

He pūko'a kani 'āina: Mapping Student Growth in Hawaiian-focused Charter Schools¹

Shawn Malia Kana'iaupuni

Fourteen of the startup charter schools in the State of Hawai'i are Hawaiian-focused, providing an education grounded in culturally relevant content and context. This study centers on outcomes in these Hawaiian-focused charter schools, which have demonstrated their value to the community, serving the educational needs of an increasing number of Native Hawaiian children that enroll each year. Despite their increasingly deep roots within the community and their growing recognition among educators, many of these schools have struggled to meet their federally-mandated goals and face the threat of state intervention and federal sanctions under provisions of NCLB. The rigid performance measurement system established under NCLB holds all schools to the same standard and accepts no justifications for failure to meet that standard. The hard-earned accomplishments of Hawaiian-focused charter schools are important and deserve recognition as schools stretch to support all students to achieve proficiency and positive educational outcomes. Critical to the engagement of Native Hawaiian students is the confidence that comes with cultural relevance and knowing who they are and where they come from as Hawaiian children in today's global society.

Introduction

Hawaiian-focused charter schools have become increasingly important educational alternatives for Hawaiian children and their families. These community-driven schools emerged from concerns among Native Hawaiians about the educational status and needs of indigenous Hawaiian children in mainstream systems. Dissatisfied with decades of poor educational outcomes for Hawaiian children in public schools, a growing number of Native Hawaiian families and communities saw the need for culturally relevant and responsive educational environments to support the learning process of their young children.² The charter school mechanism provided a timely opportunity to develop community-based schools that are grounded in Hawaiian culture and language.

Charter schools are publicly funded schools that are exempt from many state laws and regulations in exchange for their promise through a charter or contract to be accountable for student learning. In Hawai'i, all new charters are approved by a government agency called the Charter School Review Panel. In 2008, Hawai'i had 31 public startup and conversion charter schools that serve more than 7,500 students on four islands. Fourteen of the startup charter schools are known for being Hawaiian-focused, providing an education grounded in culturally relevant content and context. This study centers on outcomes in these Hawaiian-focused charter schools.

With several years of experience and growth behind them, Hawaiian-focused charter schools have demonstrated their value to the community, serving the educational needs of an increasing number of children that enroll each year. However, despite their increasingly deep roots within the community and their growing recognition among educators, many of these schools have struggled to meet their federally-mandated goals and face the threat of state intervention and federal sanctions.

The difficulty that Hawaiian-focused charter schools face is not uncommon; quite the opposite, it is a typical experience of many charter schools across the nation. Support for charter schools initially was conceived as a way to stimulate innovation and autonomy within the public schools system. In recent years, the number of charter schools has exploded across the nation in response to this opportunity. Research to track their successes has resulted in various studies that evaluate the educational effectiveness of charter schools along traditional math and reading achievement indicators as measures of academic success. The results have been mixed to date, ranging from cautiously positive to negative outcomes, compared to other public schools. The challenges that many charters face are varied, beginning with basic funding and facilities needs, to broader issues around governance, leadership, and accountability.

We contribute to this research an analysis of charter school outcomes focused on Native Hawaiians—a population that has increasingly looked to the charter school movement as an opportunity for self-defined educational reform for its children. Using longitudinal data to track individual student progress over time, our findings suggest that Native Hawaiian children make significant progress in achieving greater proficiency between the time periods examined. The results suggest some important implications about school accountability, demonstrating some clear wins that are not always visible under current methods of measuring school performance. Generally, our findings are consistent with prior research showing that culturally relevant and responsive environments will engage and stimulate student learning more effectively than other environments. They also have implications for other school systems that are achieving gains that often go unrecognized in NCLB school performance measurement systems.

Prior Research on Charter Schools

Prior research on charter schools suggests mixed findings. Although charter schools are comparatively new, numerous studies have already attempted to assess and evaluate their effectiveness. The central question for each study is whether charter school students would have performed better and made greater gains had they attended conventional schools. So far, the results of these early studies offer mixed findings and suffer from limited data.

One major national study by the American Federation of Teachers (AFT) compared the achievement scores of students in mainstream schools with those of students in charter schools and found that charter school students lagged behind their mainstream counterparts by significant margins (Nelson, Rosenberg, & Van Meter, 2004). Another study, conducted in response to the AFT's negative findings, used a much larger sample (fully 99 percent of charter school students in the country rather than the 3 percent sample used by AFT) and derived more positive results: "...although it is too early to draw sweeping conclusions, the initial indications are that the average student attending a charter school has higher achievement than he or she otherwise would" (Hoxby, 2004, p. 3).

A report released by the U.S. Department of Education's Institute of Education Sciences in December 2004 drew mixed conclusions. The study found that charter school students scored as well as mainstream students of the same race on the reading and mathematics sections of the National Assessment of Educational Progress (NAEP). Different findings emerged among students who qualified for the subsidized school meals program for low-income families. Here, charter school students scored lower in both reading and math than did their mainstream counterparts on average. The authors of the report caution that they had no access to information on prior achievement of students or other factors that would likely contribute to the observed differences in NAEP scores (USDOE, 2004).

At local levels, charter school assessments have been more consistently positive. In California, a study by the RAND Corporation found that charter school students performed on par with traditional public school students with fewer public resources. In addition, "the evidence shows that charter schools have not created 'white enclaves' or 'skimmed' high-quality students from traditional public schools—in fact, charter schools have proven to be more popular among black and lower-achieving students and may have actually created 'black enclaves'" (Zimmer, 2006). Hoxby's study performed a state-by-state analysis and found that charter school students in Hawai'i exhibited higher proficiency rates than did mainstream students in both reading and mathematics. Also, an analysis by the Hawai'i Educational Policy Center concluded that charter school students in Hawai'i outperformed their mainstream counterparts on the Hawai'i State Assessment and SAT tests in 2004 (Hawai'i Educational Policy Center, 2004). The inconsistency of findings from charter school studies, at least at the national level, reflects the inherent complexities involved in assessing charter

schools. Hill (2005) notes that differences in student populations—differences between charter school and mainstream students as well as differences among charter schools themselves—make charter school evaluations particularly difficult.

Educational Innovation and Culture

Several reasons lead us to expect that charter schools provide unique educational benefits to Native Hawaiians. First, as a group, Native Hawaiians fare poorly in the public school system and the hope is that more innovative approaches might offer opportunities for change in achievement and student engagement statistics (Kana'iaupuni, Malone, & Ishibashi 2005). Second, is the drive within the state's charter schools for culturally-based indigenous education. Charter schools represent an opportunity for Hawaiian families and communities to determine the form and content of their children's learning. Hawaiian ownership of "Hawaiian education" is an important way to engage the community, building social capital in ways that harness its strengths (Kana'iaupuni, 2004; Novak, 2004). Third, the autonomous nature of charter schools enables the development of experimental and innovative approaches that may foster higher achievement and greater engagement among Native Hawaiian students. In an ethnographic study of predominantly Native American charter schools, Bielenberg (2000) argues that community control is not enough, and that the value of charter schools to indigenous populations lies in their potential for innovation.

Finally, the drive within the state's charter schools for culturally based indigenous education is an approach that makes learning relevant and engaging for indigenous students (Martinez, 1999). Charter schools offer an ideal medium for the development and growth of culturally based education models, and Hawaiian communities have actively capitalized on this opportunity (Buchanan & Fox, 2003). Currently, twenty-five of Hawai'i's charter schools are start-up charters, including six that use Hawaiian language as the medium of instruction. About 14 of these schools are Hawaiian-focused and form the Na Lei Na'auao Native Hawaiian New Century Charter School Alliance (see www.naleinaauao.org). Connecting schools on three different islands, the community-driven alliance exists to promote native designed and controlled models of education and to assure the perpetuation of Hawaiian language, culture and traditions into the future. The ultimate goal of these objectives is to allow students, particularly indigenous students, to reach their highest level, individually and collectively.

Measuring Accountability and Performance

Under the federal No Child Left Behind Act (NCLB), Hawai'i schools must demonstrate continual progress by meeting a series of statewide educational benchmarks that are raised each year. Schools that repeatedly fail to meet their benchmarks face sanctions and eventual restructuring. Although this system of federal accountability provides a strong incentive for schools improvement, it does not address issues about why certain schools are struggling. For example, there may be reasons other than program quality that account for a school's

difficulties. The rigid performance measurement system established under NCLB holds all schools to the same standard and accepts no justifications for failure to meet that standard. NCLB operates under the assumption that a school with repeated low test scores is a school in need of restructuring.

But understanding why schools are struggling is critical to ensuring their eventual success. This need is true particularly for Hawai'i's charter schools, which historically have served a highly disadvantaged population of students. Why are charter schools struggling with their adequate yearly progress requirements? Is it because of the quality of charter school programs and services, or is it because charter schools serve a highly disadvantaged population of students? Previously, limitations on data meant that we were only able to look at cross-sections of achievement scores—the performance of charter school students in a given year. But with accumulated data on charter schools now spanning several years, we can begin to examine changes in student outcomes over time to better understand how students are served by charter schools.

These new data not only allow us to understand why charter schools are struggling, but also empower us to answer a question of particular significance to the Hawaiian community: how does the academic performance of Hawaiian students in Hawaiian-focused charter schools change over time, relative to other public schools? With multiple years of achievement data now available, we can begin to answer these questions by looking at changes over time in the achievement of Hawaiian students who attend Hawaiian-focused charter schools, other startup charters, and conventional public schools. This paper looks specifically at two cohorts of secondary students and shows how their scores on the Hawai'i State Assessment changed between Grade 8 and Grade 10.

Methods

This report provides a preliminary, descriptive analysis of the academic performance of Hawaiian secondary students in two cohorts: the Class of 2006 and the Class of 2007. Each of these cohorts was tested with the Hawai'i State Assessment in Grades 8 and 10. As such, our analysis includes all public school students with test score data in these grades. Note that the number of charter school students is considerably smaller than those in other public schools because there are fewer charter schools and class sizes are smaller in charter schools. Nonetheless, these data provide a useful starting point for understanding charter school outcomes.

Table 1
Student cohorts: grade level and years of data included in analysis

| | Entered Grade 8 in: | Entered Grade 10 in: |
|-------------------------|---------------------|----------------------|
| Cohort 1: Class of 2007 | SY2002-03 | SY2004-05 |
| Cohort 2: Class of 2006 | SY2001-02 | SY2003-04 |

We begin with basic descriptive statistics summarizing the cohort's performance on the Hawai'i State Assessment in Grade 8 and Grade 10 to highlight changes over time. For our investigation, data were aggregated across the two cohorts to increase the power of analyses and to ensure that results are not limited to a single, atypical class of students. To be included in our analyses, students must have had valid test data for reading or math at both points in time (Grade 8 and Grade 10). Sample sizes differ slightly for the math and reading analyses because some students had complete data in one test but not the other.

The analyses include Hawaiian students in Hawaiian-focused charter schools and their peers in other startup charters and conventional public schools. Student data records are matched individually and then aggregated by school type and presented in a series of bar charts. Note that students are categorized based on the school that they attended in Grade 10. For example, a student who attended a conventional public school in Grade 8 and then transferred to a charter in Grade 10 would be grouped in the category for other startup charter schools.

One limitation of the data is our inability to account for the duration of a student's enrollment in their Grade 10 school. If a student only recently transferred to their Grade 10 school, any change in their performance might actually reflect the impact of their Grade 9 school. However, we expect the impact of this problem to be small, given that student transfers amount to a small proportion of the total school population and that the Grade 10 "post-test" is administered in the spring of Grade 10 rather than the fall. Most students, therefore, have at least one nearly complete year of experience at the school by which they are classified—just one year less than non-transfer students, the majority of whom entered their Grade 10 school in Grade 9.

A second issue in analyzing both gain scores and changes among the lowest-performing students is regression to the mean. When we look at gain scores, the lower the initial score, the more room there is for a "gain." In other words, because the Grade 8 averages for Hawaiian-focused charter schools were so low; they had more room for student growth and were therefore more likely to show student gains. On the other hand, students in startup charter schools, who began high school with comparatively high averages were more likely to be pushing up against a score "ceiling." When we examine the proportion of students scoring "well below proficiency," we run into a similar problem. Because these scores are near the bottom of the scale, they are more likely to increase than scores at the top of the scale. We mitigate this problem, however, by comparing changes in students by ability groupings across different types of schools. If we see improvement in a significant proportion of the low-performing students at Hawaiian-focused charter schools, we would expect to see comparable levels of improvement among the low-performing students at other types of public schools. If this is not the case, we can reasonably conclude that Hawaiian-focused charter schools are effectively moving their lowest-achieving students compared to other startup charters or conventional public schools. In addition, our separate analysis reveals a consistent pattern of effects after correcting for regression to the mean (not shown).

A Cautionary Note

At least three observations challenge research efforts to understand educational outcomes of charter schools. First, charter schools serve a student body that is increasingly high in poverty levels and increasingly diverse, ethnically. A study by the U.S. Department of Education's Policy and Program Studies Services (2004) found that the prevalence of racial minorities and low-income students is significantly higher in charter schools than in conventional public schools and that the population of disadvantaged charter school students has grown substantially in the past two to three years (U.S. Department of Education, 2004). These national findings are mirrored within the Hawai'i population of public school students. Figure 1 and Figure 2 show that, compared to mainstream public schools, start-up charter schools serve a disproportionately high number of Hawaiians and subsidized meal program participants—two groups that, as a whole, are highly disadvantaged and more vulnerable to scholastic underperformance (Kana'iaupuni & Ishibashi, 2003). These differences may lead to underestimates of the true impact of charter schools, compared to mainstream education.

Beyond racial and socioeconomic differences, other unobservable factors may distinguish charter school students from mainstream students. For example, because enrollment in charter schools is voluntary, families who choose to have their children attend charter schools may have different motivations and different expectations of their schools than do families who opt to remain in conventional public schools. If these differences positively select certain kinds of people, for example parents who are more involved with the education of their children or those who have children with special learning needs, then our results may bias estimates of the impact of charter school education. These issues present a challenge for research efforts to examine school effectiveness and to measure the progress of students.

A third potential challenge is that significant differences exist between charter schools—possibly more than might exist between mainstream schools. For example, individual charter schools differ substantially in the characteristics of their students, the school mission, the design of curricula, and instructional practices. Thus, aggregating students across schools may mask significant differences in conditions and outcomes among schools. This means that evaluation results for a particular school or a subset of schools may not be generalizable to the larger population of charter schools.

Despite such caveats, the aggregate trends are worth considering. Although this analysis is not a sophisticated treatment of student growth, it offers a common sense examination of changes in student performance over time. Our hope is to better understand how Hawaiian student performance changes in different ways across different types of schools.

Findings

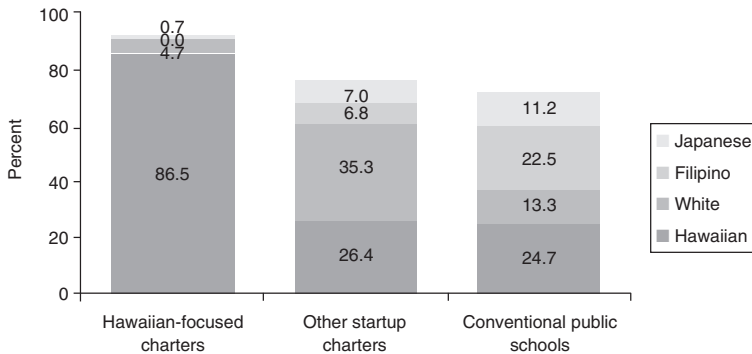
Demographic and Socioeconomic Characteristics

Before we begin examining student outcomes, we need to understand any underlying differences in the student populations served by the three types of public schools being investigated. Previous studies (Kana'iaupuni & Ishibashi 2005) have shown that startup charter schools in Hawai'i generally serve more disadvantaged students. In this brief we look more specifically at students in Hawaiian-focused charters and compare them with their peers in other types of public schools. Overall, we find that Hawaiian-focused charter schools serve a disproportionately high number of disadvantaged students from historically underserved populations.

Ethnic composition

Given that Hawaiian-focused charter schools are founded and guided by the Hawaiian community, it is not surprising that their student population is predominantly Hawaiian. Figure 1 shows that the concentration of Hawaiian students in Hawaiian-focused charter schools is more than three times that in other startup charters and conventional public schools.

Figure 1. Ethnic composition of Grade 10 by school type



Notes:

Individual level data are aggregated for school years 2003-04 and 2004-05.

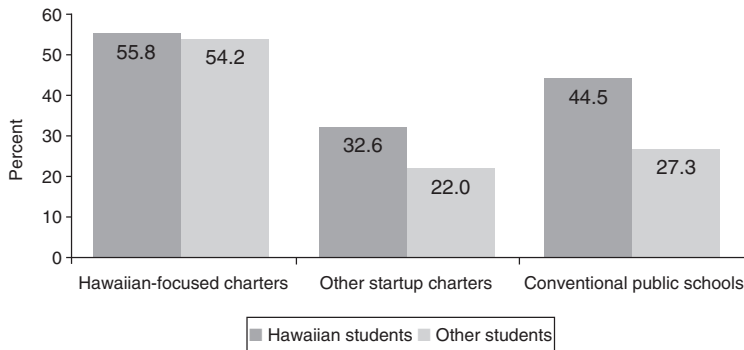
Sample sizes: n=148 for Hawaiian startup charters, n=428 for other startup charters, n=26,301 for conventional public schools.

Specifically, the data show that fully 86.5 percent of tenth graders in Hawaiian-focused charter schools are Hawaiian. Hawaiians account for approximately one-fourth of tenth grade students in other public schools (26.4 percent in other startup charters and 24.7 percent in conventional public schools). In comparison with other school types, very few Japanese or Filipino tenth graders attend Hawaiian-focused charter schools (0.7 percent and 0.0 percent, respectively). The biggest other race/ethnic group is comprised of white students.

Socioeconomic composition

Hawaiian-focused charter schools are serving the neediest parts of the student population—both Hawaiian and non-Hawaiian. Even when compared with other Hawaiians, as a group, children who attend Hawaiian-focused charter schools are significantly more likely to receive lunch subsidies.

Figure 2. Subsidized lunch rates in Grade 10 by school type



Notes:

Data aggregated for school years 2003-04 and 2004-05.

Sample sizes for Hawaiian students: n=129 for Hawaiian startup charters, n=129 for other startup charters, n=7,997 for conventional public schools.

Sample sizes for other students: n=24 for Hawaiian startup charters, n=422 for other startup charters, n=23,799 for conventional public schools.

The data in Figure 2 show that more than half the tenth graders in Hawaiian-focused charter schools participate in the subsidized school lunch program for low-income families. Fully 55.8 percent of Hawaiian students in Hawaiian-focused charter schools receive lunch subsidies, compared with 32.6 percent of Hawaiian students in other startup charters and 44.5 percent of Hawaiian students in conventional public schools. The subsidized lunch rate among non-Hawaiians in Hawaiian-focused charter schools (54.2 percent) is roughly double the rate among non-Hawaiians in other startup charters (22.0 percent) and in conventional public schools (27.3 percent).

Performance on Tests and Assessments

Because Hawaiian-focused charter schools serve a more highly disadvantaged population, it is reasonable to expect that their students may have lower achievement scores on average than do their peers in other public schools. Data from the Hawai'i State Assessment (HSA) bear out this prediction. When we look at the Grade 8 scores of Hawaiian tenth graders in Hawaiian-focused charter schools, we find that a larger proportion cluster in the lower performance levels, compared to their peers in other types of public schools (see Figure 11). This

difference suggests that Hawaiian students in Hawaiian-focused charter schools begin high school with greater academic difficulties and lower achievement than do their Hawaiian peers in other public schools.

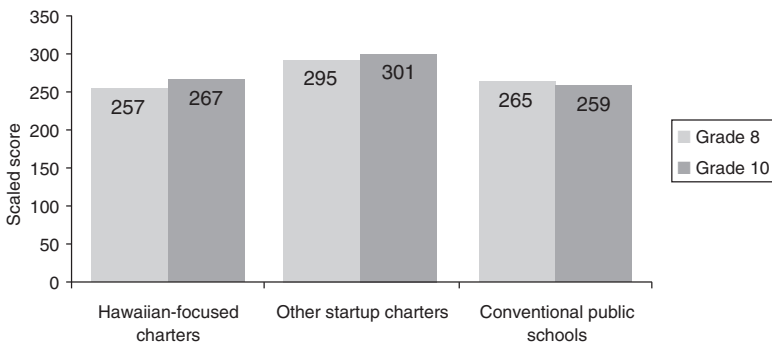
Anecdotal evidence is consistent with these data. Many of the charter school leaders and teachers share a common story about the parents who brought their children to the new schools during their short years of existence. Some of these parents were seeking an alternative from the public schools that their children attended because of a lack of engagement, feelings of not being understood, and the desire for an engaging, culturally-rich environment. This information also suggests that rather than higher income or test performance that characterizes parental choices about charter schools, it is more about a shared lack of relevance and engagement in more conventional schools that draws children and their families to charter schools.

Despite starting off at relatively lower levels, these students demonstrate substantial improvements made between Grade 8 and Grade 10 when tracked individually across time. The following results present gains in test scores for the two cohorts. Although not shown here, it is important to know that extended analysis of other students moving from third to fourth and fifth to sixth grade also indicate similar progression in reading and math. Overall, the data show that, although students in Hawaiian-focused charter schools may begin high school with lower scores, those same lower scoring students are more likely to make gains over time than do their counterparts in other types of public schools.

Reading gains

Hawaiian students in Hawaiian-focused charter schools begin high school lagging behind their peers in reading, particularly when compared with Hawaiian students in other startup charters. However, Figure 3 shows that by the end of Grade 10, they have made average gains that exceed those of Hawaiians in other startup charters and conventional public schools.

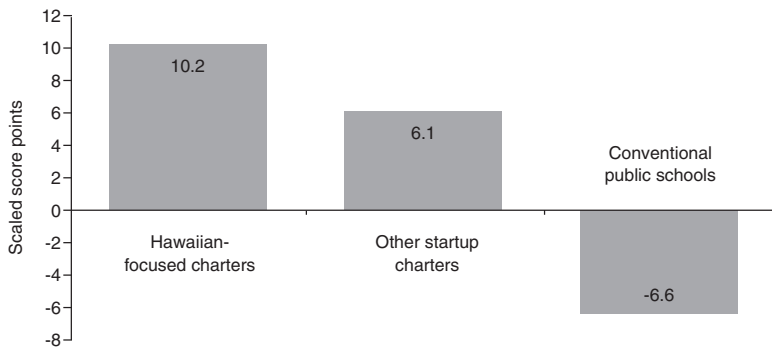
Figure 3. Average scaled scores in reading among Hawaiian students by school type



Specifically, by the end of Grade 8, the average reading scaled score among the Hawaiian students from Hawaiian-focused charter schools was 257—almost 40 points lower than the average among Hawaiians in other startup charters (295) and roughly 8 points lower than the conventional public school average (265). Between Grade 8 and Grade 10, Hawaiian students in Hawaiian-focused charters gained, on average, 10 points in reading, compared with a gain of approximately 6 points in other startup charters and a “loss” of 6 points in conventional public schools. By the end of Grade 10, the reading average among Hawaiian students in Hawaiian-focused charters had surpassed the average among Hawaiians in conventional public schools (267 versus 259).

The following Figure 4 visually illustrates the difference in gain scores by school type.

Figure 4. Average gain score in reading among Hawaiian students by school type



The positive gains in reading for Hawaiian-focused charter schools are not limited to Hawaiian students. Figures 5 and 6 show that other students in Hawaiian-focused charters exhibit similar patterns, lagging well behind their peers in Grade 8 but making substantial gains by the end of Grade 10.

In Grade 8, the reading average among non-Hawaiian students from Hawaiian-focused charter schools was 265—approximately 56 points lower than the average among Hawaiians in other startup charters (321) and almost 30 points lower than the conventional public school average (294). Hawaiian students in Hawaiian-focused charters gained, on average, 16 points in reading between Grade 8 and Grade 10, compared with gains of approximately 9 points in other startup charters and 3 points in conventional public schools.

Math Gains

As with reading, math scaled scores show that students in Hawaiian-focused charter schools begin high school with lower achievement than their peers in other public schools but make substantial gains over time.

Figure 5. Average scaled scores in reading among other (non-Hawaiian) students by school type

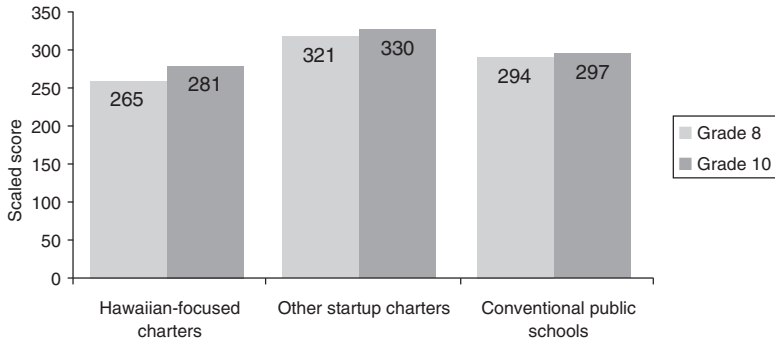
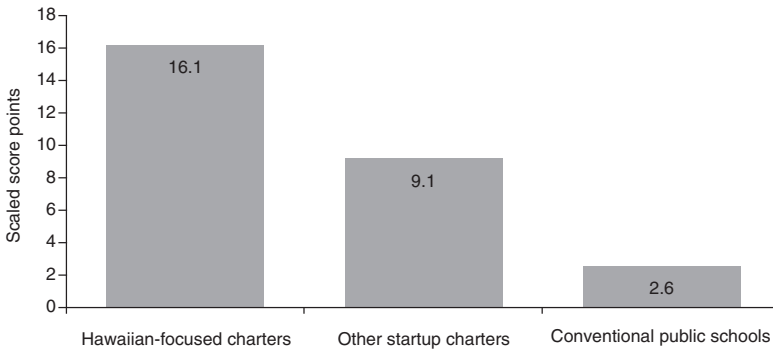


Figure 6. Average gain score in reading among other (non-Hawaiian) students by school type



Figures 7 and 8 show that the Hawaiian students from Hawaiian-focused charter schools scored an average of 208 in math at the end of Grade 8. This put them 36 points behind Hawaiians in other startup charters (244) and 12 points behind Hawaiians in conventional public school average (221). Between Grade 8 and Grade 10, Hawaiian students in Hawaiian-focused charters gained, on average, almost 14 points in math. In contrast, Hawaiians in other startup charter schools and conventional public schools both exhibited very small losses in their math achievement (a loss of 2 points and 0.2 points, respectively). By the end of Grade 10, the scores among Hawaiian students in Hawaiian-focused charters had matched the math averages earned by Hawaiians in conventional public schools (222 versus 221, respectively).

Figure 7. Average scaled scores in math among Hawaiian students by school type

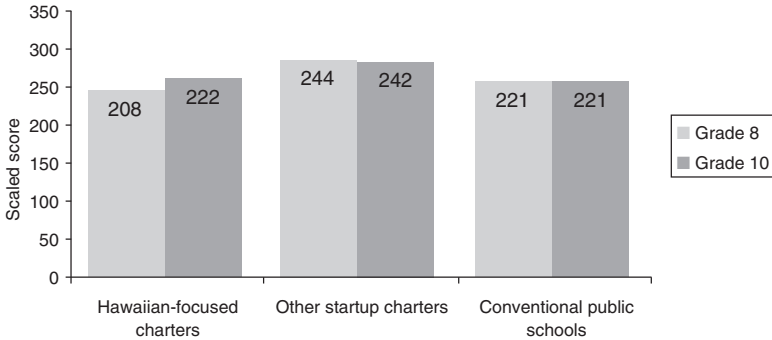
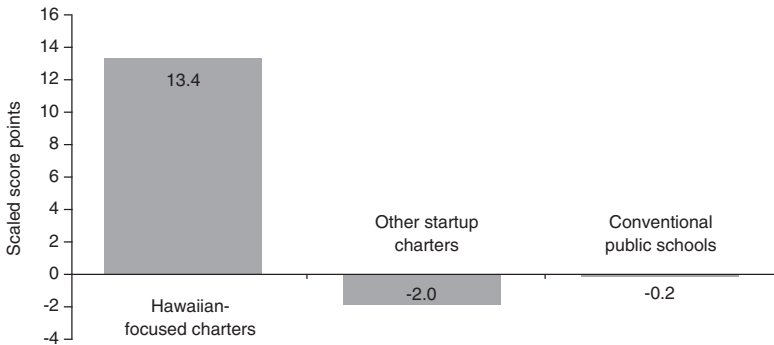


Figure 8. Average gain score in math among other Hawaiian students by school type



As with reading, the positive gains achieved by Hawaiian students in Hawaiian-focused charter schools are mirrored among other students. Figures 9 and 10 show that other students in Hawaiian-focused charters begin high school with lower levels of math achievement, and they make significant gains against their peers by the end of Grade 10.

Scoring an average of 210 in Grade 8, non-Hawaiian students from Hawaiian-focused lagged behind by 77 points when compared with their peers in other startup charters (287) and by 45 points when compared with students in conventional public schools (255). Between Grade 8 and Grade 10, non-Hawaiian students in Hawaiian-focused charters gained, on average, almost 27 points in math, compared with gains of 4 points in other startup charters and 2 points in conventional public schools.

Figure 9. Average scaled scores in math among other (non-Hawaiian) students by school type

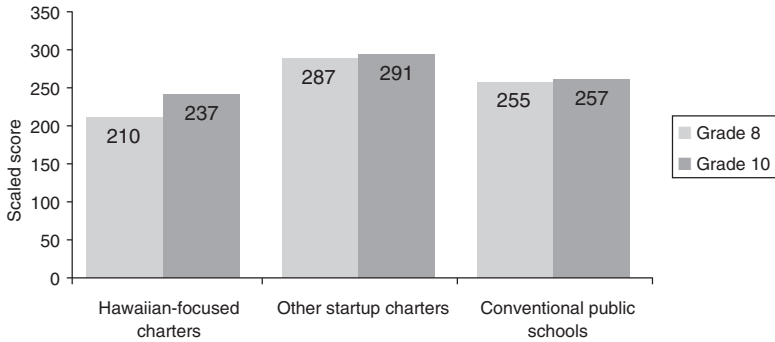
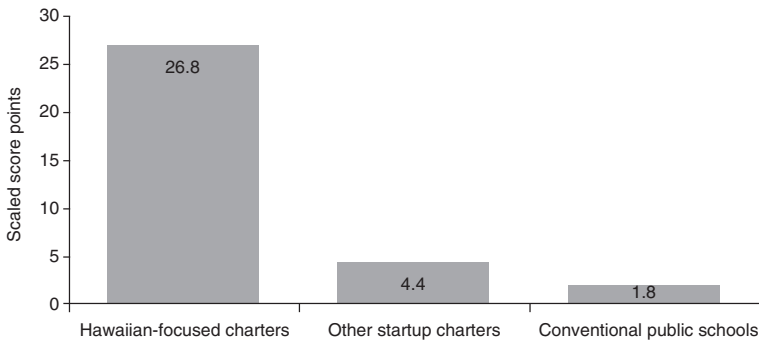


Figure 10. Average gain score in math among other (non-Hawaiian) students by school type



Proficiency Levels in Reading and Math

If students in Hawaiian-focused charter schools are “gaining” more over time than their peers in other public schools, why then are Hawaiian-focused charter schools struggling to meet their NCLB reporting requirements? The answer lies in the statistics NCLB uses to determine compliance: proficiency levels and proficiency rates.

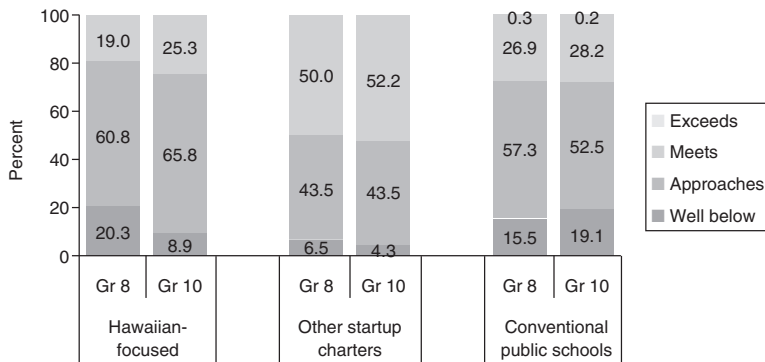
Based on HSA scaled scores, students are assigned a proficiency level, which indicates how students performed relative to the standards of achievement that are expected of students in that particular grade. There are four levels: “well below proficiency,” “approaches proficiency,” “meets proficiency,” and “exceeds proficiency.” The overall proficiency rate—the statistic by which adequate yearly progress toward NCLB benchmarks is determined—is calculated as the percentage of students who either “meet” or “exceed” proficiency standards.

Although the overall proficiency rates of Hawaiian-focused charters remains low, when we look more carefully at those students who fall below the proficiency threshold, we find that, in Hawaiian-focused charter schools, many have made sufficient progress between Grade 8 and Grade 10 to move from the “well below proficiency” category to the “approaches proficiency” category. However, these important gains are hidden within the adequate yearly progress measurement in a school. Among Hawaiian-focused charter schools, most of the gains seem to be concentrated in the lowest-achieving students, many of whom may be “approaching” proficiency without actually crossing the proficiency threshold against which NCLB compliance is judged. Success in reaching the lowest-achieving students appears to be a particular strength of the Hawaiian-focused charter schools. In other types of public schools, reductions in the proportion of students scoring “well below proficiency” are modest.

Reading Proficiency

Figure 11 shows that Hawaiian-focused charter schools are significantly improving the reading proficiency of their lowest performing Hawaiian students. In other public schools, changes in the reading proficiency levels of Hawaiian students have been small between Grade 8 and Grade 10.

Figure 11. Reading proficiency levels among Hawaiian students by school type



Notes:

Data for the two cohorts (Class of 2007 and Class of 2006) are aggregated.

Grade 8 scores for the Hawai'i State Assessment: Class of 2007=SY 2002-03; Class of 2006=SY 2001-02.

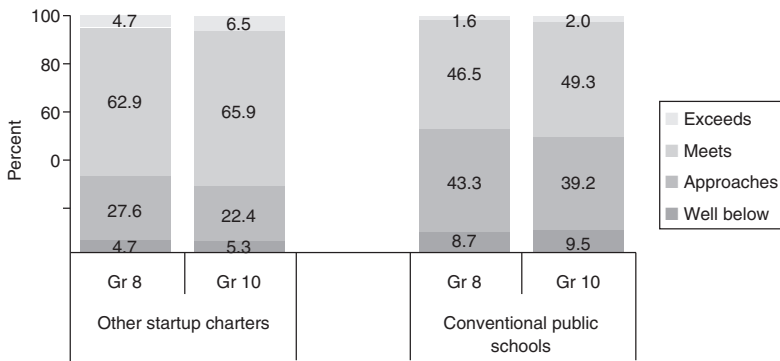
Grade 10 scores for the Hawai'i State Assessment: Class of 2007=SY 2004-05; Class of 2006=SY 2003-04.

Sample sizes for Hawaiian students: n=79 for Hawaiian startup charters, n=46 for other startup charters, n=4,610 for conventional public schools.

Specifically, Hawaiian tenth graders in Hawaiian-focused charter schools started out in high school with lower levels of reading proficiency than their Hawaiian peers in other public schools. At the end of Grade 8, 20.3 percent of the Hawaiian students in Hawaiian-focused charter schools scored “well below proficiency” in reading on the HSA, compared with 6.5 percent of the Hawaiian students in startup charters and 15.5 percent of the Hawaiian students in conventional public schools. In Hawaiian-focused charter schools, the percentage of Hawaiian students who scored “well below proficiency” in reading decreased by more than one-half between Grade 8 and Grade 10, from 20.3 percent to 8.9 percent. This decline in the lowest performing category was matched by corresponding increases in the percentage “approaching proficiency” (from 60.8 percent to 65.8 percent) and the percentage “meeting proficiency” (from 19.0 percent to 25.3 percent). Among Hawaiian students in other startup charter schools, there was little change in reading proficiency between Grade 8 and Grade 10. And, in conventional public schools, the percentage of Hawaiian students scoring “well below proficiency” in reading increased slightly from 15.5 percent in Grade 8 to 19.1 percent in Grade 10.

Even when we examine non-Hawaiian students in other types of public schools, we fail to see a drop in the “well-below proficiency” category that matches the reduction achieved by Hawaiian-focused charter schools.

Figure 12. Reading proficiency levels among other (non-Hawaiian) students by school type



Notes:

Data for the two cohorts (Class of 2007 and Class of 2006) are aggregated.

Grade 8 scores for the Hawai'i State Assessment: Class of 2007=SY 2002-03; Class of 2006=SY 2001-02.

Grade 10 scores for the Hawai'i State Assessment: Class of 2007=SY 2004-05; Class of 2006=SY 2003-04.

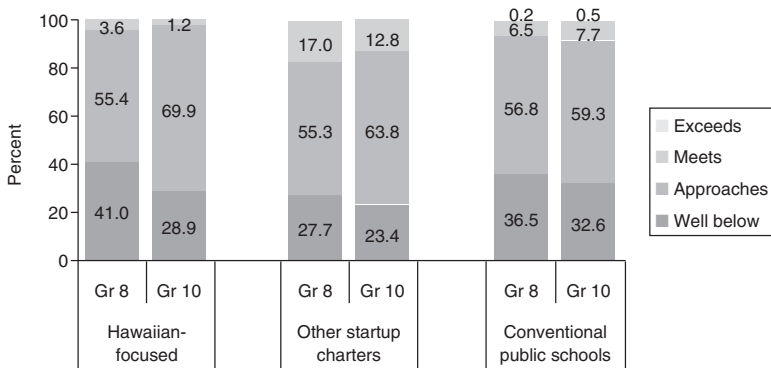
Sample sizes for non-Hawaiian students: n=12 for Hawaiian startup charters, n=170 for other startup charters, n=14,111 for conventional public schools. Reading proficiency levels for non-Hawaiian students in Hawaiian-focused charter schools are not shown due to the small sample size.

The results in Figure 12 indicate that in other startup charter schools and conventional public schools, the percentage of non-Hawaiian students scoring “well below proficiency” in reading did not significantly change between Grade 8 and Grade 10. However, improvement is apparent in the overall proficiency rate of non-Hawaiian students.³ Between Grade 8 and Grade 10, the reading proficiency rate increased from 67.6 to 72.4 percent in other startup charter schools and from 48.1 to 51.3 percent in conventional public schools.

Math Proficiency

Similar patterns are apparent with respect to math proficiency levels. Significant progress is achieved among the lowest-performing Hawaiian students in Hawaiian-focused charter schools.

Figure 13. Math proficiency levels among Hawaiian students by school type



Notes:

Data for the two cohorts (Class of 2007 and Class of 2006) are aggregated.

Grade 8 scores for the Hawai'i State Assessment: Class of 2007=SY 2002-03; Class of 2006=SY 2001-02.

Grade 10 scores for the Hawai'i State Assessment: Class of 2007=SY 2004-05; Class of 2006=SY 2003-04.

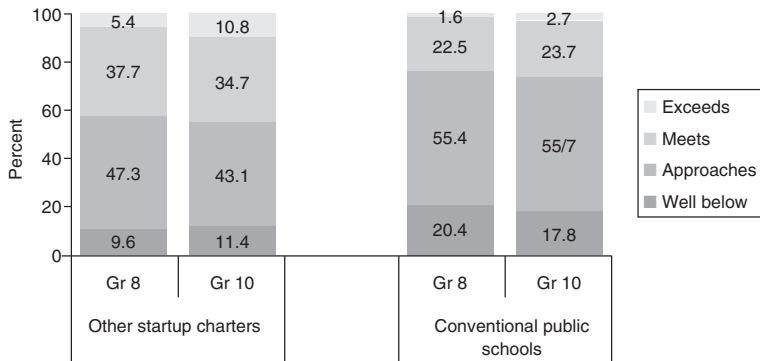
Sample sizes for Hawaiian students: n=83 for Hawaiian startup charters, n=47 for other startup charters, n=4,550 for conventional public schools.

Hawaiian tenth graders in Hawaiian-focused charter schools began high school with lower levels of math proficiency than Hawaiians in other public schools. Figure 10 shows that fully 41.0 percent scored “well below proficiency” in Grade 8 on the HSA math test, compared with 27.7 percent of the Hawaiian students in startup charters and 36.5 percent of the Hawaiian students in conventional public schools. In Hawaiian-focused charter schools, the percentage of Hawaiian students who scored “well below proficiency” in math decreased by more than

10 points between Grade 8 and Grade 10, from 41.0 percent to 28.9 percent. Decreases were also apparent in the percentage of Hawaiian students scoring “well below proficiency” in other public schools, but the reductions were comparatively small (4.3 points in other startup charters and 3.9 points in conventional public schools).

Among non-Hawaiian students, other startup charter schools and conventional public schools have achieved modest gains in overall math proficiency, but progress in the lowest-performing categories has been limited.

Figure 14. Math proficiency levels among other (non-Hawaiian) students by school type



Notes:

Data for the two cohorts (Class of 2007 and Class of 2006) are aggregated.

Grade 8 scores for the Hawai‘i State Assessment: Class of 2007=SY 2002-03; Class of 2006=SY 2001-02.

Grade 10 scores for the Hawai‘i State Assessment: Class of 2007=SY 2004-05; Class of 2006=SY 2003-04.

Sample sizes for non-Hawaiian students: n=12 for Hawaiian startup charters, n=167 for other startup charters, n=14,183 for conventional public schools. Math proficiency levels for non-Hawaiian students in Hawaiian-focused charter schools are not shown due to the small sample size.

Figure 14 shows that math proficiency rates among non-Hawaiian students increased slightly between Grades 8 and 10, from 43.1 to 45.5 percent in other startup charters and from 24.1 to 26.4 percent in conventional public schools. Between Grade 8 and Grade 10, the percentage of non-Hawaiian students performing “well below proficiency” increased slightly in other startup charter schools (from 9.6 to 11.4 percent) and decreased slightly in conventional public schools (20.4 to 17.8 percent).

Conclusions & Implications

This study set out to examine the impact of culture-based charter schools on Hawaiian student outcomes and to share longitudinal findings on student gains to inform a more nuanced understanding. In addition, we sought to examine the challenges that charter and other schools face in the current NCLB policy context where critical student gains are occurring, albeit invisibly. Unfortunately, the progress achieved by Hawaiian-focused charter schools in working with highly disadvantaged and low-achieving students carries little weight under NCLB. Hawaiian-focused charter schools have boosted a significant proportion of their students from “well below” to “approaching proficiency.” However, “approaching proficiency” is still below the overall proficiency threshold, meaning that, despite their accomplishments, Hawaiian-focused charter schools continue to report low proficiency rates and struggle with their NCLB requirements. These hard-earned accomplishments are important and deserve recognition as schools stretch to support all students to achieve proficiency and positive educational outcomes. As time goes by, the hope is that Hawaiians students are not only approaching, but meeting and exceeding proficiency in all categories because they are being respected, nurtured, and challenged to achieve. Critical to their engagement is the confidence that comes with cultural relevance and knowing who they are and where they come from as Hawaiian children in today’s global society. Our analysis yielded several findings and recommendations.

- **First, Hawaiian-focused charter schools are working with some of the most disadvantaged populations in the public school system.**
Hawaiian-focused charters are distinct from other types of public schools (including other startup charters) in both their indigenous approaches to education and in the population they serve. Hawaiian-focused charter schools serve a disproportionately high number of low-income students and historically underserved Hawaiian students.
- **Second, Hawaiian-focused charter schools are significantly increasing achievement among their lowest-performing students.**
Despite the challenges of working with a predominantly disadvantaged population, Hawaiian-focused charter schools seem to be doing something right. Our findings suggest that the indigenous education strategies employed and refined by Hawaiian-focused charter schools are effectively increasing achievement among some of the public school system’s most challenged and troubled students. Where other public schools are struggling to meet the needs of their lower-achieving students, Hawaiian-focused charter schools have succeeded.
- **Third, the success of Hawaiian-focused charter schools with lower-achieving students is a unique strength.**

Although the charter school movement in Hawai'i shares credit for enabling the development of innovative and experimental alternatives such as Hawaiian-focused education, there does not seem to be an overarching "charter school effect." The successes of Hawaiian-focused charter schools seem to be distinct in nature and separate from the achievements of other startup charter schools. Whereas other startup charter schools have increased their overall proficiency rates, the accomplishments of Hawaiian-focused charter schools have been centered on ably moving the lowest-achieving segments of the population.

- **Fourth, based on these findings, Hawaiian-focused charter schools can offer important insights to Hawai'i's education community about how to better meet the needs of our lowest-achieving and most disadvantaged students.**

Because Hawaiian-focused charter schools have succeeded in reaching the types of populations that other public schools have struggled to serve (i.e., the most disadvantaged and lowest-achieving students), educators throughout Hawai'i's educational system may do well to learn about and adopt some of the indigenous approaches and strategies pioneered by the Hawaiian-focused charter schools. At a time when federal mandates are placing tremendous pressure on public schools, it is critical that we share resources and knowledge across Hawai'i's wider education community.

- **Finally, the No Child Left Behind Act and its restructuring measures threaten to extinguish the indigenous approaches that are the foundation of Hawaiian-focused charter schools.**

Despite their demonstrated success with disadvantaged and historically underserved populations, Hawaiian-focused charter schools are threatened by the one-dimensional accountability system imposed on the Hawai'i Department of Education by the federal No Child Left Behind Act. The educational accomplishments of Hawaiian-focused charter schools, combined with their simultaneous regulatory difficulties, raise important questions about the way we measure success. The Hawai'i Department of Education has been exploring options for a school accountability system that accounts for preexisting differences in student populations and measures growth rather than simple proficiency rates. These findings underscore the importance of such efforts. They also highlight the threat that cookie-cutter restructuring programs pose against indigenous education programs like the Hawaiian-focused charter schools. Without a fair system for measuring school performance, many Hawaiian-based schools may be forced to extinguish that which makes them uniquely Hawaiian and that which empowers them to reach Hawai'i's most disadvantaged and underserved children.

Shawn Malia Kana'iaupuni is Director of Strategic Planning and Implementation at Kamehameha Schools in Honolulu, Hawai'i. As a demographer and sociologist, her research focuses on the status and well-being of Hawaiians. She is a former Assistant Professor of Sociology at the University of Wisconsin-Madison, and has served as adjunct faculty in Public Health Sciences and Epidemiology at the University of Hawai'i at Manoa. Dr. Kana'iaupuni is currently appointed to the Race and Ethnicity Advisory Committee to the United States Census Bureau. She received her B.A. in Public Affairs from the University of Denver, M.A. in Sociology at the University of Chicago, and Ph.D. in Sociology at the University of Chicago.

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End Notes

¹“A coral reef that grows into an island. A person beginning in a small way gains steadily until he becomes firmly established” (Pukui, M. 'Olelo No'eau: Hawaiian Proverbs and Poetical Sayings, 1983, 100).

²For a comprehensive overview of educational outcomes for Hawaiian children, see Kana 'iaupuni, Malone, and Ishibashi 2005.

³Proficiency rates, used to determine adequate yearly progress toward NCLB benchmarks, is calculated as the percentage of students who either “meet” or “exceed” proficiency standards.

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