Mathematics Grade 4

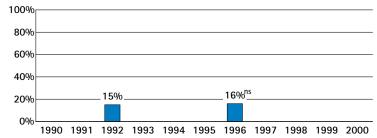
1. Improvement Over Time

Have Hawaii's 4th graders improved in mathematics achievement?

Not yet. Between 1992 and 1996, there was no significant change in the percentage of public school 4th graders who met the Goals Panel's performance standard in mathematics.

The Goals Panel has set its performance standard at the two highest levels of achievement — Proficient or Advanced — on the National Assessment of Educational Progress, or NAEP.

Percentage of public school 4th graders at or above Proficient on the NAEP mathematics assessment



ns Interpret with caution. Change was not statistically significant. Mathematics performance will be tested again in 2000.

2. State Comparisons⁺

How did Hawaii compare with other states in 4th grade mathematics achievement in public schools in 1996?

23 states had significantly higher' percentages of students who were at or above Proficient on NAEP:

Connecticut	31%	Michigan, Utah, Vermont	23%
Minnesota	29%	Colorado, Iowa, Maryland, Montana	22%
Maine, Wisconsin	27%	U.S.,* Alaska, North Carolina, Oregon,	21%
New Jersey, Texas	25%	Washington	
Indiana, Massachusetts, Nebraska,	24%	Missouri, ² New York ²	20%
North Dakota			

14 states had similar¹ percentages of students who were at or above Proficient on NAEP:

Pennsylvania ²	20%	Arizona, Florida	15%
Virginia, West Virginia, Wyoming	19%	Nevada	14%
Rhode Island, Tennessee	17%	Arkansas, Georgia, New Mexico	13%
Hawaii. Delaware, Kentucky	16%		

7 states had significantly lower' percentages of students who were at or above Proficient on NAEP:

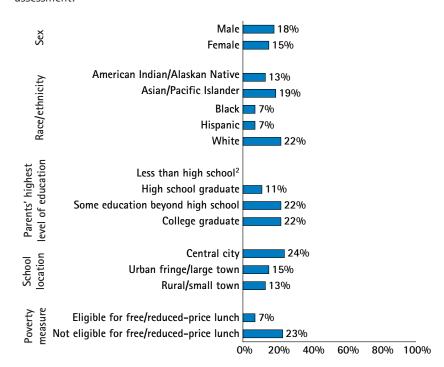
South Carolina	12%	District of Columbia	5%
Alabama, California	11%	Guam	3%
Louisiana, Mississippi	8%		

[†] The term "state" is used to refer to the 50 states, the District of Columbia, and the territories.

* Figure shown for the U.S. includes both public and nonpublic school data.

3. Subgroup Performance

What percentages of public school 4th graders in different subgroups in Hawaii were at or above Proficient on the 1996 NAEP mathematics assessment?



¹ Interpret differences between subgroups with caution. See pp. 3-4 and Appendix D.

¹ See explanation on pp. 3-4.

² State may appear to be out of place; however, statistically, its placement is correct. See pp. 3-4.

² Characteristics of the sample do not permit a reliable estimate.

Mathematics Grade 8

Hawaii

1. Improvement Over Time

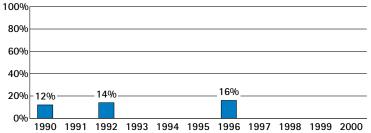


Have Hawaii's 8th graders improved in mathematics achievement?

Yes. The percentage of Hawaii's public school 8th graders who met the Goals Panel's performance standard in mathematics increased from 12% in 1990, to 16% in 1996.

The Goals Panel has set its performance standard at the two highest levels of achievement — Proficient or Advanced — on the National Assessment of Educational Progress, or NAEP.

Percentage of public school 8th graders at or above Proficient on the NAEP mathematics assessment



Mathematics performance will be tested again in 2000.

2. State Comparisons⁺

How did Hawaii compare with other states in 8th grade mathematics achievement in public schools in 1996?

26 states had significantly higher' percentages of students who were at or above Proficient on NAEP:

Minnocoto	2.40/-	Oragon Washington	200/-
Minnesota	34%	Oregon, Washington	26%
North Dakota	33%	Colorado	25%
Montana, Wisconsin	32%	U.S.,* Indiana, Maryland, Utah	24%
Connecticut, Iowa, Maine, Nebraska	31%	Missouri, New York, Wyoming	22%
Alaska	30%	Texas, Virginia	21%
Massachusetts, Michigan	28%	North Carolina, Rhode Island	20%
Vermont	27%	Delaware	19%

10 states had similar¹ percentages of students who were at or above Proficient on NAEP:

Arizona	18%	New Mexico, South Carolina,	14%
California, Florida	17%	West Virginia	
Hawaii, Georgia, Kentucky	16%	Alabama ²	12%
Tennessee	15%		

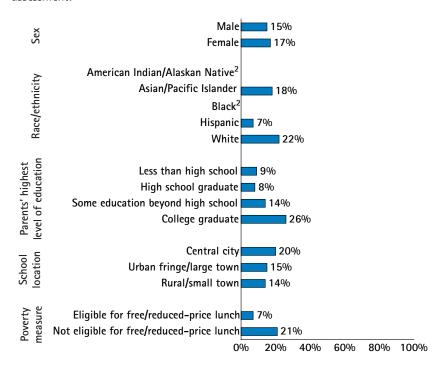
5 states had significantly lower percentages of students who were at or above Proficient on NAEP:

Arkansas ²	13%	Guam	6%
Louisiana, Mississippi	7%	District of Columbia	5%

[†] The term "state" is used to refer to the 50 states, the District of Columbia, and the territories.

3. Subgroup Performance

What percentages of public school 8th graders in different subgroups in Hawaii were at or above Proficient on the 1996 NAEP mathematics assessment?



¹ Interpret differences between subgroups with caution. See pp. 3-4 and Appendix D.

¹ See explanation on pp. 3-4.

² State may appear to be out of place; however, statistically, its placement is correct. See pp. 3-4.

^{*} Figure shown for the U.S. includes both public and nonpublic school data.

² Characteristics of the sample do not permit a reliable estimate.

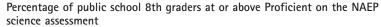
Science Grade 8

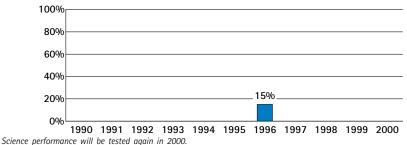
1. Improvement Over Time

Have Hawaii's 8th graders improved in science achievement?

In 1996, 15% of Hawaii's public school 8th graders met the Goals Panel's performance standard in science. The Goals Panel will report whether science performance has improved over time when science is assessed again in 2000.

The Goals Panel has set its performance standard at the two highest levels of achievement — Proficient or Advanced — on the National Assessment of Educational Progress, or NAEP.





2. State Comparisons⁺

How did Hawaii compare with other states in 8th grade science achievement in public schools in 1996?

35 states had significantly higher' percentages of students who were at or above Proficient on NAEP:

Maine, Montana, North Dakota	41%	New York, Virginia, Washington	27%
Wisconsin	39%	Rhode Island	26%
Massachusetts, Minnesota	37%	Maryland	25%
Connecticut, Iowa	36%	North Carolina	24%
Nebraska	35%	Arizona, Kentucky, Texas	23%
Vermont, Wyoming	34%	Arkansas, Tennessee	22%
Colorado, Michigan, Oregon, Utah	32%	Delaware, Florida, Georgia,	21%
Alaska	31%	West Virginia	
Indiana	30%	California	20%
U.S.*	29 %	New Mexico	19%
Missouri	28%		

3 states had similar percentages of students who were at or above Proficient on NAEP:

Alabama	18%	Hawaii	15%
South Carolina	17%	Louisiana	13%

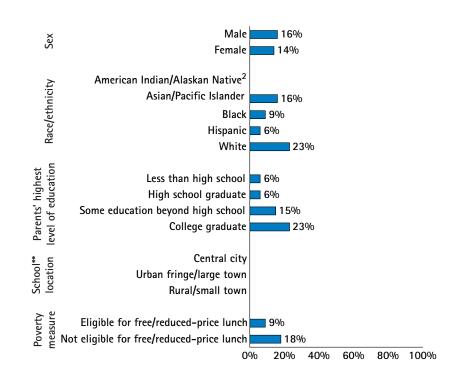
3 states had significantly lower percentages of students who were at or above Proficient on NAEP:

Mississippi	12%	District of Columbia	5%
Guam	7%		

[†] The term "state" is used to refer to the 50 states, the District of Columbia, and the territories.

3. Subgroup Performance

What percentages of public school 8th graders in different subgroups in Hawaii were at or above Proficient on the 1996 NAEP science assessment?



¹ Interpret differences between subgroups with caution. See pp. 3-4 and Appendix D.

¹ See explanation on pp. 3-4.

^{*} Figure shown for the U.S. includes both public and nonpublic school data.

² Characteristics of the sample do not permit a reliable estimate.

^{**} No school location data for science in 1996.

International Comparisons

Hawaii

Mathematics Grade 8

Forty-one nations[†] participated in the Third International Mathematics and Science Study (TIMSS) in 8th grade mathematics in 1995. If public school 8th graders in Hawaii participated in the TIMSS mathematics assessment, how would their average performance compare to that of students who took TIMSS in these nations?

27 nations would be expected to perform significantly higher:

 $\begin{array}{ll} \mbox{(Australia)} & \mbox{(Israel)} \\ \mbox{(Austria)} & \mbox{Japan} \\ \mbox{Belgium - Flemish}^2 & \mbox{Korea} \\ \mbox{(Belgium - French)}^2 & \mbox{(Netherlands)} \end{array}$

(Bulgaria) New Zealand Canada Norway

Czech Republic Russian Federation
(Denmark) Singapore
(England) Slovak Republic
France (Slovenia)
(Germany) Sweden
Hong Kong (Switzerland)
Hungary (Thailand)

Ireland

9 nations would be expected to perform similarly:1

Cyprus (Lithuania)
(Greece) (Romania)

Hawaii (Scotland)
Iceland Spain
(Latvia – LSS)³ United States

5 nations would be expected to perform significantly lower:1

(Colombia) Portugal Iran, Islamic Republic (South Africa) (Kuwait)

Science Grade 8

Forty-one nations[†] participated in the Third International Mathematics and Science Study (TIMSS) in 8th grade science in 1995. If public school 8th graders in Hawaii participated in the TIMSS science assessment, how would their average performance compare to that of students who took TIMSS in these nations?

26 nations would be expected to perform significantly higher:

(Australia)Korea(Austria)(Netherlands)Belgium - Flemish²New Zealand(Bulgaria)NorwayCanadaRussian Federa

Russian Federation Czech Republic Singapore (England) Slovak Republic (Germany) (Slovenia) Spain Hong Kong Hungary Sweden Ireland (Switzerland) (Thailand) (Israel) **United States** Japan

11 nations would be expected to perform similarly:

(Belgium - French)²Iran, Islamic Republic(Denmark)(Latvia - LSS)³France(Lithuania)(Greece)PortugalHawaii(Romania)Iceland(Scotland)

4 nations would be expected to perform significantly lower:1

(Colombia) (Kuwait) Cyprus (South Africa)

[†] The term "nation" is used to refer to nations, states, or jurisdictions. Performance for nations is based on public school data only. Nations not meeting international guidelines are shown in parentheses.

¹ See explanation on pp. 3-4.

² The Flemish and French educational systems in Belgium participated separately.

³ Latvia is designated LSS because only Latvian-speaking schools were tested, which represent less than 65% of the population.

[†] The term "nation" is used to refer to nations, states, or jurisdictions. Performance for nations is based on public school data only. Nations not meeting international guidelines are shown in parentheses.

¹ See explanation on pp. 3-4.

² The Flemish and French educational systems in Belgium participated separately.

³ Latvia is designated LSS because only Latvian-speaking schools were tested, which represent less than 65% of the population.