



Report on 2013
Trial Urban District Assessment (TUDA)
National Assessment of Educational
Progress (NAEP)

Grades 4 and 8 Reading and Mathematics

Office of Data and Accountability
December 2013

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EXECUTIVE SUMMARY

The Trial Urban District Assessment (TUDA) was started in 2002 as part of the National Assessment of Educational Progress (NAEP). In 2013, Boston Public Schools was one of twenty-one urban districts that voluntarily participated in the NAEP assessment. Boston participated in the grades 4 and 8 reading and mathematics assessments in 2003, 2005, 2007, 2009, 2011 and 2013; in the Science assessments in 2005, 2009 and 2011 (Grade 8 only); and in Writing in 2007. 2013 marked the 10th year that Boston voluntarily participated in the TUDA program.

This report examines the 2013 Reading and Mathematics results of the TUDA districts and compares their performance to each other, to public schools across the nation, and to public schools across Large Cities (LC).

Reading

Boston's Scale Score Change Between 2003 and 2013:

- Over this ten-year period, Boston's 4th graders made a significant 8-point scale score gain, equal to the Large City average and exceeding the Nation by 4 points.
- Boston's 8th graders also experienced a 4-point gain during this 10 year period.

Boston's Performance over Time:

- Boston's average scores in both grades 4 and 8 have continued to increase or hold steady each year since the district first participated in NAEP/TUDA in 2003.
- Boston's 4th grade reading average score in 2013 was comparable to that of Large Cities, but it was significantly lower than the national average. Boston's 2013 average was also significantly higher than the first three previous administrations from 2003 to 2007.
- In grade 8, Boston's average score in 2013 was about the same as Large City, but it was significantly lower than the Nation's average. Although Boston's 2013 score was significantly different from the first two previous administrations (2003 and 2005), students across the nation and in Large Cities significantly increased their scores at each of the previous five administrations since 2003.

Boston's Performance Compared to other TUDA Districts, Large Cities, and the Nation:

- In grade 4, Boston's average score was significantly lower than the Nation by 7 points; however, the district's performance was comparable to that of Large Cities across the country (with a population over 250,000). The average score for Boston's 8th graders was the same as that of Large Cities and was significantly lower than the national average by 9 points.
- Of the 21 participating TUDA districts, Boston was one of eight to have a score significantly higher than, or equal to, that of Large Cities in both the grade 4 and grade 8 reading assessments.

- Compared to other TUDA districts, Boston's average scores in both grades 4 and 8 were higher than or equal to those of 15 other districts. Only four districts (Austin, Charlotte, Hillsborough, and Jefferson) scored higher than Boston in both test grades.

Performance by Racial/Ethnic Group:

- The gains made by Boston's 8th grade students between 2003 and 2013 are not statistically significant for any ethnic group. In 4th grade, White students saw a 12-point gain; Asian students saw an 11-point gain; and Hispanic students experienced a 9-point gain; scores for African American students remain statistically unchanged.
- In Boston, the gaps in performance between Asian/White students and Black/Hispanic students persist in both 4th and 8th grade.
- However, Boston's Black students performed as well as their peers across the nation and in Large Cities in both test grades. Overall, only Charlotte and Hillsborough's Black students significantly outperformed Boston's Black students in grade 4; in 8th grade, only Charlotte had a significantly higher average score than Boston's.
- Boston's Hispanic students in 4th grade had a significantly higher average than that of Large Cities, and statistically equal to the national average. In grade 8, Boston's Hispanic students performed significantly better than their peers across the Nation and their average was not significantly different from Large City. Compared to other TUDA districts, Boston's Hispanic 4th and 8th graders performed as well as or significantly better than all other districts, with three exceptions in each grade (in grade 4 Miami-Dade, Hillsborough, and Jefferson had higher averages; in grade 8 Miami-Dade, Hillsborough, and Charlotte had higher averages).

Low-Income Students:

- In grade 4, low-income students in Boston scored significantly higher than the Nation (by 3 points) and Large Cities (by 7 points). Boston's average was also the fifth highest among TUDA districts, and significantly lower than only 2 jurisdictions (Miami-Dade and Hillsborough County).
- Among 8th graders, the performance of Boston's low-income students was significantly higher than the national average and comparable to the Large City average. Compared to other TUDA districts, only one had a significantly higher average score (Hillsborough County).

Students with Disabilities:

- Students with disabilities (SD) in Boston outperformed their peers in Large Cities in grade 4 and had an average score that was comparable to the national average; in grade 8, they performed as well as their peers in Large Cities but scored significantly lower than their peers nationally by 6 points. Compared to other TUDA districts, only 1 had a higher average score in both grades (Hillsborough County), while Baltimore also had a higher average score than Boston's in grade 8.

English Language Learners:

- Boston's English Language Learners (ELLs) in 4th grade scored higher than the national average and higher than their peers in Large Cities; none of the TUDA districts scored significantly higher than Boston.
- ELL students in 8th grade performed as well as their peers across the Nation and in Large Cities. Boston's ELL average was lower than that of 8 TUDA districts, but only scores from 4 districts were significantly better (Detroit, Milwaukee, Dallas, and Hillsborough).

Performance by Achievement Level:

- In 2013, 61% of Boston's 4th grade students scored at the basic level or above on the reading assessment. Only five TUDA districts had a higher percentage. Boston's performance was comparable to Large Cities (57%) but lower than the Nation (67%).
- In grade 8, the percentage of students in Boston who performed at or above Basic was 66%, statistically surpassing or equaling the rates of 16 TUDA districts and Large Cities (68%). However, Boston's rate was lower than that of four districts and the Nation (77%).
- In both grades, Boston made significant improvements in the percentage of students performing at or above Proficient since 2003, with a 10-point increase in grade 4 and 6-point gain in grade 8, compared to a 7-point gain for Large Cities in each grade.

Performance by Percentile Rank:

- Boston's 4th graders saw a significant and steady improvement since 2003 and 2005 across all but the lowest quintile. For 8th graders, there have also been significant gains for students at the 50th and 75th quintiles since 2003 and 2005.

Performance of General Education Students (Neither SD Nor ELL):

- The proportion of Boston's students who were neither SD nor ELL (i.e. general education students) in the grade 8 reading test was 65%; this is the lowest percentage of any jurisdiction, significantly lower than the national proportion at 85% and, the Large City rate at 80%.
- Analyzing the NAEP reading scores of these general education students revealed that at the 8th grade, Boston had the highest score, tied with Austin and Charlotte. This average is significantly higher than that of Large Cities, and statistically equal to the national average.

Mathematics

Boston's Scale Score Change Between 2003 and 2013:

- Between 2003 and 2013, Boston's 4th graders experienced the second largest gain of any jurisdiction with a 17-point increase in average score; the Large City gain was 11-points, and the national average was up 7 points.
- **The gain made by Boston's 8th graders since 2003 is even more impressive, totaling 21 points, surpassing the 14-point gain experienced by Large Cities, and the 7-point gain nationally. This has resulted in closing the gap with the Nation.**

Boston's Performance over Time:

- Boston's average scores in both grades 4 and 8 have continued to increase or remain constant each year since the district first participated in NAEP/TUDA in 2003.
- In 2003, Boston's 4th grade performance compared to Large Cities was significantly lower: that trend was reversed in 2005 and Boston continues to outperform Large Cities. Over the past 10 years, the performance gap with Nation is also substantially smaller (4 points), though it was statically significant.
- Boston's 8th grade students also experienced significant gains since 2003. **In 2013, Boston's 8th graders had an average score significantly higher than the Large City average by 7 points, and not significantly different from the national average.**

Boston's Performance Compared to other TUDA Districts, Large Cities, and the Nation:

- Of the 21 participating TUDA districts, Boston was one of only five to score significantly higher than Large Cities in grade 8.
- Compared to other TUDA districts, Boston's average score in grade 4 was higher than or equal to those of 17 other districts. In grade 8, only one district (Charlotte) scored significantly higher than Boston.

Performance by Racial/Ethnic Group:

- From 2003 to 2013, students in all racial groups made statistically significant gains in their average scores on the 4th grade test. Black students saw a 12-point gain while Asian, Hispanic, and White students experienced 16, 17, and 21-point gains respectively.
- The gains made by Boston's 8th grade students between 2003 and 2013 were also statistically significant across all ethnic groups: improvements ranged from 18 points for Asian students, to 23 points for Hispanic students.
- Despite consistent performance gains for students of all ethnic backgrounds, the gaps in performance between Boston's Asian/White students and Black/Hispanic students persist in both 4th and 8th grade.

- However, in both grades 4 and 8, Boston's Black students significantly outperformed their peers across the Nation and in Large Cities. Importantly, **Boston's Black students had the highest scale scores of all TUDA districts in 8th grade (tied with Charlotte and Houston).**
- **Boston's Hispanic students in 4th and 8th grade also had higher average scores than Hispanic students across the Nation and in Large Cities. Compared to other TUDA districts, Boston's Hispanic 4th and 8th graders performed as well as or significantly better than all other districts (only 4th graders in Charlotte, Miami-Dade, and Hillsborough County had higher scores).**

Low-Income Students:

- In grade 4, low-income students in Boston scored significantly higher than the Nation (by 3 points) and Large Cities (by 5 points). Boston's average was also the second highest (tied with Dallas and Austin) among TUDA districts, and not significantly different from the one district with the highest score (Charlotte).
- Among 8th graders, the performance of Boston's low-income students was the highest of all TUDA districts; higher than the Nation; and higher than the Large City average.

Students with Disabilities:

- In 4th grade, Boston's students with disabilities had an average score below the national average; however, these students were statistically equal to the highest performing TUDA districts and to the Large City average. While Boston's average score in grade 8 was not significantly different from the national average, it was significantly higher than that of Large Cities. In both 4th and 8th grade, students with disabilities in Boston also performed better than a majority of TUDA districts; none of the districts with higher averages were statistically significant.

English Language Learners:

- Boston's English Language Learners (ELLs) in both 4th and 8th grade scored significantly higher than their peers across the Nation and in Large Cities. None of the 18 TUDA districts with a sufficiently large ELL student sample had significantly higher averages than Boston's in grade 8, and only one district (Dallas) scored significantly better than Boston in grade 4.

Performance by Achievement Level:

- In 2013, 80% of Boston's 4th grade students scored at the basic level or above on the math assessment. Only three TUDA districts had a higher percentage. Boston's performance was also better than Large Cities (75%), and not statistically different from the Nation (82%).
- In grade 8, the percentage of students in Boston who performed at or above Basic was 70%, higher than Large Cities (65%) but 3 points lower than the Nation (73%).
- The percentage of Boston students scoring at or above Proficient in 2013 in grade 4 was comparable to that of Large Cities, and lower than just four districts. In

grade 8, Boston's Proficiency rate was higher than that of Large Cities and statistically equal to the largest TUDA district.

- In both grades Boston made significant improvements in the percentage of students performing at or above Proficient compared to the first three administrations (2003, 2005, and 2007). Boston also saw a significant improvement in grade 8 from 2009 to 2013, with a 5-point increase. Since 2003, the percentage of 4th graders who are proficient/advanced increased by 22 points, compared to 13 points for large cities; and the percentage proficient/advanced in 8th grade increased 19 points, compared to 11 points for Large Cities.

Performance by Percentile Rank:

- Boston's 4th and 8th graders have experienced significant gains since 2003 across all quintiles.

Performance of General Education Students (Neither SD nor ELL):

- The percentage of Boston students who took the 8th grade math test who were neither SD nor ELL was just 65%. This proportion of general education students is the smallest of any TUDA district, and also smaller than the Nation (84%) and Large Cities (80%).
- In addition to the high performance of Boston's students with disabilities and English Language Learners relative to other jurisdictions, the performance of Boston's general education students in grade 8 math was also impressive: their average score not only ranked the highest, but was significantly better than that of Large City, the Nation, and all other districts (Austin and Charlotte had statistically equal scores to Boston's).

OVERVIEW AND BACKGROUND

Developed in 1969, the National Assessment of Educational Progress (NAEP), also referred to as the Nation's Report Card, is the largest nationally representative assessment of what America's students know and can do. It provides a common yardstick for measuring the progress of students' education across the country. While each state has its own unique assessment, NAEP asks the same questions in every state, making state comparisons possible.

In 2001, following discussions between the National Center for Education Statistics (NCES), the National Assessment Governing Board (NAGB), and the Council of the Great City Schools (CGCS), Congress appropriated funds for district-level assessments on a trial basis, similar to the trial for state assessments that began in 1990. As a result, the NAGB passed a resolution approving the selection of urban districts for participation in the Trial Urban District Assessment (TUDA), a special project within NAEP that would make assessment results available at the district level. Representatives of the Council of Great City Schools worked with the staff of NAGB to identify districts to be invited for the trial assessment. Districts were selected based on a number of characteristics, including size, minority concentrations, federal program participation, socioeconomic conditions, and percentages of students with disabilities (SD) and English Language Learners (ELL).

In 2002, five urban school districts participated in NAEP's first Trial Urban District Assessment (TUDA) in reading and writing. In 2003, ten urban districts (including the original five) participated in the TUDA program in reading and mathematics in grades 4 and 8: Atlanta, Boston, Charlotte-Mecklenburg, Chicago, Cleveland, Houston, Los Angeles, New York City, San Diego, and Washington, D.C. (District of Columbia Public Schools-DCPS). In 2005, Austin was added to the group of school systems that participated in the reading, math and science testing. These eleven large urban school districts continued participating in TUDA in 2007. In 2009, seven more districts (Baltimore City, Detroit, Fresno Unified, Jefferson County (KY), Miami-Dade County, Milwaukee, and Philadelphia) joined the TUDA project. In 2011, twenty-one districts, with three new additions (Albuquerque, Dallas and Hillsborough County-FL), were invited by the NAGB to participate in mathematics and reading TUDA assessments at grades 4 and 8 and Science at grade 8. For 2013, these twenty-one TUDA districts continued participating in the mathematics and reading testing at grades 4 and 8. 2013 marks the 10th year that Boston voluntarily participated in the TUDA program.

It should be noted that since 2009, in addition to public-school students, the sampled charter schools were included in the NAEP TUDA results if they were also included in a district's Adequate Yearly Progress (AYP) reports. Additionally, the "Large Cities (LC)" designation refers to public schools located in urban areas with populations of 250,000 or more (as defined by NCES). Comparisons between national, district, and large city results are limited to public school students. In NAEP reports, the category "Nation (public)" does not include Department of Defense or Bureau of Indian Education schools. It should also be noted that among the TUDA districts, ten of the twenty-one consist entirely of schools in cities with a population of 250,000 or more; eleven of them however – Albuquerque, Atlanta, Austin, Charlotte, Cleveland, Dallas, Fresno, Hillsborough (FL), Houston, Jefferson County, Los Angeles and Miami-Dade — also include a number of fourth and eighth grade students enrolled in surrounding suburban or rural areas. Results

for these districts include data from all students, both urban and suburban/rural, a fact that must be kept in mind when comparing their performance to other districts, large cities, or the nation.

This report provides results for Boston's public school students in grades 4 and 8 from the National Assessment of Educational Progress (NAEP) assessment in Reading and in Mathematics. Results are reported by average scale score (reported on a 0-500 scale), and by achievement levels (Basic, Proficient, and Advanced).

An overview of the Reading and Math assessment frameworks is included in Appendix A. Appendix B provides in-depth comparisons of the NAEP and MCAS assessment designs, reporting, and formats. Appendix C presents sample questions from the 2013 fourth and eighth grade NAEP assessments.

2013 NAEP READING

READING: DEMOGRAPHIC CONTEXT

The charts below display the percentage of students who participated in the 2013 TUDA NAEP Reading test by their racial/ethnic identification, disability (SD), English Language Learner (ELL) status, and Low-Income status. The charts display not only Boston's participation rates, but also the Nation's and Large Cities', as well as the TUDA minimums and maximums.

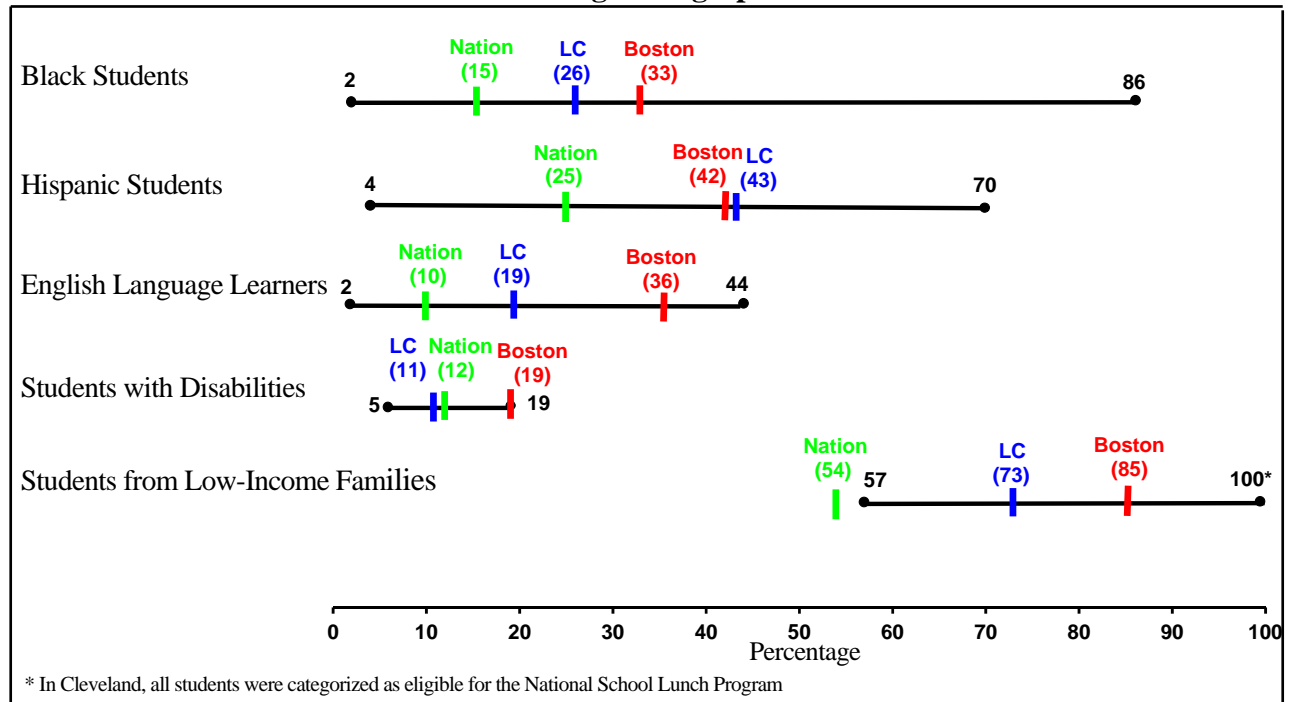
Boston's percentages of Black and Hispanic students in both grades 4 and 8 fall in the middle range of the other TUDA districts. However, 80% or more of students in Boston receive a free/reduced-price lunch, far larger than the national average (about 50%) and Large Cities (about 70%). **Compared to other TUDA districts, Boston also has very high participation rates for students with disabilities and English Language Learners; in particular, Boston has the highest participation rate for students with disabilities in grade 4 and English Language Learners in grade 8.** These differences are important to consider in comparing results across jurisdictions.

In addition, because results are based on samples rather than entire populations, examining statistical significance is essential in determining differences across groups.

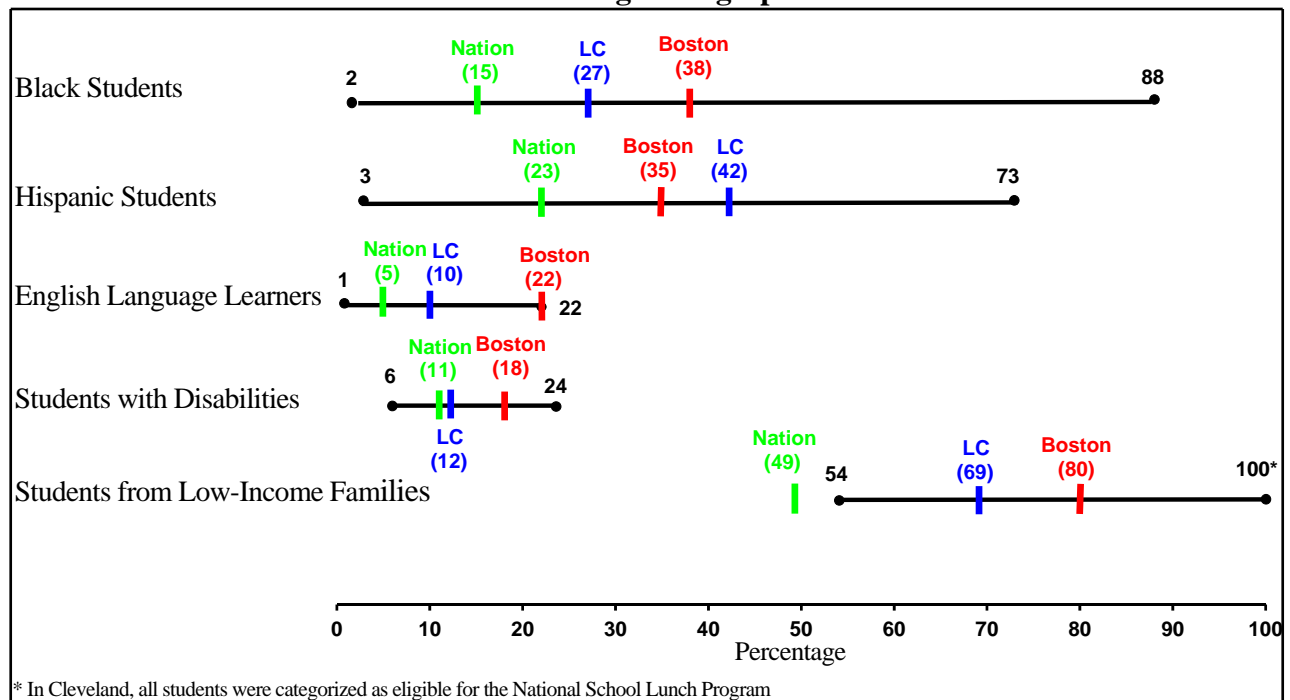
* Large Cities include students from all cities in the nation with populations of 250,000 or more including the participating districts.

Distribution of Selected Student Groups for TUDA Districts

Grade 4 Reading Demographic Characteristics:

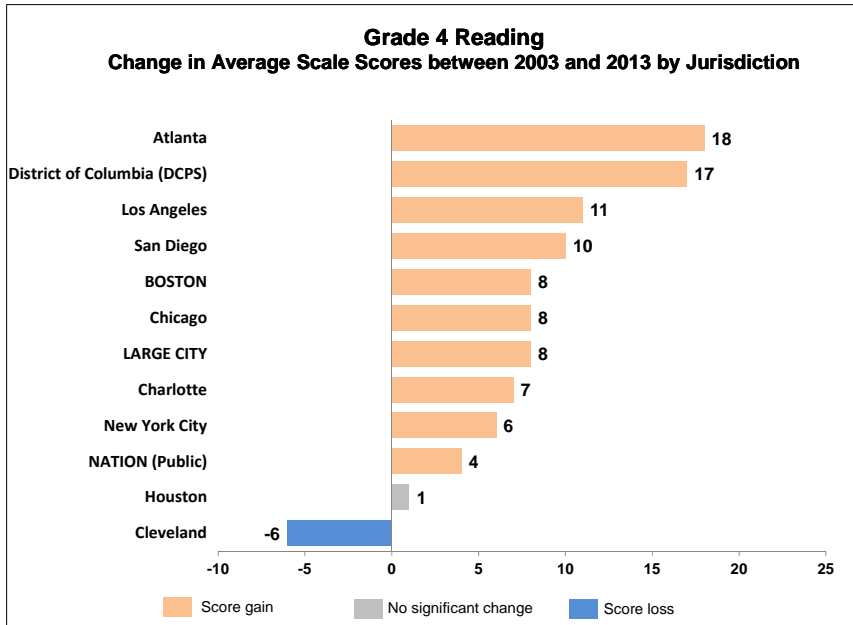


Grade 8 Reading Demographic Characteristics:



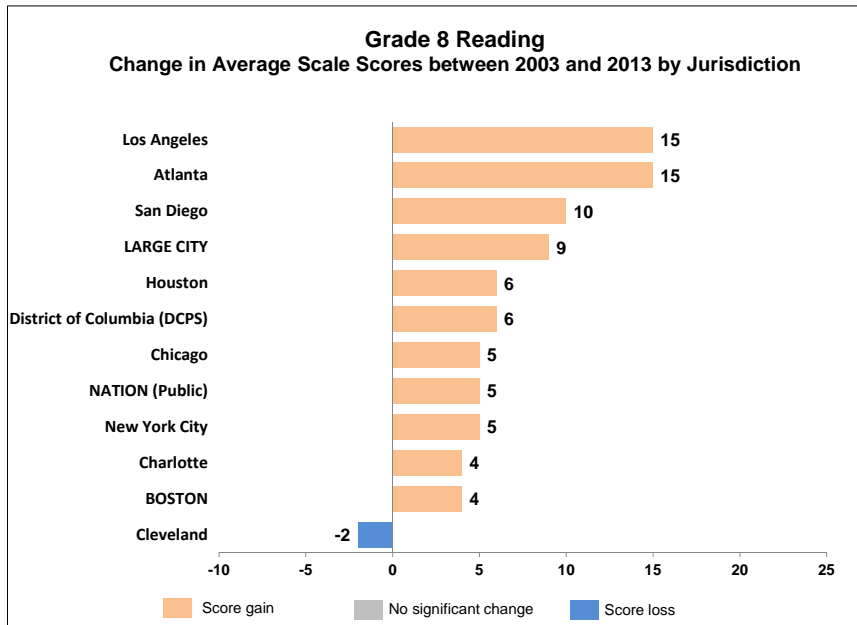
(1) Change in Reading Average Scores Between 2003 and 2013

Grade 4 Reading



- Of the 10 participating TUDA districts in 2003, Boston’s 4th graders saw a significant 8-point scale score gain between 2003 and 2013. Boston’s gain equaled that of Large Cities and surpassed the 4-point gain made by students nationwide.

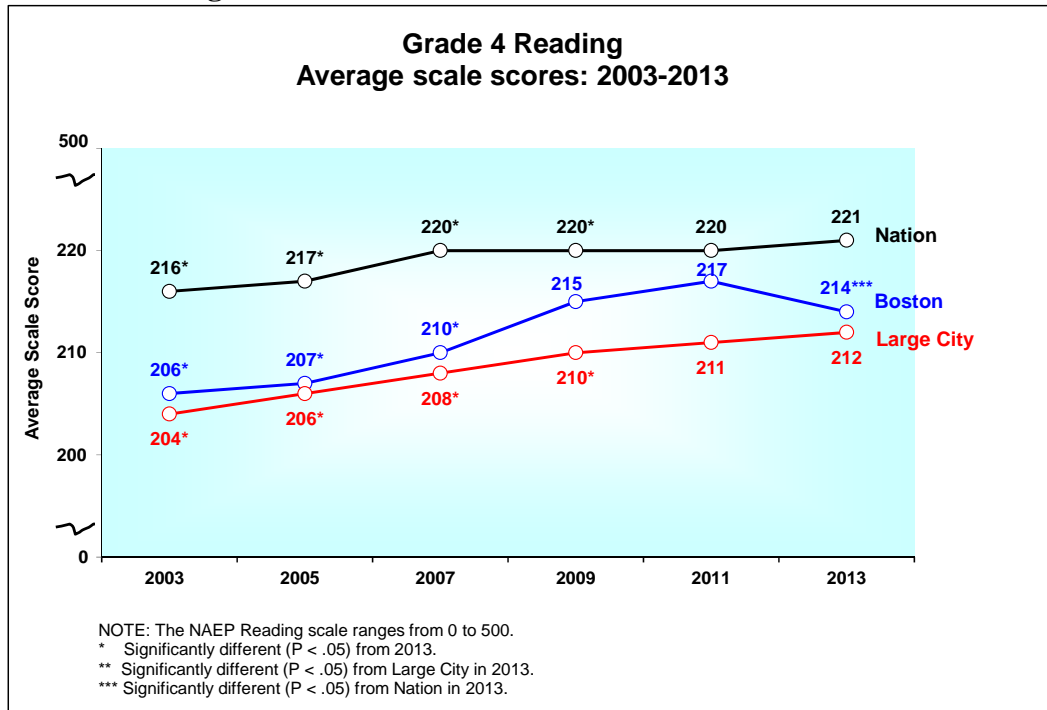
Grade 8 Reading



- Between 2003 and 2013, Boston’s 8th graders experienced a significant 4-point gain in reading, while the average for Large City and the Nation improved 9 and 5 points respectively.

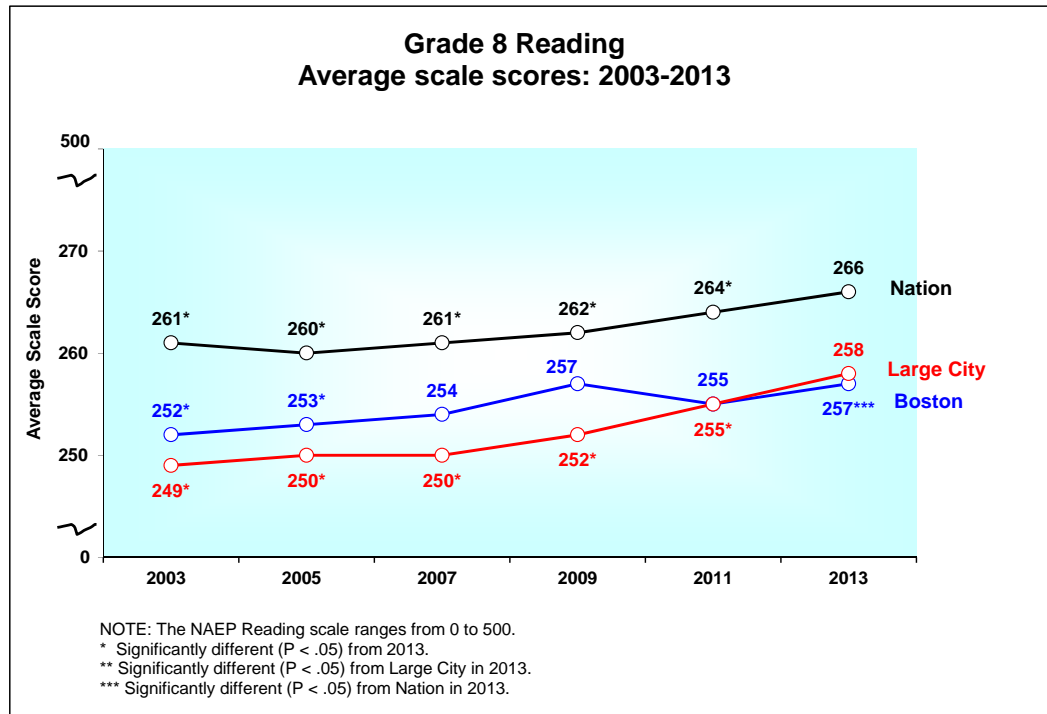
(2) Average Reading Scale Scores Over Time: 2003 - 2013

Grade 4 Reading



- Boston's 4th grade reading average score in 2013 was 3-points lower than in 2011, but the difference was not statistically significant. While the Boston's 2013 score (214) was about the same as that of Large City, it was significantly lower than the national average (221).
- The reading performance of Boston's 4th graders in 2013 was significantly higher than in the first three administrations of the NAEP, from 2003 to 2007. By contrast, both the Nation and Large City experienced significant increases in their scores in each of the four previous reading assessments, from 2003 to 2009.

Grade 8 Reading

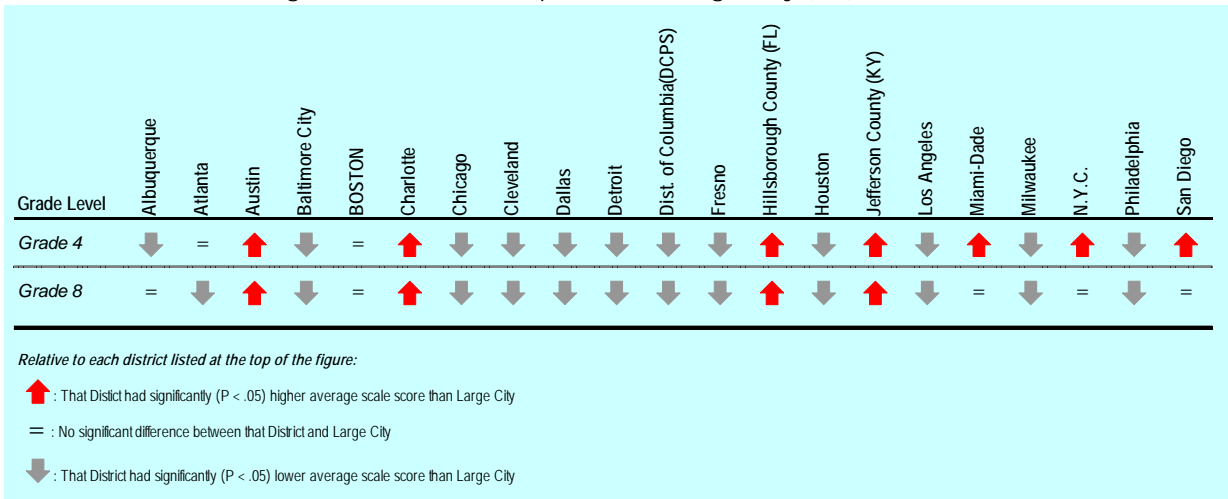


- In 2013, Boston's 8th grade students had an average score of 257, comparable to that of Large City; but significantly lower than the national average (by 9 points).
- Boston's 8th grade average score in 2013 was significantly higher than the first two previous administrations (2003 and 2005); by contrast, the national and Large City averages have increased significantly at each of the five previous administrations since 2003.

(3) 2013 Reading Scale Score Comparisons Across Jurisdictions

Large City vs. TUDA Districts

2013 Average Scale Score Comparisons - Large City (LC) vs TUDA Districts

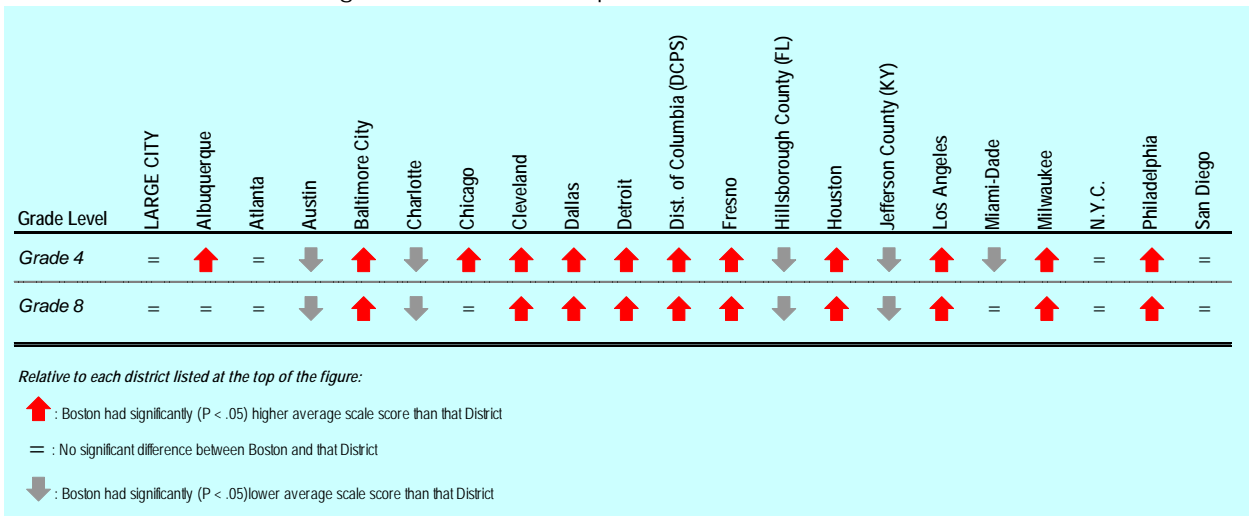


- Of the 21 participating TUDA districts, Boston was one of eight to have a score significantly higher than, or equal to, that of Large Cities in both the grade 4 and grade 8 reading assessments.

Boston's scale scores for all students as well as for student subgroups are provided in Appendix D. Scale scores for all TUDA districts are provided in appendix E.

Boston vs. TUDA Districts

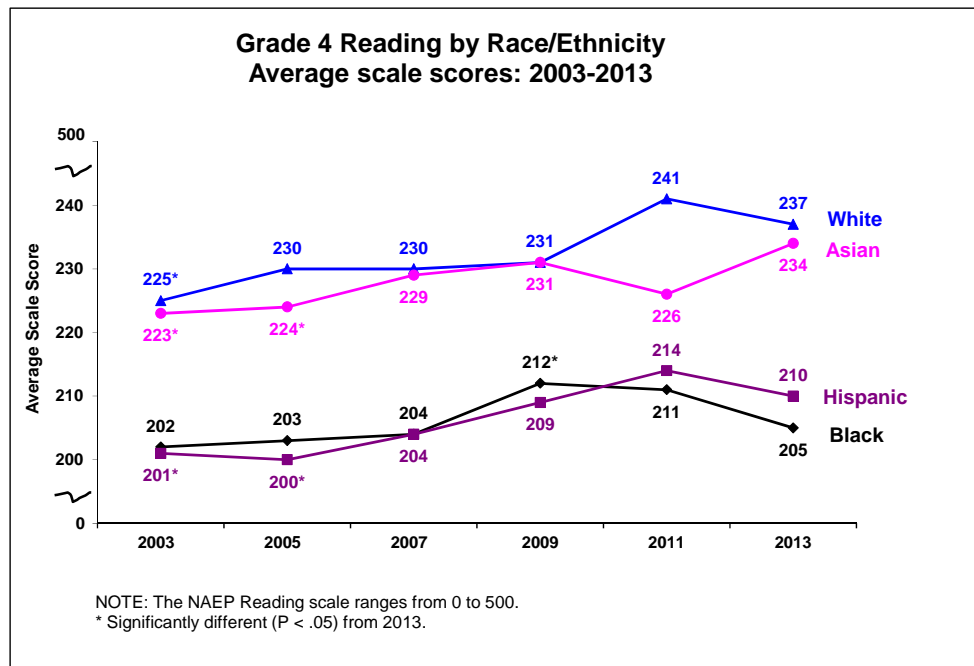
2013 Average Scale Score Comparisons - Boston vs TUDA Districts



- While Boston's performance is comparable to that of Large Cities, its score stands out in comparison to other TUDA districts: Boston scored higher than or equal to all but four districts (Austin, Charlotte, Hillsborough, and Jefferson) in **both** grades 4 and 8, and lower than Miami-Dade in grade 4.

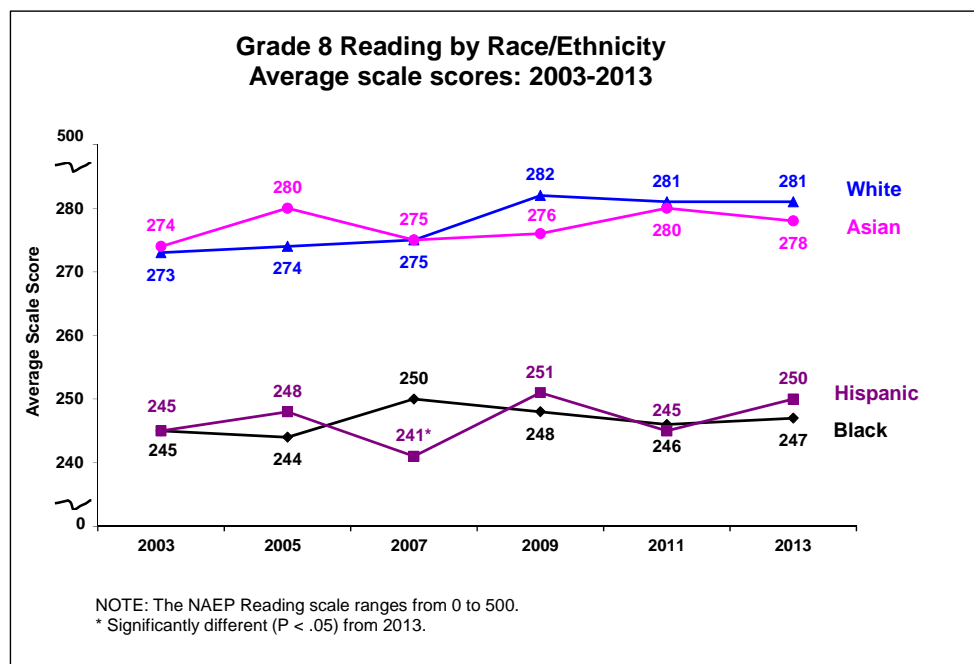
(4) Average Reading Scale Scores by Race/Ethnicity

Grade 4 Reading: 2003-2013



- Compared to 2011, the average scores for Asian students rose 8 points; White and Hispanic students saw a 4 point drop each, and Black students experienced a 6-point decline, although these changes were not statistically significant.
- From 2003 to 2013, White, Asian, and Hispanic students have experienced statistically significant gains, with 12, 11, and 9-point gains respectively. Black students have also seen a 3-point increase in that 10-year period, though the change was not statistically significant. In fact, the 2013 score for Black students is statistically lower than in 2009.

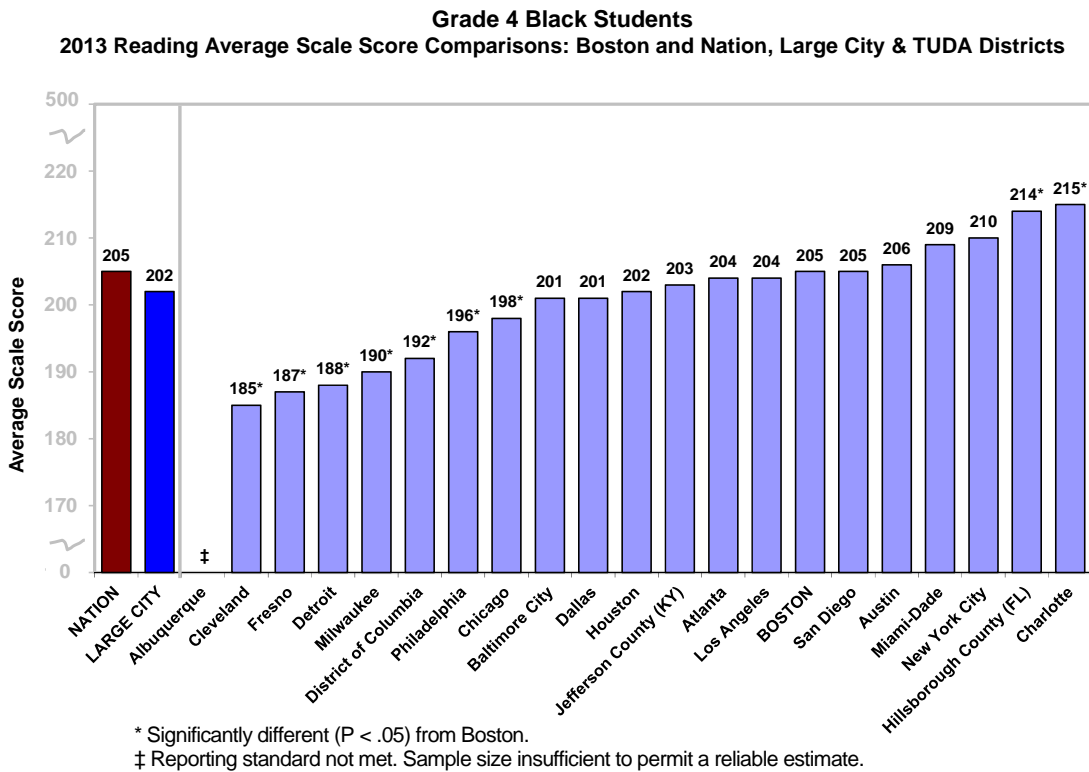
Grade 8 Reading: 2003-2013



- Reading scores for Boston's 8th grade students between 2011 and 2013 remained constant or increased for all ethnic groups except for Asian students, who saw a 2-point decrease. Though not statistically significant, the score for Black students improved 1 point and Hispanic students' score increased 5 points. Since 2003, no racial group has experienced a statistically significant gain on the 8th grade Reading test.
- The gaps in performance between Boston's White/Asian students and Black/Hispanic students persist in both 4th and 8th grade.

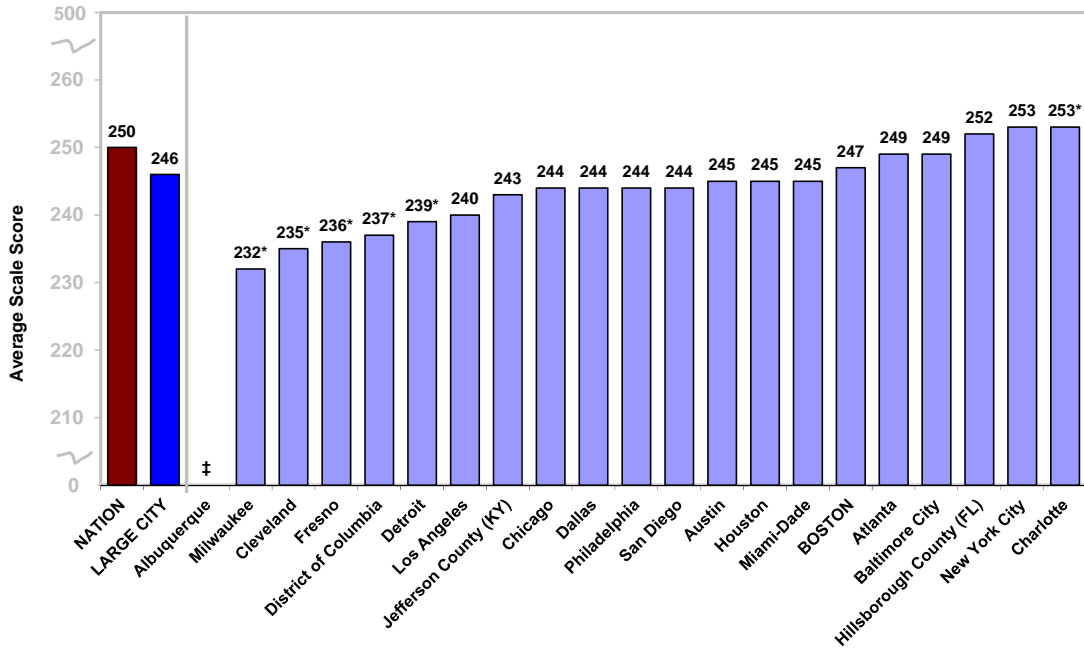
Appendix F provides detailed information on the performance of students by racial group.

Boston's Black Students Compared to the Nation, Large Cities, and other TUDA Districts



- Despite continued disparity in the performance of Black students compared to their White and Asian peers, the district's Black students had an average score of 205, which is statistically equal to the national average and comparable to the average for Large City (202). Boston's 4th grade Black students performed as well as or significantly better than all but two districts (Charlotte and Hillsborough County).

Grade 8 Black Students
2013 Reading Average Scale Score Comparisons: Boston and Nation, Large City & TUDA Districts



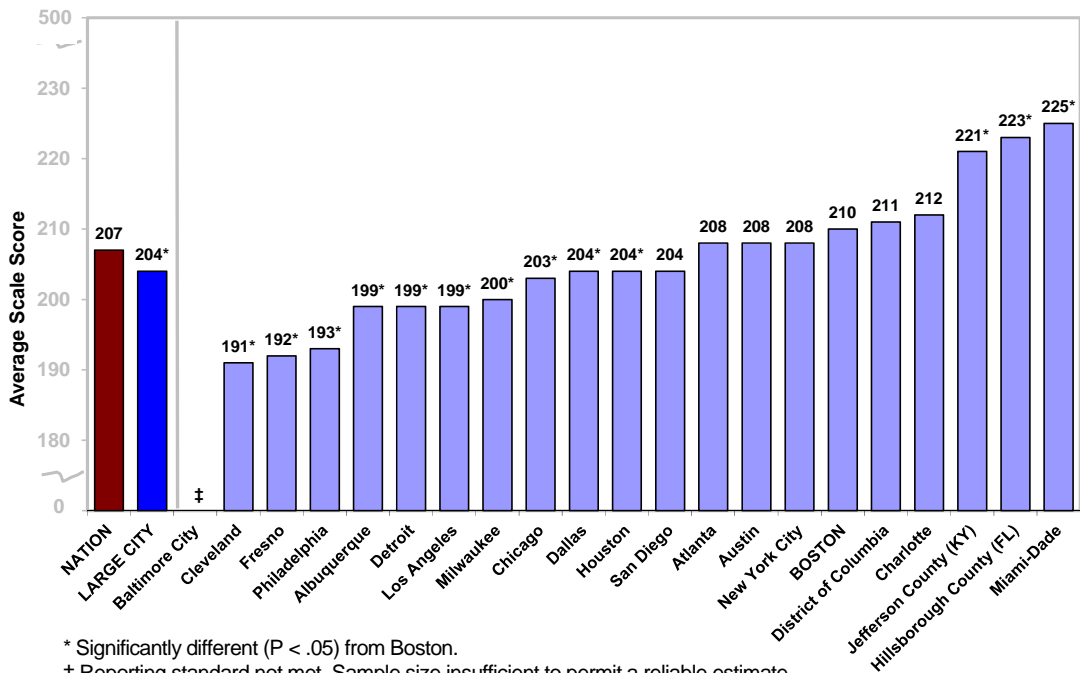
* Significantly different ($P < .05$) from Boston.

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

- In grade 8, the performance of Boston’s black students (247) was about the same as their peers across the Nation (250) and in Large Cities (246). Among the TUDA districts, Boston’s black students performed as well as or significantly better than all other districts, with only one exception (Charlotte).

Boston’s Hispanic Students Compared to the Nation, Large Cities, and other TUDA Districts

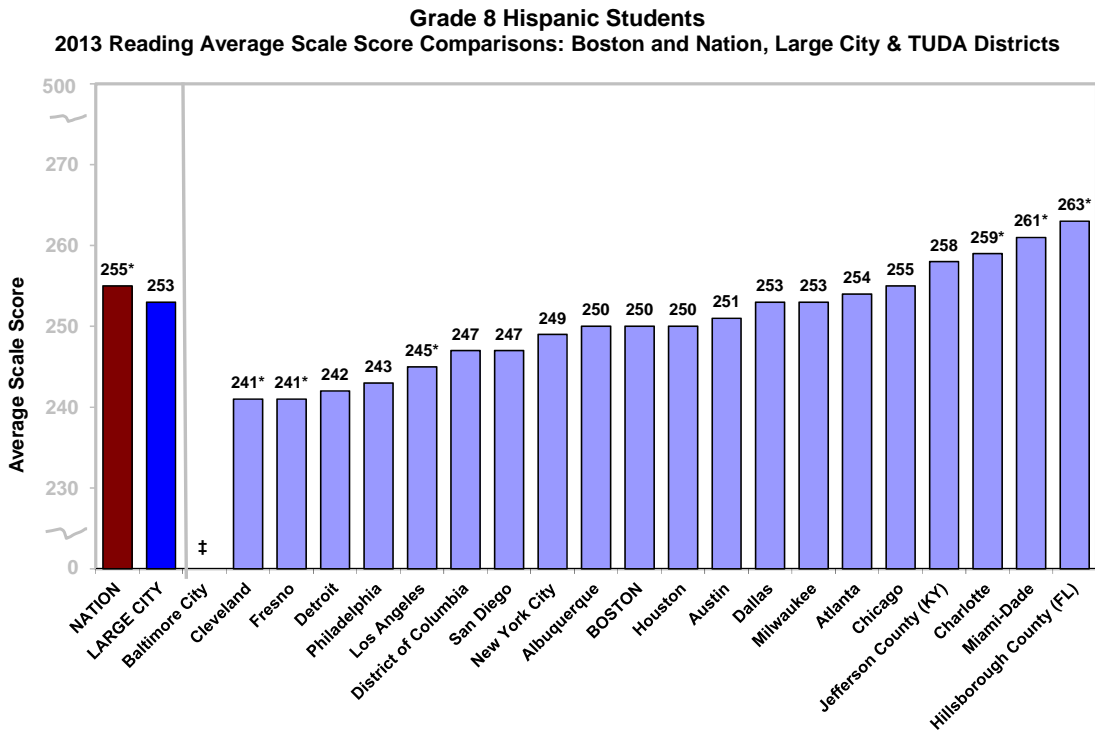
Grade 4 Hispanic Students
2013 Reading Average Scale Score Comparisons: Boston and Nation, Large City & TUDA Districts



* Significantly different ($P < .05$) from Boston.

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

- Boston’s Hispanic students in 4th grade also had significantly higher average scores (210) than Hispanic students in Large Cities (204), but not significantly different from the national average (207). Among the participating TUDA districts, only Miami-Dade, Hillsborough County, and Jefferson County’s Hispanic 4th graders scored significantly higher than Boston’s.

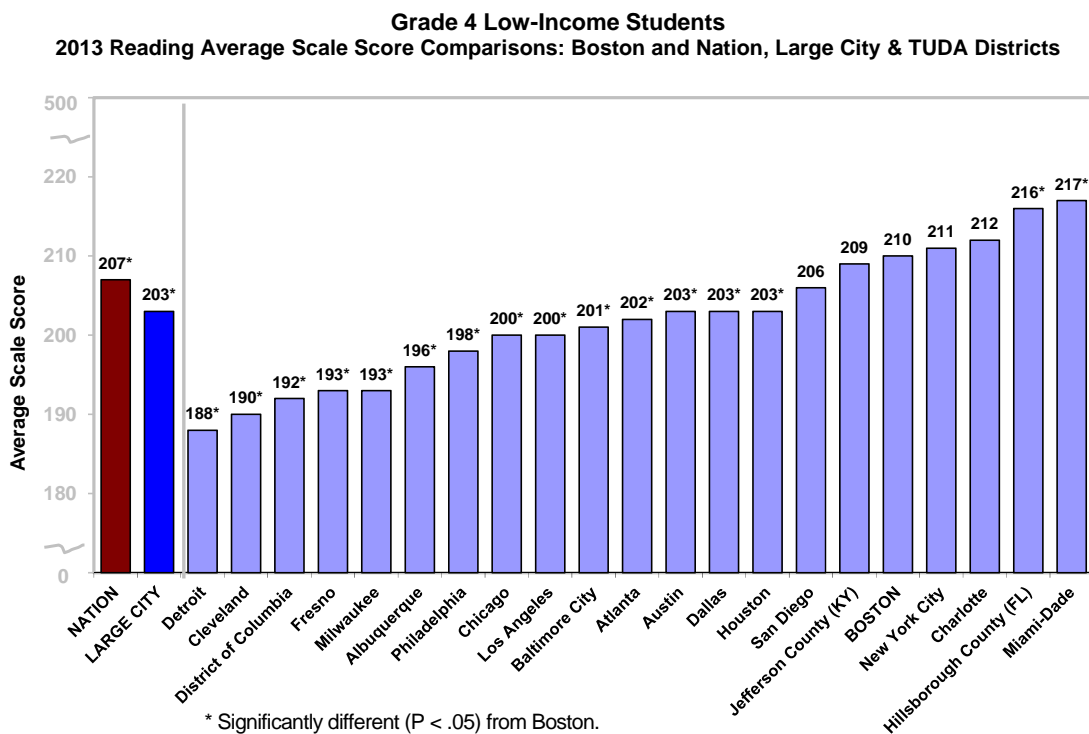


* Significantly different ($P < .05$) from Boston.

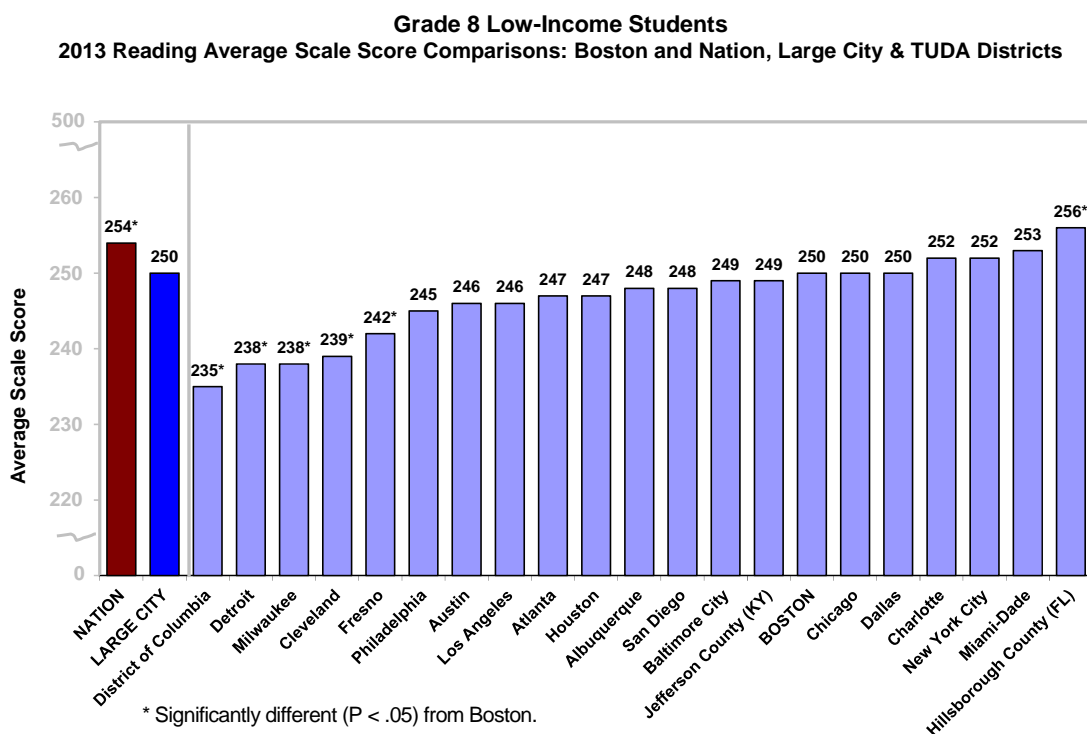
‡ Reporting standard not met. Sample size insufficient to permit a reliable estimate.

- In grade 8, Boston’s Hispanic students (250) performed as well as their peers in Large Cities (253) but significantly lower than Hispanic students across the Nation (255). Among TUDA districts with a sufficiently large sample of Hispanic students, three districts significantly outperformed Boston (Hillsborough County, Miami-Dade and Charlotte).

(5) Average Reading Scale Scores for Other Student Groups Students Eligible for Free/Reduced Lunch



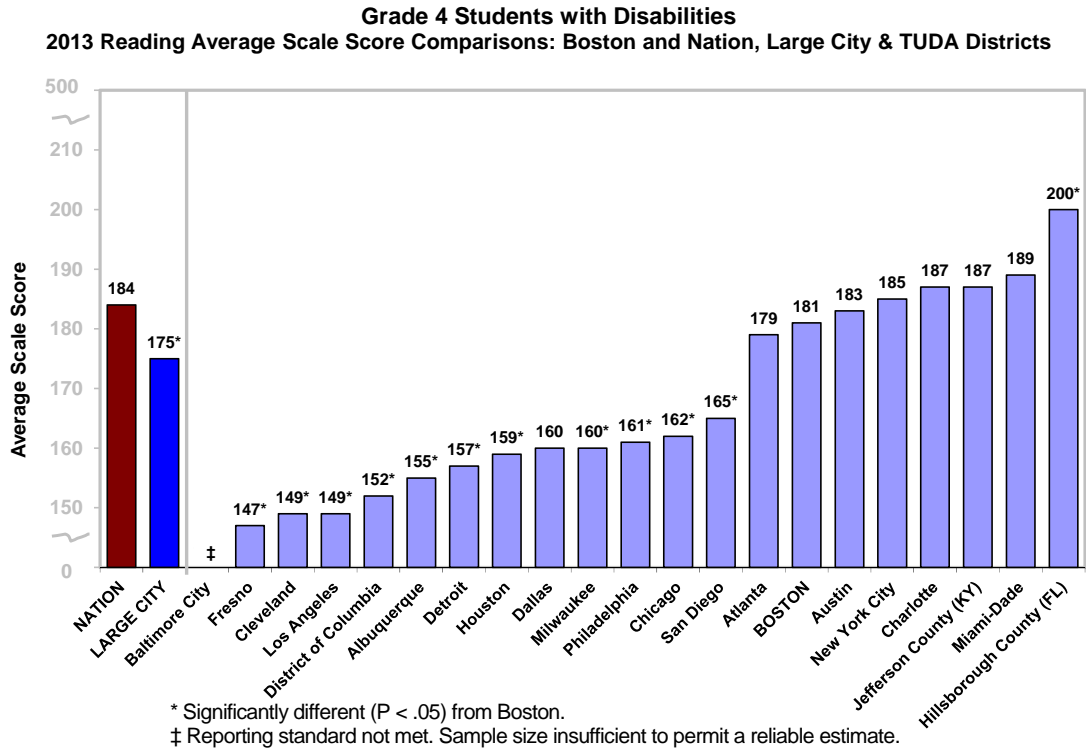
- In grade 4, low-income students in Boston scored significantly higher than the Nation (by 3 points) and Large Cities (by 7 points). Boston's average was also the fifth highest among the TUDA districts and was only significantly exceeded by Miami-Dade and Hillsborough County.



- Among 8th graders, Boston's low-income students (250) performed as well as their peers in Large Cities (250) but significantly lower than their counterparts across the

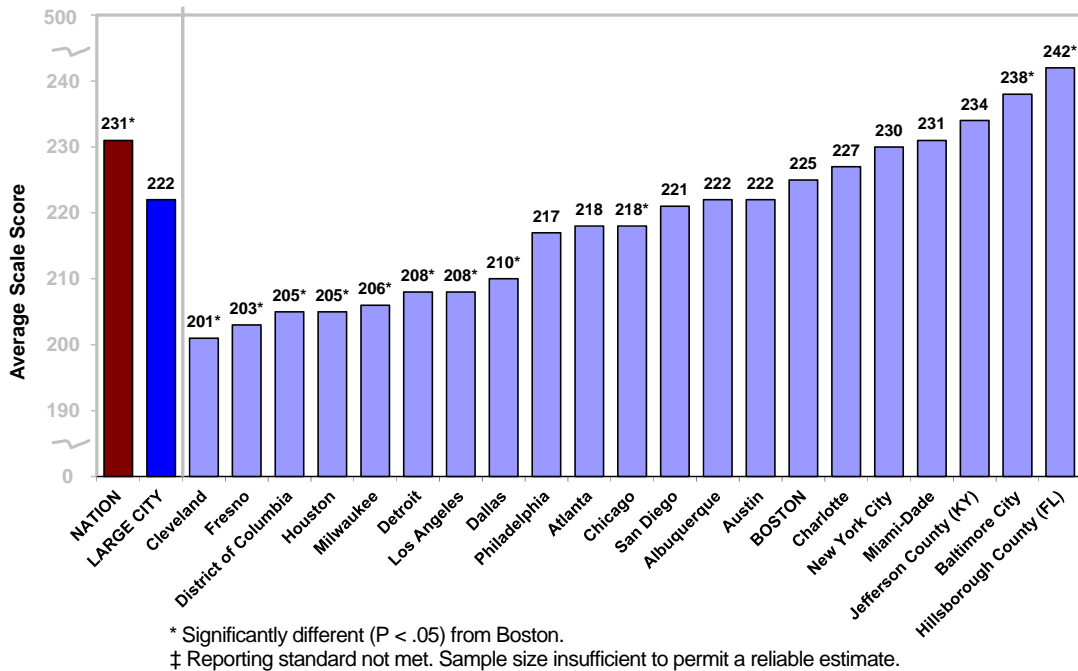
Nation (254). Compared to other TUDA districts, only Hillsborough County (256) had a significantly higher average.

Students with Disabilities



- In 4th grade, students with disabilities in Boston (181) outperformed their peers in Large Cities (175). Their average score was not significantly different from the national average (184). Boston’s special education students performed equally well or better than all but one district (Hillsborough County).

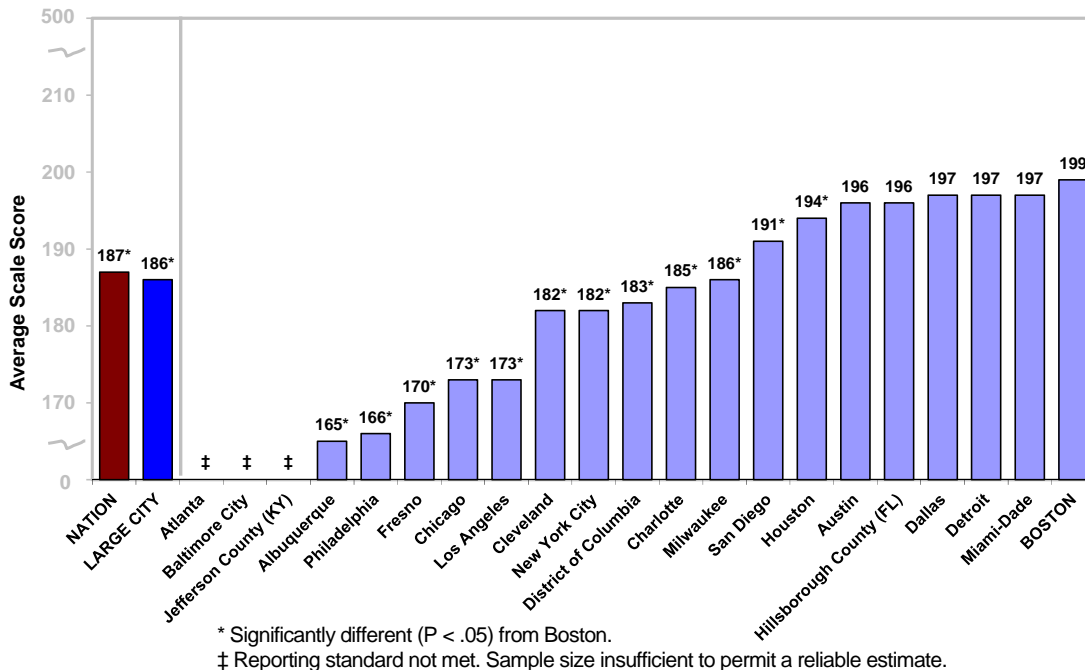
Grade 8 Students with Disabilities
2013 Reading Average Scale Score Comparisons: Boston and Nation, Large City & TUDA Districts



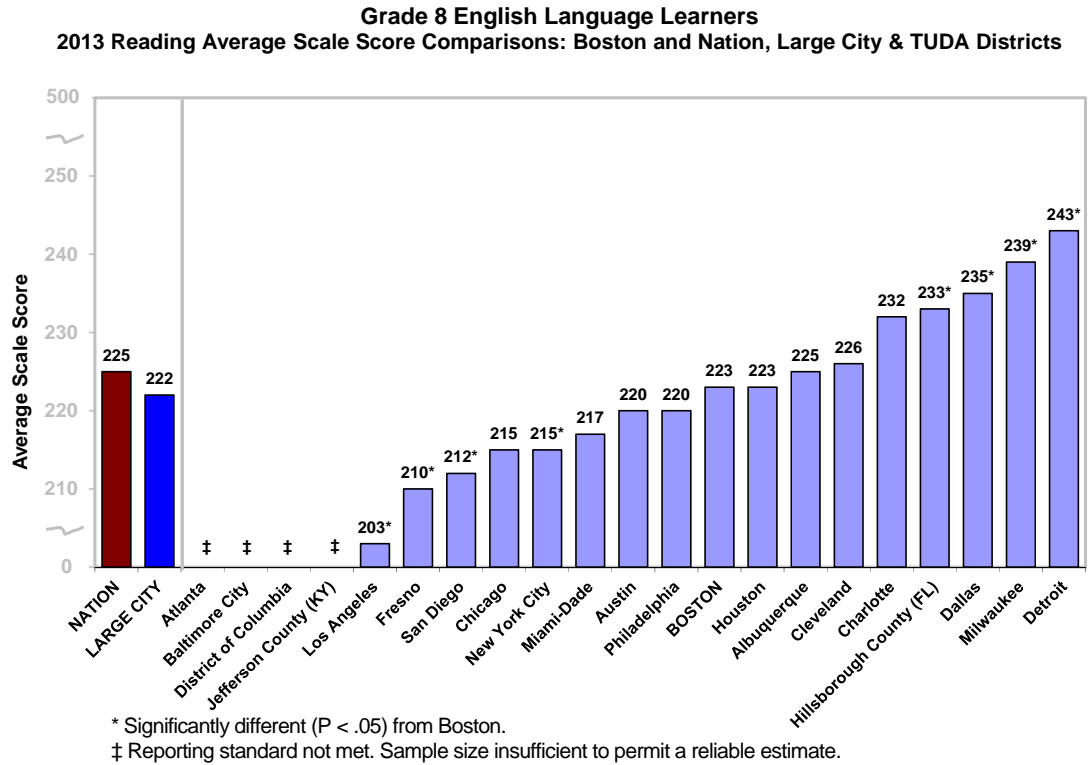
- In grade 8, the average score for students with disabilities in Boston (225) was comparable to the average for Large Cities (222) but was significantly lower than the national average (231). Compared to other TUDA districts, Boston's performance statistically lower than Hillsborough County and Baltimore City.

English Language Learners

Grade 4 English Language Learners
2013 Reading Average Scale Score Comparisons: Boston and Nation, Large City & TUDA Districts



- Boston’s 4th grade English Language Learners (ELLs) outperformed their peers across the Nation and in Large Cities. Compared to other TUDA districts, Boston’s average score was the highest score.

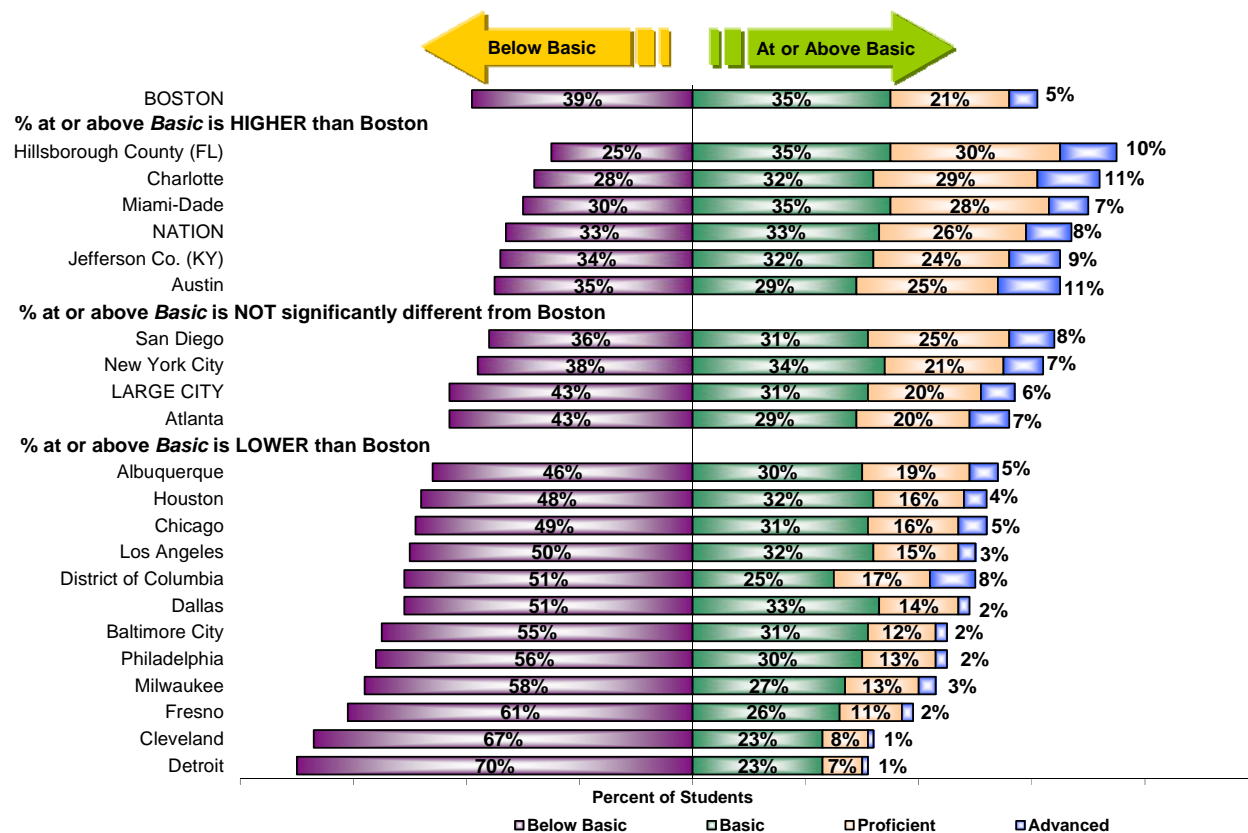


- The average score for ELL students in 8th grade was comparable to that of their peers in Large Cities and across the Nation. Boston’s ELL average was statistically lower than four districts (Detroit, Milwaukee, Dallas, and Hillsborough County).

(6) Reading Performance by Achievement Level: Boston vs. Nation, Large Cities, and TUDA Districts

2013 Reading Percentage of Students Scoring at or Above Basic

Grade 4 Reading Percentage of Students Scoring at or Above Basic:

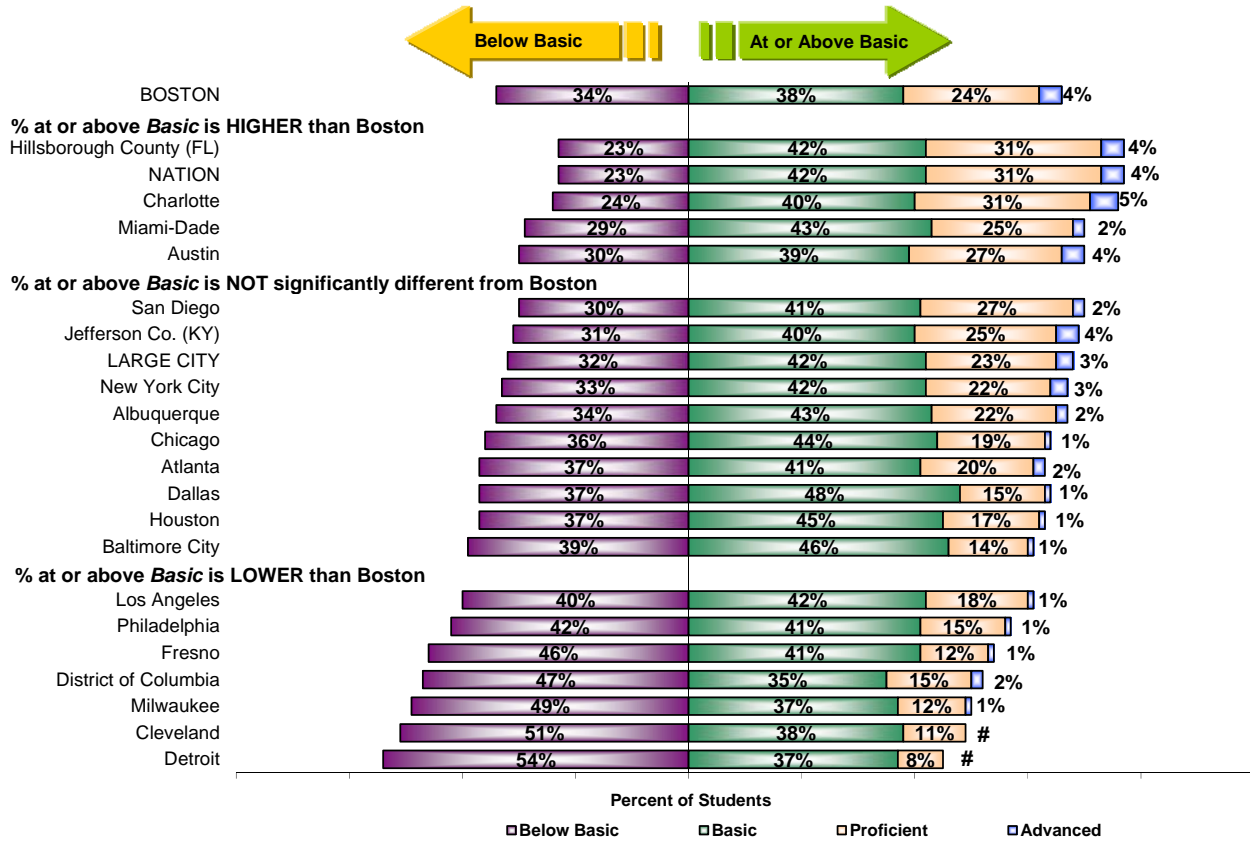


Estimate rounds to zero.

NOTE: Detail may not sum to totals because of rounding.

- In 2013, 61% of Boston's 4th grade students scored at or above the basic level on the Reading assessment. This percentage was significantly higher than or equal to that in all but five other TUDA districts. Boston's performance was significantly lower than the national average (67%). Though a higher percentage of Boston students performed at the Basic level or above compared to students in Large Cities (57%), the differences was not statistically significant.

Grade 8 Reading Percentage of Students Scoring at or Above Basic:



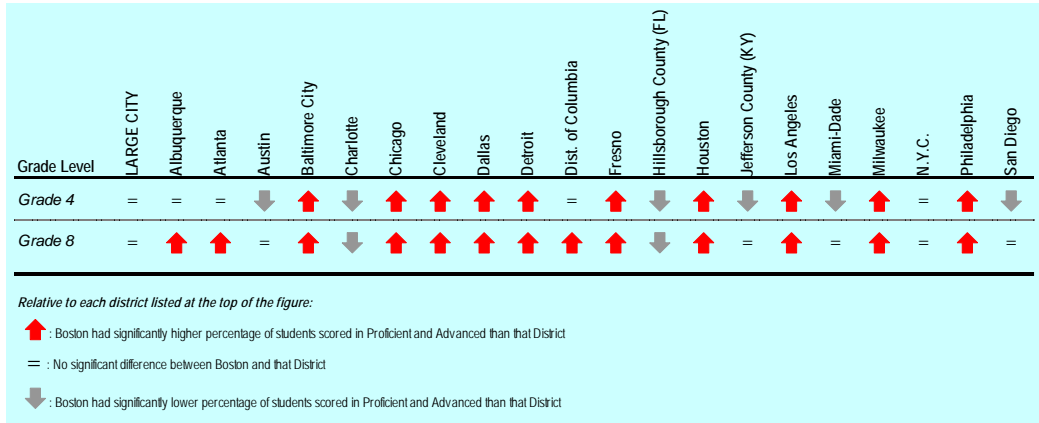
Estimate rounds to zero.

NOTE: Detail may not sum to totals because of rounding.

- In grade 8, the percentage of students in Boston who performed at or above Basic (66%) was significantly higher than or equal to 16 other TUDA districts and Large Cities (68%). Boston's percentage was significantly lower compared to the Nation (77%) and four other TUDA districts.

2013 Reading Percentage of Students Scoring at or Above Proficient

Percentage of Students Scoring at or Above Proficient in 2013 Reading: Boston vs. TUDA Districts



- In 2013, Boston's 4th grade proficient/advanced rate (26%) was significantly higher than that of ten TUDA districts. Boston's rate was about the same as that of Large Cities, and lower than that of six districts (Austin, Charlotte, Hillsborough, Jefferson, Miami-Dade and San Diego).
- Boston's 8th graders performed about the same as their peers in Large Cities with a proficient/advanced rate of 28%. Compared to all the other TUDA districts, Boston's performance was lower than just two districts (Charlotte and Hillsborough).

Performance Over Time: 2003 - 2013

Percentage of Students Scoring at or Above Proficient in Reading, 2003-2013

	Grade 4						Grade 8					
	2003	2005	2007	2009	2011	2013	2003	2005	2007	2009	2011	2013
LARGE CITY	19**	20**	22**	23**	24	26	19**	20**	20**	21**	23**	26
Albuquerque	--	--	--	--	24	24	--	--	--	--	22	23
Atlanta	14**	17**	18**	22**	24	27	11**	12**	13**	17**	17**	22*
Austin	--	28**	30**	32	36	36*	--	27	28	30	30	31*
Baltimore	--	--	--	12	11	14*	--	--	--	10**	12	16*
Boston	16**	16**	20**	24	26	26	22**	23**	22**	23	24	28
Charlotte	31**	33**	35**	36	36	40*	30**	29**	29**	28**	34	36*
Chicago	14**	14**	16**	16	18	20*	15**	17	17	17	21	21*
Cleveland	9	10	9	8	8	9*	10	10	11	10	11	11*
Dallas	--	--	--	--	14	16*	--	--	--	--	13	15*
Detroit	--	--	--	5	7	7*	--	--	--	7	7	9*
District of Columbia	10**	11**	14**	18**	20**	25	10**	12**	12**	14	15	18*
Fresno	--	--	--	12	11	13*	--	--	--	12	12	13*
Hillsborough County (FL)	--	--	--	--	44	40*	--	--	--	--	32	35*
Houston	18	21	17	19	24**	19*	14**	17	18	18	18	19*
Jefferson County	--	--	--	30	35	33*	--	--	--	26	27	29
Los Angeles	11**	14**	13**	13**	15	19*	11**	13**	12**	15**	16	19*
Miami-Dade	--	--	--	31	32	35*	--	--	--	28	28	27
Milwaukee	--	--	--	12	13	15*	--	--	--	12	10	13*
N.Y.C.	22**	22**	25	29	29	28	22	20	20**	21	24	25
Philadelphia	--	--	--	11	13	14*	--	--	--	15	16	16*
San Diego	22**	22**	25**	29	31	33*	20**	23	23**	25	27	29

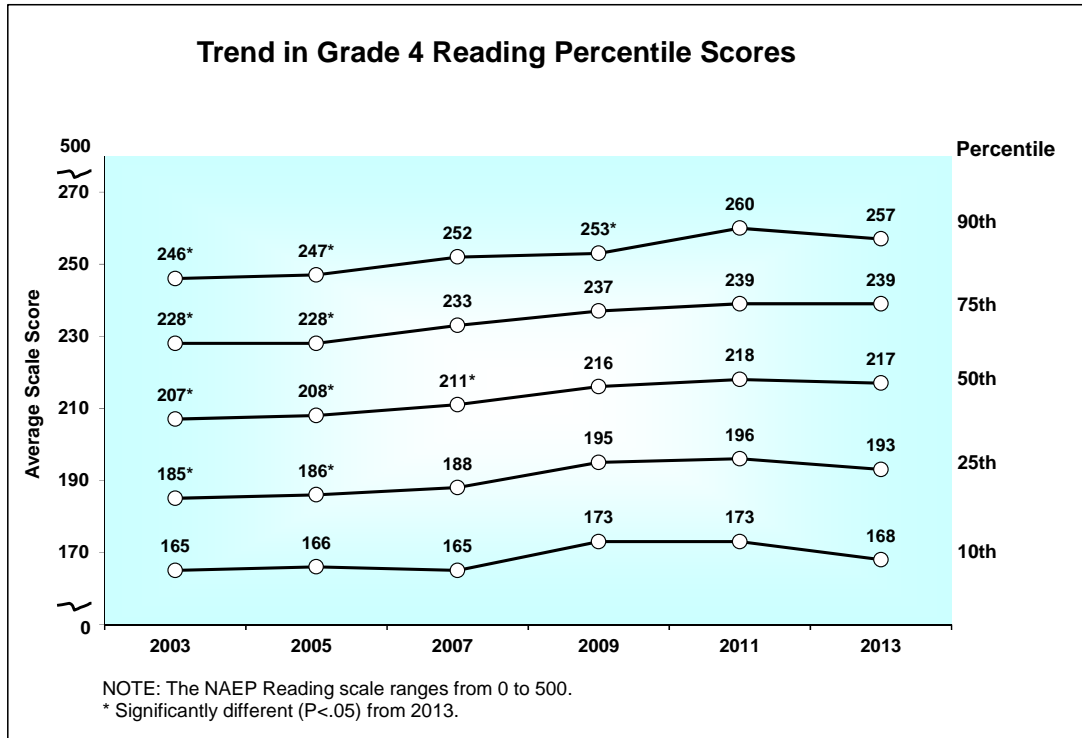
* Significantly different (P < .05) from Large City in 2013.

** Significantly different (P < .05) from 2013.

- The percentage of students scoring at or above Proficient in reading in 2013 for Boston was comparable to that of Large Cities in both grades 4 and 8.
- In grade 4, Boston made significant improvements in the percentage of students performing at or above Proficient since 2003 (10-point gain for Boston, compared to a 7-point gain for Large Cities). The percentage of Boston's 8th graders scoring at or above Proficient in 2013 also rose a significant 6-points compared to 2003, while the Large Cities rate increased by 7 points.

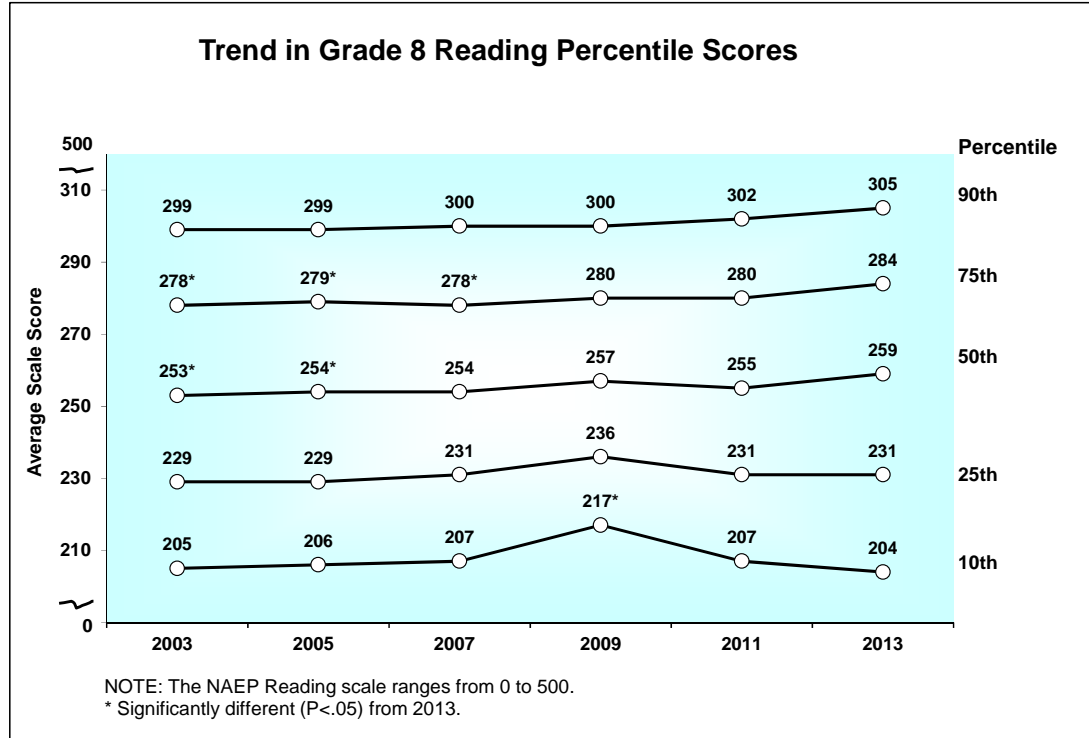
(7) Reading Performance by Percentile Rank

Grade 4 Reading



- Among Boston's 4th graders, significant improvements were observed since 2003 and 2005 for students at all quintiles, except for those in the lowest 10th percentile: here, the average scale score in 2013 was not statistically different from any of the previous five assessment years.

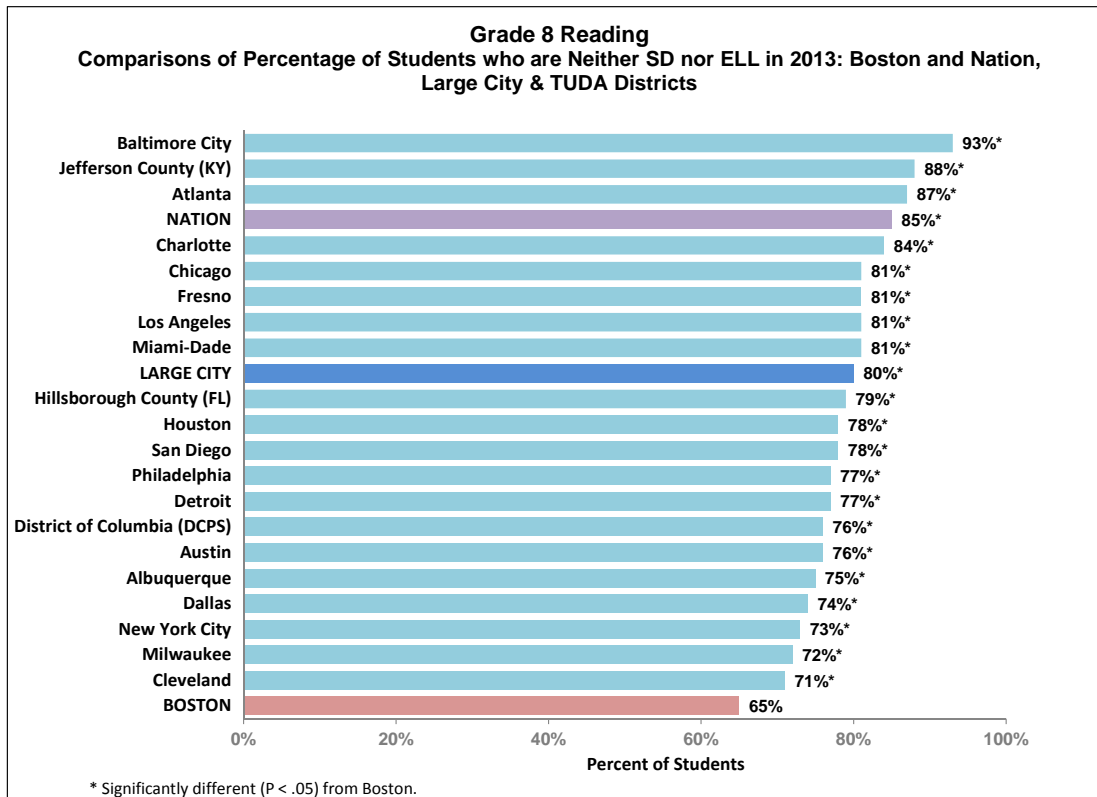
Grade 8 Reading



- For 8th graders, there have been significant gains for students at the 75th and 50th quintiles since 2003 and 2005; there have been no statistically significant score changes over the years for students at all other quintiles.

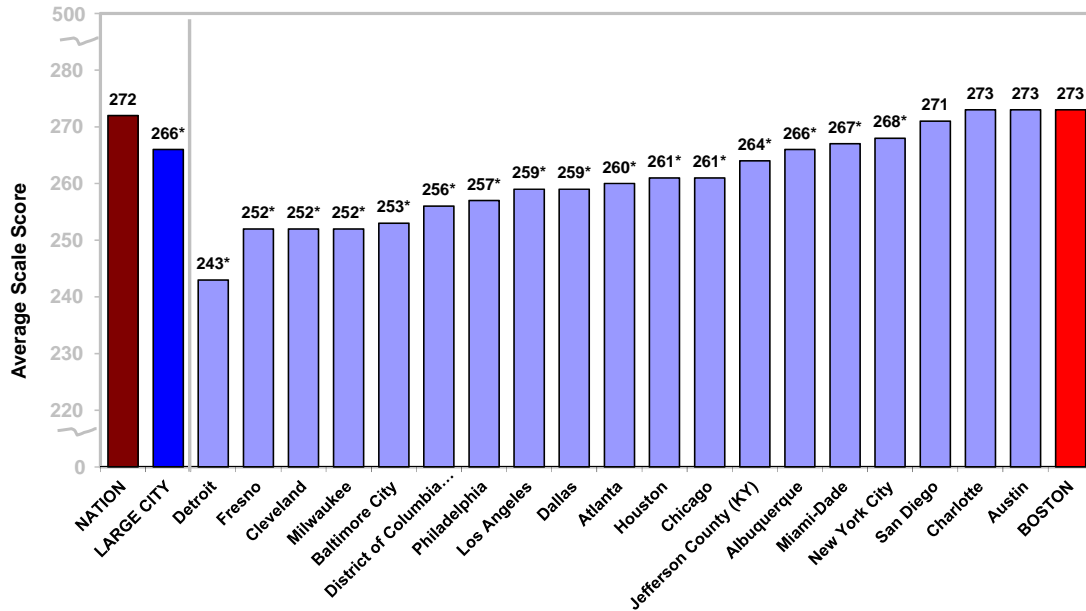
(8) Reading Performance of Students Who are Neither Students with Disabilities Nor English Language Learners

The chart below shows the comparisons of percentage of students who are neither SD nor ELL in grade 8 across all jurisdictions. Also shown is the performance of these students across all jurisdictions. The corresponding statistics for students in grade 4 are presented in Appendix G.



- The percentage of students who were neither SD nor ELL (i.e. general education students) in Boston who took the 8th grade reading test was 65%; this rate is significantly lower than all other jurisdictions, which ranged from 71% to 93%, with 85% for the Nation and 80% for large City.

Grade 8 Regular Education Students
2013 Reading Average Scale Score Comparisons: Boston and Nation, Large City & TUDA Districts



* Significantly different (P < .05) from Boston.

- Boston's general education students had the highest score (tied with Austin and Charlotte), significantly higher than that of Large City and a majority of the TUDA districts; it also was comparable to the national average.

2013 NAEP MATHEMATICS

MATHEMATICS: DEMOGRAPHIC CONTEXT

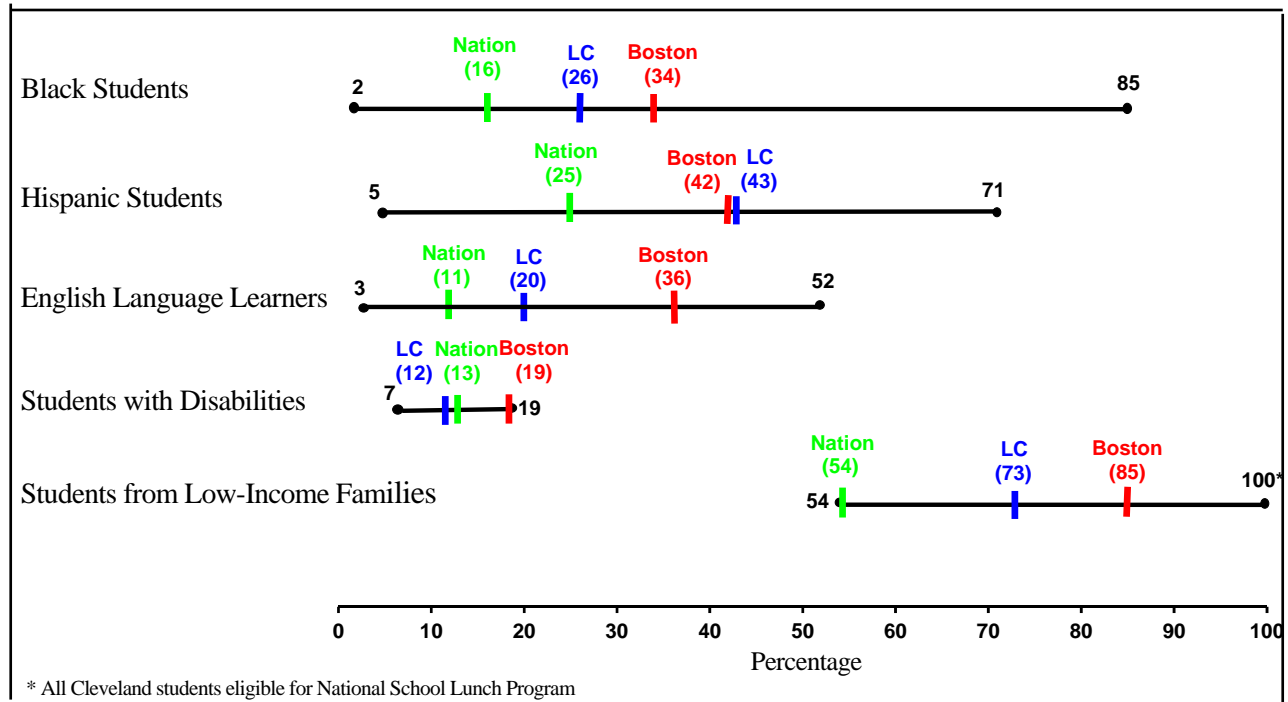
The charts below display the percentage of students who participated in the 2013 TUDA NAEP Math test by their racial/ethnic identification, disability, English Language Learner status, and Low-Income status. The charts display not only Boston's participation rates, but also the Nation's and Large Cities', as well as the TUDA minimums and maximums.

In both grades 4 and 8, Boston's percentages for Black and Hispanic students fall in the middle range of the other TUDA districts. However, 80% or more students in Boston receive a free/reduced-price lunch, far larger than the national average (about 50%) and higher than Large Cities (about 70%). **Compared to other TUDA districts, Boston has the highest participation rate for English Language Learners in grade 8. Boston also has the highest participation rates for students with disabilities in grade 4 compared to other TUDA districts.** These differences are important to consider in comparing results across jurisdictions.

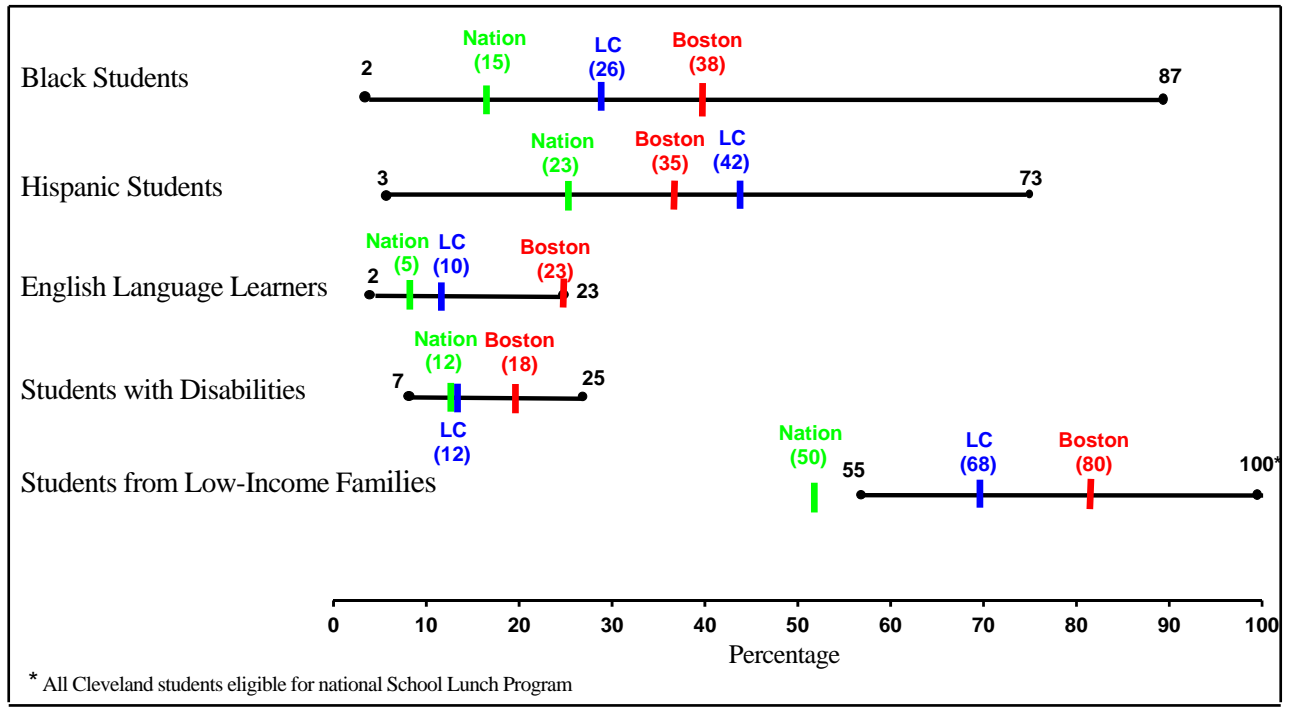
In addition, because results are based on samples rather than entire populations, examining statistical significance is essential in determining differences across groups.

Distribution of Selected Student Groups for TUDA Districts

Grade 4 Mathematics Demographic Characteristics:

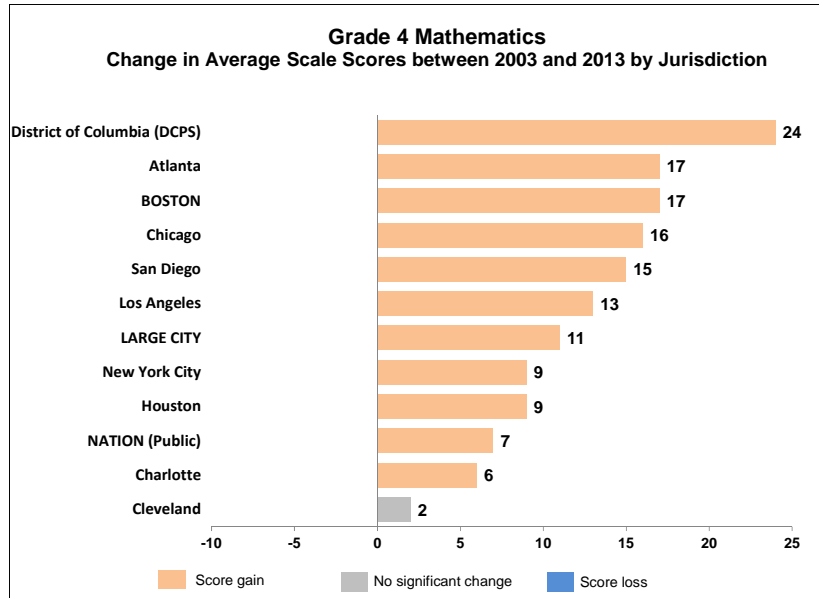


Grade 8 Mathematics Demographic Characteristics:



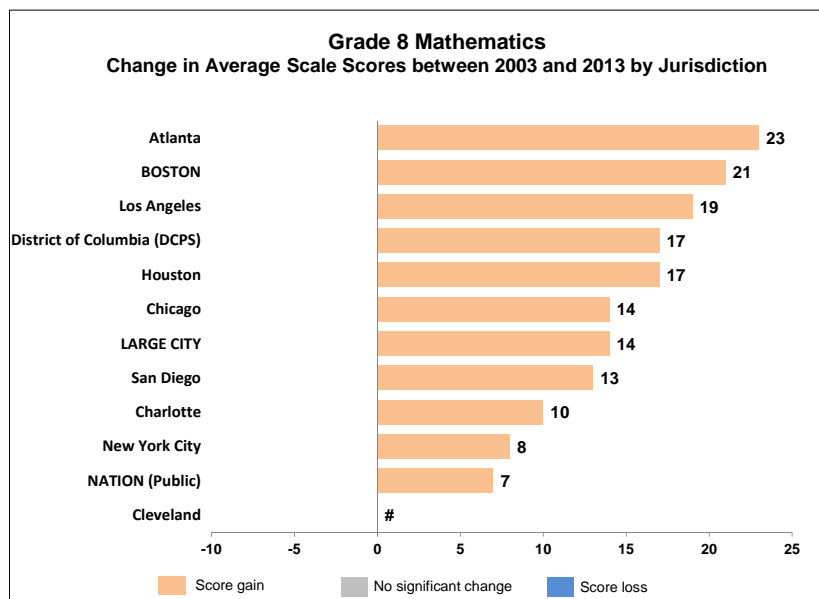
(1) Change in Mathematics Average Scores Between 2003 and 2013

Grade 4 Mathematics



- Of the 10 participating TUDA districts in 2003, Boston’s 4th graders made the second largest gain of 17 points (tied with Atlanta) since 2003. By contrast, 4th graders across the Nation and in the Large Cities only gained 7 and 11 points, respectively, during this 10 year period.

Grade 8 Mathematics

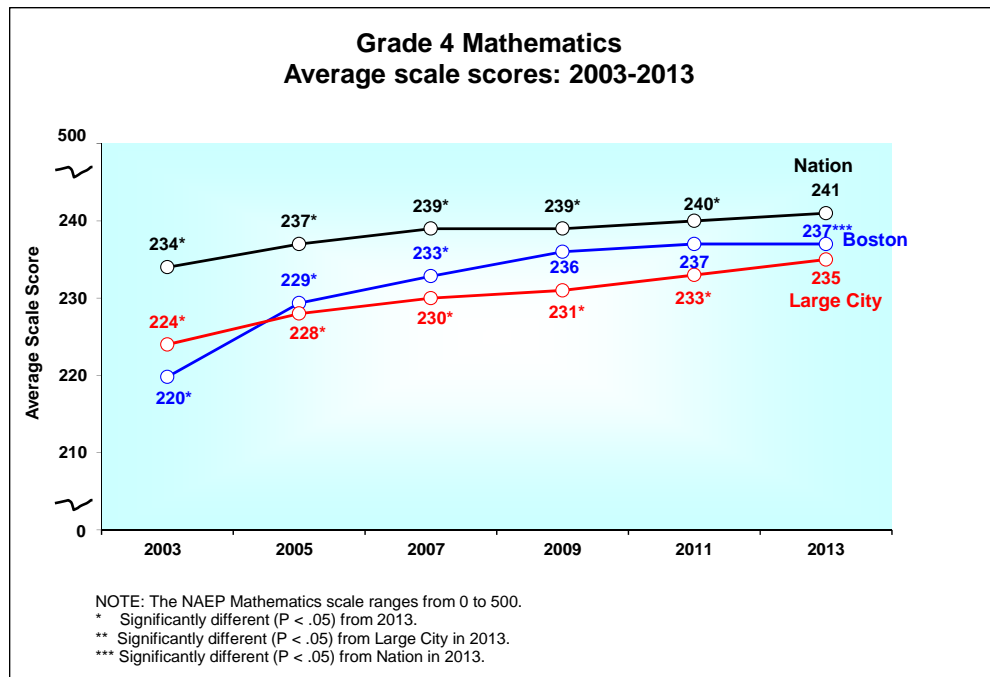


‡ Reporting standard not met. Sample size insufficient to permit a reliable estimate.

- Between 2003 and 2013, Boston’s 8th graders saw a significant gain of 21 points in mathematics. Boston’s gain was 7 points higher than that of Large Cities and was three times greater than the gain made by students across the Nation.

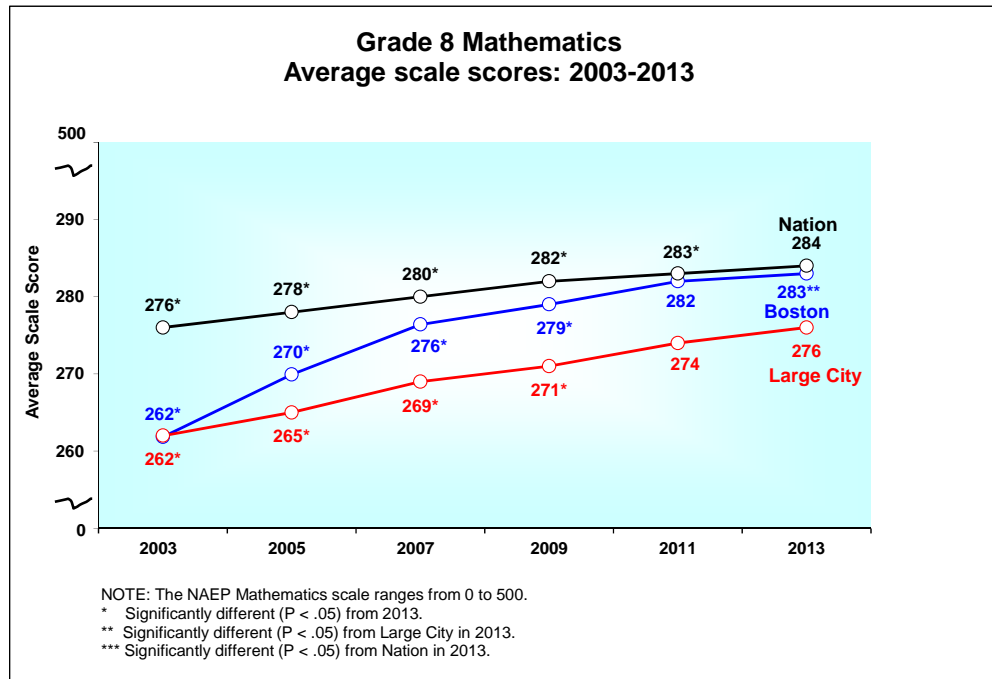
(2) Average Mathematics Scale Scores Over Time: 2003 - 2013

Grade 4 Mathematics



- Boston's average score in 2013 was **significantly higher than in the first three administrations** of the NAEP, beginning in 2003.
- Boston's performance in 2013 statistically equal to that of Large Cities and 4 points below the national average.
- **Boston's performance has steadily improved since 2003, catching up with the Large City average and narrowing the gap compared to the national average.**

Grade 8 Mathematics

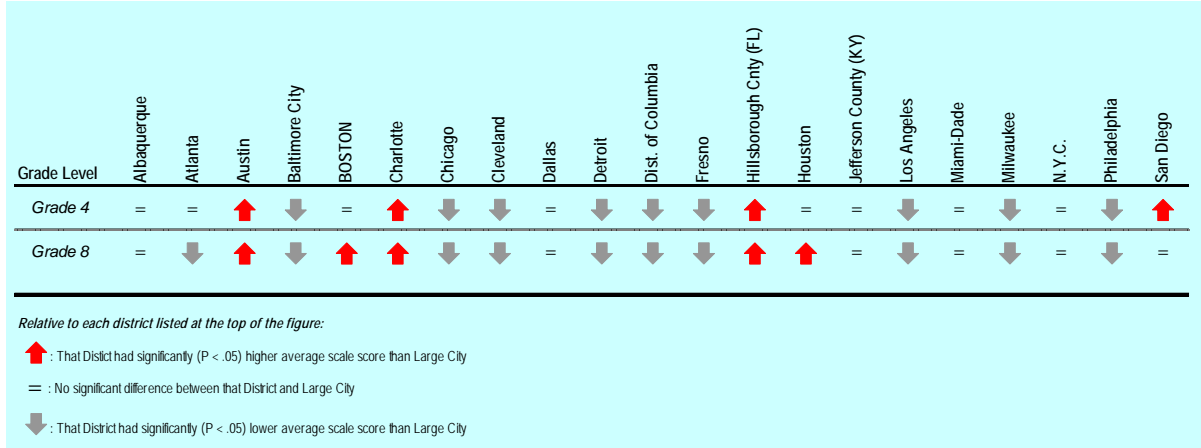


- In 2013, Boston's 8th grade students had an average score **significantly higher (by 7 points) than the average for Large Cities and not significantly different from the national average.**
- Boston's 8th grade average score in 2013 was significantly higher than in the first four administrations, from 2003 to 2009.
- **Since 2003, the math performance of Boston's 8th graders has steadily increased, surpassing the Large City gains and eliminating the gap with the Nation.**

(3) 2013 Mathematics Scale Score Comparisons Across Jurisdictions

Large City vs TUDA Districts

2013 Average Scale Score Comparisons - Large City (LC) vs TUDA Districts

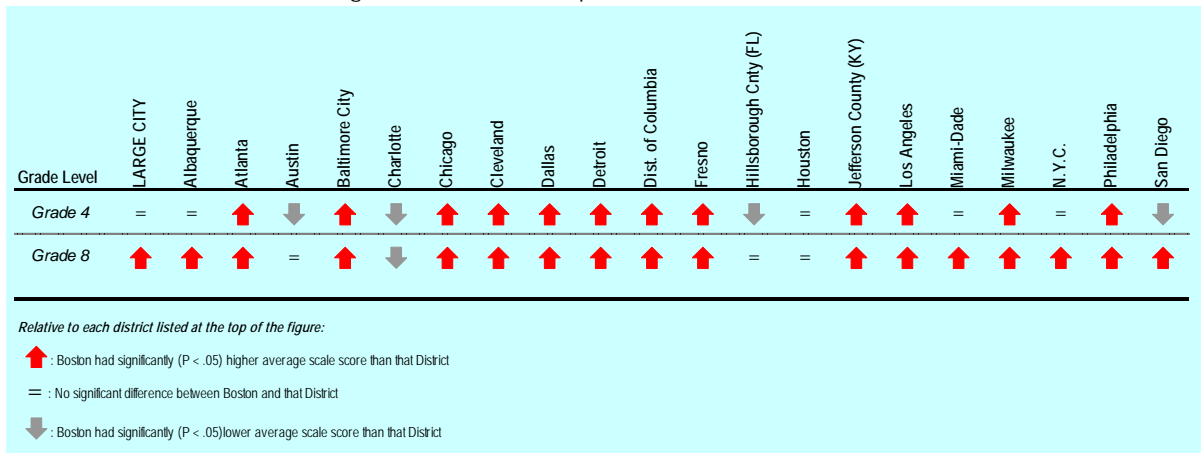


- Of the 21 participating TUDA districts, Boston was one of 6 to score equal to or higher than the Large City average at both grade levels.

Boston's scale scores for all students as well as for student subgroups are provided in Appendix D. Scale scores for all TUDA districts are provided in appendix E.

Boston vs. TUDA Districts

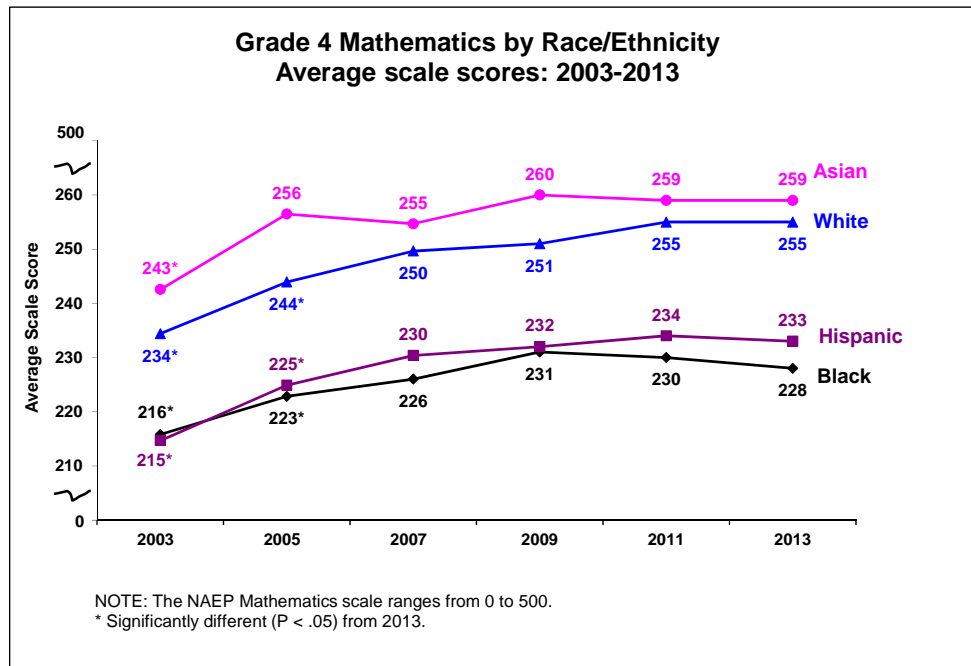
2013 Average Scale Score Comparisons - Boston vs TUDA Districts



- In addition to its higher scores compared to Large Cities, Boston's performance stands out in comparison to other TUDA districts in both grades 4 and 8. In grade 4, Boston's average scale scores were higher than or equal to all but four districts (Austin, Charlotte, Hillsborough, and San Diego). Boston's performance in grade 8 was even more impressive, with only Charlotte scoring higher.

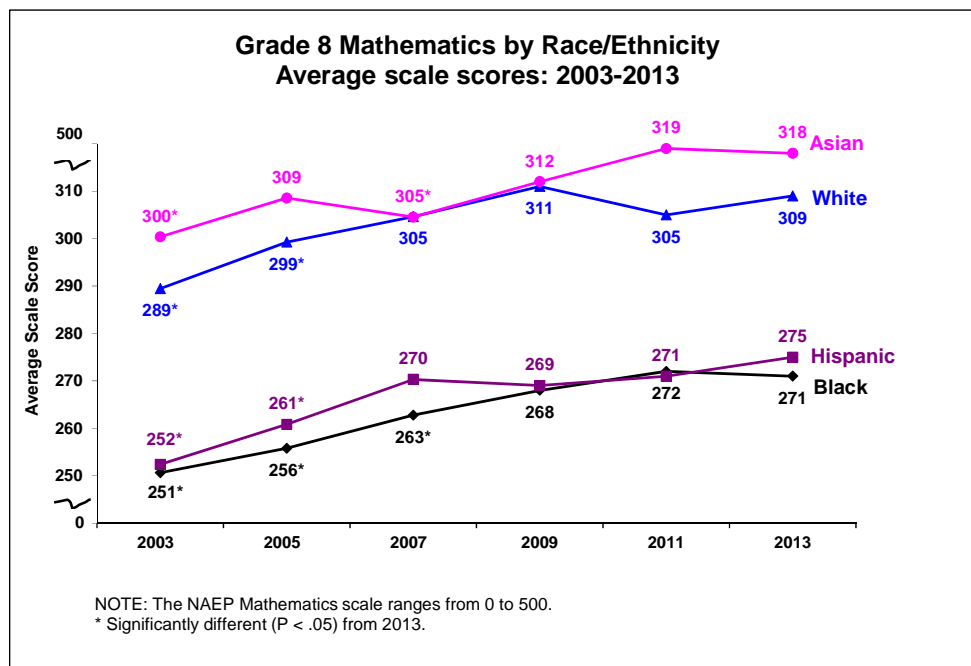
(4) Average Mathematics Scale Scores by Race/Ethnicity

Grade 4 Mathematics: 2003-2013



- From 2003 to 2013, students in all racial groups made statistically significant gains in their average scores on the 4th grade test. Black students saw a 12-point gain, while Asian, Hispanic, and White students experienced 16, 17, and 21-point gains respectively. The performance gaps between Asian/White and Hispanic/Black students remain unchanged.

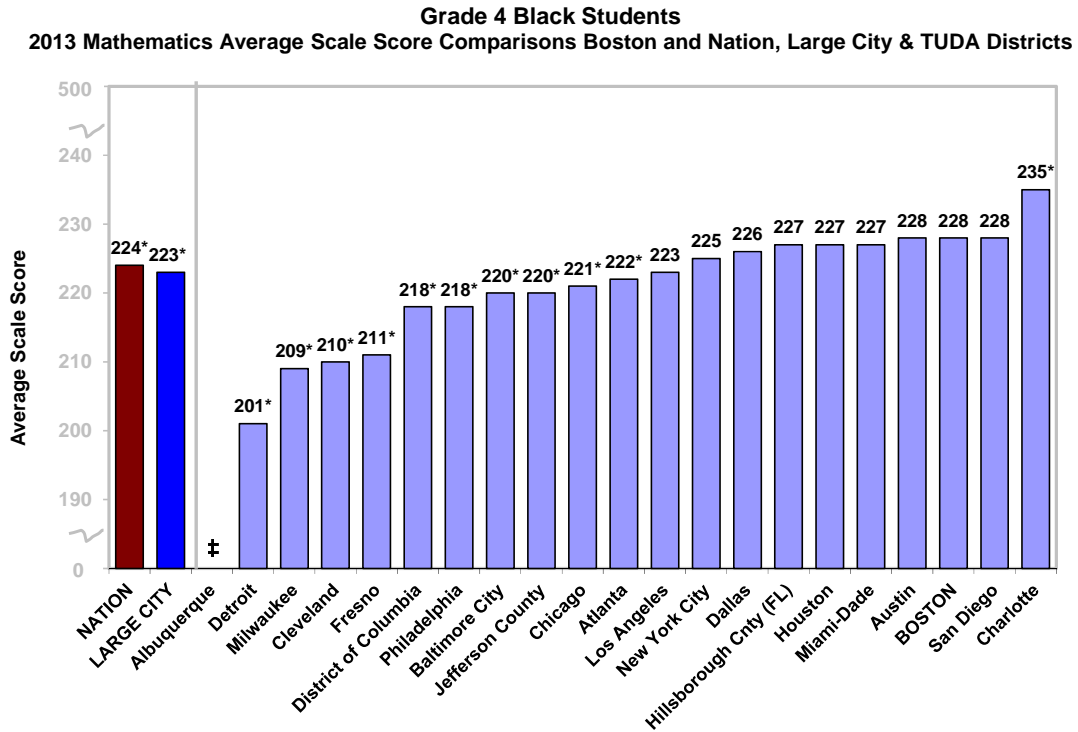
Grade 8 Mathematics: 2003-2013



- Gains made by Boston's 8th grade students between 2003 and 2013 were also statistically significant across all ethnic groups: improvements ranged from 18 points for Asian students, to 23 points for Hispanic students.

Appendix F provides detailed information on the performance of students by racial group.

Boston's Black Students Compared to the Nation, Large Cities, and other TUDA Districts

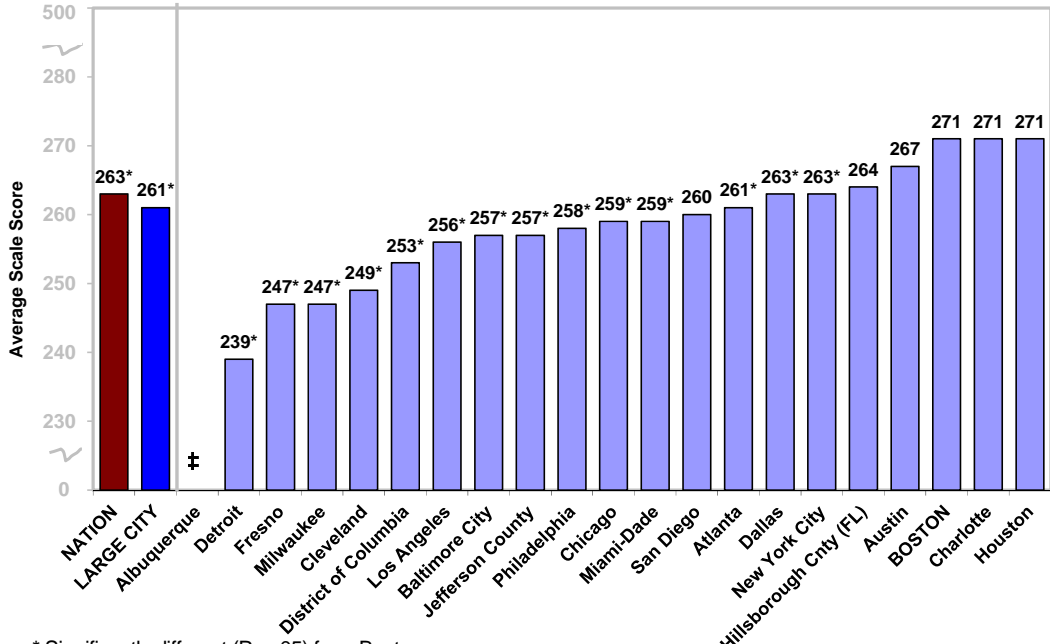


* Significantly different ($P < .05$) from Boston.

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

- Despite continued disparity in the performance of Black students compared to their White and Asian peers, the district's Black students outperformed their peers across the nation: 4th graders in Boston had an average score of 228, compared to the national average of 224. Similarly, Black students in Boston had an average score 5 points higher than the average for Large Cities. Compared to the TUDA districts, Boston's Black students performed equally well or better than all other districts, with only one exception (Charlotte).

Grade 8 Black Students
2013 Mathematics Average Scale Score Comparisons Boston and Nation, Large City & TUDA Districts

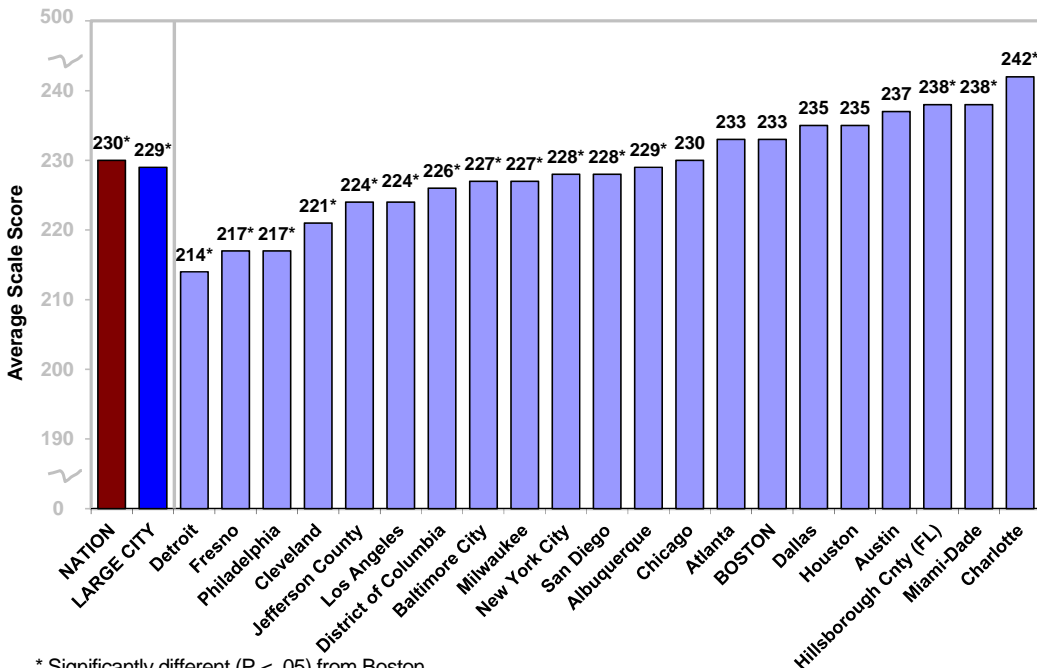


* Significantly different ($P < .05$) from Boston.
 ‡ Reporting standard not met. Sample size insufficient to permit a reliable estimate.

- In Grade 8, Boston’s Black students again outperformed their peers across the Nation and in Large Cities. Importantly, **Boston’s Bblack students had the highest scale score, tied with Charlotte and Houston.**

Boston’s Hispanic Students Compared to the Nation, Large Cities, and other TUDA Districts

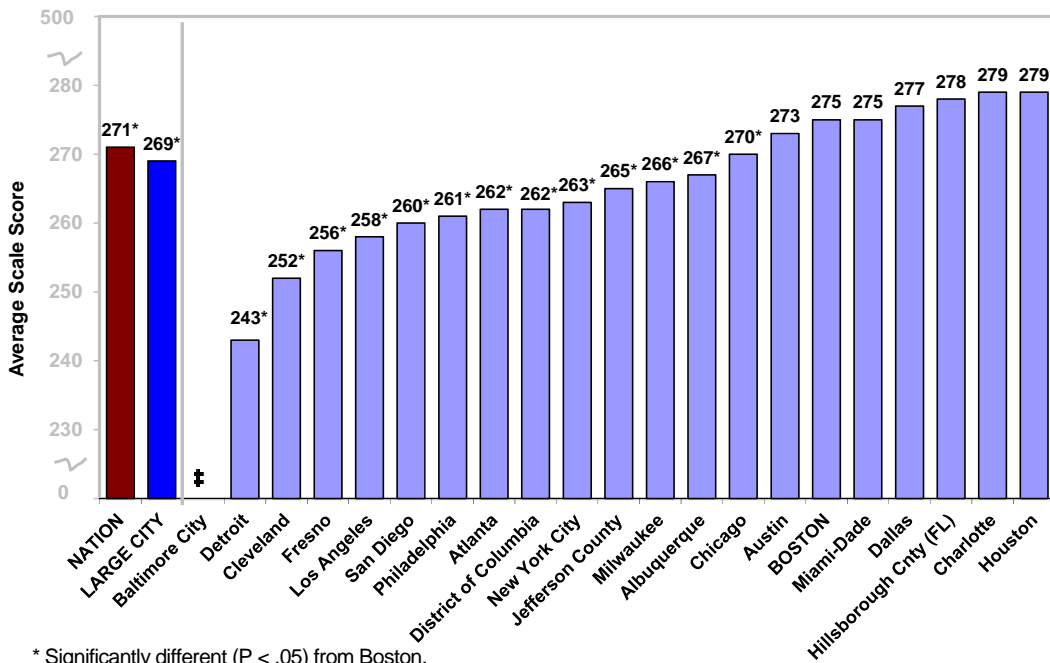
Grade 4 Hispanic Students
2013 Mathematics Average Scale Score Comparisons Boston and Nation, Large City & TUDA Districts



* Significantly different ($P < .05$) from Boston.
 ‡ Reporting standard not met. Sample size insufficient to permit a reliable estimate.

- Boston's Hispanic students in 4th grade also had a higher average score (233) than Hispanic students across the Nation (230) and in Large Cities (229). Compared to other TUDA districts, Boston's Hispanic 4th graders performed as well as or significantly better than most other districts, with only Charlotte, Miami-Dade, and Hillsborough County showing significantly higher scores.

Grade 8 Hispanic Students
2013 Mathematics Average Scale Score Comparisons Boston and Nation, Large City & TUDA Districts



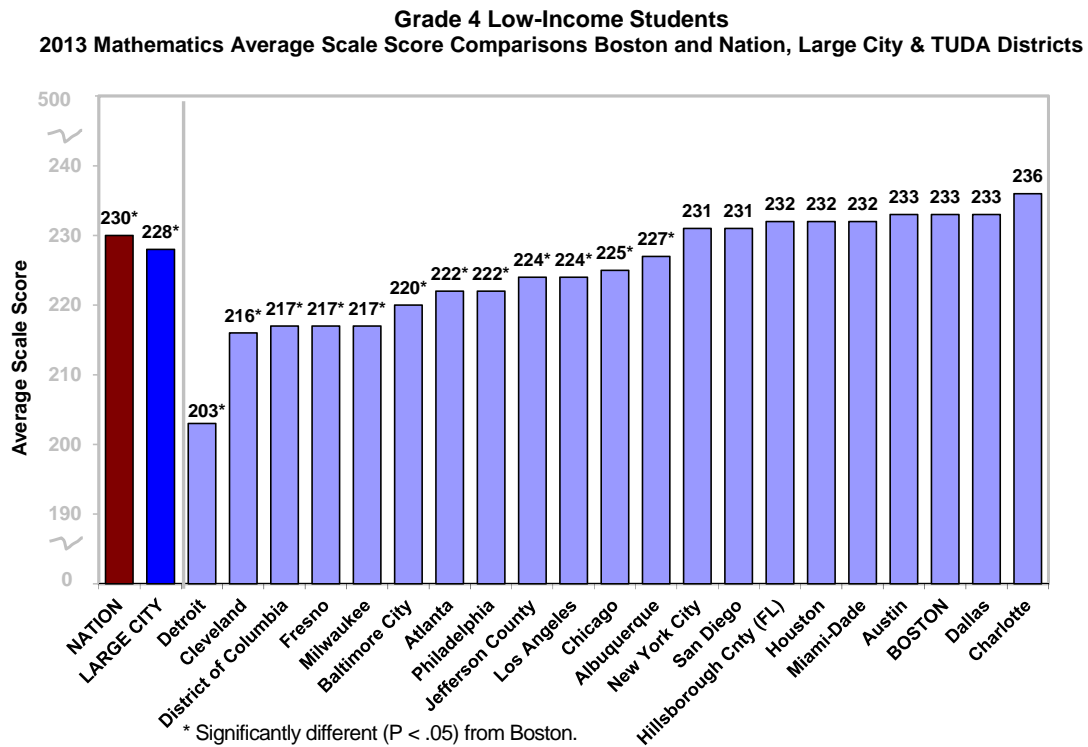
* Significantly different ($P < .05$) from Boston.

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

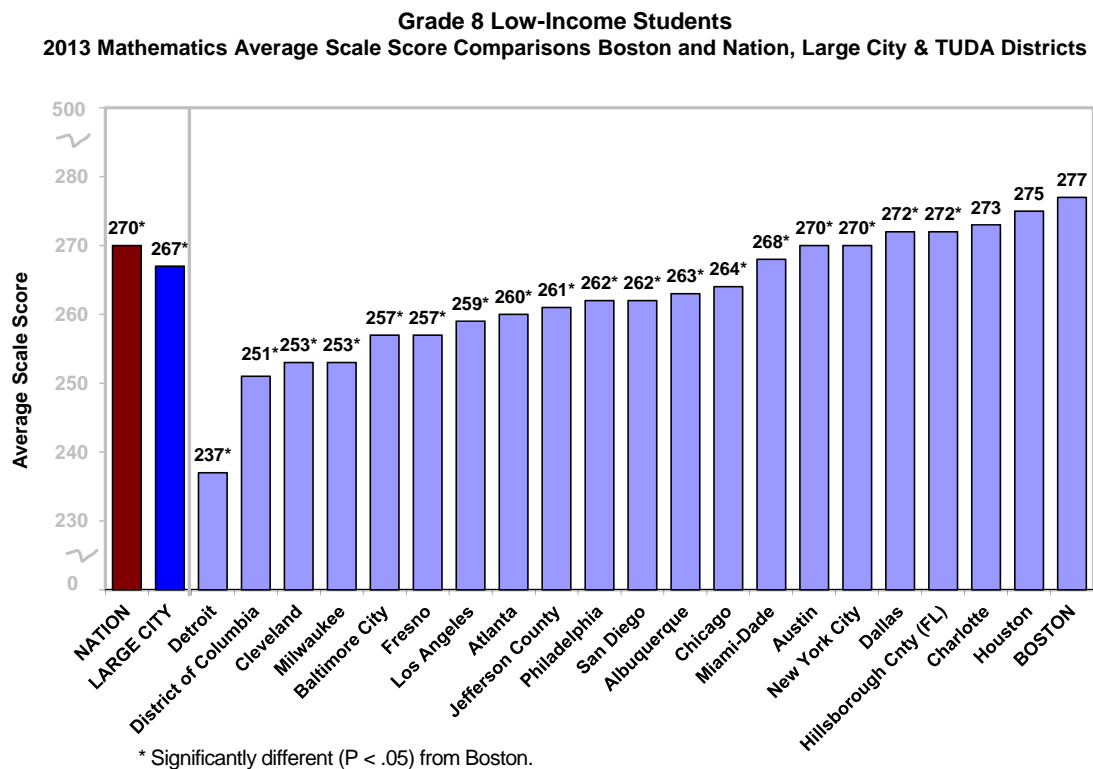
- In Grade 8, Boston's Hispanic students also significantly outperformed their national peers and Hispanic students in Large Cities. Among TUDA districts, Boston's average was statistically tied as the highest score.

(5) Average Mathematics Scale Scores for Other Student Groups

Students eligible for Free/Reduced Lunch

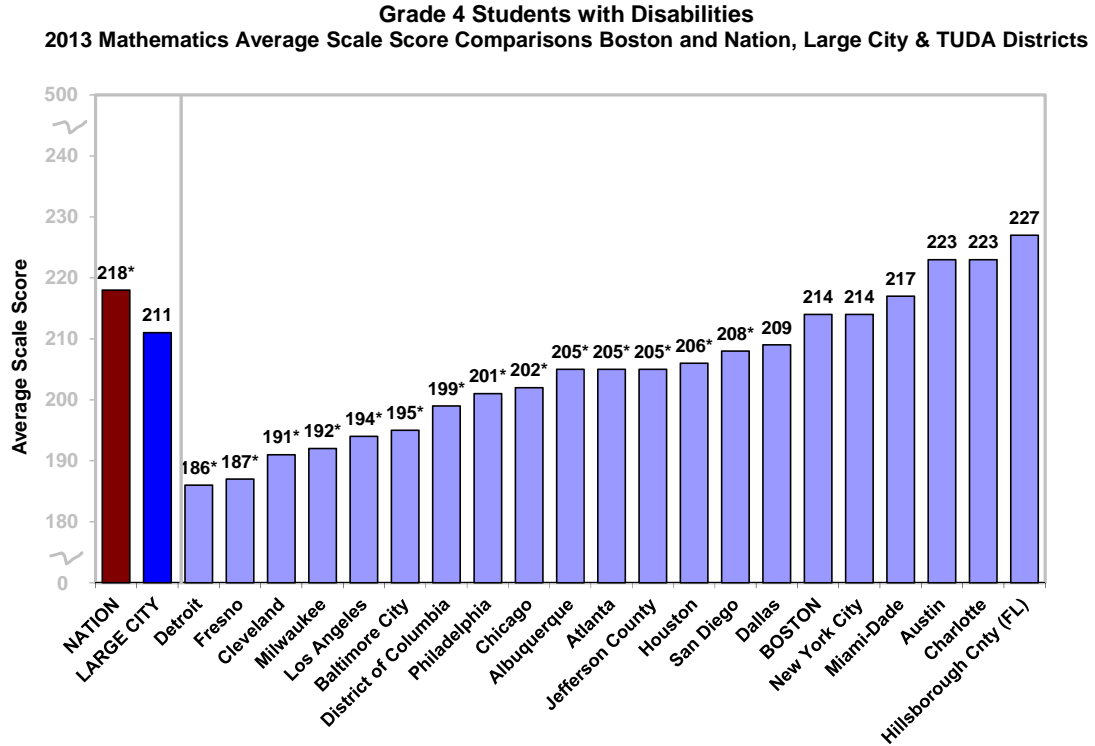


- In grade 4, low-income students in Boston scored significantly higher than the Nation (by 3 points) and Large Cities (by 5 points). Boston's average was also statistically one of the highest among all TUDA districts.



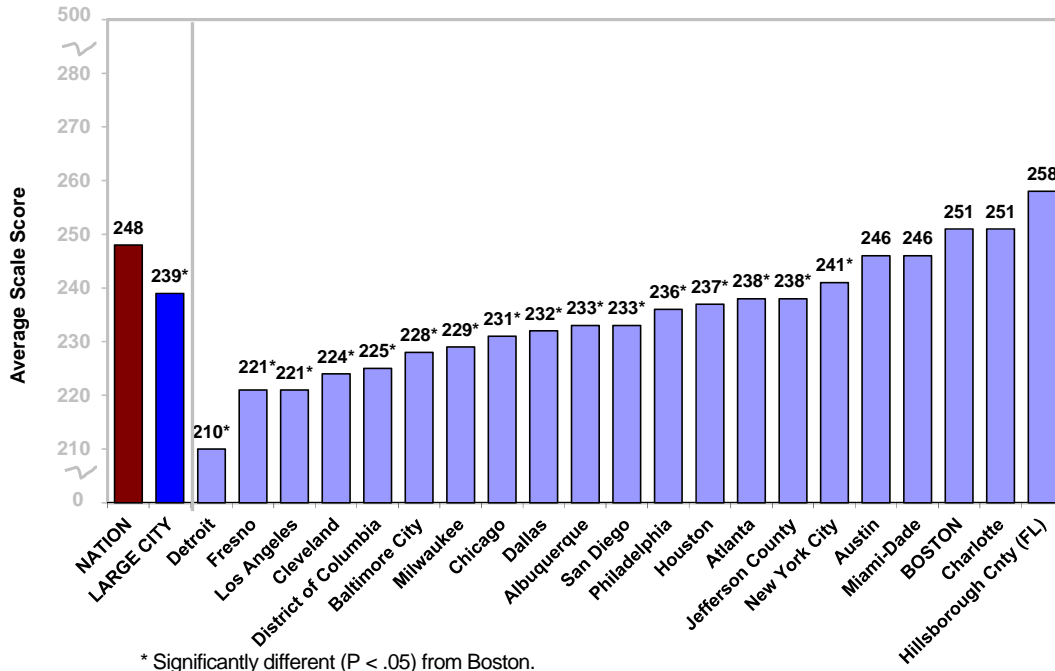
- Among 8th graders, the performance of Boston’s low-income students was not only significantly higher than the national and Large City averages, but was also higher than all TUDA districts, and statistically tied with Houston and Charlotte.

Students with Disabilities



- In 4th grade, the average score for students with disabilities in Boston was comparable to that of their peers in Large Cities but was significantly lower than national average by 4 points. Boston’s special education students also performed better than most TUDA districts, and none had a statistically higher score.

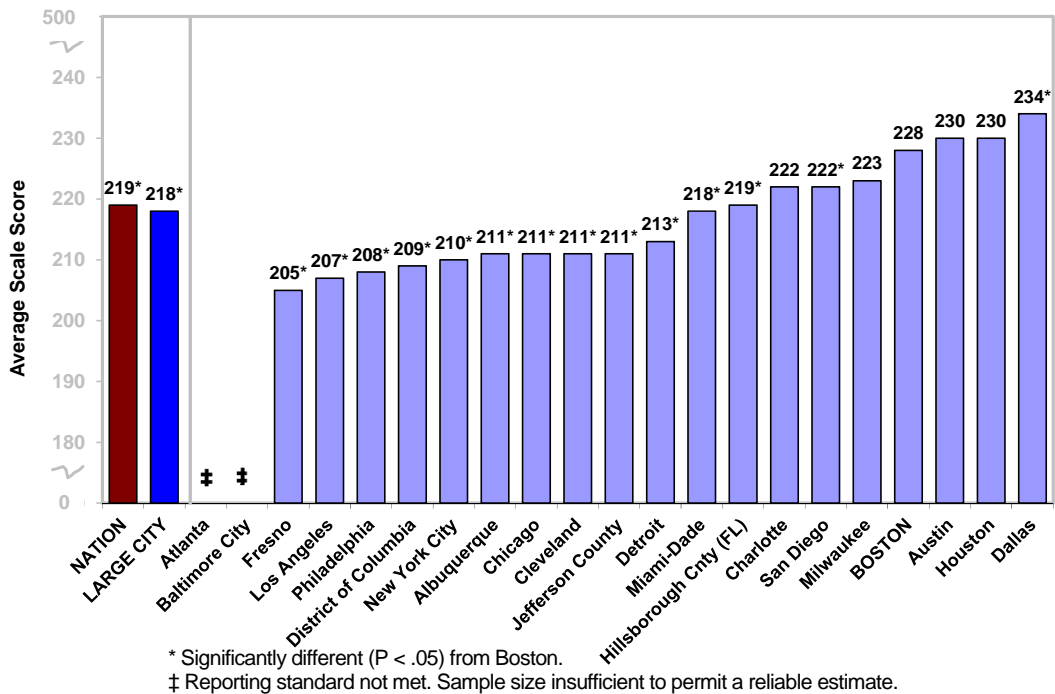
Grade 8 Students with Disabilities
2013 Mathematics Average Scale Score Comparisons Boston and Nation, Large City & TUDA Districts



- In 8th grade, students with disabilities in Boston outperformed their peers in Large Cities. Their average score was not significantly different from the national average. Boston's average for special education students was also the second highest (tied with Charlotte) among the TUDA districts and not significantly different from Hillsborough's.

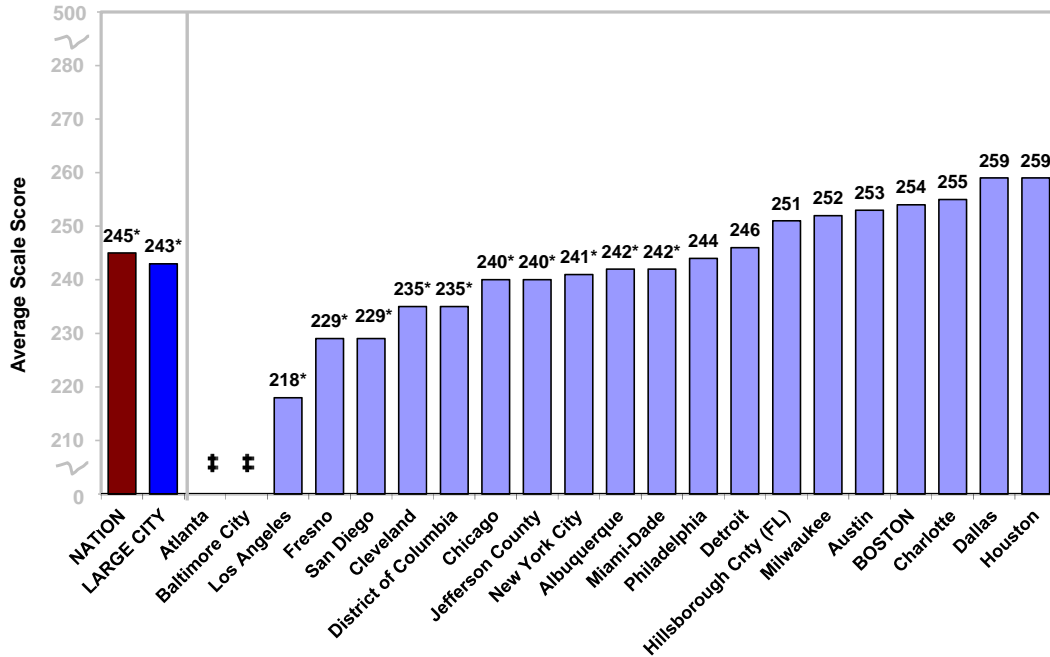
English Language Learners

Grade 4 English Language Learners
2013 Mathematics Average Scale Score Comparisons Boston and Nation, Large City & TUDA Districts



- Boston's 4th grade English Language Learners (ELLs) had an average scale score higher than the national average and that of their peers in Large Cities. Compared to other TUDA districts, only one (Dallas) of the 19 districts with a sufficiently large ELL sample had a significantly higher average than Boston's.

Grade 8 English Language Learners
2013 Mathematics Average Scale Score Comparisons Boston and Nation, Large City & TUDA Districts



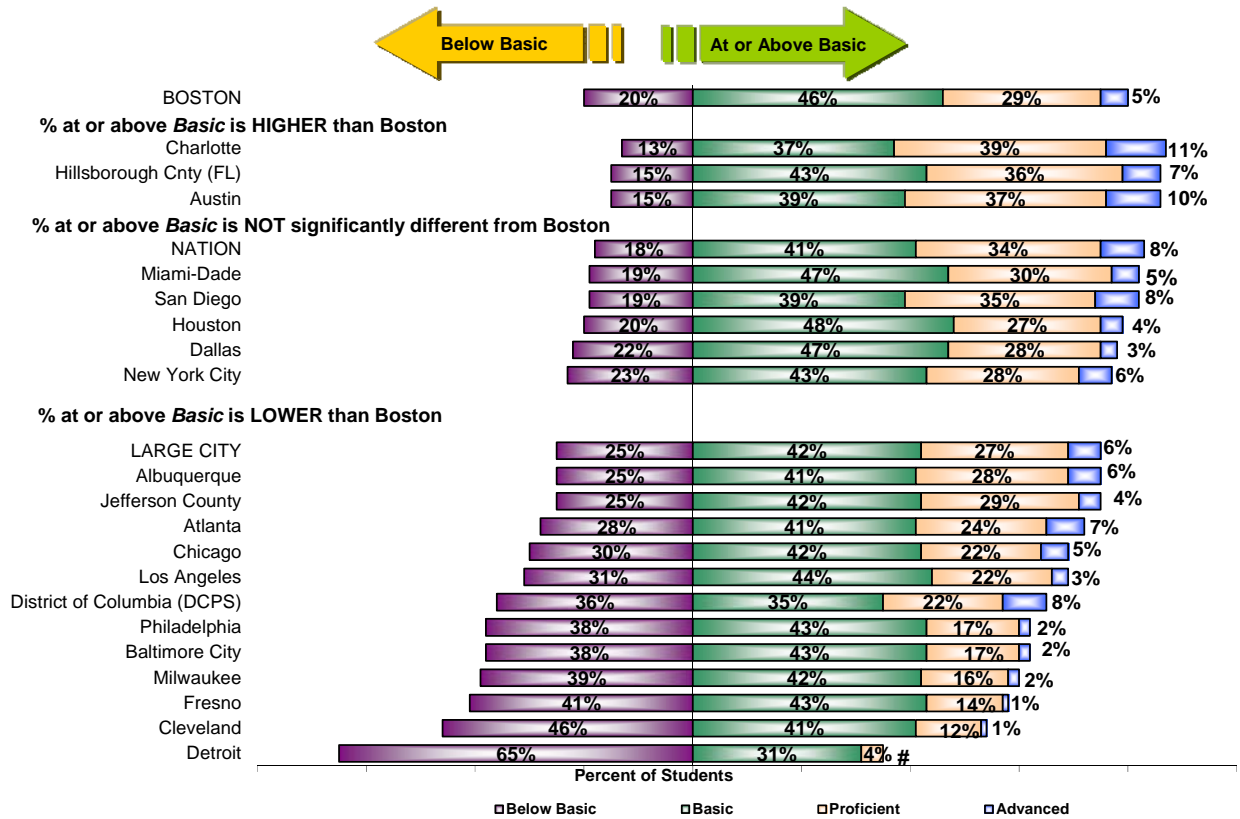
* Significantly different (P < .05) from Boston.

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

- ELL students in 8th grade had an average score that was significantly higher than that of their ELL peers across the nation and in Large Cities. Boston's ELL average was statistically equivalent to the highest among TUDA districts.

(6) Mathematics Performance by Achievement Level: Boston vs. Nation, Large Cities, and TUDA Districts

Grade 4 Mathematics Percentage of Students Scoring at or Above Basic:

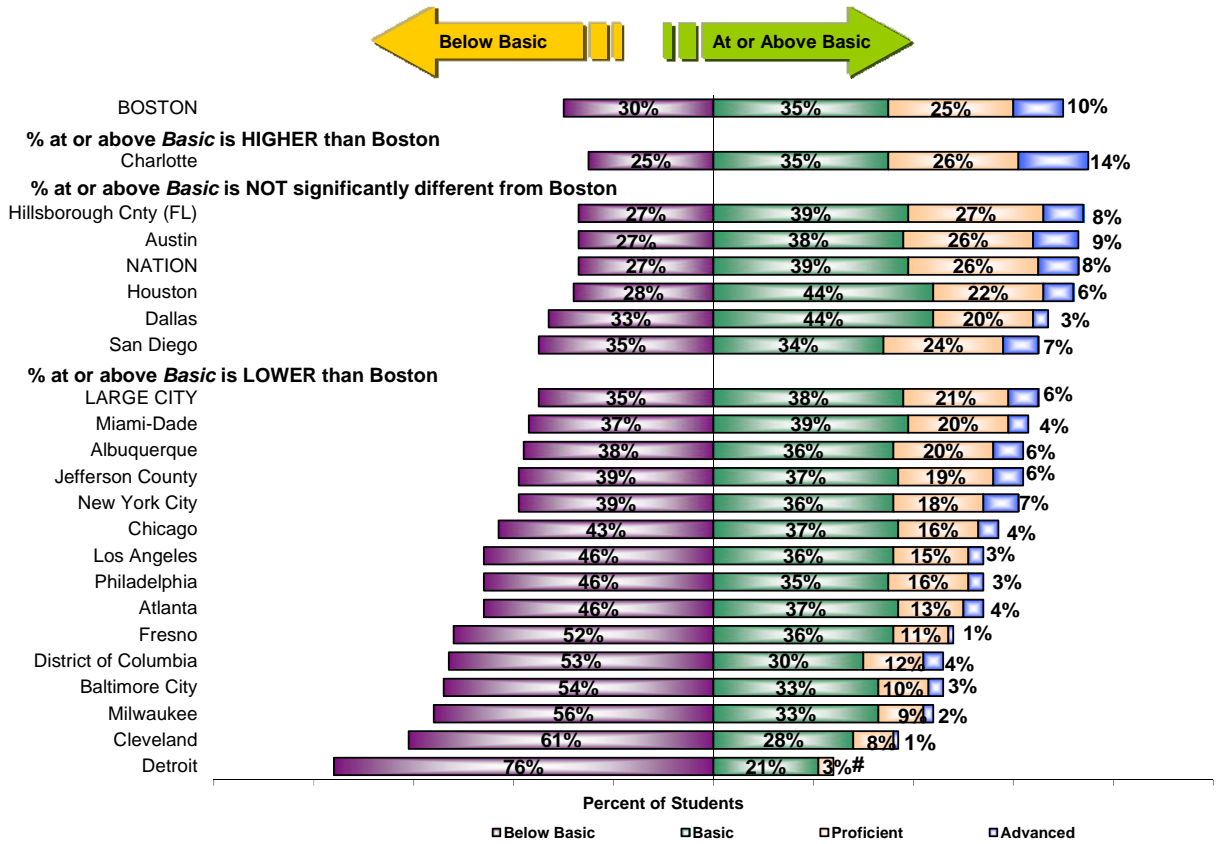


Estimate rounds to zero.

NOTE: Detail may not sum to totals because of rounding.

- In 2013, 80% of Boston's 4th grade students scored at the basic level or above on the math assessment. This percentage was significantly higher than or equal to that of all but three other TUDA districts. Boston's performance was not significantly different from the Nation overall (82%). However, a higher percentage of Boston students performed at the Basic level or above compared to students in Large Cities (75%).

Grade 8 Mathematics Percentage of Students Scoring at or Above Basic:



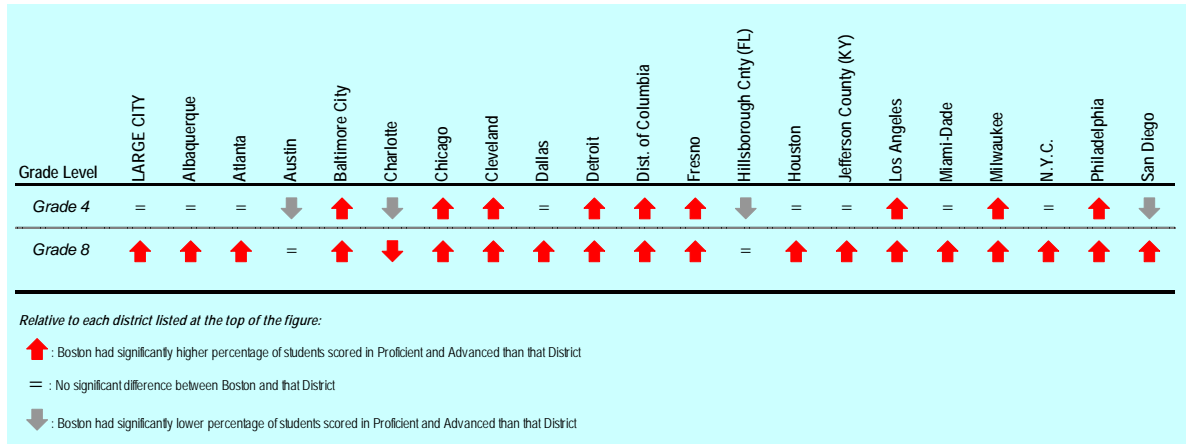
Estimate rounds to zero.

NOTE: Detail may not sum to totals because of rounding.

- In grade 8, the percentage of students in Boston who performed at or above Basic (70%) was significantly higher compared to 14 other TUDA districts, as well as Large Cities (65%). Boston's percentage was not significantly different from the Nation's (73%). Only Charlotte (75%) had a significantly higher rate than Boston's.

2013 Mathematics Percentage of Students Scoring at or Above Proficient

Percentage of Students Scoring at or Above Proficient in 2013 Mathematics: Boston vs. TUDA Districts



- In 2013, Boston's 4th grade proficient/advanced rate (34%) was significantly higher than that of 9 TUDA districts. Boston's rate was about the same as that of Large Cities.
- Boston's 8th graders performed significantly better than students in Large Cities, with a proficient/advanced rate of 36%. Compared to all the other TUDA districts, Boston's performance was second only to Charlotte's and the difference was not statistically significant.

Performance Over Time: 2003 - 2013

Percentage of Students Scoring at or Above Proficient in Mathematics, 2003-2013

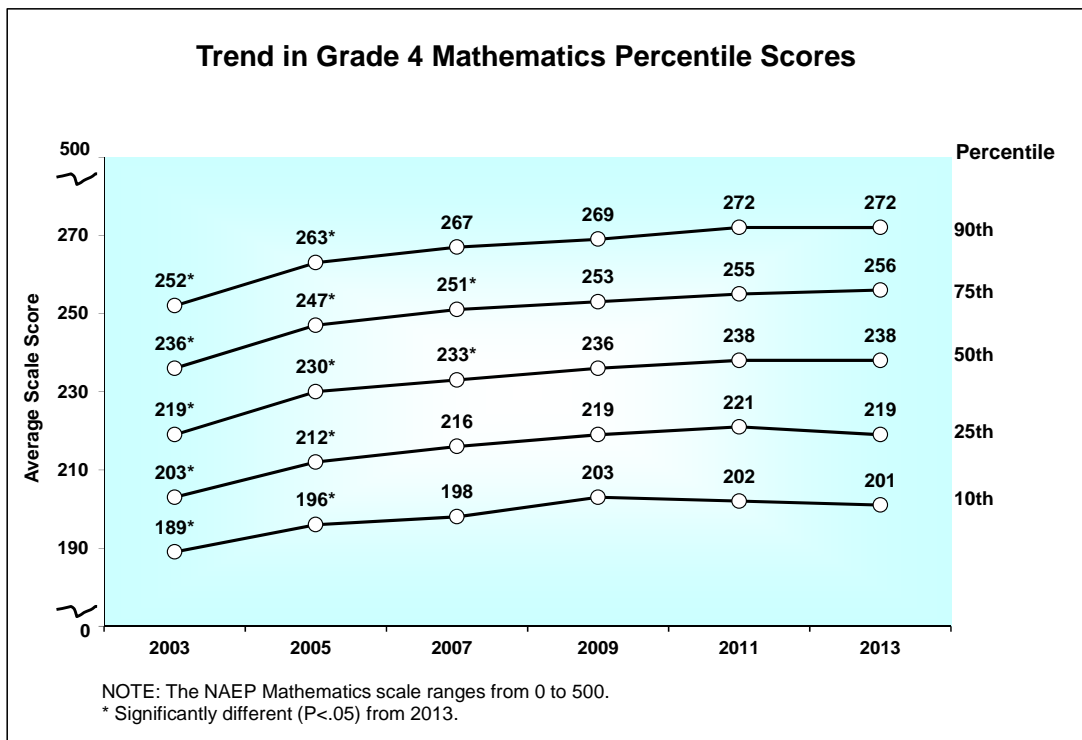
	Grade 4						Grade 8					
	2003	2005	2007	2009	2011	2013	2003	2005	2007	2009	2011	2013
LARGE CITY	20**	24**	28**	29**	30**	33	16**	19**	22**	24**	26	27
Albuquerque	--	--	--	--	34	34	--	--	--	--	26	26
Atlanta	13**	17**	20**	21**	25**	31	6**	7**	11**	11**	16	17*
Austin	--	40**	40**	38**	46	46*	--	33	34	39	38	35*
Baltimore	--	--	--	13**	17	19*	--	--	--	10	13	13*
Boston	12**	22**	27**	31	33	34	17**	23**	27**	31**	34	36*
Charlotte	41**	44	44	45	48	50*	32**	33**	34**	33**	37	40*
Chicago	10**	13**	16**	18**	20**	28*	9**	11**	13**	15**	20	20*
Cleveland	10	13	10	8**	11	13*	6**	6**	7	8	10	9*
Dallas					25	30	--	--	--	--	22	23*
Detroit	--	--	--	3	3	4*	--	--	--	4	4	3*
District of Columbia	7**	10**	14**	19**	23**	30*	6**	7**	8**	12**	15	17*
Fresno	--	--	--	14	15	15*	--	--	--	15	13	12*
Hillsborough Cnty (FL)	--	--	--	--	43	43*	--	--	--	--	32	34*
Houston	18**	26	28	30	32	32	12**	16**	21**	24	27	28
Jefferson County	--	--	--	31	32	33	--	--	--	22	25	25
Los Angeles	13**	18**	19**	19**	20**	25*	7**	11**	14**	13**	16	18*
Miami-Dade	--	--	--	33	33	34	--	--	--	22	22	24
Milwaukee	--	--	--	15	14	18*	--	--	--	7**	10	11*
N.Y.C.	21**	26**	34	35	32	34	20**	20	22	26	24	25
Philadelphia	--	--	--	16	20	19*	--	--	--	17	18	19*
San Diego	20**	29**	35**	36**	39	42*	18**	22**	24**	32	31	31*

* Significantly different (P < .05) from Large City in 2013.
 ** Significantly different (P < .05) from 2013.

- The percentage of students scoring at or above Proficient in mathematics in 2013 for Boston was equal to Large Cities in grade 4 and statistically higher than in grade 8.
- For both grades 4 and 8, Boston made significant improvements in the percentage of students performing at or above Proficient since 2003, 2005 and 2007. Boston also saw a significant improvement in grade 8 from 2009 to 2013, with a 5-point increase. Since 2003, the percentage of 4th graders who are proficient/advanced increased by 22 points, compared to 13 points for large cities; and the percentage of proficient/advanced in 8th grade increased 19 points for Boston, compared to 11 points for Large Cities.

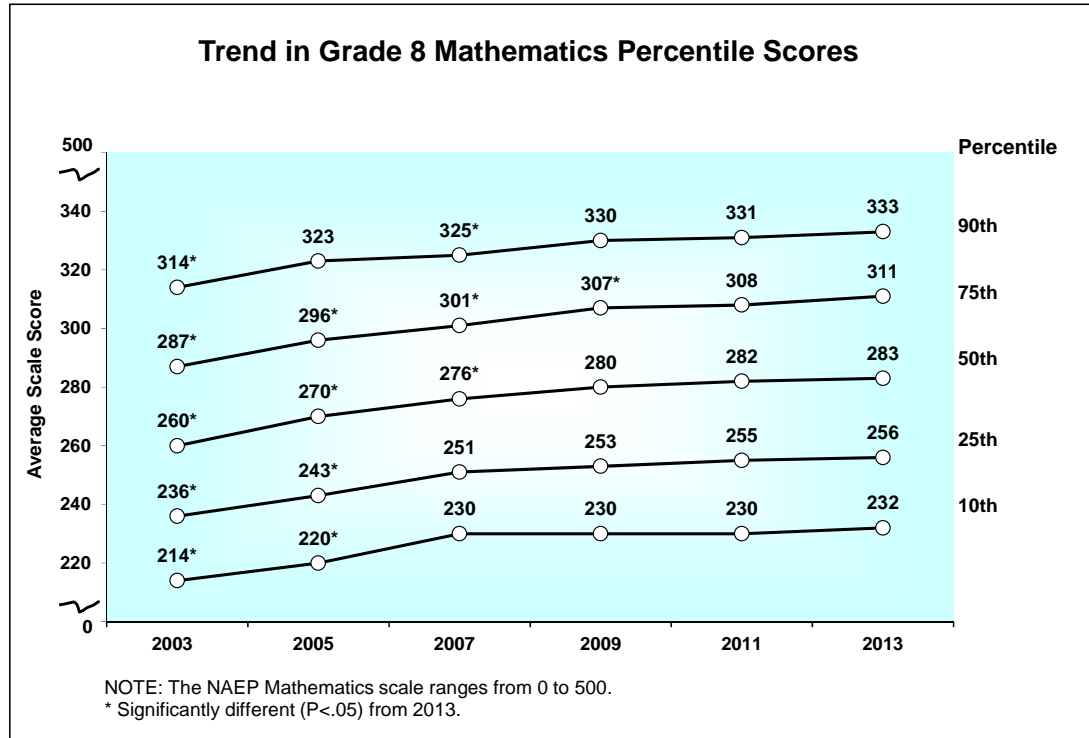
(7) Mathematics Performance by Percentile Rank

Grade 4 Mathematics



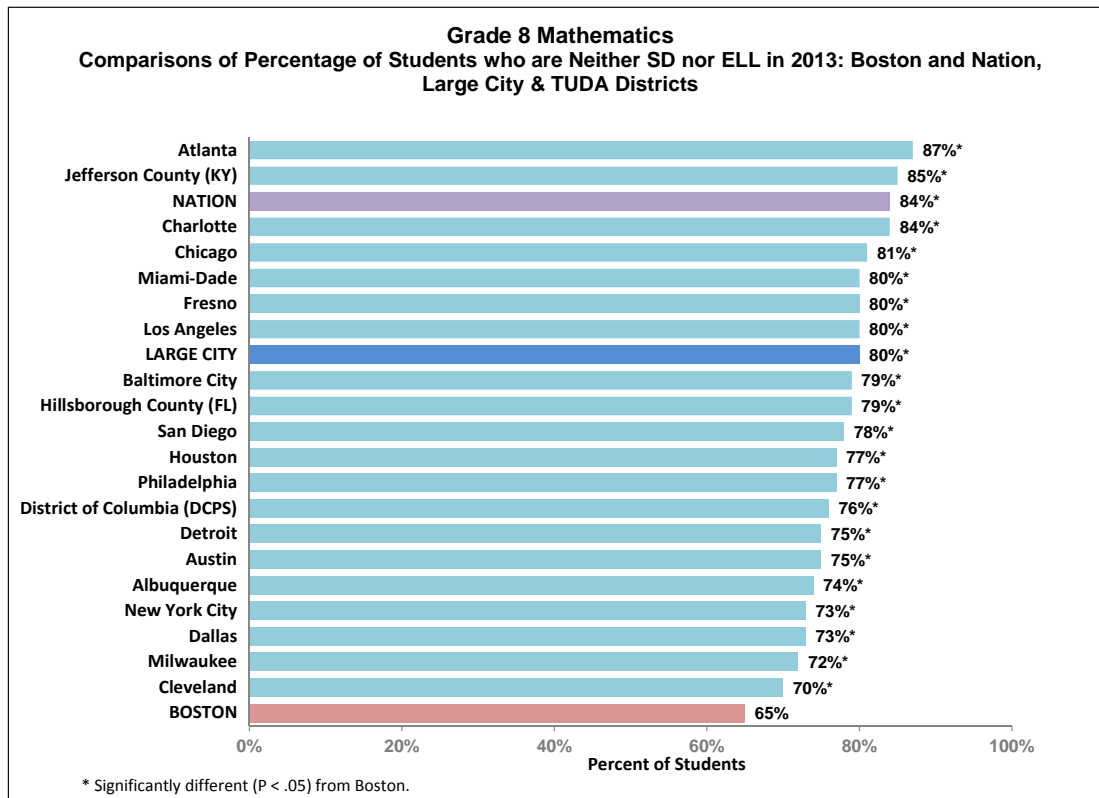
- Among Boston's 4th graders, significant improvements continued since 2003 and 2005 at all performance levels. Fourth graders at the 75th and 50th percentiles also saw significant gains since 2007, with a 5-point increase each. Although there were improvements since 2009 for students at the middle (50th percentile) and high-performing levels (at the 75th and 90th percentiles), the increases were not statistically significant.

Grade 8 Mathematics



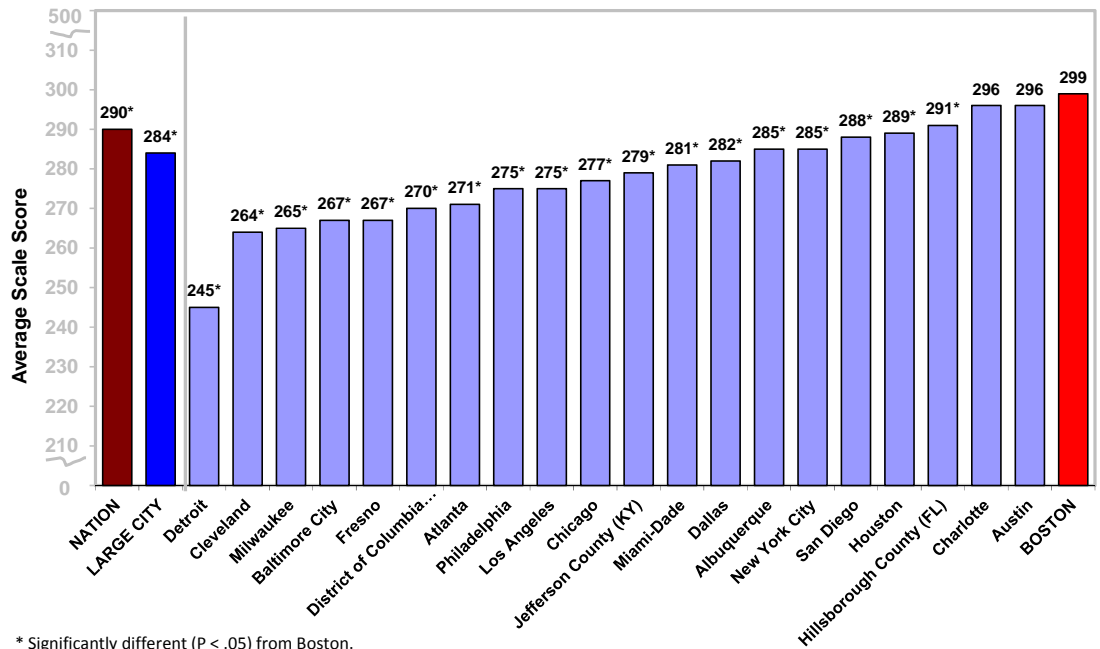
- Among Boston's 8th graders, significant improvements continued since 2003 at all performance levels. Eighth graders at all but the lower-performing levels (25th and 10th percentile) also saw significant gains since 2007.

(8) Mathematics Performance of Students Who are Neither Students with Disabilities Nor English Language Learners



- The percentage of students who were neither SD nor ELL (i.e. general education students) in Boston who took the 8th grade math test was 65%; this rate is significantly lower than all other jurisdictions, which ranged from 70% to 87%, with 85% for the Nation and 80% for Large City.

Grade 8 Regular Education Students
2013 Mathematics Average Scale Score Comparisons: Boston and Nation, Large City & TUDA Districts



- Boston's general education students had the highest score in 8th grade math, significantly better than the Large City and national averages.

APPENDIX A: Assessment Framework

The content for each NAEP assessment is determined by the National Assessment Governing Board (NAGB). The framework, which incorporates ideas and input from subject area experts, school administrators, policymakers, teachers, parents, and others, documents the specific knowledge and skill areas to be measured, and sets guidelines for the types of texts and questions to be used, as well as how the questions should be designed and scored.

Reading

The 2013 NAEP reading assessment uses the same framework used in 2009. The reading framework includes two types of texts on the assessment: literary texts and informational texts. The framework also specifies that vocabulary knowledge will be assessed in the context of a passage. Vocabulary items function both as a measure of passage comprehension and as a test of readers' specific knowledge of the word's meaning as intended by the passage author. The framework includes three cognitive targets, or behaviors and skills, for items from both literary and informational texts: Locate/Recall, Integrate/Interpret, and Critique/Evaluate.

The 2009 NAEP Reading Framework replaced the previous reading framework that was used from 1992 through 2007. Compared to the previous framework, the 2009 reading framework includes more emphasis on literary and informational texts, a redefinition of reading cognitive processes, a new systematic assessment of vocabulary knowledge, and the addition of poetry to grade 4.

Results from special analyses determined the 2009 reading assessment results could be compared with those from earlier assessment years. A summary of these special analyses and an overview of the differences between the previous framework and the 2009 framework are available on the Web at http://nces.ed.gov/nationsreportcard/reading/trend_study.asp.

Mathematics

The 2013 NAEP mathematics framework, which defines the content and format for the 2013 assessment, reflects changes from 2005 in grade 12 only; mathematics content objectives for grades 4 and 8 have not changed. Therefore, main NAEP trend lines from the early 1990s can continue at fourth and eighth grades for the 2013 assessment.

The mathematics framework calls for the assessment to include questions based on five mathematics content areas: 1) Number Properties and Operations; 2) Measurement; 3) Geometry; 4) Data Analysis, Statistics, and Probability; and 5) Algebra. In addition, the framework specifies that each question should measure one of three levels of mathematical complexity (refers to the cognitive demands of the item) – low, moderate, and high. By considering these two criteria (mathematical content and mathematical complexity) for each question, the framework ensures that NAEP assesses an appropriate balance of content along with a variety of ways of knowing and doing mathematics.

Accommodations

It is NAEP's intent to assess all selected students from the target population. Beginning in 2002, students with disabilities and English language learners who require accommodations have been permitted to use them in NAEP, unless a particular accommodation would alter the skills and knowledge being tested. For example, calculators are not permitted on non-calculator sections of the NAEP mathematics test for students who would otherwise require non-standard accommodations provided on state assessment. The table below shows the comparisons of frequently provided accommodations for Students with Disabilities (SD) and English Language Learners (ELL) between Massachusetts and the NAEP.

**Comparisons of Frequently Provided Accommodations for
Students with Disabilities (SD) and English Language Learners (ELL)
MA vs. NAEP**

Accommodations	Reading				Math			
	MA		NAEP		MA		NAEP	
	SD	ELL	SD	ELL	SD	ELL	SD	ELL
Takes test in a small group	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Takes test one on one	Yes	Yes*	Yes	Yes	Yes	Yes*	Yes	Yes
Directions only read aloud in English	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Test Items Read aloud in English - occasional	Yes	Yes*	No	No	Yes	Yes*	Yes	Yes
Test Items Read aloud in English - most or all	Yes	Yes*	No	No	Yes	Yes*	Yes	Yes
Extended time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Breaks during testing	Yes	Yes*	Yes	Yes	Yes	Yes*	Yes	Yes
Has test administered by a familiar person	Yes	Yes*	Yes	Yes	Yes	Yes*	Yes	Yes
Responds orally to a scribe	Yes	Yes*	Yes	Yes	Yes	Yes*	Yes	Yes
Magnification equipment	Yes	Yes*	Yes	Yes	Yes	Yes*	Yes	Yes
Large print version of test	Yes	Yes*	Yes	Yes	Yes	Yes*	Yes	Yes
Uses Template/Special Equipment/Preferential seating	Yes	Yes*	Yes	Yes	Yes	Yes*	Yes	Yes
Cueing to stay on task	Yes	Yes*	Yes	Yes	Yes	Yes*	Yes	Yes
Presentation or response in Braille	Yes	Yes*	Yes	Yes	Yes	Yes*	Yes	Yes
Presentation in Sign Language	Yes	Yes*	Yes	No	Yes	Yes*	Yes	Yes
Response in Sign Language	Yes	Yes*	Yes	Yes	Yes	Yes*	Yes	Yes
Bilingual dictionary without definitions	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
General directions read aloud in Spanish	No	No	Yes	Yes	No	No	Yes	Yes
Test items read aloud in Spanish	No	No	No	No	No	No	Yes	Yes
Spanish/English version of the test	No	No	No	No	No	No	Yes	Yes

* only for ELLS with disabilities

Population Tested

Results from the biennial Trial Urban District Assessment from 2003 to 2013 are reported for the participating districts for public-school students at grades 4 and 8. The TUDA assessment employed larger-than-usual samples within the districts, making reliable district-level data possible. The samples were also large enough to provide reliable estimates on subgroups within the districts, such as female students or Hispanic students. Because students were sampled, all analyses are examined for statistical significance.

In Boston, students from about 70 schools at grade 4 and 40 schools at grade 8 participated in the 2013 NAEP assessments. A total of 3,200 students were assessed in mathematics (1,700 at grade 4 and 1,500 at grade 8), and a total of 3,400 students were assessed in Reading (1,800 at grade 4 and 1,600 at grade 8).

Appendix B



NAEP vs. MCAS

Introduction

Under the federal *No Child Left Behind Law* (NCLB) and state *Education Reform Law of 1993*, Boston Public School students are required to participate in two testing programs: the National Assessment for Educational Progress (NAEP) and the Massachusetts Comprehensive Assessment System (MCAS). The biennial NAEP Trial Urban School District Assessment (TUDA) provides important information for understanding the effectiveness of the BPS school system relative to other large urban school districts. By contrast, the annual MCAS test provides critical information about the academic performance of BPS compared to other Mass. Public schools, as well as a measure of how well BPS students have mastered the Mass. Curriculum standards.

This appendix provides a brief comparison of MCAS with NAEP, and serves as a guide for understanding and interpreting the test results.

Overview

NAEP

- The National Assessment of Educational Progress (NAEP), known as the Nation's Report Card, is a Congressionally-mandated assessment introduced in 1969. It includes state wide assessments since 1990, and the first Trial Urban School District Assessment (TUDA) since 2002. Based on policy set by the National Assessment Governing Board (NAGB), NAEP measures what students know and can do in key subject areas.

MCAS

- The Massachusetts Comprehensive Assessment System (MCAS), fulfilling requirements of the Education Reform Act of 1993, is the Commonwealth's statewide assessment program for public schools since 1998.

Requirements for Student Participation

Student Selection

NAEP

- Based on sampling, a representative sample from randomly selected schools must participate in NAEP testing. For Trial District Assessment, the target sample sizes per subject per grade is 1200-1400 students. About 60 students, 30 per subject, at each participating school are tested.

MCAS

- All Massachusetts public school students in the grades tested must take the MCAS tests.



Student Participation

NAEP

- Beginning in 2003, schools receiving Title I funding are required to participate in the biennial NAEP assessments in reading and mathematics at grades 4 & 8 if selected for the NAEP sample. Under NCLB, parental notification prior to testing is mandatory to inform parents of students who are sampled that their child's participation is voluntary.

MCAS

- Every public school student is mandated to take the test. For Class of 2003 through Class of 2009, passing grade 10 ELA and Math tests is a part of the graduation requirement. Beginning with the Class of 2010, students must either achieve *Proficient or Advanced* on both ELA and Math tests, or pass both tests and fulfill the requirements of an Educational Proficiency Plan (EPP). Also, students must pass one of the high school MCAS Science and Technology/Engineering (STE) tests: Biology, Chemistry, Introductory Physics, or Technology/Engineering.

Inclusions & Accommodations

NAEP

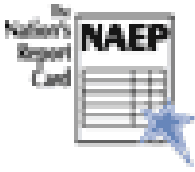
Includes students with disabilities and English Language Learners (ELL) students in the assessment.

- **ELL:** ELL students sampled to take the NAEP assessments, who have been enrolled in U.S. schools for less than 12 months, *can* be excluded from NAEP **reading** testing only. All other ELLs should participate in NAEP with or without NAEP allowed accommodations.
- **Students with Disabilities:** Based on their IEP, students with disabilities are tested with appropriate accommodations unless the student's IEP team judges that he or she cannot participate or if NAEP does not allow an accommodation that the student requires.

MCAS

Includes students with disabilities and English Language Learners (ELL) students in the assessment.

- **ELL:** Beginning in 2003, the new laws, *No Child Left Behind Law* as well as *Question 2*, the Massachusetts ballot initiative approved by voters in November 2002, require that all ELL students participate in state administered academic assessments, with the sole exception of ELL students in their first year of enrollment in U.S. schools. Schools have the option of testing first-year ELL students in ELA only.
- **Students with Disabilities:** The vast majority of students with disabilities take standard MCAS tests, either with or without accommodations as specified in their IEP plan. Only a very small number of students with the most significant disabilities take the MCAS Alternate Assessment.



Test Content/Instrument Design

Framework

NAEP

The content and design of NAEP assessments were constructed based on the Assessment Frameworks that were developed by the National Assessment Governing Board (NAGB).

- **Reading:** The 2013 NAEP Reading Framework is the same framework that was used in 2009 and 2011 reading assessment.
- **Math:** The 2013 NAEP Mathematic Framework is the same framework used in 2007, 2009 and 2011 mathematic assessment (reflects changes from 2005 in grade 12 only).

MCAS

The content knowledge and skills tested by MCAS were based on the learning standards in the Massachusetts Curriculum Framework for the content area.

- **English Language Arts:** Massachusetts English Language Arts and Literacy Curriculum Framework, March 2011
- **Math: Grades 3-8:** Near full implementation of 2011 MA Mathematics Curriculum Framework (with a focus on the 2011 standards that connect to the 2000/2004 Framework). Grade 10: standards from the 2011 framework that matches content in the grade 9-10 math standards from the 2000 framework.

Content Standards Tested and Distribution of Test Items

NAEP

Reading Content Area (Gr. 4; Gr. 8)

- Literary (50%; 45%)
- Informational (50%, 55%)

Math Content Area (Gr. 4; Gr. 8)

- Number Properties/Operations (40%; 20%)
- Measurement (20%, 15%)
- Geometry (15%, 20%)
- Data Analysis/Statistics/Probability (10%, 15%)
- Algebra (15%, 30%)

MCAS

ELA Content Area (Gr. 4; Gr. 8)

- Language (8%, 12%)
- Reading (64%, 88%)
- Composition (28%, 0%)

Math Content Area (Gr. 4; Gr. 8)

- Operations & Algebraic Thinking (25%, 0%)
- Number & Operations in Base Ten (20%, 0%)
- Number & Operations-Fractions (20%, 0%)
- Geometry (15%, 30%)
- Measurement & Data (20%, 0%)
- The Number System (0%, 5%)
- Expressions & Equations (0%, 30%)
- Functions (0%, 25%)
- Statistics & Probability (0%, 10%)

Test Construction

NAEP

- Matrix sampling, Long test short booklet, each student gets a small part of the test. Thus, no individual student scores.

MCAS

- Every student gets the same test booklet that contains both common items and matrix sampling items. All students receive scores based on common items only.

Type of Questions

NAEP

- **Reading/Math:** Multiple-Choice, Short constructed response, and extended constructed response questions.

MCAS

- **ELA Reading Comprehension:** Multiple-Choice, Open-response, short-response (Grade 3 only).
- **English Language Arts:** Multiple-Choice, Open-response, and Writing Prompts.
- **Math:** Multiple-Choice, short-answer, open-response items.

Test Questions release

NAEP

- For each subject, only selected test questions are released to the public. For current year and historical released test questions, please visit:
<http://nces.ed.gov/nationsreportcard/itmls/>

MCAS

- Prior to 2009, for each subject and test grade, all common items are released to the public. Beginning in 2009 and onward only approximately 50% of common test items in grades 3-8 are released each year. For current year and historical released test items, please visit:
<http://www.doe.mass.edu/mcas/testitems.html>

Testing Administration

2013 NAEP

Same for National NAEP, State NAEP, and Trial Urban District Assessment (TUDA) NAEP

Testing Date: 1/28/2013 – 3/8/2013

Testing Time (per subject): 50 minutes

Test Grade:

- Reading - Grades 4, 8, & 12 (state only)
- Mathematics – Grades 4, 8, & 12 (state only)

Test Administration: The NAEP Representative from NAEP data collection contractor is responsible for all assessment activities including coordinating, conducting, and sending test materials to the scoring facility.

Test Sequence: All tests are conducted simultaneously in the same classroom; some students take Reading, other students take either mathematics or Science test.

2013 MCAS

Testing Date:

- ELA Composition test: 3/25/2013 (make-up 3/28/2013)
- ELA Reading Comprehension (G3-8, & 10): 3/18/2013 – 4/5/2013
- Math: 5/6/2013 – 5/21/2013
- Science (Grades 5 & 8): 5/7/2013 – 5/21/2013; High School STE: 6/4/2013 – 6/5/13

Testing Time (per subject): Un-timed

Subjects & Test Grade:

- ELA Reading Comprehension – Grades 3, 5, 6, & 8
- English Language Arts – Grades 4, 7, & 10
- Mathematics – Grades 3-8 & 10
- Science & Technology/Engineering – Grades 5, 8, & 9/10

Test Administration: School teachers/personnel are responsible for all assessment activities.

Test Sequence: All students take the same test in the same classroom.

Scoring

NAEP

- Short constructed-response questions are scored according to a three-level rubric:
Math: Correct, Partial, & incorrect.
Reading: Evidence of full comprehension, Evidence of partial or surface comprehension, & Evidence of little or no comprehension
- The extended constructed-response questions are rated based on a four-level rubric :
Math: Extended, Satisfactory, Partial, Minimal, & Incorrect.
Reading: Extensive, Essential, Partial, & Unsatisfactory

MCAS

- Multiple-choice and short-answer questions are scored blank/0 or 1.
- Open-response questions are scored on a 0 to 4 scale based on the scoring rubrics. Grade 3 Math is scored using a 0 to 2 rubric.
- Student compositions are independently scored by two scorers on the following criteria: (1) a score of 1–6 in topic development, and (2) a score of 1-4 for the use of standard English writing conventions. Students receive the sum of the scores from each of the two readers.

Data Availability

NAEP

- No student-level results
- No school-level results
- No district-level results (except TUDA)
- Not designed to assess a specific curriculum

MCAS

- Student-level results
- School-level results
- District-level results
- Designed to measure the state's curriculum

Reporting

Performance Standard

NAEP

Three Achievement Levels:

- **Advanced:** Represents superior performance
- **Proficient:** Represents solid academic performance for each grade assessed
- **Basic:** Denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.

MCAS

Four Performance Levels:

- **Advanced:** Students at this level demonstrate a comprehensive and in-depth understanding of rigorous subject matter, and provide sophisticated solutions to complex problems.
- **Proficient:** Students at this level demonstrate a solid understanding of challenging subject matter and solve a wide variety of problems.
- **Needs Improvement:** Students at this level demonstrate a partial understanding of subject matter and solve some simple problems.
- **Warning/Failing:** Students at this level demonstrate a minimal understanding of subject matter and do not solve simple problems.

Scaled Score**NAEP**

- Range: 0 – 500
- Scaled Score Corresponding to Performance Level: vary by subject and test grade

Reading:

	<u>Grade 4</u>	<u>Grade 8</u>
Advanced	268 – 500	323 – 500
Proficient	238 – 267	281 – 322
Basic	208 – 237	243 – 280
Below Basic*	0 – 207	0 – 242

Mathematics:

	<u>Grade 4</u>	<u>Grade 8</u>
Advanced	282 – 500	333 – 500
Proficient	249 – 281	299 – 332
Basic	214 – 248	262 – 298
Below Basic*	0 – 213	0 – 261

* Below Basic is not an Achievement level

- Average scaled scores cannot be compared across grades.

MCAS

- Range: 200 – 280
- Scaled Score Corresponding to Performance Level: same for all subjects and test grade

Performance Level

<u>Performance Level</u>	<u>Scaled Score</u>
Advanced/Above Proficient	260 – 280
Proficient	240 – 258
Needs Improvement	220 – 238
Warning/Failing	200 – 218

- Averages must be calculated from raw scores, then converted to the corresponding scaled score.

Interpreting Results**NAEP**

- The NAEP results as reported as average scores, and percentages are **estimates** because they are based on samples rather than the entire population(s).
- Differences in scores must be statistically significant in order to report a change.

MCAS

- Comparisons of performance on subject area subscores across years must be made with caution because the number of items contributing to each subscore is relatively small and the difficulty of the items may vary somewhat from year to year.

Additional Information**NAEP**

The Nation's Report Card (NAEP) (NCES)
National Center for Education Statistics
1990 K Street, NW
Washington, DC 20006
Phone: (202) 502-7300
Web site:
<http://nces.ed.gov/nationsreportcard/>

MCAS

The Massachusetts Department of
Elementary and Secondary Education
Student Assessment Services Unit
75 Pleasant Street
Malden, MA 02148-4906
Phone: (781) 338-3625
Web site: <http://www.doe.mass.edu/MCAS>

Appendix C

Selected Sample of 2013 NAEP Questions

Because of differences in curricular emphasis, the proportion of the assessment devoted to each content area varies by grade. The following are sample released questions from the 2013 NAEP assessments (one item per test grade and subject). Additional sample questions from the NAEP reading and mathematics assessments can be found in the NAEP Questions Tool (NQT) at <http://nces.ed.gov/nationsreportcard/itmrlsx/>.

Grade 4 Reading Sample Question:

Granddaddy

by T. C. Roth

The tip of my fishing pole jerked twice and then bent in half as the line went tight. "Hey, Granddaddy!" I shouted. "It's Walter!"

I could hear footsteps like castanets on the loose stones of the riverbank. "Can't be Walter," he said, arriving at my side. "Old Walter wouldn't be caught dead going after some youngster's worm. I've had him on my line more times than I can count, even managed to bring him right in to shore once or twice, but he's always managed to slip the hook. He's just too smart to catch."

But all the time Granddaddy was talking, Walter was swimming. He swam straight for me, then he swam straight away. He swam down deep, and then he swam to the surface and clear out of the river, flapping his tail and shaking his head, and just before he fell back beneath the water with a mighty white splash, I thought I saw him wink at me.

"That's a good-sized trout, though," Granddaddy said. "Keep your rod tip up and the slack out of your line. That's a boy." Then he disappeared back down the riverbank.

"No, Granddaddy, wait!" I called, but he was already gone. My arm was getting tired and my heart was beating like an iron fist in my chest. I tried to remember everything he had taught me about fishing, and then I tried my best to do as I remembered. But try as I might, something went wrong. My rod went straight and my line went limp, and



"You can't catch them all."

when I reeled in the hook, Walter was gone.

"You can't catch them all," Granddaddy said as we walked back to the house, "and you're getting better all the time. Why, you're almost as fine a fisherman as I am, did you know that?"

But I was hardly listening. I felt robbed, as if someone had stolen my bike or something. My eyes were burning and there was a hot hard knot in my throat, as if I'd just swallowed the sun. "It's not fair. It's just not fair," I moaned.

"Nonsense," Granddaddy said. "There's always tomorrow. You have to be persistent to catch the granddaddy of all the trout in this river. And maybe a little lucky, too." He put his big warm hand on my shoulder and drew me close. I felt better.

Page 3

That night I tossed and I turned and I dreamed of the river. I saw the water boil under the old dead tree, and I saw Walter jumping through the mist in a big curving arc that left a rainbow. I saw myself playing him like a real pro, like Granddaddy, until I pulled him up on the riverbank and carried him home and got my picture in the newspaper and went on to be a world-famous fisherman. I dreamed I had him stuffed and mounted and hung on my bedroom wall, and I dreamed people came from miles around to see what a fine fish I had caught. All this and more I dreamed, and then at dawn I slipped from my bed and went down to the river.

I strung the rod Granddaddy had made specially for me and baited the hook just the way he did. Then I closed my eyes and said Granddaddy's magic words. "Guaranteed to catch one every time if you say the magic

words," I could almost hear him say.

Then I cast out to the old dead log where the water was silent and dark and full of deep secrets, and I waited.

"You have to have patience if you want to catch the big ones," Granddaddy had whispered on more than one occasion. I waited and I waited and I waited some more. I waited while the birds sang reveille to the rising sun. I waited while the beaver and the muskrat had their morning swim. I waited until I thought I would burst, but then the tip of my pole jerked twice and the line went tight and I held on for dear life as Walter ran and jumped and ran some more.

I prayed and I fought and I prayed and I fought, and after what seemed like hours I reeled Walter into the shallows. My arms were bone-tired and my fingers felt glued to the pole, but there was Walter, panting like a dog and completely at my mercy.



I held on for dear life as Walter ran and jumped and ran some more.
Page 4

He was the largest trout I had ever caught and the most beautiful thing I had ever seen, silver and sleek and pretty as a rainbow, and I could hardly wait to take him home to Granddaddy. I grasped him by the tail and slipped the hook from his mouth, but when I lifted him from the water he seemed to grow smaller and his brilliant color began to fade.

"Walter!" I said. "What's happening to you?" But he only returned my stare with

a great wet eye, unblinking and sad. I knew then that I would never be able to take him home with me.

I set him back in the river and let him go, but just before he swam off I thought I saw the corner of his mouth lift in a great wide smile.

When I told Granddaddy about it later that morning, he just grinned from ear to ear and shook his head and said knowingly, "That Walter."

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If You Catch a Firefly

by Lillian Moore

If you catch a firefly
and keep it in a jar
You may find that
you have lost
A tiny star.
If you let it go then,
back into the night,
You may see it
once again
Star bright.



"If You Catch a Firefly" by Lillian Moore, from *A Jar of Tiny Stars: Poems by NCTE Award-Winning Poets*, copyright © 1987 by Lillian Moore. Used by permission of Marian Reiner.
Illustration from *A Jar of Tiny Stars: Poems by NCTE Award-Winning Poets*, edited by Bernice E. Cullinan, illustrations by Andi MacLeod, portraits by Marc Nadel. Copyright © 1998. Published by Wordsong, an imprint of Boyd's Mills Press. Reprinted by permission.

Page 6

7. What is one lesson that could be learned from both the story and the poem? Use details from both the story and the poem to explain your answer.

- **Question Description:** Granddaddy: Interpret thematic connection between two literary texts and support with details from both
- **Block & Number:** Block R3 Question #7
- **Type of Question:** Extended Constructed Response
- **Item Difficulty:** Hard (35.02% Correct)
- **Content Area (2009 and on):** Literary
- **Cognitive Target (2009 and on):** Integrate/Interpret
- **Key/Scoring Guide:**

Extensive

Responses at this level provide a lesson that could be learned from both the story and the poem and explain it using supporting details from both texts.

- Sometimes you just have to let things go that you really, really care about, because the boy in the story had to put the fish back into the river because it was dying, and with the fireflies in the poem you have to let them out of the jar so they don't die.

- Sometimes if you catch a living creature you have to let it go. The boy in the story let go of the fish. And the boy in the poem let go of his lightning bug.

Essential

Responses at this level provide a lesson that could be learned from both the story and the poem but do not explain it using supporting details from both texts. Responses use details from only one of the texts, or provide no supporting details.

- All living things you catch should be put back where you caught them from. Like in the story the boy caught Walter, and Walter started to lose his color and get smaller because he was not in the place he belonged in.
- A lesson that could be learned from both the story and the poem would be if you catch a living thing you should let it free.
- You should never keep a living thing.

Partial

a) Responses at this level provide a lesson or lessons relevant to only one of the texts, with or without supporting details.

- A lesson in this story and poem would be that the story teaches you to be patient and the poem teaches you to leave things where they should be.
- When you catch a living thing, believe that you can do it. Try to think about how to do it. The boy thought about what his grandfather said.
- To never give up. If you want to do something just keep trying.

OR

b) Responses provide details from one or both texts that are relevant to an appropriate lesson for both texts, but they do not provide a lesson. Some responses provide a plot-level lesson.

- In the story, the boy catches the fish but then he lets it go because it looks sad.
- Both the story and the poem talk about catching a living thing and then letting it go.
- Fish cannot live without water and if a firefly is in a jar it can't breathe.
- I learned that to catch a fish you have to hold your rod tip up and keep the slack out of your line.

Unsatisfactory

a) Responses at this level may provide lessons that do not apply to either text.

- You should not judge a book by its cover.

OR

b) Responses provide text summaries, irrelevant details, or personal opinions, or they may simply repeat the question.

- One is about fishing and one is a firefly in a jar like a star.
- How to catch a firefly and a fish.
- The story said that he wanted to be a good fisherman when he grows up.
- If I could catch a fish like Walter, I would be so happy! I've always wanted to catch a fish.

■ Sample Responses:

Extensive - Student Response

7. What is one lesson that could be learned from both the story and the poem? Use details from both the story and the poem to explain your answer.

One lesson that can be learned from both the story and the poem is that when you catch a fish, or firefly, or another living thing, it's nice, but it's better to let it go. In the story, the boy caught Walter, but when he got him, he realized that he would be better off in the lake. In the poem, it says catching a firefly is nice, but letting it go and seeing it in the night sky is even better.

7. What is one lesson that could be learned from both the story and the poem? Use details from both the story and the poem to explain your answer.

that living things need to stay where they live like Walter was made for the river. And the firefly was made for the sky.

Scorer Comments:

These responses make a thematic connection between the story and the poem and provide supporting details from both the story and the poem to explain the connection.

Essential - Student Response

7. What is one lesson that could be learned from both the story and the poem? Use details from both the story and the poem to explain your answer.

That when you catch something alive you should not keep it you should let it go like when they go fishing he lets Walter go.

7. What is one lesson that could be learned from both the story and the poem? Use details from both the story and the poem to explain your answer.

That when you catch something alive you should not keep it you should let it go like when they go fishing he lets Walter go.

7. What is one lesson that could be learned from both the story and the poem? Use details from both the story and the poem to explain your answer.

The one lesson that could be learned from both stories is when you catch a animal you feel bad for them so you let them free.

Scorer Comments:

The first response makes a thematic connection between the story and the poem and explains it using a detail only from the story. The second response provides a lesson that could be learned from both texts but does not support with details from either the story or the poem.

Partial - Student Response

7. What is one lesson that could be learned from both the story and the poem? Use details from both the story and the poem to explain your answer.

One lesson is that you have to be very patient when fishing, or catching anything.

7. What is one lesson that could be learned from both the story and the poem? Use details from both the story and the poem to explain your answer.

It tell about a boy there a fish and the fish was sad so the boy put the fish back in the water and tell Granddaddy what happen. And the other poem is about a boy cauth some fireflys and he let them go back

in the night.

Scorer Comments:

The first response provides a lesson relevant only to the story. The second response provides details from both the story and the poem that are relevant to an appropriate lesson for both texts, but it does not provide a lesson.

Unsatisfactory - Student Response

7. What is one lesson that could be learned from both the story and the poem? Use details from both the story and the poem to explain your answer.

They are both catching living things.

7. What is one lesson that could be learned from both the story and the poem? Use details from both the story and the poem to explain your answer.

I string the rod Granddaddy had made especially for me and baited the hook just.

Scorer Comments:

The first response simply provides a text summary of the story and the poem. The second response provides an irrelevant detail from the story.

■ **Jurisdiction Data**

**Percentage of Students in Each Response Category by TUDA Districts in NAEP Reading at Grade 4: 2013
(Sorted by % Extensive+Essential+Partial)**

	Unsatisfactory	Partial	Essential	Extensive	Omitted	Off task
	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.
Hillsborough County	21	35	29	11	4	1
Jefferson County (KY)	21	51	15	9	3	1
Charlotte	26	42	23	6	2	1
San Diego	24	39	22	10	3	1
Austin	27	41	21	7	4	#
NATION	28	38	23	7	3	1
BOSTON	30	40	19	8	3	#
Miami-Dade	29	39	21	6	3	1
New York City	30	41	12	12	4	1
Albuquerque	34	35	24	3	3	1
Baltimore City	33	48	10	4	3	2
Atlanta	35	36	20	5	4	1
Chicago	36	39	15	6	3	1
Dallas	34	44	14	2	5	1
District of Columbia (DCPS)	34	39	14	7	6	#
Los Angeles	37	36	18	5	4	1
Philadelphia	38	35	16	6	4	1
Milwaukee	41	31	21	2	3	2
Fresno	41	30	16	5	7	2
Houston	48	30	15	3	3	1
Detroit	49	35	8	2	5	1
Cleveland	51	25	13	3	7	2

Rounds to zero.

‡ Reporting standards not met.

† Not applicable.

NOTE: Off task applies to responses that do not address the question presented, are illegible, or cannot otherwise be scored.

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

Grade 8 Reading Sample Question:

FUN

by Suzanne Britt Jordan

Fun is hard to have.

Fun is a rare jewel.

Somewhere along the line people got the modern idea that fun was there for the asking, that people deserved fun, that if we didn't have a little fun every day we would turn into (sakes alive!) puritans.

"Was it fun?" became the question that overshadowed all other questions: good questions like: Was it moral? Was it kind? Was it honest? Was it beneficial? Was it generous? Was it necessary? And (my favorite) was it selfless?

When the pleasure got to be the main thing, the fun fetish was sure to follow. Everything was supposed to be fun. If it wasn't fun, then we were going to make it fun, or else.

Think of all the things that got the reputation of being fun. Family outings were supposed to be fun. Education was supposed to be fun. Work was supposed to be fun. Walt Disney was supposed to be fun. Church was supposed to be fun. Staying fit was supposed to be fun.

Just to make sure that everybody knew how much fun we were having, we put happy faces on flunking test papers, dirty bumpers, sticky refrigerator doors, bathroom mirrors.

If a kid, looking at his very happy parents traipsing through that very happy Disney World, said, "This ain't fun, ma," his ma's heart sank. She wondered where she had gone wrong. Everybody told her what fun family outings to Disney World would be. Golly gee, what was the matter?

Fun got to be such a big thing that everybody started to look for more and more thrilling ways to supply it. One way was to step up the level of danger so that you could be sure that, no matter what, you would manage to have a little fun.

Television commercials brought a lot of fun and fun-loving folks into the picture. Everything that people in those commercials did looked like fun: taking Polaroid snapshots, buying insurance, mopping the floor, bowling, taking aspirin. The more commercials people watched, the more they wondered when the fun would start in their own lives. It was pretty depressing.

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Big occasions were supposed to be fun. Christmas, Thanksgiving and Easter were obviously supposed to be fun. Your wedding day was supposed to be fun. Your honeymoon was supposed to be the epitome of fundom. And so we ended up going through every Big Event we ever celebrated, waiting for the fun to start.

It occurred to me, while I was sitting around waiting for the fun to start, that not much is, and that I should tell you just in case you're worried about your fun capacity.

I don't mean to put a damper on things. I just mean we ought to treat fun reverently. It is a mystery. It cannot be caught like a virus. It cannot be trapped like an animal. The god of mirth is paying us back for all those years of thinking fun was everywhere by refusing to come to our party. I don't want to blaspheme fun anymore. When fun comes in on little dancing feet, you probably won't be expecting it. In fact, I bet it comes when you're doing your duty, your job, or your work. It may even come on a Tuesday.

I remember one day, long ago, on which I had an especially good time. Pam Davis and I walked to the College Village drug store one Saturday morning to buy some candy. We were about 12 years old. She got her Bit-O-Honey. I got my malted milk balls, chocolate stars, Chunkys, and a small bag of M & M's. We started back to her house. I was going to spend the night. We had the whole day to look forward to. We had plenty of candy. It was a long way to Pam's house but every time we got weary Pam would put her hand over her eyes, scan the horizon like a sailor and say, "Oughta reach home by nightfall," at which point the two of us would laugh until we thought we couldn't stand it another minute. Then after we got calm, she'd say it again. You should have been there. It was the kind of day and friendship and occasion that made me deeply regretful that I had to grow up.

It was fun.

From *The New York Times*, December 13, 1979, copyright © 1979 by The New York Times. Used by permission.

Page 4

8. On page 4, when the author tells us to "treat fun reverently," she is encouraging us to

- A. look forward to having fun
- B. have great respect for fun
- C. teach others how to have fun
- D. have fun less frequently

- **Question Description:** Recognize meaning of word as used in persuasive essay
- **Block & Number:** Block R4 Question #8
- **Type of Question:** Multiple Choice
- **Item Difficulty:** Medium (48.88% Correct)
- **Content Area (2009 and on):** Informational
- **Cognitive Target (2009 and on):** Integrate/Interpret
- **Correct Response: The correct answer is B.**
- **Jurisdiction Data**

Percentage of Students in Each Response Category by TUDA Districts in NAEP Reading at Grade 8: 2013
(Sorted by % Correct - B)

	A Row Pct.	B* Row Pct.	C Row Pct.	D Row Pct.	Omitted Row Pct.
Hillsborough County	42	50	3	5	#
NATION	41	47	5	6	1
Charlotte	38	47	5	8	2
Philadelphia	33	47	10	9	1
Austin	42	46	6	5	#
San Diego	42	46	4	7	1
Miami-Dade	43	43	6	6	2
Atlanta	40	41	6	13	#
Detroit	36	41	13	9	2
Jefferson County (KY)	44	41	5	10	#
Milwaukee	44	41	7	8	#
Chicago	44	39	8	8	#
Albuquerque	48	38	10	2	1
BOSTON	45	37	6	9	4
New York City	46	37	9	8	#
Houston	52	34	7	7	1
Baltimore City	48	33	11	8	1
Dallas	57	31	3	9	#
Los Angeles	52	31	9	7	#
Cleveland	49	30	11	8	1
District of Columbia (DCPS)	45	30	12	11	2
Fresno	52	30	13	5	#

Rounds to zero.

‡ Reporting standards not met.

† Not applicable.

* Indicates correct response.

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

Grade 4 Mathematics Sample Question:

13. **Use inches for this question.**

On line segment AC , mark point B so that the distance from A to B is twice the distance from B to C .

How long is segment AB ?

Answer: _____ inches

- **Question Description:** Measure to locate point on line segment
- **Block & Number:** Block M3 Question #13
- **Type of Question:** Short Constructed Response
- **Item Difficulty:** Hard (27.12% Correct)
- **Content Area:** Measurement
- **Complexity (2005 and on):** Moderate
- **Key/Scoring Guide:**

Solution:

Sample Correct Response:

B is placed so that segment AB is 2 inches

Answer: 2 inches

Score & Description

Correct

Correct response

Partial

a. Incorrectly places point B

BUT correctly measures segment AB in inches, based on the incorrect placement of point B

OR

b. Correctly places point B so that segment AB is 2 inches

BUT does not answer 2 inches for the length of segment AB

OR

c. States that measure of segment AB is 2 inches, but does not mark point B on line segment

Incorrect

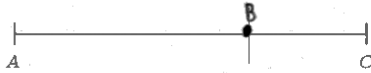
Incorrect response

■ **Sample Responses:**

Correct - Student Response

13. Use inches for this question.

On line segment AC , mark point B so that the distance from A to B is twice the distance from B to C .



How long is segment AB ?

Answer: _____ inches

2

13. Use inches for this question.

On line segment AC , mark point B so that the distance from A to B is twice the distance from B to C .



How long is segment AB ?

Answer: _____ inches

2

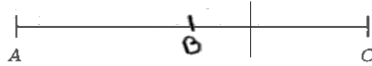
Scorer Comments:

These correct responses show point B correctly marked and give the correct length of line segment AB .

Partial - Student Response

13. Use inches for this question.

On line segment AC , mark point B so that the distance from A to B is twice the distance from B to C .



How long is segment AB ?

Answer: _____ inches

$1\frac{1}{2}$

13. Use inches for this question.

On line segment AC , mark point B so that the distance from A to B is twice the distance from B to C .



How long is segment AB ?

Answer: _____ inches

2

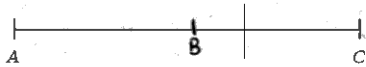
Scorer Comments:

The partially correct response on the top shows point B incorrectly marked, but gives a correct length for line segment AB based on the location of point B . The partially correct response on the bottom does not contain any mark for point B , but gives the correct length of line segment AB .

Incorrect - Student Response

13. Use inches for this question.

On line segment AC , mark point B so that the distance from A to B is twice the distance from B to C .



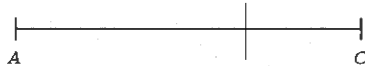
How long is segment AB ?

Answer: _____ inches

$2\frac{1}{2}$

13. Use inches for this question.

On line segment AC , mark point B so that the distance from A to B is twice the distance from B to C .



How long is segment AB ?

Answer: _____ inches

3

Scorer Comments:
 The incorrect response on the top shows point B incorrectly marked and gives an incorrect length for line segment AB based on the location of point B. The incorrect response on the bottom does not contain any mark for point B and gives an incorrect length for line segment AB.

■ **Jurisdiction Data**

**Percentage of Students in Each Response Category by TUDA Districts in NAEP Mathematics at Grade 4: 2013
 (Sorted by % Correct)**

	Incorrect Row Pct.	Partial Row Pct.	Correct Row Pct.	Omitted Row Pct.	Off task Row Pct.
Charlotte	51	34	14	1	#
Hillsborough County	52	36	12	#	#
NATION	57	30	11	1	#
Austin	62	27	11	1	#
District of Columbia (DCPS)	62	26	11	2	#
Atlanta	66	24	10	1	#
BOSTON	57	32	9	2	#
Chicago	63	28	9	1	#
San Diego	66	24	9	1	1
Albuquerque	63	27	8	2	#
Jefferson County (KY)	58	32	8	2	#
Miami-Dade	58	33	8	1	#
Milwaukee	69	21	8	1	#
New York City	62	29	8	1	#
Houston	60	32	7	1	#
Baltimore City	71	21	5	3	#
Philadelphia	67	26	5	2	#
Dallas	61	34	4	1	#
Los Angeles	72	23	4	1	#
Fresno	76	19	3	3	#
Cleveland	72	24	2	1	#
Detroit	81	16	#	2	#

Rounds to zero.

‡ Reporting standards not met.

† Not applicable.

NOTE: Off task applies to responses that do not address the question presented, are illegible, or cannot otherwise be scored.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics,

National Assessment of Educational Progress (NAEP), 2013 Mathematics Assessment.

Grade 8 Mathematics Sample Question:

10. What are all values of n for which $-2n \geq n + 6$?

A. $n \leq -2$

B. $n \geq -2$

C. $n \geq 0$

D. $n \leq 6$

E. $n \geq 6$

- **Question Description:** Solve an algebraic inequality
- **Block & Number:** Block M7 Question #10

- **Type of Question:** Multiple Choice
- **Item Difficulty:** Hard (31.54% Correct)
- **Content Area:** Algebra
- **Complexity (2005 and on):** Low
- **Key/Scoring Guide:** The correct answer is A
- **Jurisdiction Data**

Percentage of Students in Each Response Category by TUDA Districts in NAEP Mathematics at Grade 8: 2013
(Sorted by % Correct - A)

	A * Row Pct.	B Row Pct.	C Row Pct.	D Row Pct.	E Row Pct.	Omitted Row Pct.
Hillsborough County	43	22	6	17	13	#
San Diego	43	19	5	15	16	2
Charlotte	39	23	10	15	12	1
Miami-Dade	32	27	7	17	15	2
NATION	31	26	8	19	15	2
Fresno	31	28	8	20	12	2
New York City	30	24	7	21	16	3
Atlanta	29	29	8	17	15	3
Los Angeles	29	29	9	18	13	2
BOSTON	28	20	11	20	17	4
Chicago	26	25	9	21	17	2
Albuquerque	25	21	12	23	17	1
Austin	25	24	9	23	15	3
Houston	25	25	8	25	16	2
Philadelphia	25	24	10	21	18	2
Jefferson County (KY)	23	26	10	24	16	1
Baltimore City	22	27	8	22	20	1
District of Columbia (DCPS)	20	25	10	25	17	3
Detroit	19	24	10	27	18	1
Dallas	17	28	8	26	16	6
Milwaukee	17	30	8	24	18	3
Cleveland	16	30	11	24	17	1

Rounds to zero.

‡ Reporting standards not met.

† Not applicable.

* Indicates correct response.

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

Appendix D

2013 NAEP Results by Student Group: Grade 4										
Scale Scores and Percents of Students at Each Achievement Level										
	Boston					Large Cities				
	Scale Score	Percent of Students			% Students Assessed	Scale Score	Percent of Students			% Students Assessed
		Proficient & above	Basic & above	Below Basic			Proficient & above	Basic & above	Below Basic	
READING										
All Students	214	26	61	39	100	212	26	57	43	100
Student Status										
Students with Disabilities	181	6	22	78	19	175	8	23	77	11
English Language Learners	199	11	44	56	36	186	6	29	71	19
Gender										
Female	219	29	65	35	46	216	29	61	39	49
Male	211	23	57	43	54	209	23	54	46	51
Race/Ethnicity										
African American / Black	205	16	51	49	33	202	15	46	54	26
Asian / Pacific Islander	234	48	83	17	8	228	43	74	26	8
Hispanic	210	20	56	44	42	204	17	49	51	43
White	237	52	83	17	13	235	50	81	19	20
Free/Reduced-Price Lunch										
Eligible	210	21	57	43	85	203	16	48	52	73
MATHEMATICS										
All Students	237	34	80	20	100	235	33	75	25	100
Student Status										
Students with Disabilities	214	9	50	50	19	211	12	45	55	12
English Language Learners	228	21	73	27	36	218	13	57	43	20
Gender										
Female	237	33	81	19	47	235	33	76	24	49
Male	237	35	79	21	53	235	34	75	25	51
Race/Ethnicity										
African American / Black	228	22	73	27	34	223	17	64	36	26
Asian / Pacific Islander	259	67	96	4	8	256	62	90	10	8
Hispanic	233	27	79	21	42	229	25	72	28	43
White	255	63	90	10	13	254	60	91	9	20
Free/Reduced-Price Lunch										
Eligible	233	28	78	22	85	228	23	69	31	73
#	Estimate rounds to zero.									

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

2013 NAEP Results by Student Group: Grade 8
Scale Scores and Percent of Students at Each Achievement Level

	Boston					Large Cities				
	Scale Score	Percent of Students			% Students Assessed	Scale Score	Percent of Students			% Students Assessed
		<i>Proficient & above</i>	<i>Basic & above</i>	<i>Below Basic</i>			<i>Proficient & above</i>	<i>Basic & above</i>	<i>Below Basic</i>	
READING										
All Students	257	28	66	34	100	258	26	68	32	100
Student Status										
Students with Disabilities	225	5	28	72	18	222	5	29	71	12
English Language Learners	223	3	29	71	22	222	3	28	72	10
Gender										
Female	266	35	75	25	48	263	30	73	27	49
Male	248	20	56	44	52	253	21	63	37	51
Race/Ethnicity										
African American / Black	247	16	56	44	38	246	14	56	44	27
Asian / Pacific Islander	278	53	84	16	10	273	43	82	18	8
Hispanic	250	21	61	39	35	253	19	65	35	42
White	281	54	87	13	15	276	47	85	15	20
Free/Reduced-Price Lunch Eligible	250	20	60	40	80	250	17	61	39	69
MATHEMATICS										
All Students	283	36	70	30	100	276	27	65	35	100
Student Status										
Students with Disabilities	251	9	35	65	18	239	5	24	76	12
English Language Learners	254	7	42	58	23	243	5	29	71	10
Gender										
Female	283	36	71	29	49	276	27	66	34	50
Male	284	35	69	31	51	275	27	64	36	50
Race/Ethnicity										
African American / Black	271	22	61	39	38	261	13	49	51	26
Asian / Pacific Islander	318	73	92	8	10	299	53	83	17	8
Hispanic	275	26	66	34	35	269	20	60	40	42
White	309	66	89	11	15	295	47	84	16	21
Free/Reduced-Price Lunch Eligible	277	28	65	35	80	267	18	57	45	68
#	<i>Estimate rounds to zero.</i>									

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

APPENDIX E: Summary of Scale Score Comparisons

2013 NAEP Average Scale Scores by Subject and Grade level for Large City and TUDA Districts

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

* Large City (LC): Nation-wide schools in cities with a population of 250,000 or more as defined by National Center for Education Statistics (NCES)

** District participate in TUDA for the first time in 2011.

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Appendix F

Grade 4 Reading: 2002 - 2013

National Center for Education Statistics

2013 Reading TUDA Assessment Report Card: Summary Data Tables with Additional Detail for Average Scores, Achievement Levels, and Percentiles for Districts and Jurisdictions

Average scores and achievement-level results in NAEP reading for fourth-grade public school students, by selected race/ethnicity categories and jurisdiction: Various years, 2002-13

Race/ethnicity and jurisdiction	Average scale score					Percentage of students								
	2002	2003	2005	2007	2009	2011	2013	2002	2003	2005	2007	2009	2011	2013
White														
Nation (public)	227 ***	227 ***	228 ***	230 ***	229 ***	230 ***	231 *	74 ***	74 ***	75 ***	77 ***	77 ***	77 ***	79
Large city	224 ***	226 ***	228 ***	231 ***	233	232	235 **	70 ***	72 ***	74 ***	76	79	78	81
Abuquerque	250	250	253	253	245	251	252 ***	86	91	95	96	93	95	94 **
Atlanta	—	—	239 ***	244	245	249	250 ***	—	—	86 ***	90	91	92	93 **
Austin	—	—	—	220	221	221	233	—	—	—	—	64	61	76
Baltimore City	—	—	—	230	231	241	237 ***	—	—	79	76	77	86	83
Boston	—	237 ***	240	243	243	244	245 ***	—	83 ***	86	89	89	91	90 **
Charlotte	—	224 ***	225 ***	227	228	229	239 **	64 ***	70	70	74	74	77	81
Chicago	221 ***	208	209	215	209	209	206 ***	—	51	54	61	53	52	50 **
Cleveland	—	—	—	—	237	231	231	—	—	—	—	—	—	—
Dallas	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	248 ***	254	252	258	257	255	260 ***	91	90	92	96	95	93	96 **
Fresno	—	—	—	—	217	216	218 ***	—	—	—	—	66	64	62 **
Hillsborough County (FL)	—	—	—	—	—	242	237 **	—	—	—	—	—	—	—
Houston	233	235	245	241	243	243	238 **	79	82	88	86	91	88	85 **
Jefferson City (KY)	—	—	—	—	230	230	233	—	—	—	—	—	—	—
Los Angeles	223 ***	217 ***	229	228	222 ***	225	237	70	60 ***	71	79	70	75	78
Miami-Dade	—	—	—	—	238	240	239 **	—	—	—	—	86	84	85 **
Milwaukee	—	—	—	—	223	216	223 **	—	—	—	—	71	81	67 **
New York City	226	231	226	232	235	235	231	71	77	75	77	81	80	77
Philadelphia	—	—	—	—	215	217	214 ***	—	—	—	—	60	64	60 **
San Diego	—	231 ***	226 ***	234	236	240	240 ***	—	79	69 ***	80	85	84	87 ***
Black														
Nation (public)	198 ***	197 ***	199 ***	203 ***	204	205	205 *	39 ***	39 ***	41 ***	46 ***	47 ***	49	50 *
Large city	192 ***	195 ***	196 ***	199 ***	201	202	202 **	33 ***	35 ***	38 ***	41 ***	44	45	46 **
Abuquerque	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Atlanta	192 ***	191 ***	184 ***	200	201	203	204	32 ***	31 ***	33 ***	40 ***	42	44	47
Austin	—	—	—	200	201	215	206	—	—	43	41	53	62	55
Baltimore City	—	—	—	—	200	198	201 **	—	—	—	—	39	37	41 **
Boston	—	202	203	204	212	211	205	—	43 ***	45	48	57	56	51
Charlotte	—	205 ***	206 ***	206 ***	211	211	215 ***	—	48 ***	49 ***	49 ***	57	56	61 **
Chicago	185 ***	193	190 ***	193	194	197	198 **	25 ***	33 ***	31 ***	34	36	40	42 **
Cleveland	—	191 ***	193 ***	192 ***	189	187	185 ***	—	30	32	30	28	26	27 **
Dallas	—	—	—	—	—	204	201	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	188 ***	184 ***	187 ***	192	186	190	188 ***	28 ***	27 ***	29 ***	33	35	30	28 **
Fresno	—	—	—	—	192	195	191	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	193	191	187 ***	—	—	—	—	—	—	—
Houston	200	201	207	205	210	207	202	40	43	49	48	53	49	45
Jefferson City (KY)	186 ***	187 ***	187 ***	196	193	196	203	25 ***	30 ***	28 ***	37	35 ***	39	46
Los Angeles	—	—	—	—	—	205	210	—	—	—	—	—	—	—
Miami-Dade	—	—	—	—	—	187	187	—	—	—	—	—	—	—
Milwaukee	197 ***	201 ***	206	206	208	209	210 ***	37 ***	43	49	51	52	53	54 **
New York City	—	—	—	—	191	195	196 ***	—	—	—	—	—	—	—
Philadelphia	—	—	—	—	—	—	—	—	—	—	—	—	—	—
San Diego	—	196	198	199	206	205	205	—	38	43	44	51	49	50

See notes at end of table.

Grade 4 Reading: 2002 - 2013 (Continued)

National Center for Education Statistics

2013 Reading TUDA Assessment Report Card: Summary Data Tables with Additional Detail for Average Scores, Achievement Levels, and Percentiles for Districts and Jurisdictions

Average scores and achievement-level results in NAEP reading for fourth-grade public school students, by selected race/ethnicity categories and jurisdiction. Various years, 2002–13—Continued

Race/ethnicity and jurisdiction	Average scale score						Percentage of students							
	2002		2003		2005		2007		2009		2011		2013	
	2002	2003	2003	2005	2005	2007	2007	2009	2009	2011	2011	2013	2013	
Hispanic	199 ***	197 ***	198 ***	201 ***	204 ***	207 *	205	204 ***	204 ***	205	207 *	205	207 *	
Nation (public)	197 ***	197 ***	198 ***	201 ***	204 ***	204 ***	203	204 ***	204 ***	203	204 ***	203	204 ***	
Large city	—	—	—	—	—	—	201	206	206	210	208	210	208	
Albuquerque	—	—	—	—	—	—	201	206	206	210	208	210	208	
Austin	—	—	—	—	—	—	201	206	206	210	208	210	208	
Baltimore City	—	—	—	—	—	—	201	206	206	210	208	210	208	
Boston	—	—	—	—	—	—	202	207	207	212	210	212	210	
Charlotte	—	—	—	—	—	—	202	207	207	212	210	212	210	
Chicago	193 ***	196 ***	201	200	200	203	201	203	203	201	203	201	203	
Cleveland	—	—	—	—	—	—	201	200	200	200	204	200	204	
Dallas	—	—	—	—	—	—	201	200	200	200	204	200	204	
Detroit	—	—	—	—	—	—	201	200	200	200	204	200	204	
District of Columbia (DCPS)	—	—	—	—	—	—	201	200	200	200	204	200	204	
Fresno	193 ***	187 ***	193 ***	193 ***	206	208	207	204	207	204	211 ***	204	211 ***	
Hillsborough County (FL)	—	—	—	—	—	—	194	194	194	190	192 ***	190	192 ***	
Houston	—	—	—	—	—	—	223	223	223	223	223	223	223	
Jefferson City (KY)	—	—	—	—	—	—	203	203	203	203	204	203	204	
Los Angeles	185 ***	189 ***	190 ***	190 ***	190 ***	190 ***	196	193 ***	193 ***	196	199 ***	196	199 ***	
Miami-Dade	—	—	—	—	—	—	224	224	224	222	225 ***	222	225 ***	
Milwaukee	—	—	—	—	—	—	198	198	198	198	200	198	200	
New York City	201	205	207	203	203	208	208	208	208	207	208	208	208	
Philadelphia	—	—	—	—	—	—	187	191	187	191	193	187	193	
San Diego	—	—	—	—	—	—	195 ***	196 ***	196 ***	193 ***	201	195 ***	196 ***	

See notes at end of table.

Grade 4 Reading: 2002 - 2013 (Continued)

National Center for Education Statistics

2013 Reading TUDA Assessment Report Card: Summary Data Tables with Additional Detail for Average Scores, Achievement Levels, and Percentiles for Districts and Jurisdictions

Average scores and achievement-level results in NAEP reading for fourth-grade public school students, by selected race/ethnicity categories and jurisdiction: Various years, 2002–13—Continued

Race/ethnicity and jurisdiction	Average scale score						Percentage of students							
	2002	2003	2005	2007	2009	2011	2013	2002	2003	2005	2007	2009	2011	2013
Asian/Pacific Islander	223 ***	225 ***	227 ***	231 ***	234	234	235 *	69 ***	69 ***	72 ***	76 ***	79	79	79 *
Nation (public)	220 ***	223	223	228	228	224	228 **	64 ***	66	67 ***	72	73	70	74 **
Large city ¹	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Albuquerque	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Atlanta	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Austin	—	—	—	236	—	—	—	—	—	—	78	—	—	—
Baltimore City	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Boston	—	—	224 ***	229	231	226	234	—	—	68 ***	74	80	70	83 *
Charlotte	—	218 ***	—	235	233	233	238	61 ***	61 ***	—	77	77	78	82
Chicago	—	—	—	237	232	227	235	—	—	—	82	78	74	83
Cleveland	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dallas	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	194	195	189 ***	—	—	—	—	37	39	43 ***
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Houston	—	—	—	231	240	245	247 ***	—	—	—	77	86	90	93 ***
Jefferson City (KY)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Los Angeles	218	218	223	219	220	225	223 **	70	61	66	66	68	76	69 **
Miami-Dade	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Milwaukee	—	—	—	—	214	206	201 ***	—	—	—	—	—	—	—
New York City	235	227	235	230	235	230	232	78	72	79	75	82	76	78
Philadelphia	—	—	—	—	214	212	215 ***	—	—	—	—	61	59	64 **
San Diego	—	222	222	223	227	224	229	—	66	69	70	75	72	75

— Not available. District did not participate.

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

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

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

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

¹ 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, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. 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), various years, 2002–13 Reading Assessments.

Grade 8 Reading: 2002 - 2013

National Center for Education Statistics

2013 Reading TUDA Assessment Report Card: Summary Data Tables with Additional Detail for Average Scores, Achievement Levels, and Percentiles for Districts and Jurisdictions

Average scores and achievement-level results in NAEP reading for eighth-grade public school students, by selected race/ethnicity categories and jurisdiction: Various years, 2002-13

Race/ethnicity and jurisdiction	Average scale score										Percentage of students											
	2002	2003	2005	2007	2009	2011	2013	2002	2003	2005	2007	2009	2011	2013	2002	2003	2005	2007	2009	2011	2013	
White																						
Nation (public)	271 ***	270 ***	269 ***	270 ***	271 ***	272 ***	275	83 ***	82 ***	81 ***	83 ***	83 ***	84 ***	39 ***	39 ***	37 ***	38 ***	39 ***	41 ***	44 *		
Large city ¹	270 ***	268 ***	270 ***	271 ***	272 ***	273	80 ***	79 ***	81 ***	82 ***	83	40 ***	37 ***	38 ***	39 ***	42 ***	47 ***	47 ***	40	46		
Albuquerque	275 ***	—	—	—	—	—	84	—	—	—	—	47 ***	—	—	—	—	—	70	65	71 ***		
Atlanta	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	55	59	61 ***		
Austin	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Baltimore City	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Boston	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Charlotte	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Chicago	266	278 ***	270 ***	279 ***	276 ***	283	75	79	81 ***	88	87	31	49 ***	49	52	48	56	59 ***	51	51		
Cleveland	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Dallas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Detroit	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
District of Columbia (DCPS)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Fresno	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Houston	279	270 ***	280	281	280	283	87	80 ***	89	89	90	47	40 ***	53	52	52	56	57 ***	45	46		
Jefferson County (KY)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Los Angeles	264 ***	266	261 ***	272	271	273	73	76	69 ***	81	83	33	36	31	41	38	41	38	41	48		
Miami-Dade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Milwaukee	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
New York City	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Philadelphia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
San Diego	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Black																						
Nation (public)	244 ***	244 ***	242 ***	244 ***	245 ***	248 ***	54 ***	53 ***	51 ***	54 ***	56 ***	13 ***	12 ***	11 ***	12 ***	13 ***	12 ***	13 ***	14 ***	16 *		
Large city ¹	240 ***	241 ***	240 ***	240 ***	243 ***	245	49 ***	49 ***	48 ***	49 ***	53	10 ***	10 ***	10 ***	10 ***	11 ***	10 ***	11 ***	13	14 ***		
Albuquerque	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Atlanta	233 ***	237 ***	237 ***	242 ***	246	249	39 ***	44 ***	43 ***	50 ***	57	5	8 ***	9 ***	9 ***	12	12	12	12	15		
Austin	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Baltimore City	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Boston	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Charlotte	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Chicago	245	243	240	240	243	245	57	52	50	55 ***	60	10	10	10	13 ***	14	15	18	21	21		
Cleveland	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Dallas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Detroit	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
District of Columbia (DCPS)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Fresno	238	236	235	238	235	231	46	45	42	45	43	6	8	9	9	8	10	10	9	8 ***		
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Houston	247	244	242	249	243	247	60	53	53	62	56	15	12	11	12	11	12	11	12	17		
Jefferson County (KY)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Los Angeles	236	233	234	229	245	242	43	41	40	38	48	6	7	8	6	11	13	15	12	13		
Miami-Dade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Milwaukee	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
New York City	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Philadelphia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
San Diego	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

See notes at end of table.

Grade 8 Reading: 2002 - 2013 (Continued)

National Center for Education Statistics

2013 Reading TUDA Assessment Report Card: Summary Data Tables with Additional Detail for Average Scores, Achievement Levels, and Percentiles for Districts and Jurisdictions

Average scores and achievement-level results in NAEP reading for eighth-grade public school students, by selected race/ethnicity categories and jurisdiction: Various years, 2002–13—Continued

Race/ethnicity and jurisdiction	Average scale score						Percentage of students							
	2002	2003	2005	2007	2009	2011	2013	2002	2003	2005	2007	2009	2011	2013
Hispanic														
Nation (public)	245 ***	244 ***	245 ***	246 ***	248 ***	251 ***	255 *	56 ***	14 ***	14 ***	14 ***	16 ***	18 ***	21 *
Large city ¹	242 ***	241 ***	243 ***	243 ***	245 ***	249 ***	253 **	52 ***	12 ***	13 ***	12 ***	14 ***	16 ***	19 **
Albuquerque	—	—	—	—	—	248	250 **	—	—	—	—	—	—	17 **
Atlanta	‡	‡	‡	‡	‡	‡	254	‡	‡	‡	‡	‡	‡	20
Austin	—	—	243	244 ***	251	251 **	251 **	‡	‡	13	15	18	18	19
Baltimore City	—	—	—	—	—	‡	‡	—	—	—	—	—	—	‡
Boston	—	245	248	241 ***	251	245	250 **	—	—	14	16	13	15	21
Charlotte	—	244 ***	248 ***	251	254	256	259	—	—	14	19	20	24	27
Chicago	248	249 ***	251	255	249	255	255	61	12 ***	15	16	17	21	21
Cleveland	—	‡	248	249	237	241	241 **	—	—	‡	10	16	11	12 **
Dallas	—	—	—	—	—	246 ***	253 **	—	—	—	—	—	—	16 **
Detroit	—	—	—	—	232	244	242 **	—	—	—	—	—	6	8 **
District of Columbia (DCPS)	240	240	247	249	249	232 ***	247 **	53	11	18	19	22	14	20 **
Fresno	—	—	—	—	235	234 ***	241 **	—	—	—	—	—	8	11 ***
Hillborough County (FL)	—	—	—	—	—	258	263 **	—	—	—	—	—	24	30 ***
Houston	243 ***	242 ***	245 ***	246 ***	250	249	250 **	—	—	—	—	—	—	18 **
Jefferson County (KY)	—	—	—	—	—	‡	‡	—	—	—	—	—	—	25
Los Angeles	230 ***	228 ***	235 ***	236 ***	239 ***	241	245 **	36 ***	5 ***	6 ***	8 ***	11	11	13 **
Miami-Dade	—	—	—	—	261	262	261 **	—	—	—	—	29	30	29 **
Milwaukee	—	—	—	—	249	243	253	—	—	—	—	15	11	19
New York City	—	247	247	241 ***	243	246	249 **	—	—	—	—	13	17	18
Philadelphia	—	—	—	—	241	239	243 **	—	—	—	—	9	9	12 **
San Diego	—	238 ***	241	235 ***	242	245	247 **	—	—	48 ***	50	45 ***	14	15

See notes at end of table.

Grade 8 Reading: 2002 - 2013 (Continued)

National Center for Education Statistics

2013 Reading TUDA Assessment Report Card: Summary Data Tables with Additional Detail for Average Scores, Achievement Levels, and Percentiles for Districts and Jurisdictions

Average scores and achievement-level results in NAEP reading for eighth-grade public school students, by selected race/ethnicity categories and jurisdiction. Various years, 2002-13—Continued

Race/ethnicity and jurisdiction	Average scale score										Percentage of students										
	2002	2003	2005	2007	2009	2011	2013	2002	2003	2005	2007	2009	2011	2013	2002	2003	2005	2007	2009	2011	2013
Asian/Pacific Islander	265 ***	268 ***	270 ***	269 ***	273 ***	275 ***	279	75 ***	76 ***	79 ***	79 ***	82	82 ***	85 *	34 ***	38 ***	39 ***	40 ***	44 ***	46	50 *
Nation (public)	256 ***	260 ***	266	263	268	270	273	65 ***	69 ***	76 ***	74	77	79	82 **	26 ***	30 ***	35	34	38	41	43 **
Large city ¹	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Albuquerque	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Atlanta	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Austin	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Baltimore City	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Boston	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Charlotte	274	280	280	275	276	280	278	—	83	85	81	89	87	84	—	44	55	46	45	50	53
Chicago	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cleveland	268	277	277	277	277	264	278	—	78	88	—	—	74	85	—	35	44	—	—	37	53
Dallas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dallas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Houston	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Jefferson County (KY)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Los Angeles	259 ***	255 ***	262 ***	264	265	267	271 **	73	64 ***	73	76	76	77	84	—	27	30	32	35	38	39
Miami-Dade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Milwaukee	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
New York City	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Philadelphia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
San Diego	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
San Diego	260	265	265	265	264	267	266 **	—	71	76	78	77	78	79	—	27	31	35	32	38	36 **

— Not available. District did not participate.

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

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

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

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

¹ 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, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. 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), various years, 2002-13 Reading Assessments.

Grade 4 Mathematics: 2003 - 2013

National Center for Education Statistics

2013 Mathematics TUDA Assessment Report Card: Summary Data Tables with Additional Detail for Average Scores, achievement Levels, and Percentiles for Districts and Jurisdictions

Average scores and achievement-level results in NAEP mathematics for fourth-grade public school students, by selected race/ethnicity categories and jurisdiction: Various years, 2003–13

Race/ethnicity and jurisdiction	Average scale score					Percentage of students						
	2003	2005	2007	2009	2011	2013	2003	2005	2007	2009	2011	2013
White												
Nation (public)	243 ***	246 ***	248 ***	248 ***	249 ***	250 *	87 ***	86 ***	91	90	91	91
Large city ¹	243 ***	247 ***	249 ***	250 ***	251	254 **	86 ***	88 ***	90	90	91	91
Albuquerque	—	—	—	—	254	253	—	—	92	98	98	90
Atlanta	256	263 ***	266	266	269	269 **	89	96	98	98	99	99
Austin	—	262	263	262	266	264 **	—	99	96	97	99	96 **
Baltimore City	—	—	—	240	244	250	—	—	84	86	86	86
Boston	234 ***	244 ***	250	251	255	255 **	77 ***	88	93	92	93	90
Charlotte	257 ***	261	263	263	264	264 **	96	97	98	97	97	97
Chicago	235 ***	243 ***	244 ***	242 ***	246 ***	261 **	82 ***	86 ***	84 ***	83 ***	86	94
Cleveland	233	233	233	228	232	233 **	80	81	80	73	76	76 **
Dallas	—	—	—	—	258	—	—	—	—	—	97	—
Detroit	—	—	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	262 ***	266 ***	262 ***	270 ***	272	277 **	97	99	91 ***	99	99	98 **
Fresno	—	—	237	237	238	241 **	—	—	79	80	80	85
Hillborough County (FL)	—	—	—	—	253	254 **	—	—	—	95	95	95 **
Houston	254 ***	262	263	260	259	261 **	96	97	96	99	96	95
Jefferson County (KY)	—	—	—	243	243	245 **	—	—	84	84	87	86 **
Los Angeles	241 ***	247	247	245	243	254 ***	83	87	90	87	86	92
Miami-Dade	—	—	253	253	255	251	—	—	96	96	96	94
Milwaukee	—	—	—	242	239	246 *	—	—	—	86	81	87
New York City	244 ***	245	249	248	243	251	88	87	91	94	87	90
Philadelphia	—	—	239	239	243	237 **	—	—	80	80	84	80
San Diego	243 ***	249 ***	252 ***	255	258	260 **	87 ***	94	90	94	95	96 **
Black												
Nation (public)	216 ***	220 ***	222 ***	222 ***	224	224 *	54 ***	60 ***	66	63 ***	66	66 *
Large city ¹	212 ***	217 ***	219 ***	219 ***	222	223 **	47 ***	55 ***	63	59 ***	63	64 **
Albuquerque	—	—	—	—	—	—	—	—	—	—	—	—
Atlanta	211 ***	215 ***	217 ***	218 ***	219 ***	222 **	45 ***	51 ***	58	57	58	63
Austin	—	228	226	226	232	228	—	74	68	71	78	72
Baltimore City	—	—	—	220	223	220 **	—	—	61	61	66	59 **
Boston	216 ***	223 ***	226	231	230	228 **	55 ***	65	71	78	76	73 **
Charlotte	229 ***	230	230	231	232	235 **	73	74	75	75	80	79 **
Chicago	207 ***	208 ***	213 ***	212 ***	217	221	39 ***	41 ***	48 ***	48 ***	55	59
Cleveland	210	215 ***	210	209	211	210 **	44	52	45	44	46	46 **
Dallas	—	—	—	209	225	226	—	—	—	—	70	67
Detroit	—	—	—	199	201	201 **	—	—	—	29	31	30 **
District of Columbia (DCPS)	202 ***	207 ***	209 ***	212 ***	212	218 **	33	41 ***	45 ***	49 ***	50	56 **
Fresno	—	—	213	213	214	211 **	—	—	46	48	44	44 **
Hillborough County (FL)	—	—	—	—	228	227 *	—	—	—	70	71	71
Houston	221	224	225	227	229	227 **	62	67	69	72	75	70
Jefferson County (KY)	—	—	216	216	221	220 **	—	—	54	62	62	60 **
Los Angeles	208 ***	209 ***	216 ***	209 ***	215 ***	223 ***	42 ***	42 ***	54	41 ***	53	63
Miami-Dade	—	—	222	222	225	227 *	—	—	64	67	72	72 *
Milwaukee	—	—	—	211	211	209 **	—	—	—	46	47	45 **
New York City	219 ***	222	227	225	226	225	58	63	72	70	69	67
Philadelphia	—	—	216	216	220	218 **	—	—	54	60	57	57 **
San Diego	216 ***	221	222	222	222	228	54 ***	60 ***	65	64	65	71

See notes at end of table.

Grade 4 Mathematics: 2003 - 2013 (Continued)

National Center for Education Statistics

2013 Mathematics TUDA Assessment Report Card: Summary Data Tables with Additional Detail for Average Scores, Achievement Levels, and Percentiles for Districts and Jurisdictions

Average scores and achievement-level results in NAEP mathematics for fourth-grade public school students, by selected race/ethnicity categories and jurisdiction. Various years, 2003–13—Continued

Race/ethnicity and jurisdiction	Average scale score					Percentage of students						
	At or above Basic					At or above Proficient						
	2003	2005	2007	2009	2011	2013	2003	2005	2007	2009	2011	2013
Hispanic												
Nation (public)	221 ***	225 ***	227 ***	227 ***	229 ***	230	62 ***	67 ***	69 ***	70 ***	72	73
Large city ¹	219 ***	223 ***	224 ***	226 ***	228	229	59 ***	64 ***	66 ***	68	71	72
Albuquerque	†	†	223 ***	222 ***	230	229	†	†	60	66	71	75
Austin	†	234	233 ***	233	237	233 ***	†	80	78	79	82	80 ***
Baltimore City	†	†	†	†	227	†	†	†	†	†	†	65
Boston	215 ***	225 ***	230	232	234	233 ***	51 ***	70	76	77	80	79 ***
Charlotte	233 ***	234 ***	234	235 ***	240	242 ***	80	81	80	82	87	86 ***
Chicago	217 ***	217 ***	219 ***	226 ***	223 ***	230	55 ***	55 ***	60 ***	70	65	72
Cleveland	220	224	215	217	218	221 ***	58	68	53	56	58	62 ***
Dallas	†	†	†	†	234	235 ***	†	†	†	†	81	80 ***
Detroit	†	†	†	†	206	215	†	†	39	53	53	50 ***
District of Columbia (DCPS)	205 ***	215 ***	220	227	223	226	39 ***	51 ***	57 ***	69	63	68
Fresno	†	†	†	†	216	214	†	†	55	51	55	55 ***
Hillsborough County (FL)	†	†	†	†	239	238 ***	†	†	†	85	85	82 ***
Houston	226 ***	232	234	235	236	235 ***	70 ***	78	82	83	82	80 ***
Jefferson County (KY)	211 ***	216 ***	217 ***	218 ***	220 ***	224 ***	46 ***	53 ***	55 ***	65 ***	59 ***	66
Los Angeles	†	†	†	†	237	238 ***	†	†	†	84	81	82 ***
Miami-Dade	†	†	†	†	226	227	†	†	†	71	60	70
Milwaukee	220 ***	226	230	230	227	228	60 ***	70	74	74	70	72
New York City	†	†	†	†	221	223	†	†	†	60	64	54 ***
Philadelphia	216 ***	222 ***	223 ***	224	229	228	53 ***	63	64	66	72	70
San Diego	†	†	†	†	†	†	†	†	†	†	†	†
Asian/Pacific Islander												
Nation (public)	246 ***	251 ***	254 ***	255 ***	256	258	87 ***	89 ***	91	91	91	91
Large city ¹	246	247 ***	251	253	249	256	86	87	89	90	86	90
Albuquerque	†	†	†	†	†	†	†	†	†	†	†	†
Atlanta	†	†	268	†	†	†	†	†	†	†	†	†
Austin	†	†	†	†	†	†	†	†	99	†	†	†
Baltimore City	†	†	†	†	†	†	†	†	†	†	†	†
Boston	243 ***	256	255	260	259	259	87 ***	98	91	94	95	96 ***
Charlotte	252	256	263	257	258	255	90	96	98	91	93	90
Chicago	†	†	249	255	247	256	†	†	92	96	87	88
Cleveland	†	†	†	†	†	†	†	†	†	†	†	†
Dallas	†	†	†	†	†	†	†	†	†	†	†	†
Detroit	†	†	†	†	†	†	†	†	†	†	†	†
District of Columbia (DCPS)	†	†	†	†	†	†	†	†	†	†	†	†
Fresno	†	†	†	220	223	221 ***	†	†	†	59	64	62 ***
Hillsborough County (FL)	†	†	†	†	262	262	†	†	†	†	†	97 ***
Houston	†	†	265	264	264	†	†	†	100	98	97	†
Jefferson County (KY)	†	†	†	†	255	†	†	†	†	†	87	†
Los Angeles	241 ***	246	246	248	251	251 ***	86	88	92	87	90	89
Miami-Dade	†	†	†	†	†	†	†	†	†	†	†	†
Milwaukee	†	†	†	231	230	234 ***	†	†	†	77	71	78
New York City	247 ***	253	257	258	251	257	89	92	93	88	88	93
Philadelphia	†	†	†	243	251	246 ***	†	†	†	87	86	83
San Diego	238 ***	245	247	247	248	252 **	84 ***	87	88	86	87	92

† Not available. District did not participate.

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

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

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

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

¹ 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, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. 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), various years, 2003–13 Mathematics Assessments.

Grade 8 Mathematics: 2003 - 2013

National Center for Education Statistics

2013 Mathematics TUDA Assessment Report Card: Summary Data Tables with Additional Detail for Average Scores, achievement Levels, and Percentiles for Districts and Jurisdictions

Average scores and achievement-level results in NAEP mathematics for eighth-grade public school students, by selected race/ethnicity categories and jurisdiction; Various years, 2003–2013—Continued

Race/ethnicity and jurisdiction	Average scale score										Percentage of students													
	2003		2005		2007		2009		2011		2013		2003		2005		2007		2009		2011		2013	
White																								
Nation (public)	287 ***	288 ***	290 ***	292 ***	293	293	293	293	293	293	293	293	79 ***	79 ***	81 ***	82	83	83	83	83	83	83	83	36 ***
Large city ¹	285 ***	288 ***	292	294	295	295	295	295	295	295	295	77 ***	78 ***	81	81	83	84	84	84	84	84	84	84	36 ***
Albuquerque	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Arlington	298 ***	305 ***	308	312	313	313	313	313	313	313	313	83	83	83	83	83	83	83	83	83	83	83	83	54
Austin	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Baltimore City	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Boston	289 ***	289 ***	305	311	305	305	305	305	305	305	305	77 ***	83	89	93	88	89	89	89	89	89	89	89	48 ***
Charlotte	301 ***	304 ***	308	304 ***	311	311	311	311	311	311	311	91	90	90	91	93	93	93	93	93	93	93	93	55 ***
Chicago	276 ***	281 ***	287	289	289	289	289	289	289	289	289	66 ***	71	79	76	84	84	84	84	84	84	84	84	25 ***
Cleveland	289	285	269	275	277 ***	277 ***	277 ***	277 ***	277 ***	277 ***	277 ***	63	64	64	67	69 ***	69 ***	69 ***	69 ***	69 ***	69 ***	69 ***	69 ***	14
Dallas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Houston	293 ***	284 ***	308	311	309	309	309	309	309	309	309	80 ***	85	94	94	94	92	92	92	92	92	92	92	47 ***
Jefferson County (KY)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Los Angeles	277 ***	280 ***	285	287	291	291	291	291	291	291	291	67 ***	68	73	74	77	77	77	77	77	77	77	77	29 ***
Miami-Dade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Milwaukee	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
New York City	289 ***	286 ***	289	295	292	292	292	292	292	292	292	79	77	77	84	80	80	80	80	80	80	80	80	40
Philadelphia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
San Diego	284 ***	282 ***	294	301	302	302	302	302	302	302	302	76 ***	83	85	89	89	89	89	89	89	89	89	89	35 ***
Black																								
Nation (public)	252 ***	254 ***	259 ***	260 ***	262	262	262	262	262	262	262	39 ***	41 ***	47 ***	49 ***	50	51	51	51	51	51	51	51	7 ***
Large city ¹	247 ***	250 ***	254 ***	256 ***	261	261	261	261	261	261	261	34 ***	36 ***	41 ***	44 ***	49	49	49	49	49	49	49	49	5 ***
Albuquerque	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Arlington	241	242 ***	253 ***	255 ***	262	262	262	262	262	262	262	26	28 ***	38 ***	42 ***	50	48	48	48	48	48	48	48	3 ***
Austin	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Baltimore City	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Boston	251 ***	256 ***	263 ***	268	272	272	272	272	272	272	272	36 ***	45 ***	51	57	61	61	61	61	61	61	61	61	6 ***
Charlotte	258 ***	264 ***	267	270	268	268	268	268	268	268	268	47 ***	54 ***	58	60	58	58	58	58	58	58	58	58	11 ***
Chicago	245 ***	245 ***	248 ***	252 ***	260	260	260	260	260	260	260	29 ***	28 ***	35 ***	38	38	38	38	38	38	38	38	38	4 ***
Cleveland	249	244	253	252	252	252	252	252	252	252	252	32	29	41	38	31	35	35	35	35	35	35	35	5
Dallas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fresno	240 ***	241 ***	245 ***	244 ***	243	243	243	243	243	243	243	26 ***	27 ***	31 ***	32 ***	36	36	36	36	36	36	36	36	3 ***
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Houston	259 ***	257 ***	265 ***	266	271	271	271	271	271	271	271	47 ***	47 ***	58	59	64	63	63	63	63	63	63	63	7 ***
Jefferson County (KY)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Los Angeles	234 ***	239 ***	245 ***	247	246	246	246	246	246	246	246	21 ***	29 ***	28 ***	48	42	44	44	44	44	44	44	44	2
Miami-Dade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Milwaukee	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
New York City	253 ***	257	258	261	262	262	262	262	262	262	262	40 ***	44	45	48	50	51	51	51	51	51	51	51	9
Philadelphia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
San Diego	252	253	258	263	263	263	263	263	263	263	263	39	40	48	50	42	50	50	50	50	50	50	50	7

See notes at end of table.

Grade 8 Mathematics 2003-2013 (Continued)

National Center for Education Statistics

2013 Mathematics TUDA Assessment Report Card: Summary Data Tables with Additional Detail for Average Scores, Achievement Levels, and Percentiles for Districts and Jurisdictions

Average scores and achievement-level results in NAEP mathematics for eighth-grade public school students, by selected race/ethnicity categories and jurisdiction: Various years, 2003–13—Continued

Race/ethnicity and jurisdiction	Average scale score						Percentage of students					
	2003	2005	2007	2009	2011	2013	2003	2005	2007	2009	2011	2013
Hispanic												
Nation (public)	258 ***	261 ***	264 ***	266 ***	269 ***	271 *	47 ***	50 ***	54 ***	56 ***	60	62
Large city ¹	256 ***	258 ***	261 ***	264 ***	267	269 **	43 ***	46 ***	50 ***	54 ***	58	60
Albuquerque	†	†	†	†	†	†	†	†	†	†	†	†
Arlington	†	†	†	†	†	†	†	†	†	†	†	†
Austin	†	†	†	†	†	†	†	†	†	†	†	†
Baltimore City	†	†	†	†	†	†	†	†	†	†	†	†
Boston	252 ***	261 ***	270	269	271	275 **	38 ***	51 ***	60	61	62	66 *
Charlotte	262 ***	262 ***	264 ***	272	272	279 **	46 ***	53 ***	50 ***	63	63	70 *
Chicago	259 ***	263 ***	265 ***	268	271	283	48 ***	52 ***	59	64	64	61
Cleveland	249	251	258	250	258	252 **	35	33	44	35	44	39 **
Dallas	†	†	†	†	†	†	†	†	†	†	†	†
Detroit	†	†	†	†	†	†	†	†	†	†	†	†
District of Columbia (DCPS)	246 ***	252	251 ***	263	253	262 ***	33 ***	39	36 ***	40	41	29 **
Fresno	†	†	†	†	†	†	†	†	†	†	†	†
Hillsborough County (FL)	†	†	†	†	†	†	†	†	†	†	†	†
Houston	261 ***	265 ***	270 ***	275	278	279 **	49 ***	56 ***	62 ***	70	72	72 **
Jefferson County (KY)	†	†	†	†	†	†	†	†	†	†	†	†
Los Angeles	240 ***	245 ***	253 ***	254 ***	255	258 **	26 ***	32 ***	40 ***	41 ***	43	48 **
Miami-Dade	†	†	†	†	†	†	†	†	†	†	†	†
Milwaukee	†	†	†	†	†	†	†	†	†	†	†	†
New York City	260	259	262	261	261	263 **	48	47	52	50	50	56
Philadelphia	†	†	†	†	†	†	†	†	†	†	†	†
San Diego	248 ***	258	259	265	263	260 **	34 ***	49	48	54	52	49 **
Asian/Pacific Islander												
Nation (public)	289 ***	294 ***	296 ***	300 ***	302 ***	306 *	77 ***	81 ***	82 ***	84	85	87 *
Large city ¹	281 ***	289 ***	291 ***	299	298	298 **	71 ***	76 ***	78	83	82	83 **
Albuquerque	†	†	†	†	†	†	†	†	†	†	†	†
Arlington	†	†	†	†	†	†	†	†	†	†	†	†
Austin	†	†	†	†	†	†	†	†	†	†	†	†
Baltimore City	†	†	†	†	†	†	†	†	†	†	†	†
Boston	300 ***	309	305 ***	312	319	318 **	87	92	91	92	93	92 *
Charlotte	293 ***	†	305	†	304	312 *	81	83	88	83	83	85
Chicago	286 ***	292	†	301	296	305	78	83	88	82	82	86
Cleveland	†	†	†	†	†	†	†	†	†	†	†	†
Dallas	†	†	†	†	†	†	†	†	†	†	†	†
Detroit	†	†	†	†	†	†	†	†	†	†	†	†
District of Columbia (DCPS)	†	†	†	†	†	†	†	†	†	†	†	†
Fresno	†	†	†	†	†	†	†	†	†	†	†	†
Hillsborough County (FL)	†	†	†	†	†	†	†	†	†	†	†	†
Houston	†	299	310	†	309	313	†	85	87	87	82	82
Jefferson County (KY)	†	†	†	†	†	†	†	†	†	†	†	†
Los Angeles	275 ***	291	292	291	295	296 **	64 ***	82	82	78	80	86
Miami-Dade	†	†	†	†	†	†	†	†	†	†	†	†
Milwaukee	†	†	†	†	†	†	†	†	†	†	†	†
New York City	286 ***	295	299	309	304	304	74	79	83	89	86	84
Philadelphia	†	†	†	†	†	†	†	†	†	†	†	†
San Diego	278 ***	282 ***	289	292	293	293 **	69 ***	74	77	81	78	85

† Not available. District did not participate.
 * Reporting standards not met. Sample size insufficient to permit a reliable estimate.

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

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

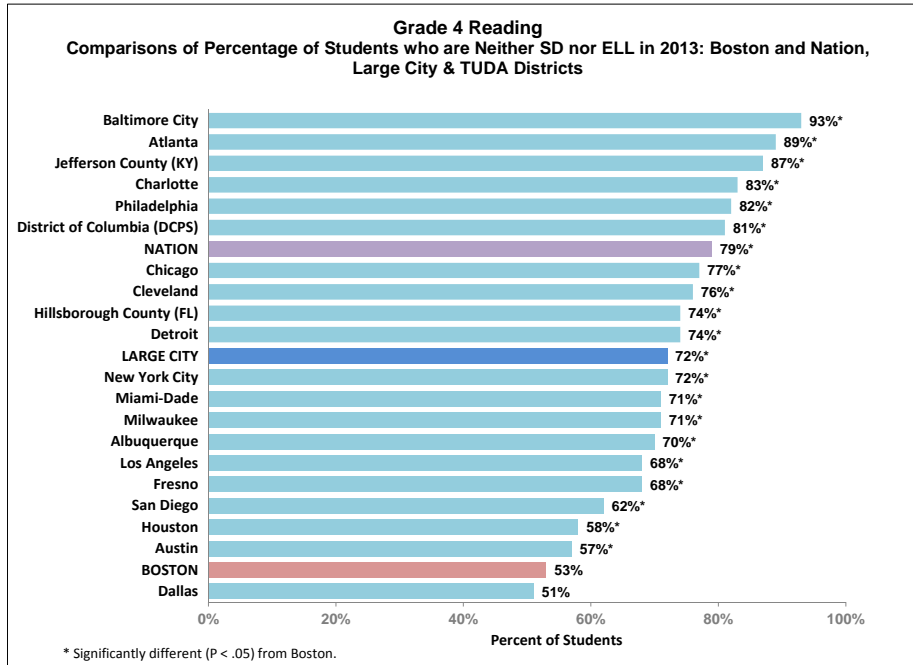
¹ Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. 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), various years, 2003–13 Mathematics Assessments.

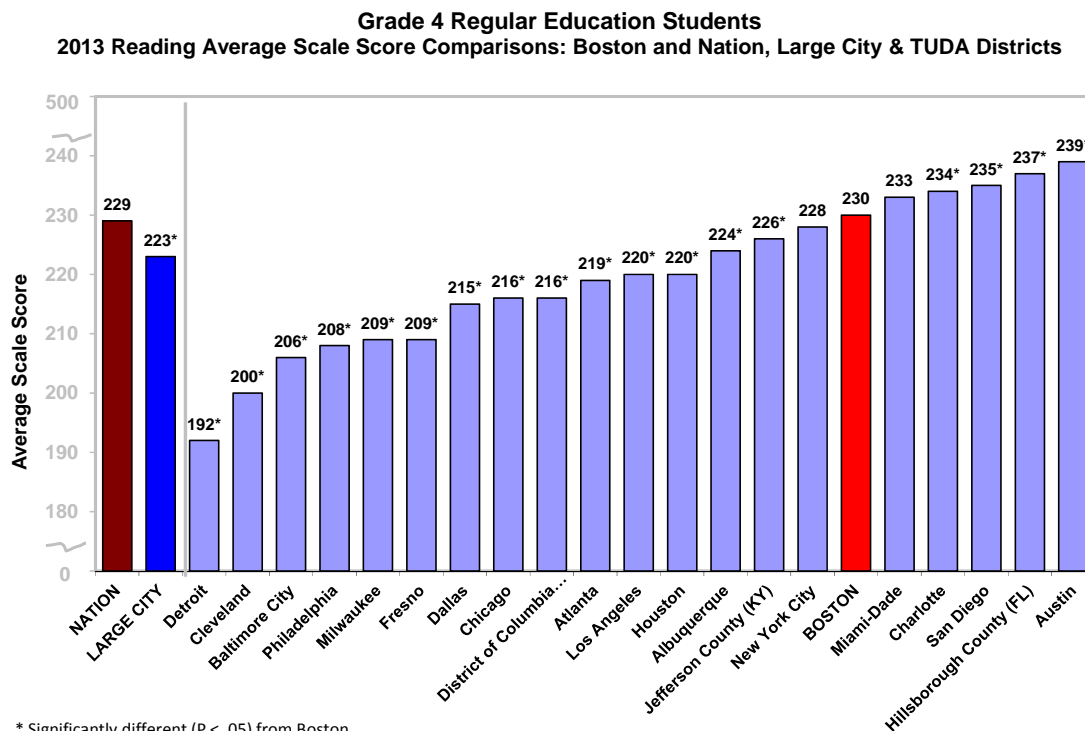
APPENDIX G: Performance of Grade 4 Students who are Neither SD Nor ELL

Grade 4 Reading

Comparisons of Percentage of Students who are Neither SD nor ELL in 2013: Boston and Nation, Large City & TUDA Districts, 2013

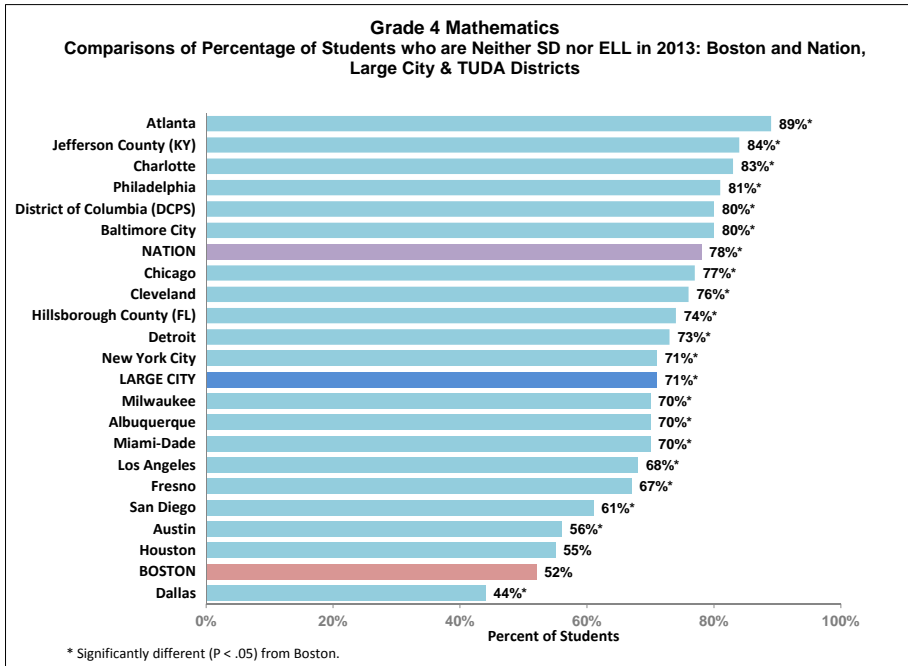


Comparisons of 2013 Average Scale Score of Students Who are Neither Students with Disabilities Nor English Language Learners



Grade 4 Mathematics

Comparisons of Percentage of Students who are Neither SD nor ELL in 2013: Boston and Nation, Large City & TUDA Districts, 2013



Comparisons of 2013 Average Scale Score of Students Who are Neither Students with Disabilities Nor English Language Learners

