

LAUPA'I KĀNAKA

Native Hawaiian Population Forecasts for 2000 to 2050

Nolan J. Malone, PhD

September 2005

PASE REPORT

ESPEEDOMETER

STRATEGIC PRIORITIES

- ✓ Optimize and Build (Prenatal–8)
- ☐ Sustain Momentum (Grades 4–16 & post-high)
- ☐ Innovate and Optimize (KS K–12 campuses)

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Purpose of Our Study

Supporting educational initiatives for Native Hawaiians requires an understanding of the demand that will exist for such services among the population, not only in the present, but also across the life spans of the programs. Consequently, Kamehameha Schools' Policy Analysis & System Evaluation (PASE) staff conducted forecasts of the Native Hawaiian population to help provide program planners and service providers with an understanding of Native Hawaiian population trends in the past, present, and in the years to come.

What We Learned

- The Native Hawaiian population in the United States will double in size over the next fifty years.
- Children younger than age five will constitute the fastestgrowing segment of the Native Hawaiian population in the state over the next half-century.
- While the number of Native Hawaiians will more than double in the state of Hawai'i over the next fifty years, those residing in the continental United States will grow at a slightly faster rate.

Key Implications

- Native Hawaiians are a thriving population that is expected to continue to grow well into the new millennium.
- The share of Native Hawaiians living in the continental United States will increase in the coming decades, which has implications for existing or future programs.
- The anticipated growth suggests a heightened need for community-wide focus on young Native Hawaiian children.



Laupa'i Kānaka:

Native Hawaiian Population Forecasts for 2000 to 2050

Nolan J. Malone, PhD

INTRODUCTION

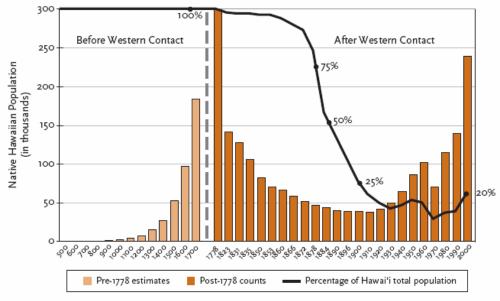
The local media have reported a statewide decrease in the school-age population (children ages five to seventeen) from roughly 218,000 in 2000 to 210,000 in 2004 (Hurley 2005). During the same period, the Native Hawaiian school-age population fell from 71,000 to 67,000. More recent Census estimates suggest that the population of Native Hawaiians and other Pacific Islanders in the state during 2004 was actually lower than the total in 2000 (Pang 2005). These accounts, however, fail to mention the methodological and demographic forces that cloud the interpretations of these estimates.

The purpose of this report is to promote an understanding of long-term demographic trends and the sources of contemporary population estimates, especially given misperceptions that may result from U.S. Census products and intermittent media accounts. This report presents Native Hawaiian population forecasts conducted by the Policy Analysis & System Evaluation (PASE) department of Kamehameha Schools. The forecasts indicate that the Native Hawaiian population—in the United States in general, and in the state of Hawai'i in particular—is expected to double by 2050. The largest increase will occur among children younger than age five, suggesting the need for long-range planning and educational initiatives to serve young Native Hawaiian keiki.

HISTORICAL POPULATION TRENDS

A full historical review should be required reading for all individuals interested in understanding the Native Hawaiian population. This report provides only a general overview of the Native Hawaiian population over time as a prelude to comprehending the forces that affect population growth in the long run. Figure 1 shows (conservative) estimates of the Native Hawaiian population over the past 1,500 years. Prior to the arrival of Western people, customs and ideologies, the Native Hawaiian population experienced high rates of growth, culminating in a total population of 300,000 by 1778.¹

Figure 1. Native Hawaiian population trends [total population size,* percentage of total population, Hawaiian Islands, 500 to 2000]



Source: Nordyke 1989.

Data sources: 1990 Census of Population; U.S. Census 2000, Summary File 2.

Note: The abrupt drop in the Native Hawaiian population count in 1970 reflects a change in U.S. census policy that removed the "part-Hawaiian" category from the list of racial/ethnic identification responses allowed. The surge in the Native Hawaiian population in 2000 is attributable to the Census Bureau's adoption of multirace/multiethnic reporting, which permits individuals of multiple races/ethnicities to report all of their racial/ethnic affiliations in lieu of choosing a single entry.

* Light bars in the graph represent hypothetical calculations reported in Nordyke (1989), which are based on data presented in Kelly (1986) and Schmitt and Zane (1977).

 $^{^1}$ Stannard (1989) estimates that the total Native Hawaiian population at the time of Western arrival ranged from 800,000 to one million.

The introduction of foreigners brought with it exposure to foreign diseases. These new illnesses not only caused death to many, but also left many Native Hawaiians who survived infertile, resulting in a dramatic reduction in the Native Hawaiian population over the following century. By the end of the nineteenth century, *Kānaka Maoli* (Native Hawaiians) numbered less than 40,000 and represented only one-fourth of the islands' growing population.

As illustrated in Figure 1, the Native Hawaiian people have rebounded since the turn of the twentieth century and, per available censuses, are fast approaching pre-Western population levels.

CONTEMPORARY POPULATION TRENDS

GEOGRAPHIC DISTRIBUTION

The majority of Native Hawaiians currently reside in the state of Hawai'i, as most people would suspect. Table 1 shows that, in the year 2000, nearly 240,000 Native Hawaiians reported Hawai'i as their state of residence in the U.S. census. However, that number accounts for only about 60 percent of the entire U.S. Native Hawaiian population, suggesting that two out of every five Native Hawaiians reside in the continental United States. In fact, Native Hawaiians today can be found in every state within the country—and, very likely, beyond U.S. boarders as well.²

 $^{^2}$ Owing to data deficiencies and lack of international coordination of data sources, the number of Native Hawaiians residing outside the United States remains unknown.

Table 1. Native Hawaiians in the United States: 2000

		Native Hawaiian Population							
			Pct. of total state	Pct. of U.S. Native					
State	Total Population	Number	population	Hawaiian population					
U.S. Total	281,421,906	401,162	0.14	100.00					
Hawai'i	1,211,537	239,655	19.78	<i>59.74</i>					
California	33,871,648	60,048	0.18	14.97					
Washington	5,894,121	13,507	0.23	3.37					
Nevada	1,998,257	8,264	0.41	2.06					
Texas	20,851,820	7,775	0.04	1.94					
Oregon	3,421,399	6,366	0.19	1.59					
Florida	15,982,378	5,285	0.03	1.32					
Arizona	5,130,632	4,906	0.10	1.22					
Colorado	4,301,261	3,990	0.09	0.99					
New York	18,976,457	3,758	0.02	0.94					
Utah	2,233,169	3,642	0.16	0.91					
Virginia	7,078,515	2,795	0.04	0.70					
Illinois	12,419,293	2,506	0.02	0.62					
North Carolina	8,049,313	2,390	0.03	0.60					
Georgia	8,186,453	2,183	0.03	0.54					
Michigan	9,938,444	2,058	0.02	0.51					
Pennsylvania	12,281,054	2,051	0.02	0.51					
Ohio	11,353,140	1,989	0.02	0.50					
Oklahoma	3,450,654	1,932	0.06	0.48					
Alaska	626,932	1,878	0.30	0.47					
Missouri	5,595,211	1,620	0.03	0.40					
Minnesota	4,919,479	1,526	0.03	0.38					
New Jersey	8,414,350	1,501	0.02	0.37					
Maryland	5,296,486	1,475	0.03	0.37					
Indiana	6,080,485	1,402	0.02	0.35					
Massachusetts	6,349,097	1,356	0.02	0.34					
Tennessee	5,689,283	1,302	0.02	0.32					
New Mexico	1,819,046	1,261	0.07	0.31					
Wisconsin	5,363,675	1,143	0.02	0.28					
Idaho	1,293,953	1,139	0.09	0.28					
South Carolina	4,012,012	1,056	0.03	0.26					
Kansas	2,688,418	997	0.04	0.25					
Louisiana	4,468,976	850	0.02	0.21					
Kentucky	4,041,769	845	0.02	0.21					
Alabama	4,447,100	833	0.02	0.21					
Connecticut	3,405,565	781	0.02	0.19					
Arkansas	2,673,400	718	0.03	0.18					
lowa	2,926,324	699	0.02	0.17					
Nebraska	1,711,263	543	0.03	0.14					
Montana	902,195	529	0.06	0.14					
Mississippi	2,844,658	505	0.08	0.13					
Rhode Island	1,048,319	311	0.02	0.08					
				0.07					
New Hampshire	1,235,786	266 264	0.02						
West Virginia	1,808,344	264	0.01	0.07					
Maine	1,274,923	243	0.02	0.06					
Wyoming	493,782	233	0.05	0.06					
District of Columbia	572,059	231	0.04	0.06					
South Dakota	754,844 783,600	207	0.03	0.05					
Delaware	783,600	140	0.02	0.03					
North Dakota	642,200	132	0.02	0.03					
Vermont	608,827	76	0.01	0.02					

Source: Census 2000, SF1 Data Files

Among the continental states (Figure 2), California hosts the highest sheer number of Native Hawaiian residents (60,048), while Nevada has the highest concentration of Native Hawaiians within its borders (0.4 percent). Concentration is defined as the number of Native Hawaiians within a state relative to the total population in that state, or more simply, the percentage of the state population that is Native Hawaiian. While one out of every five residents of the state of Hawai'i (19.7 percent) is Native Hawaiian, only four out of every thousand residents of Nevada are Kānaka Maoli.

MT 529 ND 132 MN 1,526 SD 207 1,139 WY 233 NE 543 699 CO 3,990 KS 997 MO 1,620 845 DC OK 1,932 NM 1,261 Hawaiian Population per State 718 76 -833 2,796 - 6,366 6,367 -13,507 13,508+

Figure 2. Native Hawaiians in the continental United States: 2000

Source: Kana'iaupuni (2002).

The state with the fewest Native Hawaiians is Vermont, with only seventy-six Native Hawaiian residents in 2000. These seventy-six individuals represented about 0.02 percent of Vermont's total population and roughly 0.01 percent of the total U.S. Native Hawaiian population. In fact, as one examines all the continental states within Figure 2, one finds that the number of Native Hawaiians within each state gradually decreases as

one moves from the western states on the Pacific coast to the states occupying the northeastern portion of the country. This phenomenon, which is ripe for further investigation, represents one segment of the Native Hawaiian diaspora that has evolved since the time of Western arrival to the Hawaiian archipelago.

Within the state of Hawai'i, Kānaka Maoli can be found on each of the seven major islands: Hawai'i (Big Island), Maui, Lāna'i, Moloka'i, Oʻahu, Kaua'i and Niʻihau. As shown in Table 2, the highest concentration of Native Hawaiians occurs on the island of Niʻihau, where roughly four out of every five residents (81.3 percent) are Native Hawaiian. The island of Moloka'i has the second highest concentration at 61.2 percent. Surprisingly, the island with the greatest sheer number of Native Hawaiian residents, Oʻahu, has the lowest concentration: only 17.5 percent of all Oʻahu residents are Native Hawaiian, even though the number of Native Hawaiians on Oʻahu is over 1,000 times greater than that of Niʻihau and more than thirty times the number on Moloka'i.

Table 2. Native Hawaiians in the state of Hawai'i, by island: 2000

	_	Native Hawaiian population						
Geographic unit	Total population	Number	Pct. of total area population	Pct. of state Native Hawaiian population				
STATE	1,211,537	239,655	19.78	100.00				
Island of O'ahu	876,150	153,125	17.48	63.89				
Island of Hawai'i	148,675	43,020	28.94	17.95				
Island of Maui	117,640	24,880	21.15	10.38				
Island of Kaua'i	58,305	13,385	22.96	5.59				
Island of Moloka'i	7,255	4,440	61.20	1.85				
Island of Lāna'i	3,195	635	19.87	0.26				
Island of Ni'ihau	160	130	81.25	0.05				

Source: Aloha Counts: Census 2000 Special Tabulations for Native Hawaiians.

Narrowing the geographic detail down to the high school complex gives insights about the characteristics of individual neighborhoods. Table 3 presents statistics for the total population and the Native Hawaiian population in each high school complex within the state.

Table 3. Native Hawaiians in the state of Hawai'i, by high school complex: 2000

		_		Native Hawaiian po	pulation
		•		Pct. of total area	Pct. of state Native
Geographic area		Total population	Number	population	Hawaiian populatio
STATE		1,211,537	239,655	19.78	100.00
Castle	Windward O'ahu	52,150	15,690	30.09	6.55
Wai'anae	Leeward O'ahu	30,830	15,640	50.73	6.53
Kailua	Windward O'ahu	28,395	10,130	35.68	4.23
Kaimuki	Honolulu, O'ahu	<i>77,7</i> 55	9,045	11.63	3.77
Hilo	East Hawai'i	27,630	8,545	30.93	3.57
Roosevelt	Honolulu, O'ahu	60,705	8,220	13.54	3.43
Nānākuli	Leeward O'ahu	11,425	7,905	69.19	3.30
McKinley	Honolulu, O'ahu	69,345	7,690	11.09	3.21
Campbell	Leeward O'ahu	43,635	7,685	17.61	3.21
Kealakehe	West Hawai'i	31,340	7,655	24.43	3.19
Pearl City	Leeward O'ahu	48,860	7,525	15.40	3.14
Kekaulike	Maui	33,405	7,450	22.30	3.11
Mililani	Central O'ahu	45,125	7,205	15.97	3.01
Baldwin	Maui	22,780	6,890	30.25	2.87
Maui	Maui	41,635	6,715	16.13	2.80
Farrington	Honolulu, O'ahu	46,535	6,645	14.28	2.77
Waipahu	Leeward O'ahu	51,460	6,495	12.62	2.71
Kapa'a	Kaua'i	24,875	6,375	25.63	2.66
Waiākea	East Hawai'i	19,765	5 <i>,77</i> 5	29.22	2.41
Aiea	Central O'ahu	41,275	5,765	13.97	2.41
Kahuku	Windward O'ahu	17,875	5,735	32.08	2.39
Kalāheo	Windward O'ahu	37,450	5,710	15.25	2.38
Kapolei	Leeward O'ahu	25,180	5,295	21.03	2.21
Leilehua	Central O'ahu	41,610	4,830	11.61	2.02
Kea'au	East Hawai'i	16,640	4,685	28.16	1.95
Pāhoa	East Hawai'i	14,765	4,650	31.49	1.94
Moloka'i	Moloka'i	7,255	4,440	61.20	1.85
Honoka'a	West Hawai'i	14,255	4,405	30.90	1.84
Moanalua	Central O'ahu	37,315	4,115	11.03	1.72
Kaua'i	Kaua'i	22,745	4,095	18.00	1.71
Kaua i Kalani	Honolulu, O'ahu	36,575	3,960	10.83	1.65
Kaiser	Honolulu, O'ahu	30,670	3,580	11.67	1.49
Konawaena	West Hawai'i	10,710	3,305	30.86	1.38
Waimea	Kaua'i	10,685	2,915	27.28	1.22
Waialua	Central O'ahu	12,435	2,855	22.96	1.19
Lahainaluna	Maui	17,965	2,660	14.81	1.11
	West Hawai'i				
Kohala Ka'ū	East Hawai'i	6,040 5,750	1,885 1,720	31.21 29.91	0.79 0.72
			1,720		
Radford	Central O'ahu	29,545	1,405	4.76	0.59
Hāna	Maui	1,855	1,165	62.80	0.49
Lāna'i	Lāna'i	3,195	635	19.87	0.26
Laupāhoehoe Ni'ihau	East Hawai'i Ni'ihau	1,780 160	395 130	22.19 81.25	0.16 0.05

Source: Aloha Counts: Census 2000 Special Tabulations for Native Hawaiians.

These estimates show that in 2000, the Castle High School complex had the largest number of Native Hawaiian residents: 15,690 Native Hawaiians lived there, representing 30.1 percent of the total population in the neighborhood. However, because both Ni'ihau and Moloka'i maintain only one high school on each of their islands, the concentrations of Native Hawaiians in these "neighborhoods" are identical to the island-level statistics presented earlier: 81.3 and 61.2 percent of all residents on Ni'ihau and Moloka'i, respectively, were Native Hawaiian. In fact, in 2000, these two areas were among five high school complexes in which Native Hawaiians represented more than half of all residents: Nānākuli, O'ahu (69.2 percent), Hāna, Maui (62.8 percent) and Wai'anae, O'ahu (50.7 percent) round out the list.

DEMOGRAPHIC CHARACTERISTICS

The modern Native Hawaiian population is not only geographically unique, as noted above, but also demographically so. This distinction is evidenced by the differences in age structure that can be noted between the general U.S. population and the U.S. Native Hawaiian population. In Figure 3, each horizontal bar represents the percentage of the population in a specific five-year age group,³ by sex. The age distributions for males and females are split by a vertical axis to demonstrate any gendered differences in population structure across the age spectrum. It is the resulting shape of the graph, rather than the statistics within it, that provides a snapshot of the demographic characteristics of a population. Early applications of this analytic technique resulted in pyramid-shaped graphs which led to the term "population pyramid" for this methodology, although the graphs can take many forms (rectangles, hour glasses, etc.).⁴
Three broad demographic forces can affect the shape of a population pyramid: fertility, the rate of births within the population; mortality, the rate of deaths within the

³ The terminal age category, "85+," is open-ended and therefore represents the percentage of all individuals, by sex, who have survived beyond their 85th birthday.

⁴ For a population in which the same number of births (to each sex) occurred, there was no migration, and every individual survived beyond their 85th birthday, the resulting "population pyramid" would be a perfect rectangle in which each bar represented roughly 5.6 percent of the population.

population; and, migration, the combined effects of new arrivals to and departees from the population.

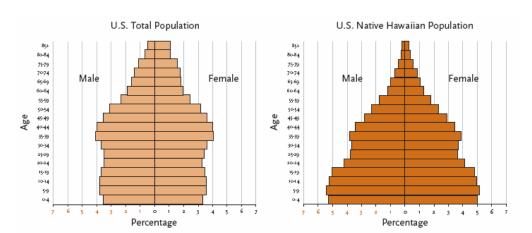


Figure 3. Population pyramids, United States total and Native Hawaiian populations: 2000

The pyramids presented in Figure 3 compare the age structure of the entire U.S. population with that of U.S. Native Hawaiians only. While the Native Hawaiian graph resembles a pyramid, with a broad base tapering to a narrow crown, the total U.S. population graphic is shaped more like an A-frame house, with a rectangular bottom half, tapering to a slightly more narrow crown. These figures suggest salient demographic differences between the Native Hawaiian population and the total U.S. population. The broader base in the Native Hawaiian pyramid shows that the younger ages constitute a large percentage of the population, but in decreasing magnitude as age increases. This could be due to higher fertility in this period, greater out-migration⁵ at older ages, or high mortality rates throughout the life course. Likewise, the narrow crown at the top of the pyramid could be associated with these three forces, but is most often associated with higher mortality, especially among *kūpuna* (elders) ages sixty-five and older.

⁵ Given that these graphs represent the entire country, it is likely that very little international migration occurs that would influence the Native Hawaiian pyramid.

A similar set of pyramids can be created at the state level, specific to the populations in the state of Hawai'i. Like the U.S.-level figures, the pyramids in Figure 4 suggest a younger Native Hawaiian population compared with the general population in the state. Further, because interstate migration is more common than international migration among Native Hawaiians, there are slight differences between the national and state Native Hawaiian populations among middle-range age groups, especially among young adults, who may leave Hawai'i for the continent to pursue educational, occupational or other opportunities. At higher ages, there appears little difference from the national figures: The elderly continue to constitute a lower proportion of the Native Hawaiian population than is witnessed in the general population.

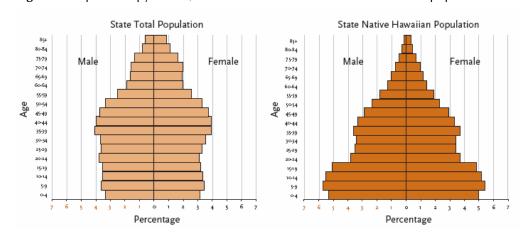


Figure 4. Population pyramids, Hawai'i state total and Native Hawaiian populations: 2000

FUTURE POPULATION TRENDS⁶

Population pyramids not only help to identify certain trends about a population at the time of data collection, but they also provide a glimpse of possible future demographic trends. The changing shape of a population pyramid over time can indicate key transitions in fertility, mortality and/or migration.

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⁶ Native Hawaiian population forecasts were conducted by a team led by demographer David Swanson, Chair of the Department of Sociology and Anthropology, as well as Director of the Center for Population Studies, at the University of Mississippi.

Figure 5 shows general Native Hawaiian population forecasts in the state between 2005 and 2050. According to these estimates, the Native Hawaiian population in the United States will more than double over the next fifty years, reaching the one million mark shortly after the start of the year 2050. Within the state of Hawai'i, the Native Hawaiian population will increase by nearly 300,000 over the same period (orange area). Meanwhile, in the continental United States, the number of Native Hawaiians will nearly triple, reaching roughly 450,000. Assuming that trends in interstate migration will persist, the percentage of Native Hawaiians residing in Hawai'i will decrease slightly, from 59.7 percent in 2000 to 54.4 percent by 2050.

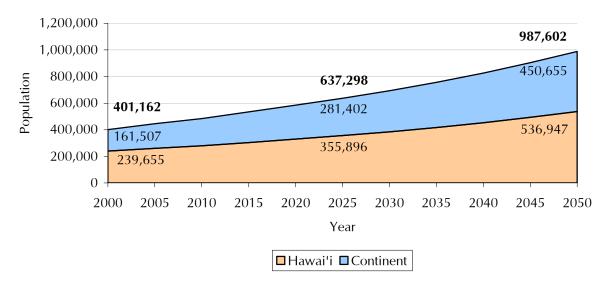


Figure 5. Native Hawaiian population projections: State of Hawai'i, 2005 to 2050

Contrary to recent media reports, the size of the Native Hawaiian population in the state is not declining. Moreover, the representation of Native Hawaiians in the state will increase slightly over the next twenty years: Figure 6 shows that the percentage of the state population that is at least part-Hawaiian will grow from 20.2 in 2000 to 21.2 percent by 2025.⁷

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⁷ These percentages are calculated by using PASE Native Hawaiian population forecasts alongside U.S. Census Bureau forecasts of the total state population during the same period.

165,043

65,870

2050

2045

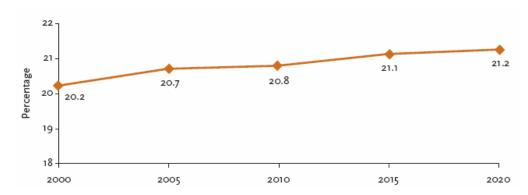
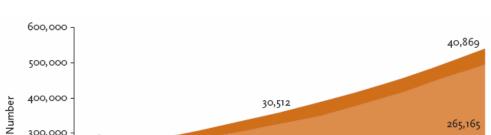


Figure 6. Native Hawaiians as a percentage of total state population: 2000 to 2025

Figure 7 provides a glimpse of population change among four major age groups within the Native Hawaiian population: the very young (children younger than age five); school-age children (ages five to nineteen); working-age adults (ages twenty to sixtyfour); and kūpuna (ages sixty-five and older).



175,992

106,990

42,403

2025

2030

20 to 64 years

2035

2040

65 years and older

Figure 7. Population forecasts for Native Hawaiians, by age group: State of Hawai'i, 2000 to 2050

300,000

200,000

100,000

14,631

124,318

76,029

24,677 2005

2000

2010

o to 4 years

2015

2020

5 to 19 years

The fastest growing age sector in the Native Hawaiian population will be young children, ages four and younger. Figure 8 shows the estimated number of young Native Hawaiians over the next fifty years, increasing from 24,677 in 2000 to 65,870 by 2050. This represents a 167 percent increase. As the number of young Native Hawaiians increases, their relative share as a percentage of the Native Hawaiian population also grows. Based on our forecasts, the number of young Native Hawaiians will grow to represent 12.3 percent of the total Native Hawaiian population by the year 2050, an increase of roughly 19 percent from the 2000 level.

Figure 8. Population forecasts for young Native Hawaiians (under 5 years): State of Hawai'i, 2000 to 2050



The number of school-age Native Hawaiians in the state will more than double over the next fifty years. Figure 9 presents population trends among all children ages five to nineteen over the next fifty years. A moderate "baby bust" finishes rippling through this age group by 2010, resulting in continuous increases until 2050. The age group of five-to nineteen-year-olds will increase from 76,029 in 2000 to 165,043 by 2050, representing an increase of 117 percent over the fifty-year period.

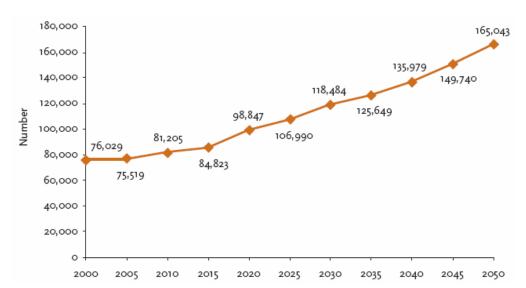


Figure 9. Population forecasts for school-age Native Hawaiian children (ages 5 to 19): State of Hawai'i, 2000 to 2050

To summarize all the various population forecasts, Table 4 in the Appendix provides selected age-group and enrollment estimates of the Native Hawaiian population in the state of Hawai'i from 2005 to 2015. The Appendix also contains detailed Native Hawaiian age-group forecasts spanning from 2000 to 2050 for the state of Hawai'i (Table 5) and for the entire United States (Table 6).

Note that although the Native Hawaiian population is expected to grow in the coming decades according to scientific forecasts based on current conditions, any number of economic, social, and political shocks—such as stock market failures, public health epidemics, and wars—can significantly alter the population's demographic outlook. For this reason, continual and consistent population analyses must be conducted to ensure that programs and service providers receive the most reliable data possible over the coming decades.

IMPLICATIONS

The forecasted increases in Native Hawaiian preschool and school-age child populations have serious implications for the general well-being of the population. Anticipating this continued growth is important to programs serving young Native Hawaiians with education and other services. For example, these data are essential to ongoing planning efforts for the Kamehameha Schools' Ho'omohala Kaiāulu initiative, which is a collaborative effort within communities focusing on keiki ages zero to eight.

Economic well-being is an important consideration, especially for families with children. Figure 10 shows the dependency ratios for the Native Hawaiian population over the period spanning 2005 to 2050. A dependency ratio is the number of would-be dependents—children younger than age eighteen, and seniors age sixty-five and older—present for every working-age adult in the population. This figure illustrates that the dependency ratio rises dramatically from just above a 1-to-1 ratio currently to 1.2 dependents per working-age adult by 2020, where it hovers for the next thirty years. These ratios suggest that the burden on working-age Native Hawaiians will increase in the coming years, placing economic, social and, perhaps, emotional strain on family bread-winners. At the community level, a higher dependency ratio, combined with the large increase of young Native Hawaiians, suggests the need to ensure adequate public and private resources to accommodate their growth.

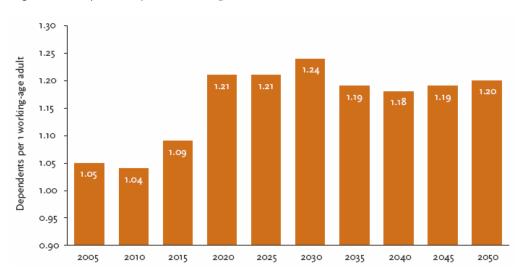


Figure 10. Dependency ratios among Native Hawaiians: State of Hawai'i, 2000 to 2050

The projected growth of school-age Native Hawaiians—which is derived from a broad examination of historical trends and data sources—may have been overlooked in the recent newspaper article predicting a diminishing school-age population in the state (Hurley 2005). This misinformation reinforces the fact that snapshot population estimates from the U.S. Census Bureau, especially relative to the Native Hawaiian population, must be treated with caution. What one-time population estimates fail to convey is that "dips" in population counts or estimates may be temporary, reflecting lower fertility, high infant mortality or uncommon migration patterns that are relatively brief and ripple their ways through the remaining stages of a population's age structure. Currently, a small "baby bust" is moving its way through the state's school-age population. These children will reach adult ages by 2010. Evidence of this phenomenon can be seen in Figure 11, in which the age structure of the state's Native Hawaiian population in 2000 is juxtaposed with the forecasted Native Hawaiian population of 2050. One can see a general evening out of the pyramid structure overall (signaling improvements in longevity), along with a slightly lower representation of adults in the fifty- to sixty-year-old age categories.

2000 (Actual) 2050 Forecast 80+ 80+ 75-79 75-79 70-74 70-74 65-69 65-69 60-64 60-64 Male Female 55-59 55-59 Male Female 50-54 50-54 45-49 45-49 40-44 40-44 35-39 35-39 30-34 30-34 25-29 25-29 20-24 20-24 15-19 15-19 10-14 10-14 5-9 5-9 0-4 0-4 5 0 2 5 3 2 0 3 5 4 Percentage Percentage

Figure 11. Native Hawaiians in the state of Hawai'i: 2000 and 2050

Applying the same population pyramid tool to Native Hawaiians living in the continental United States, Figure 12 indicates a more equitable distribution of the population, such that Native Hawaiians of all ages are more routinely represented among the continental population. While the size of the Native Hawaiian population on the continent will, indeed, grow, it will not be at the expense of the Native Hawaiian population residing in Hawai'i.

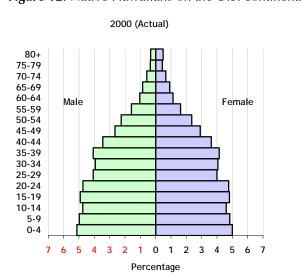
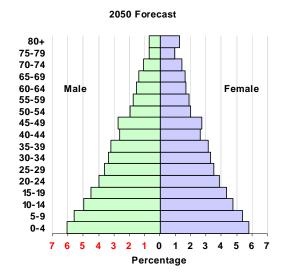


Figure 12. Native Hawaiians on the U.S. continent: 2000 and 2050



Because various data sources report Native Hawaiian population statistics—even if all those sources are U.S. Census Bureau products—contradictory interpretations will persist. Accordingly, it is important to note that all data are not the same; comparing two separate data sources, such as censuses and estimates, can lead to inaccuracies.

Perhaps more important, however, is the lack of data. With the completion of Census 2000 came the end of the U.S. census long form, which will be replaced in future years by the less comprehensive (albeit less expensive) American Community Survey. The end of the long form may portend the end of any substantive data related to smaller populations in the United States such as Native Hawaiians. Instead, in most data products, Native Hawaiians will be resigned to the general Native Hawaiian and Other Pacific Islander (NHOPI) race category. Further, the estimates produced by the American Community Survey will be accompanied by large standard errors, meaning that the true Native Hawaiian population total could very well exist among a wide range of possible values. For this reason, federal and state government agencies, as well as organizations that serve Native Hawaiians, should make concentrated efforts to gather data relative to Native Hawaiians and support large-scale surveys and censuses that can better assist with assessing the true demographic trends of the population.

Understanding growth trends within the Native Hawaiian population is critical to the long-range plans of organizations like Kamehameha Schools. Consistent and careful monitoring of Native Hawaiian population trends is also crucial for large agencies such as the Hawai'i Department of Education, as Native Hawaiians constitute the state's largest share of public school students.

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APPENDIX

Table 4. Baseline population estimates and forecasts for the state of Hawai'i: 2000 to 2015

	2000)	2005		2010		2015	5	
Native Hawaiian Population	Number	Pct.	Number	Pct.	Number	Pct.	Number	Pct.	
Total Native Hawaiian population in the United States	401,000	100.0	445,000	100.0	484,000	100.0	534,000	100.0	
State of Hawai'i	240,000	59.9	260,000	58.4	279,000	57.6	304,000	56.9	
Continental United States	162,000	40.4	185,000	41.6	205,000	42.4	230,000	43.1	
Total Native Hawaiian population in the state of Hawai'i	240,000	100.0	260,000	100.0	279,000	100.0	304,000	100.0	
0 to 2 years old	15,000	6.3	20,000	7.7	19,000	6.8	23,000	7.6	
3 to 4 years old	10,000	4.2	13,000	5.0	12,000	4.3	16,000	5. 3	
5 to 17 years old	68,000	28.3	64,000	24.6	71,000	25.4	75,000	24.7	
18 years and older	147,000	61.3	164,000	63.1	177,000	63.4	190,000	62.5	
Total Native Hawaiian population younger than 18 in the state of Hawai'i	92,000	100.0	97,000	100.0	102,000	100.0	114,000	100.0	
0 to 2 years old	15,000	16.3	20,000	20.6	19,000	18.6	23,000	20.2	
3 to 4 years old	10,000	10.9	12,000	12.4	12,000	11.8	16,000	14.0	
5 to 8 years old	21,000	22.8	19,000	19.6	25,000	24.5	24,000	21.1	
9 to 17 years old	47,000	51.1	46,000	47.4	46,000	45.1	51,000	44.7	
Total Native Hawaiian population, ages 5 to 17, enrolled in the state of Hawai'i*	66,000	100.0	63,000	100.0	69,000	100.0	73,000	100.0	
Enrolled in public schools	58,000	87.9	53,000	84.1	59,000	85.5	63,000	86.3	
Enrolled in Kamehameha Schools**	3,500	5.3	5,500	8.7	5,500	8.0	5,500	7.5	
Enrolled in other private schools***	4,500	6.8	4,500	7.1	4,500	6.5	4,500	6.2	
Total children, ages 5 to 17, enrolled in public schools in the state of Hawai'i	179,000	100.0	173,000	100.0	176,000	100.0	188,000	100.0	
Native Hawaiian	58,000	32.4	53,000	30.6	59,000	33.5	63,000	33.5	
Not Hawaiian	121,000	67.6	120,000	69.4	117,000	66.5	125,000	66.5	

Table 5. Native Hawaiian population forecasts: state of Hawai'i, 2000 to 2050

	Census	Census Forecast estimates									
Age group	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
State of Hawai'i											
Total	239,655	259,846	278,645	303,773	329,496	355,896	384,527	416,598	452,899	493,109	536,947
0 to 4 years	24,677	32,208	30,851	38,754	40,417	42,403	45,932	50,768	56,201	61,276	65,870
5 to 9 years	26,675	24,054	31,675	30,270	38,153	39,814	41,798	45,321	50,149	55,572	60,639
10 to 14 years	25,660	26,195	23,667	31,236	29,834	37,710	39,372	41,356	44,878	49,704	55,125
15 to 19 years	23,694	25,270	25,862	23,317	30,860	29,465	37,315	38,973	40,953	44,465	49,278
20 to 24 years	18,011	23,158	24,800	25,352	22,826	30,321	28,937	36,738	38,388	40,358	43,852
25 to 29 years	16,539	17,360	22,572	24,152	24,702	22,196	29,640	28,268	36,017	37,658	39,617
30 to 34 years	16,427	15,907	16,819	21,938	23,505	24,053	21,569	28,953	27,595	35,281	36,911
35 to 39 years	17,488	15,853	15,416	16,281	21,342	22,894	23,438	20,983	28,289	26,947	34,553
40 to 44 years	15,866	16,929	15,380	14,917	15,772	20,763	22,295	22,833	20,413	27,623	26,301
45 to 49 years	13,795	15,272	16,373	14,827	14,373	15,213	20,106	21,609	22,139	19,767	26,841
50 to 54 years	11,015	13,100	14,601	15,632	14,149	13,691	14,523	19,252	20,727	21,226	18,944
55 to 59 years	8,814	10,280	12,334	13,730	14,735	13,303	12,879	13,661	18,188	19,583	20,077
60 to 64 years	6,363	8,019	9,421	11,315	12,617	13,559	12,227	11,824	12,560	16,766	18,070
65 to 69 years	5,149	5,562	7,077	8,314	10,022	11,186	12,044	10,844	10,479	11,141	14,912
70 to 74 years	4,078	4,293	4,667	5,943	6,998	8,454	9,448	10,185	9,165	8,843	9,416
75 to 79 years	2,720	3,184	3,359	3,644	4,654	5,467	6,627	7,394	7,995	7,181	6,932
80 years and older	2,684	3,203	3,769	4,150	4,535	5,404	6,379	7,636	8,766	9,717	9,610

Table 6. Native Hawaiian population forecasts: United States, 2000 to 2050

	Census	Forecast estimates									
Age group	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
United States											
Total	401,162	444,910	483,945	534,081	584,834	637,298	693,572	756,396	825,869	903,491	987,602
0 to 4 years	41,051	55,583	52,740	65,971	69,015	73,438	80,275	89,901	99,490	110,334	119,296
5 to 9 years	42,518	40,933	55,423	52,589	65,782	68,817	73,228	80,044	89,643	99,205	110,017
10 to 14 years	40,759	42,455	40,872	55,341	52,510	65,684	68,714	73,118	79,925	89,509	99,057
15 to 19 years	39,403	40,597	42,286	40,710	55,122	52,303	65,424	68,442	72,829	79,608	89,155
20 to 24 years	33,357	39,134	40,320	41,997	40,432	54,746	51,946	64,978	67,975	72,332	79,065
25 to 29 years	29,563	33,110	38,843	40,019	41,685	40,132	54,339	51,560	64,495	67,470	<i>71,7</i> 95
30 to 34 years	29,345	29,302	32,820	38,499	39,665	41,317	39,777	53,860	51,106	63,927	66,876
35 to 39 years	30,762	29,015	28,969	32,449	38,062	39,214	40,847	39,326	53,249	50,526	63,201
40 to 44 years	27,283	30,334	28,611	28,563	31,996	37,528	38,663	40,274	38,774	52,504	49,819
45 to 49 years	22,766	26,743	29,735	28,046	27,996	31,362	36,782	37,895	39,474	38,005	51,462
50 to 54 years	18,432	22,074	25,927	28,831	27,193	27,141	30,407	35,658	36,735	38,267	36,843
55 to 59 years	13,978	17,588	21,070	24,746	27,522	25,957	25,901	29,023	34,029	35,056	36,519
60 to 64 years	9,870	13,003	16,361	19,612	23,029	25,619	24,161	24,099	27,010	31,660	32,614
65 to 69 years	8,000	8,847	11,654	14,665	17,592	20,651	22,981	21,673	21,606	24,223	28,383
70 to 74 years	6,095	6,802	7,526	9,913	12,474	14,979	17,578	19,570	18,455	18,385	20,621
75 to 79 years	3,982	4,777	5,326	5,898	7,767	9,774	11 <i>,</i> 753	13,785	15,357	14,480	14,412
80 years and older	3,998	4,614	5,461	6,231	6,992	8,639	10,795	13,191	15 <i>,</i> 717	18,000	18,467