It was believed that akua entrusted their direct descendants, the ali'i (chiefs) and high-ranking nobles, with control over resources and social order. Ali'i were further stratified based on how much land they ruled, which could be parts of an island, an entire island, or several islands. Below the ali'i were kāhuna, the priests and experts in a field, including healers, builders, and seers. The largest class, the maka'āinana, were commoners who were fishermen, farmers, and laborers. At the bottom of the system were the kauā outcasts (war captives), who were not allowed to marry.

The social hierarchy was held together by 'Ai Kapu (a set of restrictions regarding food). 'Ai Kapu separated the mana of ali'i from that of others, as well as kāne (men) from wāhine (women). Under 'Ai Kapu, every person had a function and a duty to contribute to the collective good. The maka'āinana, for example, not only worked to feed their 'ohana but also paid taxes to the ali'i, who, in turn, ensured the rights and protection of the people and the land. Reciprocity embedded within the kapu system (strict rules and systems of social order) underscores the significance of balance in Kanaka Maoli society.

Soon after the kapu system was abandoned in 1819, American missionaries arrived in Hawai'i. Along with devastating diseases, settlers brought capitalist ideas that spurred unsustainable whaling and sandalwood industries. The rise of subsequent pineapple and sugar plantations caused an influx of immigration to Hawai'i. A Western-style government afforded foreigners greater legal and political power. In thirty short years (1820 to 1850), the social, political, and economic landscape of Hawai'i experienced radical change despite repeated attempts by Kānaka 'Ōiwi to push back (Sai 2013; Beamer 2014).

The social upheaval continued during the latter half of the nineteenth century and throughout the 1900s. Key events included the illegal overthrow of the Kingdom of Hawai'i (1893) and US "annexation" (1898), increased militarization and World War II in the 1940s, Hawai'i statehood (1959), and a booming tourism industry (1950s to present) that further transformed 'āina and commodified Native culture. These changes fermented frustration and resistance among Kānaka Maoli, but it was not until the 1970s that this energy materialized into a growing movement of cultural, social, and political resurgence called the Hawaiian Renaissance.

Forty years have passed since Dr. George Kanahahele, renowned Hawaiian historian, activist, and author, wrote that his great hope was for the "permanency of the Hawaiian Renaissance" (Kanahahele 1979). The perpetuity of the renaissance is evident in recent examples such as Hawai'i's proclamation of 2018 being the "Year of the Hawaiian," global protests over the Thirty-Meter Telescope on Mauna Kea, the first-ever Hawai'i Department of Education (DOE) Office of Hawaiian Education, and the epic Mālama Honua Worldwide Voyage. Such renewed cultural and political abundance exemplifies how, in the face of colossal change, Native Hawaiians continue to assert our identity, lineage, history, spirituality, land, and livelihood.

Material and Economic Well-Being

As Kānaka Maoli, we see the health of our 'āina as a key indicator of material and economic well-being. But what is material and economic well-being? And what are the inherent differences and tensions between Indigenous economics—including that of Native Hawaiians—and the economic systems we primarily experience today?

Conventional economic theories attempt to explain how wealth is created and distributed in communities. In Western traditions, economics refers to the branch of knowledge concerned with the production, consumption, and transfer of wealth; or as the condition of a region or people regarding material prosperity. For much of the world, the idea of economics—and money—is rooted in scarcity, the drive to fulfill human wants, and the desire to produce satisfaction—even if our wants exceed what nature can provide.

Indigenous economic worldviews turn these concepts on their head. For Kānaka Maoli, sufficiency is the dominant idea, where our human needs and wants are generally finite, and the means to realize needs and wants are adequate. For example, a lawai'a (fisherman) living in a healthy natural environment, with strong social ties, may have wants that are scarce and abundant means to meet those wants. In such a system, the ability to achieve personal satisfaction does not jeopardize the system for others.

Native peoples, like all humans, also have additional "wants" for precious items. However, these are generally secondary to securing essential resources for our community, our family, and ourselves. Indigenous economist Rebecca Adamson (2013) refers to this idea as "enoughness;" Kānaka Maoli call it *lawa pono* (fully sufficient), where enough is plenty.

Thriving 'āina is essential to a thriving Indigenous economy—a truth that is often short-changed in the drive for commerce and capitalism. Sustainable economics and sustainable ecosystems are ultimately linked. Indigenomics (Uvila and Pasanen 2009; Hilton, forthcoming), circular (Stahel 2019), regenerative (del Marmol 2017), and other economic frameworks attempt to strike a balance closer to that of Indigenous societies (Kelly and Woods, forthcoming).

HISTORICAL AND CULTURAL CONTEXT

Being the most isolated island chain on earth, Hawai'i's traditional economy was necessarily circular and regenerative. What Europeans witnessed when they arrived was a society fully meeting its basic needs (food, water, housing, clothing, transportation, places of worship) and also producing a variety of additional wants (for example, featherwork, stone and wood carvings, jewelry, surfboards, and hōlua, or sleds). I ka wā kahiko, in historical times, there were times of greater abundance than others, and the system of land management and population distribution responded accordingly. Conflict may have been as much, if not more, a matter of honor and politics (acquiring mana) as it was competition for natural resources.

Following Western contact, the confluence of war, foreign influence, and disease had a devastating effect on Native socioeconomic systems. Kamehameha's conquest to unite the Hawaiian Islands, though critically important to our history, also diverted human and other resources from society for a period of time spanning about twenty-five years. When the mō'i (king) died in 1819, his people were in the process of rebuilding strong agriculture, aquaculture, housing, maritime, and other critical pillars of the Kanaka economy.

The population collapse and dispossession of Kānaka Maoli that began in the 1800s resulted in diminished support systems and heightened economic barriers for Native Hawaiian families and communities. These historical realities persist into the present day and form the backdrop of Native Hawaiian material and economic well-being. Today, the legacy of US occupation and the dominance of Western capitalism mean that Kānaka Maoli are more likely to understand the culture of scarcity and personal satisfaction than the culture of sufficiency and lawa pono.

Current and future generations of Native Hawaiians are in a position to choose what path forward to take. What will economic and material well-being mean to our people? It is not *if* we tackle food security, housing, health, and provision of other material needs, it is *how* we tackle them. Finding a way to reignite the culture of lawa pono and restore 'āina and cultural practices that generate enoughness are immense challenges and opportunities.

Spiritual and Emotional Well-Being

‘Ōiwi perspectives on spiritual and emotional well-being focus on living a balanced and productive life. In the same way that a person’s physical health or economic status plays an important role in shaping life experiences, so too does the degree to which they are able to draw strength and guidance from spiritual and emotional sources. Lōkahi is achieved by balancing the needs and contributions of akua, ‘āina, and kānaka. Understanding relationships across physical and metaphysical realms—at both the personal and the collective level—requires special attention when examining spiritual and emotional health of Native Hawaiians.

HISTORICAL AND CULTURAL CONTEXT

The concept of mana is at the core of Kanaka Maoli beliefs about spirituality and emotion. Pukui (1979) writes about mana as the storehouse of the supernatural power, linking a person emotionally to the ancestors, to a place in time now, and to the future yet unborn. In our mo‘olelo and practice, mana can be thought of as good and bad, or somewhere along the spectrum. Actions, effects, and consequences may be considered hewa (wrong) or pono (Crabbe, Fox, and Coleman 2017). Acknowledging that power is derived from spiritual and natural forces and that emotions are inextricably linked with pilina (relationships) offers a critical lens to this topic. While mana can be used to exert influence over others, it also provides confidence and inner strength for individuals in times of stress or uncertainty. Mana helps us to discover insights, balance multiple obligations, and manage our behavior. In a reciprocal way, mana and spiritual and emotional well-being can increase—or decrease—each other.

Spirituality among Native Hawaiians has evolved over many generations and continues to be expressed in multiple forms. Today, many Native Hawaiians practice spirituality through major religions like Buddhism, Catholicism, and Christianity while continuing to respect and worship traditional gods such as Lono, Kāne, Kū, and Kanaloa. The remembrance of ancestors and the acknowledgement of ‘aumākua (family spirits) among ‘Ōiwi families are also common. For many, ceremony is often embraced as a means of focusing mana and maintaining pilina.

One example of how cultural beliefs around spirituality are inscribed within human anatomy is nā piko ‘ekolu (the three body points). The piko po‘o is a point at the top of the head—in infants it is the open space in the fontanel when the cranium is formed, which connects a person’s ‘uhane (spirit) with the spiritual realm. The piko waena refers to the navel and the umbilical connection we have with our mākua (parents) and the contemporary world. The piko ma‘i, located in the genital area, symbolizes our links to future descendants via offspring.

Similarly, for Kānaka Maoli, the body illustrates complex ideas about emotions and intellect. The na'au (literally, the intestines), or gut, is where wisdom and intense feelings reside. In this way, Native Hawaiians intuitively recognize the interdependence of our intellect and emotional intelligence. One admirable trait of ali'i was said to be their countenance and ability to manage their emotions. The 'ōlelo no'ēau "E 'ōpū ali'i—*Have the stomach (or heart) of a chief*" was a compliment (Pukui 1983, 45). The fact that the stomach (near the na'au) is believed to be the seat of one's emotional state is telling. Western scientists are only now catching up with Indigenous epistemology in understanding the relationships between the intestinal biome and mental health via a "gut-brain axis" (Clapp et al. 2017), and how the entire biosphere is enabling healthy life on earth (Blaser et al. 2016).

The increase in cultural protocol is one of many examples of how spiritual and emotional well-being are reflected in the lives of Native Hawaiians today. Although protocol can take many forms, most include an acknowledgment of akua through pule (prayer) or oli (chant), recognition of social relationships through ha'i 'ōlelo (oration) or ho'olauna (introductions), and hospitality expressed via mele (songs). Mending strained relationships with ho'oponopono is another example. Ho'oponopono is a cultural practice used to identify and resolve underlying conflict among 'ohana and now is being applied more broadly within organizations and communities.

Increasingly, scholars are calling attention to the sobering impacts of cultural trauma on the well-being of Indigenous and minority groups (McCubbin, Ishikawa, and McCubbin 2008; Fast and Collin-Vézina 2010; Brave Heart et al. 2011). Recent epigenetics research traces the genetic transmission of cultural and other forms of trauma in DNA (Colangeli 2020). As such, experiences with cultural trauma may impact up to 476 million Indigenous children and adults across the world.



More than two-thirds (69 percent) of Native Hawaiians draw inspiration from the lives of ancestors when dealing with difficult decisions or challenges, compared with 53 percent of non-Native Hawaiians.



Hawai‘i’s sociopolitical history underscores the far-reaching effects of Western colonization and US occupation on Native Hawaiian families and communities. Cultural and historical trauma result from the systematic oppression of a people over a prolonged period of time. While the direct trauma of an event such as the overthrow of Queen Lili‘uokalani was experienced by Kānaka at a certain time, cultural trauma is passed down from one generation to the next as the trauma is normalized. For some Native Hawaiians, cultural trauma may be at the heart of significant and persistent challenges.

Cultural trauma has a particularly deep impact on spiritual and emotional well-being because it affects one’s dignity and self-worth. For many groups, cultural trauma is often linked with mental health challenges (e.g., depression), antisocial behavior (e.g., domestic abuse), and suicide. The intensive stripping away of spiritual customs and beliefs, social structures, and political power from Kānaka Maoli since the 1800s is a source of cultural trauma that bleeds into the present day.

At the same time, we also see abundance within the lāhui and ancestral wealth that endures despite oppressive historical conditions (Kūkulu Kumuhana Planning Committee 2017; Beamer 2014). Strong examples are evident in ‘āina stewardship, restoration, and education efforts across Hawai‘i (Blaich 2003; Ledward 2013). Community leaders, many of whom are ‘āina kia‘i (protectors of the land), work to improve ecosystem health and reconnect people to the natural environment and, ultimately, to a Kanaka worldview. While these programs recognize the fragility of Hawai‘i’s ecological systems and raise awareness about global threats like climate change, they amplify ‘ike kupuna, which has always maintained that caring for the ‘āina is key to what we need to thrive.

Physical Well-Being

Similar to other dimensions of Kanaka Maoli well-being, good health stems from harmonious relationships among the na‘au, the kino (body), and the ‘uhane. Ola pono (a healthy life) results from balanced relationships among the past, present, and future; among individuals, families and communities, between humans and ‘āina; between spiritual and physical realms; and between traditional lifestyles and present-day contexts.

For Native Hawaiians, physical health is indistinguishable from natural ecosystems; healthy ‘āina promotes healthy lives. I ka wā kahiko, kapu served as public health structures, ensuring equitable access to resources needed to maintain vitality and combat illness. Mana—both individual and collective—was considered an integral part of health and wellness. Healing techniques were administered by kāhuna, who addressed an individual’s mana before tending to their physical body. ‘Āina and plants, which also possess mana and medicinal properties, assisted in restoring balance and harmony.

HISTORICAL AND CULTURAL CONTEXT

Starting in 1778, foreign-introduced diseases such as tuberculosis, Hansen's disease, measles, influenza, cholera, scarlet fever, and other serious illnesses killed tens of thousands of Kānaka Maoli. Traditional healing practices such as pule, lā'au lapa'au (Hawaiian medicinal plants) and lomilomi (massage), were unable to prevent widespread death. By 1896, the 'Ōiwi population was reduced to 31,019—a devastating 92 percent decrease from initial Western contact.

A vibrant Native health system, which sustained our people for generations, was steadily supplanted in the nineteenth and early-twentieth centuries. Population decline and the abolishment of 'Ai Kapu destabilized the power of kāhuna. But it was the arrival of Western missionaries who introduced new religions and medicine that pushed traditional healing practices to the side (Kaholokula et al. 2020). In 1865, the Hawaiian Kingdom began issuing general medical licenses but did not consider Native healers until three years later. Restrictions were such that only fourteen kāhuna across the islands passed tests required by the Hawaiian Board of Health and were granted licenses (Donlin 2010).

The second half of the twentieth century offered signs of recovery for Kanaka health. Hōkūle'a voyaged across the Pacific using traditional navigation techniques (1976), the Office of Hawaiian Affairs was established through a Constitutional Convention (1978), the Native Hawaiian Healthcare Improvement Act (1988) was passed, and organizations like Alu Like, the Native Hawaiian Health Consortium, and Papa Ola Lōkahi were established, complementing the work of long-standing Hawaiian-serving organizations such as Kamehameha Schools and the Queen's Medical Center. Strong 'Ōiwi leaders successfully lobbied for federal funding and community programs that provided much-needed healthcare. Still today, we see a great need for Native physicians, making programs such as the Native Hawaiian Center of Excellence critically important.

Social, political, cultural, and environmental factors cannot be disentangled from Native Hawaiian physical well-being. Where people stand on the social ladder is related to their chances of illness and length of life (Mirowsky and Ross 2003). Limited education, racial segregation, low social support, and poverty contribute to poor health outcomes. Access to and affordability of quality healthcare greatly impact individual and community health. Similarly, preservation, access, and practice of cultural traditions and values influence positive physical, mental, and spiritual health.

Despite historical and present-day challenges, holistic approaches are rebuilding physical wellness among Kānaka Maoli. We are rediscovering our traditional agricultural practices and ancestral diets. Aloha 'āina, practice of lā'au lapa'au, and the use of traditional gathering spaces and cultural associations (e.g., Hale Mua, or Men's House) are increasing and offering alternatives to Western medicine. Health training in higher education is becoming more transdisciplinary and welcoming of Native Hawaiian students. Initiatives are underway to address chronic disease among Kānaka Maoli by solving broader social and environmental issues.

The number of Kanaka Maoli physicians is growing, along with training programs that integrate Native approaches to health. This resurgence is occurring alongside the revitalization of Hawaiian culture, strengthening the foundation upon which our health can prosper. These collective efforts are showing that reclaiming optimal physical health for Native Hawaiians is achievable in contemporary contexts.

The history of Native Hawaiian health is not a simple accounting of illness and mortality; rather, it is a complex reaction to the obliteration of ‘Ōiwi cultural and medicinal practices, land occupation, spiritual devastation, introduced infections, and decline in social status. However, our history and experiences also demonstrate tremendous resilience in the face of foreign-imposed political, economic, and educational structures. It is through these multiple lenses that we understand the challenges, disparities, and evolution of Kanaka Maoli health.

Educational Well-Being

Intellectual cunning, articulation, and mastery are highly prized skills among Native Hawaiians. Education and cognitive well-being are top priorities for Kanaka Maoli leaders seeking social change and betterment—a pursuit that continues the strong tradition of knowledge acquisition that our ali‘i started long ago.

Numerous sayings, stories, and songs are replete with references to wisdom and knowledge. The Hawaiian word for teaching (a‘o) is the same as the word for learning. The saying “a‘o aku, a‘o mai” signifies a nuanced understanding of the give-and-take of teaching and learning through mentoring relationships. In fact, from a Kanaka Maoli worldview, relationships are central to education—a process of learning, applying, and mastering knowledge, in which the highest level of mastery is teaching that knowledge to others.

Consummate learners and innovators, Native Hawaiians are known to travel far and wide to discover new places and new knowledge. As such, this publication refers not only to cognitive well-being as mental processes, but also to the wellspring from which that cognition derives—from the values, the experiences, and resiliency of a people who discovered and learned to thrive in the world’s most remote island chain.

HISTORICAL AND CULTURAL CONTEXT

Native Hawaiians have a rich tradition of oral knowledge, storytelling, and heightened capacity to recall large quantities of information. For example, the *Kumulipo*, a cosmogonic genealogy, decoded the evolution of heavenly and earthly life long before Charles Darwin wrote *Origin of the Species* in 1859. It is 2,102 lines long and was passed through the generations by precise memorization. The *Kumulipo* is one example of the rigorous discipline of learning and observation that led Native Hawaiians to achieve deep sophistication in

navigation, meteorology, agriculture, aquaculture, fishing, healing modalities, kapa making, weaving, carving, featherwork, warfare, diplomacy, oratory, governance, and treaty making with other nations.

Hawaiian learning and ways of being have endured for centuries. However, many of these traditions eroded or were systematically destroyed with Western contact and occupation, which replaced carefully cultivated modes of education and mentorship with a universal Western system that prioritizes assimilation. Within this context, education continues to be an important determinant of lifetime satisfaction and quality of life for Native Hawaiians. For example, major milestones in early childhood and Grade 3, especially language acquisition and writing, are pivotal to success in later educational pathways and life outcomes. Middle school math and a smooth transition into Grade 9 pave the way for college readiness and on-time high school graduation. Enrolling in and completing higher education and training enhances life chances for individuals and groups, facilitating economic and societal advancement over time (Bowen and Bok 1998). Outcomes of college enrollment and completion result in gains of factual knowledge, moral reasoning, aesthetic and cultural understandings, better health, and psychological and personal growth and satisfaction.

Native Hawaiian learners are represented among high achievers at all levels of the education spectrum. However, data show that Native Hawaiians, as a whole, continue to score lower than national norms on standardized achievement tests and college completion and are overrepresented in special education programs and in the juvenile justice system. Native Hawaiians are comparatively more likely to experience the death of an infant, to face drug, alcohol, and child abuse, to have incarcerated parents, and to live below poverty thresholds. That said, our data show huge strides in Native Hawaiian enrollment at the University of Hawai'i. However, Native Hawaiian students still take longer and are less likely than their peers to graduate from college.

The history of Native Hawaiians reveals a unique perspective that counters such dismal figures. Prior to Western contact, Native Hawaiians had a complex social class structure that governed economic, political, religious, cultural, and educational systems. Learners were schooled through a philosophy of "learning by doing," which valued cultural knowledge in areas such as history, medicine, farming, navigation, fishing, hula, and genealogy. After the missionaries' arrival in Hawai'i, Hawaiians continued to excel in reading and writing. By 1846, nearly 100 percent of Native Hawaiians were literate, a figure that ranked among the highest in the known world at that time, and Hawaiian language newspapers were plentiful.

Ironically, while the ali'i valued education and placed a high priority on Western thought, the well-being of the Native Hawaiian people continued to diminish in the late 1800s. The involuntary colonization and missionary influence on Native Hawaiian education produced destructive historical forces similar to those inflicted on Native American Indians and Alaska Natives (Benham and Heck 1998). Today, the intergenerational effects of the loss of identity, the displacement from our land base, and the upheaval of religious beliefs are evidenced in ongoing disparities in the educational attainment and well-being of Native Hawaiians as a whole.

POPULATION CHARACTERISTICS

Native Hawaiians have persisted through dramatic population changes. This section highlights characteristics and trends of the Native Hawaiian population based on US census data, which rely on self-reported categories of race and ethnicity. We also examine migration trends and population projections to better understand changes within our lāhui and how they affect Kanaka Maoli well-being.

The number of Native Hawaiians is growing. From 1980 to 2010, the Native Hawaiian population more than doubled, reaching 527,077 by 2010. Some of that growth—particularly from 1990 to 2000—can be attributed to changes in race-reporting options offered by the US Census Bureau. As of this writing, results from the 2020 census were not available, though we expect to see continued growth in the Native Hawaiian population over the last decade.

Current population trends highlight an increasing number of Kānaka Maoli in Hawai'i and a growing diaspora residing elsewhere. In 2010, there were roughly as many Native Hawaiians living residing in Hawai'i as in the continental United States—a difference of about 50,000 in favor of the former (table 0.1). The existence of an expanding diaspora points to the importance of access to homeland, traditional practices, and community resources that nurture the well-being of Native Hawaiians (Browne and Braun 2017; Aikau 2010; Kauanui 2007; Kana'iaupuni and Malone 2006).

TABLE 0.1 Growth of the Native Hawaiian population in Hawai'i and the United States
[1980 to 2010]

US census year	Hawai'i total	United States total
1980	115,500	166,814
1990	138,742	211,014
2000	239,655	401,162
2010	289,970	527,077

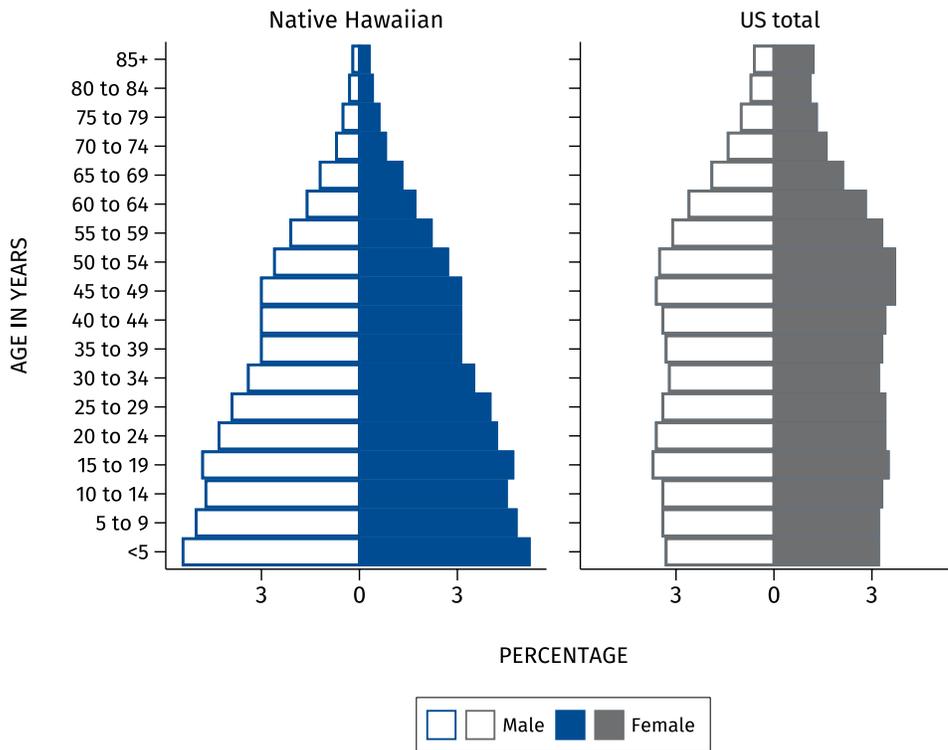
Data source: Gibson and Jung 2002; US Census Bureau 2010, Summary File 2

Population Pyramids

To illustrate the age structure of Native Hawaiians, we use a population pyramid. A pyramid with a wide base signifies a growing population, with more young people than old. A rectangular shape denotes a stable population size, whereas an inverted pyramid would indicate a shrinking population.

Figure 0.3 shows the age and gender distribution of Native Hawaiians compared with the total US population. The US total population is relatively stable, with slight bulges for the baby boomer and millennial generations. By contrast, the Native Hawaiian population, with its wide base, depicts a growing population. The narrow top of the pyramid suggests high mortality and low life expectancy among Native Hawaiians.

FIGURE 0.3 Age distribution of the population in the United States
[by age band for Native Hawaiian and US total, United States, 2010]

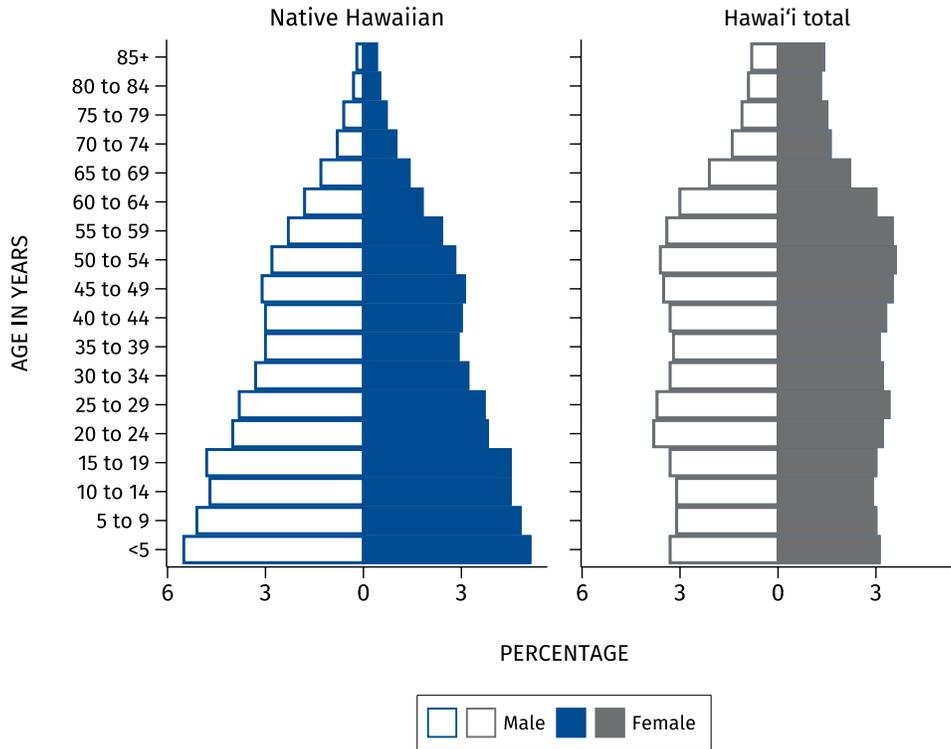


Data source: US Census Bureau 2010, Summary File 2

- The Native Hawaiian population is growing, while the US total population remains stable.
- The proportion of younger Native Hawaiians (i.e., ages nineteen and younger) is greater than the proportion of older Native Hawaiians—a sign of a growing population.
- There is a precipitous decline in the percentage of Native Hawaiians ages seventy and older—a sign of a disproportionately shorter-than-average life span.

Similar to the national population, the total population in Hawai'i is relatively stable. However, among Native Hawaiians in Hawai'i, we see a comparatively young population that continues to grow more rapidly (fig. 0.4), reflected in the relatively wider base of the Native Hawaiian pyramid. The top of the Native Hawaiian pyramid, which is much narrower than the Hawai'i total, indicates higher mortality rates for kūpuna 'Ōiwi (Native Hawaiian elders).

FIGURE 0.4 Age distribution of the population in Hawai'i
 [by age band for Native Hawaiian and Hawai'i total, 2010]



Data source: US Census Bureau 2010, Summary File 2

- Compared with the Hawai'i total population, which is mostly stable, the Native Hawaiian population is younger and growing in size.
- In Hawai'i, the proportion of Native Hawaiians ages nineteen and younger is much greater than that of the Hawai'i total population.
- The percentage of middle- and retirement-age Native Hawaiians is smaller than that of the Hawai'i total population.

In Hawai'i, 10.6 percent of Native Hawaiians are ages four and younger, compared with 6.4 percent of the Hawai'i total population. Furthermore, 25.0 percent of Native Hawaiians are ages five to seventeen, compared with 15.9 percent across Hawai'i (not shown). The relatively larger proportion of preschool- and school-age Native Hawaiians, combined with the growing Native Hawaiian population, indicates an increasing need for educational supports.

Within the Native Hawaiian population, the proportion of college-age individuals (ages eighteen to twenty-four) exceeds that of college-age individuals within Hawai'i as a whole. However, this trend reverses during the working ages. This may be explained by the fast growth of the younger population, out-migration, and higher mortality rates among Native Hawaiians.

In general, population loss among Native Hawaiians accelerates around the ages of forty-five to forty-nine, which contributes to the narrowing peak of the pyramid. This loss is more pronounced among Native Hawaiians than it is among the total population in both the United States and in Hawai'i. As is typical with most populations, life expectancy of Native Hawaiian females exceeds that of males. This is evidenced in the larger proportion of females, compared with males, near the top of the population pyramids.

Geographic Distribution

Looking more closely at where Native Hawaiians are in Hawai'i, we examine both the distribution and the concentration of the population. Distribution refers to the spread of a population and often mirrors access to resources such as jobs, housing, and public services. Accordingly, in Hawai'i, we find the largest proportion of Native Hawaiians living in urban Honolulu county, where jobs and amenities are plentiful. Looking at the distribution of the Native Hawaiian population across Hawai'i, nearly two-thirds (63 percent) reside on O'ahu, with nearly one-fourth (23 percent) residing in the 'Ewa-Waialua area (not shown).

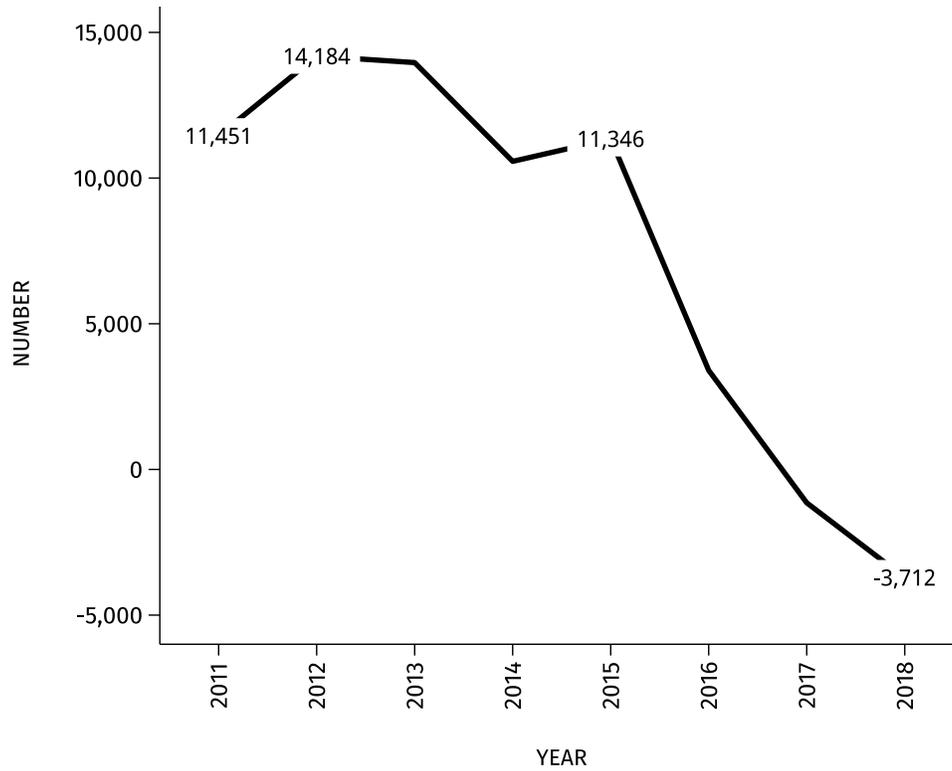
Concentration, on the other hand, refers to the percentage of a population within a single community or population center, relative to others. For example, most rural communities have higher concentrations of Native Hawaiians relative to urban places. Rural communities often maintain cultural practices and ties to the land and sea, providing social and spiritual benefits that can outweigh advantages typically associated with urban areas, like employment opportunities and access to healthcare. While some Native Hawaiians may choose to live in rural areas for cultural lifestyle choices, others may do so out of necessity.

Across the islands, Wai'anae has a high concentration of Native Hawaiians, constituting 59 percent of the area's population. In terms of distribution, about 10 percent of Hawai'i's total population of Native Hawaiians live in Wai'anae. Other areas also are home to high concentrations of Native Hawaiians despite small absolute numbers, such as Ni'ihau (88 percent), Moloka'i (59 percent), and Hāna (57 percent) (not shown).

Population Size

Hawai'i had roughly 1.3 million residents in 2010. Since 2012, growth in Hawai'i's total population has been slowing, even dipping into negative figures in 2017 and 2018. In 2012, Hawai'i's net population increased by 14,184. However, by 2018 the net population growth was -3,712 (fig. 0.5). Studies show that the population of Hawai'i has declined in recent years, while net out-migration has increased (Economic Research Organization at the University of Hawai'i, n.d.; Hawai'i Department of Business, Economic Development, and Tourism, n.d.).

FIGURE 0.5 Trends in net population change in Hawai'i
[number of persons, Hawai'i, 2011 to 2018]



Data source: US Census Bureau, Population Division. Estimates of the Components of Resident Population Change 2011 to 2018.

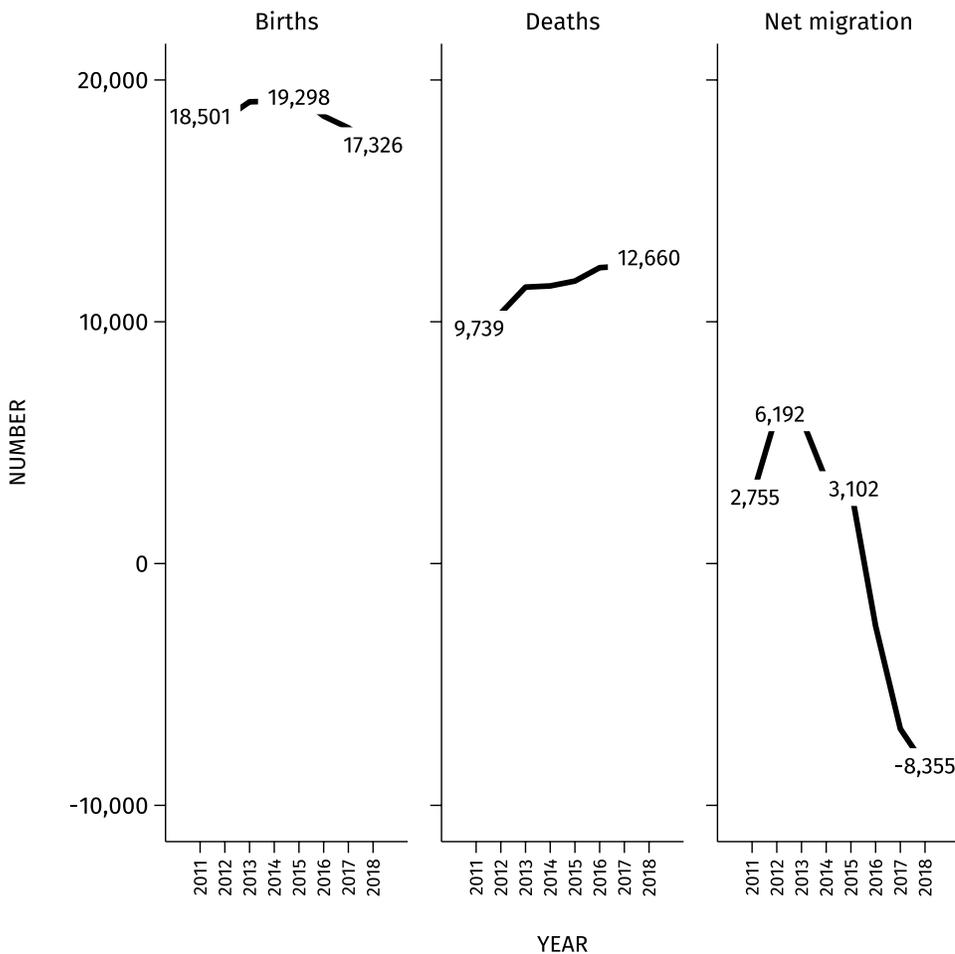
Note 1: Population change accounts for births, deaths, and net migration.

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 2011 and 2015, Hawai'i's population increased by more than 11,000 each year.
- In 2016, the population in Hawai'i was increasing, but much less so than in previous years.
- Hawai'i's population experienced a decrease in 2017 and 2018.

Population change is the result of birth rates, mortality, and migration. The slowing pace, and eventual decline, in Hawai'i's population growth is explained by all three factors. Figure 0.6 shows that the number of births in Hawai'i has fallen since 2015, while the number of deaths has increased slowly since at least 2011. When examined annually, net migration numbers show a decline in the years following 2012, reflecting a narrowing of the gap between the number of people leaving Hawai'i and the number of people entering. In 2017 and 2018, annual net migration rates were negative, meaning that more individuals were leaving Hawai'i than were entering.

FIGURE 0.6 Trends in births, deaths, and net migration in Hawai'i
[number of persons, Hawai'i, 2011 to 2018]



Data source: US Census Bureau, Population Division. Estimates of the Components of Resident Population Change 2011 to 2018.

Note 1: Net migration represents the number of persons moving to a place in the previous year minus the number of persons moving away from that place in the previous year. These calculations account for domestic and international in-migrants and out-migrants, and exclude persons under one year of age who have not had a full year to potentially move.

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 number of annual births in Hawai'i decreased by nearly 2,000 between 2015 and 2018.
- In 2018, the number of annual deaths was 12,660—nearly 3,000 more than the number of deaths in 2011.
- With regard to net migration, the gap between the number of people entering Hawai'i and the number of people leaving began to narrow after 2012.
- In 2018, Hawai'i's net migration resulted in 8,355 more individuals leaving Hawai'i than entering.

Migration Trends

Migration is the largest contributor to the slowing growth of and decline in Hawai'i's population. For example, between 2015 and 2016, about 5,700 more people left Hawai'i than entered, compared with about 1,300 fewer people as a result of births and deaths. Domestic migration is responsible for the negative net migration numbers; changes from international migration are negligible.

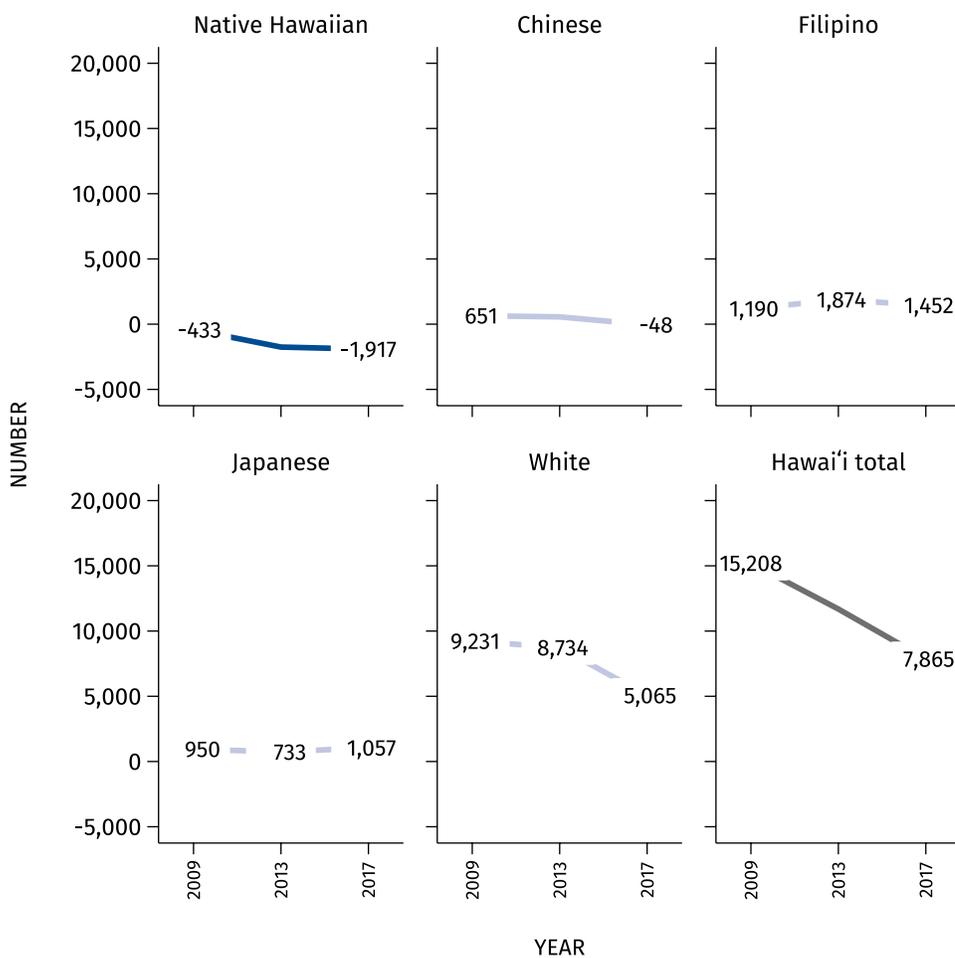
Recent research explores migration trends for Native Hawaiians and other major ethnicities, given the increasing numbers of people leaving Hawai'i (Kekahio, Kana'iaupuni, and Hong, forthcoming). For this study, data from the American Community Survey Public Use Microdata Sample were aggregated into three five-year time periods: 2005 to 2009, 2009 to 2013, and 2013 to 2017. The study calculated migration rates of domestic and international in-migrants and domestic out-migrants. In-migrants were defined as individuals who entered Hawai'i during the prior year, and out-migrants were individuals who left Hawai'i during the prior year. Disaggregated ethnicity data on international out-migrants were not available and were not included in the calculation.

When looking at annual migration rates, recent years show more people leaving Hawai'i than entering. However, when looking at the most recent five years together, more people entered than left. Whites comprise the largest volume of migration in and out of Hawai'i, accounting for more than 50 percent (35,000 individuals) of out-migrants and in-migrants. Whites also have the most variation between the number of people entering and leaving—a difference that narrows over time. Chinese, Filipino, and Japanese populations generally have more people entering Hawai'i than leaving (fig. 0.7). While examining migration rates among the civilian population only (i.e., excluding the military population), the reverse was found, meaning that more civilians are leaving than entering Hawai'i.

The study also finds that Native Hawaiians are the only major ethnicity in Hawai'i with a consistent negative net migration—that is, more individuals are consistently leaving Hawai'i than entering, across aggregated five-year time periods. The migration data suggest a loss of roughly two thousand Native Hawaiians per year in Hawai'i (fig. 0.7). In ten years, this results

in nearly twenty thousand more people leaving than entering. When excluding military and students who move for school, there are one thousand fewer Native Hawaiians each year in Hawai'i, amounting to a net loss of approximately ten thousand Native Hawaiians in ten years (not shown). Although these numbers are not huge, the cumulative out-migration of Native Hawaiians affects the entire lāhui. Most frequently, Kānaka Maoli report economic reasons as a key motivation to leave Hawai'i.

FIGURE 0.7 Trends in net migration
[number of persons, by ethnicity and year, Hawai'i; 2009, 2013, and 2017]



Data source: US Census Bureau, 2005–2009, 2009–2013, 2013–2017 American Community Survey Public Use Microdata Sample 5-Year Files.

Note 1: Net migration represents the number of persons moving to a place in the previous year, minus the number of persons moving away from that place in the previous year. These calculations account for domestic and international in-migrants and domestic out-migrants; disaggregated ethnicity data on international out-migrants were not available. Infants younger than one year old are excluded from the calculation.

Note 2: Years displayed represent the ending year in an aggregated five-year time period: 2005 to 2009, 2009 to 2013, and 2013 to 2017. Data labels are presented for the first and last points, the maximum and minimum points, and some inflection points where the trend changes.

Note 3: 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 Hawai'i's total population, more individuals entered Hawai'i than left during each of the five-year time periods.
- Whites have the highest net migration for each of the five-year time periods.
- Native Hawaiians are the only major ethnic group to have more individuals leave Hawai'i than enter in each of the five-year time periods.

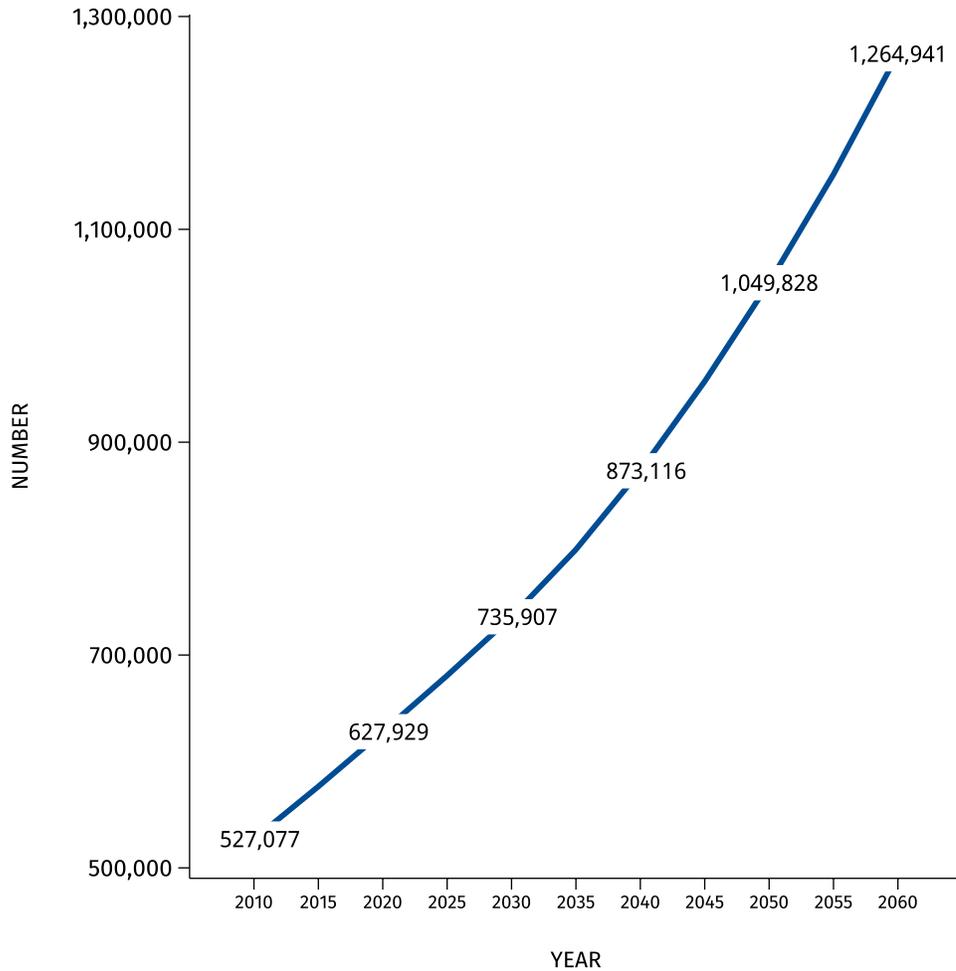
Native Hawaiians who leave Hawai'i tend to be younger, single, and slightly more educated but with lower earnings than those who stay or enter. Native Hawaiians who choose to stay in Hawai'i have a mean age of 33.4 years, compared with a mean age of 29.6 years among those coming and going in 2013–2017. Native Hawaiians who leave Hawai'i are relatively more likely to have never married (64 percent, compared with 44 percent of non-migrants and 54 percent of in-migrants). In terms of education, Native Hawaiian out-migrants have the highest proportion (24 percent) of individuals with a bachelor's degree or higher, followed by in-migrants (21 percent) and non-migrants (18 percent). This is consistent with what other research has described as a "brain drain" (Kekahio, Kana'iaupuni, and Hong, forthcoming; Dodani and LaPorte 2005).

Population Projections

The population projections in this section are based on a model of stability and constancy, which assumes that current fertility, mortality, and migration rates will hold steady from 2010 to 2060. These projections serve as a baseline for understanding and predicting the growth of the Native Hawaiian population. Numerous factors—such as education, the economy, government policy, healthcare, and natural events—influence the growth and structure of a population but are not included in the statistical model.

Figure 0.8 estimates the total Native Hawaiian population across the United States in 2010, projected through 2060. Based on available data, the population of Native Hawaiians in the United States is estimated to exceed 1 million by 2050 and surpass 1.25 million by 2060.

FIGURE 0.8 Projected number of Native Hawaiians in the United States
 [number of persons, United States, 2010 to 2060]

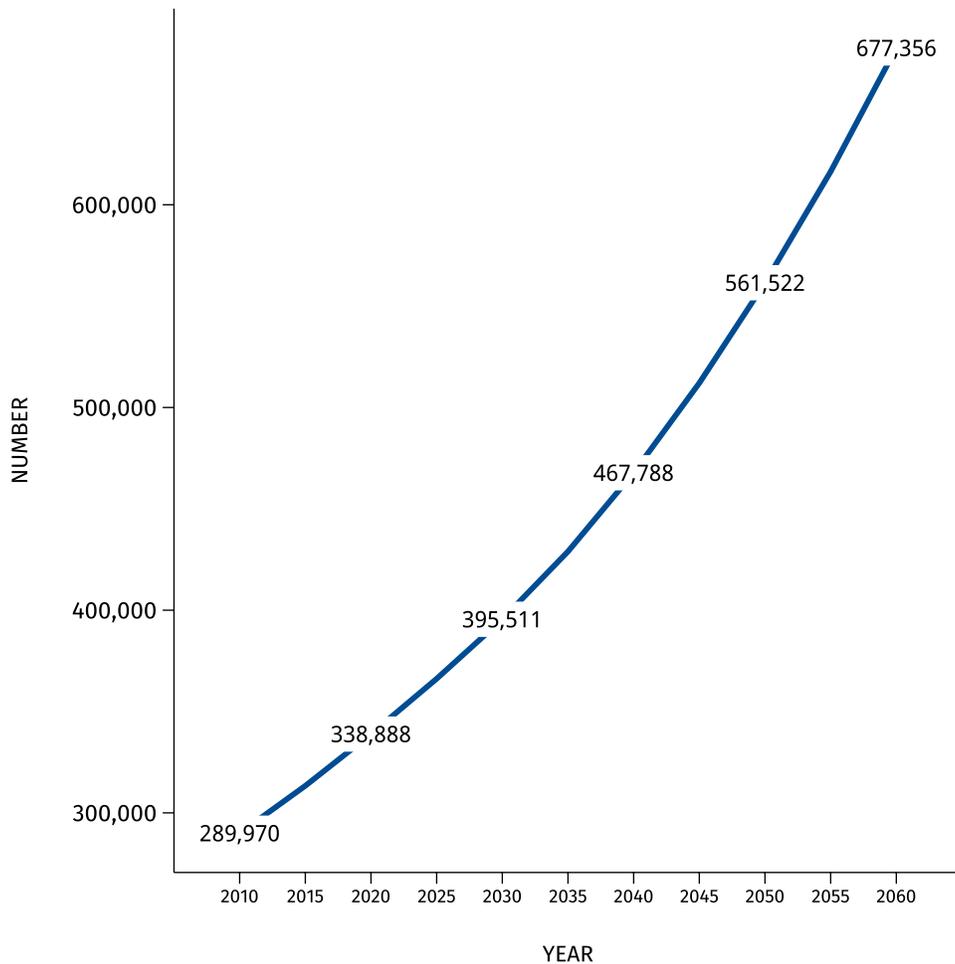


Data source: Hong 2012

- The Native Hawaiian population is projected to grow 2.4 times between 2010 and 2060, from about 530,000 to 1.2 million.
- Projections show around 630,000 Native Hawaiians in the United States in 2020.
- Over the next decade, the Native Hawaiian population is expected to grow by 108,000 people.

Within Hawai'i, the estimated population of Native Hawaiians for 2020 is 338,888. The Native Hawaiian population in Hawai'i is estimated to grow at an average rate of 1.71 percent annually and reach 677,356 by 2060 (fig. 0.9). These projections are in line with historical growth trends of Native Hawaiians in Hawai'i (not shown).

FIGURE 0.9 Projected number of Native Hawaiians in Hawai'i
 [number of persons, Hawai'i, 2010 to 2060]

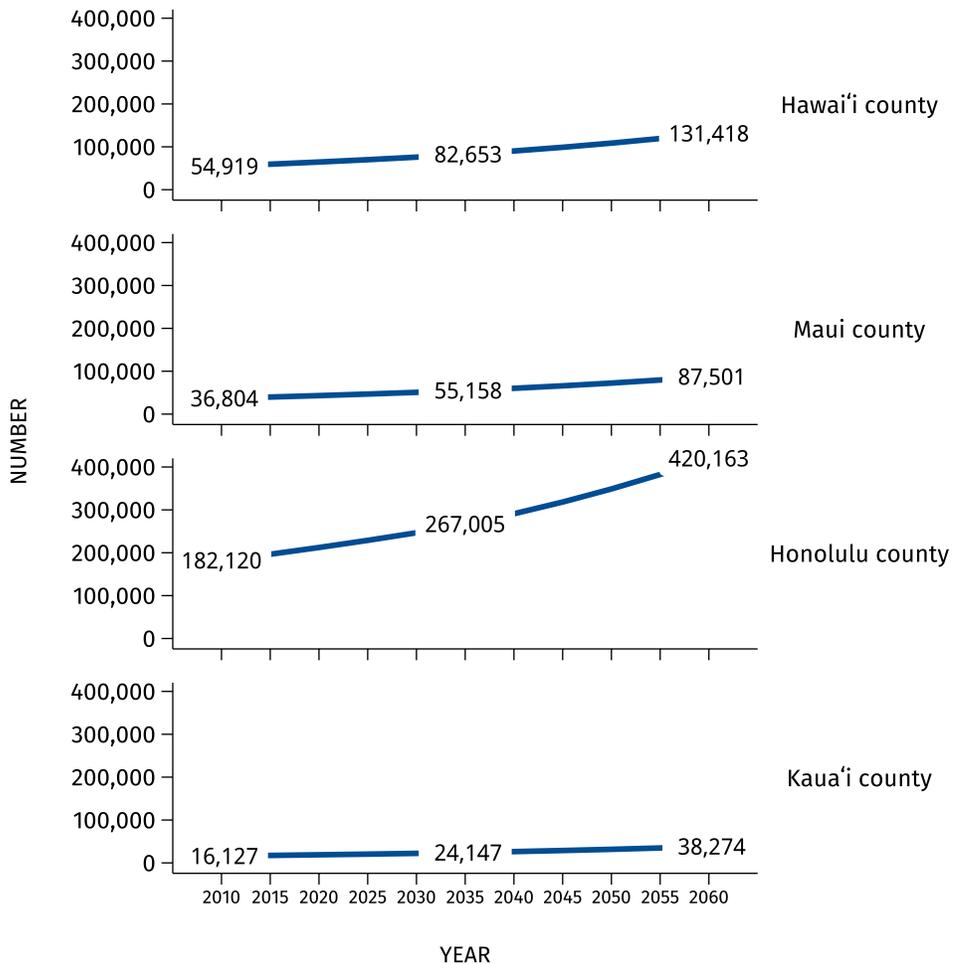


Data source: Hong 2012

- Within Hawai'i, the Native Hawaiian population is projected to grow about 2.3 times, increasing from around 290,000 to 680,000 between 2010 and 2060.
- Projections show nearly 340,000 Native Hawaiians residing in Hawai'i in 2020.
- From 2020 to 2030, the Native Hawaiian population is expected to grow by roughly 57,000 people.

Native Hawaiian population projections by county are provided in figure 0.10. Note that predictions for smaller geographic areas are often subject to greater uncertainty. Given current population levels, we expect to see growth in all counties, with a steeper curve for Honolulu and a flatter curve for Kaua'i. Preparing for more Native Hawaiians at the county level will be key to ensuring future needs are met.

FIGURE 0.10 Projected number of Native Hawaiians in Hawai'i, by county
[number of persons, Hawai'i, 2010 to 2060]



Data source: Hong 2012

- The number of Native Hawaiians in Honolulu county is projected to increase by nearly 240,000 between 2010 and 2060.
- In 2035, Maui county will have as many Native Hawaiians as Hawai'i county had in 2010.
- It will take Kaua'i county until 2060 to surpass the number of Native Hawaiians that were in Maui county in 2010.

Table 0.2 presents the expected age distribution of the Native Hawaiian population between 2010 and 2060. The large population of young Kānaka Maoli in 2010 will contribute to sizable growth in future decades. As a result, it is estimated that Native Hawaiian kūpuna (elders) will be a large population by 2060, potentially requiring special needs.

TABLE 0.2 Projected number of Native Hawaiians in Hawai'i, by age
[2010 to 2060]

Age group	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Total	289,970	313,362	338,888	366,180	395,511	428,962	467,788	512,064	561,522	616,361	677,356
0 to 4 yrs	30,727	38,965	42,103	44,930	48,107	53,404	59,998	66,672	73,082	79,830	87,768
5 to 9 yrs	28,829	30,571	38,760	41,883	44,696	47,854	53,120	59,680	66,320	72,698	79,410
10 to 14 yrs	26,801	28,809	30,550	38,734	41,855	44,666	47,822	53,084	59,640	66,275	72,649
15 to 19 yrs	27,233	26,705	28,706	30,440	38,596	41,705	44,506	47,651	52,896	59,428	66,040
20 to 24 yrs	22,450	26,931	26,408	28,387	30,101	38,169	41,243	44,013	47,124	52,311	58,771
25 to 29 yrs	21,538	22,133	26,551	26,036	27,987	29,676	37,632	40,663	43,394	46,461	51,576
30 to 34 yrs	18,982	21,224	21,810	26,163	25,656	27,578	29,242	37,084	40,071	42,762	45,785
35 to 39 yrs	17,235	18,609	20,805	21,378	25,646	25,148	27,033	28,663	36,353	39,281	41,918
40 to 44 yrs	17,175	16,736	18,077	20,206	20,763	24,909	24,424	26,254	27,835	35,310	38,152
45 to 49 yrs	17,971	16,336	15,912	17,199	19,216	19,747	23,691	23,227	24,967	26,468	33,585
50 to 54 yrs	16,058	16,661	15,149	14,749	15,955	17,818	18,310	21,968	21,536	23,150	24,537
55 to 59 yrs	13,484	14,530	15,078	13,713	13,345	14,445	16,125	16,569	19,880	19,490	20,948
60 to 64 yrs	10,368	11,869	12,790	13,272	12,074	11,741	12,727	14,197	14,588	17,505	17,157
65 to 69 yrs	7,958	8,662	9,923	10,695	11,099	10,101	9,816	10,652	11,874	12,199	14,639
70 to 74 yrs	5,158	6,422	6,988	8,011	8,637	8,966	8,163	7,927	8,611	9,593	9,854
75 to 79 yrs	3,750	3,918	4,879	5,302	6,085	6,561	6,809	6,206	6,014	6,556	7,289
80 yrs and older	4,253	4,282	4,399	5,083	5,695	6,474	7,127	7,554	7,336	7,045	7,279

Data source: Hong 2012

An expanding Kanaka Maoli population and diaspora offer new challenges and opportunities for our lāhui to balance ancestral connections with diverse, lived experiences. A growing Native Hawaiian population will also require infrastructure and support systems to ensure the needs of our families are met, today and into the future. Specifically, population projections highlight the need to plan for larger numbers of our very young keiki and our kūpuna.

Some suggest that Hawai'i's overall population may be in a cycle of decline, potentially leading to slower economic growth, a shrinking tax base, and fewer state-sponsored social supports. Such shifts may be compounded by migration trends and prolonged health and financial impacts of the COVID-19 pandemic.

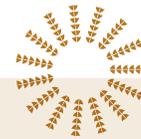
The next section summarizes several high-profile innovations that translate into critical gains across our lāhui. The examples, though not exhaustive, point to areas of vibrancy in our communities that may not be evident in conventional data. These bright spots signify the enduring value of 'Ōiwi culture and knowledge for our people, for Hawai'i, and for the world.

ALOHA 'ĀINA AND COLLECTIVE EFFICACY

'Āina is land, or that which feeds us, suggesting a permanent and nourishing connection between humans and the earth. We are physically, spiritually, intellectually, and emotionally fed by 'āina. The concept of 'āina is found in the way we describe ourselves as Kānaka Maoli: kama'āina, kua'āina, hoa'āina, and kanu o ka 'āina, all of which refer to Natives of the land. 'Āina is considered our one hānau, our birthplace, as well as kulāiwi, our homeland where the bones of our ancestors reside. 'Āina is central to Kanaka well-being because it informs how we engage with the natural world and grounds us in 'ohana, kaiāulu, and the lāhui.

The generative connection between 'āina and people is best embodied by the practice of aloha 'āina. Aloha 'āina was embraced throughout our history to safeguard and restore the natural and social systems of Hawai'i and, by extension, the well-being of Kānaka Maoli. Goodyear-Ka'ōpua argues, "Aloha 'āina expresses an unswerving dedication to the health of the natural world and a staunch commitment to political autonomy, as both are integral to a healthy existence. Although it is often imperfectly translated to 'love for the land' and 'patriotism,' the aloha part of this phrase is an active verb, a practice rather than merely a feeling or belief" (quoted in Porter and Cristobal 2018, 201).

We continue to see inspiring examples of aloha 'āina across our communities. In 2015, Paepae o He'ēia, a community-based nonprofit, gathered thousands of volunteers to close a major puka (hole) in an eight-hundred-year-old kuapā (fishpond wall). This milestone was made possible by the vision and dedication of 'Ōiwi leaders who worked tirelessly for more than a decade to restore the loko í'a (fishpond) (Fox 2016). Paepae o He'ēia is not alone in its demonstration of aloha 'āina. From Hāena (Kaua'i) to Miloli'i (Hawai'i Island), community groups and leaders 'auamo kuleana (shoulder the responsibility) to care for cherished resources and wahi pana (storied places) to teach, nourish, and sustain our communities.



Groundswell activism is gathering energy among Native Hawaiians and is mobilizing multiple generations, islands, and communities.

Community-driven, ‘āina-based efforts restore ecological vibrancy, educate our keiki, and rebuild healthier and more sustainable food systems. In addition, new research is documenting how these efforts improve individual health and well-being. MA’O Organic Farms, a social enterprise in Wai‘anae, O‘ahu, runs a Youth Leadership Training program that offers a college internship and work experience to youth ages sixteen to twenty-four. With support from HMSA Foundation and Kamehameha Schools, a study asked, can ‘āina-based programs, without an explicit health focus, improve clinical outcomes? Results show they can. Researchers found that interns from the Youth Leadership Training program experienced a 60 percent reduced risk for diabetes and also contributed to second-order positive effects on their network of friends and families (Avendaño 2019; Juarez and Maunakea 2017).

Aloha ‘āina allows us to achieve community well-being by aligning our individual contributions to shared cultural values. It is similar to what scholars have termed collective efficacy—the capacity of the community to respond to problems and collectively intervene for the community’s betterment (Sampson, Raudenbush, and Earls 1997; Bandura 2000). Collective efficacy can be a form of self-governance where community members, operating under shared norms and expectations, take action to correct injustices, solve problems and shape the future. Three powerful examples of aloha ‘āina and collective efficacy are found in the Kū Kia’i Mauna Kea movement, the Mālama Honua Worldwide Voyage, and recent advancements in Hawaiian culture-based education.

Kū Kia’i Mauna Kea

A call to protect the sacred mountain Mauna Kea went worldwide in the summer of 2019. It was issued in response to the proposed construction of a Thirty-Meter Telescope (TMT) that would join dozens of other existing telescopes on the slopes of Mauna Kea. The call resulted in local, national, and global demonstrations. It pulled together thousands of protestors across Ka Pae ‘Āina Hawai‘i (the Hawaiian Islands), many of whom traveled to Mauna Kea to serve as kia’i (protectors) and to voice their disapproval of the project via slogans such as “‘A‘ole TMT!” and “We are Mauna Kea!”

Early in the movement, leaders made a peaceful, unrelenting adherence to kapu aloha. As an Indigenous philosophy, kapu aloha invokes the sacredness of akua and ‘āina and challenges us to act in nonviolent, inclusive and healthy ways while also remaining firm and vigilant in protest (ho‘omanawanui et al. 2019). As protectors congregated on the mauna, they formed a small community with bathrooms, janitors, cooks, and road guards. They shared hot food, water, snacks, healthcare, sunscreen, and rain protection with each other and organized protocols, training, and even created a school (Van Dyke 2019).

A galvanizing event occurred in July 2019, when police arrested thirty-three kūpuna who had chained themselves to the road to prevent construction equipment from reaching the mauna (Pu‘uhonua o Pu‘uhuluhulu 2019). Displayed across TV and social media, the arrests only unified the movement and resulted in greater public awareness and support for the protectors.

Still, opponents advocated for the telescope, citing economic and educational benefits for Hawai'i. There are Kānaka Maoli on both sides of this issue. As of this writing, the TMT project is still on hold, both sides remain at an impasse, and COVID-19 has restricted gatherings.

The Kū Kia'i Mauna Kea movement catalyzed collective efficacy that is also seen in other areas across Hawai'i. For example, the Hūnānāniho movement in Waimānalo, O'ahu, successfully halted county development plans for a beachside sanctuary known as Sherwoods. In Kahuku, O'ahu, a community-led intervention against a wind farm resulted in hundreds of demonstrators being arrested by state officials. Such community activism resonates with extant research, which shows that neighborhoods that are able to mobilize their voices and resources also demonstrate higher levels of collective efficacy and are better able to supplement family functions like caregiving and child supervision, have better health (Browning and Cagney 2002), reduced obesity rates and lower health disparities (Butel et al. 2019), report higher perceived trust and reciprocity (Collins, Neal, and Neal 2014), and are better able to control violence and aggressive behavior (Sampson, Raudenbush, and Earls 1997).

Mālama Honua

The Mālama Honua Worldwide Voyage exemplifies aloha 'āina and collective efficacy on a global scale. Living on a remote island chain teaches us that our natural world is a gift with limits, therefore we must carefully steward our 'āina and resources to survive. The voyage engaged all of Island Earth, spanning sixty-thousand nautical miles and four years, and bridging traditional and new technologies to live sustainably, while sharing, learning, and creating global relationships (Kana'iaupuni 2019). As the canoe sailed, the crew lived and spread aloha 'āina. Research shows that overall well-being of crewmembers also improved on the voyage, suggesting the health effects of living our cultural practices (Mau et al., forthcoming).

The traditional Hawaiian sailing canoe, Hōkūle'a, began its journey to circumnavigate the globe in 2013. The entire voyage was performed without modern navigational tools, guided only by Indigenous knowledge of celestial navigation, using stars, sun, winds, swells, and other natural elements. Mālama Honua embodies the power of Indigenous collective efficacy in far-reaching ways. First, it is a tremendous scientific feat. Second, it illustrates the value of diverse forms of Indigenous knowledge that build compassion for the earth and all of its living and nonliving forms. Third, it radically challenges conventional paradigms and behavior in education. It does so by connecting people—Native Hawaiian and non-Hawaiians—with the mana that inspires deep relationships, understanding, and transformation. In the wake of the voyage, a global virtual wa'a (canoe) was formed (Pulver and Suthers 2019). Hōkūle'a and its sister vessel, Hikianalia, stopped at more than 150 ports around the world, where they were enthusiastically welcomed by onlookers. The Worldwide Voyage shared stories of hope and inspiration about how communities around the world are improving the planet's health. Initial contact in each country was with First Peoples, which

validated Indigenous sources of wisdom and science. The voyage purposefully blended Native knowledge systems and Western science to take full advantage of ancient and modern technologies and to promote learning.

Mālama Honua is a contemporary story of Kanaka education and activism. It highlights the value of blending Indigenous and modern perspectives to solve our most pressing global challenges (e.g., climate crisis, economic inequity, and social injustice). The voyage invited people across the world on a journey to learn and care for Island Earth—but the genesis of this story was birthed through a commitment to aloha ‘āina. We say, “He wa’a he moku, he moku he wa’a—the canoe is our island, and our island is the canoe.” And just as a voyage at sea requires conserving limited resources, a similar approach is needed to sustain life on our precious islands. The Worldwide Voyage is a reminder that our planet has finite resources and that aloha ‘āina can be taught and shared with the entire world.

Like Mauna Kea, Mālama Honua garnered international attention and fostered greater engagement and pride among Kānaka Maoli. When Hōkūle‘a returned to Hawai‘i in 2017, fifty thousand people gathered at Ala Moana Regional Park on O‘ahu to celebrate the historic voyage. The event showcased diversity and depth in our ranks as ‘ohana wa‘a (canoe families), hula hālau (hula groups), alii trusts, Hawaiian civic clubs, Hawaiian-focused charter schools, kula kaiapuni (immersion schools), ‘āina-based organizations, and ‘ohana participated in cultural protocol and exchanges. The voyage sparked collective efficacy by renewing existing partnerships and creating new pilina around local and global sustainability. We rediscovered that the art and science of wayfinding are the same skills, mindsets, and values needed to create a healthier future for the earth.

Hawaiian Culture-Based Education

Aloha ‘āina and collective efficacy are learned behaviors. They emerge from the transfer of values and ‘ike (knowledge) between people. In recent decades, Hawaiian culture-based education has expanded throughout Hawai‘i’s education system and is forging innovative community–school partnerships. Hawaiian culture-based education leaders and advocates can also be found in the Mauna Kea and Mālama Honua movements. That is because aloha ‘āina and Hawaiian culture-based education reinforce one another and give rise to expressions of collective efficacy.

Education plays a major role in the socialization and development of future generations. While learning can happen anywhere, schooling is meant to prepare students to be successful contributors to society. At the same time, education does not occur in a vacuum; schools operate by (and perpetuate) the cultural values of the dominant society (Meşeci Giorgetti, Campbell, and Arslan 2017). The adoption of mainstream culture within schools may not be reflective of the ways minority and Indigenous students see the world. As such, scholars recognize the potential harm done to students when discontinuities exist between school and home cultures (Ogbu 1982; Swisher and Deyhle 1992; Torres 2017).



The Native Hawaiian population is growing and expanding its ability to pursue collective identity and self-determination.

Hawaiian culture-based education refers to the “grounding of instruction and student learning in the values, norms, knowledge, beliefs, practices, experiences, places, and language that are the foundation of [Native Hawaiian] culture” (Kana’iaupuni and Kawai’ae’a 2008, 71). Hawaiian culture-based education is part of an Indigenous education movement rooted in a broader historical and political struggle between Native peoples and “settler” governments (Demmert and Towner 2003; Lipka 2002; Brayboy et al. 2015). Putting Native Hawaiian values, practices, and perspectives at the center of education not only mitigates cultural discontinuities encountered by students, it can also offer competitive advantages (Kana’iaupuni, Ledward, and Malone 2017).

Research on Hawaiian culture-based education has surged in recent years, including studies by school type (Schonleber 2011; Mishina 2017), subject area (Richards 2013; Kukahiko 2019), community settings (Ledward 2013), and from teacher and ‘ohana perspectives (Ka’anehe 2020; Kawai’ae’a, Housman, and Alencastre 2007). When it comes to student outcomes, studies show Hawaiian culture-based education to be positively associated with cultural identity and school engagement (Kana’iaupuni, Ledward, and Jensen 2010) as well as community mindedness and college aspirations (Kana’iaupuni, Ledward, and Malone 2017). Exciting work is also underway regarding the development and application of culturally relevant assessments among public schools (Espania et al. 2019; Taira and Sang 2019; Sang and Worchel 2017).

In addition to Hawaiian culture-based education, Hawaiian-focused networks like Kanaeokana, ‘Aha Kauleo, and others are increasingly being consulted for ‘Ōiwi perspectives on history, facts, and public relations. Kua ‘Āina Ulu ‘Auamo, a backbone organization, brings networks together to synergize community-based solutions related to ‘āina stewardship. Aloha ‘āina-inspired examples, such as these, contribute to collective efficacy by strengthening social capital and cohesion among the community. And, as the planet’s climate becomes increasingly unstable, the future of life on our Pacific Islands is likewise shifting, making the resurgence and application of aloha ‘āina, as witnessed in Mauna Kea, Mālama Honua, Hawaiian culture-based education, and many other areas, a vital sign of a thriving lāhui.

LOOKING AHEAD

This introduction orients the reader to the kāhea (call) of our work. We began by sharing our purpose and stance as Kanaka Maoli authors. Next, we described our Pua Model of well-being and contextualized its five dimensions within Native Hawaiian history, language, and culture. Native Hawaiian population trends and projections were provided to better understand changes within our lāhui over time. Finally, we reviewed examples of aloha ʻāina and connected them to the concept of collective efficacy.

The main contents of *Ka Huakaʻi 2021* examine data and trends for Adults, Families, and Communities (Chapter 1), Early Childhood (Chapter 2), and School-Age Children (Chapter 3). While much of the data presented was collected by others, we attempt to reframe the findings within our historical context in accordance with Kanaka Maoli values and perspectives. Taking a strengths-based approach, we call out bright spots that celebrate progress—even as certain disparities persist. This choice is intentional and political; we take a stand to reclaim our knowledge systems, reinforce traditional practices and ways of being, and restore spaces that stimulate Kanaka Maoli vibrancy. Educating our keiki and our families as strongholds in our communities is critical to this undertaking.

As of this writing, the coronavirus (COVID-19) is a global health and economic crisis, causing widespread disruption. In Hawaiʻi, the delivery of education has been severely impacted via school closures with rapid shifts to distance, blended, and hybrid learning. Research is underway to understand the implications of this disruption for Kanaka Maoli learners and others (Kukahiko et al. 2020). Native Hawaiian and Pacific Islander populations appear to be more negatively impacted by COVID-19, compared with other ethnic groups, in part because of inequities in social determinants of health that existed prior to the health crisis (Kaholokula, Samoa et al. 2020). Although data presented here were mostly gathered prior to the pandemic, we include insights within each chapter about potential future impacts of COVID-19 on Native Hawaiian education and well-being.

He ipu kāʻeo, nou. This full calabash is now yours.