Indigenous Education in Hawai‘i: Charter School Outcomes

Contact Kana‘iaupuni (shkanaia@ksbe.edu),
Kamehameha Schools, October 5, 2006
What do we know about educational outcomes for Hawaiian students in the state?

- Native Hawaiian children face many disadvantages in the state’s public schools.

- **School stability.** Schools with high concentrations of Hawaiians experience higher faculty turnover and tend to have teachers with less experience and fewer qualifications compared with other schools.

- **Restructuring.** Under NCLB, Native Hawaiian children are twice as likely to attend a “restructuring” school as their non-Hawaiian peers.

- **Low test scores.** Native Hawaiian children’s test scores lag behind statewide averages by approximately 10 percentile points in reading and math. This achievement gap widens in higher grades.
What are some of the efforts that address the situation for Hawaiian learners?

- Hawaiian-focused charter schools and Kaiapuni immersion schools
- Partnerships for tutoring, literacy instruction, and teacher development in targeted schools
- “Best practices in Hawaiian education” conference in January 2006
- Nā Lau Lama—a statewide collaboration to improve outcomes for Hawaiian students in public schools
How are Native Hawaiian students represented in the state’s public schools?

All students in Hawai‘i’s public school system (school year 2004–05) = 181,897

Native Hawaiian students = 47,937 (26%)

Immersion\(^1\) students = 1,726

Charter school\(^2\) students = 1,930

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\(^1\) Immersion student count is for 2005-06 school year and may include some non-Hawaiian students.

\(^2\) Charter school student count includes conversion charters, Hawaiian start-ups, and non-Hawaiian start-ups.
What is the value-added by charter schools in our state?

- Typically, studies examine value of charters compared to other public schools.
- Recent national study says achievement of charter school students is subpar.
- But, a study in California reported that the state’s charter school students outperform other public school students.
- Data on charter schools in Hawai‘i also tell an important story about Native Hawaiian learners.
Indigenous Education in Hawai‘i: Charter School Evidence

‘Ike Hawai‘i
Charter Schools
‘Ike Hawai‘i Public Charter Schools

- Use instruction methods and materials based on Hawaiian ways of knowing and doing

- Are pioneers in the development of Hawaiian culture-based curriculum and pedagogy

- Offer substantial Hawaiian-language curricular strands or teach exclusively in ‘ōlelo Hawai‘i

- Serve mostly Hawaiian students - 93% of students in Hawaiian-focused charter schools are Native Hawaiians

- Are public schools that charge no tuition
Where did the data come from for this analysis?

- Annual student data collected by public schools
- School year 2001-02 to 2004-05
- 12 Hawaiian-focused charter schools in this analysis:
  - Hakipu‘u Learning Center
  - Hālau Kū Māna
  - Hālau Lōkahi
  - Ka ‘Umeke Kā‘eo
  - Ka Waihona ‘o Ka Na‘auao
  - Kanu ‘o Ka ‘Āina
  - Kanuikapono
  - Kula Ni‘ihau o Kekaha
  - Kula ‘o Samuel M. Kamakau
  - Kua O Ka Lā
  - Kula Aupuni Ni‘ihau a Kahelelani Aloha (KANAKA)
  - Ke Ana La‘ahana
How does this analysis relate to other studies about Hawaiian charter schools?

- Growing evidence base:
  1. Early analyses showed high levels of school engagement and positive achievement (PASE report, Feb. 2005).
  3. Longitudinal analysis of changes over time (current, 2006)

- Upcoming: Study of “Hawaiian cultural influences in education” to expand knowledge of Hawaiian learning styles and effective teaching.
What are the research questions?

- How do Hawaiian students in Hawaiian-focused charter schools perform on statewide tests?
- How do they progress over time?
- How do they compare with their Hawaiian peers in other types of public schools?
What do we know about students in Hawaiian-focused charter schools?

- **Predominantly Hawaiian:** Nearly 86 percent are Native Hawaiian.
- **Low-income:** About two-thirds of students participate in subsidized lunch program.
- **Engaged in school:** Hawaiian students in Hawaiian-focused charters have relatively good attendance rates. Their counterparts in conventional public schools are nearly five times as likely to be excessively absent from school.
## Indigenous Education in Hawai‘i: Charter School Evidence

### What are the sample sizes for the analysis?
(Number of Hawaiians in Hawaiian-focused charters)

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Hawaiian startup charters</th>
<th>Other startup charters</th>
<th>Conv’tl public schools</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group A:</strong> Grades 8 to 10</td>
<td>87</td>
<td>48</td>
<td>4,625</td>
</tr>
<tr>
<td>(pooled two cohorts)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Group B:</strong> Grades 5 to 8</td>
<td>63</td>
<td>38</td>
<td>3,161</td>
</tr>
<tr>
<td><strong>Group C:</strong> Grades 5 to 7</td>
<td>66</td>
<td>41</td>
<td>3,113</td>
</tr>
<tr>
<td><strong>Group D:</strong> Grades 3 to 5</td>
<td>62</td>
<td>56</td>
<td>6,428</td>
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<tr>
<td><strong>Group E:</strong> Grades 3 to 4 and 5 to 6 (pooled two cohorts)</td>
<td>86</td>
<td>74</td>
<td>6,645</td>
</tr>
<tr>
<td><strong>Immersion</strong> (pooled cohorts)</td>
<td>45</td>
<td>228</td>
<td>20,710</td>
</tr>
</tbody>
</table>

- Limitation: Small sample sizes for Hawaiian-focused charters
- Longitudinal, but still a limited time frame with only a few years of data
- The analysis aggregates data from various schools that may be distinct from one another.
How do we measure changes in student outcomes?

- Hawai‘i State Assessment (HSA) for reading and math (local norms)
  - Changes in AYP proficiency levels
  - Scaled scores—change over time
- SAT-9 for reading and math (national norms)
  - Normal curve equivalents—change over time
Hawaiian-focused charter schools are increasing the reading proficiency of their lowest-performing students.

The percentage who scored “well below proficiency” decreased by a statistically significant margin, from 20.3 percent to 8.9 percent between Grade 8 and Grade 10.

In conventional public schools, the percentage scoring well below proficiency increased.
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Group A: High School (Grade 8 to Grade 10)

HSA math proficiency levels among Hawaiian students

- Hawaiian-focused charters are increasing the math proficiency of their lowest-performing students.
- In Hawaiian-focused charters, the percentage who scored “well below proficiency” in math decreased by a statistically significant margin, from 41.0 to 28.9 percent between Grade 8 and Grade 10.
- Significant increase in the percentage “approaching proficiency”—from 55.4 to 69.9 percent.
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Group A: High School (Grade 8 to Grade 10)

In other words…

Well below proficiency in eighth grade

Approaching or meeting proficiency in tenth grade

- Hawaiian-focused charter schools create “category busters”—half of the lowest achievers moved from “well below proficiency” in Grade 8 into a better category by Grade 10.

- Hawaiian-focused charter schools represent a potentially dramatic return on investment to raise academic achievement.
Hawaiian students in Hawaiian-focused charters made greater gains between Grade 8 and Grade 10 than did their peers in other public schools.

Gain of 10.2 scale score points in Hawaiian-focused charters, compared with 6.1 points in other startup charters, and a loss of 7.3 points in conventional public schools.
Between Grade 8 and Grade 10, Hawaiian students in Hawaiian-focused charters gain, on average, 13.4 points in math.

Among Hawaiian students in other startup charters and conventional public schools, average scores do not change significantly between Grade 8 and Grade 10.
In an age group that is especially vulnerable to academic decline, Hawaiian-focused charter schools are increasing the reading proficiency of their lowest-performing students.

- Percentage who scored “well below proficiency” in reading decreased from 54.8 percent to 17.7 percent between Grade 5 and Grade 7.
- Corresponding increases in the percentage “approaching” and “meeting” proficiency.
- Smaller but significant improvement in other types of public schools as well.
HSA math proficiency levels among Hawaiian students

- Hawaiian-focused charters show additional gains in math proficiency among their lowest-performing students.
  - Percentage who scored “well below proficiency” in math decreased from 54.5 to 40.9 percent.
  - Increase in the percentage “approaching proficiency”—from 42.4 to 54.5 percent.
- Small gains in other types of public schools but primarily concentrated in movement from “approaching proficiency” to “meeting proficiency.”
Indigenous Education in Hawai‘i: Charter School Evidence

Group C: Middle School (Grade 5 to Grade 7)

Change in HSA scaled reading averages among Hawaiian students

<table>
<thead>
<tr>
<th>category</th>
<th>scale score points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haw aiian startup charters</td>
<td>32.6</td>
</tr>
<tr>
<td>Other startup charters</td>
<td>12.3</td>
</tr>
<tr>
<td>Conventional public schools</td>
<td>6.8</td>
</tr>
</tbody>
</table>

Scale score increase among Hawaiian-focused charters was substantially higher than among other public schools.

Gain of 32.6 scale score points in Hawaiian-focused charters, compared with a 12.3 points in other startup charters and 6.8 points in conventional public schools.
Between Grade 5 and Grade 7, Hawaiian students in Hawaiian-focused charters gain, on average, 8.0 points in math.

- Math scores increase by 6.2 points in other startup charters and 3.1 points in conventional public schools.
Hawaiian-focused charter schools are increasing the reading proficiency of their lowest-performing elementary students.

- In Hawaiian-focused charter schools, the percentage who scored “well below proficiency” in reading decreased from 41.0 percent to 27.9 percent between Grade 3 and Grade 5.
- Corresponding increases in the percentage “approaching” and “meeting” proficiency.
- In other startup charter schools, little change from Grade 3 to Grade 5.
- In conventional public schools, significant growth in the overall proficiency rate, but little improvement in lowest-performing students scoring “well below proficiency.”
Slight decline in the math scores of elementary students in Hawaiian-focused charters.

- Students who met standards for math proficiency in Grade 3 fell below the proficiency threshold in Grade 5.
- Slight increase in the percentage “well below proficiency”—from 55.0 to 56.7 percent.

Little change in conventional public schools and slight decline in other startup charter schools, where percentage “well below proficiency” increased from 14.5 percent to 27.3 percent.
### Summary of reading results: Student Gains

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<th>Conv'tl public schools</th>
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</thead>
<tbody>
<tr>
<td>Group A (Grades 8 to 10)</td>
<td>+</td>
<td>●</td>
<td>–</td>
</tr>
<tr>
<td>Group B (Grades 5 to 8)</td>
<td>+</td>
<td>●</td>
<td>–</td>
</tr>
<tr>
<td>Group C (Grades 5 to 7)</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Group D (Grades 3 to 5)</td>
<td>+</td>
<td>–</td>
<td>+</td>
</tr>
<tr>
<td>Group E (one-year data, (Grades 3 to 4 and 5 to 6)</td>
<td>+</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Immersion</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

- + represents positive change over time
- – represents negative change over time
- ● represents no significant change
### Summary of math results: Student Gains

<table>
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<td>–</td>
<td>●</td>
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</tr>
<tr>
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<td>+</td>
<td>–</td>
<td>●</td>
<td></td>
</tr>
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<td>+</td>
<td>–</td>
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What are the key findings from this analysis?

A growing base of evidence confirms the academic success of Hawaiian-focused charters.

- Hawaiian-focused charters serve a challenging population—the most socioeconomically and educationally disadvantaged among school types examined.

- On average, Hawaiian students in culturally engaging environments make significant gains in reading and math.

- The lowest-achieving Hawaiian students experience the most dramatic gains in Hawaiian-focused charter schools.
What are the implications of this analysis?

- **Promise**: Hawaiian-focused charter schools represent a viable educational model.
- **Challenges**: Adequate yearly progress (AYP) overlooks important gains made by Hawaiian-focused charter schools (i.e., improvement among the lowest-achieving students).
- **Gains**: Schools that show the greatest promise for low-achieving Hawaiian learners are at greatest risk of being restructured and closed.
- **Policy**: Supporting Hawaiian-focused charter schools may generate a promising return on investment for Hawaiian education.
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What are the next steps?

- Share findings with broader audience.
- Advocate for new methods of reporting to account for gains among lowest-performing students.
- Proactively collect data and explore additional ways of measuring success with community and DOE partners.
  - “Cultural Influences in Education” project: Identify culturally grounded educational approaches that work.
  - “Successful Schools for Hawaiians” study: Identify successful aspects of schools where Hawaiian achievement is highest.
- Investigate the needs of the full range of Hawaiian students in Hawaiian-focused charters.
- Commit to keeping successful Hawaiian-focused charters alive and funded.
- Engage in Nā Lau Lama – statewide collaboration
  - Identify successful practices in Hawaiian education and establish a framework for replicating across public school system.