A First Look: 2013 Mathematics and Reading Trial Urban District Assessment

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS AT GRADES 4 AND 8



http://nationsreportcard.gov/reading_math_tuda_2013/

ies NATIONAL CENTER FOR EDUCATION STATISTICS
Institute of Education Sciences
U.S. Department of Education
NCES 2014–466

The Nation's Report Card

Urban district results easy to access online

NAEP results are now easier than ever to access in a new interactive website at **http://nationsreportcard.gov/reading_math_tuda_2013/**. The results from the 2013 assessments in mathematics and reading at grades 4 and 8 highlighted on the following pages can be explored in more detail with interactive graphics, downloadable data, and enhanced features for viewing urban district results.

What Is The Nation's Report Card™?

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), a continuing and nationally representative measure of achievement in various subjects over time.

Since 1969, NAEP assessments have been conducted periodically in reading, mathematics, science, writing, U.S. history, civics, geography, and other subjects. NAEP collects and reports information on student performance at the national, state, and local levels, making the assessment an integral part of our nation's evaluation of the condition and progress of education. Only academic achievement data and related background information are collected. The privacy of individual students and their families is protected.

NAEP is a congressionally authorized 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.



To stay up-to-date with the latest results and advances in NAEP assessments, follow us on Facebook and Twitter.

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What is TUDA?

The National Assessment of Educational Progress (NAEP), in partnership with the National Assessment Governing Board and the Council of the Great City Schools (CGCS), created the Trial Urban District Assessment (TUDA) in 2002 to support the improvement of student achievement in the nation's large urban districts. The TUDA focuses attention on urban education and measures educational progress within participating large urban districts. Reading results were first reported for six urban districts in 2002, and mathematics results were first reported in 2003 for 10 districts. Since 2002, urban districts have been added in each assessment year, culminating in the 21 districts that participated in both 2011 and 2013.

What are results based upon?

TUDA results are based on the same mathematics and reading assessments used to report national and state results, thus allowing students' performance in the 21 participating districts to be compared to the performance of their peers in the nation's large cities as well as their home state. The National Assessment Governing Board oversees the development of NAEP frameworks that describe the specific knowledge and skills to be assessed in each subject.

The NAEP mathematics assessment measures students' knowledge and skills in mathematics and students' ability to apply their knowledge in problem-solving situations. At each grade, students responded to multiple-choice and constructed-response questions designed to measure what they know and can do across five mathematics content areas: number properties and operations; measurement; geometry; data analysis, statistics, and probability; and algebra.

The NAEP reading assessment measures students' reading comprehension by asking them to read selected grade-appropriate materials and answer questions based on what they have read. At each grade, students responded to multiple-choice and constructed-response questions designed to measure their reading comprehension across two types of text: literary and informational.

How are results reported?

Student performance is reported as average scores on separate 0 to 500 scales in mathematics and reading, and as percentages of students performing at or above three achievement levels (*Basic*, *Proficient*, and *Advanced*). Changes in students' performance over time are noted only if the differences in scores or percentages are determined to be statistically significant ($p < .05$). Because NAEP scales and achievement levels are developed independently for each subject, results cannot be compared across subjects. NAEP results in mathematics and reading are based on representative samples of 1,100 to 2,300 public school students at grade 4 and 900 to 2,100 public school students at grade 8 in each participating urban district.



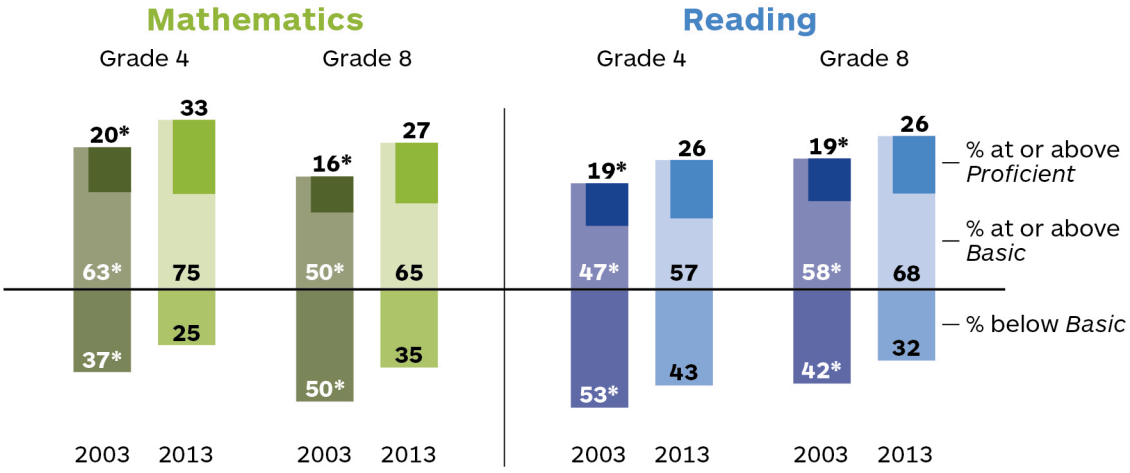
The complete 2013 mathematics and reading frameworks are available on the National Assessment Governing Board website at **http://www.nagb.org/publications/frameworks.html**.

How are large cities performing?

"Large city" is a comparison category that includes public school students from all cities in the nation with populations of 250,000 or more. In addition to comparing the results in each urban district to public school students in the nation, comparisons are also made to large cities because their students are the peer group most similar to the students in the 21 urban districts.

The percentages of students in large cities performing below the *Basic* achievement level were lower in 2013 than in 2003 in both mathematics and reading at grades 4 and 8 (figure 1). Over the same period, the percentages of students performing at or above the *Basic* and *Proficient* levels were higher across both subjects and grades.

FIGURE 1. **Achievement-level results in NAEP mathematics and reading for fourth- and eighth-grade students attending large city public schools in the nation: 2003 and 2013**



* Significantly different ($p < .05$) from 2013.

NOTE: Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003 and 2013 Mathematics and Reading Assessments.



Explore more results for large cities and selected student groups over time at **http://nationsreportcard.gov/reading_math_tuda_ 2013/**.

How are urban districts performing?

Mathematics and reading scores in three urban districts (Austin, Charlotte, and Hillsborough County) were higher in 2013 than the scores for large cities at grades 4 and 8 (figure 2). Scores in nine urban districts (Baltimore City, Chicago, Cleveland, Detroit, the District of Columbia, Fresno, Los Angeles, Milwaukee, and Philadelphia) were lower in both subjects and both grades.

In 2013, average mathematics and reading scores for fourth- and eighth-grade public school students in large cities were lower than the scores for public school students in the nation.

FIGURE 2. **Comparison of NAEP mathematics and reading average scores for fourth- and eighth-grade public school students, by jurisdiction: 2013**

	Mathematics		Reading	
Jurisdiction	**Grade 4**	**Grade 8**	**Grade 4**	**Grade 8**
Nation (public)	241	284	221	266
Large city	235	276	212	258
Albuquerque	◆ 235	◆ 274	▼ 207	◆ 256
Atlanta	◆ 233	▼ 267	◆ 214	▼ 255
Austin	▲ 245	▲ 285	▲ 221	▲ 261
Baltimore City	▼ 223	▼ 260	▼ 204	▼ 252
Boston	◆ 237	▲ 283	◆ 214	◆ 257
Charlotte	▲ 247	▲ 289	▲ 226	▲ 266
Chicago	▼ 231	▼ 269	▼ 206	▼ 253
Cleveland	▼ 216	▼ 253	▼ 190	▼ 239
Dallas	◆ 234	◆ 275	▼ 205	▼ 251
Detroit	▼ 204	▼ 240	▼ 190	▼ 239
District of Columbia (DCPS)	▼ 229	▼ 260	▼ 206	▼ 245
Fresno	▼ 220	▼ 260	▼ 196	▼ 245
Hillsborough County (FL)	▲ 243	▲ 284	▲ 228	▲ 267
Houston	◆ 236	▲ 280	▼ 208	▼ 252
Jefferson County (KY)	◆ 234	◆ 273	▲ 221	▲ 261
Los Angeles	▼ 228	▼ 264	▼ 205	▼ 250
Miami-Dade	◆ 237	◆ 274	▲ 223	◆ 259
Milwaukee	▼ 221	▼ 257	▼ 199	▼ 242
New York City	◆ 236	◆ 274	▲ 216	◆ 256
Philadelphia	▼ 223	▼ 266	▼ 200	▼ 249
San Diego	▲ 241	◆ 277	▲ 218	◆ 260

▲ Higher average score than large city. ▼ Lower average score than large city. ◆ No significant difference between district and large city.

NOTE: Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts. 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), 2013 Mathematics and Reading Assessments.



Find achievement-level results for the districts, large cities, and the nation at **http://nationsreportcard.gov/reading_math_tuda_2013/**.

Are urban districts making progress?

Students in eight districts scored higher in 2013 than in 2011 in at least one subject and grade combination (figure 3). Students in Los Angeles scored higher in three of four subject and grade combinations, while students in the District of Columbia scored higher at all four subject and grade combinations.

FIGURE 3. **Change between 2011 and 2013 NAEP mathematics and reading average scores for fourth- and eighth-grade public school students, by jurisdiction**

	Mathematics		Reading	
Jurisdiction	**Grade 4**	**Grade 8**	**Grade 4**	**Grade 8**
Nation (public)	↑ 1	↑ 1	◆ 1	↑ 2
Large city	↑ 2	◆ 2	◆ 2	↑ 3
Albuquerque	◆ –1	◆ –1	◆ –2	◆ 2
Atlanta	↑ 5	◆ 1	◆ 3	◆ 2
Austin	◆ #	◆ –2	◆ –3	◆ #
Baltimore City	◆ –3	◆ –2	◆ 4	↑ 6
Boston	◆ #	◆ 2	◆ –3	◆ 2
Charlotte	◆ #	↑ 4	◆ 2	◆ 2
Chicago	↑ 7	◆ –1	◆ 3	◆ 1
Cleveland	◆ #	◆ –3	◆ –3	◆ –1
Dallas	◆ 1	◆ #	◆ 1	↑ 4
Detroit	◆ 1	↓ –6	◆ –1	◆ 3
District of Columbia (DCPS)	↑ 7	↑ 5	↑ 5	↑ 8
Fresno	◆ 2	↑ 4	◆ 2	↑ 7
Hillsborough County (FL)	◆ –1	◆ 2	◆ –3	◆ 3
Houston	◆ –1	◆ 1	↓ –5	◆ #
Jefferson County (KY)	◆ –2	◆ –1	◆ –2	◆ 1
Los Angeles	↑ 5	◆ 4	↑ 4	↑ 4
Miami-Dade	◆ 2	◆ 2	◆ 2	◆ –1
Milwaukee	◆ 2	◆ 3	◆ 3	◆ 3
New York City	◆ 1	◆ 2	◆ #	◆ 2
Philadelphia	◆ –2	◆ 2	◆ 1	◆ 2
San Diego	◆ 2	◆ –2	◆ 2	◆ 4

↑ Higher average score in 2013. ↓ Lower average score in 2013. ◆ No significant difference in 2013.

Rounds to zero.

NOTE: Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts. Score-point changes are calculated using unrounded average scores. A score-point change preceded by a minus sign (-) indicates that the score was numerically lower in 2013. DCPS = District of Columbia Public Schools.

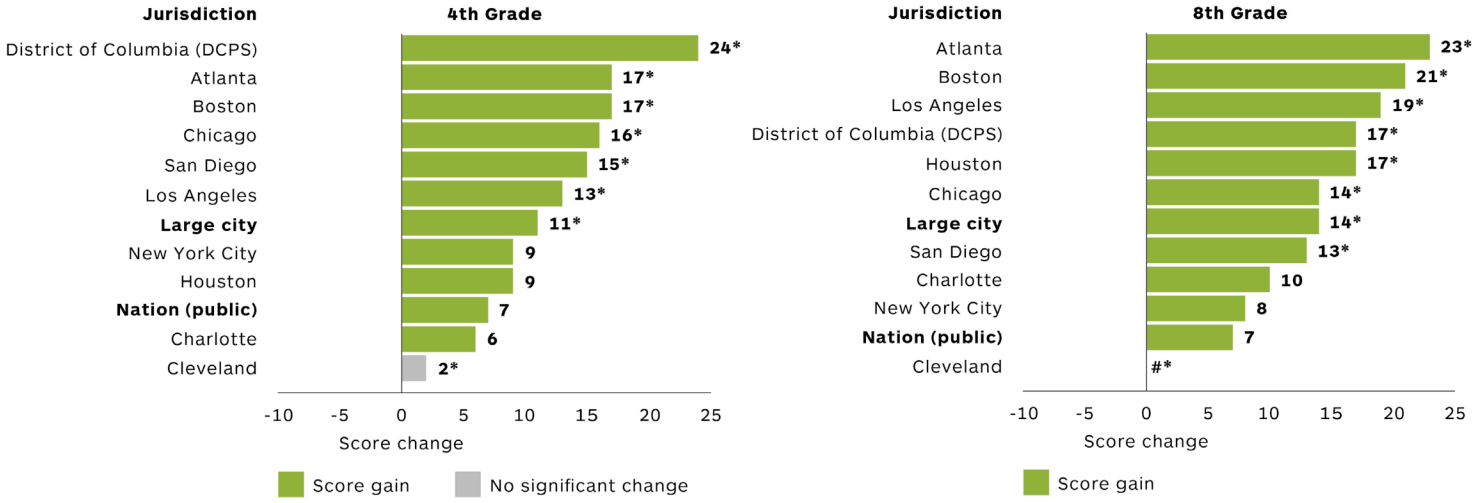
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics and Reading Assessments.



More comparisons of district scores to the nation, to home states, and to previous assessment years are available at **http://nces.ed.gov/nationsreportcard/naepdata/**.

Compared to the nation, score gains from 2003 to 2013 in mathematics were greater in six districts at grade 4 and in seven districts at grade 8 (figure 4). Five districts had greater reading score gains than the nation from 2003 to 2013 at grade 4, while three districts did so at grade 8 (figure 5).

FIGURE 4. **Change in NAEP mathematics average scores between 2003 and 2013 for fourth- and eighth-grade public school students, by jurisdiction**



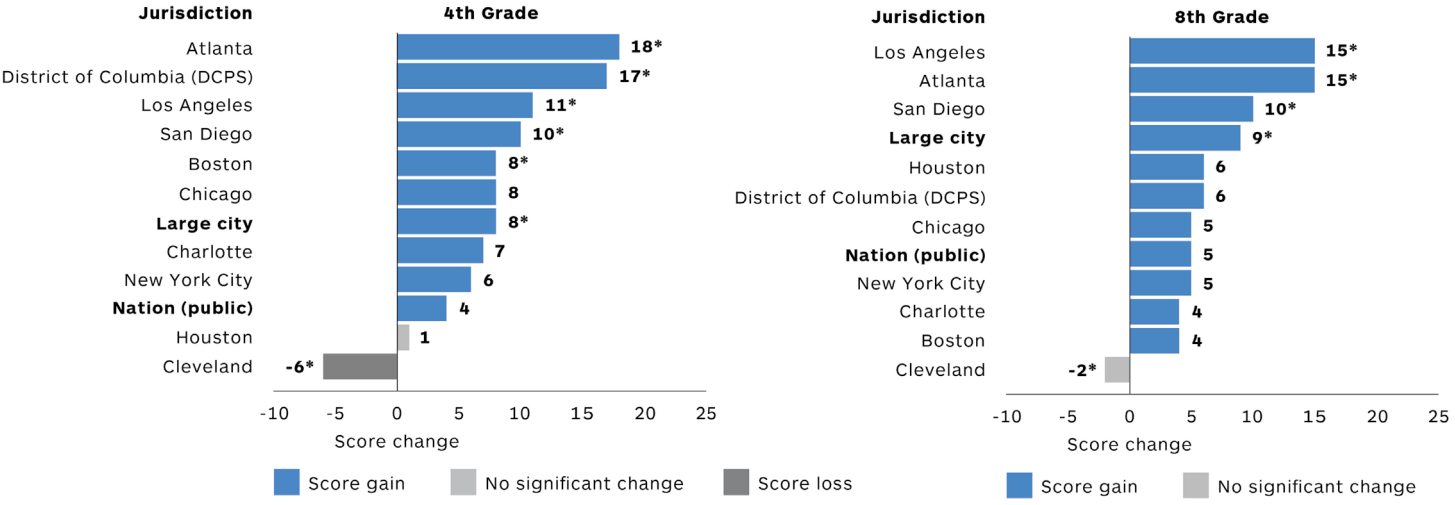
Rounds to zero.

* Significantly different ($p < .05$) from nation (public).

NOTE: Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts. Results are not shown for those jurisdictions that did not participate or did not meet the minimum participation guidelines for reporting. Score-point changes are calculated using unrounded average scores. 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), 2003 and 2013 Mathematics Assessments.

FIGURE 5. **Change in NAEP reading average scores between 2003 and 2013 for fourth- and eighth-grade public school students, by jurisdiction**



* Significantly different ($p < .05$) from nation (public).

NOTE: Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts. Results are not shown for those jurisdictions that did not participate or did not meet the minimum participation guidelines for reporting. Score-point changes are calculated using unrounded average scores. A score-point change preceded by a minus sign (-) indicates that the score was numerically lower in 2013. 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), 2003 and 2013 Reading Assessments.

Which student groups are making progress in urban districts?

In Los Angeles, White, Black, and Hispanic students all made gains from 2011 to 2013 in mathematics at grade 4 (table 1). In the District of Columbia, White, Black, and Hispanic students had score increases from 2011 to 2013 in reading at grade 8 (table 2). Average scores for students eligible for the National School Lunch Program increased from 2011 to 2013 in at least one subject and grade combination in eight districts (Atlanta, Baltimore City, Charlotte, Chicago, Dallas, the District of Columbia, Fresno, and Los Angeles). There was only one district (Detroit) where the average score for eligible students decreased in 2013 from 2011, and that was in mathematics at grade 8.

TABLE 1. **Change in NAEP mathematics average scores between 2011 and 2013 for fourth- and eighth-grade public school students, by selected student groups**

4th Grade

	White	Black	Hispanic	Eligible for free/ reduced-price school lunch
Increase	Chicago Los Angeles	Atlanta District of Columbia (DCPS) Los Angeles	Chicago Los Angeles	Atlanta Chicago District of Columbia (DCPS) Los Angeles
Decrease			Jefferson County (KY)	

8th Grade

	White	Black	Hispanic	Eligible for free/ reduced-price school lunch
Increase				Charlotte District of Columbia (DCPS) Fresno
Decrease	Cleveland	Detroit	Detroit	Detroit

NOTE: Results are not shown for jurisdictions with insufficient sample sizes or with 2011 scores that were not significantly different from 2013. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin. In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP. 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), 2011 and 2013 Mathematics Assessments.

TABLE 2. **Change in NAEP reading average scores between 2011 and 2013 for fourth- and eighth-grade public school students, by selected student groups**

4th Grade

	White	Black	Hispanic	Eligible for free/ reduced-price school lunch
Increase				Los Angeles
Decrease				

8th Grade

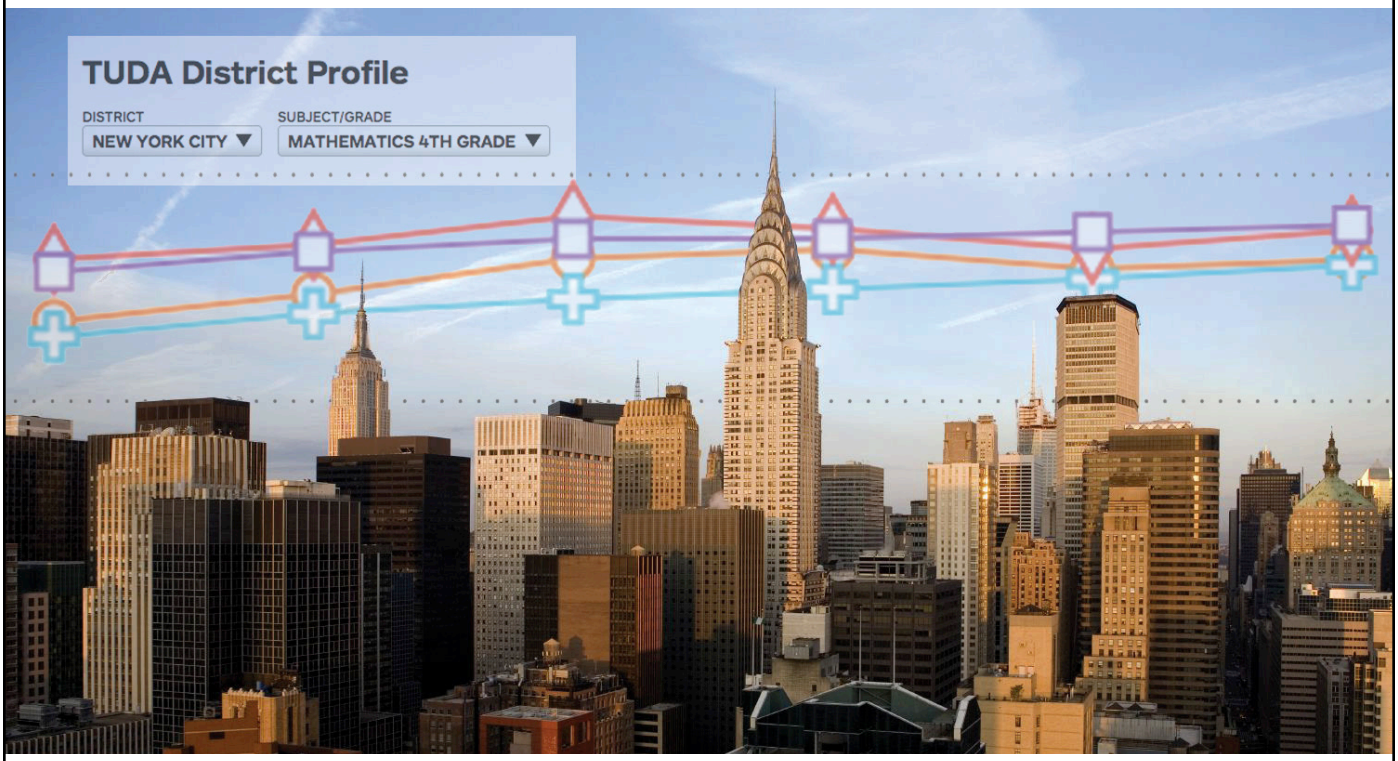
	White	Black	Hispanic	Eligible for free/ reduced-price school lunch
Increase	District of Columbia (DCPS)	Baltimore City District of Columbia (DCPS)	Dallas District of Columbia (DCPS) Fresno Milwaukee	Baltimore City Dallas District of Columbia (DCPS) Fresno Los Angeles
Decrease				

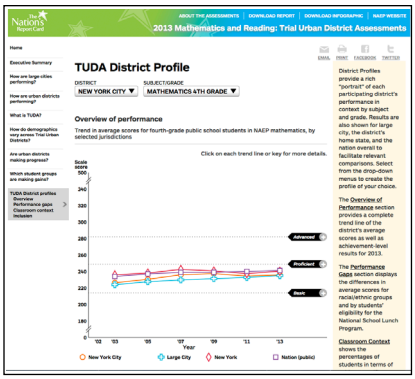
NOTE: Results are not shown for jurisdictions with insufficient sample sizes or with 2011 scores that were not significantly different from 2013. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin. In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP. 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), 2011 and 2013 Reading Assessments.

District Profiles

District Profiles provide an in-depth look at each participating district's performance in context by subject and grade. Results are also shown for large city, each district's home state, and the nation overall to facilitate relevant comparisons. Select from drop-down menus to create the profile of your choice.





The **Overview of Performance** section provides a complete trend line of the district's average scores and achievement-level results for 2013.

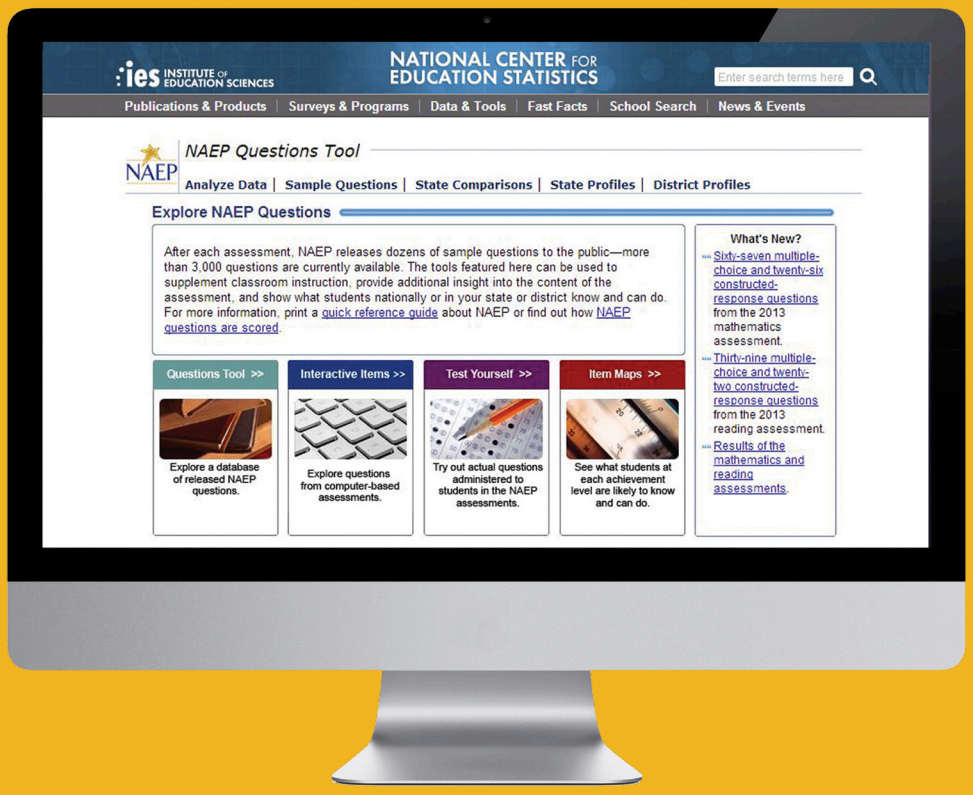
The **Performance Gaps** section displays the differences in average scores for racial/ethnic groups and by students' eligibility for the National School Lunch Program.

Classroom Context shows the percentages of students in terms of subject-specific variables: for example, instructional time spent on mathematics and emphasis on algebra in fourth-grade mathematics.

The **Inclusion** section provides a display of percentages of students with disabilities and English language learners who were identified, and those who were excluded in the 2013 assessments.

What other information is available online?

Urban district results from the 2013 NAEP mathematics and reading assessments can be explored in more detail at **http://nationsreportcard.gov/reading_math_tuda_2013/**. The NAEP website features a number of applications designed to give users the ability to analyze NAEP data, explore assessment questions, and compare district results at **http://nces.ed.gov/nationsreportcard/about/naeptools.aspx**.



Use the NAEP Data Explorer to see additional results based on information collected from school, teacher, and student questionnaires and to create custom tables, graphics, and maps with results for the nation, states, and districts.

http://nces.ed.gov/nationsreportcard/naepdata/

Use the NAEP Questions Tool to view more than 3,000 questions released in nine subject areas along with actual student responses, scoring guides, and data on how students performed on each question.

http://nces.ed.gov/nationsreportcard/itmrlsx/

View District Profiles highlighting information on a district's student and school characteristics, and a summary of its performance on NAEP assessments.

http://nces.ed.gov/nationsreportcard/districts/

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