



## The 2007 Broad Prize Data Report

## Introduction

The Broad Prize for Urban Education is an annual \$1 million award created to honor urban school districts that demonstrate the greatest overall performance and improvement in student achievement while reducing achievement gaps among ethnic groups and between high- and low-income students. Now in its sixth year, The Broad Prize—the largest education award in the country—shines a national spotlight on finalist districts and has spurred healthy competition among eligible districts.

Every year, data on 100 of the largest U.S. urban school districts are collected and analyzed as part of The Broad Prize process. A data report is produced for each district and for the last three Broad Prize winners, which are ineligible for The Broad Prize for three years after winning. In response to feedback received by The Broad Foundation, these reports will be available for download at [www.broadprize.org](http://www.broadprize.org).

Apart from recognizing high-performing school districts, one of the key goals of The Broad Prize is to encourage a nationwide dialogue among urban school districts to share lessons learned. We hope that these reports are useful in identifying areas of excellence that exist in school districts. To facilitate the search for districts of interest, the website contains a list of all 2007 Broad Prize-eligible districts and the previous three winners, along with district and student population characteristics.

We hope that these data reports are useful to you in identifying areas for further learning. We welcome your questions and feedback.

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## Annual Process Overview

### The Broad Prize Selection Process

The Broad Foundation partners with Berkeley, California-based MPR Associates for the quantitative aspects of The Broad Prize selection process and with Beverly, Massachusetts-based SchoolWorks for the qualitative aspects.

The selection process involves four steps:

1. 100 U.S. urban school districts are identified as eligible candidates based on size, low-income enrollment, minority enrollment and urban environment.
2. The Broad Prize Review Board, comprised of prominent education leaders from across the country, analyzes extensive quantitative academic performance data collected by MPR Associates and uses their collective knowledge and experience to determine The Broad Prize finalists.
3. Under SchoolWorks' guidance, a team of researchers and practitioners conducts site visits to each finalist district to gather additional quantitative and qualitative academic and organizational data.
4. The Broad Prize Selection Jury, comprised of nationally prominent individuals from business and industry, and government and public service, meets to review the information collected on the site visits and information considered by the Review Board to select the winner.

### Scholarships

The \$1 million Broad Prize for Urban Education provides \$500,000 in college scholarships to graduating high school seniors in the winning district, as well as \$125,000 in scholarships to students in each of the four finalist districts. The Broad Foundation partners with Scholarship & Recognition Programs (SRP), a unit of the Educational Testing Service (ETS), which manages all phases of the selection and administration of scholarships. The Broad Prize scholarships are awarded to high school seniors with financial need and a demonstrated record of improvement during their high school careers. Scholarships of \$10,000 are awarded to students who enroll in four-year institutions and are paid out over four years (\$2,500 per year). Students who enroll in two-year institutions receive \$2,500 paid out over two years (\$1,250 per year). To date, 604 students have received Broad Prize scholarships. The scholarship application cycle starts each fall and the scholars are announced in late April of each year.

### Winning and Finalist Districts

2002	Houston Independent School District, TX
2003	Long Beach Unified School District, CA
2004	Garden Grove Unified School District, CA
2005	Norfolk Public Schools, VA
2006	Boston Public Schools, MA
2007	New York City Department of Education, NY

The 2007 Broad Prize finalists are Bridgeport Public Schools in Connecticut, Miami-Dade County Public Schools, the New York City Department of Education, Long Beach Unified School District in California, and Northside Independent School District in Texas.

## Data Collection and Analysis

This data report contains all the data collected and analyzed for a 2007 Broad Prize eligible district. It does not contain summaries that compare the district to other districts, nor any additional quantitative or qualitative data collected and analyzed for the additional evaluation performed on The Broad Prize finalists.

The Broad Prize finalists are determined by a panel of education experts from around the country, based on a review of the data and analyses for the 100 Broad Prize eligible districts. There is neither a strict formula nor set of weighting factors applied to the data. Each Broad Prize Review Board member considers all of the data and analyses available each year and, based on his or her knowledge and expertise, selects five finalists. Both the performance for the latest two academic years, and the improvement trend over the most recent four years, on the various measures included in this report are considered by the Review Board.

The rest of this section discusses the data collection and analysis procedures used to generate the data report. First, it describes the criteria and data sources for identifying the eligible districts. Second, it reviews each of the quantitative achievement measures and the data on which they are based.

### Eligible Districts

To be eligible for The Broad Prize, school districts must meet certain criteria set by The Broad Foundation related to size, poverty and urbanicity. Winners from the previous three years are ineligible. The criteria for eligibility are:

- All K–12 districts serving more than 100,000 students (25 districts).
- All K–12 districts serving between 35,000 and 99,999 students in which at least 40 percent of students are eligible for free or reduced-price school lunch (FRSL), in which at least 40 percent of student enrollment comes from minority groups, and which have an urban designation (Locale Code 1, 2 or 3 in the CCD data<sup>1</sup>) (60 districts).
- The largest urban district (Locale Code 1, 2 or 3) in states with no districts meeting the above criteria, as long as the district has at least 15,000 students (15 districts).
- The three next largest districts in the nation meeting the criteria of 40 percent FRSL, 40 percent minority, and urbanicity (Locale Code 1, 2 or 3). The purpose of this criterion was to bring the total number of districts to 100.

For the 2007 Prize, the 2004, 2005 and 2006 winners, Garden Grove, Norfolk and Boston, respectively, were removed from eligibility and the 2003 winner (Long Beach) became eligible again.

The 100 eligible school districts are located in 42 states and the District of Columbia. Eight states—Hawaii, Maine, Massachusetts, Montana, North Dakota, Vermont, West Virginia and Wyoming—have no eligible districts this year. Hawaii is ineligible because it has a statewide school system.

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<sup>1</sup> Locale Code 1 (Large City) represents a city with a population of 250,000 or larger that is the central city in a Census Bureau Core-Based Statistical Area (CBSA) or Consolidated Statistical Area (CSA); Code 2 (Mid-size City) is a city with less than 250,000 people that nonetheless is a central city in a CBSA or CSA; and Code 3 (Urban Fringe of a Large City) represents an area defined as urban by the Census Bureau and that falls within the CBSA or CSA of a large city.

## Data Collection and Analysis

### Measures of Student Achievement

Detailed data on various measures of student achievement were obtained for each district, using federal, state and other sources. Wherever possible, data were collected by grade level, race/ethnicity (African-American, Asian, Hispanic and White), and income status (low-income and non-low-income). The achievement data examined included performance on state achievement tests, graduation rates based on federal counts of enrollments and completions, college readiness data obtained from the College Board and ACT, and information on Adequate Yearly Progress (AYP) compiled by the American Institutes for Research (AIR) from a database maintained by the U.S. Department of Education and from state sources.

### National Assessment of Educational Progress (NAEP)

To provide context for the state achievement data, state performance on the National Assessment of Educational Progress (NAEP) was also obtained. On a regular basis, the NAEP—administered by the National Center for Education Statistics—publishes achievement scores for the nation for students in the 4th, 8th, and 12th grades (national NAEP), and achievement scores for participating states for students in the 4th and 8th grades (state NAEP). These scores are based on tests administered to samples of students at the different grade levels. State NAEP scores were presented to the Review Board as a means of “calibrating” academic performance results among states. The NAEP scores are publicly available and are not included in this data report.

### Reading and Mathematics Proficiency as Determined by State Tests

Key indicators of student performance are scores on state-mandated achievement tests and trends in scores over time. Test score data in reading and mathematics were collected from each state for 2003 through 2006.<sup>2</sup> These data were used to calculate the percentage of students in each district scoring at or above proficiency on their state tests in reading and mathematics in each grade. Weighted by the number of test-takers at each grade level, these data on student achievement were aggregated across elementary grades (third through fifth), middle grades (sixth through eighth), and high school grades (ninth through 12th), where available. These state assessment data were analyzed (using methods described later) to calculate actual versus expected performance and gaps between low- and non-low-income students and gaps between White and African-American students, White and Hispanic students, and White and Asian students. Changes in gaps over time were also computed and gap closures presented.

### High School Graduation Rates

Another key measure of student performance is graduation rates. There are several ways to calculate graduation rates, and three are presented here. The data needed for these calculations, which were obtained from the federal Common Core of Data (CCD), included total and subgroup enrollment and completion figures for each district for the high school classes of 2001 through 2004 (the most recent years available at the time).

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<sup>2</sup> The data were provided directly by state agencies or downloaded from their websites. In most cases, the data were provided at the district level, but in some cases the state provided school-level data that was aggregated to provide district-level estimates.

## Data Collection and Analysis

### College Readiness Data

District-level measures of the college readiness of their students include SAT and ACT mean scores and participation rates. These two tests are designed to assess readiness for college-level work. Scale scores for each subject (verbal and math) assessed by the SAT range from 200 to 800. (Writing scores were not included because data were not available for all four years.) Scale scores for the composite ACT test (covering English, mathematics, reading and science) range from 1 to 36. With district permission, the College Board and ACT provided mean test scores for each district for 2003 through 2006, along with the number of seniors who had ever taken the test (regardless of when they took the test during high school).

Another measure of college readiness is the extent to which students take and pass Advanced Placement (AP) examinations. These examinations provide a standardized measure of student performance in college-level courses taken while in high school. AP grades are reported on a five point scale:

5 = Extremely well qualified

4 = Well qualified

3 = Qualified

2 = Possibly qualified

1 = No recommendation

With permission from each district, the College Board provided data for the district for 2003 through 2006 on the number of AP examinations at each score level. MPR staff used these numbers to calculate the percentage of AP examinations with scores of three or above (equivalent to pass rates) for each district. The College Board also provided the number of juniors and seniors who took the tests.

The College Board and ACT do not calculate test participation rates. MPR staff calculated participation rates using enrollment data obtained from the federal Common Core of Data (CCD) for 11th- and 12th-graders, as appropriate, in combination with the number of students taking the different tests. Enrollment data for the five finalists were obtained directly from the districts.

### Adequate Yearly Progress (AYP) Data

The data presented indicate the percentage of schools in each district and state that met federal AYP requirements in 2005 and 2006 under the No Child Left Behind (NCLB) legislation. Also presented is an indicator of whether the district met its overall AYP target. These data were compiled by the American Institutes for Research (AIR) from a database maintained by the U.S. Department of Education and from state sources. Additional AYP detail is provided for student subgroups, where available.

## Data Collection and Analysis

### Data Analysis Methods

MPR staff analyzed the data on student achievement described above to develop measures of the following:

- Expected versus actual performance on state tests, taking into consideration differences in state tests and the proportion of low-income students in each district
- Achievement gaps between Whites and other racial/ethnic groups—African-Americans, Hispanics, and Asians—and between low-income and non-low-income students, and the progress that is being made in closing these gaps
- High school graduation rates
- College readiness

These are explained in the next section.

## Understanding the Data Report

The 2007 Broad Prize data report, appended to this background and technical notes report, contains data on district characteristics, state test information, proficiency rates on state tests, achievement gaps, standardized residuals, graduation rates, college readiness, and AYP. Trend data are presented where available, as are “performance” and “improvement” measures. Each data report section is explained here and the relevant report page numbers are indicated in parentheses. Additional explanatory notes are included as footnotes in the data report itself.

### Background Information (page 2)

#### Description of District: 2003–2005

Background information on the finalists is presented in this section. These data were generally obtained from the U.S. Department of Education’s Common Core of Data (CCD). Demographic percentages were generally calculated using enrollment counts. It should be noted that the race/ethnicity percentages may not sum to 100 percent due to small amounts of missing data on the race/ethnicity of some students in the district. The minority percentages were calculated as the sum of the non-White enrollments divided by the total district enrollment. Percent minority may not equal 100 percent minus percent White due to the small amounts of missing race/ethnicity data in some districts.

The information in the table is organized as follows:

First column: Lists the district characteristics, student characteristics and expenditures shown in the table  
Remaining columns: Lists data for each year for which data were available (2003, 2004, and 2005)

#### State Test Information: 2003–2005

Key indicators of student performance include scores on state-mandated achievement tests and trends in scores over time. The state test information table shows the tests and grades that were included in the 2007 Broad Prize analysis. The table notes indicate whether any tests were not comparable to other years, and may provide additional information. Noncomparable tests were not included in calculations of “change” or “overall improvement” on pages 8 through 11. Because of the “relative” nature of standardized residuals, however, data for all tests were included in calculations of “overall performance” and “overall improvement” on page 13.

The information in the table is organized as follows:

First column: Lists the subject (reading and math) and level (Elementary, Middle and High School)  
Second column: Specifies the test  
Remaining columns: Specifies the grades included in the analysis for 2003, 2004, 2005, and 2006

## Understanding the Data Report

### Trends in Proficiency and Participation Rates (pages 3–7)

Test score data in reading and mathematics were collected from each state for 2003 through 2006. These data were used to calculate the percentage of students scoring at or above proficiency on their state tests in reading and mathematics in each grade. Weighted by the number of test-takers at each grade level, these data on student achievement were aggregated across elementary grades (third through fifth), middle grades (sixth through eighth), and high school grades (ninth through 12th), where available.

Trends in proficiency rates and participation rates, where available, are shown for all students in reading and math (page 3). Trends are also disaggregated by race/ethnicity (pages 4–5) and income status (pages 6–7) for both the district and state.

Data were suppressed if a subgroup represented less than 5 percent of the test takers in a subject at a level (elementary, middle, high school) or if the data were unreliable.

### Proficiency Rates and Participation Rates for All Students (page 3)

Six different trend charts, with data for 2003, 2004, 2005 and 2006, are shown as follows:

- Left side: Reading and mathematics proficiency trend lines for the elementary, middle and high school levels
- Right side: Reading and mathematics participation trend lines for the elementary, middle and high school levels, where available

Test participation rates could not be calculated if the state test files did not contain relevant student enrollment numbers. AYP participation rates were not substituted, because these rates are often calculated for an accountability subsample only.

### Race/Ethnicity Trends in Reading Proficiency (page 4)

Six different trend charts, with data for 2003, 2004, 2005 and 2006, are shown as follows:

- Left side: District reading proficiency trend lines for White, African-American, Asian and Hispanic students at the elementary, middle and high school levels
- Right side: State reading proficiency trend lines for White, African-American, Asian and Hispanic students at the elementary, middle and high school levels

### Race/Ethnicity Trends in Mathematics Proficiency (page 5)

Six different trend charts, with data for 2003, 2004, 2005 and 2006, are shown as follows:

- Left side: District mathematics proficiency trend lines for White, African-American, Asian and Hispanic students at the elementary, middle and high school levels
- Right side: State mathematics proficiency trend lines for White, African-American, Asian and Hispanic students at the elementary, middle and high school levels

## Understanding the Data Report

### Income Status Trends in Reading Proficiency (page 6)

Six different trend charts, with data for 2003, 2004, 2005 and 2006, are shown as follows:

- Left side: District reading proficiency trend lines for all students, low-income, and non-low-income students at the elementary, middle and high school levels
- Right side: State reading proficiency trend lines for all students, low-income, and non-low-income students at the elementary, middle and high school levels

### Income Status Trends in Mathematics Proficiency (page 7)

Six different trend charts, with data for 2003, 2004, 2005 and 2006, are shown as follows:

- Left side: District mathematics proficiency trend lines for all students, low-income, and non-low-income students at the elementary, middle and high school levels
- Right side: State mathematics proficiency trend lines for all students, low-income, and non-low-income students at the elementary, middle and high school levels

### Proficiency Data Summaries (pages 8 and 10)

Percentages of students scoring at or above proficiency on the state tests are shown for reading on page 8 and for math on page 10 for both the district and the state.

The tables also show calculations of improvement over time. Simple change is calculated as the difference between 2003 and 2006, between 2004 and 2006, and between 2005 and 2006. Where data for one or two years in the pair were not available, not comparable, or suppressed, these change calculations could not be performed.

In addition, “overall improvement” was generally calculated as the difference between the average of performance in 2005 and 2006 and the average of performance in 2003 and 2004. Missing data were handled as follows: if data were missing for either year in a pair, data for the other year were used to measure performance; if data were missing for both 2003 and 2004, improvement from 2005 to 2006 was measured; and if data were missing for both 2005 and 2006, no improvement measure was calculated.

Data could be missing either because they were not available (indicated by “—”) or because they were suppressed (indicated by “+”). Data were suppressed if a subgroup represented less than five percent of the test-takers in a subject at a level (elementary, middle, high school) or if the data were unreliable. Data that were not comparable to other years, due, for example, to changes in state tests as described above, were treated in calculations as missing data.

Calculations were performed on unrounded numbers. Zeroes may represent small positive or small negative values. Positive change values appear in color. Zeroes that represent small positive values also appear in color.

## Understanding the Data Report

### Reading Proficiency Data Summary (page 8)

The information in the table is organized as follows:

First column:	Subgroups are specified for the district and state for each of the three levels (elementary, middle and high school)
Second column:	Proficiencies are specified for the 2003 academic year
Third column:	Proficiencies are specified for the 2004 academic year
Fourth column:	Proficiencies are specified for the 2005 academic year
Fifth column:	Proficiencies are specified for the 2006 academic year
Sixth column:	Change in proficiency is shown for the 2006 academic year minus the 2003 academic year
Seventh column:	Change in proficiency is shown for the 2006 academic year minus the 2004 academic year
Eighth column:	Change in proficiency is shown for the 2006 academic year minus the 2005 academic year
Ninth column:	The overall improvement calculation is shown. Except as noted in the footnote, "Overall improvement" was calculated as the difference between the average of performance in 2005 and 2006 and the average of performance in 2003 and 2004.

### Mathematics Proficiency Data Summary (page 10)

The information in the table is organized as follows:

First column:	Subgroups are specified for the district and state for each of the three levels (elementary, middle and high school)
Second column:	Proficiencies are specified for the 2003 academic year
Third column:	Proficiencies are specified for the 2004 academic year
Fourth column:	Proficiencies are specified for the 2005 academic year
Fifth column:	Proficiencies are specified for the 2006 academic year
Sixth column:	Change in proficiency is shown for the 2006 academic year minus the 2003 academic year
Seventh column:	Change in proficiency is shown for the 2006 academic year minus the 2004 academic year
Eighth column:	Change in proficiency is shown for the 2006 academic year minus the 2005 academic year
Ninth column:	The overall improvement calculation is shown. Except as noted in the footnote, "overall improvement" was calculated as the difference between the average of performance in 2005 and 2006 and the average of performance in 2003 and 2004.

### Proficiency Gaps (pages 9 and 11)

Measures of gap closures are shown for reading on page 9 and for math on page 11. Two types of comparisons were made when calculating achievement gaps:

- Racial/Ethnic Gaps: These compared the performance of African-American, Asian and Hispanic students to that of White students.
- Income Gaps: These compared the performance of low-income students to that of non-low-income students.

Three types of gaps were measured:

## Understanding the Data Report

### Internal District Gap

This measure calculates the gap in performance between a district's *disadvantaged* group and the district's *advantaged* group. Some caution must be exercised in comparing internal gaps across districts because these comparisons may be distorted by the following factors:

- The relative absence of an advantaged group in some districts (e.g., few White or few non-low-income students). To address this issue, internal gaps were not calculated in districts where either of the groups being compared represented less than 5 percent of the district's test-takers in a given subject and at a given level.
- Differences between districts in the composition of the "advantaged" or "disadvantaged" groups (e.g., high-income Whites in one district and moderate-income Whites in another).
- Higher than average performance or improvement by the advantaged group in some districts and lower than average performance or improvement by the advantaged group in others (which could cause districts with lower performing advantaged students to appear to be doing a better job of "closing the gap").
- Ceiling or floor effects, which can distort the comparison of gaps across states.
- Gaps are represented by negative numbers and the closing of such gaps is represented by positive numbers. For example, if a district's African-American students perform 30 percentage points below the district's white students, this gap is represented by  $-30$ . If the gap closes to  $-10$  in subsequent years, then the gap closure measure is the later year's gap minus the earlier year's gap ( $-10$  minus  $-30$  equals  $+20$ ), meaning that the African-American—White gap has closed by 20 percentage points.

Changes in gaps are rounded to whole numbers in the district reports. Therefore a value of zero could represent a small positive or a small negative change. Zeroes that are bolded in the reports represent small positive values.

### Internal District Versus Internal State Gap

This measure corresponds to the *district's* internal gap minus the *state's* internal gap. The district's internal gap is defined as the performance of the *district's disadvantaged* group minus the performance of the *district's advantaged* group. The state's internal gap is defined as the performance of the *state's disadvantaged* group minus the performance of the *state's advantaged* group.

Positive numbers indicate that the district outperformed the state on the measure. For example, if the district's Hispanic students are performing 10 percentage points below the district's White students, but the state's Hispanic students are performing 15 percentage points below the state's White students, then the internal district gap is five percentage points smaller than the internal state gap.

By similar reasoning, a positive change in this measure over time for Hispanic students would indicate that the district's Hispanics are improving faster relative to the district's Whites than the state's Hispanics are improving relative to the state's Whites.

## Understanding the Data Report

### External Gap: District Disadvantaged Versus State Advantaged

This measure was used to compare the performance of the *district's disadvantaged* group with that of the *state's advantaged* group. Thus, if 30 percent of District A's Hispanic students, 40 percent of District B's Hispanic students, and 50 percent of the state's White students are proficient on the state test, District A's external gap for Hispanics is 30 percent minus 50 percent (or -20 percentage points), and District B's external gap for Hispanics is 40 percent minus 50 percent (or -10 percentage points). Note that comparing two districts' external gaps is really the same as comparing their performance with their disadvantaged group.

External gap statistics are generally negative numbers, but improvement in external gaps (improvement in the performance of the *district's disadvantaged* students relative to the *state's advantaged* students) are shown as positive numbers.

An illustration of the three achievement gap measures follows:

	2003 Proficiency Rate		2006 Proficiency Rate	
	District	State	District	State
Low-income students	20	25	35	30
Non-low-income students	50	60	55	65

In this example, the gap measures would be:

#### **Internal District Gap**

- 2003 internal gap: -30 (equals 20 minus 50)
- 2006 internal gap: -20 (equals 35 minus 55)
- 2003–2006 change in internal gap: +10. This means that the district has closed its income gap by 10 percentage points since 2003.

#### **Internal District Versus Internal State Gap**

- 2003 internal state gap: -35 (equals 25 minus 60)
- 2006 internal state gap: -35 (equals 30 minus 65)
- 2003–2006 change in internal state gap: 0. This means that the state's income gap has not changed since 2003.
- 2003 internal district vs. internal state gap: +5 (equals -30 minus -35)
- 2006 internal district vs. internal state gap: +15 (equals -20 minus -35)
- 2003–2006 change in internal district vs. internal state gap: +10. This means that the district's low-income gap has improved 10 percentage points more than its state gap since 2003.

## Understanding the Data Report

### ***External Gap: District Disadvantaged Versus State Advantaged***

- 2003 external gap: -40 (equals 20 minus 60)
- 2006 external gap: -30 (equals 35 minus 65)
- 2003–2006 change in external gap: +10. This means that the district's low-income performance has improved relative to the performance of the state's non-low-income group by 10 percentage points since 2003.

### ***Important Note Regarding Achievement Gap Data***

Caution must be used because the three gap measures are not standardized and are even more vulnerable than are standardized measures due to ceiling and floor effects. Data were suppressed if the subgroup being reported at a given level (elementary, middle or high) represented less than 5 percent of the test-takers at that level.

The tables also show calculations of improvement over time. Simple change is calculated as the difference between 2003 and 2006, between 2004 and 2006, and between 2005 and 2006. Where data for one or two years in the pair were not available, not comparable, or suppressed, these change calculations could not be performed.

In addition, "overall improvement" was generally calculated as the difference between the average of performance in 2005 and 2006 and the average of performance in 2003 and 2004. Missing data were handled as follows: if data were missing for either year in a pair, data for the other year were used to measure performance; if data were missing for both 2003 and 2004, improvement from 2005 to 2006 was measured; and if data were missing for both 2005 and 2006, no improvement measure was calculated.

Data could be missing either because they were not available (indicated by "—") or because they were suppressed (indicated by "+"). Data were suppressed if a subgroup represented less than 5 percent of the test-takers in a subject at a level (elementary, middle, high school) or if the data were unreliable. Data that were not comparable to other years, due, for example, to changes in state tests as described above, were treated in calculations as missing data.

Calculations were performed on unrounded numbers. Zeroes may represent small positive or small negative values. Positive change values appear in color. Zeroes that represent small positive values also appear in color.

## Understanding the Data Report

### Reading Proficiency Gaps (page 9)

The information in the table is organized as follows:

First column:	The internal district gap, internal district vs. internal state gap, and external gap are specified with regard to comparing disadvantaged vs. advantaged groups (African-American vs. White, Asian vs. White, Hispanic vs. White, and low-income vs. non-low-income students) at each of the three levels (elementary, middle and high school)
Second column:	Gaps are specified for the 2003 academic year
Third column:	Gaps are specified for the 2004 academic year
Fourth column:	Gaps are specified for the 2005 academic year
Fifth column:	Gaps are specified for the 2006 academic year
Sixth column:	Change in the gap is shown for the 2006 academic year minus the 2003 academic year
Seventh column:	Change in the gap is shown for the 2006 academic year minus the 2004 academic year
Eighth column:	Change in the gap is shown for the 2006 academic year minus the 2005 academic year
Ninth column:	The overall improvement calculation is shown. Except as noted in the footnote, "Overall improvement" was calculated as the difference between the average of performance in 2005 and 2006 and the average of performance in 2003 and 2004.
Tenth column:	If the gap is closing, indicated by a positive value in the "overall improvement" column, the gap closure type is specified in this column.

### Mathematics Proficiency Gaps (page 11)

The information in the table is organized as follows:

First column:	The internal district gap, internal district vs. internal state gap, and external gap are specified with regard to comparing disadvantaged vs. advantaged groups (African-American vs. White, Asian vs. White, Hispanic vs. White, and low-income vs. non-low-income students) at each of the three levels (elementary, middle and high school)
Second column:	Gaps are specified for the 2003 academic year
Third column:	Gaps are specified for the 2004 academic year
Fourth column:	Gaps are specified for the 2005 academic year
Fifth column:	Gaps are specified for the 2006 academic year
Sixth column:	Change in the gap is shown for the 2006 academic year minus the 2003 academic year
Seventh column:	Change in the gap is shown for the 2006 academic year minus the 2004 academic year
Eighth column:	Change in the gap is shown for the 2006 academic year minus the 2005 academic year
Ninth column:	The overall improvement calculation is shown. Except as noted in the footnote, "overall improvement" was calculated as the difference between the average of performance in 2005 and 2006 and the average of performance in 2003 and 2004.
Tenth column:	If the gap is closing, indicated by a positive value in the "overall improvement" column, the gap closure type is specified in this column.

## Understanding the Data Report

The gap closure types are defined as follows:

- Type 1. Both the advantaged group's and the disadvantaged group's proficiencies are increasing. The gap is closing because the disadvantaged group's proficiency is increasing at a faster rate than the advantaged group's proficiency. This is the most desirable type of gap closure.
- Type 2. The gap is closing; however, the advantaged group's proficiency is decreasing.
- Type 3. Both advantaged and disadvantaged groups' proficiencies are decreasing. The gap is closing because the advantaged group's proficiency is decreasing at a faster rate than the disadvantaged group's proficiency.
- Type 4. The number in the internal district vs. internal state change column is positive; however, the gap is not closing. The number is positive because the gaps for both the state's and district's disadvantaged groups are increasing, but the gap for the district is increasing at a slower rate.

In a small number of cases, gap closures did not fit one of these four common types.

### **Trends in Actual Versus Expected Performance for All Students (page 12)**

The trends for standardized residuals in reading and math at the elementary, middle and high school levels are shown on page 12.

An ordinary least squares regression analysis was conducted to determine the extent to which each Broad Prize-eligible district performed better or worse than other districts in its state given the district's percentage of low-income students. Specifically, the dependent variable in the regression analysis was the percentage of test-takers in a district in each of the three grade-level groupings (elementary, middle and high school) who were proficient or above on the state test. The independent variable was the percentage of test-takers in each grade-level group in the district who were low income. Running the regressions required achievement data for all districts in the state, as well as data on the income status of test-takers. In a few cases where data were available for the state and the eligible district, but were not available for all districts in the state, or where data on the proportion of test-takers who were low income were not available, the regressions could not be run.

For each district, the expected or predicted proficiency level based on the regression was calculated. The difference between the district's actual percentage of students who tested at or above proficiency and the predicted or expected value is the residual. A positive residual indicates that the district is performing better than expected on the state test given their percentage of low-income children taking the test, while a negative residual indicates lower-than-expected performance. Figure 1 illustrates this approach.

A separate regression was calculated for each year of data and each subject (reading and mathematics) for each level (elementary, middle and high school) within each state. In addition, separate regressions were also conducted for the low-income, African-American and Hispanic subgroups. States generally suppressed test data for

# Understanding the Data Report

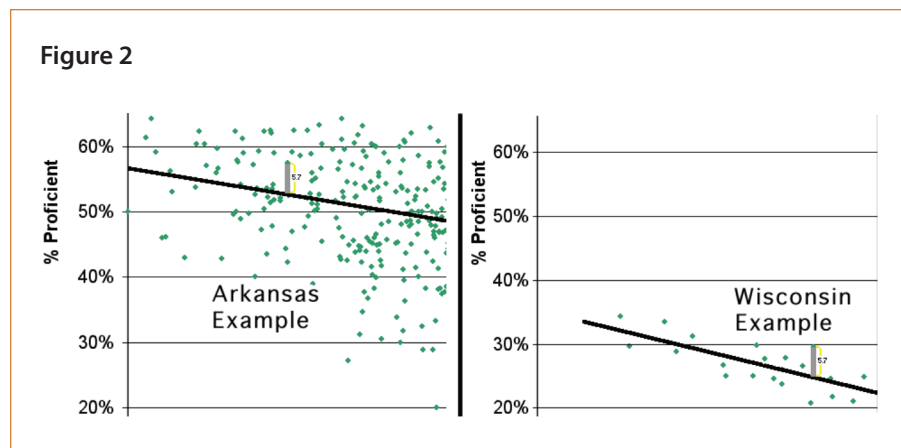
small populations, so the results for subgroups may be based on substantially fewer districts than those for “all students,” depending on the distribution of disadvantaged students in a state. In addition, where subgroups comprised less than 5 percent of test-takers in a grade-level group, regression results were suppressed. Hence, subgroup estimates may be less reliable than those for “all students.”

It should be emphasized that residuals are *relative* performance measures. A district’s performance was assessed relative to that of other districts in the state, not in absolute terms.

Some states changed tests over the period under review, and tests differ from state to state. Consequently, the interpretation of residuals varies. To allow for year-to-year comparisons, separate regressions for each year of data were calculated. In addition, in order to have a measure with greater comparability, The Broad Prize methodology uses “standardized residuals.” A district’s standardized residual is calculated by dividing its residual by the standard deviation of all residuals from the state regression.

This point is illustrated in Figure 2. As an example, a district in Arkansas may have a residual in elementary reading of 5.7 (meaning that they had 5.7 percent more students reach proficiency than their “expected level” given their district’s poverty). At the same time, a district in Wisconsin may also have a residual of 5.7 in elementary reading. The assessment of how well each district is performing, however, may not be the same even though both have the same residual.

If the majority of districts in Arkansas are within six percentage points of the expected performance level, while the majority of districts in Wisconsin are within two percentage points of the expected level, then the Wisconsin district is performing much better com-



## Understanding the Data Report

pared to its peers than the Arkansas district is compared to its peers. Standardizing the residuals helps account for differences in variability.

Caution must be exercised in comparing standardized residuals across states. For example, a district that performs above average in a state that ranks below the national average on NAEP may be performing no better than a district that performs below average in a state that ranks above the NAEP national average

Separate residuals were calculated for each subject (reading and mathematics), level (elementary, middle and high school), and year (2003, 2004, 2005 and 2006). These residuals were averaged across the last two years to produce a current “performance” measure (the average of performance in 2005 and 2006). “Performance” residuals were calculated separately by level (elementary, middle and high school) and subject (reading and mathematics). These “performance” measures are shown on page 12.

### **Performance Residuals for All Students (page 12)**

Six different trend bar charts, with data for 2003, 2004, 2005 and 2006, are shown as follows:

Left side: Reading standardized performance residuals for the elementary, middle and high school levels

Right side: Mathematics standardized performance residuals for the elementary, middle and high school levels

### **Standardized Residuals Data (page 13)**

The standardized residuals values in reading and math at the elementary, middle and high school levels are shown on page 13 for all students, as well as for the African-American, Hispanic and low-income subgroups.

Two columns are also added for “overall performance” and “overall improvement.” “Overall performance” is the average of residuals for 2005 and 2006. “Overall improvement” was generally calculated as the difference between a district’s average performance in 2005 and 2006 and its average performance in 2003 and 2004. If data were missing for either year in a pair, data for the other year were used; if data were missing for both 2003 and 2004, improvement from 2005 to 2006 was measured; and if data were missing for both 2005 and 2006, no improvement measure was calculated.

Positive values for “overall performance” and “overall improvement” are shown in color.

Just as the “performance” residuals are based on relative performance, the “improvement” residuals are based on improvement in relative performance. Thus, a district whose scores improved, but improved more slowly than those of other districts in the state, could find itself moving upward from year to year more slowly than the upward movement of the regression line in Figure 1. Such a district would show negative relative improvement in this analysis.

## Understanding the Data Report

The table at the bottom of page 13 shows a summary of the count of positive residuals as well as the count of available residual measures for all students and each subgroup.

Consider the following when comparing the residuals of different districts:

- The analysis provides information on both performance and improvement. In theory, districts with high performance levels initially might be expected to have lower levels of improvement. A district that performed consistently above expectations during all four years, but did not improve, could still be thought of as consistently high-performing.
- Because states use different tests and different standards of proficiency, individual states may be subject to “floor effects” or “ceiling effects.” If proficiency levels are generally very high in a state (near 90 percent, for example), then high-performing districts may not be able to show their relative achievement because their proficiency level cannot increase above 100 percent. Similarly, if state proficiency levels are very low, then the relative achievement of the higher performers may again be understated because the lower performing districts cannot fall below zero percent.

### Standardized Residuals Data for Reading and Mathematics (page 13)

The information in the table is organized as follows:

- First column: Standardized residuals in reading and mathematics are specified for the district at each of the three levels (elementary, middle and high school) for all students and for the African-American, Hispanic and low-income student subgroups. Reading is listed first and Mathematics is listed below Reading. Below mathematics, the table also shows the count of the positive residuals and the count of the available residual measures for all students and for the African-American, Hispanic and low-income student subgroups.
- Second column: Standardized residuals are specified for the 2003 academic year
- Third column: Standardized residuals are specified for the 2004 academic year
- Fourth column: Standardized residuals are specified for the 2005 academic year
- Fifth column: Standardized residuals are specified for the 2006 academic year
- Sixth column: The overall performance calculation is shown. “Overall performance” is the average of residuals for 2005 and 2006. This calculation does not apply to the counts of positive residuals and available residuals at the bottom of the table, which only count the applicable residuals in the “overall performance” column.
- Seventh column: The overall improvement calculation is shown. “Overall improvement” was generally calculated as the difference between the average of performance in 2005 and 2006 and the average of performance in 2003 and 2004. This calculation does not apply to the counts of positive residuals and available residuals at the bottom of the table, which only count the applicable residuals in the “overall improvement” column.

## Understanding the Data Report

### High School Graduation Rates (page 14)

Three different methods were used to calculate high school graduation rates. Trend lines as well as values are shown for 2001 through 2004. The table also shows calculations for improvement over time. Simple change is calculated as the difference between 2001 and 2004, between 2002 and 2004, and between 2003 and 2004. Where data for one or two years in the pair were not available, not comparable or suppressed, these change calculations could not be performed. In addition, “overall improvement” was generally calculated as the difference between the average of performance in 2003 and 2004 and the average of performance in 2001 and 2002. Missing data were handled as follows: if data were missing for either year in a pair, data for the other year were used to measure performance; if data were missing for both 2001 and 2002, improvement from 2003 to 2004 was measured; and if data were missing for both 2003 and 2004, no improvement measure was calculated.

Data could be missing either because they were not available (indicated by “—”) or because they were suppressed (indicated by “+”). Graduation rates were suppressed if they were deemed unreliable or if a subgroup represented less than 5 percent of the district enrollment. Graduation data by race/ethnicity were not available for 2001 and 2002.

The three different high school graduation rate methods are:

1. The Averaged Freshman Graduation Rate (AFGR)
2. Urban Institute Graduation Rate (a.k.a. Cumulative Promotion Index or CPI)
3. Manhattan Institute Graduation Rate (a.k.a. Greene’s Graduation Indicator or GGI)

The methodology for each of these is explained briefly below.

#### Averaged Freshman Graduation Rate (AFGR)

This method divides the number of students graduating in year  $t$  by an average of the eighth-grade enrollment in year  $t - 4$ , ninth-grade enrollment in year  $t - 3$ , and 10th-grade enrollment in year  $t - 2$ :

$$\text{AFGR Graduation Rate} = \frac{G^t}{(E_{t-4}^8 + E_{t-3}^9 + E_{t-2}^{10})/3}$$

#### Urban Institute Graduation Rate (a.k.a. Cumulative Promotion Index or CPI)

This method assumes that graduation is a process composed of three grade-to-grade promotion transitions (nine to 10, 10 to 11, and 11 to 12), in addition to the graduation event (grade 12 to receipt of a diploma). Each of the transitions is calculated as a probability, based on current-year statistics, by dividing the enrollment of the current year by the enrollment of the previous year for the grade in question. These separate probabilities are then multiplied to produce the probability that a student in that school system will graduate.

$$\text{CPI Graduation Rate} = \left[ \frac{E_t^{10}}{E_{t-1}^9} \right] * \left[ \frac{E_t^{11}}{E_{t-1}^{10}} \right] * \left[ \frac{E_t^{12}}{E_{t-1}^{11}} \right] * \left[ \frac{G_{t-1}}{E_{t-1}^{12}} \right]$$

## Understanding the Data Report

### Manhattan Institute Graduation Rate (a.k.a. Greene's Graduation Indicator or GGI)

This calculation estimates an on-time graduation rate. The number of students who receive a diploma at time  $t$  is divided by an estimate of the number of students in the ninth-grade cohort three years earlier. The estimate of the ninth-grade cohort size is a smoothed estimator that takes into account population changes as students migrate between the public and private sectors between eighth and ninth grades, high ninth-grade enrollments due to higher than average retention in the ninth-grade year, and declining enrollment in 10th grade as students begin dropping out. This denominator is also adjusted for enrollment variability due to student mobility among districts and states rather than dropping out.

The formula used to calculate graduation rates for 2001 through 2004 was as follows:

$$\frac{\text{Number of diplomas}_{(t)}}{\left[ 1 + \left( \frac{\text{high school population change}}{\text{over 4-year period}} \right) \right] \left( \frac{\text{Smoothed estimator for}}{\text{first-time 9th-grade enrollment}} \right)}$$

A recent National Center for Education Statistics study reported that when calculating a statewide graduation rate, the averaged freshman graduation rate came closest to approximating a longitudinal graduation rate. The smaller the district, state or student group being analyzed, the less precisely the three graduation rates estimate the true longitudinal graduation rate. The different methodologies sometimes lead to very different results. The reason is that each uses different types of data from different years. All three have strengths and weaknesses but are considered acceptable.

### Three Estimated High School Graduation Rates: 2001–2004 (page 14)

Three different trend charts, with data for 2001, 2002, 2003 and 2004, are shown for each of the three different graduation rates for all students and for White, African-American, Asian and Hispanic student subgroups.

## Understanding the Data Report

### Estimated high school graduation rates table: 2001–2004 (page 14)

The information in the table is organized as follows:

First column:	The three different graduation rate methods, Averaged Freshmen Graduation Rate, Urban Institute Method and Manhattan Institute Method, are specified for all students and for the African-American, Asian, Hispanic and White student subgroups.
Second column:	Graduation rates are specified for the 2001 academic year
Third column:	Graduation rates are specified for the 2002 academic year
Fourth column:	Graduation rates are specified for the 2003 academic year
Fifth column:	Graduation rates are specified for the 2004 academic year
Sixth column:	Change in the graduation rates is shown for the 2004 academic year minus the 2001 academic year
Seventh column:	Change in the graduation rates is shown for the 2004 academic year minus the 2002 academic year
Eighth column:	Change in the graduation rates is shown for the 2004 academic year minus the 2003 academic year
Ninth column:	The overall improvement calculation is shown. Except as noted in the footnote, “overall improvement” was calculated as the difference between the averaged graduation rate in 2003 and 2004 and the averaged graduation rate in 2001 and 2002.

### College Readiness Data (page 15)

District-level measures of the college readiness of their students include SAT, ACT and Advanced Placement. The table provides measures of performance on these tests and participation rates.

The College Board and ACT provided mean SAT (verbal and math) test scores and mean ACT (composite) test scores, respectively, for each district for 2003 through 2006. The SAT verbal and math scores were combined to produce mean total SAT scores. Mean ACT composite scores were reported as provided. The College Board also provided the number of AP examinations at each score level (1 to 5) for each district for 2003 through 2006. The percentage of AP tests taken that earned passing scores (3 or above) was calculated. These measures were suppressed if fewer than 15 students in a subgroup took the test, which follows the College Board rules.

The College Board and ACT do not calculate test participation rates. However, they provided the number of seniors who had taken the SAT and ACT tests (regardless of when they took the test during high school), as well as the number of juniors and seniors who took any AP test in the given year. Participation rates were calculated using these numbers as the numerator and the enrollment data for 11th- and 12th-graders from the federal CCD as the denominator. Participation rates were suppressed if they were deemed unreliable or if a subgroup represented less than 5 percent of total district enrollment in the relevant grades.

## Understanding the Data Report

### Test scores and participation rates on college readiness examinations: 2003–2006 (page 15)

The information in the table is organized as follows:

First column:	The table is divided into the three different college readiness sections: SAT, ACT and Advanced Placement. Each college readiness section first shows performance measures and then participation rates for all students as well as for the African-American, Asian, Hispanic and White student subgroups.
Second column:	Relevant values are listed for the 2003 academic year
Third column:	Relevant values are listed for the 2004 academic year
Fourth column:	Relevant values are listed for the 2005 academic year
Fifth column:	Relevant values are listed for the 2006 academic year
Sixth column:	Change in values is shown for the 2006 academic year minus the 2003 academic year
Seventh column:	Change in values is shown for the 2006 academic year minus the 2004 academic year
Eighth column:	Change in values is shown for the 2006 academic year minus the 2005 academic year
Ninth column:	The overall improvement calculation is shown. Except as noted in the footnote, “overall improvement” was calculated based on the difference between the average in 2005 and 2006 and the average in 2003 and 2004.

### Adequate Yearly Progress (AYP) (page 16)

The table shows AYP results for 2005 and 2006. For each year, the top row shows the percentage of schools in the district meeting AYP targets and the percentage of schools in the state meeting AYP targets. A “Y” or “N” in the second row indicates whether the district as a whole met its AYP target.

The first column indicates the breakdown of AYP results for proficiency and participation standards in English language arts and in mathematics for the applicable student subgroups, including all students, African-Americans, American Indians, Asians, Hispanics, Whites, low-income students, English language learners, and students with disabilities. AYP results are shown first for 2005 and then for 2006. If the AYP results were reported separately at the elementary, middle or high school levels, these are also indicated under the 2005 and 2006 columns.

## Understanding the Simulation Tool

The simulation tool, pictured on page A-23 and found as a separate Excel file, enables you to change your district's performance data for prior years in the "what-if scenarios" portion of the spreadsheet to determine how those changes would have affected your district's performance residuals. This is not a forecasting tool. In the future, proficiency rates in the other districts in the state may change. As a result, in some cases, your district's proficiency rate may need to increase faster in order to improve your district's performance residual.

Although this tool was created using actual state and district data and cannot presume to predict the future performance of your district or that of other districts statewide, we hope that it will serve as a useful reference for discussions about the district's proficiency targets and achievement goals.

The simulation tool shows the following information:

### Actual District Results

actual % proficient	Percent of students in the district meeting the state standard in each year.
actual % FRSL	Percent of students in the district eligible for Free or Reduced-Price Lunch (FRSL).
predicted % proficient	Predicted percent of students in the district meeting state standards, based on the performance results for all districts in the state and their percent of students eligible for FRSL.
residual	Distance above or below the "predicted % proficient" for the district.
standard deviation of residuals	Measure of the spread of the residuals for all the districts in the state.
standardized residual	Residual divided by the standard deviation of residuals.
two-year averages	Average of the standardized residuals for two years (average for 2005 and 2006 and average for 2003 and 2004) for the district.
improvement	Difference between the two-year average for 2005 and 2006 and the two-year average for 2003 and 2004 for the district (as expressed in standardized residuals).

### What-If Scenarios

simulated actual % proficient	User input for percent of students in the district meeting the state standard.
modified standardized residual	Distance above or below the "predicted % proficient" divided by the standard deviation of residuals for the district resulting from the "simulated actual % proficient" input.
modified two-year average	Average of the standardized residuals for two years (average for 2005 and 2006 and average for 2003 and 2004) for the district resulting from the "simulated actual % proficient" input.
improvement	Difference between the two-year average for 2005 and 2006 and the two-year average for 2003 and 2004 for the district (as expressed in standardized residuals) resulting from the "simulated actual % proficient" input.

## Understanding the Simulation Tool

To test what proficiency levels each subgroup of students needed to reach in order to improve the standardized residual by a desired amount, plug numbers into the row titled “simulated actual % proficient.” As you do this, you will see the yellow “modified standardized residual” and “modified two-year average” cells change.

### Elementary Reading—All Students—Illustration

		2003	2004	2005	2006
Actual District Results	actual % proficient	59.0	64.3	65.4	67.1
	actual % FRSL	53	58	54	54
	predicted % proficient	62.4	64.4	67.7	68.8
	residual (actual minus predicted)	-3.42	-0.07	-2.31	-1.72
	standard deviation of residuals	7.46	9.28	7.74	3.87
	standardized residual (actual - predicted)/standard deviation	-0.46	-0.01	-0.30	-0.44
	two-year averages (average residual for 2003 and 2004 and average residual for 2005 and 2006)	-0.23		-0.37	
	improvement (change in average residual for 2005 and 2006 minus average residual for 2003 and 2004)	N/A		-0.14	
What-If Scenarios*	simulated actual % proficient (input data in this row only)	59.0	65.3	67.4	70.1
	modified standardized residual	-0.46	0.10	-0.04	0.34
	modified two-year average	-0.18		0.15	
	improvement (change in two-year average residual)	N/A		0.33	

←  
Input  
inserted  
by user in  
this row.

\* What-if scenarios do not take into account the change in the statewide regression line and standard deviation of the regression residuals resulting from a given change in your district's proficiency rate.



# 2007 Broad Prize for Urban Education



## Montgomery County Public Schools Maryland

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# Montgomery County Public Schools

## MARYLAND

### Background Information

#### Description of district: 2003–2005

	2003	2004	2005
<b>District characteristics</b>			
Locale <sup>1</sup>	3	3	3
Number of schools	194	194	197
Percent of schools serving a large city	83	82	81
<b>Student characteristics</b>			
Enrollment	138,983	139,201	139,393
District size rank <sup>2</sup>	17	16	16
Percent low-income students <sup>3</sup>	22	23	23
Percent minority students	54	55	57
<b>Percent of students by race/ethnicity</b>			
African American	21	22	23
Asian	14	14	14
Hispanic	18	19	19
White	46	45	43
Other	0	0	0
Percent English language learners	9	9	9
Percent students with disabilities	12	12	13
<b>District expenditures</b>			
Total expenditures per pupil (state)	\$12,057 (\$9,153)	\$12,358 (\$9,433)	—
Instructional expenditures per pupil (state)	\$6,783 (\$5,693)	\$7,147 (\$6,535)	—

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD).

— Not available.

<sup>1</sup> As defined by the Census Bureau, locale code 1 (large city) represents a central city with a population of 250,000 or larger; code 2 (mid-size city) represents a central city with less than 250,000 people; and code 3 (urban fringe of a large or mid-size city) represents an urban area that is not a central city.

<sup>2</sup> District size rank is based on enrollment in local school districts in the 50 states and DC, and does not include other district types or territories.

<sup>3</sup> Low-income students are eligible for Free or Reduced-Price School Lunch (FRSL).

NOTES: CCD data for 2006 are not yet available. CCD expenditures data for 2005 are also not yet available.

#### State test information: 2003–2006

Subject/level	Most recent test included in analysis	Grades included in analysis			
		2003	2004	2005	2006
<b>Reading</b>					
Elementary	Maryland School Assessment (MSA)	3, 5	3, 5	3, 4, 5	3, 4, 5
Middle	Maryland School Assessment (MSA)	8	8	6, 7, 8	6, 7, 8
High	High School Assessment (HSA): English I	10	10	9, 10, 11, 12	9, 10, 11, 12
<b>Mathematics</b>					
Elementary	Maryland School Assessment (MSA)	3, 5	3, 5	3, 4, 5	3, 4, 5
Middle	Maryland School Assessment (MSA)	8	8	6, 7, 8	6, 7, 8
High	High School Assessment (HSA): Algebra I	9, 10, 11, 12	9, 10, 11, 12	9, 10, 11, 12	9, 10, 11, 12

SOURCE: State education agency.

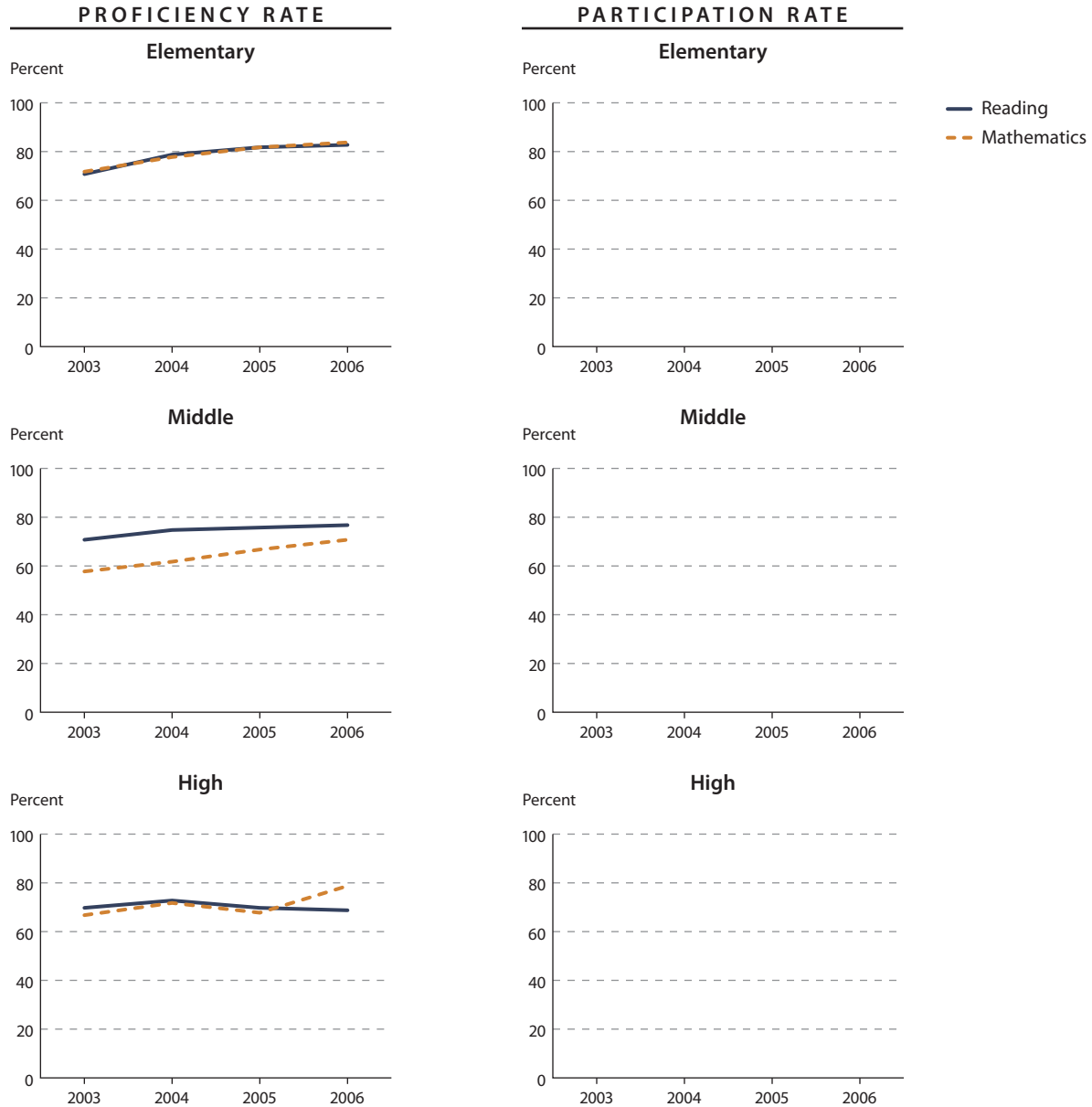
— Not available.

NOTES: **At the high school level**, the reading test changed in 2005; 2005 and 2006 reading test data are not comparable to previous years. The HSA Algebra I test was not used for AYP until 2006; it is used for all years of analysis.

# Montgomery County Public Schools MARYLAND

## Trends in Overall Reading and Mathematics Proficiency

Percentage of all students in the district scoring at or above proficient in reading and mathematics in elementary, middle, and high school and rate of participation in the tests: 2003–2006



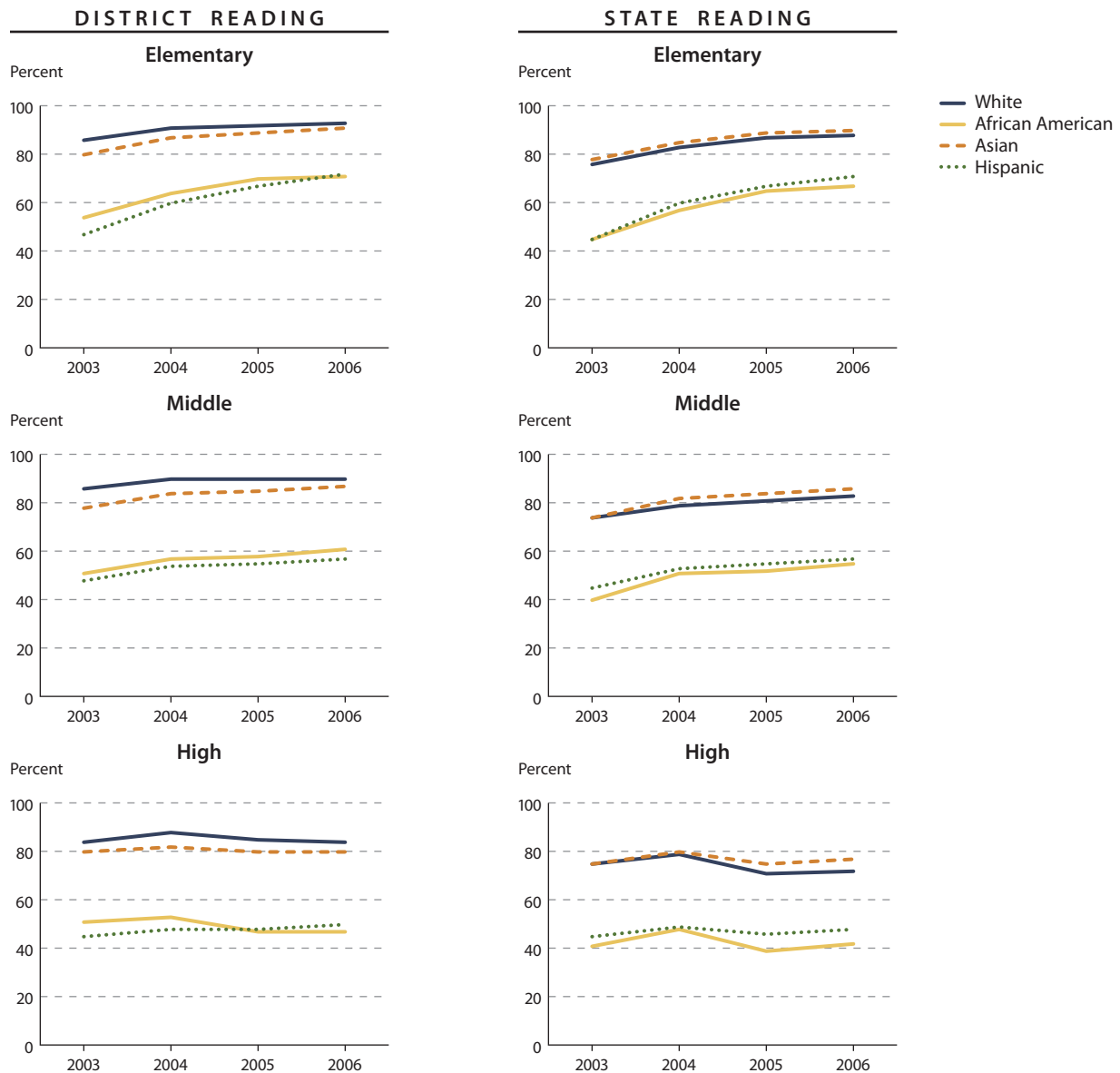
SOURCE: State test data.

NOTES: See tables on pages 8 and 10 for proficiency details. Gaps in lines represent missing data. At the high school level, the reading test changed in 2005; 2005 and 2006 reading test data are not comparable to previous years. The HSA Algebra I test was not used for AYP until 2006; it is used for all years of analysis. Participation rates were not available.

# Montgomery County Public Schools MARYLAND

## Race/Ethnicity Trends in Reading Proficiency

Percentage of students scoring at or above proficient in reading, by race/ethnicity, for the district and the state: 2003–2006



SOURCE: State test data.

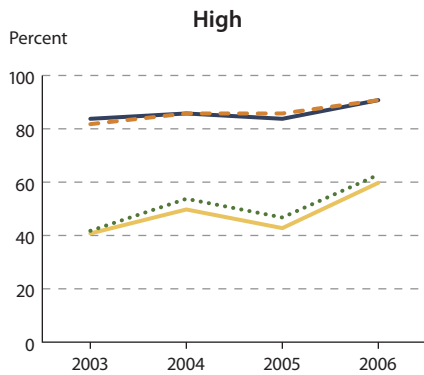
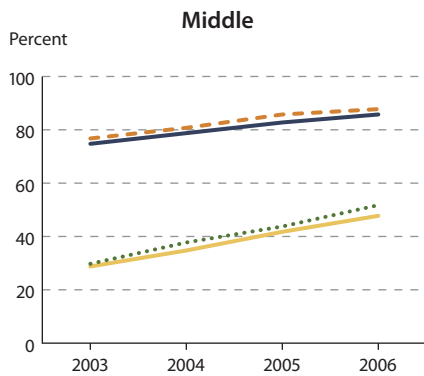
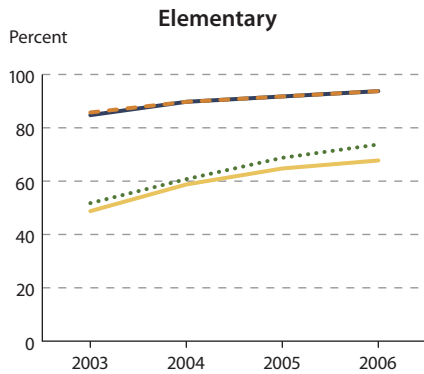
NOTES: See table on page 8 for details. Gaps in lines represent missing data. Data were suppressed if the subgroup represented less than 5 percent of the test takers at a level. At the high school level, the reading test changed in 2005; 2005 and 2006 reading test data are not comparable to previous years.

# Montgomery County Public Schools MARYLAND

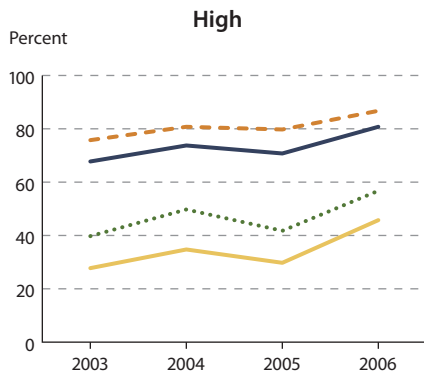
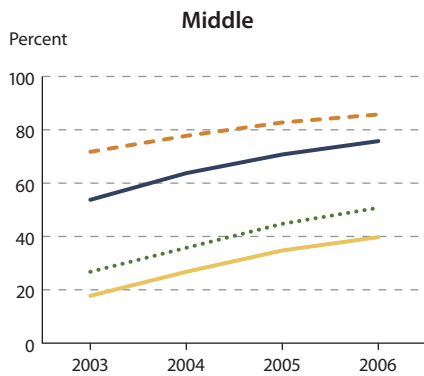
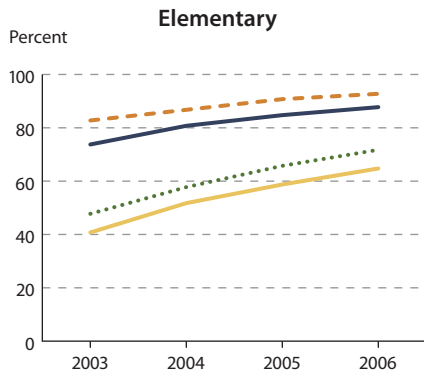
## Race/Ethnicity Trends in Mathematics Proficiency

Percentage of students scoring at or above proficient in mathematics, by race/ethnicity, for the district and the state: 2003–2006

### DISTRICT MATHEMATICS



### STATE MATHEMATICS



— White  
— African American  
- - Asian  
... Hispanic

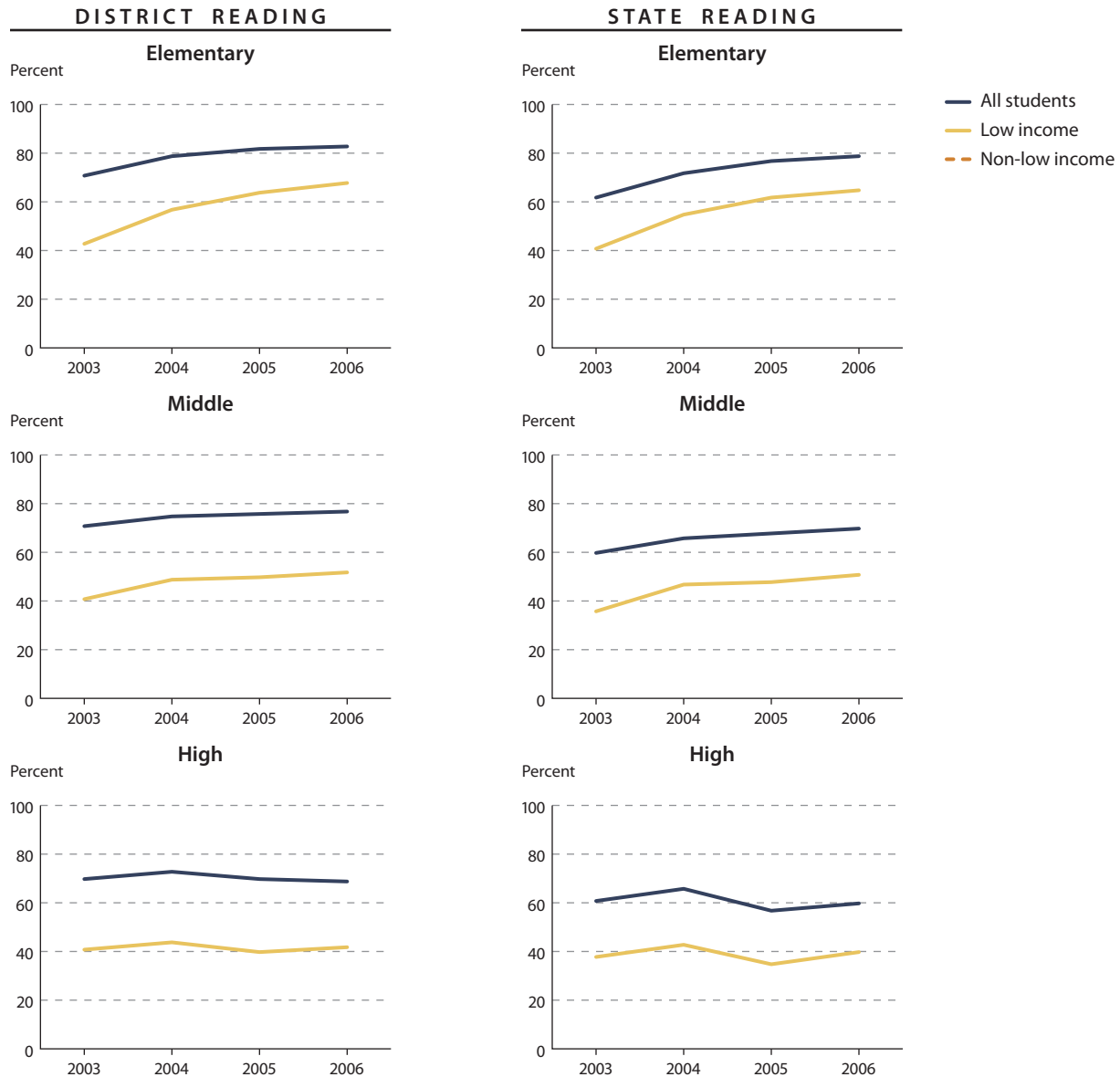
SOURCE: State test data.

NOTES: See table on page 10 for details. Gaps in lines represent missing data. Data were suppressed if the subgroup represented less than 5 percent of the test takers at a level. The HSA Algebra I test was not used for AYP until 2006; it is used for all years of analysis.

# Montgomery County Public Schools MARYLAND

## Income Status Trends in Reading Proficiency

Percentage of students scoring at or above proficient in reading, by income status, for the district and the state: 2003–2006



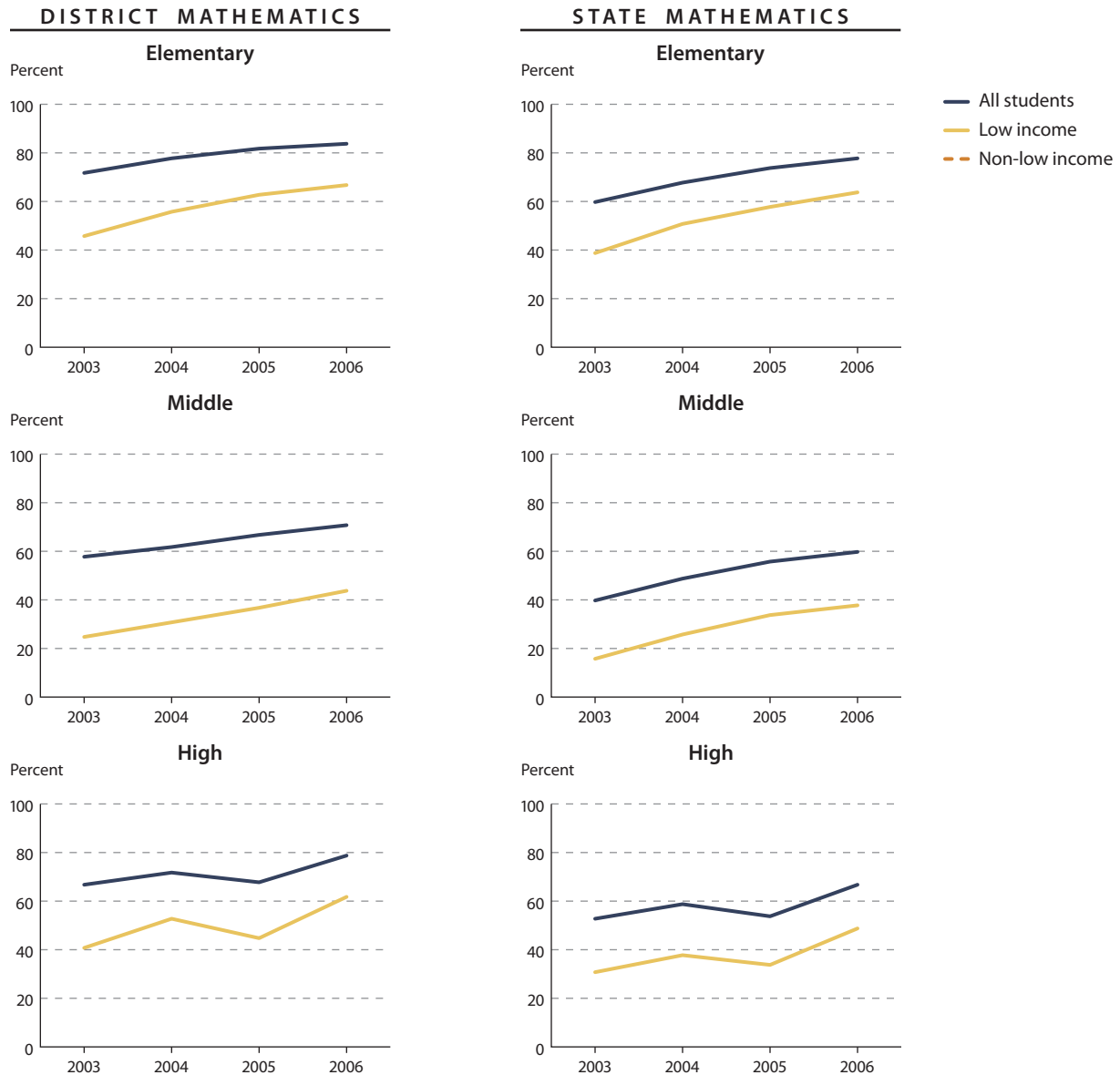
SOURCE: State test data.

NOTES: See table on page 8 for details. Gaps in lines represent missing data. Data were suppressed if the subgroup represented less than 5 percent of the test takers at a level. Test data for the non-low-income subgroup were not available. At the high school level, the reading test changed in 2005; 2005 and 2006 reading test data are not comparable to previous years.

# Montgomery County Public Schools MARYLAND

## Income Status Trends in Mathematics Proficiency

Percentage of students scoring at or above proficient in mathematics, by income status, for the district and the state: 2003–2006



SOURCE: State test data.

NOTES: See table on page 10 for details. Gaps in lines represent missing data. Data were suppressed if the subgroup represented less than 5 percent of the test takers at a level. Test data for the non-low-income subgroup were not available. The HSA Algebra I test was not used for AYP until 2006; it is used for all years of analysis.

# Montgomery County Public Schools

MARYLAND

## Reading Proficiency Data Summary

### Percentage of students in the district and the state scoring at or above proficient in reading: 2003–2006

	2003	2004	2005	2006	Change			Overall improvement
					2003–2006	2004–2006	2005–2006	
<b>Elementary</b>								
District								
All	71	79	82	83	13	5	2	8
African American	54	64	70	71	18	7	2	11
Asian	80	87	89	91	11	4	1	7
Hispanic	47	60	67	72	26	12	5	16
White	86	91	92	93	7	2	1	4
Low income	43	57	64	68	25	10	4	16
Non-low income	—	—	—	—	—	—	—	—
State								
All	62	72	77	79	17	7	2	11
African American	45	57	65	67	23	10	2	15
Asian	78	85	89	90	12	4	1	8
Hispanic	45	60	67	71	25	11	4	16
White	76	83	87	88	12	5	1	8
Low income	41	55	62	65	24	10	3	16
Non-low income	—	—	—	—	—	—	—	—
<b>Middle</b>								
District								
All	71	75	76	77	6	1	1	3
African American	51	57	58	61	10	4	3	5
Asian	78	84	85	87	9	2	1	5
Hispanic	48	54	55	57	9	3	2	5
White	86	90	90	90	4	1	0	2
Low income	41	49	50	52	11	2	2	5
Non-low income	—	—	—	—	—	—	—	—
State								
All	60	66	68	70	10	4	2	6
African American	40	51	52	55	14	4	3	8
Asian	74	82	84	86	12	4	2	7
Hispanic	45	53	55	57	13	4	3	7
White	74	79	81	83	8	4	1	6
Low income	36	47	48	51	15	4	3	8
Non-low income	—	—	—	—	—	—	—	—
<b>High</b>								
District								
All	70	73	70	69	—	—	-1	-1
African American	51	53	47	47	—	—	0	0
Asian	80	82	80	80	—	—	-1	-1
Hispanic	45	48	48	50	—	—	2	2
White	84	88	85	84	—	—	-1	-1
Low income	41	44	40	42	—	—	2	2
Non-low income	—	—	—	—	—	—	—	—
State								
All	61	66	57	60	—	—	3	3
African American	41	48	39	42	—	—	4	4
Asian	75	80	75	77	—	—	2	2
Hispanic	45	49	46	48	—	—	3	3
White	75	79	71	72	—	—	1	1
Low income	38	43	35	40	—	—	5	5
Non-low income	—	—	—	—	—	—	—	—

SOURCE: State test data.

— Not available. † Data were suppressed due to unreliability or if the subgroup represented less than 5 percent of the test takers at a level.

NOTES: Test data for the non-low-income subgroup were not available. At the high school level, the reading test changed in 2005; 2005 and 2006 reading test data are not comparable to previous years and change calculations could not be computed. At this level, "Overall Improvement" was generally calculated as the difference of performance in 2006 and 2005. At the elementary and middle school levels, "Overall Improvement" was generally calculated as the difference in average performance in 2005 and 2006 and performance in 2003 and 2004; see methodology section. Positive improvement values appear in color.

# Montgomery County Public Schools

MARYLAND

## Reading Proficiency Gaps

### Percentage-point gaps in reading proficiency rates between disadvantaged and advantaged groups: 2003–2006

	2003	2004	2005	2006	Change			Overall improvement	Gap closure type
					2003–2006	2004–2006	2005–2006		
<b>Elementary</b>									
Internal district gap									
African American vs. White	-32	-27	-23	-22	<b>11</b>	<b>5</b>	<b>1</b>	<b>7</b>	1
Asian vs. White	-6	-4	-3	-2	<b>4</b>	<b>2</b>	<b>1</b>	<b>2</b>	1
Hispanic vs. White	-39	-30	-25	-21	<b>19</b>	<b>10</b>	<b>4</b>	<b>12</b>	1
Low income vs. non-low income	—	—	—	—	—	—	—	—	—
Internal district vs. internal state gap									
African American vs. White	-1	-1	-1	-1	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	1
Asian vs. White	-8	-7	-5	-4	<b>4</b>	<b>2</b>	<b>1</b>	<b>3</b>	1
Hispanic vs. White	-8	-7	-4	-3	<b>5</b>	<b>4</b>	<b>1</b>	<b>4</b>	1
Low income vs. non-low income	—	—	—	—	—	—	—	—	—
External gap: district disadvantaged vs. state advantaged									
African American vs. White	-22	-19	-17	-17	<b>6</b>	<b>2</b>	<b>1</b>	<b>3</b>	1
Asian vs. White	4	4	2	2	-1	-2	<b>0</b>	-2	—
Hispanic vs. White	-29	-23	-20	-16	<b>13</b>	<b>7</b>	<b>4</b>	<b>8</b>	1
Low income vs. non-low income	—	—	—	—	—	—	—	—	—
<b>Middle</b>									
Internal district gap									
African American vs. White	-35	-32	-32	-29	<b>6</b>	<b>3</b>	<b>3</b>	<b>3</b>	1
Asian vs. White	-8	-5	-5	-3	<b>5</b>	<b>2</b>	<b>1</b>	<b>3</b>	1
Hispanic vs. White	-38	-36	-35	-33	<b>5</b>	<b>3</b>	<b>2</b>	<b>3</b>	1
Low income vs. non-low income	—	—	—	—	—	—	—	—	—
Internal district vs. internal state gap									
African American vs. White	-1	-4	-2	-1	<b>0</b>	<b>4</b>	<b>1</b>	<b>1</b>	1
Asian vs. White	-8	-8	-7	-6	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	1
Hispanic vs. White	-8	-10	-8	-8	<b>0</b>	<b>3</b>	<b>1</b>	<b>1</b>	1
Low income vs. non-low income	—	—	—	—	—	—	—	—	—
External gap: district disadvantaged vs. state advantaged									
African American vs. White	-23	-21	-23	-22	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	—
Asian vs. White	4	6	4	4	<b>0</b>	-2	<b>0</b>	-1	—
Hispanic vs. White	-26	-25	-26	-26	<b>1</b>	-1	<b>1</b>	-1	—
Low income vs. non-low income	—	—	—	—	—	—	—	—	—
<b>High</b>									
Internal district gap									
African American vs. White	-33	-34	-38	-37	—	—	<b>1</b>	<b>1</b>	3
Asian vs. White	-4	-5	-4	-4	—	—	<b>0</b>	<b>0</b>	3
Hispanic vs. White	-39	-40	-37	-34	—	—	<b>3</b>	<b>3</b>	2
Low income vs. non-low income	—	—	—	—	—	—	—	—	—
Internal district vs. internal state gap									
African American vs. White	1	-3	-6	-7	—	—	-2	-2	—
Asian vs. White	-4	-5	-8	-8	—	—	-1	-1	—
Hispanic vs. White	-9	-10	-12	-10	—	—	<b>2</b>	<b>2</b>	2
Low income vs. non-low income	—	—	—	—	—	—	—	—	—
External gap: district disadvantaged vs. state advantaged									
African American vs. White	-24	-26	-24	-26	—	—	-2	-2	—
Asian vs. White	4	3	10	8	—	—	-2	-2	—
Hispanic vs. White	-30	-31	-23	-22	—	—	<b>1</b>	<b>1</b>	1
Low income vs. non-low income	—	—	—	—	—	—	—	—	—

SOURCE: State test data.

— Not available. † Data were suppressed due to unreliability or if the subgroup represented less than 5 percent of the test takers at a level.

NOTES: **Test data** for the non-low-income subgroup were not available. **Positive gaps** mean the disadvantaged group scored higher than the advantaged group. Negative gaps mean the disadvantaged group scored lower. **At the high school level**, the reading test changed in 2005; 2005 and 2006 reading test data are not comparable to previous years and change calculations could not be computed. **At this level**, "Overall Improvement" was generally calculated as the difference of performance in 2006 and 2005. **At the elementary and middle school levels**, "Overall Improvement" was generally calculated as the difference in average performance in 2005 and 2006 and performance in 2003 and 2004; see methodology section. **Positive improvement values** appear in color. **Gap closure types include:** (1) Both advantaged and disadvantaged group proficiencies are increasing. The gap is closing because the disadvantaged group proficiency is increasing at a faster rate than the advantaged group. This is the most desirable type of gap closure. (2) The gap is closing; however, the advantaged group proficiency is decreasing. (3) Both advantaged and disadvantaged group proficiencies are decreasing. The gap is closing because the advantaged group proficiency is decreasing at a faster rate than the disadvantaged group proficiency. (4) The number in the Internal district vs. internal state change column is positive; however, the gap is not closing. The number is positive because the gaps for both the state and district's disadvantaged groups are increasing, but the gap for the district is increasing at a slower rate.

# Montgomery County Public Schools

MARYLAND

## Mathematics Proficiency Data Summary

Percentage of students in the district and the state scoring at or above proficient in mathematics: 2003–2006

	2003	2004	2005	2006	Change			Overall improvement
					2003–2006	2004–2006	2005–2006	
<b>Elementary</b>								
District								
All	72	78	82	84	<b>12</b>	<b>6</b>	<b>2</b>	<b>8</b>
African American	49	59	65	68	<b>19</b>	<b>9</b>	<b>3</b>	<b>12</b>
Asian	86	90	92	94	<b>8</b>	<b>4</b>	<b>2</b>	<b>5</b>
Hispanic	52	61	69	74	<b>22</b>	<b>12</b>	<b>4</b>	<b>15</b>
White	85	90	92	94	<b>8</b>	<b>4</b>	<b>2</b>	<b>5</b>
Low income	46	56	63	67	<b>21</b>	<b>11</b>	<b>4</b>	<b>14</b>
Non-low income	—	—	—	—	—	—	—	—
State								
All	60	68	74	78	<b>18</b>	<b>10</b>	<b>4</b>	<b>12</b>
African American	41	52	59	65	<b>24</b>	<b>13</b>	<b>6</b>	<b>16</b>
Asian	83	87	91	93	<b>10</b>	<b>6</b>	<b>2</b>	<b>7</b>
Hispanic	48	58	66	72	<b>23</b>	<b>13</b>	<b>6</b>	<b>15</b>
White	74	81	85	88	<b>14</b>	<b>7</b>	<b>3</b>	<b>9</b>
Low income	39	51	58	64	<b>24</b>	<b>13</b>	<b>6</b>	<b>16</b>
Non-low income	—	—	—	—	—	—	—	—
<b>Middle</b>								
District								
All	58	62	67	71	<b>14</b>	<b>10</b>	<b>5</b>	<b>9</b>
African American	29	35	42	48	<b>19</b>	<b>13</b>	<b>6</b>	<b>13</b>
Asian	77	81	86	88	<b>10</b>	<b>7</b>	<b>2</b>	<b>7</b>
Hispanic	30	38	44	52	<b>22</b>	<b>14</b>	<b>8</b>	<b>14</b>
White	75	79	83	86	<b>12</b>	<b>8</b>	<b>4</b>	<b>8</b>
Low income	25	31	37	44	<b>19</b>	<b>13</b>	<b>7</b>	<b>13</b>
Non-low income	—	—	—	—	—	—	—	—
State								
All	40	49	56	60	<b>21</b>	<b>12</b>	<b>5</b>	<b>14</b>
African American	18	27	35	40	<b>22</b>	<b>12</b>	<b>4</b>	<b>15</b>
Asian	72	78	83	86	<b>15</b>	<b>8</b>	<b>3</b>	<b>10</b>
Hispanic	27	36	45	51	<b>24</b>	<b>15</b>	<b>6</b>	<b>16</b>
White	54	64	71	76	<b>22</b>	<b>12</b>	<b>5</b>	<b>15</b>
Low income	16	26	34	38	<b>22</b>	<b>12</b>	<b>5</b>	<b>15</b>
Non-low income	—	—	—	—	—	—	—	—
<b>High</b>								
District								
All	67	72	68	79	<b>12</b>	<b>6</b>	<b>11</b>	<b>4</b>
African American	41	50	43	60	<b>19</b>	<b>11</b>	<b>17</b>	<b>6</b>
Asian	82	86	86	91	<b>10</b>	<b>5</b>	<b>6</b>	<b>5</b>
Hispanic	42	54	47	63	<b>21</b>	<b>9</b>	<b>16</b>	<b>7</b>
White	84	86	84	91	<b>7</b>	<b>5</b>	<b>8</b>	<b>2</b>
Low income	41	53	45	62	<b>21</b>	<b>10</b>	<b>18</b>	<b>7</b>
Non-low income	—	—	—	—	—	—	—	—
State								
All	53	59	54	67	<b>13</b>	<b>8</b>	<b>13</b>	<b>4</b>
African American	28	35	30	46	<b>18</b>	<b>11</b>	<b>16</b>	<b>6</b>
Asian	76	81	80	87	<b>11</b>	<b>6</b>	<b>7</b>	<b>5</b>
Hispanic	40	50	42	57	<b>18</b>	<b>8</b>	<b>16</b>	<b>5</b>
White	68	74	71	81	<b>13</b>	<b>8</b>	<b>10</b>	<b>6</b>
Low income	31	38	34	49	<b>18</b>	<b>11</b>	<b>16</b>	<b>7</b>
Non-low income	—	—	—	—	—	—	—	—

SOURCE: State test data.

— Not available. † Data were suppressed due to unreliability or if the subgroup represented less than 5 percent of the test takers at a level.

NOTES: "Overall Improvement" was generally calculated as the difference of average performance in 2005 and 2006 and average performance in 2003 and 2004; see methodology section. Positive improvement values appear in color. Test data for the non-low-income subgroup were not available. The HSA Algebra I test was not used for AYP until 2006; it is used for all years of analysis.

# Montgomery County Public Schools

MARYLAND

## Mathematics Proficiency Gaps

Percentage-point gaps in mathematics proficiency rates between disadvantaged and advantaged groups: 2003–2006

	2003	2004	2005	2006	Change			Overall improvement	Gap closure type
					2003–2006	2004–2006	2005–2006		
<b>Elementary</b>									
Internal district gap									
African American vs. White	-36	-31	-27	-26	<b>11</b>	<b>5</b>	<b>2</b>	<b>7</b>	1
Asian vs. White	0	0	0	0	-1	<b>0</b>	0	0	—
Hispanic vs. White	-33	-29	-23	-20	<b>13</b>	<b>8</b>	<b>3</b>	<b>9</b>	1
Low income vs. non-low income	—	—	—	—	—	—	—	—	—
Internal district vs. internal state gap									
African American vs. White	-3	-1	-1	-3	<b>0</b>	-1	-2	<b>0</b>	1
Asian vs. White	-8	-7	-6	-5	<b>4</b>	<b>2</b>	<b>1</b>	<b>2</b>	4
Hispanic vs. White	-8	-6	-4	-4	<b>4</b>	<b>2</b>	-1	<b>3</b>	1
Low income vs. non-low income	—	—	—	—	—	—	—	—	—
External gap: district disadvantaged vs. state advantaged									
African American vs. White	-25	-22	-20	-20	<b>5</b>	<b>2</b>	<b>1</b>	<b>3</b>	1
Asian vs. White	12	9	7	6	-6	-3	-1	-4	—
Hispanic vs. White	-22	-20	-16	-14	<b>8</b>	<b>5</b>	<b>2</b>	<b>6</b>	1
Low income vs. non-low income	—	—	—	—	—	—	—	—	—
<b>Middle</b>									
Internal district gap									
African American vs. White	-46	-44	-41	-38	<b>8</b>	<b>5</b>	<b>3</b>	<b>5</b>	1
Asian vs. White	3	3	3	1	-2	-1	-1	-1	—
Hispanic vs. White	-45	-41	-39	-35	<b>10</b>	<b>6</b>	<b>4</b>	<b>6</b>	1
Low income vs. non-low income	—	—	—	—	—	—	—	—	—
Internal district vs. internal state gap									
African American vs. White	-10	-7	-5	-2	<b>8</b>	<b>5</b>	<b>3</b>	<b>5</b>	1
Asian vs. White	-15	-11	-9	-9	<b>6</b>	<b>2</b>	<b>0</b>	<b>4</b>	4
Hispanic vs. White	-18	-13	-13	-10	<b>8</b>	<b>4</b>	<b>3</b>	<b>4</b>	1
Low income vs. non-low income	—	—	—	—	—	—	—	—	—
External gap: district disadvantaged vs. state advantaged									
African American vs. White	-25	-29	-29	-28	-3	<b>1</b>	<b>1</b>	-1	—
Asian vs. White	24	17	15	12	-12	-5	-3	-7	—
Hispanic vs. White	-24	-26	-27	-24	0	<b>2</b>	<b>3</b>	-1	—
Low income vs. non-low income	—	—	—	—	—	—	—	—	—
<b>High</b>									
Internal district gap									
African American vs. White	-43	-36	-41	-31	<b>12</b>	<b>6</b>	<b>10</b>	<b>4</b>	1
Asian vs. White	-2	0	2	0	<b>2</b>	<b>1</b>	-2	<b>2</b>	1
Hispanic vs. White	-42	-32	-37	-28	<b>13</b>	<b>4</b>	<b>9</b>	<b>4</b>	1
Low income vs. non-low income	—	—	—	—	—	—	—	—	—
Internal district vs. internal state gap									
African American vs. White	-3	2	1	5	<b>8</b>	<b>3</b>	<b>4</b>	<b>3</b>	1
Asian vs. White	-10	-7	-6	-5	<b>5</b>	<b>2</b>	<b>1</b>	<b>3</b>	1
Hispanic vs. White	-13	-8	-8	-4	<b>9</b>	<b>4</b>	<b>3</b>	<b>5</b>	1
Low income vs. non-low income	—	—	—	—	—	—	—	—	—
External gap: district disadvantaged vs. state advantaged									
African American vs. White	-27	-24	-28	-21	<b>6</b>	<b>3</b>	<b>7</b>	<b>1</b>	1
Asian vs. White	14	13	15	10	-4	-3	-5	-1	—
Hispanic vs. White	-26	-19	-25	-19	<b>7</b>	<b>1</b>	<b>6</b>	<b>1</b>	1
Low income vs. non-low income	—	—	—	—	—	—	—	—	—

SOURCE: State test data.

— Not available. † Data were suppressed due to unreliability or if the subgroup represented less than 5 percent of the test takers at a level.

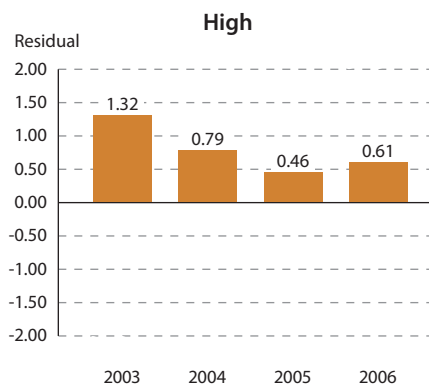
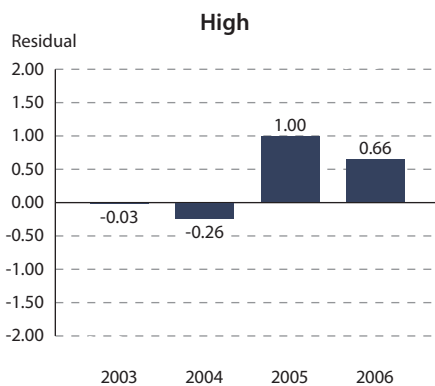
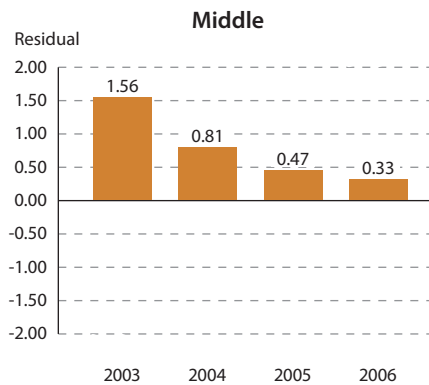
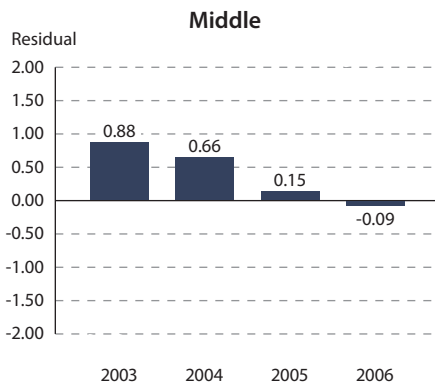
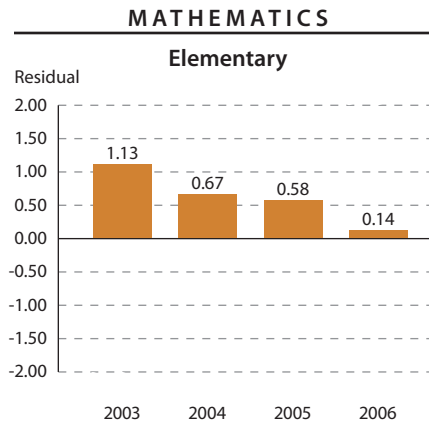
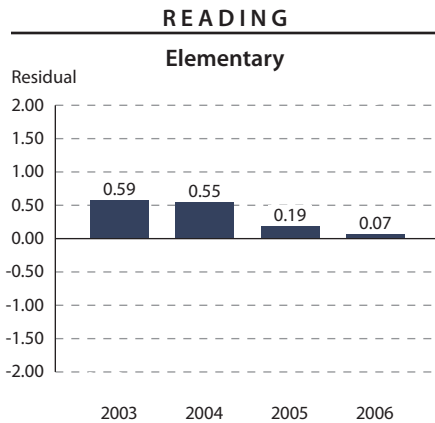
NOTES: **Positive gaps** mean the disadvantaged group scored higher than the advantaged group. Negative gaps mean the disadvantaged group scored lower. **“Overall Improvement”** was generally calculated as the difference of average performance in 2005 and 2006 and average performance in 2003 and 2004; see methodology section. **Positive improvement values** appear in color. **Gap closure types include:** (1) Both advantaged and disadvantaged group proficiencies are increasing. The gap is closing because the disadvantaged group proficiency is increasing at a faster rate than the advantaged group. This is the most desirable type of gap closure. (2) The gap is closing; however, the advantaged group proficiency is decreasing. (3) Both advantaged and disadvantaged group proficiencies are decreasing. The gap is closing because the advantaged group proficiency is decreasing at a faster rate than the disadvantaged group proficiency. (4) The number in the Internal district vs. internal state change column is positive; however, the gap is not closing. The number is positive because the gaps for both the state and district’s disadvantaged groups are increasing, but the gap for the district is increasing at a slower rate. **Test data** for the non-low-income subgroup were not available. The HSA Algebra I test was not used for AYP until 2006; it is used for all years of analysis.

# Montgomery County Public Schools

MARYLAND

## Trends in Actual vs. Expected Performance for ALL STUDENTS

Standardized residuals<sup>1</sup> for the percentage of students in the district scoring at or above proficient in reading and mathematics, controlling for poverty level: 2003–2006



SOURCE: State test data.

<sup>1</sup> Positive residuals indicate higher-than-expected performance, and negative residuals indicate lower-than-expected performance, given the district's poverty level. Residuals are expressed in standard units.

NOTES: See table on page 13 for details.

# Montgomery County Public Schools

MARYLAND

## Standardized Residuals Data for Reading and Mathematics

Standardized residuals<sup>1</sup> for regressions of the percentage of students in the district scoring at or above proficient on the percentage of poverty in the district: 2003–2006

	2003	2004	2005	2006	Overall performance	Overall improvement
<b>Reading</b>						
Elementary						
All	0.59	0.55	0.19	0.07	<b>0.13</b>	-0.44
African American	0.66	0.78	0.60	0.20	<b>0.40</b>	-0.32
Hispanic	-0.59	-0.53	-0.73	-0.36	-0.55	<b>0.01</b>
Low income	-0.64	-0.18	-0.38	-0.15	-0.27	<b>0.14</b>
Middle						
All	0.88	0.66	0.15	-0.09	<b>0.03</b>	-0.74
African American	1.06	0.65	0.16	0.09	<b>0.12</b>	-0.73
Hispanic	0.00	-0.72	-0.76	-0.92	-0.84	-0.48
Low income	-0.18	0.05	-0.64	-0.82	-0.73	-0.66
High						
All	-0.03	-0.26	1.00	0.66	<b>0.83</b>	<b>0.97</b>
African American	0.46	-0.23	0.86	0.07	<b>0.46</b>	<b>0.35</b>
Hispanic	-0.70	-0.76	-0.03	-0.14	-0.08	<b>0.65</b>
Low income	-0.60	-0.82	0.11	-0.11	<b>0.00</b>	<b>0.71</b>
<b>Mathematics</b>						
Elementary						
All	1.13	0.67	0.58	0.14	<b>0.36</b>	-0.54
African American	0.66	0.74	0.57	-0.01	<b>0.28</b>	-0.42
Hispanic	-0.43	-0.43	-0.37	-0.60	-0.48	-0.05
Low income	0.22	0.03	-0.01	-0.15	-0.08	-0.20
Middle						
All	1.56	0.81	0.47	0.33	<b>0.40</b>	-0.79
African American	1.41	0.57	0.36	0.13	<b>0.25</b>	-0.74
Hispanic	-0.12	-0.44	-0.66	-0.40	-0.53	-0.25
Low income	0.81	0.20	-0.12	-0.13	-0.12	-0.63
High						
All	1.32	0.79	0.46	0.61	<b>0.54</b>	-0.52
African American	1.15	1.16	0.51	0.38	<b>0.45</b>	-0.71
Hispanic	-0.18	-0.18	-0.33	0.01	-0.16	<b>0.02</b>
Low income	0.37	0.71	0.16	0.59	<b>0.37</b>	-0.17
<b>Positive residuals, total</b>						
All	5	5	6	5	<b>6</b>	<b>1</b>
African American	6	5	6	5	<b>6</b>	<b>1</b>
Hispanic	0	0	0	1	0	<b>3</b>
Low income	3	4	2	1	<b>2</b>	<b>2</b>
<b>Available residuals, total</b>						
All	6	6	6	6	<b>6</b>	<b>6</b>
African American	6	6	6	6	<b>6</b>	<b>6</b>
Hispanic	6	6	6	6	<b>6</b>	<b>6</b>
Low income	6	6	6	6	<b>6</b>	<b>6</b>

SOURCE: State test data.

— Not available. † Data were suppressed due to unreliability or if the subgroup represented less than 5 percent of the test takers at a level.

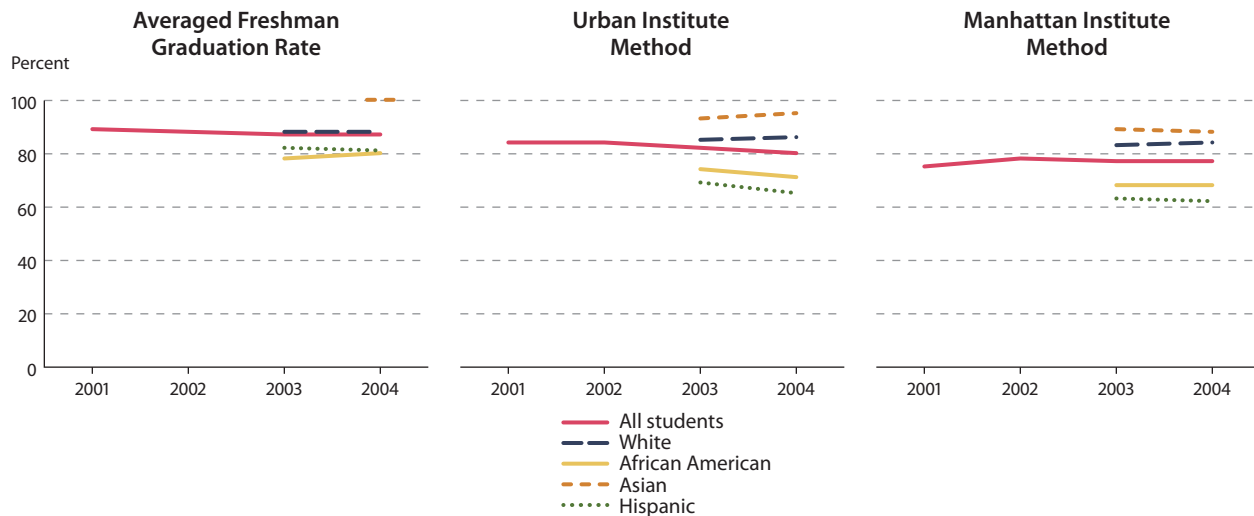
<sup>1</sup> Positive residuals indicate higher-than-expected performance, and negative residuals indicate lower-than-expected performance, given the district's poverty level. NOTES: For residuals, "Overall performance" is the average for 2005 and 2006. "Overall improvement" was generally calculated as the difference of average performance of 2005 and 2006 and the average performance in 2003 and 2004; see methodology section. Positive improvement values for "Overall performance" and "Overall improvement" appear in color. For the count of "Positive residuals" and "Available residuals", the "Overall performance" column shows the total count of positive residuals in the column, and the "Overall improvement" column shows the total count of available residuals in the column.

# Montgomery County Public Schools

MARYLAND

## High School Graduation Rates

Three estimated high school graduation rates: 2001–2004



Estimated high school graduation rates for the classes of 2001–2004

	2001	2002	2003	2004	Change			Overall improvement
					2001–2004	2002–2004	2003–2004	
<b>Averaged Freshman Graduation Rate</b>								
All	89	88	87	87	-3	-1	-1	-1
African American	—	—	78	80	—	—	<b>2</b>	<b>2</b>
Asian	—	—	†	100	—	—	†	†
Hispanic	—	—	82	81	—	—	-1	-1
White	—	—	88	88	—	—	-1	-1
<b>Urban Institute method<sup>1</sup></b>								
All	84	84	82	80	-4	-3	-1	-3
African American	—	—	74	71	—	—	-3	-3
Asian	—	—	93	95	—	—	<b>3</b>	<b>3</b>
Hispanic	—	—	69	65	—	—	-4	-4
White	—	—	85	86	—	—	<b>1</b>	<b>1</b>
<b>Manhattan Institute method<sup>1</sup></b>								
All	75	78	77	77	<b>2</b>	0	0	<b>1</b>
African American	—	—	68	68	—	—	-1	-1
Asian	—	—	89	88	—	—	-1	-1
Hispanic	—	—	63	62	—	—	-1	-1
White	—	—	83	84	—	—	<b>2</b>	<b>2</b>

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD).

— Not available. † Data were suppressed due to unreliability or if a subgroup represented less than 5 percent of the population.

<sup>1</sup> The Urban Institute method is also known as Swanson's cumulative promotion index (SCPI) and the Manhattan Institute method is also known as Greene's graduation indicator (GGI).

NOTES: "Overall Improvement" for "all" students was generally calculated as the difference of average performance in 2003 and 2004 and average performance in 2001 and 2002; "Overall Improvement" for subgroups was calculated as the difference of 2004 and 2003. See methodology section. Graduation data for race/ethnicity were not available in 2001 and 2002. Positive improvement values appear in color. Gaps in lines represent missing data.

# Montgomery County Public Schools

MARYLAND

## College Readiness Data

### Test scores and participation rates for college readiness examinations: 2003–2006

	2003	2004	2005	2006	Change			Overall Improvement
					2003–2006	2004–2006	2005–2006	
<b>SAT Reasoning Test<sup>1</sup></b>								
Mean total score (reading and mathematics)								
All	1,094	1,101	1,101	1,095	<b>1</b>	-6	-6	<b>1</b>
African American	919	919	925	913	-6	-6	-12	0
Asian	1,130	1,154	1,159	1,154	<b>24</b>	0	-5	<b>15</b>
Hispanic	965	958	965	966	<b>1</b>	<b>8</b>	<b>1</b>	<b>4</b>
White	1,152	1,153	1,169	1,162	<b>10</b>	<b>9</b>	-7	<b>13</b>
Participation rate								
All	75	74	79	75	<b>1</b>	<b>1</b>	-4	<b>3</b>
African American	47	50	58	55	<b>8</b>	<b>5</b>	-3	<b>8</b>
Asian	66	66	82	85	<b>19</b>	<b>19</b>	<b>3</b>	<b>18</b>
Hispanic	36	36	51	48	<b>12</b>	<b>12</b>	-3	<b>14</b>
White	52	55	71	69	<b>17</b>	<b>14</b>	-1	<b>16</b>
<b>ACT<sup>1</sup></b>								
Mean composite score (English, reading, mathematics, and science)								
All	—	—	—	—	—	—	—	—
African American	—	—	—	—	—	—	—	—
Asian	—	—	—	—	—	—	—	—
Hispanic	—	—	—	—	—	—	—	—
White	—	—	—	—	—	—	—	—
Participation rate								
All	—	—	—	—	—	—	—	—
African American	—	—	—	—	—	—	—	—
Asian	—	—	—	—	—	—	—	—
Hispanic	—	—	—	—	—	—	—	—
White	—	—	—	—	—	—	—	—
<b>Advanced Placement (AP) (all subjects)<sup>2</sup></b>								
Percent scoring 3 or above								
All	76	76	77	75	-1	-1	-2	0
African American	53	55	54	49	-4	-6	-5	-2
Asian	74	75	77	75	<b>1</b>	<b>0</b>	-1	<b>1</b>
Hispanic	66	68	68	66	<b>0</b>	-2	-2	<b>0</b>
White	81	81	82	80	-1	-1	-2	<b>0</b>
Participation rate								
All	35	36	37	39	<b>4</b>	<b>3</b>	<b>2</b>	<b>3</b>
African American	14	14	14	16	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>
Asian	49	50	54	54	<b>5</b>	<b>4</b>	<b>0</b>	<b>4</b>
Hispanic	18	21	22	25	<b>7</b>	<b>4</b>	<b>3</b>	<b>4</b>
White	39	40	41	44	<b>5</b>	<b>4</b>	<b>3</b>	<b>3</b>

SOURCE: The College Board and ACT.

— Not available. If a district did not authorize release of College Board or ACT data, no results for the affected tests are presented.

† Test scores were suppressed if fewer than 15 students took the test. Participation rates were suppressed due to unreliability or if the subgroup represented less than 5 percent of district enrollment in the relevant grades.

<sup>1</sup> For graduating seniors who took the test anytime during high school.

<sup>2</sup> For juniors and seniors taking any AP test in the given year.

NOTES: **Subgroup participation rates** may not reflect the “all students” rate due to some test takers not reporting their race/ethnicity. **“Overall Improvement”** was generally calculated as the difference of average performance in 2005 and 2006 and average performance in 2003 and 2004; see methodology section. **Positive improvement values** appear in color.

# Montgomery County Public Schools

MARYLAND

## Adequate Yearly Progress (AYP)

Breakdown by subgroup of whether or not (yes or no) AYP was achieved: 2005 and 2006

	2005			2006		
	District	State		District	State	
Percent of schools meeting AYP targets	88	74		77	75	
	Elementary Met AYP? (Yes/No)	Middle School Met AYP? (Yes/No)	High School Met AYP? (Yes/No)	Elementary Met AYP? (Yes/No)	Middle School Met AYP? (Yes/No)	High School Met AYP? (Yes/No)
District Overall AYP Status	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
<b>Proficiency</b>						
English language arts						
All Students	Y	Y	Y	Y	Y	Y
African American	Y	Y	Y	Y	Y	Y
Asian	Y	Y	Y	Y	Y	Y
Hispanic	Y	Y	Y	Y	N	Y
White	Y	Y	Y	Y	Y	Y
American Indian/ Alaska Native	Y	Y	Y	Y	Y	Y
Low-income	Y	Y	Y	Y	N	Y
English language learners	Y	Y	Y	Y	N	Y
Students with disabilities	Y	Y	N	Y	N	N
Mathematics						
All Students	Y	Y	Y	Y	Y	Y
African American	Y	Y	Y	Y	Y	Y
Asian	Y	Y	Y	Y	Y	Y
Hispanic	Y	Y	Y	Y	Y	Y
White	Y	Y	Y	Y	Y	Y
American Indian/ Alaska Native	Y	Y	Y	Y	Y	Y
Low-income	Y	Y	Y	Y	Y	Y
English language learners	Y	Y	Y	Y	Y	Y
Students with disabilities	Y	Y	N	N	N	Y
<b>Participation</b>						
English language arts						
All Students	Y	Y	Y	Y	Y	Y
African American	Y	Y	Y	Y	Y	Y
Asian	Y	Y	Y	Y	Y	Y
Hispanic	Y	Y	Y	Y	Y	Y
White	Y	Y	Y	Y	Y	Y
American Indian/ Alaska Native	Y	Y	Y	Y	Y	—
Low-income	Y	Y	Y	Y	Y	Y
English language learners	Y	Y	Y	Y	Y	Y
Students with disabilities	Y	Y	Y	Y	Y	Y
Mathematics						
All Students	Y	Y	Y	Y	Y	Y
African American	Y	Y	Y	Y	Y	Y
Asian	Y	Y	Y	Y	Y	Y
Hispanic	Y	Y	Y	Y	Y	Y
White	Y	Y	Y	Y	Y	Y
American Indian/ Alaska Native	Y	Y	Y	Y	Y	—
Low-income	Y	Y	Y	Y	Y	Y
English language learners	Y	Y	Y	Y	Y	Y
Students with disabilities	Y	Y	Y	Y	Y	Y

SOURCE: Table provided by AIR. Data from state websites and education agencies.

— Not available.