



8th Grade

Many districts' overall performance similar to large central cities' performance; some do better

Students in more than one-half of the districts scored at least as well, on average, as public school students in large central cities. However, all districts scored below the average score for the nation. In most cases, White, Black, and Hispanic students across the districts performed as well as, or better than, their peers in large central cities. Gaps between each district's overall average score and the national average ranged from 3 to 30 points. When only students from low-income families were compared, the score gaps between the districts and the nation ranged from 4 to 19 points.

Performance comparable to large central cities, but below nation

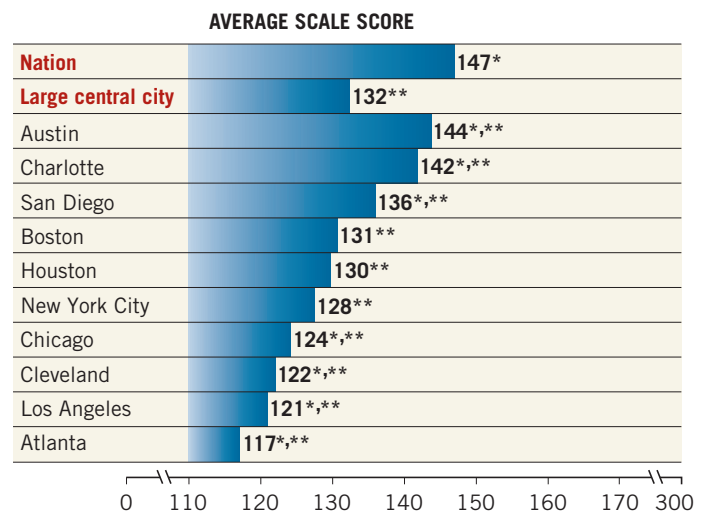
Eighth-grade students in 6 of the 10 participating districts scored at least as well, on average, as public school students in large central cities. Students in three of those districts—Austin, Charlotte, and San Diego—scored higher (figure 7). However, the average scores in all districts were below the average for public school students nationwide.

All districts had students performing at the *Proficient* achievement level and some students in the *Advanced* achievement level (figure 8). The pattern for achievement levels is similar to the average score results: the same three districts with higher average scores had higher percentages of students at or above *Basic* than in large central cities.

When compared to public schools nationally, all the participating districts had lower percentages of students performing at or above *Basic*. Only Austin did not have lower percentages at or above *Proficient*. The percentages of students at or above *Basic* in five districts, however, were about the same as or higher than the percentage in large central cities.

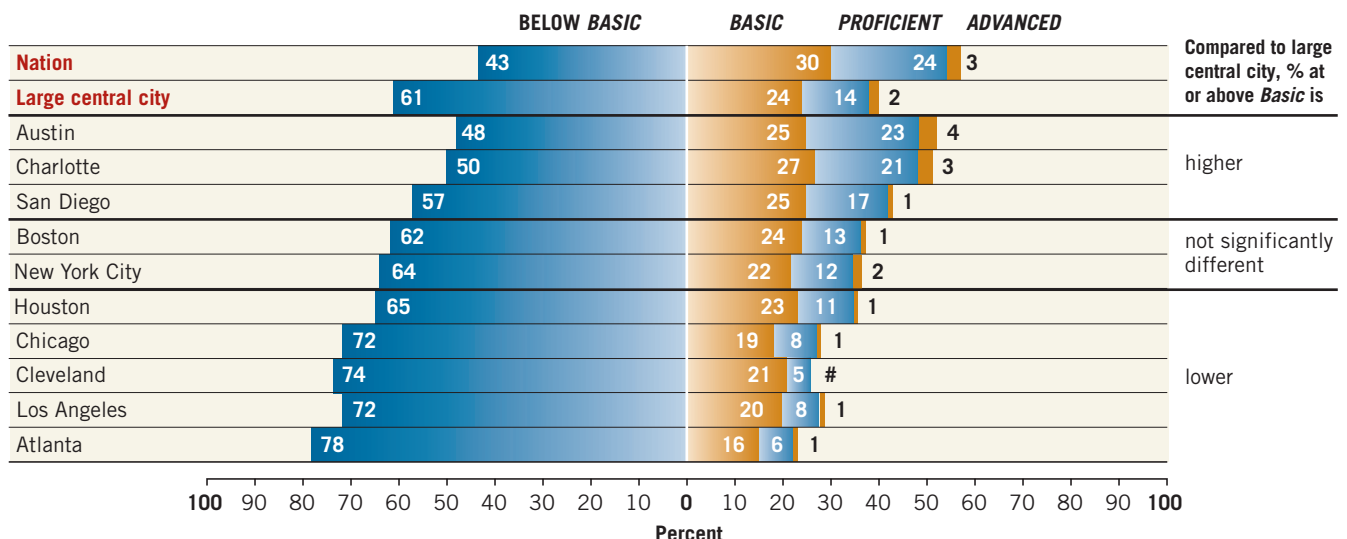


Figure 7. Average eighth-grade NAEP science scores in 2005, by jurisdiction



* Significantly different ($p < .05$) from large central city public schools.
 ** Significantly different ($p < .05$) from nation (public schools).

Figure 8. Percentage of eighth-grade public school students, by NAEP science achievement level and jurisdiction in 2005



The estimate rounds to zero.

NOTE: The shaded bars are graphed using unrounded numbers. Percentages may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2005 Trial Urban District Science Assessment.

For low-income students, fewer performance differences among districts

Figure 9 shows comparisons among districts based on all students. As in grade 4, Austin and Charlotte were in the top tier at grade 8, while eighth-graders in Atlanta were in the bottom tier.

The participating districts typically have greater percentages of low-income students than public schools nationally. (See the demographic profiles in table 2 on page 25.) NAEP uses students' eligibility for free or reduced-price school lunch as an indicator of socioeconomic status. Eligible students (see definitional note on page 6) are typically from low-income families and have average scores that are significantly below those of students from higher-income families.

The highest-scoring districts when all students are considered have some of the smallest percentages of low-income students. The lowest-performing districts, however, have some of the largest percentages. This contrast helps in understanding why the overall average scores for most districts are below that of the nation.

Figure 10 shows the cross-district comparisons for only low-income students. Here, similar to the pattern in grade 4, the ranking among districts differs from that for all students. For example, Boston, New York City, and Houston move up in the rankings, and fewer differences are seen in performance across districts.

Read across each district's row to determine whether the average score of that district was higher than, not significantly different from, or lower than the jurisdiction in the column heading. The direction of the arrow indicates whether the jurisdiction in the row is higher than (up arrow), lower than (down arrow), or not significantly different from (no arrow) the district in the column heading.

Figure 9.
Cross-district comparisons of average eighth-grade NAEP science scores for all public school students in 2005

DISTRICT (Average score)	Nation	Large central city	Austin	Charlotte	San Diego	Boston	Houston	New York City	Chicago	Cleveland	Los Angeles	Atlanta
Austin (144)	↓	↑			↑	↑	↑	↑	↑	↑	↑	↑
Charlotte (142)	↓	↑			↑	↑	↑	↑	↑	↑	↑	↑
San Diego (136)	↓	↑	↓	↓		↑	↑	↑	↑	↑	↑	↑
Boston (131)	↓		↓	↓	↓				↑	↑	↑	↑
Houston (130)	↓		↓	↓	↓				↑	↑	↑	↑
New York City (128)	↓		↓	↓	↓				↑	↑	↑	↑
Chicago (124)	↓	↓	↓	↓	↓	↓	↓					↑
Cleveland (122)	↓	↓	↓	↓	↓	↓	↓					↑
Los Angeles (121)	↓	↓	↓	↓	↓	↓	↓					↑
Atlanta (117)	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	






-   District had higher average scale score than the district listed at the top of the column.
-  No statistically significant difference detected from the district listed at the top of the column.
-   District had lower average scale score than the district listed at the top of the column.

Figure 10.
Cross-district comparisons of average eighth-grade NAEP science scores for low-income public school students in 2005

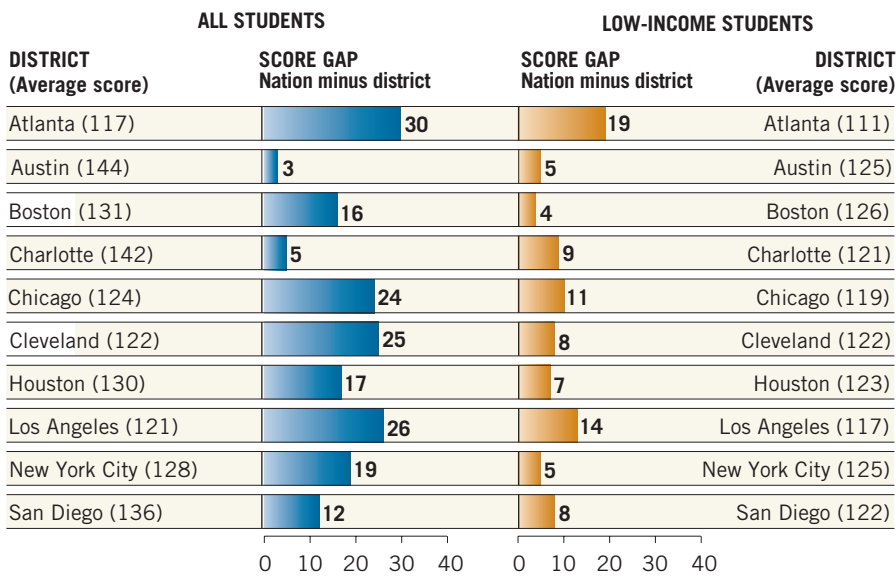
DISTRICT (Average score)	Nation	Large central city	Boston	Austin	New York City	Houston	Cleveland	San Diego	Charlotte	Chicago	Los Angeles	Atlanta
Boston (126)	↓	↑							↑	↑	↑	↑
Austin (125)	↓								↑	↑	↑	↑
New York City (125)	↓								↑	↑	↑	↑
Houston (123)	↓									↑	↑	↑
Cleveland (122)	↓									↑	↑	↑
San Diego (122)	↓											↑
Charlotte (121)	↓		↓									↑
Chicago (119)	↓		↓	↓	↓							↑
Los Angeles (117)	↓	↓	↓	↓	↓	↓	↓					↑
Atlanta (111)	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	

NOTE: The average score for all students in the nation was 147 and was 130 for low-income students. The average score for all students in large central cities was 132 and was 122 for low-income students. In NAEP, low-income students are students identified as eligible for free or reduced-price lunch.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2005 Trial Urban District Science Assessment.

Nation – district gaps narrower when comparing low-income students

Figure 11.

NAEP eighth-grade public school science score gaps between nation and districts for all students and for low-income students in 2005, by urban district



NOTE: The average score for all students in the nation was 147 and was 130 for low-income students. In NAEP, low-income students are students identified as eligible for free or reduced-price school lunch. Score gaps are calculated based on differences between unrounded average scores.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2005 Trial Urban District Science Assessment.

Gaps in average scores between the nation and the districts range from 3 to 30 points for all students (shown by the bars on the left side of figure 11). These gaps in overall scores may be related, in part, to the greater percentages of low-performing, low-income students in the districts. The right side of the figure shows that the gaps between low-income students in the nation and in each district range from 4 to 19 points.

Using Cleveland (which identifies all of its students as low-income) as an example, the district's average score was 25 points lower than the national average. Cleveland's average score for low-income students, however, was 8 points lower than the average for low-income students nationally.



District percentile rankings vary by demographic groups

Percentile ranks provide a comparative view of student performance at higher, middle, and lower levels on the NAEP science scale. Figure 12 displays the national percentile ranking of TUDA districts and their subgroups, as well as that of the comparable groups in the nation and in large central cities. For example, the average score for

Hispanic students in Cleveland was at the 30th percentile. This means that they performed as well as or better than 30 percent of all students nationwide, including their Hispanic counterparts in large central cities whose average score was at the 24th percentile.

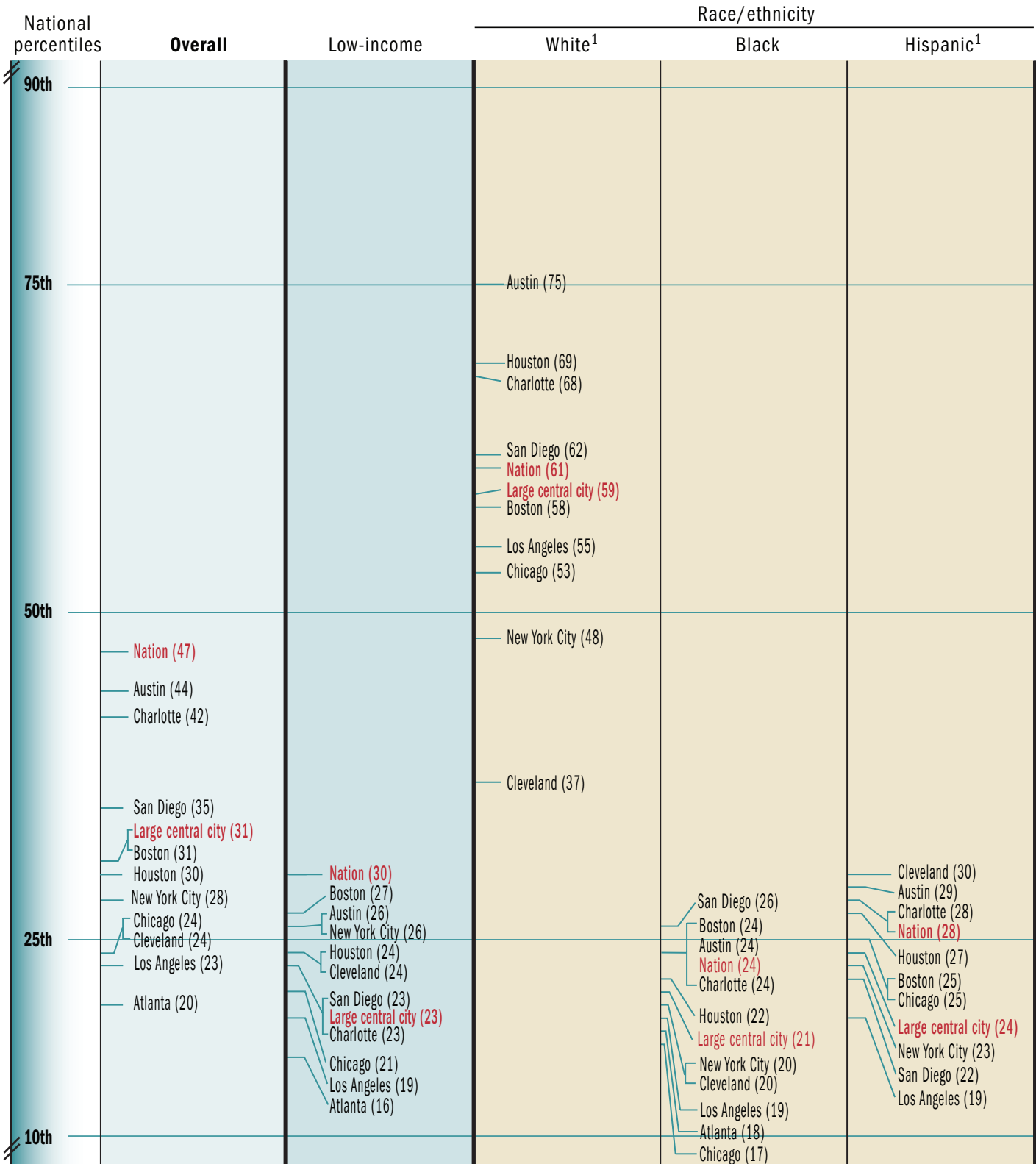


A Note on Percentiles

The table on the next page shows groups of students within each participating urban district ranked against the NAEP national public school percentiles. The average score for the group was used to determine its percentile rank compared with public schools nationally. A percentile indicates the percentage of students whose scores fell at or below a particular score. The 10th and 25th percentiles represent lower-scoring students, the 50th percentile represents middle-scoring students, and the 75th and 90th percentiles represent higher-scoring students.

Figure 12.

National percentile rankings for districts based on average scores in NAEP eighth-grade science, by low-income status and race/ethnicity: 2005



¹ Sample sizes are insufficient to permit reliable estimates for White and Hispanic students in Atlanta.

NOTE: Groups not shown are included in overall. In NAEP, low-income students are students identified as eligible for free or reduced-price school lunch. Race categories exclude Hispanic origin. The 50th percentile represents the middle score in the distribution of scores for public school students nationally. The average score for these students, however, fell below that point at the 47th percentile because there was a greater concentration of scores toward the lower end of the scale compared to the higher end.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2005 Trial Urban District Science Assessment.