1. Improvement Over Time

Have Iowa’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 Iowa compare with other states in 4th grade mathematics achievement in public schools in 1996?

<table>
<thead>
<tr>
<th>2 states had significantly higher† percentages of students who were at or above Proficient on NAEP:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut</td>
</tr>
<tr>
<td>Minnesota</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>24 states had similar§ percentages of students who were at or above Proficient on NAEP:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maine, Wisconsin</td>
</tr>
<tr>
<td>Iowa, Colorado, Maryland, Montana</td>
</tr>
<tr>
<td>New Jersey, Texas</td>
</tr>
<tr>
<td>U.S.* Alaska, North Carolina, Oregon,</td>
</tr>
<tr>
<td>Indiana, Massachusetts, Nebraska, Washington</td>
</tr>
<tr>
<td>North Dakota</td>
</tr>
<tr>
<td>Missouri, New York, Pennsylvania</td>
</tr>
<tr>
<td>Virginia, West Virginia, Wyoming</td>
</tr>
<tr>
<td>Michigan, Utah, Vermont</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>18 states had significantly lower‡ percentages of students who were at or above Proficient on NAEP:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhode Island, Tennessee</td>
</tr>
<tr>
<td>South Carolina</td>
</tr>
<tr>
<td>Delaware, Hawaii, Kentucky</td>
</tr>
<tr>
<td>Alabama, California</td>
</tr>
<tr>
<td>Arizona, Florida</td>
</tr>
<tr>
<td>Louisiana, Mississippi</td>
</tr>
<tr>
<td>Nevada</td>
</tr>
<tr>
<td>District of Columbia</td>
</tr>
<tr>
<td>Arkansas, Georgia, New Mexico</td>
</tr>
<tr>
<td>Guam</td>
</tr>
</tbody>
</table>

---

† The term “state” is used to refer to the 50 states, the District of Columbia, and the territories.
‡ Interpret differences between subgroups with caution. See pp. 3-4.
§ Characteristics of the sample do not permit a reliable estimate.

3. Subgroup Performance

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

---

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

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

Yes. The percentage of Iowa’s public school 8th graders who met the Goals Panel’s performance standard in mathematics increased from 25% in 1990, to 31% 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 Iowa compare with other states in 8th grade mathematics achievement in public schools in 1996?

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

- Colorado 25%
- U.S.,* Indiana, Maryland, Utah 24%
- Missouri, New York, Wyoming 22%
- Texas, Virginia 21%
- North Carolina, Rhode Island 20%
- Delaware 19%
- Arizona 18%
- California, Florida 17%
- Georgia, Hawaii, Kentucky 16%

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

- Minnesota 34%
- North Dakota 33%
- Montana, Wisconsin 32%
- Iowa, Connecticut, Maine, Nebraska 31%
- Massachusetts, Michigan 28%
- Vermont 27%
- Oregon, Washington 26%
- Alaska 30%
- New Mexico, South Carolina, West Virginia 14%
- Arkansas 13%
- Alabama 12%
- Louisiana, Mississippi 7%
- Guam 6%
- District of Columbia 5%

† 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 8th graders in different subgroups1 in Iowa were at or above Proficient on the 1996 NAEP mathematics assessment?

- Male 31%
- Female 32%
- American Indian/Alaskan Native2 11%
- Asian/Pacific Islander2 12%
- Black 12%
- Hispanic 33%
- White 33%
- Less than high school 12%
- High school graduate 18%
- Some education beyond high school 34%
- College graduate 42%
- Central city 28%
- Urban fringe/large town 37%
- Rural/small town 32%
- Eligible for free/reduced-price lunch 20%
- Not eligible for free/reduced-price lunch 35%

† Interpret differences between subgroups with caution. See pp. 3-4 and Appendix D.
* Characteristics of the sample do not permit a reliable estimate.
Iowa

1. Improvement Over Time

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

In 1996, 36% of Iowa’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 Iowa compare with other states in 8th grade science achievement in public schools in 1996?

<table>
<thead>
<tr>
<th>State/Region</th>
<th>Percentage of students at or above Proficient on NAEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indiana</td>
<td>30%</td>
</tr>
<tr>
<td>U.S.*</td>
<td>29%</td>
</tr>
<tr>
<td>Missouri</td>
<td>28%</td>
</tr>
<tr>
<td>New York, Virginia, Washington</td>
<td>27%</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>26%</td>
</tr>
<tr>
<td>Maryland</td>
<td>25%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>24%</td>
</tr>
<tr>
<td>Arizona, Kentucky, Texas</td>
<td>23%</td>
</tr>
<tr>
<td>Arkansas, Tennessee</td>
<td>22%</td>
</tr>
<tr>
<td>Delaware, Florida, Georgia, West Virginia</td>
<td>21%</td>
</tr>
</tbody>
</table>

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

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

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

Indiana  30% California  20%
U.S.*  29% New Mexico  19%
Missouri  28% Alabama  18%
New York, Virginia, Washington  27% South Carolina  17%
Rhode Island  26% Hawaii  15%
Maryland  25% Louisiana  13%
North Carolina  24% Mississippi  12%
Arizona, Kentucky, Texas  23% Guam  7%
Arkansas, Tennessee  22% District of Columbia  5%
Delaware, Florida, Georgia, West Virginia  21%

† 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.
2 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 Iowa were at or above Proficient on the 1996 NAEP science assessment?

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>Percentage of students at or above Proficient on NAEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>37%</td>
</tr>
<tr>
<td>Female</td>
<td>35%</td>
</tr>
<tr>
<td>American Indian/Alaskan Native2</td>
<td>6%</td>
</tr>
<tr>
<td>Asian/Pacific Islander2</td>
<td>16%</td>
</tr>
<tr>
<td>White</td>
<td>38%</td>
</tr>
<tr>
<td>Black</td>
<td>16%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>38%</td>
</tr>
<tr>
<td>Less than high school</td>
<td>16%</td>
</tr>
<tr>
<td>High school graduate</td>
<td>24%</td>
</tr>
<tr>
<td>Some education beyond high school</td>
<td>38%</td>
</tr>
<tr>
<td>College graduate</td>
<td>45%</td>
</tr>
<tr>
<td>Central city</td>
<td></td>
</tr>
<tr>
<td>Urban fringe/large town</td>
<td></td>
</tr>
<tr>
<td>Rural/small town</td>
<td></td>
</tr>
<tr>
<td>Eligible for free/reduced-price lunch</td>
<td>20%</td>
</tr>
<tr>
<td>Not eligible for free/reduced-price lunch</td>
<td>41%</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 Iowa participated in the TIMSS mathematics assessment, how would their average performance compare to that of students who took TIMSS in these nations?

6 nations would be expected to perform significantly higher:
- Belgium – Flemish
- Czech Republic
- Hong Kong
- Japan
- Korea
- Singapore

18 nations would be expected to perform similarly:
- (Australia)
- (Austria)
- (Belgium – French)
- (Bulgaria)
- Canada
- France
- (Germany)
- Hungary
- Iowa
- (Israel)
- (Netherlands)
- New Zealand
- Russian Federation
- Slovak Republic
- (Slovenia)
- Sweden
- (Switzerland)
- (Thailand)

17 nations would be expected to perform significantly lower:
- (Colombia)
- Cyprus
- (Denmark)
- (England)
- (Greece)
- Iceland
- Iran, Islamic Republic
- (Kuwait)
- (Latvia – LSS)
- (Lithuania)
- Norway
- Portugal
- (Romania)
- (Scotland)
- (South Africa)
- Spain
- Iceland
- Iran, Islamic Republic
- (Israel)
- (Kuwait)
- United States

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 Iowa 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)
- (Austria)
- (Belgium – Flemish)
- (Bulgaria)
- Czech Republic
- (England)
- Hungary
- Iowa
- (Israel)
- (Kuwait)
- (Latvia – LSS)
- (Lithuania)
- New Zealand
- Russian Federation
- Slovak Republic
- (Slovenia)

1 nation would be expected to perform significantly lower:
- (Belgium – French)
- Canada
- (Colombia)
- Cyprus
- (Denmark)
- France
- (Germany)
- (Greece)
- Hong Kong
- Iceland
- Iran, Islamic Republic
- (Israel)
- (Kuwait)
- 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.

† 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.
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