LEFT BEHIND?

The Status of Hawaiian Students in Hawai'i Public Schools

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AT A GLANCE

Hawaiians are among the most underprivileged students in the state's public school system. This analysis shows that compared to other major ethnic groups, Hawaiian children have the lowest test scores and graduation rates, and are overrepresented in special education and subsidized lunch programs. Hawaiian students also have disproportionately higher rates of grade retention and absenteeism than do non-Hawaiian students. Public schools in Hawai'i, especially those with large numbers of Hawaiian students, have difficulty correcting these problems partly due to inexperienced teachers and high turnover among staff. The result is that Hawaiian children are too often deprived of opportunities for intellectual engagement, social growth, and other aspects of a quality education that help to pave the way to fulfilling futures.

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KAMEHAMEHA SCHOOLS

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Executive Summary

Hawaiian students rank among the lowest of all major ethnic groups in the state's public school system by nearly every measure of educational engagement and success. This report documents the poor outcomes of Hawaiian students and discusses the role that the public school system plays in their marginalization. Important findings are listed below.

- Hawaiian students are more likely than their non-Hawaiian peers to attend low-quality schools. Fully 79 percent of predominantly Hawaiian schools are in corrective action, compared to just 17 percent of predominantly non-Hawaiian schools.
- Schools with high concentrations of Hawaiians tend to have teachers with less experience and tenure. Generally, this relationship between size of Hawaiian enrollment and teacher qualifications is statistically significant, even after controlling for differences in the student body's economic background, English proficiency, and special education needs.
- The standardized test scores of Hawaiian students are the lowest among all major ethnic groups, consistently lagging behind total DOE averages by at least 9 percentiles. Moreover, the gap between Hawaiian student scores and total DOE averages increases as students move through the system.
- Hawaiian students are overrepresented in the special education system. In School Year 2000-2001, more than 18 percent of Hawaiian students were classified as requiring special education, compared to just 11 percent of non-Hawaiian students.
- Absenteeism is more prevalent among Hawaiian students than non-Hawaiians. Nearly 10 percent of Hawaiian students missed more than 20 days in a semester during School Year 1999-2000, compared to just 6 percent of non-Hawaiians.
- Compared to other ethnic groups, Hawaiian students come from more economically disadvantaged backgrounds, as evidenced by their higher rates of participation in the subsidized lunch program. Whereas more than one-half of Hawaiian students receive subsidized lunches, just one-third of non-Hawaiian students do so.
- The graduation rates of Hawaiian students are among the lowest in the DOE and grade retention rates among the highest. Between grades 9 and 12, more than one in five Hawaiian students will be retained in grade. Hawaiian students are also most likely to be classified as "missing" from the system.
- Despite guidance programs aimed at decreasing high-risk behavior, Hawaiian adolescents have the highest rates of juvenile arrest, and are more likely than their non-Hawaiian counterparts to use drugs and engage in early sexual activity.

In total, these findings suggest that Hawaiian children are left behind in our state public school system. Rather than helping underprivileged students, the system further compounds social and economic disadvantages with inequitably distributed educational and teaching resources, disproportionately high numbers of special education referrals, and academic and guidance programs that clearly fail to reach a large number of children that need help. As a result, Hawaiian children are too often deprived of opportunities for intellectual engagement, social growth, and other aspects of a quality education that provide the keys to lifetime opportunities and fulfillment.

The challenges of creating change require innovation and creative solutions, particularly in the context of limited state resources for education. Perhaps the greatest hope for Hawaiian public school students may therefore lie in collaborative partnerships that begin to address these needs. Included are several new partnerships being developed and implemented jointly by Kamehameha Schools and the DOE. These initiatives begin to build upon strategic areas of focus, some brand new, some ongoing, that improve the educational opportunities of Hawaiian children in the public school system. However, there remains an ongoing need for concerted policy dialogue and action to raise the well-being of native Hawaiian children.

Introduction

By virtually every measure of well-being, Hawaiians are among the most disadvantaged and marginalized ethnic groups in the State of Hawai‘i, with disproportionately high rates of unemployment, poverty, health risks, disease, adolescent risk behavior, child abuse and neglect, arrests, and incarceration. These troubling indicators of well-being paint a dismal picture of the intergenerational cycle of marginalization in which Hawaiians are trapped. The social and economic disadvantages facing Hawaiians today breed apathy and hopelessness among many Hawaiian children, the effects of which are apparent in their poor educational outcomes.

Quality education promises to break this cycle, providing enhanced opportunities, a more positive sense of self, and pathways to social and economic success, the benefits of which are passed on to future generations. However, Hawaiian students have languished in the state public school system, faced with adverse circumstances such as the following:

- Schools in areas with high concentrations of Hawaiians are typically corrective action schools with less experienced teachers.
- Standardized reading and math test scores for Hawaiian students are the lowest among all major ethnic groups in the DOE.
- Hawaiian children are less likely to graduate from high school and more likely to be enrolled in special education programs, retained in grade or “missing” from the system than are students from other major ethnic groups.

This report focuses on the status of Hawaiian students in the DOE system. We begin with an overview of school quality and quality of instruction in the DOE as a contextual background against which to examine the performance of Hawaiian students. Next, we measure the engagement and performance of Hawaiian students in the DOE through a set of indicators that includes standardized test scores, enrollment in special education programs,

absentee/attendance rates, dropout, retention and graduation rates, and the proportion of students receiving subsidized (free or reduced-price) lunches, all of which constitute the standard measurements that permit the identification of students who are educationally "at-risk." Enrollment in special education programs serves as an indicator for students who enter the school system with distinct external disadvantages, and may highlight disparities in both student capabilities and the processes by which schools classify students. Participation in the subsidized lunch program serves as a proxy for students who come from economically disadvantaged environments.

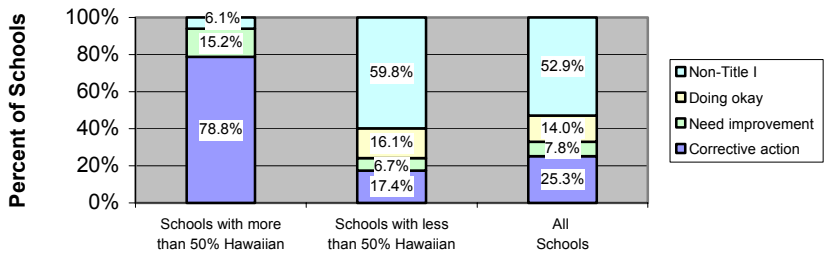
This portrait of the current status of Hawaiian children in public schools, along with corollary data on high-risk behaviors, provides an overall assessment of how students fare in the public education system, and a glimpse into their future educational and occupational prospects. But while the problems are apparent, the solutions are less so. This report ends with a look to the future at new sources of hope – partnerships that couple the extensive reach of the public school system with the educational resources of Kamehameha Schools. We highlight some of the strategies for intervention that are currently being implemented in these collaborations. These are critically important exploratory efforts to create change. However, they do not diminish the ongoing need for greater focus and more effective policy discussions on how best to meet the needs of Hawai‘i’s keiki.

School Quality

Schools in areas with high concentrations of Hawaiian students tend to be of poorer quality than other DOE schools. In an effort to track school performance and identify schools in need of assistance, the DOE conducts "Service Testing," or a review of each of the 123 Title I schools. A review team evaluates the effectiveness of a school's programs and procedures, and assigns each school to one of three categories: 1) corrective action, 2) needs improvement, or 3) satisfactory (i.e., no changes required). Classification is determined by whether a school has achieved "adequate yearly progress" (AYP), a measure based primarily on the school's academic standards and academic assessments (i.e., student test scores), as well as graduation rates and other academic indicators. Schools that do not achieve AYP for two consecutive years are classified as "in need of improvement." Schools that do not achieve AYP for a third year are classified as requiring "corrective action," meaning that the school must develop a plan for comprehensive school reform. Thus, school status serves as an indicator not only of academic standards and student test scores, but also of progress. Corrective action schools are those that have failed students, providing them with a sub-standard education.

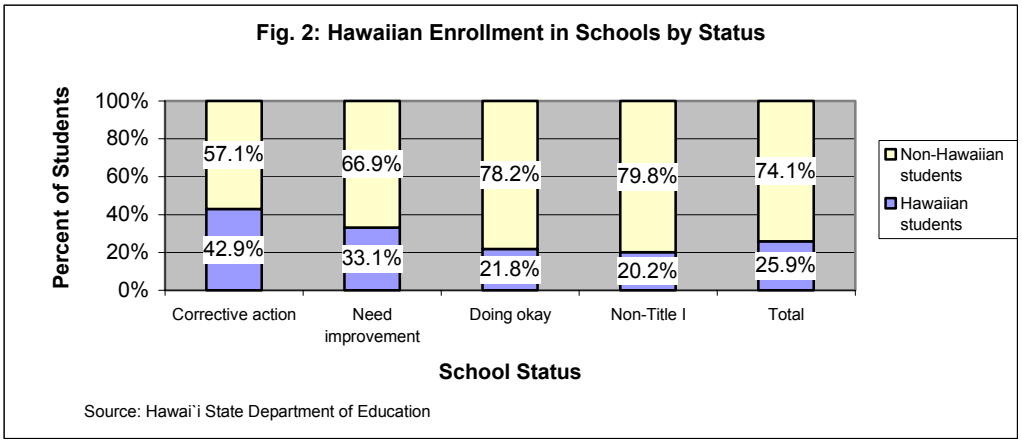
As shown in the Figure 1 below, 26 out of 33 (78.8 percent) Hawaiian-dominated schools (i.e., those containing 50 percent or more Hawaiian student body) are in corrective action. None of the predominantly Hawaiian Title I schools is classified as satisfactory with no changes required.

Fig. 1: Predominantly Hawaiian Schools by School Status



Source: Hawai`i State Department of Education

A breakdown of DOE schools by school status and Hawaiian enrollment shows that corrective action schools have a disproportionately high number of Hawaiian students. In corrective action schools throughout the state, approximately 42.9 percent of students are Hawaiian. By comparison, in schools classified as satisfactory, Hawaiians constitute just 21.8 percent of students, though they account for 25.9 percent of the total DOE student body.



Furthermore, fully 33.1 percent of Hawaiian students in the DOE are in corrective action schools, compared to just 15.4 percent of non-Hawaiian students. (Note that Hawaiian students constitute roughly one-fourth of the entire DOE student body.)

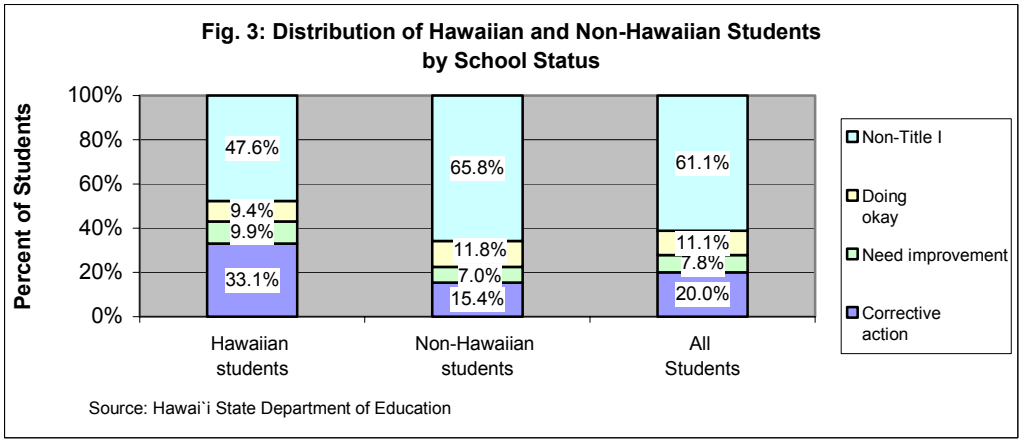


Table 1 below provides a detailed breakdown of predominantly Hawaiian DOE schools by corrective action status.

Table 1: Corrective Action Status in DOE Schools with More than 50% Hawaiian Student Enrollment

	Total Enrollment	No. of Hawn/ Part-Hawn	% of Hawn/ Part-Hawn
Non-Title 1 Schools			
Keanae	3	3	100.0
Niihau	29	29	100.0
Total	**32**	**32**	**100.0**
Schools in Corrective Action			
Nanakuli 2nd Elem	655	610	93.1
Pope	320	288	90.0
Keaukaha	281	252	89.7
Kilohana	118	102	86.4
Kualapuu	387	327	84.5
Maunaloa	54	43	79.6
Hana High & Elem	388	297	76.5
Hauula	320	241	75.3
Waiahole	131	95	72.5
Waianae	664	461	69.4
Kaunakakai	271	187	69.0
Molokai High & Inter	757	515	68.0
Nanakuli High & Inter	1325	893	67.4
Waimanalo Elem & Inter	577	385	66.7
Kahaluu	240	158	65.8
Nanaikapono	955	589	61.7
Kamaile	724	445	61.5
Mountain View	434	262	60.4
Makaha	655	392	59.8
Waianae Inter	1080	631	58.4
Paia	214	124	57.9
Hookena	298	170	57.0
Leihoku	823	467	56.7
Kaaawa	162	91	56.2
Honaunau	300	167	55.7
Maili	777	428	55.1
Total	**12910**	**8620**	**66.8**
With School Improvement			
Anuenue-Hawaiian Immersio	333	299	89.8
Puohala	395	257	65.1
Waianae High	1951	1028	52.7
Waimea	598	304	50.8
Keonepoko	622	308	49.5
Total	**3899**	**2196**	**56.3**

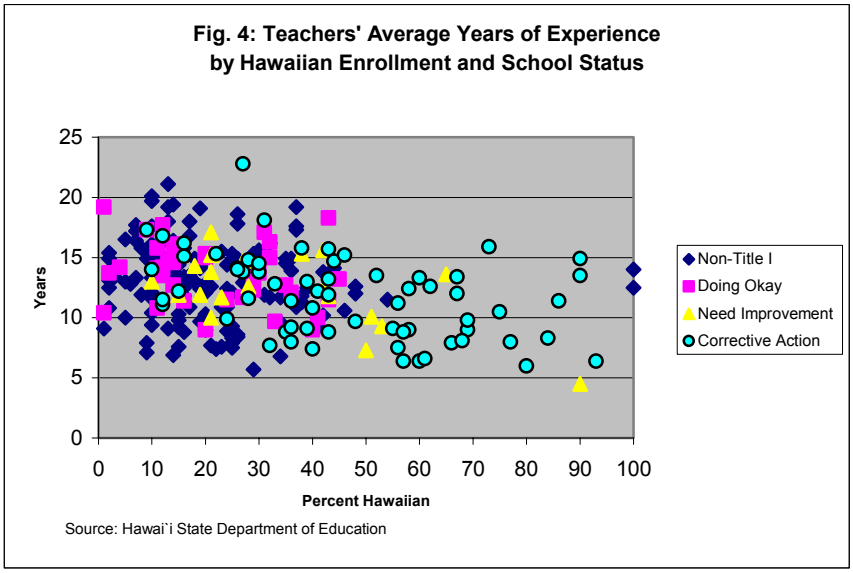
Source: Hawai`i State Department of Education

Quality of Instruction

The close relationship between student performance and the quality and training of the teaching staff has been well documented. Darling-Hammond and Ball (1997) argue that teacher expertise (e.g., education, licensing examination scores, and experience) is the primary determinant of student achievement, accounting for approximately 40 percent of the variation in achievement measures. The researchers further find that, after controlling for socioeconomic factors, teacher expertise explains nearly all of the differences in achievement between white students and black students.

Due to limited resources and recent difficulties in teacher recruitment, the DOE has experienced a shortage of teachers that manifests itself in high student-to-teacher ratios, inexperienced teaching staff, and the assignment of teachers outside their fields of expertise. We explore inequities in the quality of instruction by analyzing the relationships between Hawaiian enrollment and teacher experience, turnover, and qualifications. Specifically, we look at the average years of teachers' experience, the proportion of teachers who have been at the same school for five years or more, and the breakdown of teaching credentials.

Figure 4 below shows the average years of experience among teachers at each public school by school status and Hawaiian enrollment. The downward trend of the data suggests that schools with high Hawaiian enrollment have less experienced teachers. The data also show the preponderance of corrective action status schools among those with a high proportion of Hawaiian students.



It is true that analyses of school staffing patterns are complicated by differences in both the student population and funding levels. For example, schools that serve primarily disadvantaged populations may receive both federal Title I funding and state "special needs" funding. These additional resources may allow schools to invest in greater numbers of teaching staff than schools in which the student body is not primarily disadvantaged, thereby skewing patterns in the data. To examine these relationships with greater precision, we regress each of the teacher outcomes on variables representing the proportion of Hawaiian students, the proportion of students in special education, the proportion receiving free and reduced-price lunch (i.e., proportion poor), the proportion with limited English proficiency, and receipt of disadvantaged school funding (not shown).

The results evidence a statistically significant inverse relationship between the proportion of Hawaiian students and teacher experience, net of other factors. In other words, as the proportion of Hawaiians enrolled at a school goes up, the average years of teacher experience goes down. This relationship exists even after adjusting for factors such as poverty, limited English proficiency, special education, and disadvantaged school funding ($p < 0.01$).[1]

[1] The regression used the percentage of students receiving lunch subsidies as an indicator for poverty. Funding for disadvantaged schools was operationalized with a dummy variable where "1" indicated schools classified as "in corrective action" or "in need of improvement," and "0" for non-Title I or those Title I schools classified as "doing okay." In addition to Hawaiian enrollment, special education enrollment was also found to have an inverse statistically significant relationship with attendance rates ($p < 0.01$). Poverty, limited English proficiency, and disadvantaged school funding were not significant at the 0.05 level.

In a similar fashion, we analyzed the stability of teaching staff at schools, based on the percentage of teachers with five or more years of tenure at their current school. Such data provide an indication of both school stability and teacher experience. Again, controlling for poverty, limited English proficiency, special education, and disadvantaged school funding, the proportion of Hawaiian students enrolled in a school is negatively related to the proportion of teachers with five or more years of tenure at their current school ($p < 0.01$).[2]

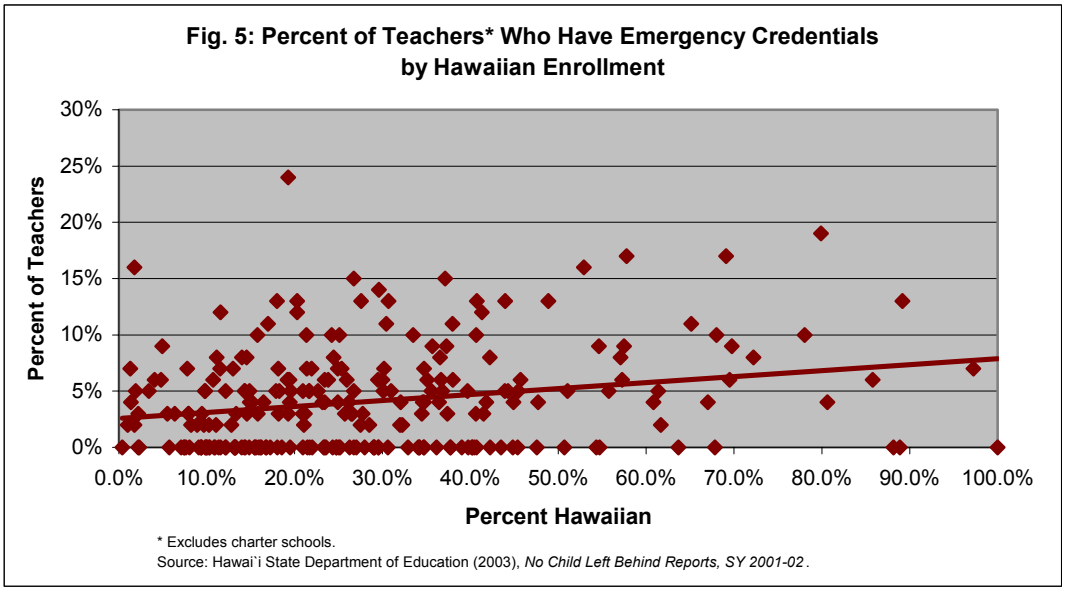
Statewide data based on a national survey sample suggests that Hawai‘i’s public schools, overall, suffer from a lack of qualified teachers in mathematics and science. For example, a report by the National Center for Education Statistics (1996) found that just 61.7 percent of Hawai‘i public school math teachers majored in their field—a figure that falls well below the national average of 79.7 percent. Other research suggests that the problem is compounded by social and economic factors. For example, a national study by the Education Trust (Jerald, 2002) concluded that teachers are given out-of-field assignments more often in high-poverty schools than in low-poverty schools. Data from the DOE suggest that similar patterns are at work within the state of Hawai‘i. All public school teachers in the state fall into one of three groups:

1. Fully Licensed: Teachers who have completed a state-approved teacher education program and have passed a series of PRAXIS tests covering skills, teaching methods, and subject-matter.
2. Provisional Credentials: Teachers who have completed a state-approved teacher education program but have not yet taken or passed the PRAXIS tests. Their licenses are provisional, pending successful completion of the PRAXIS requirements.
3. Emergency Credentials: Teachers who have neither completed a state-approved teacher education program nor passed the PRAXIS tests. Such teachers are in the process of obtaining their teaching credentials, and their continued employment is

[2] No other variables were significant at the 0.05 level.

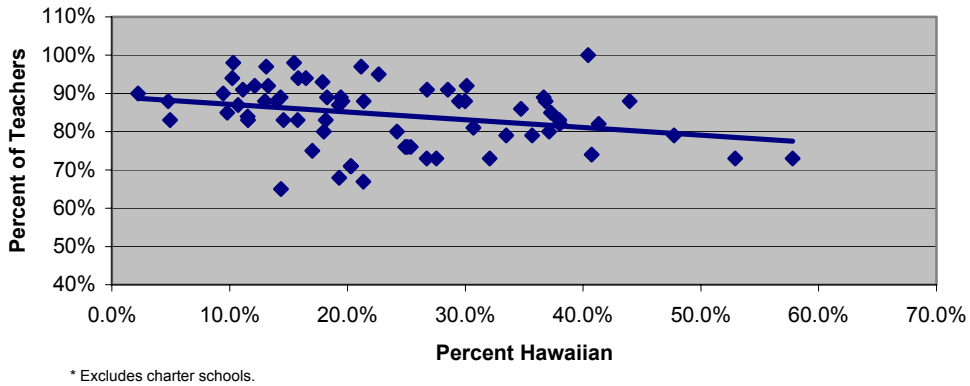
therefore contingent upon completing the full licensure requirements within a specified period of time.

Figure 5 below shows the relationship between Hawaiian enrollment and teacher qualifications. The upward sloping trend indicates that schools with a higher percentage of Hawaiian students tend to also have a higher proportion of emergency-hire teachers ($p < 0.01$). Conversely, teachers in predominantly Hawaiian schools are generally less likely to be fully licensed than teachers in schools with smaller Hawaiian populations (not shown, $p < 0.05$).



The correlation is more marked among middle and high school teachers, as shown in Figure 6 depicting the relationship between percent Hawaiian enrollment and percent fully licensed middle and high school teachers. The data indicate that middle schools and high schools with higher concentrations of Hawaiian students tend to have lower numbers of fully credentialed teachers ($p < 0.05$).

Fig. 6: Percent of Middle/Intermediate and High School Teachers* Who Are Fully Licensed by Hawaiian Enrollment



* Excludes charter schools.
Source: Hawai`i State Department of Education (2003), *No Child Left Behind School Reports, SY 2001-02*.

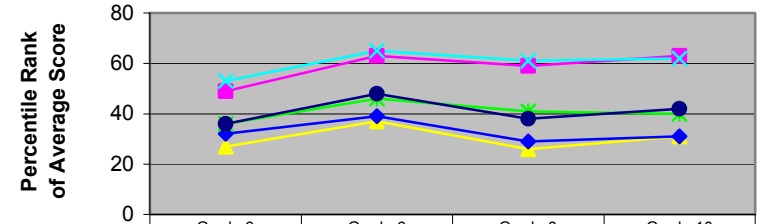
As with the other indicators of instructional quality, we perform a simple regression to control for factors such as poverty, special needs, limited English proficiency, and disadvantaged school funding, all of which may confound seemingly strong correlations between educational variables. The results point to a statistically significant inverse relationship between teacher qualifications and Hawaiian enrollment at the elementary school level ($p < 0.05$). The relationship was not statistically significant at the secondary school level, but this may reflect the comparatively small number of middle schools and high schools in the state (n = 75).

Prior research has shown that attending school in an environment with inexperienced, less qualified, and transitional faculty places students at a distinct disadvantage (Darling-Hammond and Ball, 1997). The findings documented here suggest that Hawaiian students experience a different school environment than do other public school students. The bottom line is that, independent of poverty, limited English proficiency, special education, and funding, schools with high Hawaiian enrollment have less experienced teachers and less stability among their teaching staff. These conditions help explain some of the reasons for the poor overall performance and low levels of school engagement common to many Hawaiian children discussed in the following sections.

Standardized Test Scores

Reflective of the cycle of marginalization discussed above, achievement outcomes for Hawaiian children remain among the lowest throughout elementary and secondary school. Whether for grade 3, 6, 8 or 10, Standard Achievement Test (SAT)-8 reading scores of Hawaiian students lagged behind total DOE scores by an average of almost 11 percentiles in 1998.

Fig. 7: SAT-8 Reading Comprehension, Cross-Sectional Data Spring 1998

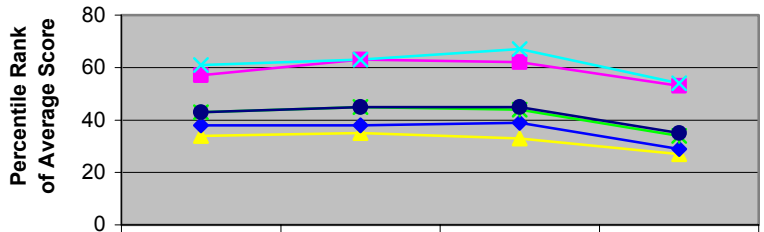


	Grade 3	Grade 6	Grade 8	Grade 10
Hawaiian	27	37	26	31
Caucasian	49	63	59	63
Filipino	32	39	29	31
Japanese	53	65	61	62
All Others	36	46	41	40
Total	36	48	38	42

Source: Kamehameha Schools Bishop Estate (2002), *Losing Ground: Longitudinal Trends in Hawai`i DOE Test Scores for Major Ethnic Groups*, PASE Report No. 2001-02: 16, Tab. 1, p. 1.

These results hold across years 1999 and 2000 as well, when the DOE began using the SAT-9, a later version of the test. Although direct comparisons cannot be drawn between two different test versions, the relative rankings between ethnic groups remain roughly the same, with Hawaiians consistently scoring lowest.

Fig. 8: SAT-9 Reading Comprehension, Cross-Sectional Data Spring 1999

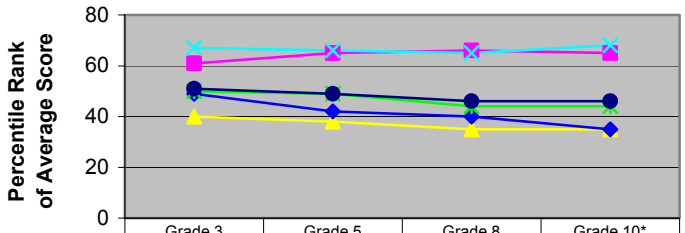


	Grade 3	Grade 5	Grade 7	Grade 9*
Hawaiian	34	35	33	27
Caucasian	57	63	62	53
Filipino	38	38	39	29
Japanese	61	63	67	54
All Other	43	45	44	34
Total	43	45	45	35

* 9th Graders took the TASK test version.
Source: Hawai`i State Department of Education

Total DOE averages for each grade exceeded the averages for Hawaiians by 8 to 12 percentiles in 1999 and by 11 percentiles in 2000.[3]

Fig. 9: SAT-9 Reading Comprehension, Cross-Sectional Data Spring 2000



	Grade 3	Grade 5	Grade 8	Grade 10*
Hawaiian	40	38	35	35
Caucasian	61	65	66	65
Filipino	49	42	40	35
Japanese	67	66	65	68
All Other	50	49	44	44
Total	51	49	46	46

* 10th Graders took the TASK test version.
Source: Hawai`i State Department of Education

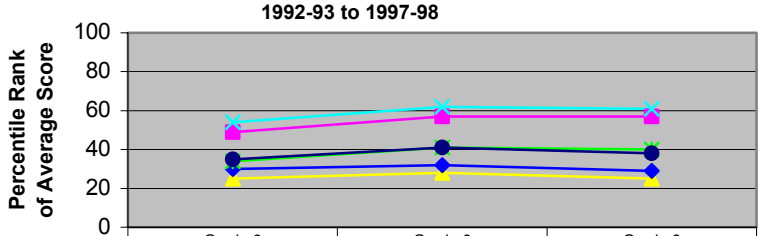
In a longitudinal study that followed students from grade 3 through grade 8, the average reading score of Hawaiian students ranked lowest among all major ethnic groups.[4]

[3] The dip in grade 9 Reading Comprehension scores in spring of 1999 has been attributed to an artifact of the testing format. Similarly incongruous scores were reported across the nation.

[4] The major ethnic groups referred to in this study include Hawaiian, Caucasian, Filipino, and Japanese. A certain degree of congruence exists between the test scores of Hawaiian and Filipino students, with Filipinos consistently scoring slightly higher than Hawaiians.

Furthermore, the gap between the readings scores of Hawaiians and the DOE average increased slightly, from 10 percentiles in grade 3 to 13 percentiles in grade 8.

Fig. 10: SAT-8 Reading Scores, Longitudinal Data 1992-93 to 1997-98

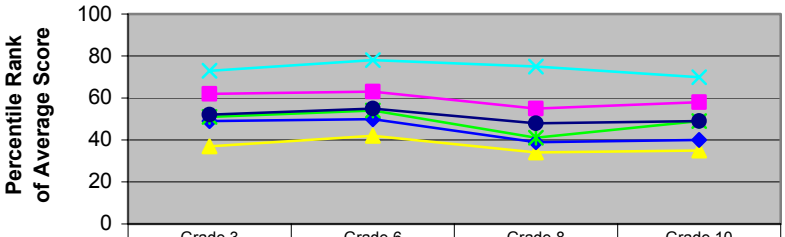


	Grade 3 1992-93	Grade 6 1995-96	Grade 8 1997-98
Hawaiian	25	28	25
Caucasian	49	57	57
Filipino	30	32	29
Japanese	54	62	61
All Others	34	41	40
Total	35	41	38

Source: Kamehameha Schools Bishop Estate (2002), *Losing Ground: Longitudinal Trends in Hawai`i DOE Test Scores for Major Ethnic Groups,* PASE Report No. 2001-02: 16, Tab. 3, p. 3.

Likewise, in each grade tested from 3 to 10, math scores of Hawaiian students lagged behind total DOE scores by an average of 14 percentiles in 1998.

Fig. 11: SAT-8 Total Math, Cross-Sectional Data Spring 1998



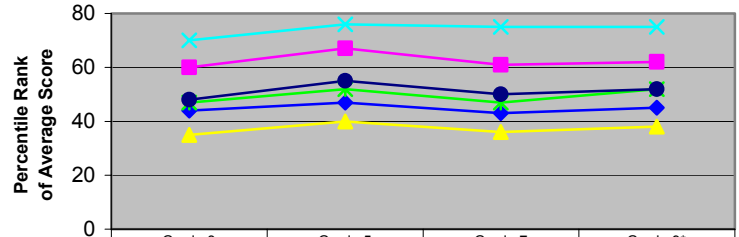
	Grade 3	Grade 6	Grade 8	Grade 10
Hawaiian	37	42	34	35
Caucasian	62	63	55	58
Filipino	49	50	39	40
Japanese	73	78	75	70
All Others	51	54	41	49
Total	52	55	48	49

Source: Kamehameha Schools Bishop Estate (2002), *Losing Ground: Longitudinal Trends in Hawai`i DOE Test Scores for Major Ethnic Groups*, PASE Report No. 2001-02: 16, Tab. 2, p. 1.

Test data for 1999 and 2000 follow a similar pattern. Again, despite a later version of the SAT and a different math test (Math Problem Solving for grades 3, 5, and 7 and Mathematics

for grade 9, rather than Total Math), the gap in performance between ethnic groups remained remarkably consistent.

Fig. 12: SAT-9 Math Problem Solving/Mathematics*
Cross-Sectional Data, Spring 1999

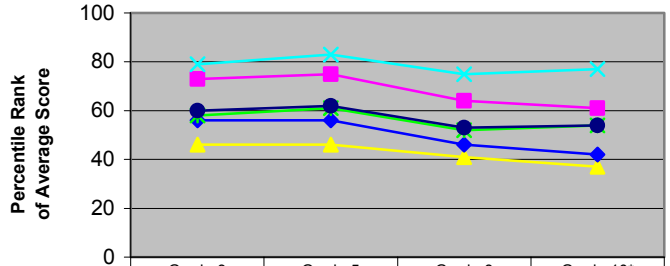


	Grade 3	Grade 5	Grade 7	Grade 9*
Hawaiian	35	40	36	38
Caucasian	60	67	61	62
Filipino	44	47	43	45
Japanese	70	76	75	75
All Other	47	52	47	52
Total	48	55	50	52

* 9th Graders took the TASK test version with a Mathematics section rather than Math Problem Solving.
Source: Hawai`i State Department of Education

In 1999, the average Math Problem Solving or Mathematics score of Hawaiian students was 13 to 15 percentiles lower than the total averages for the DOE. In 2000, Hawaiian scores in math lagged behind DOE averages by 11 to 17 percentiles.

Fig. 13: SAT-9 Math Problem Solving/Mathematics*
Cross-Sectional Data, Spring 2000

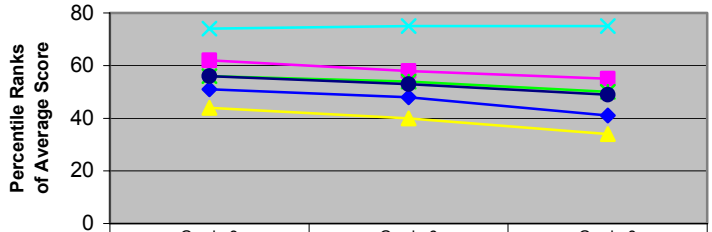


	Grade 3	Grade 5	Grade 8	Grade 10*
Hawaiian	46	46	41	37
Caucasian	73	75	64	61
Filipino	56	56	46	42
Japanese	79	83	75	77
All Other	58	61	52	54
Total	60	62	53	54

* 10th Graders took the TASK test version with a Mathematics section rather than Math Problem Solving.
Source: Hawai`i State Department of Education

The longitudinal data confirm these trends, with math scores of Hawaiian students falling below those of other major ethnic groups across grades 3, 6, and 8. Whereas the gap was 12 percentiles between DOE averages and the math scores of Hawaiians in grade 3, it had reached 15 percentiles in grade 8.

Fig. 14: SAT-8 Math Scores, Longitudinal Data
SY 1992-93 to 1997-98



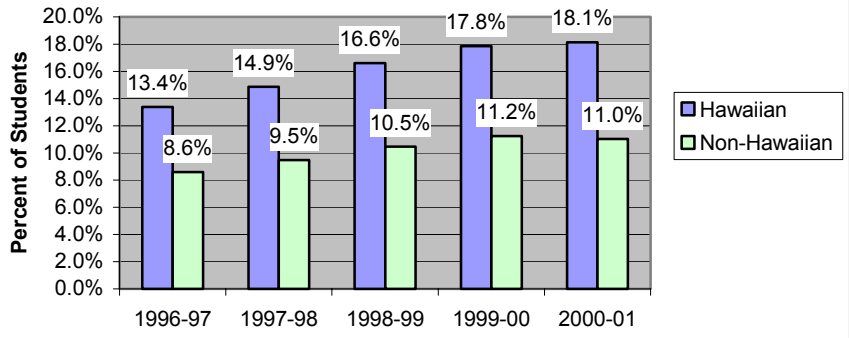
	Grade 3 1992-93	Grade 6 1995-96	Grade 8 1997-98
Hawaiian	44	40	34
Caucasian	62	58	55
Filipino	51	48	41
Japanese	74	75	75
All Others	56	54	50
Total	56	53	49

Source: Kamehameha Schools Bishop Estate, *Losing Ground: Longitudinal Trends in Hawai`i DOE Test Scores for Major Ethnic Groups* , PASE Report No. 2001-02: 16, Tab. 4, p. 3.

Enrollment in Special Education Programs

Special education programs are provided for children whose educational needs cannot be met within the regular classroom environment due to physical, emotional, or mental disabilities.[5] Within the DOE, Hawaiian students are overrepresented in special education programs. During the 2000-01 school year, 18.1 percent of Hawaiian students participated in special education programs, compared to 11.0 percent of the non-Hawaiian student population.

Fig. 15: Special Education Enrollment by Ethnicity



Source: Hawai`i State Department of Education.

The overall number of students in special education programs has increased over the past five school years, from 20,286 in 1996-97 to 26,912 in 2000-01. However, the rates of increase have varied between Hawaiians and non-Hawaiians. The number of Hawaiian students

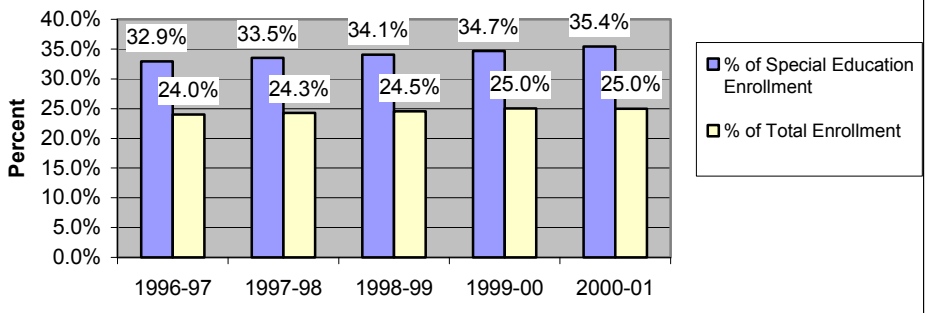
[5] By definition, special education students have been diagnosed with a disability that requires individualized educational services. The diagnosis is based on an evaluation of the child that may incorporate assessments of health, vision, hearing, social and emotional circumstances, intelligence, academic performance, and communication and motor skills, depending on the suspected disability. Qualifying conditions include: autism, deaf-blindness, deafness, developmental delay, emotional disturbance, hearing impairment, mental retardation, multiple disability, orthopedic impairment, other health impairment, specific learning disability, speech-language impairment, traumatic brain injury, and visual impairment (Hawai`‘i State Department of Education, DOE brochure RS 03-0065, 2002). Students can be referred to special education for symptoms as ill-defined as bad behavior or as pronounced as physical impairments. The descriptive statistics in this section are drawn from data provided by the Hawai‘i State Department of Education that detail the number and type of special education referrals within each school.

participating in special education programs increased by 42.6 percent, from 6,680 students in 1996-97 to 9,529 in 2000-01.

Over the same five-year period, the number of non-Hawaiian special education students increased by just 27.8 percent, from 13,606 students in 1996-97 to 17,383 students in 2000-01. This discrepancy cannot be explained by an overall surge in Hawaiian enrollment in the DOE, which would tend to increase both the number of Hawaiian students enrolled in special education programs and the number not enrolled. Rather, the proportion of Hawaiian students who participate in special education programs has increased over the past five years. For example, in school year 1996-97, 13.4 percent of Hawaiian students were in enrolled in special education programs; by school year 2000-01, that figure had increased to 18.1 percent.

These patterns are consistent with Figure 16 below, which shows the number of Hawaiian special education students as a percentage of total special education enrollment. Each year, Hawaiian students account for more than 30 percent of special education enrollment, whereas they account for 25.0 percent of total DOE enrollment. Further, over the last five years, the Hawaiian share of special education enrollment has increased at a faster pace than the Hawaiian share of total DOE enrollment.

Fig. 16: Hawaiian Students as a Percentage of Special Education and Total Enrollment



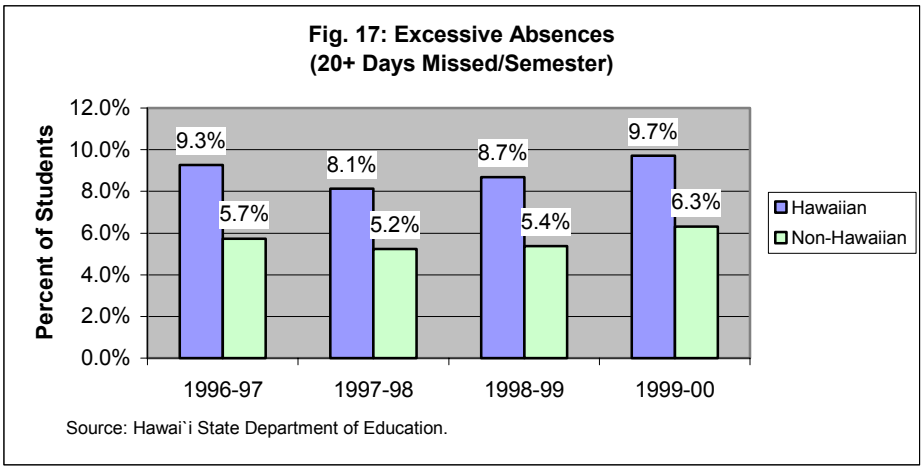
Source: Hawai`i State Department of Education.

Recent research by Losen and Orfield (2002) reviews various works relating to the overrepresentation of minorities in special education. They find that the phenomenon cannot be explained entirely by differences in measured ability. Rather, Losen and Orfield argue that contributing factors include: "unconscious racial bias on the part of school authorities, large resource inequalities that run along lines of race and class, unjustifiable reliance on IQ scores and other evaluation tools, educators' inappropriate responses to the pressures of high-stakes testing, and power differentials between minority parents and school officials" (Introduction, Issues Explored and Findings section, para. 2). Given our previous findings suggesting that teacher experience and tenure were related to the percent Hawaiian enrollment, it is plausible that similar forces underlie the overrepresentation of Hawaiian students in special education.[6]

[6] Most of the works included in Losen and Orfield's book focus on the overrepresentation of black children in special education programs at the national level and in mainland regions. Works that do include data specific to Hawai'i, such as Thomas Parrish's "Racial Disparities in the Identification, Funding, and Provision of Special Education" use the broad classification of Asian/Pacific Islander, making it impossible to distinguish patterns specific to Hawaiians.

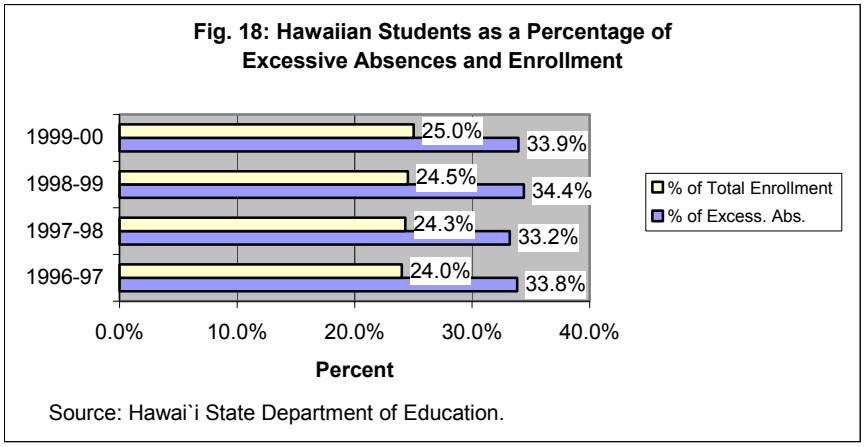
Absentee/Attendance Rates

The effects of repeated low performance outcomes and negative experiences in school contribute to low levels of school engagement for any student, regardless of race or economic background. Based on the data covered above, it is not surprising that Hawaiian children are less engaged in school than are other children, measured by higher rates of excessive absenteeism,[7] grade retention, and delayed or incomplete graduation. For example, during the 1999-2000 school year, 9.7 percent of Hawaiian students had excessive absences, compared to 6.3 percent of non-Hawaiian students.

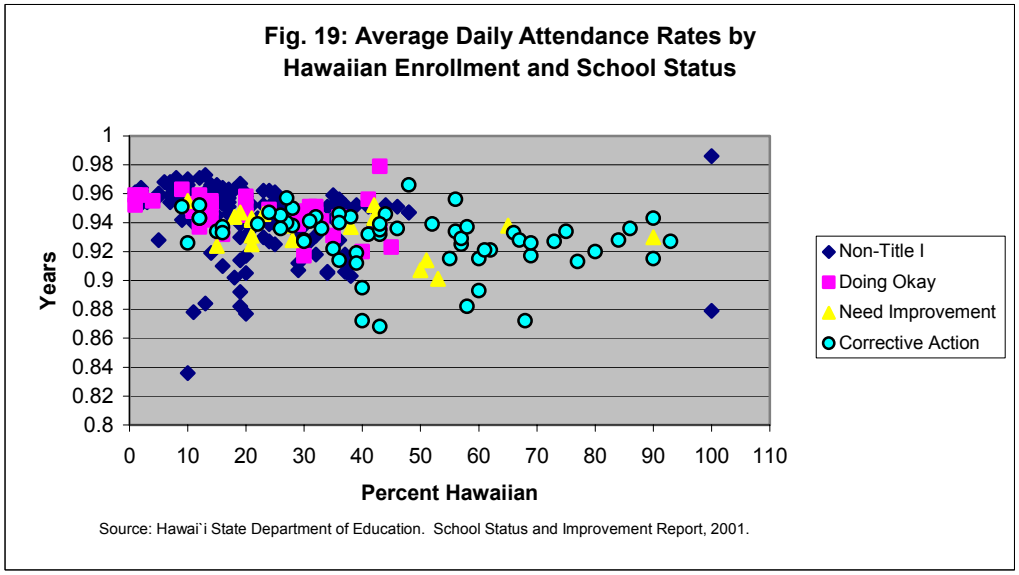


As such, Hawaiian children are overrepresented among students with excessive absences, accounting for more than one-third of these students (33.9 percent in 2000), which is substantially higher than the proportion of Hawaiians in the DOE student body.

[7] Excessive absenteeism is defined by the DOE as 20 or more unexcused absences from any one class during a semester.



The average daily attendance rate in the DOE for school year 1999-2000 was 93.8 percent (Hawai‘i State Department of Education). That is, on the average school day, approximately 6.2 percent of students were absent. Although data were not available to enable an ethnic breakdown of average daily attendance rates, the figure below shows the average daily attendance rates of schools by their Hawaiian enrollment and school status. The slight downward trend of the data points as one moves from lower Hawaiian enrollment to higher Hawaiian enrollment, combined with the results of our regression, suggests a significant correlation between attendance rates and Hawaiian enrollment.



This troubling relationship remains statistically significant after controlling for factors such as proportion of poor, limited English proficiency, special education students, and disadvantaged school funding (not shown). We find a negative relationship between average

daily attendance rates and the percentage of students identifying themselves as Hawaiian.[8] In other words, schools with high Hawaiian enrollment have lower attendance rates, independent of other characteristics that might influence attendance, such as high numbers of poor students, limited English speakers and students with special education needs.

Earlier in this discussion, we documented the lower quality of teaching staff in schools with substantial numbers of Hawaiians. These same schools also have difficulties attracting children to attend classes. The results are nontrivial and show up in higher numbers of students retained in grade or failing to complete their graduation requirements, as discussed later in this report.

[8] The regression used the percentage of students receiving lunch subsidies as an indicator for poverty. Funding for disadvantaged schools was operationalized with a dummy variable where "1" indicated schools classified as "in corrective action" or "in need of improvement," and "0" for non-Title I or those Title I schools classified as "doing okay." In addition to Hawaiian enrollment, special education enrollment was inversely related to attendance rates ($p < 0.01$). Poverty, limited English proficiency, and disadvantaged school funding were not significantly related to attendance.

High-risk Behavior

The stresses of poverty, socioeconomic disadvantage, and cultural loss that Hawaiian children face threaten their emotional well-being and their chances of achieving positive social outcomes at school and at home. Research to date finds that Hawaiians have relatively strong family and community ties, but often live in difficult social environments, plagued by drugs, crime, and violence. Although public school systems are not explicitly responsible for the social development of students, schools ideally should serve as a stabilizing force for troubled children, providing them with a structured and supervised learning environment. Schools also play a part in strengthening students by providing the guidance, support, and knowledge necessary to make appropriate choices and to negotiate better social and economic challenges.

For example, programs such as Drug Abuse Resistance Education (DARE) were designed to build students' self-esteem, improve their ability to make healthy decisions and resist peer pressure, develop their respect for authority, teach them to deal with problems without resorting to violence, and deter or delay experimentation with alcohol, tobacco, and drugs (*DARE Curriculum*, 2002). Similarly, school-based sex education is structured around increasing decision-making capacity and resistance to peer pressure, and delaying the initiation of sexual activity. However, evaluations of these programs have found them to be largely ineffective (American Psychological Association, "Studies Find Public Policies for Children and Teenagers Not Very Effective," 1997). And recent research suggests that, in spite of the anti-drug and sex education programs provided in Hawai‘i public schools, Hawaiian children are particularly vulnerable to high-risk behaviors.

Survey data are presented below from the Alcohol and Drug Abuse Division (ADAD) of the Department of Health, based on responses from 25,869 students from 198 public and 39

private schools, grades 6, 8, 10, and 12.[9] Although drug use has declined among students since the mid-1990s, evidence suggests that Hawaiian students use drugs more often than do most other ethnic groups. With few exceptions (i.e., heroin and sedatives), the rates of alcohol, tobacco, and drug use among Hawaiians are higher than statewide rates. For example, by the 6th grade, 12.6 percent of Hawaiians had used some type of drug, compared to 8.3 percent across all ethnic groups. Among 8th graders, 15.9 percent of students statewide and 25.4 percent of Hawaiians had smoked marijuana.

Table 2: Lifetime Prevalence* of Alcohol, Tobacco, Other Drug Use (%), 2000

	6th Grade		8th Grade		10th Grade	
	State	Hawn	State	Hawn	State	Hawn
Any drug, including inhalants	8.3	12.6	23.3	33.0	36.9	50.7
Any illicit drug, excluding inhalants	4.2	7.6	18.5	28.2	35.2	49.8
Marijuana	2.4	4.3	15.9	25.4	33.2	48.6
Cocaine	0.4	0.3	2.2	2.5	3.5	6.1
Inhalants	5.3	7.1	9.9	10.0	7.0	8.3
Methamphetamines	0.5	0.3	2.3	2.9	4.5	6.8
Heroin or other opiates	0.2	0.5	1.2	1.7	1.3	1.5
Sedatives or tranquilizers	0.4	0.6	1.8	2.8	3.2	4.2
Ecstacy/MDMA	0.1	0.3	2.0	3.5	5.3	8.1
Hallucinogens	0.4	0.3	2.9	4.4	6.4	7.0
Steroids	1.3	2.8	2.2	3.1	1.7	3.1
Diuretics/laxatives	1.2	2.3	3.2	4.9	4.1	5.5
Any tobacco	12.7	17.0	37.2	47.8	50.5	57.6
Tried cigarettes	12.2	16.3	36.3	46.5	49.5	56.1
Smokeless tobacco	1.2	1.8	3.6	5.5	5.3	7.1
Regular use of cigarettes	2.1	3.6	11.8	15.4	19.3	23.9
Any alcohol	24.2	29.1	49.2	62.7	67.1	78.5
Beer or wine	23.3	28.3	47.2	59.6	64.5	75.7
Hard liquor	5.1	6.7	25.5	37.2	51.0	63.3
Been drunk in a lifetime	2.9	4.3	17.3	27.6	37.5	51.2

* "Lifetime prevalence" means use of the substance at least once in a person's lifetime.

Source: Hawai`i State Department of Health, Alcohol and Drug Abuse Division (2001), *The 2000 Hawai`i Student Alcohol, Tobacco, and Other Drug Use Study (1987-2000)* , Tab. 14, pp. 121-25.

These data mirror other findings on risk behaviors from the Center for Disease Control's Youth Risk Behavior Survey (YRBS) for Hawai'i. This survey of public school students shows that Hawaiian students more often engage in drunk driving, violence, battery,

[9] Note that the inclusion of private school students in this study's sample tempers our conclusions about the effectiveness of the public school system in deterring student drug usage. Data are not currently available as to the proportion of Hawaiian students in the study sample who attended private school. However, fully 83.5 percent of the schools included in the survey were public schools. In addition, public schools generally have larger student bodies than do private schools, suggesting that the study's results primarily reflect the student population in the public school system.

suicide and other high-risk behaviors than do other high school students. For example, 37.4 percent of Hawaiian students had been in a physical fight in the past year, compared to 26.3 percent of non-Hawaiians. Eleven percent of Hawaiian students had been physically hurt by their boyfriend/girlfriend in the past year, compared to 6.8 percent of non-Hawaiians and 8.8 percent nationally.

The data also document that more Hawaiian adolescents experience early sexual intercourse, multiple sexual partners, and intercourse that results in a pregnancy, compared to their classmates and the national average. For example, more than one out of ten Hawaiian children reported having sexual intercourse before the age of 13, compared to 4.8 percent of non-Hawaiian students.

Table 3: High-Risk Behavior (%), 1999

		Hawai`i	
	US	Non-Hawn	Hawaiian
Rode with driver who had been drinking alcohol, past 30 days	33.1	35.0	47.6
Drove after drinking alcohol, past 30 days	13.1	12.5	18.3
Carried a weapon, past 30 days	17.3	13.3	11.8
Carried a gun, past 30 days	4.9	3.3	4.5
In physical fight, past 12 months	35.7	26.3	37.4
Physically hurt by boyfriend/girlfriend on purpose, past 12 months	8.8	6.8	11.0
Forced to have unwanted sexual intercourse	8.8	8.9	9.9
Seriously considered attempting suicide, past 12 months	19.3	23.2	24.2
Made a suicide attempt	8.3	10.2	12.0
Ever had sexual intercourse	49.9	37.9	52.5
Had sexual intercourse before age 13	8.3	4.8	11.0
Had more than 4 sexual partners	16.2	10.2	17.3
Been pregnant or got someone pregnant	6.3	5.2	8.6

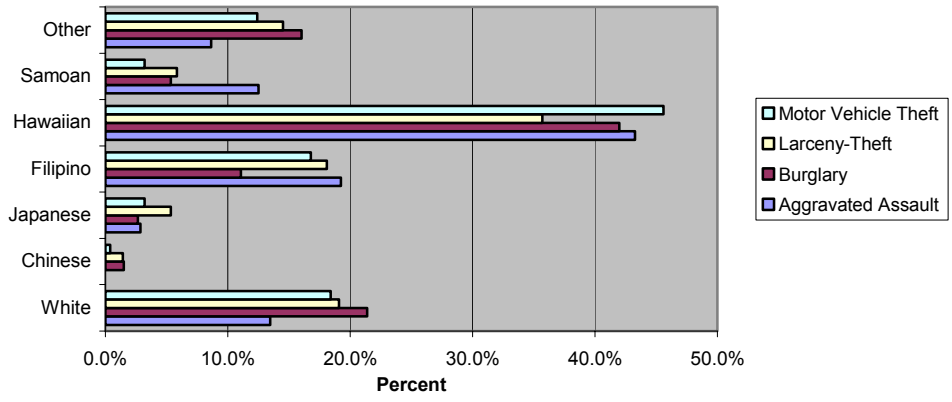
Source: Lai and Saka, Curriculum Research & Development Group, University of Hawai`i at Manoa (2000), *Hawaiian Students' Performance on the 1999 Youth Risk Behavior Survey*, Appendix C, pp. C1-C4.

We find that high-risk behavior among Hawaiian children (albeit outside the locus of any school's control) is accompanied by high rates of delinquency and early experiences with the criminal justice system. Although Hawaiians accounted for just 23 percent of the state's population in 2001, fully 40.5 percent of the 1,250 juvenile arrests for violent crimes that year involved Hawaiian offenders. The number of Caucasian arrests for violent crimes (though second highest) amounted to less than half that of Hawaiians. Similarly, Hawaiians

comprised 40.6 percent of juvenile arrests for property-related crimes, 39.4 percent of arrests for drug possession, and 37.0 percent of arrests for drug manufacturing/sale. By contrast, Samoans (who often reflect similar socioeconomic trends as Hawaiians) accounted for just 6.0 percent of arrests for property-related crimes, 1.3 percent of arrests for drug possession, and 1.9 percent of arrests for drug manufacturing/sale (Hawai'i State Department of the Attorney General, *Crime in Hawai'i 2001: A Review of Uniform Crime Reports).*

Figure 20 below illustrates the disparities between Hawaiians and other ethnic groups, using arrest rates in those categories with the highest number of arrests. In each of the categories shown, Hawaiian children comprise the bulk of arrests. These data suggest that more effective measures are needed to reach Hawaiian youth, engage them in non-violent conflict resolution, and teach greater understanding for codes of social conduct.

Fig. 20: Juveniles Arrested for Select Index Offenses by Ethnicity, 2001



Source: Hawai`i State Department of the Attorney General, Crime Prevention & Justice Assistance Division, Research and Statistics Branch (2001), Crime in Hawai`i 2001: A Review of Uniform Crime Reports, p. 109.

Although the majority of students are able to maintain a sense of control and healthy self-esteem at home and school, too many are alienated and marginalized within the current public school system and in society at large. The high rates of alcohol, tobacco, and drug use among Hawaiian children, their early sexual experiences, and high rates of criminal activity and arrests suggest that public school guidance programs such as anti-drug and sex education are unable to meet the needs of one of the most disadvantaged groups of students in the DOE system. These same challenges among youth are also prevalent among the adult Hawaiian population.

Dropout/Timely Completion of High School

(K-12 DOE students)

The statistics detailed above are tightly linked to the life chances of school-age youth and their future well-being. Among these, high school completion is an important predictor of adult outcomes. Data from the two most recent classes to graduate from public schools show that Hawaiian students are somewhat less likely to graduate than their non-Hawaiian counterparts. Two key differences that distinguish graduation outcomes of Hawaiian students are 1) high rates of grade retention (one out of five students is held back), and 2) Hawaiian students are more likely to be "missing" from the system than non-Hawaiian students.

Table 4: Grade 12 Outcomes: Hawai`i Classes of 2000 and 2001

		Grade 9 Enrollment		Met Grad. Req.		Left for Other School		Retained in Grade		Dropped Out		Misc./ Other Exits		Missing	
		2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
All	No.	10852	10947	7507	7320	1179	1067	1574	1649	70	62	87	331	435	518
	%			69.2%	66.9%	10.9%	9.7%	14.5%	15.1%	0.6%	0.6%	0.8%	3.0%	4.0%	4.7%
Hawaiian	No.	2785	2918	1872	1837	136	158	576	622	25	15	22	110	154	176
	%			67.2%	63.0%	4.9%	5.4%	20.7%	21.3%	0.9%	0.5%	0.8%	3.8%	5.5%	6.0%
Filipino	No.	2023	2048	1539	1511	118	98	278	282	2	15	11	38	75	104
	%			76.1%	73.8%	5.8%	4.8%	13.7%	13.8%	0.1%	0.7%	0.5%	1.9%	3.7%	5.1%
Japanese	No.	1655	1568	1437	1320	58	49	125	116	9	4	5	49	21	30
	%			86.8%	84.2%	3.5%	3.1%	7.6%	7.4%	0.5%	0.3%	0.3%	3.1%	1.3%	1.9%
Caucasian	No.	1594	1517	868	845	458	353	162	187	15	17	27	63	64	52
	%			54.5%	55.7%	28.7%	23.3%	10.2%	12.3%	0.9%	1.1%	1.7%	4.2%	4.0%	3.4%
Other	No.	2795	2896	1791	1807	409	409	433	442	19	11	22	71	121	156
	%			64.1%	62.4%	14.6%	14.1%	15.5%	15.3%	0.7%	0.4%	0.8%	2.5%	4.3%	5.4%

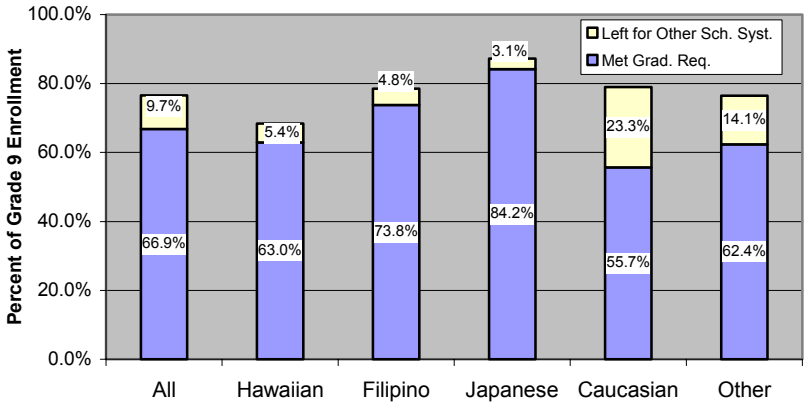
Source: Hawai`i State Department of Education; Kamehameha Schools Bishop Estate (2000), *High School Persistence and Completion for Selected Ethnic Groups in the Hawai`i Public Schools*, PEP Report No. 2000-01: 6, Tab. 1, p. 4.

In contrast, the low graduation rates among other groups reflect higher numbers leaving the school system for other (private or mainland) schools. For example, whereas the low rates of graduation among Caucasians (55.7 percent) may be explained by a high number of exits to other school systems (23.3 percent), the same is not true among Hawaiian students. Among the latter, low graduation rates can be largely explained by higher rates of grade retention (more than 20 percent). Note that Hawaiian children make up more than 35 percent of all students retained in grade, and fully one-third of those labeled "missing."

Figure 21 below depicts the percent of the class of 2001 who met DOE graduation requirements and the percent that left for another school system. We calculate an upper-

bound estimate for the success rate of each class by adding the graduation rate to the transfer rate, with the assumption that all students who reported transferring to another school met the graduation requirements in their new setting.

Fig. 21: Grade 12 Outcomes, Class of 2001
Graduated or Left for Other School System



Source: Hawai`i State Department of Education; Kamehameha Schools Bishop Estate (2000), High School Persistence and Completion for Selected Ethnic Groups in the Hawai`i Public Schools, PEP Report No. 2000-01: 6, Tab. 1, p. 4.

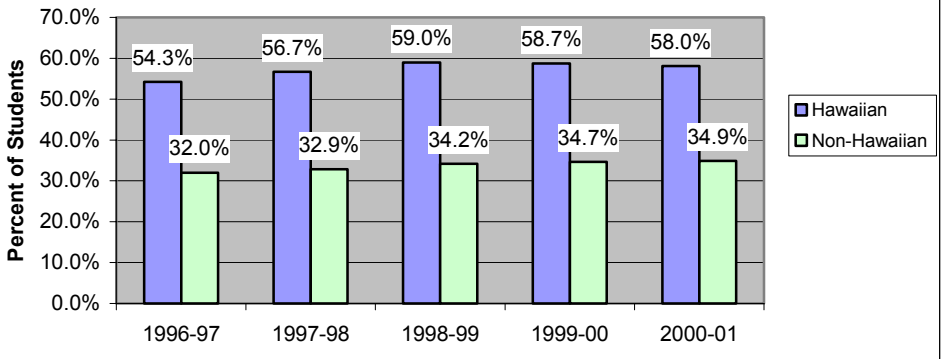
The chart suggests that Hawaiian students in the DOE have the lowest success rates, with just 68.4 percent either meeting graduation requirements or transferring to a different school system. Note in Table 4 that less than one percent of Hawaiian DOE students dropped out of school, a figure that approximately equals the statewide rate.

Subsidized Lunches

Existing research documents systematic effects of socioeconomic status on educational outcomes. In general, lower educational attainment of poor students is explained not by intellectual differences, but by lower quality of schools in poorer communities as well as fewer inputs related to parental involvement and economic resources in poorer families.

Available data indicate that the majority of Hawaiian students face the challenges of being poor, as evidenced in part by their participation in the DOE free/reduced-price lunch program. In each of the five years detailed below, 50 to 60 percent of the Hawaiian students were poor enough to enroll in the free/reduced-price lunch program. By contrast, participation among non-Hawaiians is just over 30 percent, or roughly one-third.

Fig. 22: Student Participation in the Free/Reduced-price Lunch Program



Source: Hawai`i State Department of Education.

Conclusions and Next Steps

In summary, Hawaiian students are among the most underprivileged in the public school system, with the lowest test scores and graduation rates, and disproportionately high rates of grade retention, special education, and absenteeism. The reasons for these outcomes are varied and include the multitude of socioeconomic disadvantages that plagues the Hawaiian population as a whole.

Rather than being helped with these disadvantages, many Hawaiian children are marginalized in the public school system. They are separated from their peers into special education programs, and more than four out of every ten Hawaiian children attend inferior schools with inexperienced, transitory teachers. Thus, Hawaiian children consistently lag behind the "average" student and are deprived of opportunities for intellectual engagement, social growth, and other aspects of a quality education that help to pave the way to fulfilling futures.

In total, the data presented in this report document a need for change within the state's public school system and within the Hawaiian community. It is clear that the DOE requires support for making change happen. Limited state resources for education constrain the ability of the DOE to raise the quality of educational services for students, especially clearly disadvantaged groups like Hawaiians.

To address the crisis in education among Hawaiian students, Kamehameha Schools and the DOE have joined as partners in a number of collaborative projects aimed at combining Kamehameha Schools' educational resources with the extensive reach of the public school system. These collaborative efforts have been structured around several broad strategies that include:

- **Building capacity within the DOE**
  The *Pauahi Educator Scholarship Program* and the *Kumu Kōkua Scholarship Program* provide financial support to prospective Native Hawaiian teachers and educational assistants in the public school system who are pursuing teaching credentials.

- **Increasing Hawaiian students' access to educational resources through the public school system**
  The *Literacy Enhancement Program*, *Kamehameha Scholars Program*, and the upcoming *Tutorial Assistance Program* counter the economic disadvantages many Hawaiian children face by providing families with educational resources that include tutors and mentors, computers, and childcare.

- **Fostering families and communities that are positive and involved**
  The *Literacy Enhancement Program* and *Nānākuli Community Learning Center* teach parents to encourage and support learning at home, and work toward facilitating community involvement in the educational process.

- **Increasing opportunities for cultural and Hawaiian-focused learning experiences**
  Programs such as *Ho'olako Like Hawaiian Charter School Support*, *Ho'okako'o Conversion School Program*, and *'Ike Pono Hawai'i* supplement the DOE's Hawaiian Studies curriculum by funding kūpuna-led lessons, developing culturally appropriate materials, and supporting Hawaiian-focused and Hawaiian-based instruction in the public school classroom.

- **Targeting early childhood**
  Pauahi Keiki Scholars and many other programs encourage early childhood education by increasing access to preschools through scholarships and other support.

- **Alternative learning experiences**
  The *Hāna Carpentry Apprenticeship Program*, the developing *Young Hawaiian Writers* and *Children as Authors and Illustrators* programs, and many others develop and fund alternative educational programs that reach out to disadvantaged children and appeal to their varied interests.

Details of the various collaborations in which Kamehameha Schools is engaged will be discussed more thoroughly in an upcoming PASE InfoBrief. These new initiatives communicate a strong message that the poor educational outcomes of our children require new studies and new directions to address the question of how to better meet the educational needs of our keiki.

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