1. Improvement Over Time

Have Wyoming'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 Wyoming compare with other states in 4th grade mathematics achievement in public schools in 1996?

<table>
<thead>
<tr>
<th>9 states had significantly higher percentages of students who were at or above Proficient on NAEP:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut 31% New Jersey, Texas 25%</td>
</tr>
<tr>
<td>Minnesota 29% Nebraska, North Dakota 24%</td>
</tr>
<tr>
<td>Maine, Wisconsin 27% Vermont 23%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>23 states had similar percentages of students who were at or above Proficient on NAEP:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indiana, Massachusetts 24% Missouri, New York, Pennsylvania 20%</td>
</tr>
<tr>
<td>Michigan, Utah 23% Wyoming, Virginia, West Virginia 19%</td>
</tr>
<tr>
<td>Colorado, Iowa, Maryland, Montana 22% Rhode Island, Tennessee 17%</td>
</tr>
<tr>
<td>U.S., Alaska, North Carolina, Oregon 21% Delaware, Hawaii, Kentucky 16%</td>
</tr>
<tr>
<td>Washington 15%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12 states had significantly lower percentages of students who were at or above Proficient on NAEP:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida 15% Alabama, California 11%</td>
</tr>
<tr>
<td>Nevada 14% Louisiana, Mississippi 8%</td>
</tr>
<tr>
<td>Arkansas, Georgia, New Mexico 13% District of Columbia 5%</td>
</tr>
<tr>
<td>South Carolina 12% Guam 3%</td>
</tr>
</tbody>
</table>

3. Subgroup Performance

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

- **Sex**
  - Male 20%
  - Female 18%

- **Race/Ethnicity**
  - American Indian/Alaskan Native 7%
  - Asian/Pacific Islander 7%
  - Black 21%
  - Hispanic 7%
  - White 19%

- **Parents' highest level of education**
  - Less than high school 8%
  - High school graduate 13%
  - Some education beyond high school 29%
  - College graduate 27%

- **School location**
  - Central city 15%
  - Urban fringe/large town 20%
  - Rural/small town 23%

- **Poverty measure**
  - Eligible for free/reduced-price lunch 10%
  - Not eligible for free/reduced-price lunch 23%

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

1 Interpret differences between subgroups with caution. See 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.

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

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

Yes. The percentage of Wyoming's public school 8th graders who met the Goals Panel's performance standard in mathematics increased from 19% in 1990, to 22% 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.

2. State Comparisons†

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

<table>
<thead>
<tr>
<th>Percentage of public school 8th graders at or above Proficient on the NAEP mathematics assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>19% 21% 22%</td>
</tr>
</tbody>
</table>

3. Subgroup Performance

What percentages of public school 8th graders in different subgroups1 in Wyoming were at or above Proficient on the 1996 NAEP mathematics assessment?

<table>
<thead>
<tr>
<th>Sex</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>24%</td>
<td>20%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/ethnicity</th>
<th>American Indian/Alaskan Native</th>
<th>Asian/Pacific Islander</th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>4%</td>
<td></td>
<td></td>
<td></td>
<td>8%</td>
<td>24%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School location</th>
<th>Central city</th>
<th>Urban fringe/small town</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18%</td>
<td>23%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Poverty measure</th>
<th>Eligible for free/reduced price lunch</th>
<th>Not eligible for free/reduced price lunch</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11%</td>
<td>24%</td>
</tr>
</tbody>
</table>

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

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

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 Wyoming’s 8th graders improved in science achievement?

In 1996, 34% of Wyoming’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 Wyoming compare with other states in 8th grade science achievement in public schools in 1996?

1 state had a significantly higher† percentage of students who were at or above Proficient on NAEP:

North Dakota† 41%

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

Maine†, Montana† 41% Wyoming, Vermont 34%
Wisconsin 39% Colorado, Michigan, Oregon, Utah 32%
Massachusetts, Minnesota 37% Alaska 31%
Connecticut, Iowa 36% Indiana 30%
Nebraska 35%

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

U.S.* 29% California 20%
Missouri 28% New Mexico 19%
New York, Virginia, Washington 27% Alabama 18%
Rhode Island 26% South Carolina 17%
Maryland 25% Hawaii 15%
North Carolina 24% Louisiana 13%
Arizona, Kentucky, Texas 23% Mississippi 12%
Arkansas, Tennessee 22% Guam 7%
Delaware, Florida, Georgia, West Virginia 21% District of Columbia 5%

† The term "state" is used to refer to the 50 states, the District of Columbia, and the territories.
†† See explanation on pp. 3-4.
† 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.

3. Subgroup Performance

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

<table>
<thead>
<tr>
<th>Race/ethnicity</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian/Alaskan Native</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Asian/Pacific Islander†</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black†</td>
<td>14%</td>
<td>37%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>14%</td>
<td>37%</td>
</tr>
<tr>
<td>White</td>
<td>35%</td>
<td>32%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School** location</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school</td>
<td>14%</td>
<td>21%</td>
</tr>
<tr>
<td>High school graduate</td>
<td>21%</td>
<td>33%</td>
</tr>
<tr>
<td>Some education beyond high school</td>
<td>33%</td>
<td>44%</td>
</tr>
<tr>
<td>College graduate</td>
<td>37%</td>
<td>37%</td>
</tr>
<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>22%</td>
<td>37%</td>
</tr>
<tr>
<td>Not eligible for free/reduced-price lunch</td>
<td>37%</td>
<td>37%</td>
</tr>
</tbody>
</table>

1 Interpret differences between subgroups with caution. See pp. 3-4 and Appendix D.
2 Characteristics of the sample do not permit a reliable estimate.
** No school location data for science in 1996.
### 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 Wyoming participated in the TIMSS mathematics assessment, how would their average performance compare to that of students who took TIMSS in these nations?

**15 nations’ would be expected to perform significantly higher:**
- Austria
- Belgium – Flemish
- Bulgaria
- Czech Republic
- France
- Hong Kong
- Hungary
- Japan
- Korea
- Netherlands
- Russian Federation
- Singapore
- Slovak Republic
- Slovenia
- Switzerland

**16 nations’ would be expected to perform similarly:**
- Australia
- Belgium – French
- Canada
- Denmark
- England
- Estonia
- Iceland
- Ireland
- Latvia – LSS
- New Zealand
- Norway
- Scotland
- Sweden
- Thailand
- United States
- Wyoming

**10 nations’ would be expected to perform significantly lower:**
- Colombia
- Cyprus
- Greece
- Iran, Islamic Republic
- Kuwait
- Lithuania
- Portugal
- Romania
- South Africa
- Spain

† 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.

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

**1 nation’ would be expected to perform significantly higher:**
- Singapore

**14 nations’ would be expected to perform similarly:**
- Australia
- Belgium – Flemish
- Bulgaria
- Czech Republic
- England
- Hungary
- Ireland
- Latvia
- New Zealand
- Norway
- Portugal
- Romania
- South Africa
- Thailand
- United States
- Wyoming

**26 nations’ would be expected to perform significantly lower:**
- Belgium – French
- Canada
- Colombia
- Cyprus
- Denmark
- France
- Germany
- Hong Kong
- Iceland
- Ireland
- Israel
- Japan
- Korea
- Latvia – LSS
- Lithuania
- Luxembourg
- Netherlands
- Russian Federation
- Slovak Republic
- Slovenia
- Switzerland
- Thailand
- United States
- United States

† 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.

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