Mathematics Grade 4

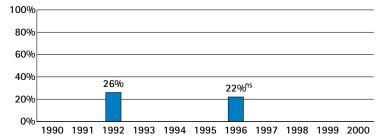
1. Improvement Over Time

Have lowa'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.

Percentage of public school 4th graders at or above Proficient on the NAEP mathematics assessment



ns Interpret with caution. Change was not statistically significant. Mathematics performance will be tested again in 2000.

2. State Comparisons⁺

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

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

Connecticut 31% Minnesota 29%

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

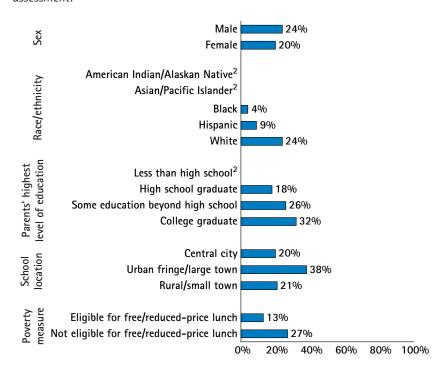
Maine, Wisconsin	27%	lowa, Colorado, Maryland, Montana	22%
New Jersey, Texas	25%	U.S.,* Alaska, North Carolina, Oregon,	21%
Indiana, Massachusetts, Nebraska,	24%	Washington	
North Dakota		Missouri, New York, Pennsylvania	20%
Michigan, Utah, Vermont	23%	Virginia, West Virginia, Wyoming	19%

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

Rhode Island, Tennessee	17%	South Carolina	12%
Delaware, Hawaii, Kentucky	16%	Alabama, California	11%
Arizona, Florida	15%	Louisiana, Mississippi	8%
Nevada	14%	District of Columbia	5%
Arkansas, Georgia, New Mexico	13%	Guam	3%

3. Subgroup Performance

What percentages of public school 4th graders in different subgroups in lowa 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.

¹ See explanation on pp. 3-4.

^{*} Figure shown for the U.S. includes both public and nonpublic school data.

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.

1. Improvement Over Time

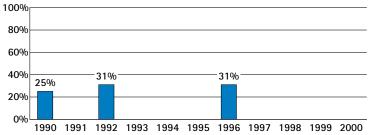


Have lowa's 8th graders improved in mathematics achievement?

Yes. The percentage of lowa'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.

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



Mathematics performance will be tested again in 2000.

2. State Comparisons⁺

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

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

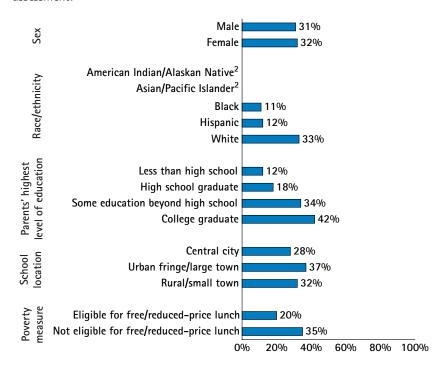
Minnesota	34%	Alaska	30%
North Dakota	33%	Massachusetts, Michigan	28%
Montana, Wisconsin	32%	Vermont	27%
Iowa, Connecticut, Maine, Nebraska	31%	Oregon, Washington	26%

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

Colorado	25%	Tennessee	15%
U.S.,* Indiana, Maryland, Utah	24%	New Mexico, South Carolina,	14%
Missouri, New York, Wyoming	22%	West Virginia	
Texas, Virginia	21%	Arkansas	13%
North Carolina, Rhode Island	20%	Alabama	12%
Delaware	19%	Louisiana, Mississippi	7%
Arizona	18%	Guam	6%
California, Florida	17%	District of Columbia	5%
Georgia, Hawaii, Kentucky	16%		

3. Subgroup Performance

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



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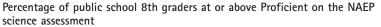
Science Grade 8

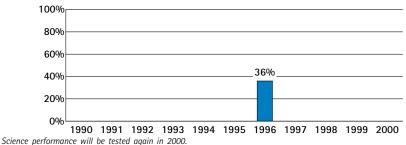
1. Improvement Over Time

Have lowa's 8th graders improved in science achievement?

In 1996, 36% of lowa'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⁺

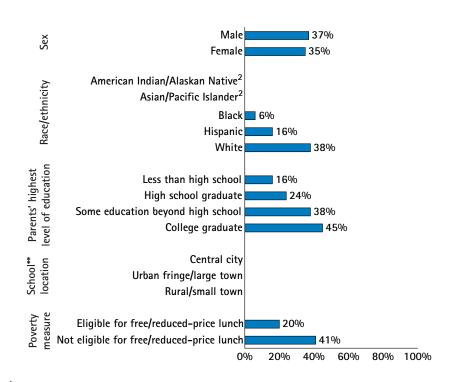
How did lowa compare with other states in 8th grade science achievement in public schools in 1996?

15 states had similar percentages of students who were at or above Proficient on NAEP: Maine, Montana, North Dakota 41% Nebraska 35% Wisconsin Vermont, Wyoming 34% Massachusetts, Minnesota Colorado, Michigan, Oregon, Utah 32% *lowa*, 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,	21%			
West Virginia				

3. Subgroup Performance

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



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^{**} No school location data for science in 1996.

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 lowa 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:

Belaium - Flemish² Japan Czech Republic Korea Hong Kong Singapore

18 nations would be expected to perform similarly:1

(Australia) (Israel) (Austria) (Netherlands) (Belgium - French)² New Zealand (Bulgaria) Russian Federation Canada Slovak Republic France (Slovenia) (Germany) Sweden Hungary (Switzerland) lowa (Thailand) Ireland

17 nations would be expected to perform significantly lower:

(Colombia) (Lithuania) Cyprus Norway (Denmark) Portugal (England) (Romania) (Greece) (Scotland) Iceland (South Africa) Iran, Islamic Republic Spain (Kuwait) **United States**

(Latvia - LSS)3

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:1

(Australia) Ireland (Austria) Japan Belgium - Flemish² Korea (Bulgaria) (Netherlands) Czech Republic Russian Federation (England) Slovak Republic Hungary (Slovenia) lowa

26 nations would be expected to perform significantly lower:1

(Belgium - French)2 (Latvia - LSS)3 Canada (Lithuania) New Zealand (Colombia) Cvprus Norway (Denmark) Portugal France (Romania) (Germany) (Scotland) (South Africa) (Greece) Hong Kong Spain Iceland Sweden Iran, Islamic Republic (Switzerland) (Israel) (Thailand) (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 quidelines 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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