

# TRENDS IN ACHIEVEMENT BY HAWAII STUDENTS ON THE NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

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Information Brief Series

Kamehameha Schools Research & Evaluation Division  
by M. Pia Chaparro and Katherine A. Tibbetts



## Background

For over three decades, National Assessment of Educational Progress (NAEP) assessments have been conducted periodically in reading, mathematics, science, writing, history, geography, and other subjects. The purpose of NAEP is to make information available on student performance at the national, state, and local levels (National Center for Educational Statistics, 2008). Since 2003, results have been available for Native Hawaiian and Other Pacific Islander (NHOPI) students in Grades 4 and 8 in Mathematics and Reading. This report presents trends in the NAEP test results for public school students in the State of Hawai'i using data the 2003, 2005, and 2007.

## Grade 4 Results

Between 2003 and 2007 there was a marked increase in the proportion of students scoring at or above proficient in both Reading and Mathematics. Despite these increases, in 2007 fewer than 50% of all students in grade 4 scored in this range (Figures 1 and 2).

The proportion of NHOPI students in Hawai'i scoring at or above proficiency for Mathematics increased by 10 per-

centage points between 2003 and 2007, compared to 9 percentage points among non-NHOPI and 8 percentage points nationally (Figure 1).

In Reading, the proportion of students scoring at or above proficiency improved between 2 and 5 percentage points over the past 3 test administrations (Figure 2). Again, NHOPI students in Hawai'i had the greatest improvement over the years on Reading scores with a 5 percentage point increase compared to 4 percentage points for non-NHOPI students and 2 percentage points nationwide.

Non-NHOPI students in Hawai'i were essentially at the same level of proficiency for Mathematics and Reading as the national average for nearly all 3 years of test data, consistently above the NHOPI group.

## Grade 8 Results

Although not as marked as in Grade 4, there was an increase in Mathematics scores in Grade 8 between 2003 and 2007. Yet, by 2007 fewer than 40% of all students in Grade 8 had yet to score at or above proficiency for Mathematics or Reading (Figures 3 and 4).

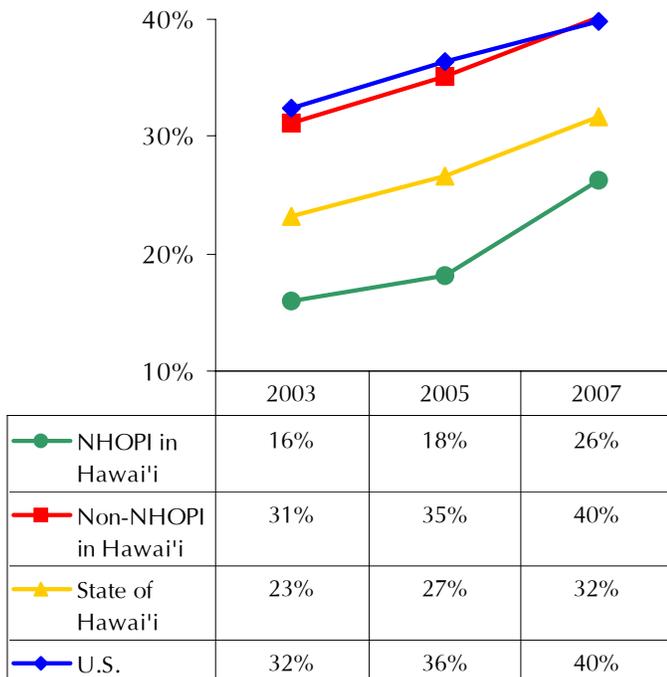


Figure 1. Percentage of Students with Mathematics Scores At or Above Proficiency by Year, Grade 4

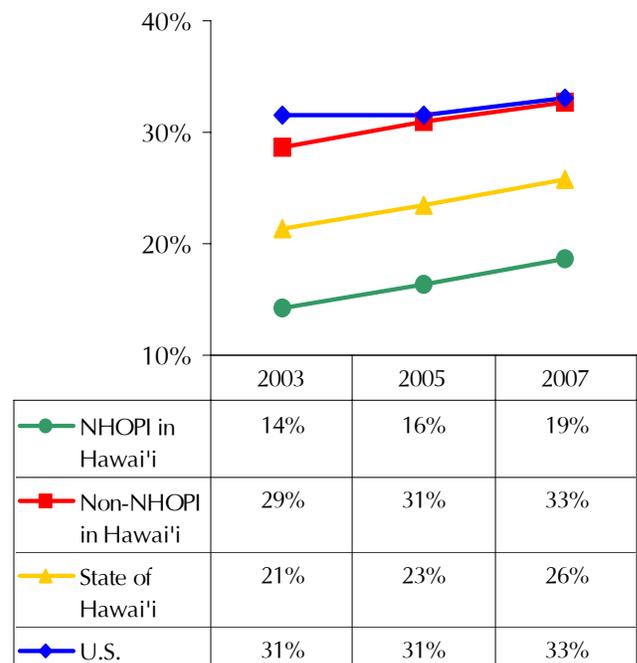
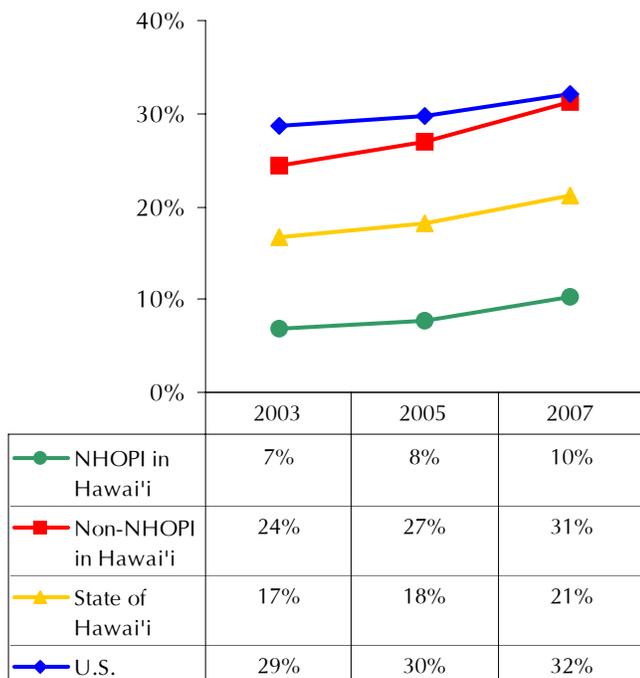


Figure 2. Percentage of Students with Reading Scores At or Above Proficiency by Year, Grade 4

The non-NHOPI group showed the most improvement in Mathematics scores over this period, with a 7 percentage point increase (Figure 3). By 2007, the non-NHOPI group was as proficient as the national average. The proportion of NHOPI students that scored at or above proficiency for Mathematics increased only 3 percentage points between 2003 and 2007.

In Reading, there was a slight decline in proficiency for all groups for the years 2003-2007 (Figure 4), with the percentage of students with Reading scores at or above proficiency decreasing by 1 to 2 percentage points between 2003 and 2007. Except in 2005, the performance of the non-NHOPI group in Hawai'i was very similar to that of students nationwide.

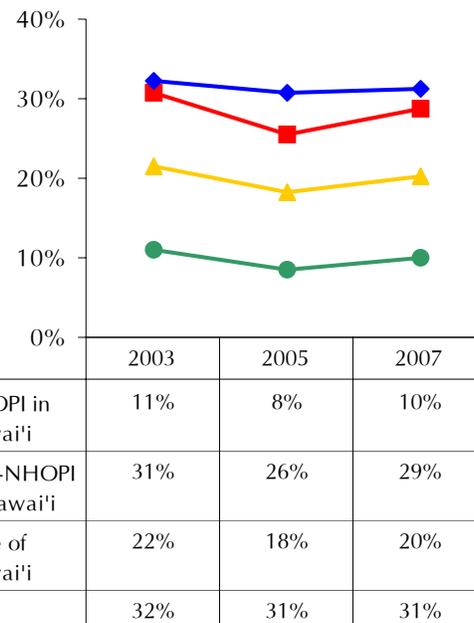


**Figure 3. Percentage of Students with Mathematics Scores At or Above Proficiency by Year, Grade 8**

## Discussion

Three findings clearly stand out in these data:

- Among Grade 4 test-takers, the gap between NHOPI and other students decreased slightly between 2003 and 2007



**Figure 4. Percentage of Students with Reading Scores At or Above Proficiency by Year, Grade 8**

- The achievement of non-NHOPI students in Hawai'i closely resembles that of students nationwide, and
- Between Grades 4 and 8, there is a substantial increase in the achievement gap between NHOPI students in Hawai'i and their non-NHOPI classmates, as well as with students nationwide. In Grade 4, the proportion of NHOPI students who were proficient in Mathematics and Reading was about half the size of the non-NHOPI in Hawai'i and nationwide. However, in Grade 8, the proportion of NHOPI students who reach proficiency is one-third that of the non-NHOPI and nationwide groups.

The challenge is to identify and tap the ways in which families, schools, and communities can work together to improve the achievement of our lowest achieving students. We note that promising results have been achieved with Hawaiian Culture-Based Education where remarkable progress has been made in closing the achievement gap for Native Hawaiian students (Keli'ipio and Hsu, forthcoming) and in selected public schools with strong, cohesive school reform efforts (Coryn, *et al*, 2007).

## References:

- Coryn, C. L., Schröter, D. C., Miron, G., Kana'iaupuni, S. K., Tibbetts, K. A., Watkins-Victorino, L. M. & Gustafson, O. W., (2007). *School Conditions and Academic Gains among Native Hawaiians: Identifying successful school strategies: Executive Summary and Key Themes*. Kalamazoo: The Evaluation Center, Western Michigan University.
- Keli'ipio, S. K. & Hsu, P. (forthcoming). *He Pūko'a Kani 'Āina: The Contributions of Hawaiian-Focused Charter Schools to Closing the Achievement Gap*. Information Brief Series, Kamehameha Schools Research and Evaluation Division.
- National Center for Educational Statistics, Institute for Educational Sciences (2008). *National Assessment of Educational Progress: The Nation's Report Card*. Retrieved April 10, 2008 from <http://nces.ed.gov/naep3/>.

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