

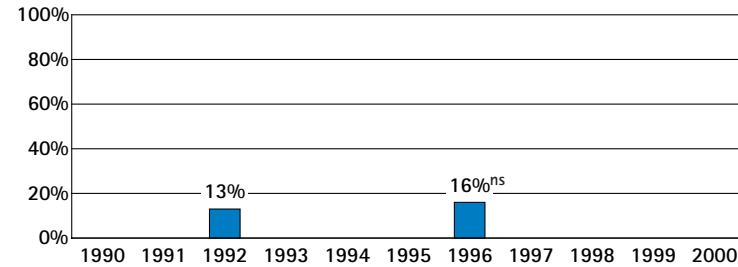
## 1. Improvement Over Time

Have Kentucky'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



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

## 2. State Comparisons<sup>†</sup>

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

**23 states had significantly higher<sup>1</sup> percentages of students who were at or above Proficient on NAEP:**

Connecticut	31%	Michigan, Utah, Vermont	23%
Minnesota	29%	Colorado, Iowa, Maryland, Montana	22%
Maine, Wisconsin	27%	<b>U.S.,*</b> Alaska, North Carolina, Oregon,	<b>21%</b>
New Jersey, Texas	25%	Washington	
Indiana, Massachusetts, Nebraska, North Dakota	24%	Missouri, <sup>2</sup> New York <sup>2</sup>	20%

**14 states had similar<sup>1</sup> percentages of students who were at or above Proficient on NAEP:**

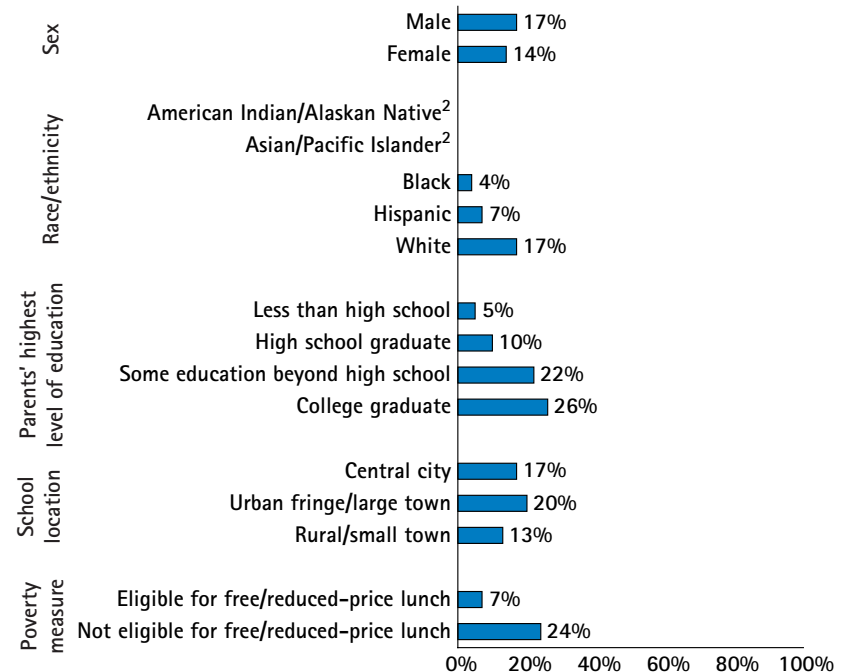
Pennsylvania <sup>2</sup>	20%	Arizona, Florida	15%
Virginia, West Virginia, Wyoming	19%	Nevada	14%
Rhode Island, Tennessee	17%	Arkansas, Georgia, New Mexico	13%
<b>Kentucky,</b> Delaware, Hawaii	<b>16%</b>		

**7 states had significantly lower<sup>1</sup> percentages of students who were at or above Proficient on NAEP:**

South Carolina	12%	District of Columbia	5%
Alabama, California	11%	Guam	3%
Louisiana, Mississippi	8%		

## 3. Subgroup Performance

What percentages of public school 4th graders in different subgroups<sup>1</sup> in Kentucky were at or above Proficient on the 1996 NAEP mathematics assessment?



<sup>1</sup> Interpret differences between subgroups with caution. See pp. 3-4 and Appendix D.  
<sup>2</sup> Characteristics of the sample do not permit a reliable estimate.

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

<sup>1</sup> See explanation on pp. 3-4.

<sup>2</sup> 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.

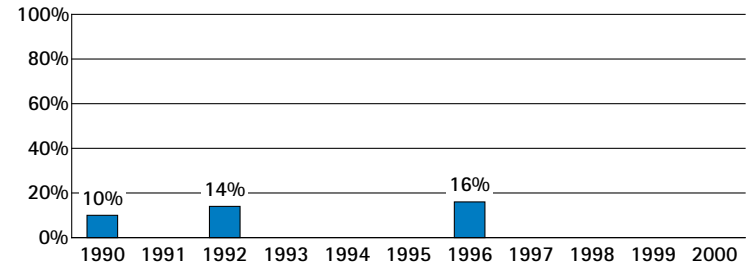
## 1. Improvement Over Time

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

Yes. The percentage of Kentucky's public school 8th graders who met the Goals Panel's performance standard in mathematics increased from 10% in 1990, to 16% 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<sup>†</sup>

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

**25 states had significantly higher<sup>1</sup> percentages of students who were at or above Proficient on NAEP:**

Minnesota	34%	Oregon, Washington	26%
North Dakota	33%	Colorado	25%
Montana, Wisconsin	32%	<b>U.S.*</b> Indiana, Maryland, Utah	<b>24%</b>
Connecticut, Iowa, Maine, Nebraska	31%	Missouri, New York, Wyoming	22%
Alaska	30%	Texas, Virginia	21%
Massachusetts, Michigan	28%	North Carolina, Rhode Island	20%
Vermont	27%		

**12 states had similar<sup>1</sup> percentages of students who were at or above Proficient on NAEP:**

Delaware	19%	New Mexico, South Carolina,	14%
Arizona	18%	West Virginia	
California, Florida	17%	Arkansas	13%
<b>Kentucky</b> , Georgia, Hawaii	<b>16%</b>	Alabama	12%
Tennessee	15%		

**4 states had significantly lower<sup>1</sup> percentages of students who were at or above Proficient on NAEP:**

Louisiana, Mississippi	7%	District of Columbia	5%
Guam	6%		

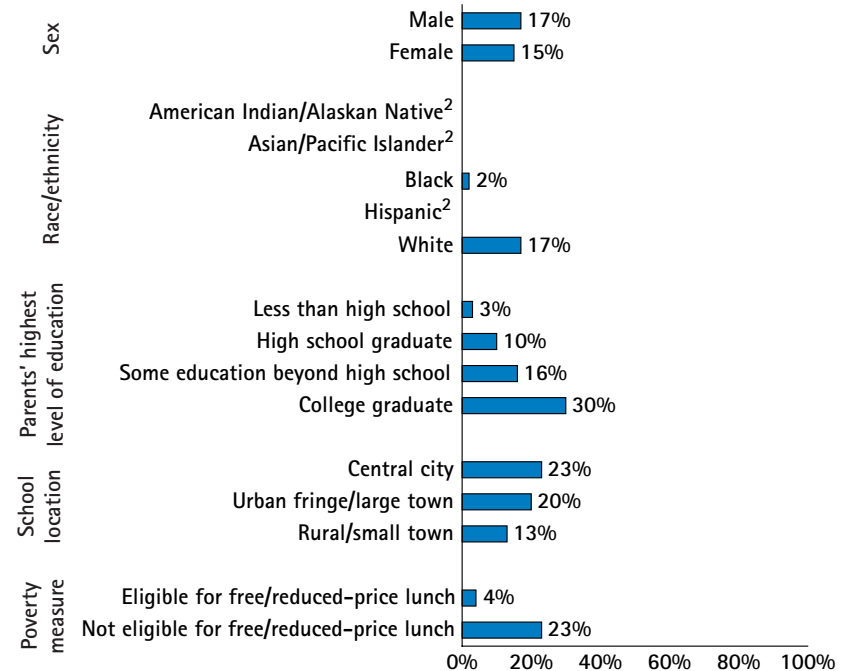
<sup>†</sup> The term "state" is used to refer to the 50 states, the District of Columbia, and the territories.

<sup>1</sup> See explanation on 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<sup>1</sup> in Kentucky were at or above Proficient on the 1996 NAEP mathematics assessment?



<sup>1</sup> Interpret differences between subgroups with caution. See pp. 3-4 and Appendix D.

<sup>2</sup> Characteristics of the sample do not permit a reliable estimate.

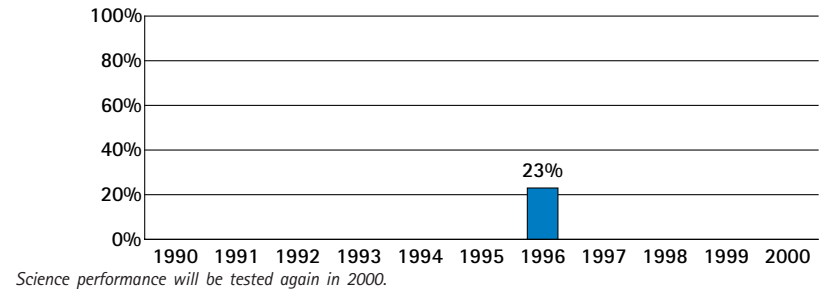
## 1. Improvement Over Time

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

In 1996, 23% of Kentucky'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.

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



## 2. State Comparisons<sup>†</sup>

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

**18 states had significantly higher<sup>1</sup> percentages of students who were at or above Proficient on NAEP:**

Maine, Montana, North Dakota	41%	Colorado, Michigan, Oregon, Utah	32%
Wisconsin	39%	Alaska	31%
Massachusetts, Minnesota	37%	Indiana	30%
Connecticut, Iowa	36%	<b>U.S.*</b>	<b>29%</b>
Nebraska	35%	Missouri	28%
Vermont, Wyoming	34%		

**15 states had similar<sup>1</sup> percentages of students who were at or above Proficient on NAEP:**

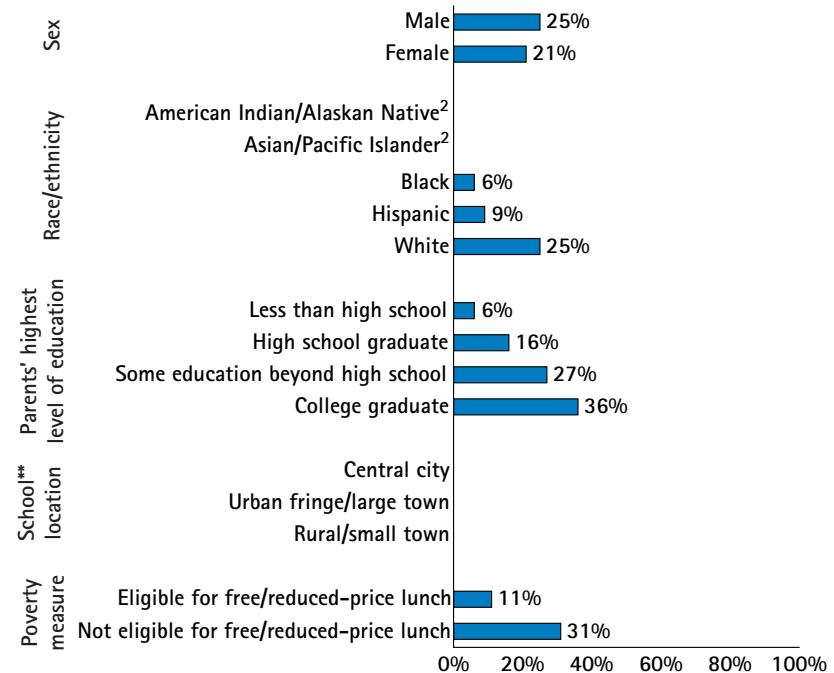
New York, Virginia, Washington	27%	Arkansas, Tennessee	22%
Rhode Island	26%	Delaware, Florida, Georgia,	21%
Maryland	25%	West Virginia	
North Carolina	24%	California	20%
<b>Kentucky, Arizona, Texas</b>	<b>23%</b>		

**8 states had significantly lower<sup>1</sup> percentages of students who were at or above Proficient on NAEP:**

New Mexico	19%	Louisiana	13%
Alabama	18%	Mississippi	12%
South Carolina	17%	Guam	7%
Hawaii	15%	District of Columbia	5%

## 3. Subgroup Performance

What percentages of public school 8th graders in different subgroups<sup>1</sup> in Kentucky were at or above Proficient on the 1996 NAEP science assessment?



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

<sup>1</sup> See explanation on pp. 3-4.

\* Figure shown for the U.S. includes both public and nonpublic school data.

<sup>1</sup> Interpret differences between subgroups with caution. See pp. 3-4 and Appendix D.

<sup>2</sup> Characteristics of the sample do not permit a reliable estimate.

\*\* No school location data for science in 1996.

## Mathematics Grade 8

Forty-one nations<sup>†</sup> participated in the Third International Mathematics and Science Study (TIMSS) in 8th grade mathematics in 1995. If public school 8th graders in Kentucky participated in the TIMSS mathematics assessment, how would their average performance compare to that of students who took TIMSS in these nations?

### 22 nations<sup>†</sup> would be expected to perform significantly higher:<sup>1</sup>

(Australia)	(Israel)
(Austria)	Japan
Belgium – Flemish <sup>2</sup>	Korea
(Belgium – French) <sup>2</sup>	(Netherlands)
(Bulgaria)	Russian Federation
Canada	Singapore
Czech Republic	Slovak Republic
France	(Slovenia)
Hong Kong	Sweden
Hungary	(Switzerland)
Ireland	(Thailand)

### 14 nations<sup>†</sup> would be expected to perform similarly:<sup>1</sup>

Cyprus	(Lithuania)
(Denmark)	New Zealand
(England)	Norway
(Germany)	(Romania)
(Greece)	(Scotland)
Iceland	Spain
<b>Kentucky</b>	<b>United States</b>
(Latvia – LSS) <sup>3</sup>	

### 5 nations<sup>†</sup> would be expected to perform significantly lower:<sup>1</sup>

(Colombia)	Portugal
Iran, Islamic Republic	(South Africa)
(Kuwait)	

<sup>†</sup> 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.

<sup>1</sup> See explanation on pp. 3-4.

<sup>2</sup> The Flemish and French educational systems in Belgium participated separately.

<sup>3</sup> 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<sup>†</sup> participated in the Third International Mathematics and Science Study (TIMSS) in 8th grade science in 1995. If public school 8th graders in Kentucky participated in the TIMSS science assessment, how would their average performance compare to that of students who took TIMSS in these nations?

### 8 nations<sup>†</sup> would be expected to perform significantly higher:<sup>1</sup>

(Austria)	Korea
(Bulgaria)	(Netherlands)
Czech Republic	Singapore
Japan	(Slovenia)

### 19 nations<sup>†</sup> would be expected to perform similarly:<sup>1</sup>

(Australia)	New Zealand
Belgium – Flemish <sup>2</sup>	Norway
Canada	Russian Federation
(England)	(Scotland)
(Germany)	Slovak Republic
Hong Kong	Spain
Hungary	Sweden
Ireland	(Switzerland)
(Israel)	(Thailand)
<b>Kentucky</b>	<b>United States</b>

### 14 nations<sup>†</sup> would be expected to perform significantly lower:<sup>1</sup>

(Belgium – French) <sup>2</sup>	Iran, Islamic Republic
(Colombia)	(Kuwait)
Cyprus	(Latvia – LSS) <sup>3</sup>
(Denmark)	(Lithuania)
France	Portugal
(Greece)	(Romania)
Iceland	(South Africa)

<sup>†</sup> 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.

<sup>1</sup> See explanation on pp. 3-4.

<sup>2</sup> The Flemish and French educational systems in Belgium participated separately.

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