1. Improvement Over Time

Have the nation's 4th graders improved in mathematics achievement?

Yes. The percentage of 4th graders who met the Goals Panel's performance standard in mathematics increased from 13% in 1990, to 21% 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.

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

See Appendix A for definitions, sources, and technical notes.

2. State Comparisons

How did the nation compare with states in 4th grade mathematics achievement in 1996?

- 4 states had significantly higher percentages of students who were at or above Proficient on NAEP:
  - Connecticut: 31%
  - Minnesota: 29%

- 23 states had similar percentages of students who were at or above Proficient on NAEP:
  - New Jersey, Texas: 25%
  - U.S.: Alaska, North Carolina, Oregon: 21%

- 18 states had significantly lower percentages of students who were at or above Proficient on NAEP:
  - Rhode Island, Tennessee: 17%
  - Delaware, Hawaii, Kentucky: 16%

† Figures shown for the U.S. include both public and nonpublic school data.

3. Subgroup Performance

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

- Male: 24%
- Female: 19%

- American Indian/Alaskan Native: 8%
- Asian/Pacific Islander: 26%
- Black: 5%
- Hispanic: 8%
- White: 28%

- Less than high school: 5%
- High school graduate: 16%
- Some education beyond high school: 26%
- College graduate: 30%

- Central city: 18%
- Urban fringe/large town: 24%
- Rural/small town: 19%

- Eligible for free/reduced-price lunch: 9%
- Not eligible for free/reduced-price lunch: 26%

1 Figures shown for the U.S. include both public and nonpublic school data. See explanation on pp. 3-4.

2 Figures shown for the U.S. include both public and nonpublic school data.
Mathematics Grade 8

1. Improvement Over Time

Have the nation's 8th graders improved in mathematics achievement?

Yes. The percentage of 8th graders who met the Goals Panel's performance standard in mathematics increased from 15% in 1990, to 24% 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.

1 Figures shown for the U.S. include both public and nonpublic school data.

2. State Comparisons†

How did the nation compare with states in 8th grade mathematics achievement in 1996?

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

- Minnesota 34%
- North Dakota 33%
- Montana, Wisconsin 32%
- Massachusetts, Michigan 28%
- Vermont 27%
- Oregon, Washington 26%
- Colorado 25%

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

- Connecticut, Iowa, Maine, Nebraska 31%
- Alaska 30%
- U.S., Indiana, Maryland, Utah 24%

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

- Arkansas 13%
- Alabama 12%
- Louisiana, Mississippi 7%
- Guam 6%
- District of Columbia 5%
- District of Columbia 3%
- Massachusetts, Michigan 28%
- Vermont 27%
- Oregon, Washington 26%
- Colorado 25%
- Connecticut, Iowa, Maine, Nebraska 31%
- Alaska 30%
- U.S., Indiana, Maryland, Utah 24%

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

- North Carolina, Rhode Island 20%
- Delaware 19%
- Arizona 18%
- California, Florida 17%
- Georgia, Hawaii, Kentucky 16%
- Tennessee 15%
- New Mexico, South Carolina, West Virginia 14%

† The term “state” is used to refer to the 50 states, the District of Columbia, and the territories.

1 See explanation on pp. 3-4.

* Figure shown for the U.S. includes both public and nonpublic school data. Figures shown for states include public school data only.

3. Subgroup Performance

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

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

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<td>15%</td>
<td>21%</td>
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United States

† The term “state” is used to refer to the 50 states, the District of Columbia, and the territories.

1 See explanation on pp. 3-4.

* Figure shown for the U.S. includes both public and nonpublic school data. Figures shown for states include public school data only.

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

2 NAEP quality control activities involving state assessment data raised concerns about accuracy of national Grade 8 Asian/Pacific Islander data. As a result, they have not been included in this report.

3 Figures shown for the U.S. include both public and nonpublic school data.
1. Improvement Over Time

Have the nation's 8th graders improved in science achievement?

In 1996, 29% of the nation's 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.

1 Figures shown for the U.S. include both public and nonpublic school data.

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. Figures shown for states include public school data only.

2. State Comparisons†

How did the nation compare with states in 8th grade science achievement in 1996?

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

- Maine, Montana, North Dakota
- Wisconsin
- Massachusetts, Minnesota
- Rhode Island
- New York, Virginia, Washington
- Missouri
- Nebraska
- Wyoming
- Connecticut, Iowa
- New Mexico

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

- Vermont
- Colorado, Michigan, Oregon, Utah
- Alaska
- Indiana
- Maryland

U.S.*

29%

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

- North Carolina
- Arizona, Kentucky, Texas
- Arkansas, Tennessee
- Delaware, Florida, Georgia,
- West Virginia
- California
- New Mexico
- Alabama
- South Carolina
- Hawaii
- Louisiana
- Mississippi
- Guam
- District of Columbia

† The term “state” is used to refer to the 50 states, the District of Columbia, and the territories.

‡ See explanation on pp. 3-4.

* Figure shown for the U.S. includes both public and nonpublic school data. Figures shown for states include public school data only.

3. Subgroup Performance

What percentages of 8th graders in different subgroups1 in the nation2 were at or above Proficient on the 1996 NAEP science assessment?

** No school location data for science in 1996.

1 Figures shown for the U.S. include both public and nonpublic school data.

According to the chart, the percentages of 8th graders at or above Proficient on the NAEP science assessment are as follows:

- Male: 31%
- Female: 27%
- American Indian/Alaskan Native: 24%
- Asian/Pacific Islander: 30%
- Black: 5%
- Hispanic: 11%
- White: 37%
- Less than high school: 10%
- High school graduate: 18%
- Some education beyond high school: 33%
- College graduate: 39%
- Central city: 23%
- Urban fringe/large town: 24%
- Rural/small town: 22%
- Eligible for free/reduced-price lunch: 14%
- Not eligible for free/reduced-price lunch: 34%

Science performance will be tested again in 2000.

See Appendix A for definitions, sources, and technical notes.
International Comparisons

Mathematics Grade 8

Forty-one nations† participated in the Third International Mathematics and Science Study (TIMSS) in 8th grade mathematics in 1995. How did U.S. 8th graders compare to students in the other participating countries?

20 nations’ performed significantly higher:†

(Australia) (Austria) Belgium – Flemish1 Belgium – French1 Bulgaria Canada Czech Republic France Hong Kong Hungary

13 nations’ performed similarly:†

(Denmark) England (Germany) Greece Iceland (Israel) Latvia – LSS1

7 nations’ performed significantly lower:†

(Colombia) Cyprus Iran, Islamic Republic (Kuwait)

Science Grade 8

Forty-one nations† participated in the Third International Mathematics and Science Study (TIMSS) in 8th grade science in 1995. How did U.S. 8th graders compare to students in the other participating countries?

9 nations’ performed significantly higher:†

(Austria) (Bulgaria) Czech Republic Hungary Japan

16 nations’ performed similarly:†

(Australia) Belgium – Flemish1 Canada England (Germany) Hong Kong Ireland (Israel) New Zealand Norway Russian Federation (Scotland) Slovak Republic Sweden Switzerland (Thailand) United States

15 nations’ performed significantly lower:†

Belgium – French1 (Colombia) Cyprus (Denmark) France (Greece) Iceland Iran, Islamic Republic (Kuwait)

†The term “nation” is used to refer to nations, states, or jurisdictions. Performance for nations is based on both public and nonpublic school data. 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.

See Appendix A for definitions, sources, and technical notes.