

**MIAMI-DADE COUNTY PUBLIC SCHOOLS**  
**Summary of National, State, and District Results for the**  
**2009 National Assessment of Educational Progress**  
**Trial Urban District Assessment**  
**Mathematics, Grades 4 and 8**

On December 8, 2009, the National Center for Education Statistics (NCES) released results from the 2009 National Assessment of Educational Progress (NAEP) mathematics assessment for districts participating in the Trial Urban District Assessment (TUDA) program. NAEP is an assessment overseen by the National Center for Education Statistics for the United States Department of Education. It is often referred to as the "Nation's Report Card," and is administered biennially to a representative sample of students nationwide to facilitate comparisons using a common measure. As such, NAEP provides a view of student achievement that is not available through states' individual assessment programs. It provides information about student performance over time, and allows a comparison of progress with other districts, states, and the nation as a whole. In Spring 2009, the content areas assessed were mathematics, reading, and science. Results for mathematics have been released first, to be followed in by reading in Spring 2010 and science in Summer 2010.

Originally, only national summary data were reported; however, in 1990 state-by-state comparisons became available. In 2002, through the collaboration among NCES, the National Assessment Governing Board, and the Council of Great City Schools, the TUDA program was established, making it possible for selected large urban districts to receive district-level data. The TUDA project facilitates comparisons among large urban districts that face similar challenges with regard to poverty and high risk populations. In 2009, 18 districts participated: Atlanta, Austin, Baltimore City\*, Boston, Charlotte, Chicago, Cleveland, Detroit\*, District of Columbia, Fresno\*, Houston, Jefferson County\* (KY), Los Angeles, Miami-Dade\*, Milwaukee\*, New York City, Philadelphia\*, and San Diego. Miami-Dade County Public Schools (M-DCPS) and six other districts (denoted by an asterisk) participated in the TUDA program for the first time during the spring 2009 administration. It was recently announced that three additional districts will join TUDA beginning with the NAEP 2011 assessments: Albuquerque, Hillsborough (Tampa, FL), and Dallas.

Although TUDA districts participate in the regular NAEP testing program, more students are tested in TUDA districts so that reliable district-level data can be provided. Participating students only test in one subject area, and neither individual students' scores nor school-level results are reported. In M-DCPS, approximately 4,150 students from 145 schools participated in the Spring 2009 assessment.

## **Program Description**

NAEP has two types of assessments: main NAEP and long-term trend NAEP. Main NAEP assessments are conducted in a range of subjects with 4th, 8th, and 12th graders across the country. Assessments are given most frequently in mathematics, reading, science, and writing. Other subjects, such as the arts, civics, economics, geography, and U.S. history are assessed periodically. Long-term trend NAEP measures student performance in mathematics and reading. The long-term trend assessment allows the performance of today's students to be compared with those from more than 30 years ago. The assessment is administered to 9-, 13-, and 17-year-olds every four years. For nearly four decades, NAEP assessments have been conducted periodically in reading, mathematics, science, writing, U.S. history, civics, geography, and other subjects.

NAEP assessments are administered to demographically representative samples of students in the nation, different regions of the country, states, and large urban districts. TUDA is a special program which provides district-level results for selected urban districts. Districts are invited to participate based on a range of characteristics, such as district size, minority concentrations, federal program participation, socioeconomic conditions, percentages of students with disabilities (SD), and English language learners (ELL). It is supported by federal appropriations authorized under the No Child Left Behind Act. The first TUDA took place in conjunction with the 2002 state NAEP reading and writing assessments. TUDA again took place in 2003, 2005, 2007, and 2009. M-DCPS participated for the first time in 2009.

## **NAEP Scores**

NAEP/TUDA results are reported as scale scores, which can range from 0-500 in mathematics and reading. For each grade and subject area, the scale score continuum is divided into the three achievement levels: Basic, Proficient, and Advanced. When a scale score falls below the lower boundary for Basic, it is described simply as "below Basic." Although the achievement levels appear to be similar to those reported for the Florida Comprehensive Assessment Test, caution should be used in making direct comparisons because of the different type of assessment frameworks measured, the type of test items used, and the psychometric properties of the tests. Basic is described as "partial mastery of prerequisite knowledge and skills that are fundamental for proficient work;" Proficient as "solid academic performance;" and Advanced as "superior performance."

Students who participate in NAEP/TUDA are assessed in only one subject-area, and are also asked background questions, such as how often they use a computer and in what type of classes they are enrolled. NAEP results are not reported for individual students or for schools; summary results are only reported for the nation, states, and the participating TUDA districts.

Summary results typically examine trends in scale scores or in the percentages of students scoring at or above the Basic achievement level. Comparisons are provided between groups of students, disaggregated by gender and race/ethnicity, and for students eligible for the National School Lunch Program, students with disabilities, and English language learners.

### **NAEP Mathematics Assessment**

The NAEP mathematics assessment gathers data on students' understanding of national content frameworks. The frameworks for the 2009 Mathematics Assessment are anchored in the five broad areas of mathematical content: Number Properties and Operations (including computation and understanding of number concepts); Measurement (including use of instruments, application of processes, and concepts of area and volume); Geometry (including spatial reasoning and applying geometric properties); Data Analysis, Statistics, and Probability (including graphical displays and statistics); and Algebra (including representations and relationships).

NAEP mathematics items come in three possible formats: multiple choice, short constructed response, or extended constructed response. Each item makes certain demands on students' thinking, ranging from low to high in mathematical complexity. Mathematical complexity deals with *what* the students are asked to do in a task. It does not take into account *how* they might undertake it. NAEP mathematics assessment booklets are designed so that the student is expected to spend about one-half of the assessment time answering items of moderate complexity with the remaining time approximately devoted equally to items of low and high complexity.

### **Summary of Results**

M-DCPS performed remarkably well in its inaugural year when compared to all public school students nationwide, students in large cities (populations over 250,000), and students in the participating TUDA districts. Complete District results are available online at <http://www.fldoe.org/asp/naep/naep2009math.asp>, and State and National Summary Reports are available at <http://www.nces.ed.gov/nationsreportcard/>. Following are some highlights of the results from the Spring 2009 administration of the NAEP mathematics assessment. Figures and tables which illustrate the results and compare the District to the state, all public schools in the nation, other large city schools (populations over 250,000), and other participating TUDA districts are also provided.

**MIAMI-DADE COUNTY PUBLIC SCHOOLS**  
**Highlights of the**  
**2009 National Assessment of Educational Progress (NAEP)**  
**Trial Urban District Assessment (TUDA) Results**  
**Mathematics, Grades 4 and 8**

**General**

- Overall, 4<sup>th</sup> grade students in the M-DCPS outperformed students in large city schools, and scored comparably to all students in public schools nationwide on 2009 NAEP mathematics assessment.
  - Only one of the 18 TUDA districts had significantly higher percentages of 4<sup>th</sup> grade students scoring at or above Basic in mathematics than the M-DCPS (see Figure 1).
- Higher percentages of M-DCPS 8<sup>th</sup> grade students scored at or above Basic than students in other large city schools.
  - Only three of the 18 TUDA districts had significantly higher percentages of 8<sup>th</sup> grade students scoring at or above Basic in mathematics than the M-DCPS (see Figure 2).
- Hispanic 4<sup>th</sup> and 8<sup>th</sup> grade students in the M-DCPS significantly outperformed both the national sample of public schools and other large cities across all measures: average scale scores, percent scoring above basic, and percent scoring above proficient (see Figures 3 – 6).

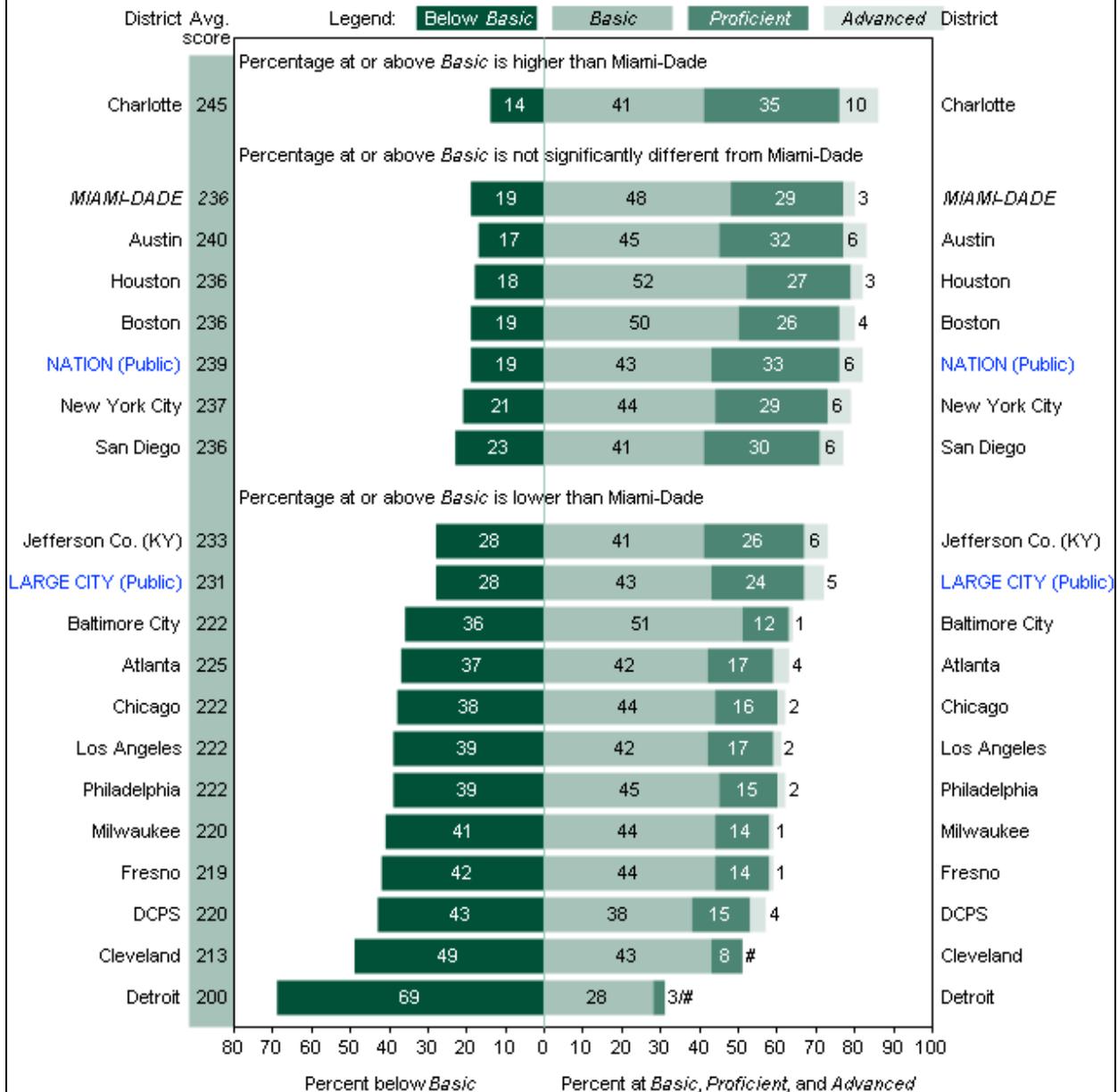
**Grade 4**

- The average mathematics scale score for M-DCPS' 4th grade students was significantly higher than that of students in other large cities (M-DCPS, 236; Large City, 231).
- In addition, higher percentages of M-DCPS' 4th grade students scored at or above Basic than did students in other large cities (M-DCPS, 81%; Nation, 81%; Large City, 72%).
  - M-DCPS student performance was comparable to that of students in public schools nationwide.
- Hispanic 4th grade students in M-DCPS significantly outperformed other Hispanic students across all measures, in comparison to both the national sample of public schools and that of other large cities:
  - Average scale scores (M-DCPS, 239; Nation, 227; Large City, 226);
  - Percentage scoring at or above Basic (M-DCPS, 84%; Nation, 70%; Large City, 69%); and
  - Percentage scoring at or above the higher criteria of Proficient (M-DCPS, 35%; Nation, 21%; Large City, 21%).
- M-DCPS' Hispanic students' average scale score ranked first among all other TUDA districts.

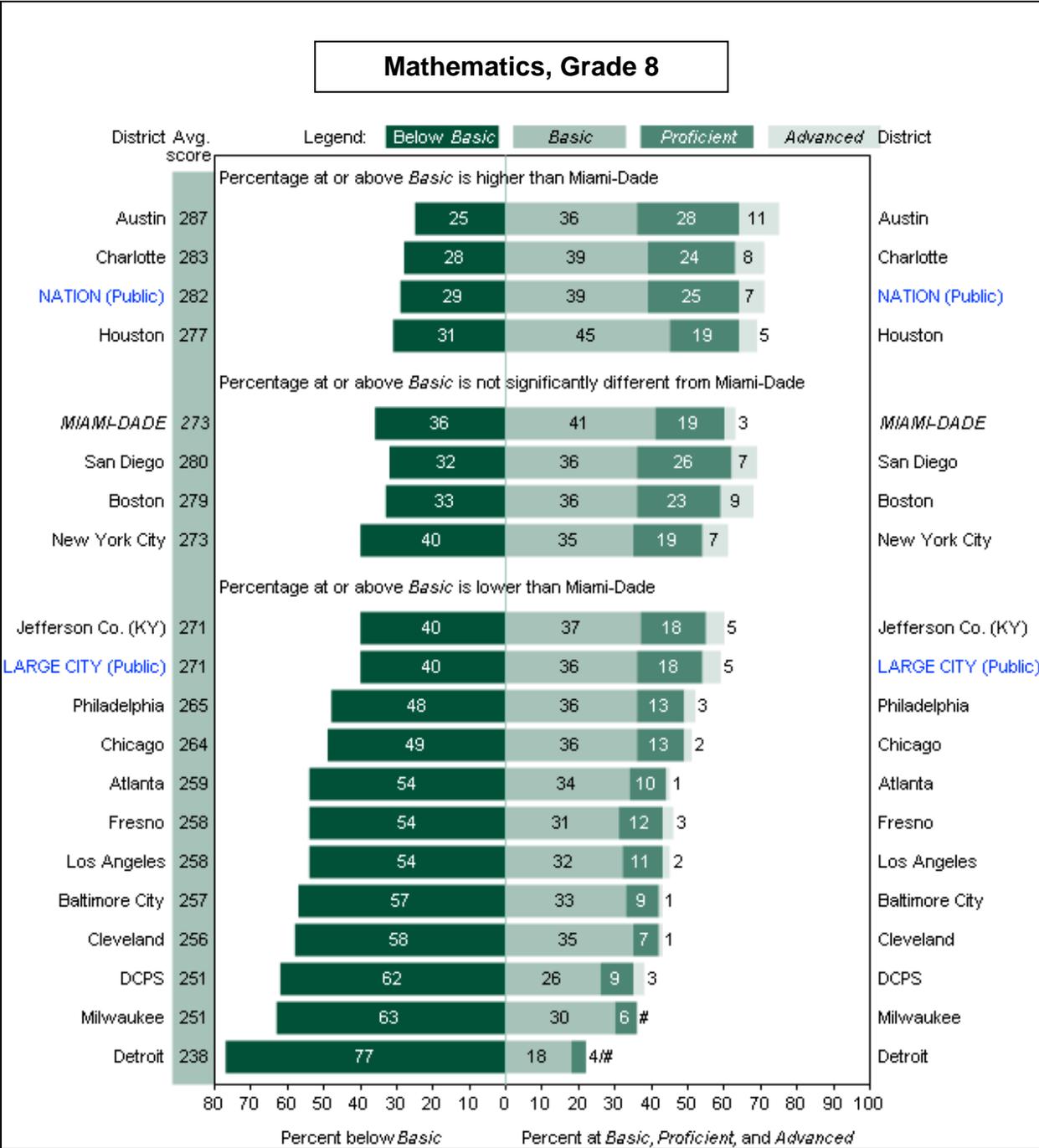
### **Grade 8**

- Higher percentages of M-DCPS 8th grade students scored at or above Basic than did students in other large cities (M-DCPS, 64%; Large City, 60%).
  - While the average scale score of M-DCPS students was slightly higher than that of the large city districts, the difference was not statistically significant (M-DCPS, 273; Large City, 271).
- Hispanic 8th grade students in M-DCPS significantly outperformed their counterparts nationally across all measures, in comparison to both the national sample of public schools and to that of other large cities:
  - Average scale scores (M-DCPS, 274; Nation, 266; Large City, 264).
  - Percentage scoring at or above Basic (M-DCPS, 65%; Nation, 56%; Large City, 54%); and
  - Percentage scoring at or above the higher criteria of Proficient (M-DCPS, 23%; Nation, 17%; Large City, 16%).
- M-DCPS' Hispanic students' average scale score tied for second among all other TUDA districts.

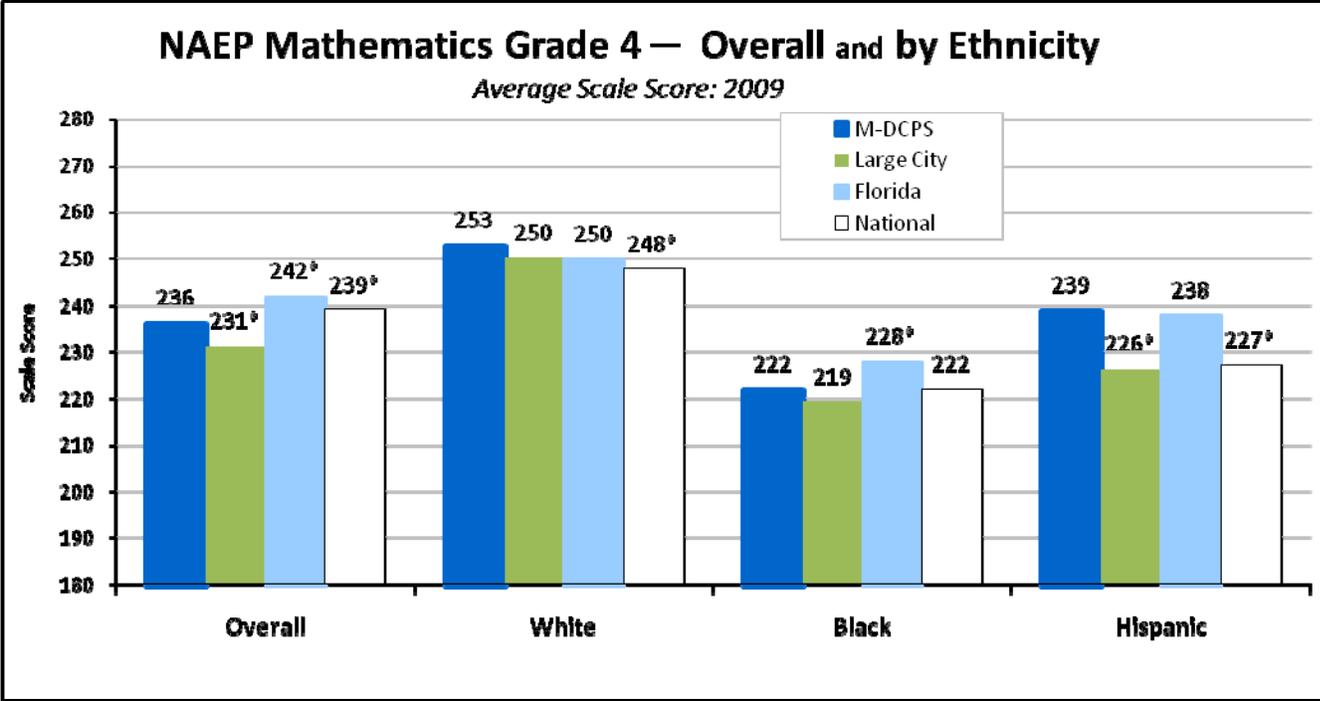
## Mathematics, Grade 4



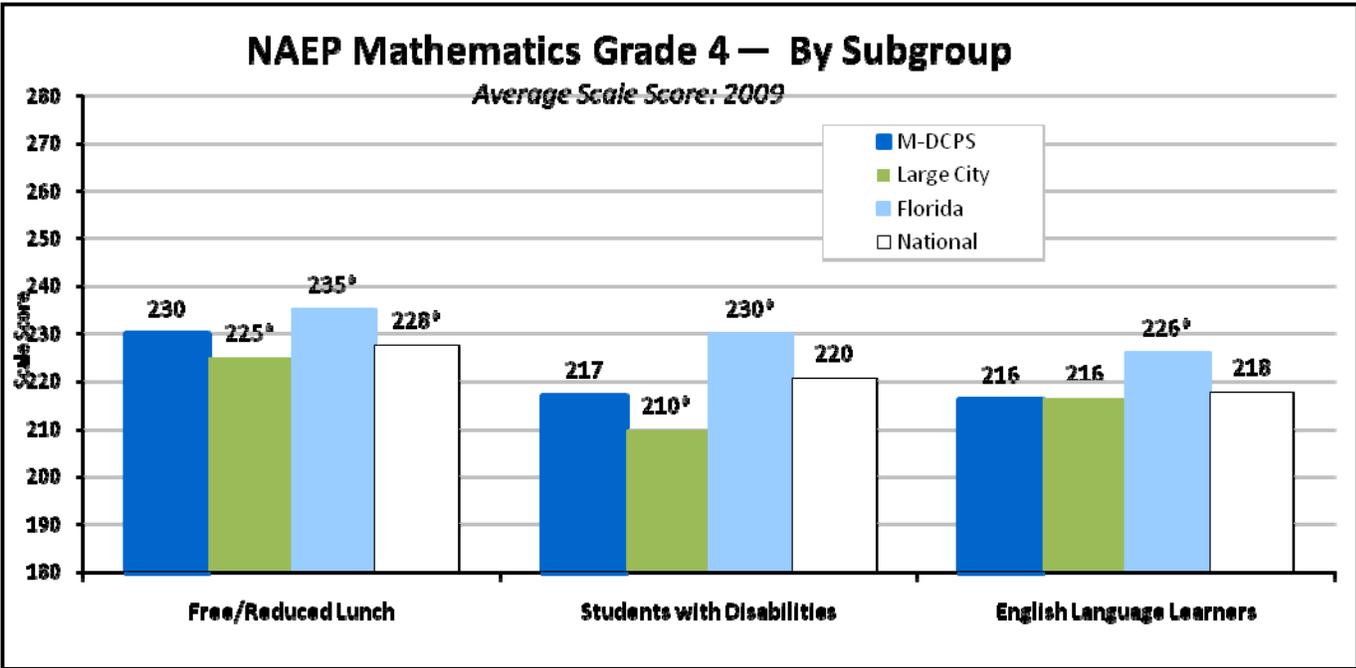
**Figure 1.** Average scale scores in NAEP mathematics for fourth grade public school students, percentage within each achievement level, and Miami-Dade's percentage at or above *Basic* compared with the nation, large city and other participating districts: 2009. From *The Nation's Report Card Trial Urban District Report, Mathematics 2009*, National Center for Education Statistics.



**Figure 2.** Average scale scores in NAEP mathematics for eighth grade public school students, percentage within each achievement level, and Miami-Dade's percentage at or above *Basic* compared with the nation, large city and other participating districts: 2009. From *The Nation's Report Card Trial Urban District Report, Mathematics 2009*, National Center for Education Statistics.

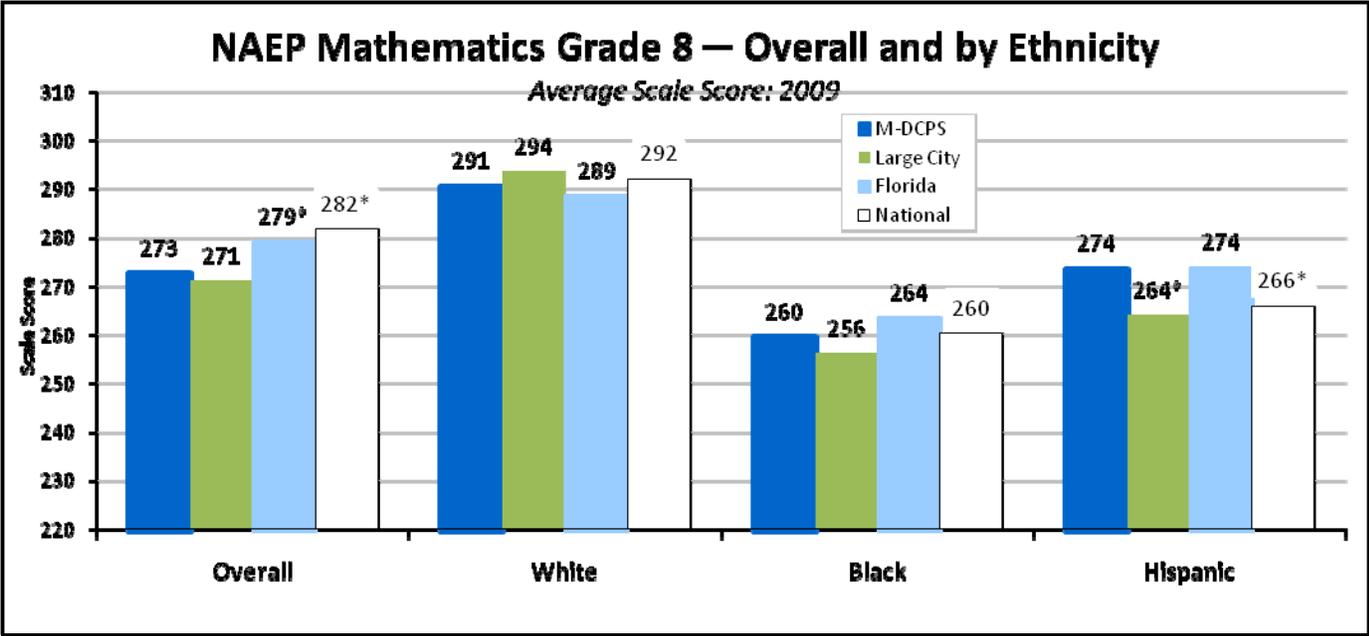


**Figure 3.** Results from the 2009 NAEP mathematics assessment for Grade 4 students in the M-DCPS, Large Cities, Florida, and National Public Schools, overall and by ethnicity.

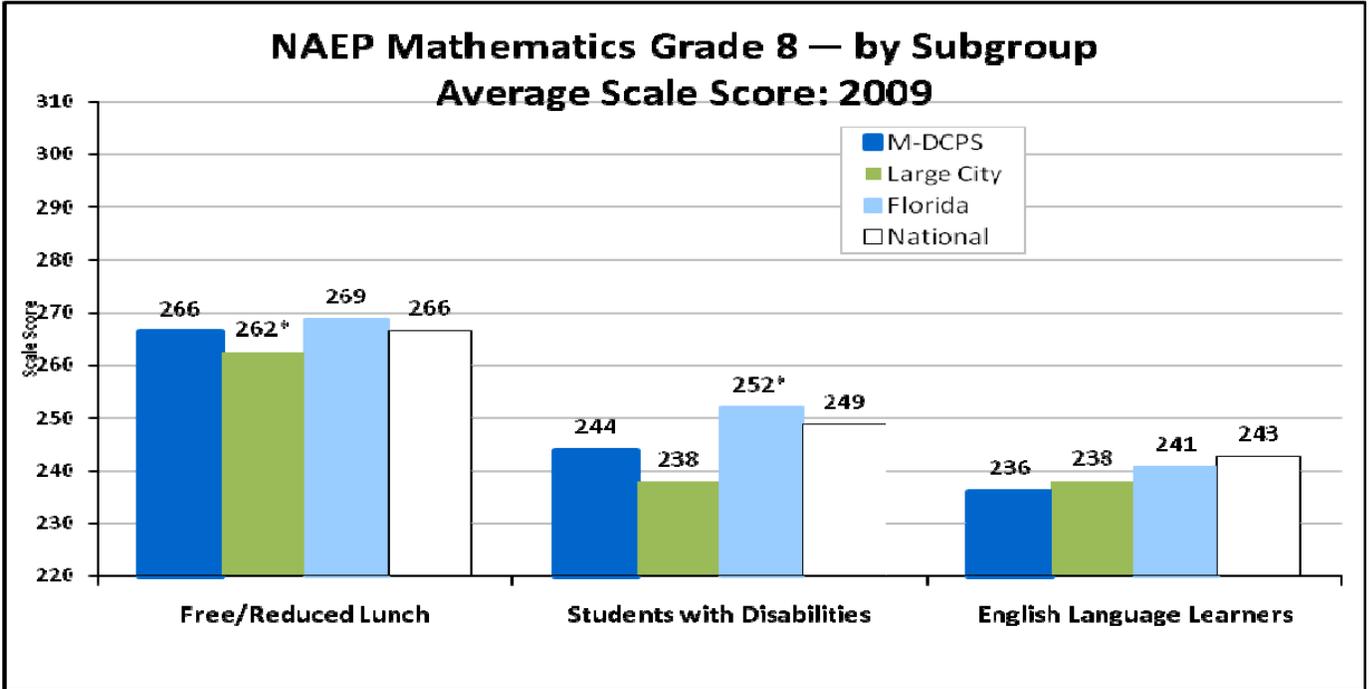


**Figure 4.** Results from the 2009 NAEP mathematics assessment for Grade 4 students in the M-DCPS, Large Cities, Florida, and National Public Schools, overall and by ethnicity.

Note: NAEP Mathematics scale scores can range from 0 to 500. Statistically significant differences ( $p > .05$ ) between jurisdictions, as compared to the M-DCPS, are indicated with an asterisk(\*). Source: *The Nation's Report Card Trial Urban District Report, Mathematics 2009*, National Center for Education Statistics.

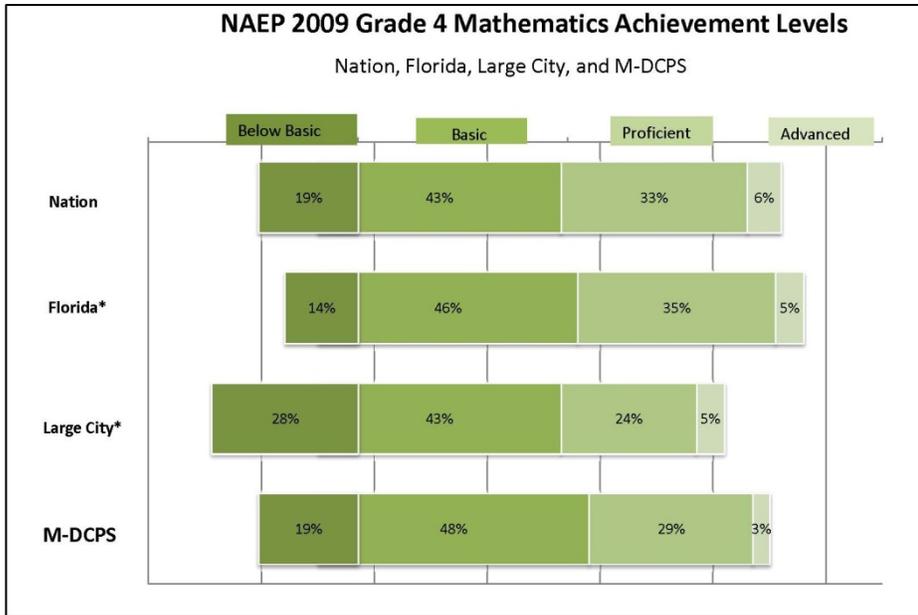


**Figure 5.** Results from the 2009 NAEP mathematics assessment for Grade 8 students in the M-DCPS, Large Cities, Florida, and National Public Schools, overall and by ethnicity.

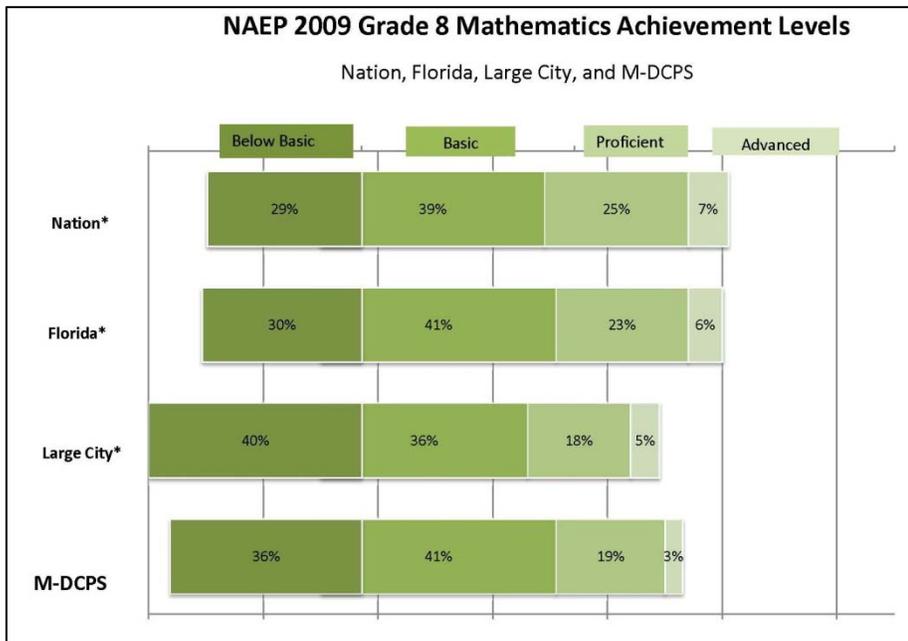


**Figure 6.** Results from the 2009 NAEP mathematics assessment for Grade 8 students in the M-DCPS, Large Cities, Florida, and National Public Schools, overall and by ethnicity.

Note: NAEP Mathematics scale scores can range from 0 to 500. Statistically significant differences ( $p > .05$ ) between jurisdictions, as compared to the M-DCPS, are indicated with an asterisk(\*). Source: *The Nation's Report Card Trial Urban District Report, Mathematics 2009*, National Center for Education Statistics.



**Figure 7.** Percentage of students scoring in each achievement level from the 2009 NAEP mathematics assessment for Grade 4 students in the M-DCPS, Large Cities, Florida, and National Public Schools.



**Figure 8.** Percentage of students scoring in each achievement level from the 2009 NAEP mathematics assessment for Grade 8 students in the M-DCPS, Large Cities, Florida, and National Public Schools.

Note: Detail may not sum to 100% due to rounding. Statistically significant differences ( $p > .05$ ) between jurisdictions in the percent of students scoring Basic or above, as compared to the M-DCPS, are indicated with an asterisk(\*). Source: *The Nation's Report Card Trial Urban District Report, Mathematics 2009*, National Center for Education Statistics.

**Table 1**  
**Miami-Dade County Public Schools**  
**NAEP 2009 Mathematics Results, by Jurisdiction and M-DCPS Subgroup**

<b>Jurisdiction/ Subgroup</b>	<b>Number/ Percent of Students Tested</b>	<b>Average Scale Score</b>	<b>Percent At or Above Basic</b>	<b>Percent At or Above Proficient</b>	<b>Percent at Advanced</b>
<b>GRADE 4</b>					
<b>National (total)</b>	162,963	239*	81	38*	6*
<b>Large City (total)</b>	34,554	231*	72*	29*	5
<b>Florida (total)</b>	4,700	242*	86*	40*	5
<b>Miami-Dade (total)</b>	2,169	236	81	33	3
<b>Gender</b>					
Male	50%	237	81	34	4
Female	50%	236	80	31	3
<b>Race/Ethnicity</b>					
White	10%	253	96	61	8
Black	25%	222	64	12	-
Hispanic	62%	239	84	35	3
<b>English Language Learners</b>	8%	216	55	13	1
<b>Students with Disabilities</b>	11%	217	55	13	-
<b>Eligible for Free/Reduced Lunch</b>	68%	230	75	23	1
<b>GRADE 8</b>					
<b>National (total)</b>	156,178	282*	71*	33*	7*
<b>Large City (total)</b>	30,984	271	60*	24	5*
<b>Florida (total)</b>	4,300	279*	70*	29*	6
<b>Miami-Dade (total)</b>	1,988	273	64	22	3
<b>Gender</b>					
Male	50%	273	64	24	3
Female	50%	272	63	20	3
<b>Race/Ethnicity</b>					
White	10%	291	84	40	8
Black	22%	260	48	12	1
Hispanic	65%	274	65	23	3
<b>English Language Learners</b>	7%	236	22	1	-
<b>Students with Disabilities</b>	11%	244	30	3	-
<b>Eligible for Free/Reduced Lunch</b>	63%	266	56	16	2

Note: The NAEP Mathematics scale ranges from 0 to 500. Statistically significant differences between M-DCPS (total) and the other jurisdictions are displayed as p>.05 =\*. Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP).