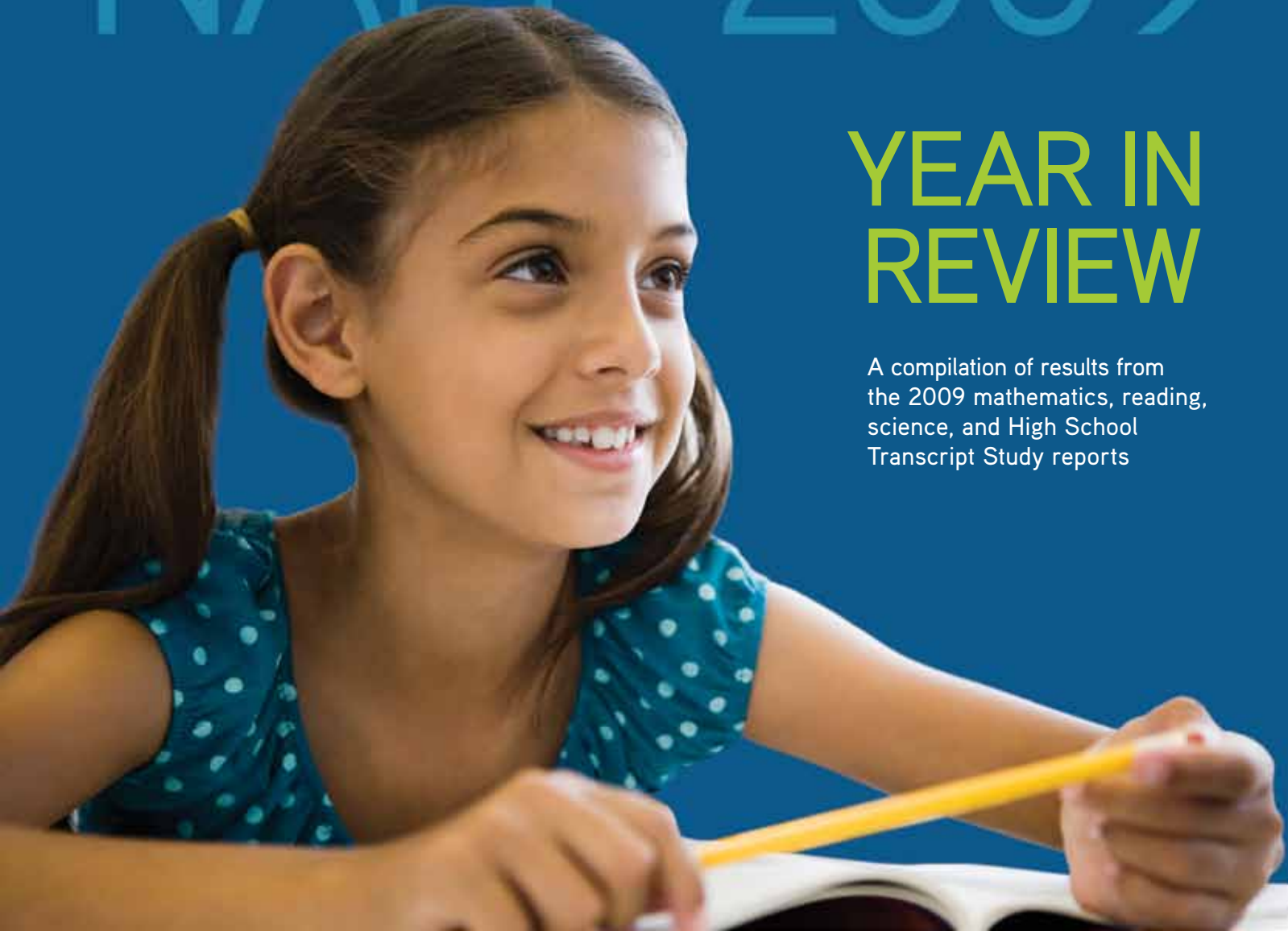


The   
Nation's  
Report Card

# NAEP 2009

## YEAR IN REVIEW

A compilation of results from  
the 2009 mathematics, reading,  
science, and High School  
Transcript Study reports





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## The Nation's Report Card™

### Overview

The Nation's Report Card™ informs the public about the academic achievement of elementary and secondary students in the United States. Report cards communicate the findings of the National Assessment of Educational Progress (NAEP), the largest continuing and nationally representative assessment of what our nation's students know and can do.

NAEP has often been called the "gold standard" of assessments and provides a common measure of student achievement across the country. It reports results for different demographic groups, including gender, socioeconomic status, and race/ethnicity. Assessments are given in subjects such as reading, mathematics, science, writing, U.S. history, civics, geography, economics, and the arts.

NAEP is a congressionally mandated project of the National Center for Education Statistics (NCES) within the Institute of Education Sciences of the U.S. Department of Education. The Commissioner of Education Statistics is responsible for carrying out the NAEP project. The National Assessment Governing Board sets policy for NAEP.

### Year in Review

In 2009, NAEP was administered in reading, mathematics, and science at the fourth-, eighth-, and twelfth-grade levels. NAEP also conducted its periodic High School Transcript Study (HSTS) in 2009. Undertaken every four years, the HSTS surveys the rigor of curricula being followed at U.S. high schools, as well as the course taking patterns of graduating seniors. This brochure is a compilation of executive summaries from the reports, and includes results for the nation and participating states and districts.

These reports can be accessed at <http://nationsreportcard.gov>.

For more information about the National Assessment Governing Board or assessment frameworks, visit <http://www.nagb.org>.

# New for NAEP in 2009

## New Frameworks Guide 2009 Assessments

New NAEP frameworks are introduced periodically to reflect changes in educational objectives and curricula and ensure assessments fit with current educational requirements. In 2009, new frameworks were introduced in three subjects: reading, science, and twelfth-grade mathematics. These new frameworks incorporate ideas and input from subject area experts, school administrators, policymakers, teachers, parents, and others. Frameworks are guided by scientifically based research and reflect recent development in content standards, assessment methodology, and concerns for students' eventual success in postsecondary education and training.

## Science Assessment Features Interactive Computer and Hands-On Tasks

As part of the new science framework, some students took part in an enhanced science assessment, which included interactive computer tasks and hands-on tasks. These measured students' abilities to use computer technology or scientific equipment and materials to perform scientific investigations and analyze their findings. Results for student performance on these tasks will be released in 2011.

## First-Time Results for Participating States at Grade 12

Typically, only national results are available for grade twelve. In 2009, for the first time, the NAEP Grade 12 Reading and Mathematics 2009 National and Pilot State Results report provided data in reading and mathematics for 11 participating states. Released in November 2010, these findings offer an important national benchmark for how students are performing at the end of their high school careers.

### NAEP Achievement Levels

**Basic** denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.

**Proficient** represents solid academic performance. Students reaching this level have demonstrated competency over challenging subject matter.

**Advanced** represents superior performance.



# 2009 Statistical Highlights

## Student and School Participation

Total number of students assessed:

1,086,700

Total students that participated at each grade:

**GRADE 4:**

502,500

**GRADE 8:**

472,100

**GRADE 12:**

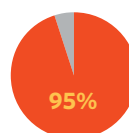
112,100

Total number of schools assessed:

18,960

National Student Participation Rate:

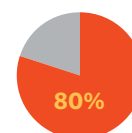
**GRADE 4:**



**GRADE 8:**



**GRADE 12:**



National School Participation Rate:

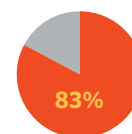
**GRADE 4:**



**GRADE 8:**



**GRADE 12:**



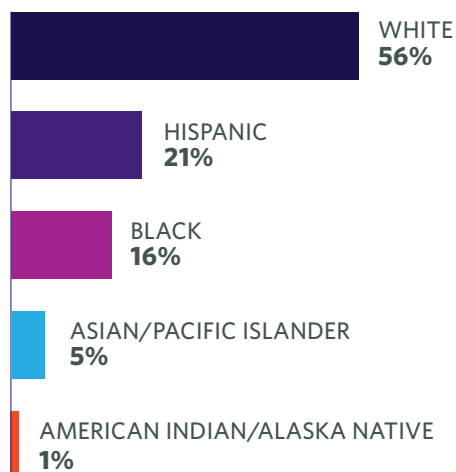
NOTE: School and student participation rates are for mathematics.

### STUDENT PARTICIPATION RATES

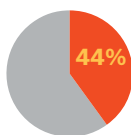
Federal law requires state participation in NAEP in mathematics and reading at grades 4 and 8, but not for grade 12. NCEs has implemented a strategy to help increase participation among twelfth-graders on NAEP. As a result of these ongoing efforts, the participation rate improved to 80 percent in 2009, an increase of 14 percentage points from the low of 66 percent in 2005.

# Student Demographics

## Student Demographic Breakdown:



Students Eligible for National School Lunch Program:



NOTE: To highlight the demographic distribution of students who took NAEP, grade 4 mathematics was selected for illustrative purposes. Detail may not sum to total because results are not shown for students whose race/ethnicity was unclassified. For more detailed information on student demographics, visit <http://nationsreportcard.gov>.

## Students with Disabilities (SD):

### MATHEMATICS 2009 ASSESSMENT:

Identified as SD: **13%**

Percentage of these SD excluded: **15%**

### READING 2009 ASSESSMENT:

Identified as SD: **13%**

Percentage of these SD excluded: **28%**

## English Language Learners (ELL):

### MATHEMATICS 2009 ASSESSMENT:

Identified as ELL: **10%**

Percentage of these ELL excluded: **6%**

### READING 2009 ASSESSMENT:

Identified as ELL: **10%**

Percentage of these ELL excluded: **16%**

NOTE: To highlight inclusion rates for SD and ELL, grade 4 was selected for illustrative purposes. For more information, visit [http://nationsreportcard.gov/math\\_2009/inclusion.asp](http://nationsreportcard.gov/math_2009/inclusion.asp) [http://nationsreportcard.gov/reading\\_2009/inclusion.asp](http://nationsreportcard.gov/reading_2009/inclusion.asp)

# Operational Statistics

## Total Number of Student Assessment Booklets:

1,129,700

## Total Number of Open-Ended Responses Scored:

12,878,400

## Total Number of Open-Ended Questions Administered:

**MATHEMATICS:** 298

**READING:** 311

**SCIENCE:** 412

NOTE: Includes first score and second score. Open-ended questions have a first score and a second score to check the accuracy of scoring. Inter-rater reliability is calculated to help the trainer and content leads judge the quality of the scoring.

# Mathematics 2009

## EXECUTIVE SUMMARY | STATE AND NATIONAL RESULTS AT GRADES 4 AND 8

### Mathematics scores up since 2007 at grade 8, but unchanged at grade 4

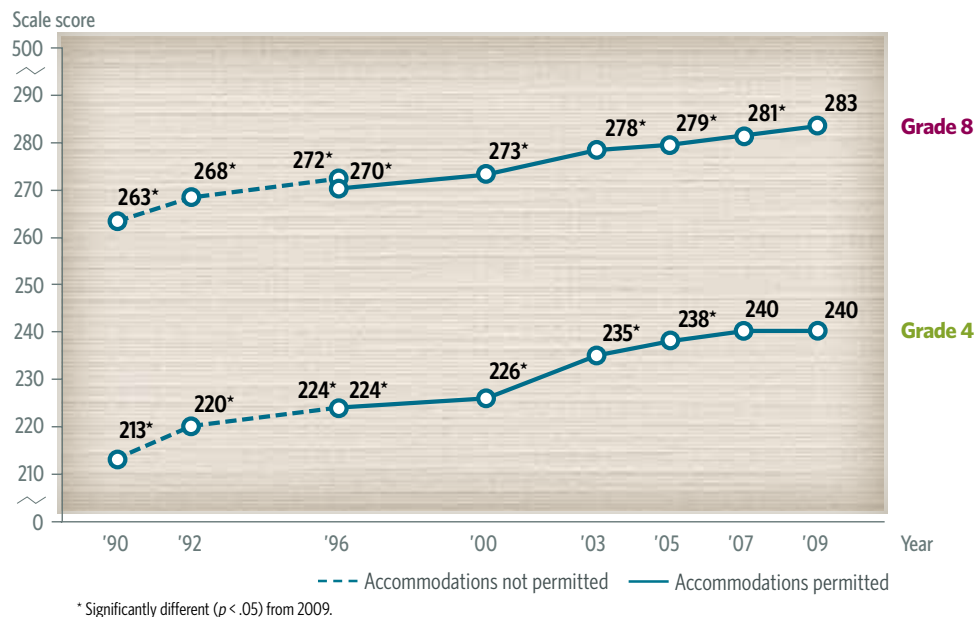
Nationally representative samples of more than 168,000 fourth-graders and 161,000 eighth-graders participated in the 2009 National Assessment of Educational Progress (NAEP) in mathematics. At each grade, students responded to questions designed to measure their knowledge and abilities across five mathematics content areas: number properties and operations; measurement; geometry; data analysis, statistics, and probability; and algebra.

Gains in students' average mathematics scores seen in earlier years did not continue from 2007 to 2009 at grade 4 but did continue at grade 8 (figure A). While still higher than the scores in the six assessment years from 1990 to 2005, the overall average score for

fourth-graders in 2009 was unchanged from the score in 2007. The upward trend seen in earlier assessments for eighth-graders continued with a 2-point increase from 2007 to 2009.

A similar pattern of results was seen for students performing at different achievement levels. The percentages of fourth-graders performing at or above *Basic* (82 percent) and at or above *Proficient* (39 percent) in 2009 were unchanged from those in 2007, but still remained higher than in the assessment years from 1990 to 2005. The percentages of eighth-graders performing at or above *Basic* (73 percent) and at or above *Proficient* (34 percent) in 2009 were higher than those in 2007 and in all earlier assessment years.

Figure A. Trend in fourth- and eighth-grade NAEP mathematics average scores



SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2009 Mathematics Assessments.

# Gaps persist despite gains for some student groups

Results for student groups were generally similar to those for students overall.

**At grade 4**, there were no significant changes in the average mathematics scores from 2007 to 2009 for students in different racial/ethnic groups, or for those attending public or private schools. Scores for these groups did, however, remain higher than the scores in 1990.

There was no significant change at grade 4 in either the White – Black or White – Hispanic score gaps since 2007. However, greater gains over the years for Black students than for White students contributed to a smaller score gap in 2009 than in 1990. The gap between private and public school students in 2009 was not significantly different from the gap in 2007, but was narrower than the gap in 1990.

**At grade 8**, average mathematics scores were higher in 2009 than in both 2007 and 1990 for most racial/ethnic groups; however, gaps between White and Black students and between White and Hispanic students showed no significant change in comparison to either year.

The average score for eighth-grade public school students increased from 2007 to 2009, and the score for private school students showed no significant change over the same period. There was no significant change in the gap between the two groups in comparison to either 2007 or 1990.

Characteristic	GRADE 4		GRADE 8	
	Since 1990	Since 2007	Since 1990	Since 2007
<b>Overall</b>	▲	◆	▲	▲
<b>Race/ethnicity</b>				
White	▲	◆	▲	▲
Black	▲	◆	▲	▲
Hispanic	▲	◆	▲	▲
Asian/Pacific Islander	▲	◆	▲	▲
American Indian/ Alaska Native	‡	◆	‡	◆
<b>Type of school</b>				
Public	▲	◆	▲	▲
Private	▲	◆	▲	◆
<b>Gaps</b>				
White - Black	Narrowed	◆	◆	◆
White - Hispanic	◆	◆	◆	◆
Private - Public	Narrowed	◆	◆	◆

▲ Indicates the score was higher in 2009.

◆ Indicates no significant change in the score or the gap in 2009.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

## Examples of math skills for GRADE 4

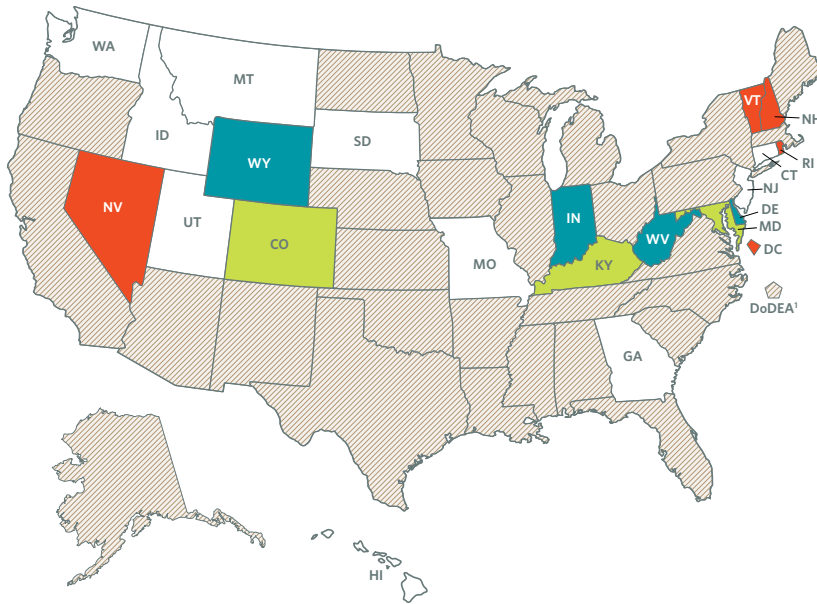
**43%** identified parallel and perpendicular lines

**59%** divided a three-digit number by a one-digit number

**75%** made a pictograph of given information



# Five states and jurisdictions make gains at both grades 4 and 8



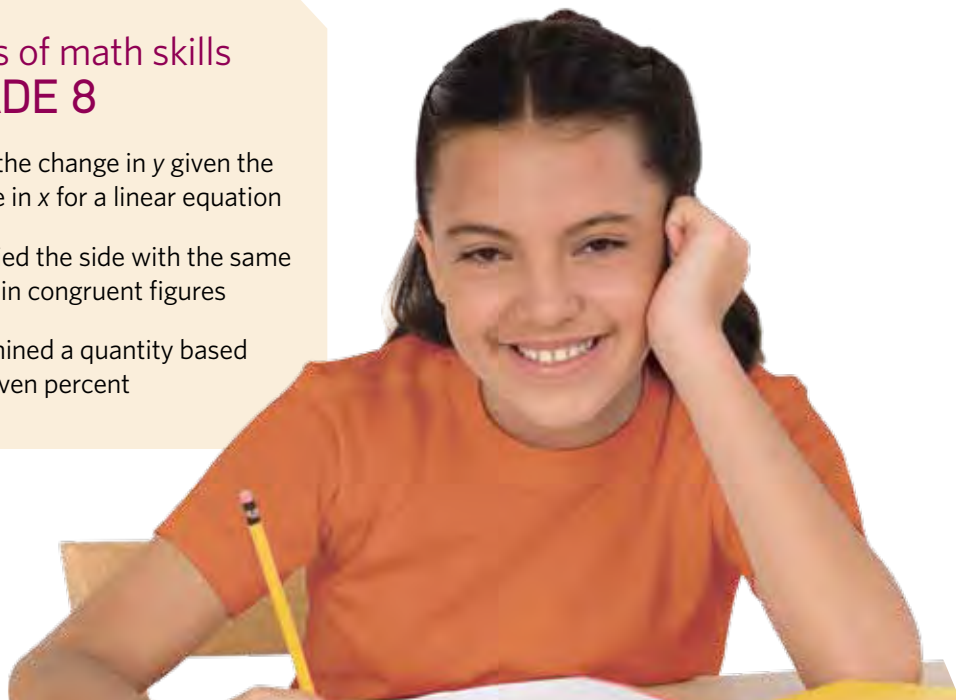
Compared to 2007, average mathematics scores for public school students in 2009

- **increased at both grades** in the District of Columbia, Nevada, New Hampshire, Rhode Island, and Vermont;
- **increased at grade 4 only** in Colorado, Kentucky, and Maryland;
- **decreased at grade 4 only** in Delaware, Indiana, West Virginia, and Wyoming;
- increased at grade 8 only** in Connecticut, Georgia, Hawaii, Idaho, Missouri, Montana, New Jersey, South Dakota, Utah, and Washington; and
- showed no significant change** at either grade in 30 states and jurisdictions.

<sup>1</sup> Department of Defense Education Activity (overseas and domestic schools).

## Examples of math skills for **GRADE 8**

- 47%** found the change in  $y$  given the change in  $x$  for a linear equation
- 69%** identified the side with the same length in congruent figures
- 72%** determined a quantity based on a given percent





# Mathematics 2009

## EXECUTIVE SUMMARY | TRIAL URBAN DISTRICT ASSESSMENT RESULTS AT GRADES 4 AND 8

Results from the 2009 NAEP Trial Urban District Assessment (TUDA) make it possible to compare the performance of students in urban districts to public school students in the nation and large cities (i.e., cities with populations of 250,000 or more). Changes in students' performance over time can also be seen for those districts that participated in earlier assessments.

## Scores for most districts higher than in 2003, but few make gains since 2007

Representative samples of fourth- and eighth-grade public school students from 18 urban districts participated in the 2009 assessment. Eleven of the districts also participated in earlier assessment years, and seven districts participated for the first time in 2009. Between 1,800 and 4,300 fourth- and eighth-graders were assessed in each district.

**In comparison to 2007**, average mathematics scores for students in large cities increased in 2009 at both grades 4 and 8; however, only two participating districts at each grade showed gains. Scores were higher in 2009 for Boston and the District of Columbia at grade 4, and for Austin and San Diego at grade 8. No districts showed a decline in scores at either grade.

**In comparison to 2003**, scores for students in large cities were higher in 2009 at both grades 4 and 8. Increases in scores were also seen across most urban districts that participated in both years, except in Charlotte at grade 4 and in Cleveland at grades 4 and 8, where there were no significant changes.

Changes in 2009 average mathematics scores since 2003 and 2007

District	GRADE 4		GRADE 8	
	Since 2003	Since 2007	Since 2003	Since 2007
<b>Nation</b>	5*	#	6*	2*
<b>Large city</b>	7*	2*	9*	3*
Atlanta	10*	2	15*	3
Austin	—	#	—	5*
Boston	16*	3*	18*	3
Charlotte	3	1	4*	#
Chicago	8*	2	9*	3
Cleveland	-1	-2	3	-1
District of Columbia (DCPS)	15*	6*	8*	3
Houston	9*	2	13*	3
Los Angeles	6*	1	13*	1
New York City	11*	1	7*	3
San Diego	10*	2	16*	8*

— District did not participate in 2003.

# Rounds to zero.

\* Significant ( $p < .05$ ) score change.

NOTE: Large city results are representative of all large cities in the nation and not just the participating urban districts. Beginning in 2009, if the results for charter schools are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education under the Elementary and Secondary Education Act, they are excluded from that district's TUDA results. DCPS = District of Columbia Public Schools.

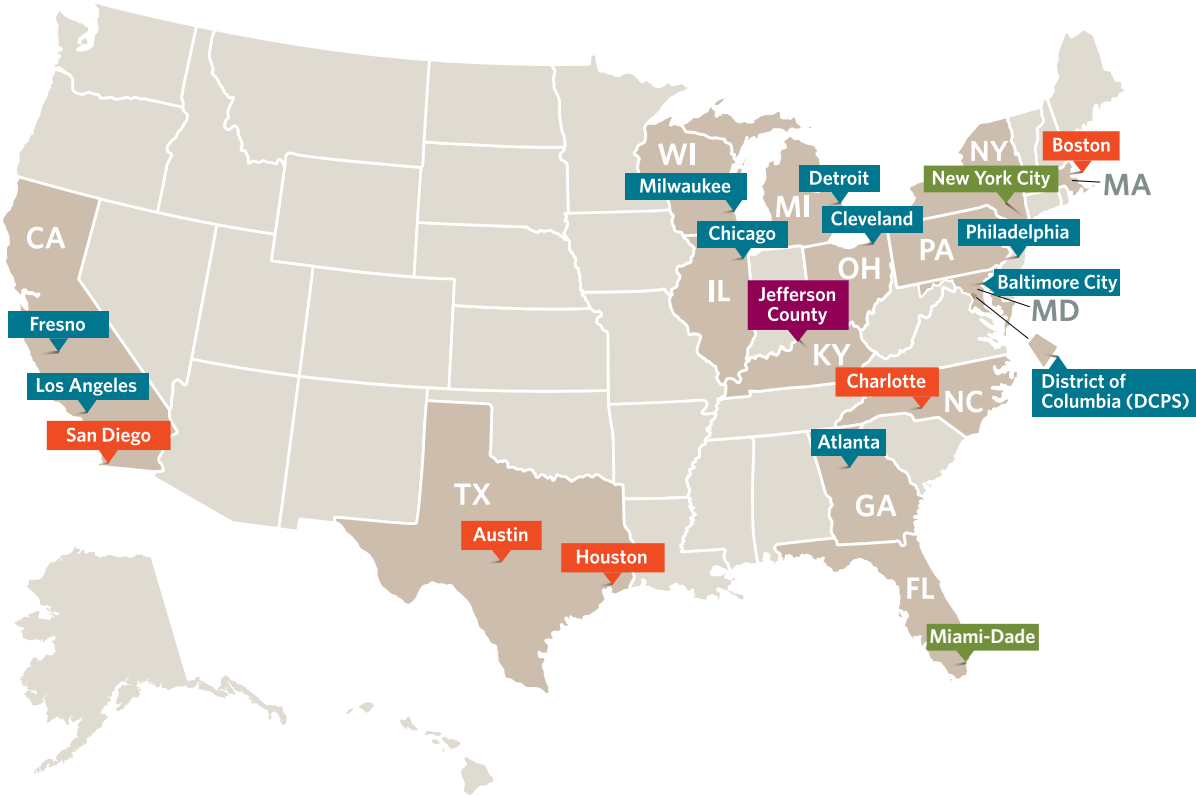
# Five districts score above large cities at both grades in 2009

Among the 18 urban districts that participated in the 2009 mathematics assessment, scores for both fourth- and eighth-graders in 10 districts were lower than the scores for public school students attending schools in large cities overall. Scores for five districts, however, were higher than the scores for fourth- and eighth-graders in large cities nationally.

In comparison to the average scores in 2009 for large cities in the nation,

- Austin, Boston, Charlotte, Houston, and San Diego had higher scores at both grades;
- Atlanta, Baltimore City, Chicago, Cleveland, Detroit, the District of Columbia, Fresno, Los Angeles, Milwaukee, and Philadelphia had lower scores at both grades;
- scores in Jefferson County (Louisville, KY) were not significantly different at either grade; and
- scores for Miami-Dade and New York City were higher at grade 4 and not significantly different at grade 8.

Comparison of district and large city average mathematics scores in 2009



NOTE: DCPS = District of Columbia Public Schools.

# A Closer Look at District Results Compared to Large Cities

Differences in overall average scores between participating districts and large cities were not always consistent across student groups. In Atlanta, for example, the overall average mathematics score was lower than the score for large cities at both grades. However, the score for Black students in the district (who comprise most of the student population) was not significantly different from the score for Black students in large cities at either grade.

Among the 10 districts where average scores at both grades were lower than the score for large cities, only Cleveland had lower scores for White, Black, and Hispanic students, and for students eligible for school lunch (an indicator of lower family income) in both grades.

Among the five districts where overall scores were higher than the score for large cities at both grades 4 and 8, only Charlotte and Houston also had higher scores for White, Black, and Hispanic students and for lower-income students in both grades.

Comparison of district and large city average mathematics scores in 2009

District	GRADE 4					GRADE 8				
	Race/ethnicity				Eligible for school lunch	Race/ethnicity				Eligible for school lunch
	Overall	White	Black	Hispanic		Overall	White	Black	Hispanic	
Atlanta	▼	▲	◆	◆	▼	⚡	◆	⚡	▼	
Austin	▲	▲	◆	▲	▲	▲	▲	▲	▲	
Baltimore City	▼	▼	◆	⚡	▼	⚡	◆	⚡	▼	
Boston	▲	◆	▲	▲	▲	▲	▲	▲	▲	
Charlotte	▲	▲	▲	▲	▲	▲	▲	▲	▲	
Chicago	▼	▼	▼	◆	▼	◆	◆	◆	◆	
Cleveland	▼	▼	▼	▼	▼	▼	▼	▼	▼	
Detroit	▼	⚡	▼	▼	▼	⚡	▼	◆	▼	
District of Columbia (DCPS)	▼	▲	▼	◆	▼	⚡	▼	◆	▼	
Fresno	▼	▼	◆	▼	▼	▼	▼	▼	▼	
Houston	▲	▲	▲	▲	▲	▲	▲	▲	▲	
Jefferson County (KY)	◆	▼	◆	◆	▼	◆	▼	⚡	▼	
Los Angeles	▼	◆	▼	▼	▼	◆	▼	▼	▼	
Miami-Dade	▲	◆	◆	▲	▲	◆	◆	▲	▲	
Milwaukee	▼	▼	▼	◆	▼	▼	▼	◆	▼	
New York City	▲	◆	▲	▲	▲	◆	◆	◆	▲	
Philadelphia	▼	▼	◆	▼	▼	◆	◆	◆	◆	
San Diego	▲	◆	◆	◆	◆	▲	▲	◆	▲	

▲ Higher average score than large city.  
▼ Lower average score than large city.

◆ No significant difference between the district and large city.  
⚡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

NOTE: DCPS = District of Columbia Public Schools.

## Demographics vary among the nation, large cities, and individual urban districts

When comparing the results for urban districts to results for the nation and large cities, it is important to consider how the demographics of the jurisdictions are different. Nationally, the percentages of White students at both grades 4 and 8 were higher than the combined percentages of Black and Hispanic students in 2009, while the opposite was true for large cities and for most participating urban districts.

Large cities and participating urban districts also differed from the nation in the proportion of students eligible for the National School Lunch Program. While the percentages of students eligible for free/reduced-price school lunch in the nation were 48 percent at grade 4 and 43 percent at grade 8, the percentages of eligible students in the districts ranged from 46 to 100 percent in 2009.

More detailed information about the demographic characteristics of fourth- and eighth-graders in the nation, large cities, and participating districts is included in the report.



# Reading 2009

EXECUTIVE SUMMARY | STATE AND NATIONAL RESULTS AT GRADES 4 AND 8

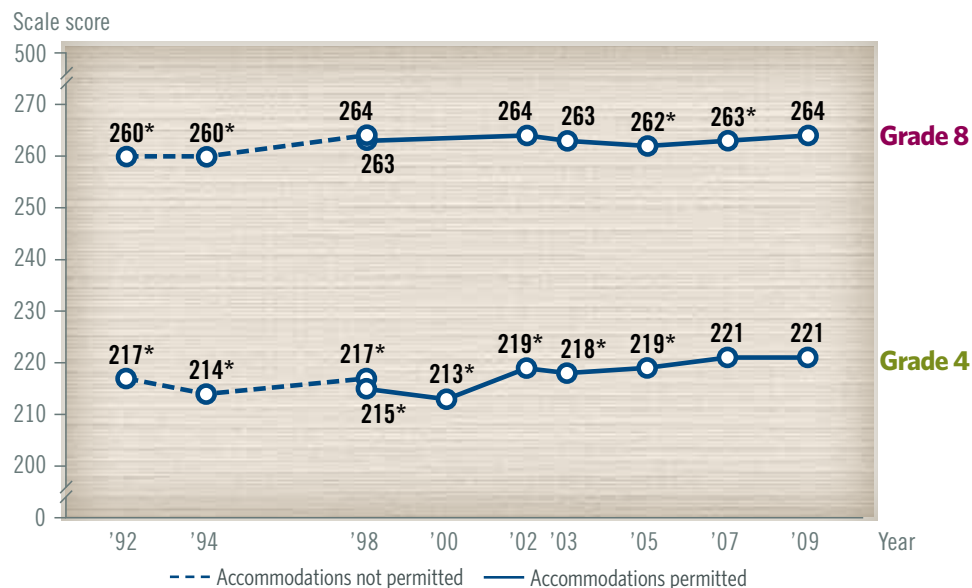
## Reading scores up since 2007 at grade 8 and unchanged at grade 4

Nationally representative samples of more than 178,000 fourth-graders and 160,000 eighth-graders participated in the 2009 National Assessment of Educational Progress (NAEP) in reading. At each grade, students responded to questions designed to measure their knowledge of reading comprehension across two types of texts: literary and informational.

**At grade 4**, the average reading score in 2009 was unchanged from the score in 2007 but was higher than the scores in other earlier assessment years from 1992 to 2005 (figure A). About two-thirds (67 percent) of fourth-graders performed at or above the *Basic* level in 2009, and one-third (33 percent) performed at or above *Proficient*. Both percentages were unchanged from 2007 but were higher than previous assessment years. Eight percent of fourth-graders performed at the *Advanced* level, which was the same as in 2007 but higher than in 1992.

**At grade 8**, the average reading score in 2009 was one point higher than in 2007 and four points higher than in 1992 but was not consistently higher than in all the assessment years in between. Gains since 2007 were seen for lower- and middle-performing students at the 10th, 25th, and 50th percentiles, while scores for higher-performing students at the 75th and 90th percentiles showed no significant change. In 2009, about three-quarters (75 percent) of eighth-graders performed at or above the *Basic* level, and one-third (32 percent) performed at or above *Proficient*. Both percentages were higher in 2009 than in 2007 and 1992. Three percent of eighth-graders performed at the *Advanced* level in 2009, which was the same as the percentages in 2007 and 1992.

Figure A. Trend in fourth- and eighth-grade NAEP reading average scores



\* Significantly different ( $p < .05$ ) from 2009.

# Gains for some student groups but gaps persist

Trends in scores for student groups were generally similar to those for students overall. **At grade 4**, there were no significant changes in the average reading scores from 2007 to 2009 for student groups by race/ethnicity, gender, or type of school. Scores for most of the student groups were, however, higher in 2009 than in 1992.

**At grade 8**, average scores were higher in 2009 than in both 2007 and 1992 for most racial/ethnic groups, male students, and public school students. There were no significant changes compared to either 2007 or 1992 for female students or private school students, and no significant change for Asian/Pacific Islander students compared to 1992.

Even with gains for most student groups from 1992 to 2009 at both grades, and since 2007 at grade 8, score gaps have changed little. Compared to 2007, there have been no significant changes in the racial/ethnic gaps, gender gaps, or gaps by type of school at either grade. Compared to 1992, only the White – Black gap at grade 4 and the female – male gap at grade 8 have narrowed.

Characteristic	GRADE 4		GRADE 8	
	Since 1992	Since 2007	Since 1992	Since 2007
<b>Overall</b>	▲	◆	▲	▲
<b>Race/ethnicity</b>				
White	▲	◆	▲	▲
Black	▲	◆	▲	▲
Hispanic	▲	◆	▲	▲
Asian/Pacific Islander	▲	◆	◆	▲
American Indian/ Alaska Native	‡	◆	‡	▲
<b>Gender</b>				
Male	▲	◆	▲	▲
Female	▲	◆	◆	◆
<b>Type of school</b>				
Public	▲	◆	▲	▲
Private	◆	◆	◆	◆
<b>Gaps</b>				
White – Black	Narrowed	◆	◆	◆
White – Hispanic	◆	◆	◆	◆
Female – Male	◆	◆	Narrowed	◆
Private – Public	◆	◆	◆	◆

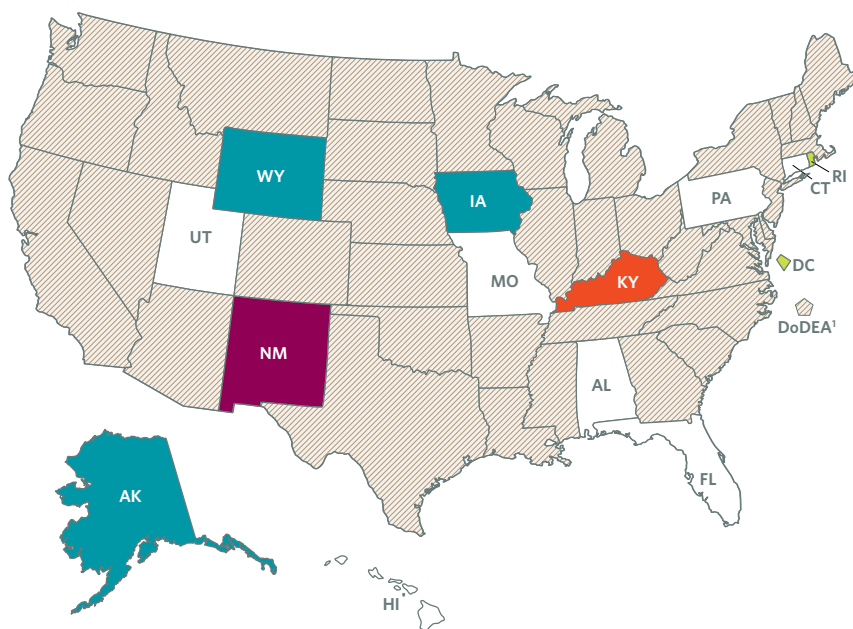
- ▲ Indicates the score was higher in 2009.
- ◆ Indicates no significant change in the score or the gap in 2009.
- ‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

## Fourth-graders at the *Proficient* level were likely to be able to

- recognize the author's technique in developing a character, or
- use information from an article to provide and support an opinion.



# Scores increase in three states/jurisdictions at grade 4 and nine states at grade 8



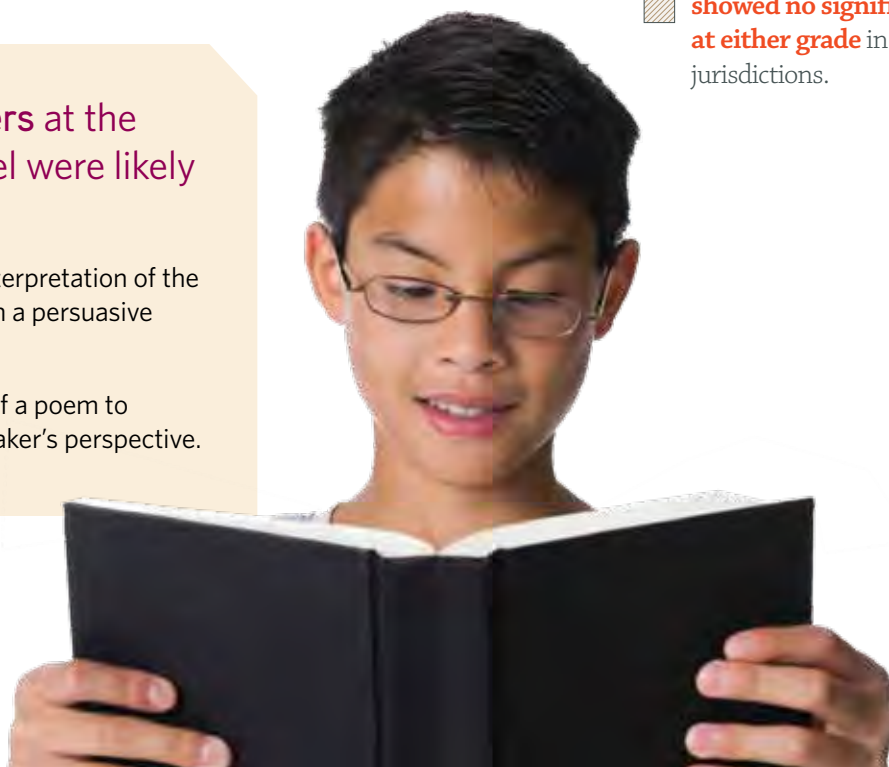
Compared to 2007, average reading scores for public school students in 2009

- **increased at both grades** in Kentucky;
- **increased at grade 4 only** in the District of Columbia and Rhode Island;
- **decreased at grade 4 only** in Alaska, Iowa, and Wyoming;
- increased at grade 8 only** in Alabama, Connecticut, Florida, Hawaii, Missouri, Pennsylvania, and Utah;
- **decreased at grade 4 but increased at grade 8** in New Mexico; and
- showed no significant change at either grade** in 38 states and jurisdictions.

<sup>1</sup> Department of Defense Education Activity (overseas and domestic schools).

## Eighth-graders at the *Proficient* level were likely to be able to

- recognize an interpretation of the author's point in a persuasive essay, or
- interpret lines of a poem to explain the speaker's perspective.



# Reading 2009

## EXECUTIVE SUMMARY | TRIAL URBAN DISTRICT ASSESSMENT RESULTS AT GRADES 4 AND 8

Results from the 2009 NAEP Trial Urban District Assessment (TUDA) make it possible to compare the performance of students in urban districts to public school students in the nation and large cities (i.e., cities with populations of 250,000 or more). Changes in students' performance over time can also be seen for those districts that participated in earlier assessments.

## Scores increase since 2007 in four districts at grade 4 and in two districts at grade 8

Representative samples of fourth- and eighth-grade public school students from 18 urban districts participated in the 2009 assessment. Eleven of the districts participated in earlier assessment years, and seven districts participated for the first time in 2009. Between 800 and 2,400 fourth- and eighth-graders were assessed in each district.

**At grade 4**, average reading scores increased since 2007 in 4 of the 11 participating districts, although there were no significant changes in the scores for fourth-graders in the nation or large cities overall. Scores were higher in 2009 than in 2002 for five of the six districts that participated in both years, along with increases for both the nation and large cities over the same period.

**At grade 8**, average reading scores for the nation and large cities were higher in 2009 than in 2007, with 2 of the 11 participating districts (Atlanta and Los Angeles) showing gains. These same two districts of the five that participated in both years scored higher in 2009 than in 2002, although there were no significant changes in the scores for eighth-graders in the nation and large cities in comparison to 2002.

Changes in 2009 average reading scores from 2002 and 2007

Jurisdiction	GRADE 4		GRADE 8	
	From 2002	From 2007	From 2002	From 2007
<b>Nation</b>	3*	#	#	1*
<b>Large city<sup>1</sup></b>	8*	2	2	2*
Atlanta	14*	2	14*	5*
Austin	—	3	—	4
Boston	—	5*	—	3
Charlotte	—	2	—	#
Chicago	9*	2	#	#
Cleveland	—	-4	—	-4
District of Columbia (DCPS)	13*	6*	#	#
Houston	5	6*	4	#
Los Angeles	6*	2	7*	3*
New York City	11*	4*	—	3
San Diego	—	3	—	4

— District did not participate in 2002.

# Rounds to zero.

\* Significant ( $p < .05$ ) score change.

<sup>1</sup> Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts. NOTE: Beginning in 2009, if the results for charter schools are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education under the Elementary and Secondary Education Act, they are excluded from that district's TUDA results. The score-point changes shown in this chart are based on the differences between unrounded scores as opposed to the rounded scores shown in figures presented in the report. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2002, 2007, and 2009 Reading Assessments.

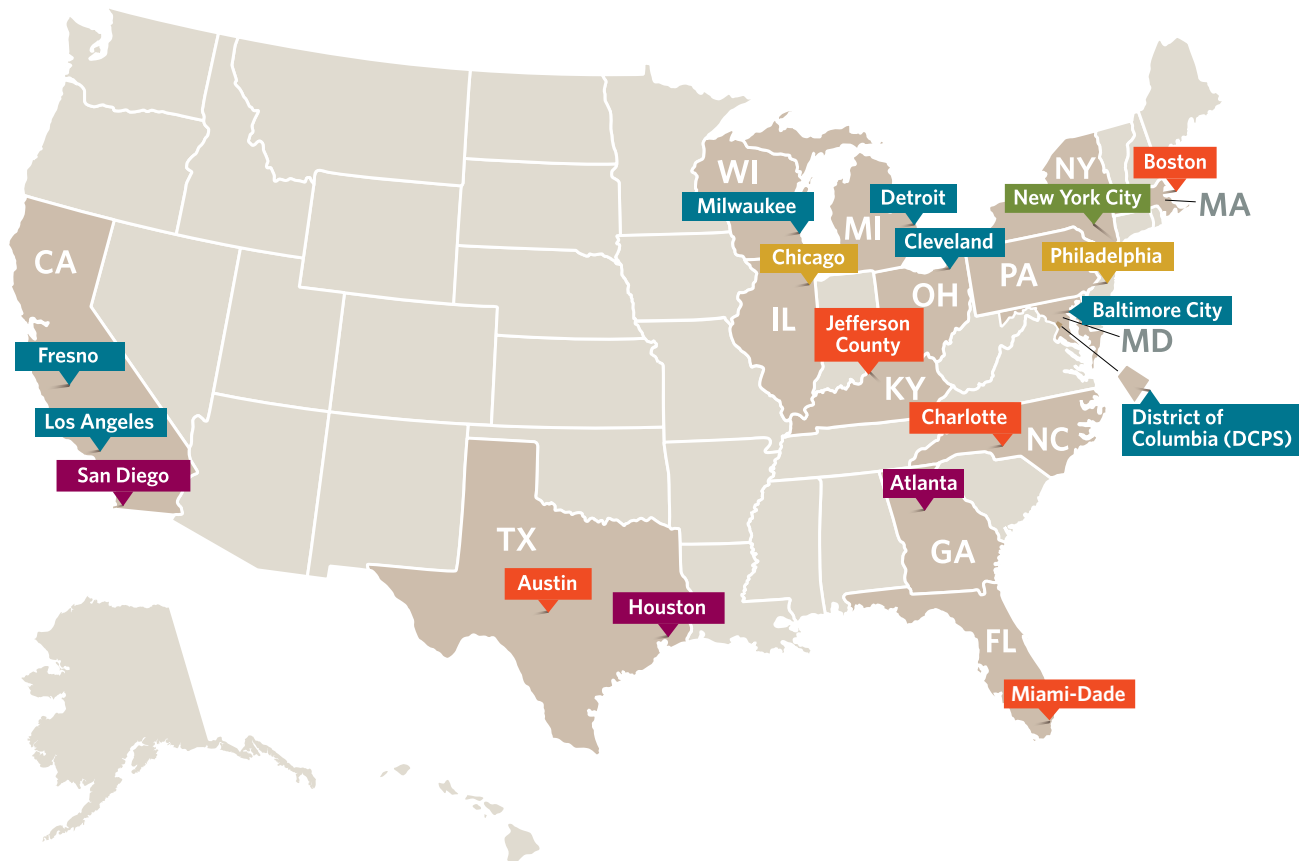
# Five districts score above large cities at both grades in 2009

Among the 18 urban districts that participated in the 2009 reading assessment, scores for both fourth- and eighth-graders in 5 districts were higher than the scores for public school students attending schools in large cities overall. Scores for 7 districts were lower than the scores for fourth- and eighth-graders in large cities nationally.

In comparison to the average scores in 2009 for large cities in the nation,

- Austin, Boston, Charlotte, Jefferson County (Louisville, KY), and Miami-Dade had higher scores at both grades;
- scores for New York City were higher at grade 4 and not significantly different at grade 8;
- scores in Atlanta, Houston, and San Diego were not significantly different at either grade;
- Baltimore City, Cleveland, Detroit, the District of Columbia, Fresno, Los Angeles, and Milwaukee had lower scores at both grades; and
- scores for Chicago and Philadelphia were lower at grade 4 and not significantly different at grade 8.

Comparison of district and large city average reading scores in 2009



NOTE: DCPS = District of Columbia Public Schools.



# A Closer Look at District Results Compared to Large Cities

Differences in overall average scores between participating districts and large cities were not always consistent across specific student demographic groups. In Baltimore City, for example, the overall average reading score was lower than the score for large cities at both grades. However, the score for Black students in the district (who comprise most of the student population) was not significantly different from the score for Black students in large cities at either grade.

Among the seven districts where average scores at both grades were lower than the score for large cities, only Fresno had lower scores for White, Black, and Hispanic students, and for students eligible for school lunch (an indicator of lower family income) in both grades.

Among the five districts where overall scores were higher than the score for large cities at both grades 4 and 8, Charlotte was the only district to have higher scores for White, Black, and Hispanic students and for lower-income students at grade 4; no district had higher scores across all these student groups at grade 8.

Comparison of district and large city average reading scores in 2009

District	GRADE 4					GRADE 8				
	Race/ethnicity				Eligible for school lunch	Race/ethnicity				Eligible for school lunch
	Overall	White	Black	Hispanic		Overall	White	Black	Hispanic	
Atlanta	◆	▲	◆	‡	◆	◆	▲	◆	‡	◆
Austin	▲	▲	▲	▲	◆	▲	▲	◆	▲	◆
Baltimore City	▼	▼	◆	‡	◆	▼	‡	◆	‡	◆
Boston	▲	◆	▲	▲	▲	▲	▲	◆	▲	▲
Charlotte	▲	▲	▲	▲	▲	▲	◆	▲	◆	▲
Chicago	▼	◆	▼	◆	▼	◆	◆	◆	◆	◆
Cleveland	▼	▼	▼	◆	▼	▼	◆	◆	◆	◆
Detroit	▼	‡	▼	▼	▼	▼	‡	◆	▼	▼
District of Columbia (DCPS)	▼	▲	▼	◆	▼	▼	‡	◆	▼	▼
Fresno	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼
Houston	◆	◆	▲	◆	▲	◆	◆	◆	▲	◆
Jefferson County (KY)	▲	◆	◆	‡	▲	▲	▼	◆	‡	▲
Los Angeles	▼	▼	◆	▼	▼	▼	◆	◆	▼	▼
Miami-Dade	▲	◆	◆	▲	▲	▲	◆	▲	▲	▲
Milwaukee	▼	◆	▼	◆	▼	▼	◆	◆	▼	▼
New York City	▲	◆	▲	▲	▲	◆	◆	◆	◆	▲
Philadelphia	▼	▼	▼	▼	▼	◆	◆	◆	◆	◆
San Diego	◆	◆	◆	▼	◆	◆	◆	◆	◆	◆

▲ Higher average score than large city.      ◆ No significant difference between the district and large city.  
 ▼ Lower average score than large city.      ‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

NOTE: DCPS = District of Columbia Public Schools.

## Demographics vary among the nation, large cities, and individual urban districts

When comparing the results for urban districts to results for the nation and large cities, it is important to consider how the demographics of the jurisdictions are different. Nationally, the percentages of White students at both grades 4 and 8 were higher than the combined percentages of Black and Hispanic students in 2009, while the opposite was true for large cities and for most participating urban districts.

Large cities and participating urban districts also differed from the nation in the proportion of students eligible for the National School Lunch Program. While the percentages of students eligible for free/reduced-price school lunch in the nation were 47 percent at grade 4 and 43 percent at grade 8, the percentages of eligible students in the districts ranged from 46 to 100 percent in 2009.

More detailed information about the demographic characteristics of fourth- and eighth-graders in the nation, large cities, and participating districts is included in the report.



# Grade 12 Reading and Mathematics 2009

## EXECUTIVE SUMMARY | STATE AND NATIONAL RESULTS

### Twelfth-graders' performance in reading and mathematics improves since 2005

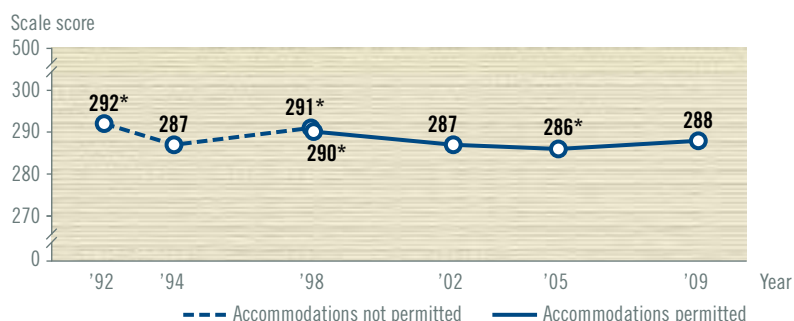
Nationally representative samples of twelfth-graders from 1,670 public and private schools across the nation participated in the 2009 National Assessment of Educational Progress (NAEP). Approximately 52,000 students were assessed in reading, and 49,000 students were assessed in mathematics. National reading results from the 2009 assessment are compared to results from five earlier assessment years going back to 1992. The 2009 mathematics results are compared to those from 2005 when a change in the mathematics framework for the assessment necessitated a new trend line for that subject at grade 12.

**State results** in NAEP reading and mathematics are reported for twelfth-grade public school students in 11 states. These states volunteered to participate in the twelfth-grade state pilot program in 2009.

**Reading** results were based on students' responses to questions designed to measure reading comprehension across two types of texts: literary and informational. The average reading score in 2009 was higher than in 2005 but lower than in 1992 (figure A). Thirty-eight percent of twelfth-graders performed at or above the *Proficient* level in reading in 2009, which was higher than the percentage in 2005, but not significantly different from the percentages in other earlier assessment years. The percentage of students performing at or above *Basic* (74 percent) in 2009 was not significantly different from 2005 and was lower than in 1992.

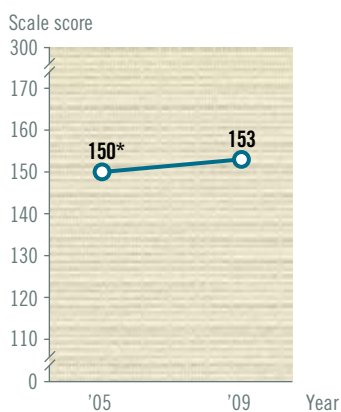
**Mathematics** results were based on students' responses to questions designed to measure their knowledge and abilities across four content areas: number properties and operations; measurement and geometry; data analysis, statistics, and probability; and algebra. The average mathematics score in 2009 was higher than in 2005 (figure B), as were the percentages of students at or above *Proficient* (26 percent) and at or above *Basic* (64 percent).

**Figure A.** Trend in twelfth-grade NAEP reading average scale scores



\* Significantly different ( $p < .05$ ) from 2009.

**Figure B.** Average scale scores in twelfth-grade NAEP mathematics: 2005 and 2009



\* Significantly different ( $p < .05$ ) from 2009.

# Some student groups make gains since 2005, but gaps in achievement persist

Average mathematics scores were higher in 2009 than in 2005 for twelfth-grade public and private school students overall, for all racial/ethnic groups, and for male and female students. While the overall average reading score was also higher in 2009 than in 2005, reading scores did not change significantly for Black, Hispanic, and American Indian/Alaska Native students, or for female students. Racial/ethnic and gender achievement gaps did not change significantly in either reading or mathematics.

In comparison to 1992, reading scores were lower in 2009 overall and for both male and female students. There were no significant changes in the reading scores for any of the racial/ethnic groups with samples large enough to report results in both years, and no significant changes in the racial/ethnic or gender achievement gaps compared to 1992.

Characteristic	Change in average reading scale score		Change in average mathematics scale score
	Since 1992	Since 2005	Since 2005
<b>Overall</b>	▼	▲	▲
<b>Race/ethnicity</b>			
White	◆	▲	▲
Black	◆	◆	▲
Hispanic	◆	◆	▲
Asian/Pacific Islander	◆	▲	▲
American Indian/Alaska Native	‡	◆	▲
<b>Gender</b>			
Male	▼	▲	▲
Female	▼	◆	▲
<b>Gaps</b>			
White - Black	◆	◆	◆
White - Hispanic	◆	◆	◆
Male - Female	◆	◆	◆

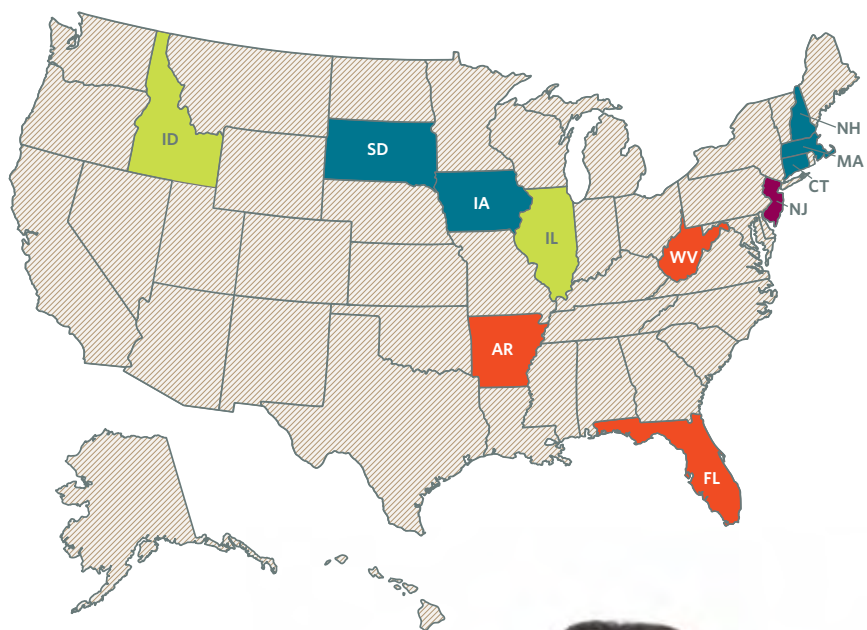
▲ Indicates the score was higher in 2009.  
▼ Indicates the score was lower in 2009.

◆ Indicates no significant change in the score or the gap in 2009.  
‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

NOTE: Accommodations were not permitted for the NAEP reading assessment in 1992.

# Results for public school students in 11 states available for the first time

The 2009 results from the twelfth-grade state pilot program in reading and mathematics provide a first look at the performance of public school students in the 11 states that volunteered to participate and how their performance compares to the national average for public school students. Five states had higher average scores than the nation in both reading and mathematics: Connecticut, Iowa, Massachusetts, New Hampshire, and South Dakota.



Compared to the nation, average reading and mathematics scale scores were

- higher in both subjects in** Connecticut, Iowa, Massachusetts, New Hampshire, and South Dakota;
  - higher in reading and not significantly different in mathematics in** Idaho and Illinois;
  - higher in mathematics and not significantly different in reading in** New Jersey; and
  - lower in both subjects in** Arkansas, Florida, and West Virginia.
- 
- State did not participate in the twelfth-grade state pilot program.**



# Science 2009

EXECUTIVE SUMMARY | STATE AND NATIONAL RESULTS AT GRADES 4 AND 8

## New 2009 science assessment measures students' knowledge of physical science, life science, and Earth and space sciences

The National Assessment of Educational Progress (NAEP) in science was updated in 2009 to keep the content current with key developments in science, curriculum standards, assessments, and research. Because of the recent changes to the assessment, the results from 2009 cannot be compared to those from previous assessment years; however, they provide a current snapshot of what the nation's fourth-, eighth-, and twelfth-graders know and can do in science that will serve as the basis for comparisons on future science assessments.

National and state samples of 156,500 fourth-graders and 151,100 eighth-graders, and a national sample

of 11,100 twelfth-graders, responded to questions designed to measure their knowledge and abilities in physical science, life science, and Earth and space sciences. A proficiency scale was developed in 2009 to facilitate NAEP science reporting and to establish the baseline for future science assessment results. For all three grades, the scales were set ranging from 0 to 300 with a mean of 150. That is, the overall average student performance for each grade corresponds to a score of 150. The 2009 results highlight differences in students' performance based on demographic characteristics and how participating states compare to the national average.

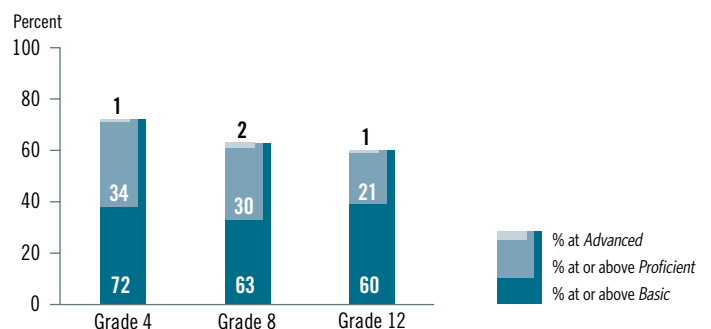
## Percentages of students performing at or above *Proficient* range from 21 percent at grade 12 to 34 percent at grade 4

The NAEP *Proficient* level represents solid academic performance for each grade assessed, with the ultimate achievement goal of all students performing at the *Proficient* level or higher. Students reaching this level have demonstrated competency over challenging subject matter. Thirty-four percent of fourth-graders, 30 percent of eighth-graders, and 21 percent of twelfth-graders performed at or above the *Proficient* level in science in 2009 (figure A).

The *Basic* level denotes partial mastery of the knowledge and skills fundamental for proficient work at each grade. Seventy-two percent of fourth-graders, 63 percent of eighth-graders, and 60 percent of twelfth-graders performed at or above the *Basic* level in science in 2009.

The *Advanced* level represents superior performance. One percent of fourth-graders, 2 percent of eighth-graders, and 1 percent of twelfth-graders performed at the *Advanced* level.

Figure A. Achievement-level results in NAEP science at grades 4, 8, and 12: 2009



SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment.

## Scores higher for White, Asian/Pacific Islander, and male students

Results varied for students of different racial/ethnic groups. At grades 4 and 8, White students had higher average scores than other racial/ethnic groups, and Asian/Pacific Islander students scored higher than Black, Hispanic, and American Indian/Alaska Native students (table A). At grade 12, there was no significant difference in scores for White and Asian/Pacific Islander students, and both groups scored higher on average than other racial/ethnic groups. Male students scored higher on average than female students at all three grades.

Students' performance on the science assessment also differed based on the location of the schools they attended. At grades 4 and 8, students attending schools in city locations scored lower on average than students in schools in other locations. At grade 12, the average score for students in city schools was lower than the score for students attending suburban schools, but was not significantly different from the scores for students in town and rural locations.

**Table A.** Average scores in NAEP science at grades 4, 8, and 12, by selected student and school characteristics: 2009

Characteristic	Grade 4	Grade 8	Grade 12
<b>Race/ethnicity</b>			
White	163	162	159
Black	127	126	125
Hispanic	131	132	134
Asian/Pacific Islander	160	160	164
American Indian/ Alaska Native	135	137	144
<b>Gender</b>			
Male	151	152	153
Female	149	148	147
<b>School location</b>			
City	142	142	146
Suburb	154	154	154
Town	150	149	150
Rural	155	154	150

NOTE: Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment.

### Examples of skills demonstrated by students performing at the *Basic* level

- Explain the benefit of an adaptation for an organism (grade 4).
- Relate oxygen level to atmospheric conditions at higher elevations (grade 8).
- Solve a design problem related to the electric force between objects (grade 12).

### Examples of skills demonstrated by students performing at the *Proficient* level

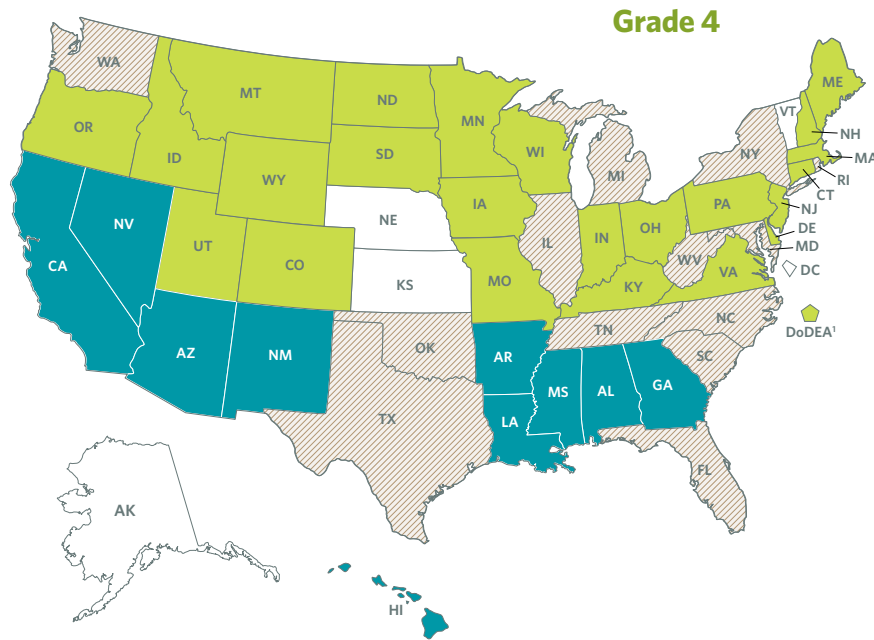
- Recognize that gravitational force constantly affects an object (grade 4).
- Relate characteristics of air masses to global regions (grade 8).
- Evaluate two methods to help control an invasive species (grade 12).

### Examples of skills demonstrated by students performing at the *Advanced* level

- Design an investigation to compare types of bird food (grade 4).
- Predict the Sun's position in the sky (grade 8).
- Recognize a nuclear fission reaction (grade 12).

## Scores higher than the national average in 24 states/jurisdictions at grade 4 and 25 score higher at grade 8

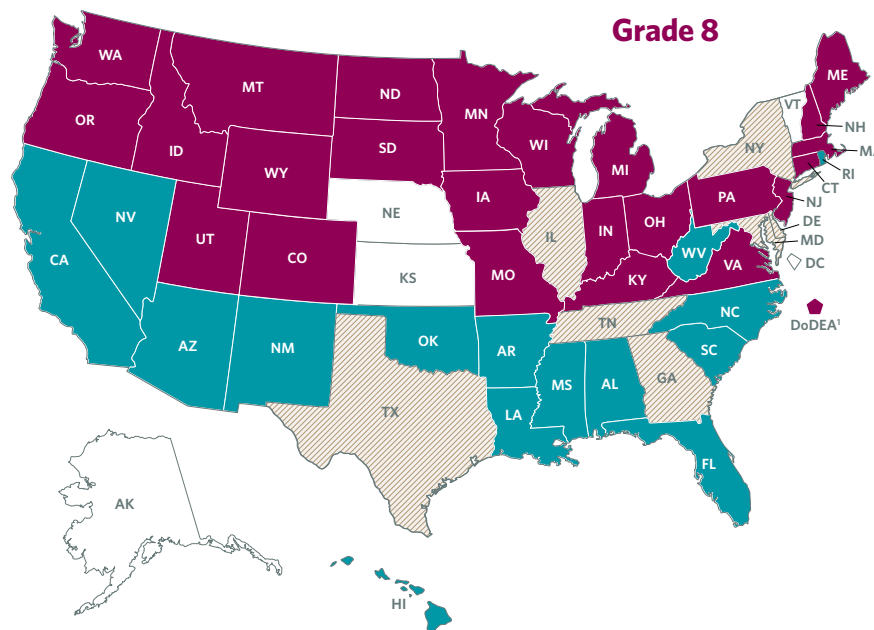
All 50 states, the District of Columbia, and Department of Defense schools volunteered to participate in the 2009 NAEP science assessment and contributed to results for the nation at grades 4 and 8. However, only 46 states and the Department of Defense schools had sufficient participation to report results separately for grades 4 and 8. These 47 states/jurisdictions are all referred to as “states” in the summary of results.



Compared to the nation, average **fourth-grade** science scores were

- higher in 24 states,
- lower in 10 states, and
- not significantly different in 13 states.

State did not meet participation guidelines for reporting.



Compared to the nation, average **eighth-grade** science scores were

- higher in 25 states,
- lower in 15 states, and
- not significantly different in 7 states.

State did not meet participation guidelines for reporting.

<sup>1</sup> Department of Defense Education Activity (overseas and domestic schools).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment.

# Science 2009

## EXECUTIVE SUMMARY | TRIAL URBAN DISTRICT ASSESSMENT RESULTS AT GRADES 4 AND 8

Results from the 2009 NAEP Trial Urban District Assessment (TUDA) make it possible to compare the performance of public school students in participating urban districts to public school students in the nation and, more specifically, students in large cities (i.e., cities with populations of 250,000 or more) across the nation.

### Students in most participating districts score lower than the nation in 2009

Science results are based on representative samples of fourth- and eighth-grade public school students from the 17 urban districts that volunteered to participate in the 2009 assessment. Between 900 and 2,200 students were assessed at each grade in each of the participating districts.

**At grade 4**, the average score in large cities overall and the average scores in 14 of the 17 participating districts were lower than the average score for the nation. Scores for Austin, Charlotte, and Jefferson County were not significantly different from the score for the nation.

**At grade 8**, the average score in large cities overall and the average scores in 16 of the 17 districts were lower than the average score for the nation. The score for Austin was not significantly different from the score for the nation.

#### A New Science Assessment

The NAEP science assessment was updated in 2009 to keep the content current with key developments in science, curriculum standards, assessments, and research. Because of the recent changes to the assessment, the results from 2009 cannot be compared to those from previous assessment years; however, they provide a current snapshot of what fourth- and eighth-graders in participating urban districts know and can do in science that will serve as the basis for comparisons on future science assessments.

Comparison of national and district average science scores in 2009

Jurisdiction	GRADE 4	GRADE 8
<b>Nation</b>	149	149
<b>Large city<sup>1</sup></b>	14	15
Atlanta	15	22
Austin	-2	1
Baltimore City	31	35
Boston	10	19
Charlotte	1	8
Chicago	24	27
Cleveland	34	27
Detroit	38	35
Fresno	27	24
Houston	13	11
Jefferson County (KY)	1	3
Los Angeles	25	25
Miami-Dade	5	11
Milwaukee	23	26
New York City	13	19
Philadelphia	28	30
San Diego	5	11

▼ Lower average score than the nation.

◆ No significant difference between the district and the nation.

<sup>1</sup> Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: The score-point differences appear within each symbol and are based on the differences between the unrounded scores for the nation and the district as opposed to the rounded scores shown in figures presented in the report. A score-point difference preceded by a minus sign (-) indicates that the score for the district was numerically lower than the score for the nation.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment.



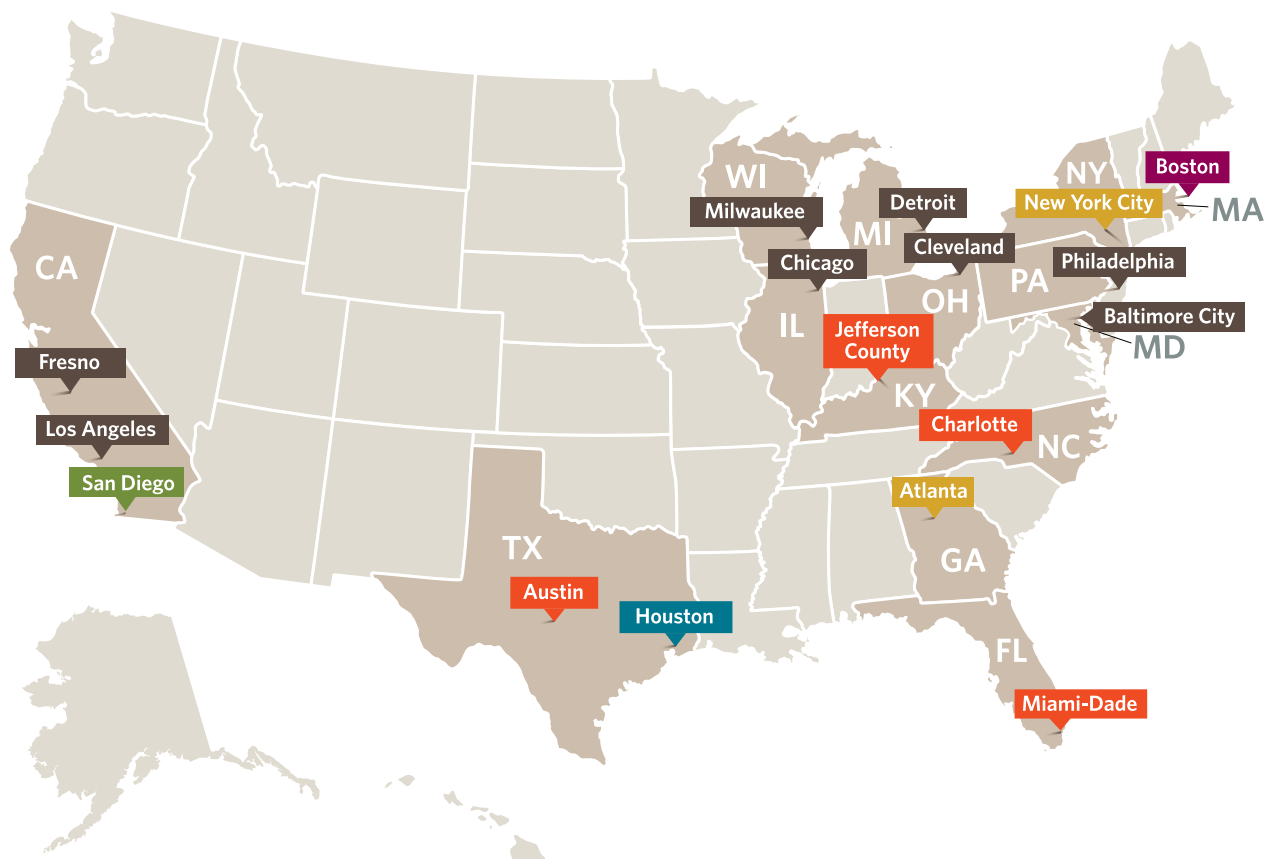
# Four districts score above large cities at both grades in 2009

Among the 17 urban districts that participated in the 2009 science assessment, scores for both fourth- and eighth-graders in 4 districts were higher than the scores for their respective peers attending public schools in large cities overall. Scores for both grades in 8 districts were lower than the scores for large cities nationally.

In comparison to the average scores for large cities in the nation,

- Austin, Charlotte, Jefferson County (Louisville, KY), and Miami-Dade had higher scores at both grades;
- scores in San Diego were higher at grade 4 and not significantly different at grade 8;
- scores in Boston were higher at grade 4 and lower at grade 8;
- scores in Houston were not significantly different at grade 4 and higher at grade 8;
- scores in Atlanta and New York City were not significantly different at grade 4 and lower at grade 8; and
- Baltimore City, Chicago, Cleveland, Detroit, Fresno, Los Angeles, Milwaukee, and Philadelphia had lower scores at both grades.

Comparison of district and large city average science scores in 2009



# A Closer Look at District Results Compared to Large Cities

Differences in overall average scores between participating districts and large cities were not always consistent across student groups. In Boston, for example, the overall average science score was lower than the score for large cities at grade 8. However, the scores for White, Black, and Hispanic students in the district were not significantly different from the score for their peers in all large cities.

Among the four districts where overall scores were higher than the score for large cities at both grades 4 and 8, Charlotte was the only district to have higher scores for White, Black, and Hispanic students, and for students eligible for school lunch (an indicator of lower family income) at grade 4. Austin was the only district to have higher scores for White, Black, and Hispanic students, and for students from lower-income families at grade 8.

Among the eight districts where average scores at both grades were lower than the score for large cities, scores were lower for racial/ethnic groups with samples large enough to report results and for students from lower-income families at both grades in Baltimore City and Philadelphia.

Comparison of district and large city average science scores in 2009

District	GRADE 4					GRADE 8				
	Race/ethnicity				Eligible for school lunch	Race/ethnicity				Eligible for school lunch
	Overall	White	Black	Hispanic		Overall	White	Black	Hispanic	
Atlanta	◆	▲	▲	‡	▼	▼	‡	◆	‡	▼
Austin	▲	▲	◆	▲	▲	▲	▲	▲	▲	▲
Baltimore City	▼	▼	▼	‡	▼	▼	‡	‡	▼	▼
Boston	▲	◆	▲	▲	▲	▼	◆	◆	◆	◆
Charlotte	▲	▲	▲	▲	▲	▲	▲	▲	◆	◆
Chicago	▼	◆	▼	◆	▼	▼	▼	◆	◆	▼
Cleveland	▼	▼	▼	▼	▼	▼	▼	◆	◆	◆
Detroit	▼	‡	▼	◆	▼	▼	‡	◆	◆	▼
Fresno	▼	▼	▼	▼	▼	▼	▼	◆	▼	▼
Houston	◆	▲	▲	▲	▲	▲	▲	▲	▲	▲
Jefferson County (KY)	▲	◆	▲	◆	▲	▲	◆	‡	▲	▲
Los Angeles	▼	▼	◆	▼	▼	▼	▼	▼	▼	▼
Miami-Dade	▲	▲	◆	▲	▲	▲	◆	◆	▲	▲
Milwaukee	▼	◆	▼	◆	▼	▼	▼	◆	◆	▼
New York City	◆	◆	◆	◆	▲	▼	▼	◆	▼	◆
Philadelphia	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼
San Diego	▲	◆	◆	◆	◆	◆	◆	◆	◆	◆

▲ Higher average score than large city.      ◆ No significant difference between the district and large city.  
 ▼ Lower average score than large city.      ‡ Sample size insufficient to permit a reliable estimate.

NOTE: Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

## Demographics vary among the nation, large cities, and individual urban districts

When comparing the results for urban districts to results for the nation and large cities, it is important to consider how the demographics of the jurisdictions are different. Nationally, the percentages of White students at both grades 4 and 8 were higher than the combined percentages of Black and Hispanic students in 2009, while the opposite was true for large cities and for most of the participating urban districts.

Large cities and participating urban districts also differed from the nation in the proportion of students eligible for the National School Lunch Program. While the percentages of students eligible for free/reduced-price school lunch in the nation were 48 percent at grade 4 and 43 percent at grade 8, the percentages of eligible students in the districts ranged from 47 to 100 percent.

More detailed information about the demographic characteristics of fourth- and eighth-graders in the nation, large cities, and participating districts is included in this report.

# America's High School Graduates

## EXECUTIVE SUMMARY | RESULTS OF THE 2009 NAEP HIGH SCHOOL TRANSCRIPT STUDY

This report presents information about the types of courses that high school graduates in the class of 2009 took during high school, how many credits they earned, and the grades they received.

Information on the relationships between high school coursetaking records and performance in mathematics and science on the National Assessment of Educational Progress (NAEP) is also included. Transcripts were collected from about 610 public schools and 130 private schools for the 2009 High School Transcript Study (HSTS). These transcripts constituted a nationally representative sample of 37,700 high school graduates, representing approximately 3 million 2009 high school graduates. The 2009 results are compared

to the results of earlier transcript studies dating back to 1990, and differences among graduates by race/ethnicity, gender, and parent education are examined. Because the study is restricted to high school graduates, it contains no information about dropouts, who may differ from graduates. Graduates who receive a special education diploma or certificate of completion are also excluded from analyses in this report unless noted otherwise.

### Defining curriculum levels

Curriculum levels in this report are defined by the number of course credits earned by graduates in specified types of courses during high school, as follows:

**Standard:** At least four credits of English and three each in social studies, mathematics, and science.

**Midlevel:** In addition to standard requirements, geometry and algebra I or II; at least two courses in biology, chemistry, and physics; and at least one credit of a foreign language.

**Rigorous:** In addition to midlevel requirements, an additional credit in mathematics including pre-calculus or higher; biology, chemistry, and physics; and at least three foreign language credits.



## Graduates earn more credits and complete higher curriculum levels

- In 2009, graduates earned over three credits more than their 1990 counterparts, or about 420 additional hours of instruction during their high school careers.
- A greater percentage of 2009 graduates completed more challenging curriculum levels than 1990 or 2005 graduates.
- Nearly two-thirds of graduates who attained a rigorous curriculum took algebra I before high school.

## Graduates with stronger academic records earn higher NAEP scores

- Graduates who completed an Advanced Placement (AP) or International Baccalaureate (IB) mathematics or science course, a higher level mathematics or science course in ninth grade, or a rigorous curriculum had average NAEP scores at the *Proficient* level in both mathematics and science.
- Graduates who completed a midlevel or a standard curriculum had average NAEP scores at the *Basic* level.

## Comparisons by gender

- Since 2005, male graduates have narrowed the gap with female graduates in credits earned in mathematics and science.
- A larger percentage of female graduates compared to male graduates completed a midlevel or rigorous curriculum in 2009.
- In 2009, male graduates generally had higher NAEP mathematics and science scores than female graduates completing the same curriculum level.

## Comparisons by race/ethnicity

- Since 1990 more graduates from each racial/ethnic group completed a rigorous curriculum. The percentage of Asian/Pacific Islander graduates completing a rigorous curriculum in 2009, 29 percent, was greater than that of White, Black, or Hispanic graduates (14 percent, 6 percent, and 8 percent respectively).
- All four racial/ethnic groups on average earned more credits and higher grade point averages (GPAs) in 2009 than they did in 1990. The GPAs of White and Asian/Pacific Islander graduates increased between 2005 and 2009.

## Other Topics

This report also takes a closer look at:

- Finding time to earn more credits, through summer learning, classes taken for high school credits in middle school, and online learning;
- Science, Technology, Engineering, and Mathematics (STEM) coursetaking; and
- Credits earned, GPAs, and curriculum levels of students with disabilities and English language learners.

# Other Major 2009 Reports Released

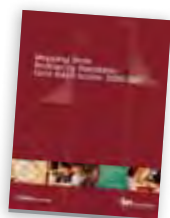


## Achievement Gaps: How Black and White Students in Public Schools Perform on the National Assessment of Educational Progress

Achievement gaps occur when one group of students outperforms another group

and the difference in average scores for the two groups is statistically significant (that is, larger than the margin of error). This report uses NAEP scores for Black and White students to illuminate patterns and changes in these gaps over time.

<http://nces.ed.gov/nationsreportcard/pdf/studies/2009455.pdf>



## Mapping State Proficiency Standards Onto NAEP Scales: 2005 - 2007

Since 2003, the National Center for Education Statistics (NCES) has compared each state's standard for proficient performance in reading and mathematics

by placing the state standards onto the NAEP scale. The procedure, "mapping," allows the level of achievement required for proficient performance in one state to be compared with the level of achievement required in another state. The mapping procedure offers an approximate way to assess the relative rigor of the states' standards for proficient performance.

<http://nces.ed.gov/nationsreportcard/pdf/studies/2010456.pdf>



## National Indian Education Study 2009: Parts I and II

The National Indian Education Study (NIES) is administered as part of

NAEP, which was expanded to allow more in-depth reporting on the achievement and experiences of American Indian/Alaska Native (AI/AN) students at grades 4 and 8.

**Part I** of the study presents results on the achievement of AI/AN fourth- and eighth-graders in reading and mathematics. Results are reported for AI/AN students in the nation and for 12 states with relatively large populations of AI/AN students. Results from the 2009 assessments are also compared to the results from 2007 and 2005.

<http://nces.ed.gov/nationsreportcard/pdf/studies/2010462.pdf>

**Part II** of the study is an Indian Education Survey, which asks AI/AN students, their teachers, and school principals about the inclusion of Native languages and cultural perspectives in the curriculum and about interactions between the school and the AI/AN community.

<http://nces.ed.gov/nationsreportcard/pdf/studies/2010463.pdf>

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## NAEP Tools on the Web

Whether you're an educator, member of the media, a parent, a student, a policymaker, or a researcher, there are many resources available on the NAEP website that can help you find exactly what you're looking for as you explore the results.

Do you want to know...

- How well the nation's students are performing in school?
- How well your state is doing compared to other states?
- How to find NAEP sample questions?
- What a *Proficient* student can do?

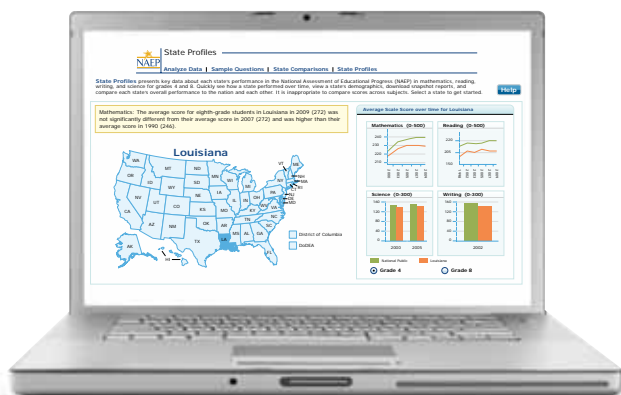
Find information that will help you to answer these questions—and many more—using the NAEP Tools on the Web.

View the most recent results at:

<http://nationsreportcard.gov>

Get started exploring the data at:

<http://nces.ed.gov/nationsreportcard/about/naeptools.asp>







For more information about NAEP, or to access the reports, visit: <http://nces.ed.gov/nationsreportcard>.

You can also contact the National Center for Education Statistics (NCES) at:

National Center for Education Statistics  
Assessment Division – 8th Floor  
1990 K Street NW  
Washington, DC 20006  
Phone: 202-502-7420  
<https://nces.ed.gov/nationsreportcard/contactus.asp>

To order copies of The Nation's Report Card or other NAEP publications, contact ED Pubs at:

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