Report on 2007 Trial Urban District Assessment (TUDA) National Assessment of Educational Progress (NAEP)

Grades 4 and 8 Reading and Mathematics

Office of Research, Assessment, and Evaluation
November 2007

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Prepared by the Office of Research, Assessment and Evaluation
November 2007

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EXECUTIVE SUMMARY

The Trial Urban District Assessment (TUDA) was started in 2002 as a part of the National Assessment of Educational Progress (NAEP). The Boston Public Schools was one of eleven urban districts that voluntarily participated in the NAEP assessment on a trial basis. Boston participated in grade 4 and 8 reading and mathematics in 2003, 2005, and 2007. Data for districts are compared with other TUDA districts, Large Central Cities (LCC), and the Nation.

Overall 2007 Findings:

- **LCC's:** in grades 4 and 8 mathematics on average Boston scored higher than the LCCs. In grades 4 and 8 reading the average score was the same for Boston and LCCs.

- **Other TUDA Districts:** performance in Boston in Grade 4 and 8 reading and mathematics is significantly higher than that in three other urban districts (Cleveland, Los Angeles, District of Columbia). For grade 8 mathematics, performance in Boston is significantly higher than all other TUDA districts except Austin, Charlotte, and Houston.

Improvement Overtime: Relative to Other TUDA Districts

- **Reading:** since 2003, Boston has continuously made progress in both grades 4 and 8. Compared with other TUDA districts, the improvement in percentage of students scoring at or above proficient in grade 4 (4 percentage points) for Boston was ranked second and tied with Charlotte, Chicago, San Diego and Washington DC, while in grade 8 the improvement was in the middle range (1 percentage point).

- **Mathematics:** since 2003, Boston had the most improvement among the TUDA districts, ranked first in both grades 4 and 8 and tied with San Diego in grade 4. The percentage of students scoring at or above proficient for Boston has substantially increased since 2003, 15 and 10 percentage points, respectively.

Improvement Overtime: by Racial/Ethnic Groups

- **Grade 4:** from 2003 to 2007 although scale score gains in reading were seen for all racial/ethnic groups, they were not statistically significant. In Mathematics, statistically significant scale score gains were seen for all groups. Gains ranged from 10 points (Black) to 16 points (White) compared to 2003 performance.
- **Grade 8:** Reading scores improved overtime for most groups. Although not statistically significant, improvements ranged from 1 point (Asian) to 5 points (Black). Hispanic performance decreased by 4 points. Statistically significant improvement was seen for all except Asian in grade 8 Mathematics. Compared to 2003 performance improvements ranged from 5 points (Asian) to 18 points (Hispanic).
- It should be noted that although improvements have been observed across the groups and are significant in Mathematics at both grades 4 and 8, the gaps in performance remain between Whites/Asians and Blacks/Hispanics.

Low-Income Students: Comparison Between Districts and Nation

- **Grade 4:** in reading, low-income students in Boston scored 2 points higher than the nation and scored the second highest of other TUDA districts. In grade 4 Mathematics, low-income students in Boston scored 3 points higher than the nation and were in the middle range of other TUDA districts.
- **Grade 8:** in both reading and Mathematics, low-income students in Boston scored on average 2 and 6 points higher than the nation. The grade 8 performance for children in poverty in Boston was the highest of all TUDA districts in both subject areas.

OVERVIEW AND BACKGROUND

In 2001, after discussion among 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 a district-level assessment on a trial basis, similar to the trial for state assessments that began in 1990, and NAGB passed a resolution approving the selection of urban districts for participation in the Trial Urban District Assessment (TUDA), a special project within NAEP. 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 that permitted testing of the feasibility of conducting NAEP over a range of characteristics, such as district size, minority concentrations, federal program participation, socioeconomic conditions, and percentages of students with disabilities (SD) and English Language Learners (ELL) students.

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 in reading and mathematics at grades 4 and 8: Atlanta, Boston, Charlotte-Mecklenburg, Chicago, Cleveland, Houston, Los Angeles, New York City, San Diego, and Washington, D.C. In 2005, Austin was added to the group of school systems that participated in the testing. Only public-school students (non-charter) were sampled in the TUDA. For the ten districts that participated in 2003, there are comparative information from 2003 and 2005. For Austin, the comparative information is only available from 2005 to 2007.

Average scores are reported on a 0-500 scale. Large Central Cities (LCC) refers to the eleven districts reported in this trial study. Eight of the eleven urban districts consist entirely of schools in cities with a population of 250,000 or more (i.e., large central cities as defined by NCES); three of them (Austin, Charlotte and Los Angeles) consist primarily of schools in large central cities, but also have a number of their fourth and eighth grade students enrolled in surrounding suburban or rural areas. All of the data for the three districts were used to compare with data from large central cities and the nation.

An overview of the assessment framework and comparisons with the MCAS relative to design, reporting and format are included in Appendices A and B.

DEMOGRAPHIC CONTEXT

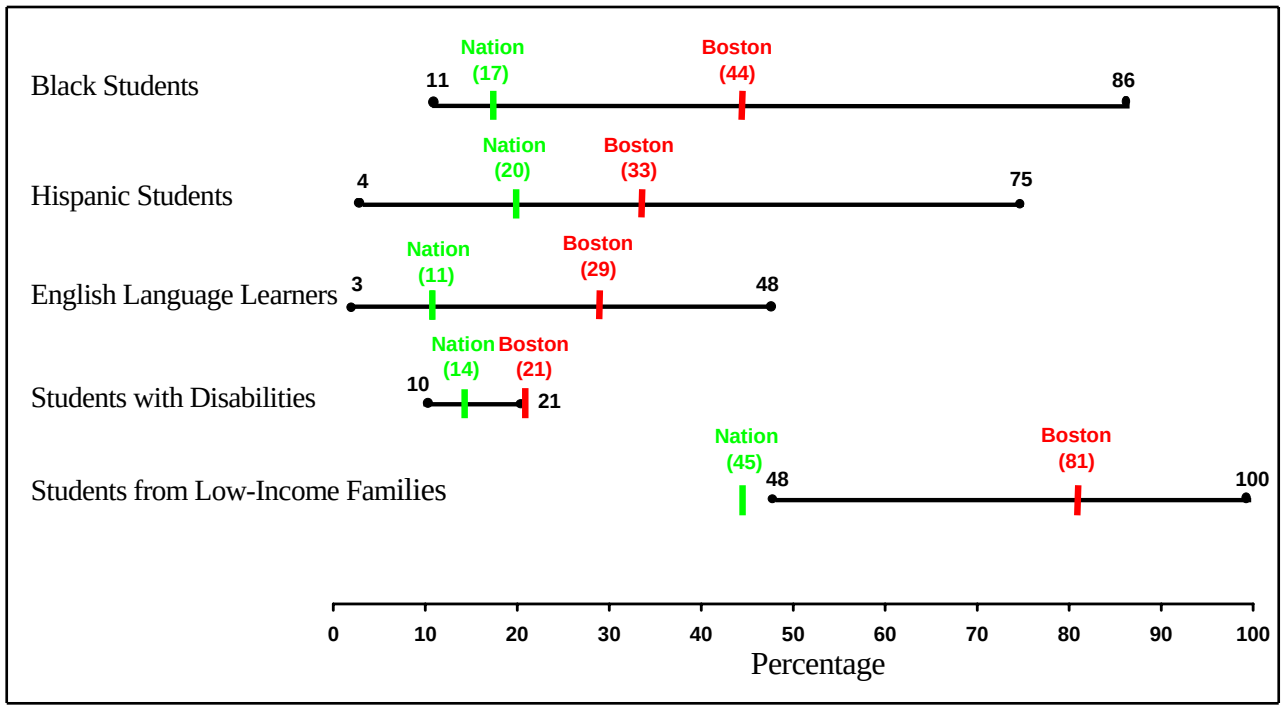
The graphic on the next page displays the percentages of subgroups (Black, Hispanic, English Language Learner, Students with Disabilities, Students from Low-Income Families) for the nation, for Boston Public Schools and the range for the TUDA districts. The percentages are based on grade 4 students who participated the 2007 TUDA NAEP Reading test.

For Black and Hispanic students, Boston's percentage is in the middle range of the other TUDA districts, while the percentage of ELL population is slightly higher. Of note is that over 80% of students in Boston receive free/reduced-price lunch. In addition, Boston has

the highest percent of students with disabilities that participated in the test. These aspects are important to keep in mind when reviewing the results.

In addition, because populations are sampled, examining statistical significance is critical to determine differences across groups.

Percentages: Range of Students in Selected Groups for TUDA Districts



ANALYSES

Performance is examined in four ways:

(1) comparisons of average scaled scores with the other communities that participated in the TUDA project. This provides normative information relative to specific other large cities.

(2) percent of students performing at or above the Proficiency Level overtime (2003, 2005, 2007). This provides information on the top level of student performance. Given that NCLB requires that all students must reach proficiency by 2014, it is useful to examine performance at this level.

(3) performance of racial/ethnic groups overtime. This provides information on achievement issues for various subgroups.

(4) Comparative performance of students of low-income backgrounds.

(1) Scale Score Comparisons of 2007 NAEP Between Boston and TUDA Districts

Subject Area Test	LCC*	Atlanta	Austin	Charlotte	Chicago	Cleveland	Houston	Los Angeles	N.Y.C.	San Diego	Dist. of Columbia
Grade 4 Reading	=	=	↓	↓	↑	↑	=	↑	=	=	↑
Grade 4 Math	↑	↑	↓	↓	↑	↑	=	↑	=	=	↑
Grade 8 Reading	=	↑	=	↓	=	↑	=	↑	=	=	↑
Grade 8 Math	↑	↑	↓	↓	↑	↑	=	↑	↑	↑	↑

** LCC: Large Central Cities*

Relative to each district listed at the top of the figure:

↑ : Boston had significantly higher average scale score

= : No significant difference between scale scores

↓ : Boston had significantly lower average scale score

Comparisons with Boston and Large Central Cities

- In grades 4 and 8 mathematics on average Boston scored significantly higher than the Large Central Cities.
- In grades 4 and 8 reading the average score was about the same for Boston and Large Central Cities.

Full information for Boston may be found in Appendix C and scale scores for each district may be found in Appendix D.

Comparisons with TUDA Districts

- Performance in Boston in Grade 4 and 8 reading and mathematics is significantly higher than that in three other urban districts (Cleveland, Los Angeles, District of Columbia).
- Performance is about the same in grade 4 reading in Atlanta, Houston, New York, and San Diego and mathematics in Houston, NYC and San Diego.
- Scores are about the same in grade 8 reading as Austin, Chicago, Houston, New York and San Diego and in mathematics as Houston.
- Performance for Boston in grade 8 math is significantly higher than all but three other districts (Austin, Charlotte and Houston).
- In reading and mathematics for almost all comparisons, performance is significantly lower than that in Austin and Charlotte. The exception is grade 8 reading which is the same as Austin.

(2) Percentage of Students Performing At or Above Proficient on 2007 NAEP: Changes from 2003 and 2005

	Grade 4						Grade 8					
	Reading			Mathematics			Reading			Mathematics		
	% 2007	Change Since 2003	Change Since 2005	% 2007	Change Since 2003	Change Since 2005	% 2007	Change Since 2003	Change Since 2005	% 2007	Change Since 2003	Change Since 2005
Large Central Cities	*22*	*3**	*2**	*28*	*8**	*4**	*20*	*1*	*0*	*22*	*6**	*3**
Atlanta	19	5	2	20	7*	3*	13	2	1	11	5*	4*
Austin	31	NA	3	40	NA	0	29	NA	2	34	NA	1
Boston	**20**	**4**	**4**	**27**	**15***	**5***	**22**	**0**	**-1**	**27**	**10***	**4***
Charlotte	35	4	2	44	3*	0	29	-1	5	34	2	1
Chicago	16	2	2	16	6*	3	19	4	2	13	4	2
Cleveland	9	0	-1	10	0	3	11	1	1	7	1	1
Houston	17	-1	-4	28	10*	2	18	4	1	21	9*	5*
Los Angeles	13	2	-1	19	6*	1	13	2	0	14	7*	3*
N.Y.C.	25	3	3	34	13*	8*	20	-2	0	22	2	2
San Diego	26	4	4	35	15*	6*	23	3	0	24	6*	2
Distict of Columbia	14	4	3	14	7*	4*	12	2	0	8	2*	1

* Change was statistically higher in 2007 than in prior years.

Improvements: Relative to LCC

- In reading for grade 4 Boston exceeded the improvement in Large Central Cities, while at grade 8 there was a slight decline, although none of these changes was statistically significant.

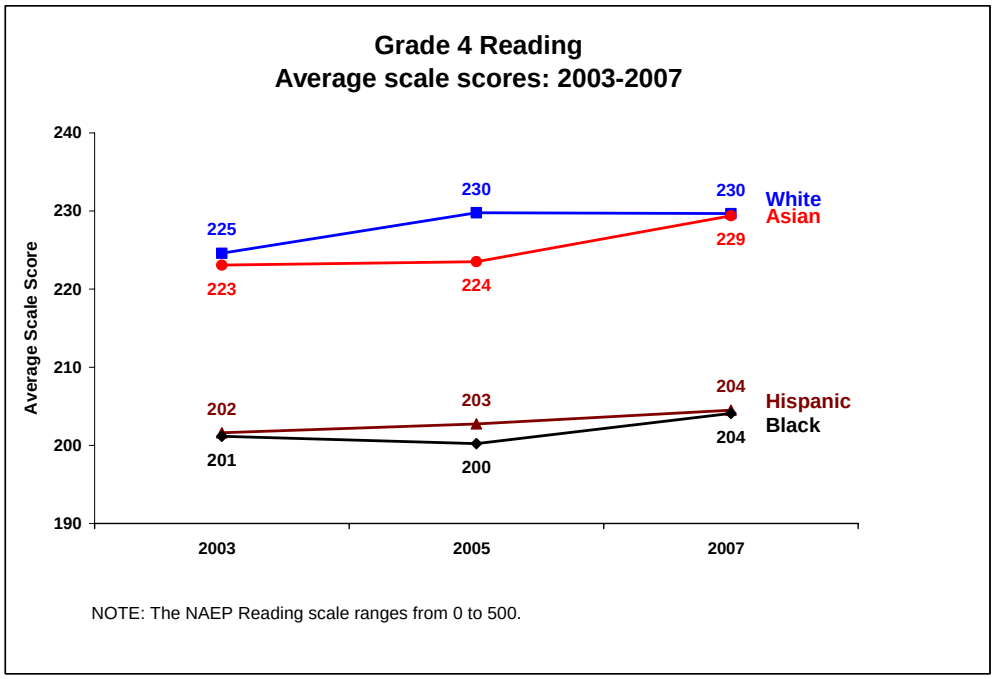
- In mathematics for both grades 4 and 8, there were statistically significant improvements in Boston, and the increases were higher than LCC. In Boston, since 2003, grade 8 increased 10 percentage points and grade 4 gained 15 percentage points.

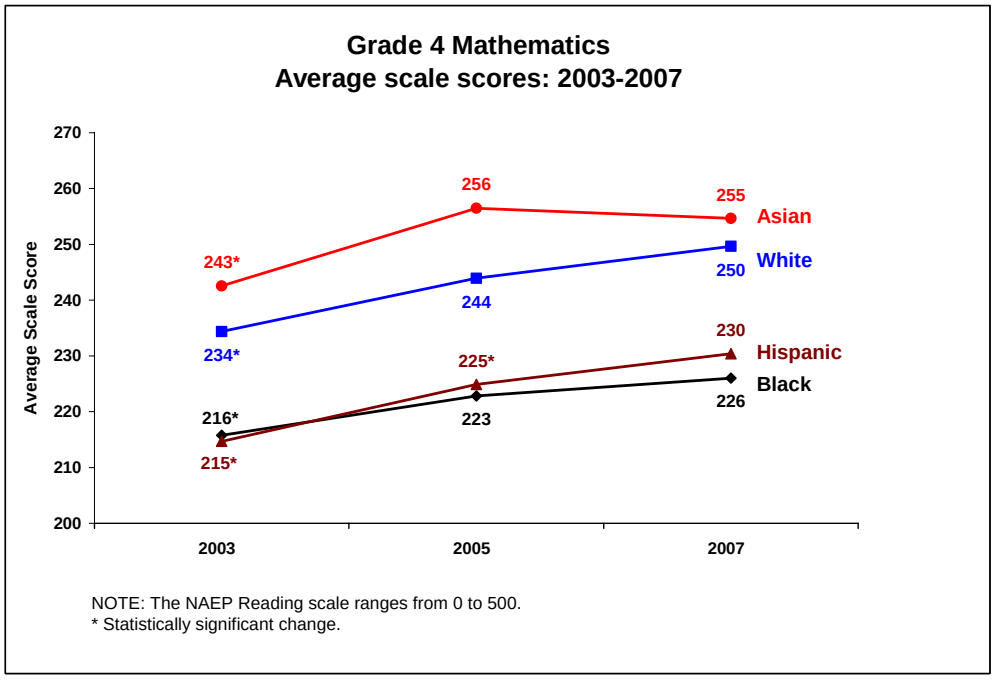
Improvements: Relative to Other TUDA Districts

- Since 2003, Boston has continuously made progress in reading in both grades 4 and 8. The improvement in percentage of students scoring at or above proficient in grade 4 (4 percentage points) for Boston was ranked second and tied with Charlotte, Chicago, San Diego and DC, while in grade 8 (1 percentage point) the improvement was in the middle range.

- In mathematics, Boston had the most improvement among the TUDA districts, ranked first in both grades 4 and 8 but tied with San Diego in grade 4. The percentage of students scoring at or above proficient for Boston has substantially increased since 2003, 15 and 10 percentage points, respectively.

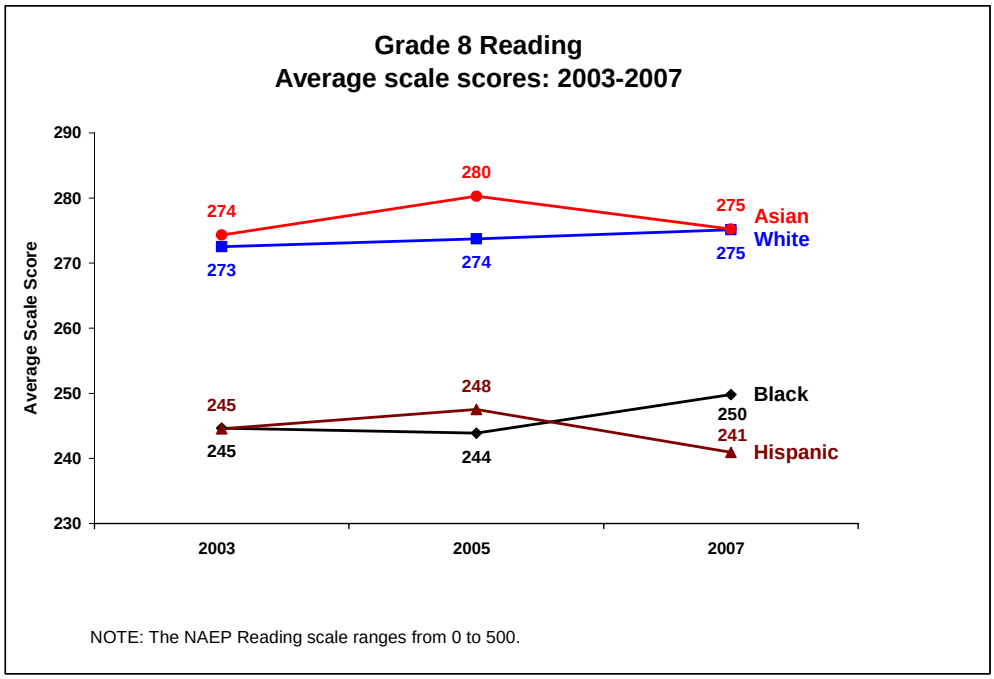
(3) Improvement Overtime by Racial/Ethnic Group

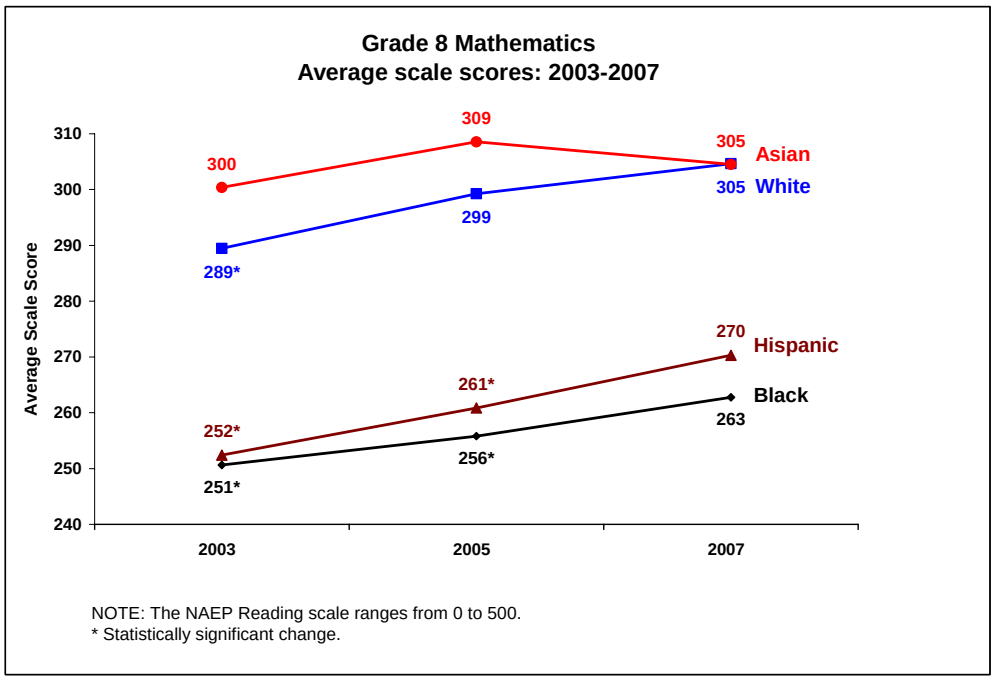




Grade 4:

- From 2003 to 2007 scale score gains were seen for all racial/ethnic groups in Reading and ranged from 2 points (Hispanic) to 6 points (Asian), however, these gains were not statistically significant.
- In Mathematics, statistically significant improvement was seen for all groups. Gains ranged from 10 points (Black) to 16 points (White) compared to 2003 performance.





Grade 8:

- Reading scores improved overtime for most groups. Although not statistically significant, improvements ranged from 1 point (Asian) to 5 points (Black). Hispanic performance decreased by 4 points.
- Statistically significant improvement was seen for all groups except Asian in Mathematics. Compared to 2003 performance improvements ranged from 5 points (Asian) to 18 points (Hispanic).

- It should be noted that although improvements have been observed across the groups and are significant in Mathematics at both grades 4 and 8, the gaps in performance remain between Whites/Asians and Blacks/Hispanics.

Full information is contained in Appendix E.

(4) Low-Income Students: Comparison Between Districts and Nation

As a means of examining the performance of low-income students across grades, subject areas and districts, the following analyses examine the differences between each district and the nation. For these analyses the performance of low- income students in each district is compared to that of low-income students nationwide.

Scale Score Performance and Difference of TUDA District and Nation: Students Receiving Free-Reduced Price Lunch

Grade 4

District (average scale score) (Reading), (Mathematics)	Reading		Mathematics	
	# Points lower	# Points Higher	# Points lower	# Points Higher
Atlanta (198), (216)	-7		-12	
Austin (203), (229)	-2			+2
Boston (207), (231)		**+2**		**+3**
Charlotte (205), (231)		#		+4
Chicago (197), (216)	-8		-11	
Cleveland (198), (215)	-7		-12	
Distict of Columbia (188), (207)	-17		-20	
Houston (201), (231)	-4			+4
Los Angeles (191), (217)	-14		-10	
N.Y.C.(209), (234)		+4		+7
San Diego (198), (224)	-6		-3	

* District minus Nation (205), (227)
# Rounds to zero.

- In reading, the low-income students in Boston scored 2 scale score points higher than low-income students nationwide and were scored the second highest of the TUDA districts.

- In Mathematics, low-income students in Boston scored 3 points higher than the nation and were in the middle range of other TUDA districts.

Scale Score Performance and Difference of TUDA District and Nation: Students Receiving Free-Reduced Price Lunch

Grade 8

District (average scale score) (Reading), (Mathematics)	Reading		Mathematics	
	# Points lower	# Points Higher	# Points lower	# Points Higher
Atlanta (240), (251)	-7		-14	
Austin (240), (267)**	-7			+2
Boston (249), (271)**		**+2**		**+6**
Charlotte (245)**, (265)**	-3			#
Chicago (247)**, (257)	-1		-8	
Cleveland (246)**, (257)	-1		-8	
Distict of Columbia (234), (243)	-13		-22	
Houston (247)**, (268)		#		+3
Los Angeles (237), (254)	-10		-11	
N.Y.C.(246)**, (267)**	-1			+2
San Diego (236), (260)**	-11		-5	

* District minus Nation (247), (265)
** The score point different between this distict and the nation was not statistically significant.
# Rounds to zero.

- For both reading and Mathematics low-income students in Boston scored on average 2 and 6 points higher than the nation.
- The Performance for children in poverty was the highest of all TUDA districts in both subject areas.

APPENDIX A: Assessment Framework

Reading

The NAEP reading framework, which defines the content for the 2007 assessment, was developed through a comprehensive national consultative process and adopted by NAGB. The reading framework is organized along two dimensions, the context for reading and the aspect of reading. The context for reading dimension is divided into three areas that characterize the purposes for reading: reading for literary experience, reading for information, and reading to perform a task. The aspects of reading, which define the types of comprehensive questions used in the assessments, including forming a general understanding, developing an interpretation, making reader/text connections, and examining content and structure. Each student read one or two passages and responded to approximately 13-20 questions in 50 minutes.

Mathematics

The NAEP mathematics framework, which defines the content for the 2007 assessment, was developed through a comprehensive national consultative process and approved by NAGB. 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, and probability; and 5) algebra. In addition, the framework specifies that each question should measure one of three mathematical abilities. The three mathematical abilities specified by the framework are: 1) conceptual understanding, 2) procedural knowledge, and 3) problem solving.

Accommodations

It is NAEP's intent to assess all selected students from the target population. Beginning in 2002, students with disabilities and limited-English-proficient students 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, in a reading assessment, NAEP does not permit the reading passages to be read aloud.

Population Tested

Results from the 2003, 2005 and 2007 Trial Urban District Assessment are reported for the participating districts for public-school students at grades 4 and 8. The TUDA 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 significant significance.

In Boston, students from 64 schools at grade 4 and 34 schools at grade 8 participated in the 2007 NAEP assessments. A total of 2,471 students were assessed in reading (1,305 at grade 4 and 1,166 at grade 8) and 2,422 students were assessed in mathematics (1,319 at grade 4 and 1,103 at grade 8).

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Appendix B

FOCUS On Children
Boston Public Schools

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 effective of BPS school system relative to other large urban school districts, while the annual MCAS test provides critical information about the academic performance of BPS compare to other Mass. Public schools as well as to what extent BPS students achieve the Mass. Curriculum standards.

This section is to briefly compare MCAS with NAEP, and to build understanding for interpreting the test results and making the comparisons and/or connections.

Overview

NAEP

- The National Assessment of Educational Progress (NAEP), known as the Nation's Report Card, is Congressionally-mandated assessment since 1969. It includes state assessment since 1990 and conducted the first Trial Urban School District Assessment (TUDA) in 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

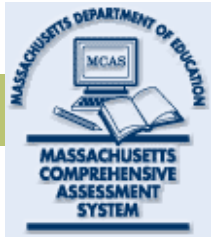
Student Selection

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, school receiving Title I subgrants 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. Passing grade 10 ELA and Math tests is a part of graduation requirement.

Inclusions & Accommodations

NAEP

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

- **ELL:** NAEP includes all ELL students who have received instruction in English for at least three years. ELL students who have received instruction in English for less than three years are included as well unless school staff judged them to be incapable of participating in the assessment in English. In the NAEP mathematics assessment, bilingual test booklets (English and Spanish) are provided where needed.
- **Students with Disabilities:** Based on student's 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 limited English Proficient (LEP) students in the assessment.

- **LEP**: Beginning in 2003, the new laws, *No Child Left Behind Law* as well as *Question 2*, the Massachusetts ballot initiative approved by voters November 2002, require that all LEP students participate in state administered academic assessments, with the sole exception of LEP students in their first year of enrollment in U.S. schools. Schools have the option of administering the reading, LEP and History/Social Science tests to first-year LEP students.
- **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 Frameworks that were developed by the National Assessment Governing Board (NAGB).

- **Reading:** The 2002 updated NAEP Reading Framework
- **Math:** The 1996 updated NAEP Mathematic Framework

MCAS

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

- **English Language Arts:** Massachusetts English Language Arts Curriculum Framework, June 2001 and May 2004 Supplement
- **Math:** Massachusetts Mathematics Curriculum Framework, November 2000 and May 2004 Supplement

Content Standards Tested

NAEP

Reading: assesses three contexts for reading

- Reading for literary experience
- Reading for information
- Reading to perform a task

Mathematics:

- number, properties, and operations;
- measurement;
- geometry;
- data analysis and probability;
- algebra

MCAS

English Language Arts

- Language
- Reading and Literature
- Composition
- Media

Mathematics:

- Number Sense and Operations;
- Patterns, Relations, and Algebra;
- Geometry;
- Measurement;
- Data analysis, Statistics and Probability

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:** Multiple-Choice, Short and extended constructed response questions.
- **Math:** Multiple-Choice, short-answer open-ended, extended open-ended tasks.

MCAS

- **ELA Reading Comprehension**: Multiple-Choice, Open-ended.
- **English Language Arts:** Multiple-Choice, Open-ended, & Writing Prompts.
- **Math:** Multiple-Choice, short-answer, open-response items.

Test Questions release

NAEP

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

MCAS

- For each subject, ***all*** common items are released to public. For current year and historical released test items, please visit: http://www.doe.mass.edu/mcas/testitems.html

Testing Administration

2007 NAEP

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

Testing Date: 1/22/2007 – 3/2/2007

Testing Time (per subject): 50 minutes

Subject & Test Grade:
- Reading – Grades 4 & 8
- Mathematics – Grades 4 & 8

Test Administering: 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: Reading and Mathematics are conducted simultaneously in the same classroom; some students take Reading, the other students take mathematics test.

2007 MCAS

Testing Date:
- ELA Composition test: 3/20/2007 (make-up 4/2/2007)
- ELA Reading Comprehension (G3-8, & 10): 3/19/2007 – 4/4/2007
- All other content area tests: 5/14/2007 – 6/6/2007

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
- History & Social Science – Grades 5 & 7

Test Administering: 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 as either 'acceptable' or 'unacceptable,' or received partial credit according to a three-level rubrics.
- The extended constructed-response questions are rated based on a four-level rubrics.

MCAS

- Multiple-choice and short-answer questions are scored blank/0 or 1.
- Open-response questions are scored on a 0 through 4 scale based on the scoring rubrics except grade 3 Math that is scored 0 to 2.
- 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/Above Proficient:** 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
- **Scale Score Corresponding to Performance Level:** vary by subject and test grade

  Reading:

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

  Mathematics:

	Grade 4	*Grade 8*
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 a 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	*Scaled Score*
Advanced	260 -- 280
Proficient	240 – 258
Needs Improvement	220 – 238
Warning/Failing	0 – 218

- No scaled score is reported for Grade 3 Reading test instead "raw" score is reported.
- Due to the range of MCAS scores contains different scales, the averaging of scaled scores should be generated based on the average raw score of tested group (i.e., compute the average raw score and find the corresponding scaled score.)

Interpreting Results

NAEP

- The NAEP results as reported in 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 very somewhat from year to year.

Additional Information

NAEP

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

MCAS

The Massachusetts Department of Education
Assessment and Evaluation Services
350 Main Street
Malden, MA 02148
Phone: (781) 338-3616
Web site: http://www.doe.mass.edu/MCAS

Appendix C

2007 NAEP Results by Student Group: Grade 4
Scaled Scores and Percents of Students at Each Achievement Level

	Boston					Large Cities (National Avg.)				
	Scaled Score	Percent of Students			% Students Assessed	Scaled Score	Percent of Students			% Students Assessed
		Proficient & above	*Basic* & above	Below *Basic*			*Proficient* & above	*Basic* & above	Below *Basic*	
READING										
All Students	**210**	**20**	**54**	**46**	**100**	**208**	**22**	**53**	**47**	**100**
Student Status										
Students with Disabilities	183	5	20	80	16	178	9	25	75	9
English Language Learners	197	9	39	61	27	183	6	26	74	20
Gender										
Female	213	22	57	43	48	212	24	56	44	50
Male	207	19	50	50	52	205	19	49	51	50
Race/Ethnicity										
African American / Black	204	13	48	52	44	199	12	41	59	31
Asian / Pacific Islander	229	45	74	26	9	228	40	72	28	7
Hispanic	204	14	47	53	33	199	14	44	56	38
White	230	42	76	24	13	231	44	78	22	21
Free/Reduced-Price Lunch										
Eligible	207	16	50	50	81	200	13	43	57	70
MATHEMATICS										
All Students	**233**	**27**	**77**	**23**	**100**	**230**	**28**	**70**	**30**	**100**
Student Status										
Students with Disabilities	214	8	51	49	19	208	13	44	56	11
English Language Learners	228	23	70	30	30	214	12	52	48	21
Gender										
Female	234	28	79	22	49	229	26	70	30	49
Male	232	27	76	24	51	231	30	70	30	51
Race/Ethnicity										
African American / Black	226	18	71	29	44	219	13	58	42	31
Asian / Pacific Islander	255	61	91	9	8	251	57	89	11	7
Hispanic	230	23	76	24	35	224	21	66	34	40
White	250	52	93	7	12	250	52	93	7	20
Free/Reduced-Price Lunch										
Eligible	231	24	75	25	82	223	19	64	36	71

 # 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), 2003, 2005, and 2007 Reading and Mathematics Assessments.

2007 NAEP Results by Student Group: Grade 8

Scaled Scores and Percent of Students at Each Achievement Level

	Boston					Large Cities (National Avg.)				
	Scaled Score	Percent of Students			% Students Assessed	Scaled Score	Percent of Students			% Students Assessed
		Proficient & above	*Basic* & above	Below *Basic*			*Proficient* & above	*Basic* & above	Below *Basic*	
READING										
All Students	**254**	**22**	**63**	**37**	**100**	**250**	**20**	**60**	**40**	**100**
Student Status										
Students with Disabilities	223	3	26	74	16	214	4	23	77	10
English Language Learners	210	1	15	85	7	214	2	20	80	11
Gender										
Female	261	28	71	29	49	255	23	65	35	50
Male	247	17	56	44	51	245	16	55	45	50
Race/Ethnicity										
African American / Black	250	16	60	40	41	240	10	49	51	31
Asian / Pacific Islander	275	46	81	19	11	263	34	74	26	8
Hispanic	241	10	52	48	32	243	12	53	47	37
White	275	48	80	20	16	271	39	82	18	23
Free/Reduced-Price Lunch										
Eligible	249	16	60	40	70	242	12	52	48	64
MATHEMATICS										
All Students	**276**	**27**	**65**	**35**	**100**	**269**	**22**	**57**	**43**	**100**
Student Status										
Students with Disabilities	247	7	30	70	13	233	4	22	78	9
English Language Learners	242	7	25	75	7	239	4	24	76	12
Gender										
Female	276	26	64	36	50	269	23	57	43	51
Male	277	28	65	35	50	268	20	57	43	49
Race/Ethnicity										
African American / Black	263	12	51	49	43	254	9	41	59	30
Asian / Pacific Islander	305	57	91	9	10	291	44	78	22	8
Hispanic	270	20	60	40	30	261	13	50	50	38
White	305	58	89	11	17	292	44	81	19	23
Free/Reduced-Price Lunch										
Eligible	271	21	60	40	69	260	14	49	51	65

*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), 2003, 2005, and 2007 Reading and Mathematics Assessments.

APPENDIX D: Summary of Scaled Score Comparisons

Scale Score Comparisons of 2007 NAEP Between Boston and TUDA Districts

Subject Area Test (Boston)	LCC*	Atlanta	Austin	Charlotte	Chicago	Cleveland	Houston	Los Angeles	N.Y.C.	San Diego	Dist. of Columbia
Grade 4 Reading (210)	208	207	218	222	201	198	206	196	213	210	197
Grade 4 Math (233)	230	224	241	244	220	215	234	221	236	234	214
Grade 8 Reading (254)	250	245	257	260	250	246	252	240	249	250	241
Grade 8 Math (276)	269	256	283	283	260	257	273	257	270	272	248

** LCC: Large Central Cities*

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Appendix E

Grade 4 Reading 2007

Table A-5. **Average scale scores and achievement-level results for fourth-grade public school students in NAEP reading, by selected race/ethnicity categories and jurisdiction: Various years, 2002–07**

Race/ethnicity and jurisdiction	Average scale score				Percentage of students: At or above *Basic*				Percentage of students: At or above *Proficient*			
	2002	2003	2005	2007	2002	2003	2005	2007	2002	2003	2005	2007
White												
Nation	227***	227***	228***	230	74***	74***	75***	77	39***	39***	39***	42
Large central city	224***	226***	228	231	70***	72***	74	78	37***	39	40	44
Atlanta	250	250	253	253*,**	86	91	95	95*,**	67	68	74	71*,**
Austin	—	—	239	244*,**	—	—	86	90*,**	—	—	54	63*,**
Boston	—	225	230	230	—	69	79	76	—	37	40	42
Charlotte	—	237	240	244*,**	—	83	86	89*,**	—	52	55	61*,**
Chicago	221	224	225	227	64	70	70	74	35	37	39	40
Cleveland	—	208	209	215*,**	—	51	54	61*,**	—	17	17	22*,**
District of Columbia	248***	254	252	258*,**	91	90	92	96	66	70	70	74*,**
Houston	233	235	245	241*,**	79	82	88	86*,**	45	48	61	58*,**
Los Angeles	223	217***	229	228	70	60***	71	79	38	28	43	37
New York City	226	231	226	232	71	77	75	77	35	45	36	45
San Diego	—	231	226	234	—	79	69	80	—	43	39	49
Black												
Nation	198***	197***	199***	203*	39***	39***	41***	46*	12***	12***	12***	14*
Large central city	192***	193***	196***	199**	33***	35***	38	41**	9***	10	11	12**
Atlanta	192***	191***	194***	200	32***	31***	33***	40**	8	8	10	10**
Austin	—	—	200	201	—	—	43	41	—	—	12	11
Boston	—	202	203	204	—	43	45	48	—	11	11	13
Charlotte	—	205	206	206*	—	48	49	49*	—	14	16	15
Chicago	185***	193	190	193*,**	25***	33	31	34*,**	5***	10	7	10**
Cleveland	—	191	193	192*,**	—	30	32	30*,**	—	7	7	5*,**
District of Columbia	188***	184***	187***	192*,**	28***	27***	29***	33*,**	7	7	8	9**
Houston	200	201	207	205*	40	43	49	48*	12	12	16	14
Los Angeles	186	187	187	196	25	30	28	37	6	8	9	13
New York City	197***	201	206	206*	37***	43	49	51*	9	13	16	15
San Diego	—	196	198	199	—	38	43	44	—	9	13	12
Hispanic												
Nation	199***	199***	201***	204*	43***	43***	44***	49*	14***	14***	15***	17*
Large central city	197	197	198	199**	38***	40***	40	44**	12	13	13	14**
Atlanta	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Austin	—	—	207	206*	—	—	51	51	—	—	17	16
Boston	—	201	200	204*	—	42	42	47	—	12	10	14
Charlotte	—	202	209	207*	—	46	54	51	—	15	19	18
Chicago	193***	196	201	201	33***	39	43	45	9***	12	15	14
Cleveland	—	201	201	200	—	44	44	39	—	14	14	8**
District of Columbia	193***	187***	193***	206	34***	29***	37***	55	8	8	12	15
Houston	203	203	203	200	45	44	44	43	14	15	13	12**
Los Angeles	185	189	190	190*,**	26***	30	31	33*,**	7	7	9	8*,**
New York City	201	205	207	203*	42	47	51	46	15	16	15	16
San Diego	—	195	196	196**	—	37	38	40**	—	12	11	13**
Asian/Pacific Islander												
Nation	223***	225***	227***	231	69***	69***	72***	76*	36***	37***	40***	45
Large central city	220	223	223	228	64	66	67	72**	32	35	35	40
Atlanta	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Austin	—	—	‡	236	—	—	‡	78	—	—	‡	56
Boston	—	223	224	229	—	71	68	74	—	29	33	45
Charlotte	—	218	‡	235	—	61	‡	77	—	31	‡	48
Chicago	‡	‡	‡	237	‡	‡	‡	82	‡	‡	‡	51
Cleveland	—	‡	‡	‡	—	‡	‡	‡	—	‡	‡	‡
District of Columbia	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Houston	‡	‡	‡	231	‡	‡	‡	77	‡	‡	‡	47
Los Angeles	218	218	223	219	70	61	66	66	26	28	37	31
New York City	235	227	235	230	78	72	79	75	50	39	47	43
San Diego	—	222	222	223	—	66	69	70	—	33	32	35**

— Not available. District did not participate in 2002 and/or 2003.
‡ Reporting standards not met.
* Significantly different ($p < .05$) from large central city public schools in 2007.
** Significantly different ($p < .05$) from nation (public schools) in 2007.
*** Significantly different ($p < .05$) from 2007.
NOTE: Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2002–07 Trial Urban District Reading Assessments.

Table A-6. **Average scale scores and achievement-level results for eighth-grade public school students in NAEP reading, by selected race/ethnicity categories and jurisdiction: Various years, 2002–07**

Race/ethnicity and jurisdiction	Average scale score				Percentage of students: At or above *Basic*				Percentage of students: At or above *Proficient*			
	2002	2003	2005	2007	2002	2003	2005	2007	2002	2003	2005	2007
White												
Nation	271	270	269***	270	83	82	81***	83	39	39	37	38
Large central city	270	268	270	271	80	79	81	82	40	37	38	39
Atlanta	275	‡	‡	‡	84	‡	‡	‡	47	‡	‡	‡
Austin	—	—	279	284*,**	—	—	86	91*,**	—	—	50	58*,**
Boston	—	273	274	275	—	79	81	80	—	44	46	48
Charlotte	—	278	278	279*,**	—	88	87	88*,**	—	49	49	52*,**
Chicago	266	265	270	266	75	79	81	77	31	30	41	38
Cleveland	—	250***	255	262*,**	—	62***	66	80	—	14	20	26*
District of Columbia	‡	‡	301	‡	‡	‡	94	‡	‡	‡	74	‡
Houston	279	270	280	281*,**	87	80	89	89*,**	47	40	53	52
Los Angeles	264	266	261	272	73	76	69	81	33	36	31	41
New York City	‡	270	269	270	‡	79	80	80	‡	42	38	41
San Diego	—	269	273	271	—	79	82	82	—	37	44	42
Black												
Nation	244	244	242***	244*	54	53	51***	54*	13	12	11	12*
Large central city	240	241	240	240**	49	49	48	49**	10	10	10	10**
Atlanta	233***	237***	237***	242	39***	44	43***	50	5***	8	9	9
Austin	—	—	242	238	—	—	52	46	—	—	10	10
Boston	—	245	244	250*,**	—	53	52	60*	—	14	13	16
Charlotte	—	247	244	246*	—	55	55	56*	—	14	13	14
Chicago	245	243	240	240	57	52	50	50	10	10	10	9
Cleveland	—	238***	236***	243	—	45	44	51	—	8	8	7**
District of Columbia	238	236	235***	238**	46	45	42	45**	8	8	9	9
Houston	247	244	242***	249*,**	60	53	53	62*,**	15	12	11	12
Los Angeles	236	233	234	229**	43	41	40	38**	8	7	8	6
New York City	‡	245	241	240	‡	56	49	50	‡	13	10	11
San Diego	—	236	242	240	—	46	53	48	—	7	12	10
Hispanic												
Nation	245	244	245	246*	56	54	55***	57*	14	14	14	14*
Large central city	242	241	243	243**	52	51	53	53**	12	12	13	12**
Atlanta	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Austin	—	—	243	244	—	—	52	55	—	—	13	15
Boston	—	245	248	241	—	54	57	52	—	14	16	10
Charlotte	—	244	248	251	—	52	58	65	—	14	19	20
Chicago	248	249***	251	255*,**	61	61***	62	69*,**	12***	15	16	20*,**
Cleveland	—	‡	248	249	—	‡	57	58	—	‡	10	16
District of Columbia	240	240	247	249	53	51	59	56	11	11	18	19
Houston	243	242	245	246*	52	51	56	57	13	10	12	13
Los Angeles	230***	228***	235	236*,**	36***	37***	43	45*,**	5	6	9	8*,**
New York City	‡	247	247	241	‡	57	57	51	‡	17	14	13
San Diego	—	238	241	235*,**	—	46	50	45*,**	—	9	12	11
Asian/Pacific Islander												
Nation	265	268	270	269	75	78	79	79	34	38	39	40*
Large central city	256	260	266	263	65	69	76	74	26	30	35	34**
Atlanta	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Austin	—	—	‡	‡	—	—	‡	‡	—	—	‡	‡
Boston	—	274	280	275	—	83	85	81	—	44	55	46
Charlotte	—	‡	‡	‡	—	‡	‡	‡	—	‡	‡	‡
Chicago	‡	268	277	‡	‡	78	88	‡	‡	35	44	‡
Cleveland	—	‡	‡	‡	—	‡	‡	‡	—	‡	‡	‡
District of Columbia	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Houston	‡	‡	‡	289	‡	‡	‡	91*,**	‡	‡	‡	61
Los Angeles	259	255	262	264	73	64	73	76	26	27	30	32
New York City	‡	264	271	268	‡	72	80	79	‡	35	42	37
San Diego	—	260	265	265	—	71	76	78	—	27	31	35

— Not available. District did not participate in 2002 and/or 2003.
‡ Reporting standards not met.
* Significantly different ($p < .05$) from large central city public schools in 2007.
** Significantly different ($p < .05$) from nation (public schools) in 2007.
*** Significantly different ($p < .05$) from 2007.
NOTE: Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2002–07 Trial Urban District Reading Assessments.

Table A-5. Average scale scores and achievement-level results for fourth-grade public school students in NAEP mathematics, by selected race/ethnicity categories and jurisdiction: 2003, 2005, and 2007

Race/ethnicity and jurisdiction	Average scale score			Percentage of students: At or above *Basic*			Percentage of students: At or above *Proficient*		
	2003	2005	2007	2003	2005	2007	2003	2005	2007
White									
Nation	243***	246***	248	87***	89***	91	42***	47***	51*
Large central city	243***	247	249	86***	88	90	42***	50	54**
Atlanta	258	263	266*,**	89	96	99	70	72	81*,**
Austin	—	262	263*,**	—	99	98*,**	—	75	76*,**
Boston	234***	244	250	77***	88	93	32***	43	52
Charlotte	257	261	261*,**	96	97	98*,**	66	70	72*,**
Chicago	235	243	244	82	88	84	31***	43	47
Cleveland	233	233	233*,**	80	81	80	27	25	25*,**
District of Columbia	262	266	262*,**	97	99	91	71	78	73*,**
Houston	254***	262	263*,**	96	97	96*,**	63	73	76*,**
Los Angeles	241	247	247	83	87	90	44	49	50
New York City	244***	245	249	88	87	91	42***	46	53
San Diego	243***	249	252	87	94	90	41***	50	59
Black									
Nation	216***	220***	222*	54***	60***	63*	10***	13***	15*
Large central city	212***	217	219**	47***	55	58**	8***	11	13**
Atlanta	211***	215	217**	45***	51	55**	7***	9	11**
Austin	—	228	226*,**	—	74	68*	—	18	17
Boston	216***	223	226*,**	55***	65	71*,**	6***	13	18
Charlotte	229	230	230*,**	73	74	75*,**	20	21	23*,**
Chicago	207***	208	213*,**	39***	41	48*,**	4***	6	8*,**
Cleveland	210	215***	210*,**	44	52	45*,**	5	8	5*,**
District of Columbia	202***	207	209*,**	33***	41	45*,**	4***	5	8*,**
Houston	221	224	225*	62	67	69*	12	14	16
Los Angeles	208	209	216**	42	42	54**	6	9	13
New York City	219***	222	227*,**	58***	63	72*,**	12***	14	20*
San Diego	216	221	222	54	60	65	8***	15	21
Hispanic									
Nation	221***	225***	227*	62***	67***	69*	15***	19***	22
Large central city	219***	223	224**	59***	64	66**	13***	17***	21
Atlanta	‡	‡	223	‡	‡	60	‡	‡	16
Austin	—	234	233*,**	—	80	78*,**	—	27	26*
Boston	215***	225***	230*,**	51***	70	76*,**	7***	14	23
Charlotte	233	234	234*,**	80	81	80*,**	26	27	26
Chicago	217	217	219*,**	55	55	60*,**	10***	13	16*,**
Cleveland	220	224	215	58	68	53**	14	18	10*,**
District of Columbia	205***	215	220**	39***	51	57*,**	7***	11	19
Houston	226***	232	234*,**	70***	78	82*,**	15***	23	25*
Los Angeles	211***	216	217*,**	46***	53	55*,**	7***	13	14*,**
New York City	220***	226	230*,**	60***	70	74*,**	13***	18***	26*
San Diego	216***	222	223**	53***	63	64**	9***	16	21
Asian/Pacific Islander									
Nation	246***	251***	254	87***	89	91	48***	54***	59
Large central city	246	247	251	86	87	89	47	49	57
Atlanta	‡	‡	‡	‡	‡	‡	‡	‡	‡
Austin	—	‡	268*,**	—	‡	99	—	‡	83*,**
Boston	243***	256	255	87	98	91	43	65	61
Charlotte	252	256	263*,**	90	96	98	60	62	75*,**
Chicago	‡	‡	249	‡	‡	92	‡	‡	53
Cleveland	‡	‡	‡	‡	‡	‡	‡	‡	‡
District of Columbia	‡	‡	‡	‡	‡	‡	‡	‡	‡
Houston	‡	‡	265*,**	‡	‡	100	‡	‡	75*
Los Angeles	241	246	246**	86	88	92	38	45	49
New York City	247***	253	257	89	92	93	47***	60	65
San Diego	238***	245	247**	84	87	88	32***	46	50

— Not available. District did not participate in 2003.
‡ Reporting standards not met.
* Significantly different ($p < .05$) from large central city public schools in 2007.
** Significantly different ($p < .05$) from nation (public schools) in 2007.
*** Significantly different ($p < .05$) from 2007.
NOTE: Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005, and 2007 Trial Urban District Mathematics Assessments.

Table A-6. **Average scale scores and achievement-level results for eighth-grade public school students in NAEP mathematics, by selected race/ethnicity categories and jurisdiction: 2003, 2005, and 2007**

Race/ethnicity and jurisdiction	Average scale score			Percentage of students: At or above *Basic*			Percentage of students: At or above *Proficient*		
	2003	2005	2007	2003	2005	2007	2003	2005	2007
White									
Nation	287***	288***	290	79***	79***	81	36***	37***	41*
Large central city	285***	288***	292	77***	78***	81	36***	39	44**
Atlanta	298	‡	‡	83	‡	‡	54	‡	‡
Austin	—	305	308*,**	—	90	91*,**	—	61	65*,**
Boston	289***	299	305*,**	77***	83	89*,**	48	54	58*,**
Charlotte	301***	304	308*,**	91	90	90*,**	55	60	62*,**
Chicago	276	281	287	68	71	79	25	33	35
Cleveland	269	265	269*,**	63	54	64*,**	14	17	12*,**
District of Columbia	‡	317	‡	‡	94	‡	‡	69	‡
Houston	293***	294***	308*,**	80***	85	94*,**	47***	50	63*,**
Los Angeles	277	280	285	67	68	73	29	32	40
New York City	289	286	289	79	77	77	40	38	39
San Diego	284***	292	294	76	83	85	35	42	42
Black									
Nation	252***	254***	259*	39***	41***	47*	7***	8***	11*
Large central city	247***	250***	254**	34***	36***	41**	5***	7	9**
Atlanta	241***	242***	253**	26***	28***	38**	3***	4***	8
Austin	—	262	265*,**	—	52	57*,**	—	12	14
Boston	251***	256***	263*,**	36***	45	51*	6***	9	12
Charlotte	258***	264	267*,**	47***	54	58*,**	11	14	15*
Chicago	245	245	248*,**	29	28	35**	4	3	6
Cleveland	249	244***	253**	32	29***	41**	5	3	5*,**
District of Columbia	240***	241***	245*,**	26***	27***	31*,**	3***	4	6*,**
Houston	259***	257***	265*,**	47***	47***	58*,**	7***	7***	13
Los Angeles	234***	239	245*,**	21	29	28*,**	2	7	7
New York City	253	257	258	40	44	45	9	10	10
San Diego	252	253	258	39	40	48	7	8	11
Hispanic									
Nation	258***	261***	264*	47***	50***	54*	11***	13***	15*
Large central city	256***	258***	261**	43***	46	50**	10***	11	13**
Atlanta	‡	‡	‡	‡	‡	‡	‡	‡	‡
Austin	—	267	271*,**	—	56	64*,**	—	17	19*,**
Boston	252***	261***	270*,**	38***	51	60*	7***	12	20
Charlotte	262	262	264	46	53	50	18	15	19
Chicago	259	263	265	48	52	55	8	11	12
Cleveland	249	251	258	35	33	44	2	7	6**
District of Columbia	246	252	251*,**	33	39	38*,**	3	9	9**
Houston	261***	265***	270*,**	49***	56	62*,**	9***	12	15
Los Angeles	240***	245***	253*,**	26***	32***	40*,**	3***	6***	9*,**
New York City	260	259	262	48	47	52	15	12	14
San Diego	248***	258	259**	34***	49	48**	6	11	13
Asian/Pacific Islander									
Nation	289***	294	296*	77***	81	82	42***	46	49*
Large central city	281***	289	291**	71	76	78	33***	40	44**
Atlanta	‡	‡	‡	‡	‡	‡	‡	‡	‡
Austin	—	‡	‡	—	‡	‡	—	‡	‡
Boston	300	309	305*,**	87	92	91*,**	57	61	57
Charlotte	293	‡	305	81	‡	88	43	‡	56
Chicago	286	292	‡	78	83	‡	36	38	‡
Cleveland	‡	‡	‡	‡	‡	‡	‡	‡	‡
District of Columbia	‡	‡	‡	‡	‡	‡	‡	‡	‡
Houston	‡	299	310	‡	85	87	‡	55	63
Los Angeles	275***	291	292	64***	82	82	25***	43	45
New York City	286	295	299*	74	79	83	38	50	53
San Diego	278***	282	289**	69	74	77	28	31	40

— Not available. District did not participate in 2003.
‡ Reporting standards not met.
* Significantly different ($p < .05$) from large central city public schools in 2007.
** Significantly different ($p < .05$) from nation (public schools) in 2007.
*** Significantly different ($p < .05$) from 2007.
NOTE: Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005, and 2007 Trial Urban District Mathematics Assessments.