1. Improvement Over Time

Have Indiana’s 4th graders improved in mathematics achievement?

Yes. The percentage of Indiana’s public school 4th graders who met the Goals Panel’s performance standard in mathematics increased from 16% in 1992, 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.

2. State Comparisons†

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

23 states had similar† percentages of students who were at or above Proficient on NAEP:
- Connecticut 31%
- Minnesota 29%
- Maine, Wisconsin 27%
- New Jersey, Texas 25%
- Indiana, Massachusetts, Nebraska, 24%
- North Dakota

21 states had significantly lower† percentages of students who were at or above Proficient on NAEP:
- Virginia, West Virginia, Wyoming 19%
- Rhode Island, Tennessee 17%
- Delaware, Hawaii, Kentucky 16%
- Arizona, Florida 15%
- Nevada 14%
- Arkansas, Georgia, New Mexico 13%

3. Subgroup Performance

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

† 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.
Mathematics Grade 8

1. Improvement Over Time

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

Yes. The percentage of Indiana’s public school 8th graders who met the Goals Panel’s performance standard in mathematics increased from 17% 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.

2. State Comparisons

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

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

- Minnesota 34%
- North Dakota 33%
- Montana, Wisconsin 32%
- Connecticut, Iowa, Maine, Nebraska 31%

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

- Massachusetts, Michigan 28%
- Vermont 27%
- Oregon, Washington 26%
- Colorado 25%
- New York, Wyoming, Alaska 30%
- U.S., Indiana, Maryland, Utah 24%

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

- Delaware 19%
- Arizona 18%
- California, Florida 17%
- Georgia, Hawaii, Kentucky 16%
- Tennessee 15%
- New Mexico, South Carolina, West Virginia 14%
- Arkansas 13%
- Alabama 12%
- Louisiana, Mississippi 7%
- Guam 6%
- District of Columbia 5%

3. Subgroup Performance

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

- Male 24%
- Female 23%

- American Indian/Alaskan Native 2%
- Asian/Pacific Islander 10%
- Black 27%
- Hispanic 13%
- White 12%

- Less than high school 5%
- High school graduate 36%
- Some education beyond high school 29%
- College graduate 36%

- Central city 22%
- Urban fringe/large town 27%
- Rural/small town 23%

- Eligible for free/reduced-price lunch 8%
- Not eligible for free/reduced-price lunch 28%

† 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.

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

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

In 1996, 30% of Indiana’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 Indiana compare with other states in 8th grade science achievement in public schools in 1996?

- 5 states had significantly higher percentages of students who were at or above Proficient on NAEP:
  - Maine, Montana, North Dakota
  - Wisconsin

- 17 states had similar percentages of students who were at or above Proficient on NAEP:
  - Massachusetts
  - Connecticut, Iowa
  - Nebraska
  - Vermont, Wyoming
  - Colorado, Michigan, Oregon, Utah
  - Alaska

- 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

3. Subgroup Performance

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

- **Sex**
  - Male: 32%
  - Female: 28%

- **Race/Ethnicity**
  - American Indian/Alaskan Native: 8%
  - Asian/Pacific Islander: 15%
  - Black: 26%
  - Hispanic: 34%
  - White: 50%

- **Parents’ highest level of education**
  - Less than high school: 13%
  - High school graduate: 31%
  - Some education beyond high school: 43%
  - College graduate: 43%

- **School**
  - Urban fringe/large town: 12%
  - Rural/small town: 35%

- **Poverty measure**
  - Eligible for free/reduced-price lunch: 12%
  - Not eligible for free/reduced-price lunch: 35%

† 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 and Appendix D.
2 Characteristics of the sample do not permit a reliable estimate.
3 See explanation on pp. 3-4.
4 Figure shown for the U.S. includes both public and nonpublic school data.
5 No school location data for science in 1996.

See Appendix A for definitions, sources, and technical notes.
## 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 Indiana participated in the TIMSS mathematics assessment, how would their average performance compare to that of students who took TIMSS in these nations?

### 12 nations would be expected to perform significantly higher:

- Austria
- Belgium – Flemish
- Czech Republic
- France
- Hong Kong
- Hungary
- (Austria)
- (Belgium – French)
- (Bulgaria)
- Canada
- (England)
- (Germany)
- Iceland
- Indiana
- Ireland

- Japan
- Korea
- Singapore
- Slovak Republic
- (Slovenia)
- (Sweden)
- (United States)

### 19 nations would be expected to perform similarly:

- (Australia)
- Austria
- (Belgium – French)
- (Bulgaria)
- Canada
- France
- (Germany)
- Iceland
- Indiana
- Ireland
- (Israel)
- (Latvia – LSS)
- (Netherlands)
- New Zealand
- Norway
- Russian Federation
- (Scotland)
- Sweden
- (Thailand)
- United States

### 10 nations would be expected to perform significantly lower:

- (Colombia)
- Cyprus
- (Greece)
- Iran, Islamic Republic
- (Kuwait)

- (Lithuania)
- Portugal
- (Romania)
- (South Africa)
- Spain

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

### 3 nations would be expected to perform significantly higher:

- Czech Republic
- Singapore
- Japan

### 22 nations would be expected to perform similarly:

- (Australia)
- Austria
- (Belgium – Flemish)
- (Bulgaria)
- Canada
- (England)
- (Germany)
- Hong Kong
- Hungary
- Indiana
- Ireland
- Israel
- Korea
- (Netherlands)
- New Zealand
- Norway
- Russian Federation
- Slovakia
- (Slovenia)
- Sweden
- (Thailand)
- United States

### 16 nations would be expected to perform significantly lower:

- (Belgium – French)
- (Colombia)
- Cyprus
- (Denmark)
- France
- (Greece)
- Iceland
- Iran, Islamic Republic
- (Kuwait)
- (Latvia – LSS)
- Luxembourg
- (Lithuania)
- Portugal
- (Romania)
- (Scotland)
- (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.

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