1. Improvement Over Time

Have Alabama’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.

2. State Comparisons†

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

<table>
<thead>
<tr>
<th>State</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut</td>
<td>31%</td>
</tr>
<tr>
<td>U.S.</td>
<td>21%</td>
</tr>
<tr>
<td>Minnesota</td>
<td>29%</td>
</tr>
<tr>
<td>Maine, Wisconsin</td>
<td>27%</td>
</tr>
<tr>
<td>New Jersey, Texas</td>
<td>25%</td>
</tr>
<tr>
<td>Indiana, Massachusetts, Nebraska, North Dakota</td>
<td>24%</td>
</tr>
<tr>
<td>Michigan, Utah, Vermont</td>
<td>23%</td>
</tr>
<tr>
<td>Colorado, Iowa, Maryland, Montana</td>
<td>22%</td>
</tr>
</tbody>
</table>

33 states had significantly higher\(^1\) percentages of students who were at or above Proficient on NAEP:

<table>
<thead>
<tr>
<th>State</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>15%</td>
</tr>
<tr>
<td>Nevada</td>
<td>14%</td>
</tr>
<tr>
<td>Arkansas, Georgia, New Mexico</td>
<td>13%</td>
</tr>
<tr>
<td>7 states had similar(^2) percentages of students who were at or above Proficient on NAEP:</td>
<td></td>
</tr>
<tr>
<td>Arizona</td>
<td>15%</td>
</tr>
<tr>
<td>Nevada</td>
<td>14%</td>
</tr>
<tr>
<td>Arkansas, Georgia, New Mexico</td>
<td>13%</td>
</tr>
</tbody>
</table>

3. Subgroup Performance

What percentages of public school 4th graders in different subgroups\(^1\) in Alabama were at or above Proficient on the 1996 NAEP mathematics assessment?

**Sex**

- Male: 11%
- Female: 10%

**Race/Ethnicity**

- American Indian/Alaskan Native\(^2\): 2%
- Asian/Pacific Islander\(^2\): 5%
- Black: 12%
- Hispanic: 5%
- White: 16%

**Parents’ highest level of education**

- Less than high school: 3%
- High school graduate: 6%
- Some education beyond high school: 12%
- College graduate: 18%

**School location**

- Central city: 14%
- Urban fringe/large town: 10%
- Rural/small town: 9%

**Poverty measure**

- Eligible for free/reduced-price lunch: 3%
- Not eligible for free/reduced-price lunch: 8%

---

\(^{1}\) The term “state” is used to refer to the 50 states, the District of Columbia, and the territories.

\(^{2}\) Characteristics of the sample do not permit a reliable estimate.

See Appendix A for definitions, sources, and technical notes.
1. Improvement Over Time

Have Alabama’s 8th graders improved in mathematics achievement?

Not yet. Between 1990 and 1996, there was no significant change in the percentage of public school 8th 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.

2. State Comparisons†

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

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

- Minnesota
- North Dakota
- Montana, Wisconsin
- Connecticut, Iowa, Maine, Nebraska
- Alaska
- Massachusetts, Michigan
- Vermont
- Oregon, Washington
- Colorado
- Indiana, Maryland, Utah
- Missouri, New York, Wyoming
- Texas, Virginia
- North Carolina, Rhode Island
- Delaware
- Arizona
- California, Florida
- 34%
- 33%
- 32%
- 31%
- 30%
- 28%
- 27%
- 26%
- 25%
- 24%
- 22%
- 21%
- 20%
- 19%
- 18%
- 17%

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

- Georgia, Hawaii, Kentucky
- Tennessee
- New Mexico, South Carolina
- West Virginia
- 16%
- 15%
- 14%

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

- Louisiana, Mississippi
- Guam
- 7%
- 6%

3. Subgroup Performance

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

Sex
- Male 14%
- Female 11%

Race/ethnicity
- American Indian/Alaskan Native 1%
- Asian/Pacific Islander 6%
- Black 18%
- Hispanic 13%
- White 32%

Parents’ highest level of education
- Less than high school 3%
- High school graduate 5%
- Some education beyond high school 12%
- College graduate 22%

School location
- Central city 14%
- Urban fringe/large town 13%
- Rural/small town 10%

Poverty measure
- Eligible for free/reduced-price lunch 2%
- Not eligible for free/reduced-price lunch 18%
1. Improvement Over Time

Have Alabama’s 8th graders improved in science achievement?

In 1996, 18% of Alabama’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 Alabama compare with other states in 8th grade science achievement in public schools in 1996?

<table>
<thead>
<tr>
<th>State</th>
<th>Percentage of students at or above Proficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maine, Montana, North Dakota</td>
<td>41%</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>39%</td>
</tr>
<tr>
<td>Massachusetts, Minnesota</td>
<td>37%</td>
</tr>
<tr>
<td>Connecticut, Iowa</td>
<td>36%</td>
</tr>
<tr>
<td>Nebraska</td>
<td>35%</td>
</tr>
<tr>
<td>Vermont, Wyoming</td>
<td>34%</td>
</tr>
<tr>
<td>Colorado, Michigan, Oregon, Utah</td>
<td>32%</td>
</tr>
<tr>
<td>Alaska</td>
<td>31%</td>
</tr>
<tr>
<td>Louisiana</td>
<td>13%</td>
</tr>
<tr>
<td>Mississippi</td>
<td>12%</td>
</tr>
<tr>
<td>Washington, D.C.</td>
<td>30%</td>
</tr>
</tbody>
</table>

† 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.

1. Improvement Over Time

2. State Comparisons†

3. Subgroup Performance

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

<table>
<thead>
<tr>
<th>Sex</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>19%</td>
<td>17%</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/ethnicity</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>25%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parents' highest level of education</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>High school graduate</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Some education beyond high school</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>College graduate</td>
<td>27%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School**/CR location</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central city</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban fringe/large town</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural/small town</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Poverty measure</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible for free/reduced-price lunch</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Not eligible for free/reduced-price lunch</td>
<td>24%</td>
<td></td>
</tr>
</tbody>
</table>

† 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.

** No school location data for science in 1996.

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. If public school 8th graders in Alabama participated in the TIMSS mathematics assessment, how would their average performance compare to that of students who took TIMSS in these nations?

### 30 nations’ would be expected to perform significantly higher:

- Australia
- Austria
- Belgium – Flemish
- Belgium – French
- Bulgaria
- Canada
- Czech Republic
- Denmark
- England
- France
- Germany
- Hong Kong
- Hungary
- Ireland
- Israel
- Japan
- Korea
- Latvia – LSS
- Netherlands
- New Zealand
- Norway
- Russian Federation
- Scotland
- Singapore
- Slovak Republic
- Sweden
- Switzerland
- Thailand
- United States

### 7 nations’ would be expected to perform similarly:

- Alabama
- Cyprus
- Greece
- Iceland
- Lithuania
- Portugal
- Romania
- Spain

### 4 nations’ would be expected to perform significantly lower:

- Colombia
- Iran, Islamic Republic
- Kuwait
- South Africa

---

## 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 Alabama participated in the TIMSS science assessment, how would their average performance compare to that of students who took TIMSS in these nations?

### 19 nations’ would be expected to perform significantly higher:

- Australia
- Austria
- Belgium – Flemish
- Bulgaria
- Canada
- Czech Republic
- England
- Germany
- Hungary
- Iran, Islamic Republic
- Israel
- Latvia – LSS
- Lithuania
- New Zealand
- Norway
- Portugal
- Romania
- Scotland
- Spain
- Switzerland
- Thailand
- United States

### 16 nations’ would be expected to perform similarly:

- Alabama
- Denmark
- France
- Greece
- Hong Kong
- Iceland
- Israel
- Latvia – LSS
- Lithuania
- New Zealand
- Norway
- Portugal
- Romania
- Scotland
- Spain
- Switzerland
- Thailand

### 6 nations’ would be expected to perform significantly lower:

- Belgium – French
- Colombia
- Cyprus
- Iran, Islamic Republic
- Kuwait
- 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.

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