MEASURING UP
WAKE COUNTY PUBLIC SCHOOL SYSTEM
EVALUATION AND RESEARCH DEPARTMENT

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END-OF-COURSE MULTIPLE-CHOICE TEST RESULTS, 2008-09

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ABSTRACT

End-of-Course (EOC) tests are given statewide in 10 courses typically taken in high school. Results for 2008-09 (and prior years, where available) are reported in terms of both average scale scores and the percentage of students scoring proficient. After the recent introduction of new EOC tests with higher standards, scores in WCPSS have begun to move back upward after an initial decline. Significant gaps in achievement are still evident, and proficiency rates have not fully recovered to the levels seen prior to these new tests. However, historically-underperforming subgroups have made significant gains, and have begun to close those gaps. Further acceleration of those gains will be important for ensuring that all students are prepared for their post-secondary futures.

BACKGROUND

The North Carolina Department of Public Instruction (NCDPI) requires that all public schools administer End-of-Course (EOC) tests to students enrolled in 10 courses usually taken in high school. EOC tests are typically given during the last two weeks of the course. Results are then used for state accountability programs and to help determine whether students meet the state's recently-enacted high school exit standards, which require students to pass five specific EOC tests in order to graduate from high school[1].

EOC tests are aligned with the Standard Course of Study in each of the subjects tested—Algebra I, Algebra II, Geometry, English I, Biology, Chemistry, Physical Science, Physics, U.S. History, and Civics & Economics—and use a multiple-choice format. NCDPI has recently revised the curriculum and associated EOC tests for the eight mathematics, English, and science courses, resulting in higher standards and more difficult tests.

[1] See http://www.ncpublicschools.org/docs/accountability/policyoperations/exitstandards/exitstandardsguidehs.pdf for more information.

Student performance on EOC multiple-choice tests is measured by both a scale score and achievement level. There are four achievement levels, each representing a different level of competency in a subject area (Table 1). Table 2 shows the range of scale scores associated with each achievement level for each of the 10 EOC tests administered in 2008-09. In this report, EOC results will be presented using two types of measurements: the percentage of students scoring at or above Achievement Level III (i.e., proficiency rates) and average scale scores.

Table 1
Achievement Levels for the North Carolina Testing Program

Level I: Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.	**Level III:** Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.
Level II: Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course, and are minimally prepared to be successful at a more advanced level in the content area.	**Level IV:** Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Note: Official descriptions vary by course, and are listed in NC State Board of Education Policy GCS-C-010 (see http://sbepolicy.dpi.state.nc.us/ for more details).

Table 2
EOC Achievement Levels by Scale Score Ranges, 2008-09

Description	Level I	Level II	Level III	Level IV
Algebra I	Less than or equal to 139	140-147	148-157	Greater than or equal to 158
Algebra II	Less than or equal to 138	139-146	147-157	Greater than or equal to 158
Biology	Less than or equal to 137	138-146	147-158	Greater than or equal to 159
Chemistry	Less than or equal to 136	137-145	146-157	Greater than or equal to 158
Civics and Economics	Less than or equal to 140	141-147	148-159	Greater than or equal to 160
English I	Less than or equal to 137	138-145	146-156	Greater than or equal to 157
Geometry	Less than or equal to 138	139-147	148-157	Greater than or equal to 158
Physics	Less than or equal to 138	139-142	143-156	Greater than or equal to 157
Physical Science	Less than or equal to 139	140-148	149-159	Greater than or equal to 160
U.S. History	Less than or equal to 139	140-148	149-159	Greater than or equal to 160

In addition to being differentiated by subject area, EOC tests are also sometimes categorized as either "core" or "elective." The five core EOCs – Algebra I, English I, Biology, U.S. History, and Civics & Economics – are taken by the vast majority of high school students. Beginning with the incoming 9th-grade class of 2006-07, students statewide have to meet proficiency requirements on each of those five tests in order to graduate from high school. The remaining

five EOCs – Algebra II, Geometry, Physical Science, Chemistry, and Physics – can be thought of as elective EOCs because those courses are not explicitly required for graduation, and therefore not all students will take them.

When taking stock of EOC test performance, several contextual factors need to be considered. While the five core EOCs are taken by the vast majority of high school students, the elective EOCs are taken by a less representative population of students. Higher-level mathematics and science EOCs are less likely to include students who struggle academically, as they are not as likely to enroll in those courses in the first place, particularly Physics. On the other hand, those students are more likely than others to enroll in Physical Science. Therefore, the performance of students on those elective EOC tests is not always representative of the entire high school population.

Also, test results for a relatively small number of WCPSS students who take alternate versions of EOC tests (i.e., NCEXTEND2 and NCCLAS) are not included here, as the scores resulting from those assessments are not directly comparable to those from the regular multiple-choice EOC tests. These students are typically either students with disabilities (SWD) or students who are limited English proficient (LEP) whose level of impairment or language development is such that they cannot demonstrate their learning accurately on the regular multiple-choice test even with various accommodations and/or modifications.

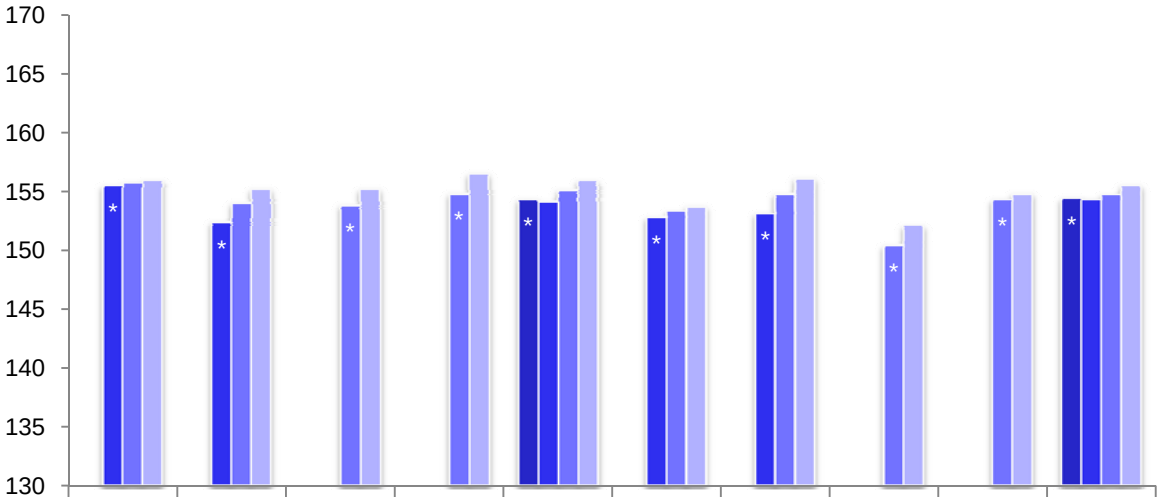
OVERALL RESULTS

Between 2005-06 and 2007-08, all 10 of the NC EOC tests were revamped due to changes in the curriculum. Therefore, the ability to compare results over time on any of those tests is somewhat compromised. The results presented below will use whatever results are available for the current edition of those tests except where noted.

As shown in Figure 1, average WCPSS EOC scale scores rose for the second consecutive year in 2008-09 in each subject for which at least two years of data were available. Scale scores prior to 2006-07 are not shown for English I and mathematics EOCs and prior to 2007-08 for science EOCs, as the scales on which those tests are measured changed when new tests were introduced, rendering average scale scores non-comparable to previous years.

Although the scale scores reported for each EOC test are in the 100s range for each course, average scale scores cannot be compared across courses (e.g., comparing Algebra I to Geometry, etc.), because the underlying scales are not identical (Table 2). Therefore the only valid comparisons in Figure 1 are the year-to-year changes for an individual test.

Figure 1
WCPSS Average EOC Scale Scores, 2005-06 to 2008-09



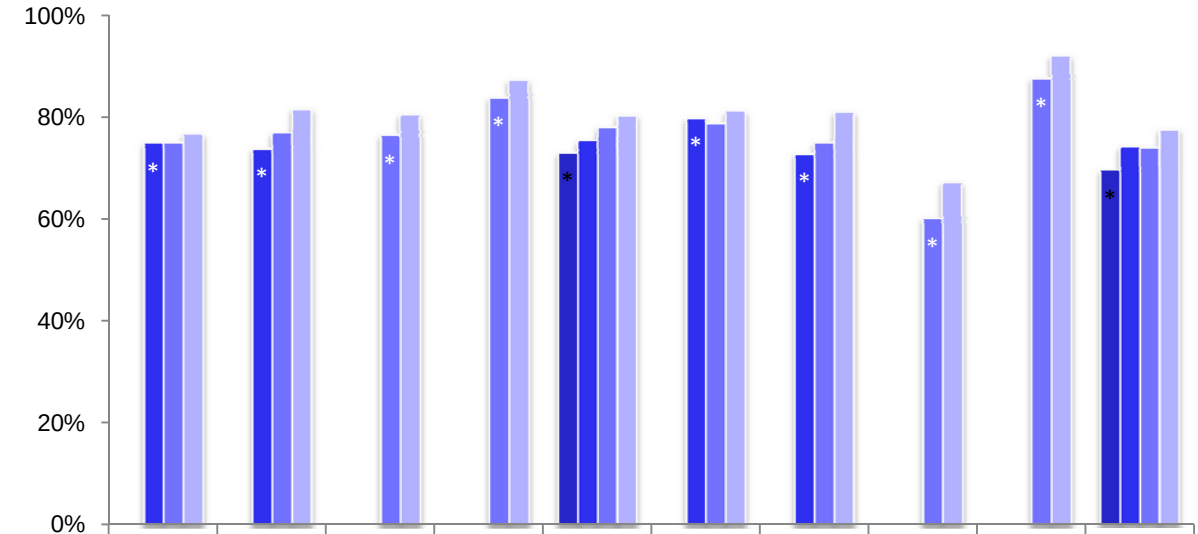
	Algebra I	Algebra II	Biology	Chemistry	Civics & Economics	English I	Geometry	Physical Science	Physics	US History
2005-06					154.3					154.4
2006-07	155.5	152.4			154.1	152.8	153.1			154.3
2007-08	155.7	154.0	153.8	154.8	155.1	153.3	154.8	150.4	154.3	154.7
2008-09	155.9	155.2	155.2	156.5	155.9	153.7	156.1	152.1	154.8	155.5

Note: Scale scores are not shown where the scales changed when new tests were introduced. Bars representing the introduction of a new edition of a test are marked with an asterisk ("*").

While average scale scores provide a more precise measurement of student performance, EOC test results are also typically reported as the percentage of students scoring "proficient." Students achieving a scale score that falls into the Levels III and IV range (Table 1) are considered proficient according to State Board of Education policy.

Figure 2 shows WCPSS proficiency results on each of the 10 EOCs since 2005-06. As shown in Figure 2, the percentage of WCPSS students scoring in Levels III or IV on EOC exams rose between 2007-08 and 2008-09 in each subject. Results were not available for Chemistry, Physical Science, and Physics in 2006-07, as those tests were taken offline that year, with new test editions implemented in 2007-08. Bars representing the introduction of a new edition of a test are marked with an asterisk ("*").

Figure 2
WCPSS EOC Proficiency Rates, 2005-06 to 2008-09



	Algebra I	Algebra II	Biology	Chemistry	Civcs & Economics	English I	Geometry	Physical Science	Physics	US History
2005-06					73.0%					69.6%
2006-07	74.9%	73.8%			75.4%	79.9%	72.8%			74.2%
2007-08	75.0%	76.9%	76.5%	83.8%	78.0%	78.8%	75.1%	60.1%	87.7%	74.1%
2008-09	76.7%	81.6%	80.5%	87.3%	80.4%	81.2%	81.0%	67.2%	92.1%	77.6%

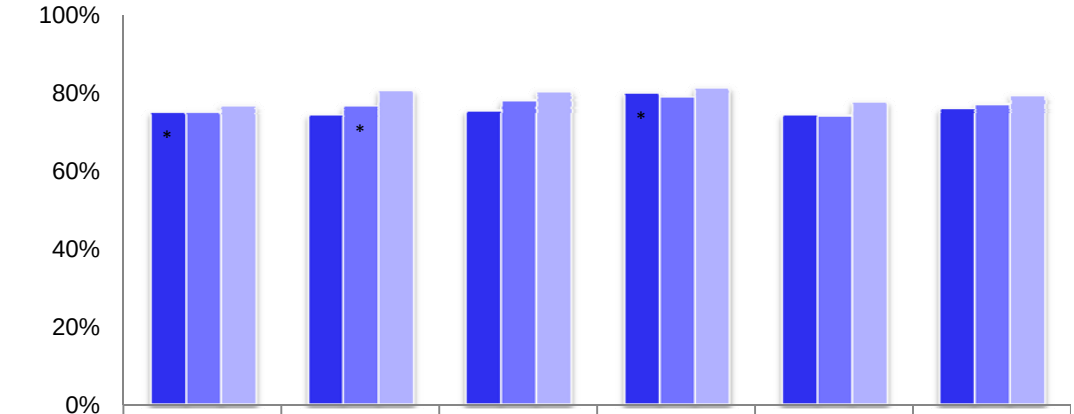
Note: Bars representing the introduction of a new edition of a test are marked with an asterisk ("*"). Blanks indicate years that no tests were administered for those subjects.

COMPOSITE EOC PERFORMANCE OVER TIME

Figure 3 details the trend in overall EOC performance by displaying the percentage of EOC scores at or above Level III across the five tests that are part of the state's high school exit standards policy. Beginning with the incoming 9th grade class of 2006-07 (i.e., the anticipated Spring 2010 graduating class), students are required to pass each of these five tests at some point during their high school careers in order to be eligible for a diploma. As such, these courses are taken by almost every student who completes high school, while the population of students who take the other five tests is often less representative of high school students as a whole.

Of the more than 50,000 exit standards EOC exams taken by WCPSS students in 2008-09, over 79% resulted in scores at or above Level III (Figure 3). This represented a slight increase for the second consecutive year.

Figure 3
WCPSS EOC Proficiency Across the Five Exit Standards Courses, 2006-07 to 2008-09



	Algebra I	Biology	Civics & Economics	English I	US History	Composite
2006-07	74.9%	74.2%	75.4%	79.9%	74.2%	75.9%
2007-08	75.0%	76.5%	78.0%	78.8%	74.1%	77.1%
2008-09	76.7%	80.5%	80.4%	81.2%	77.6%	79.3%

Note: Bars representing the introduction of a new edition of a test are marked with an asterisk ("*").

RESULTS BY SUBGROUP

Figures in Appendix A show the percentage of students who scored at or above Level III (i.e., proficient) on each EOC exam for various student subgroups. The figures in Appendix B show the scale score results for these same tests and subgroups. The results described in this section are based on the data in those figures. The proficiency gap, as we discuss it in this report, is the difference in the percentage of students scoring at Level III or IV (proficient) between the highest and lowest-performing subgroups on any one EOC test.

In this report, results for WCPSS's American Indian students are not discussed, even when we are making observations among all ethnic subgroups. American Indian students comprise a very small group, making comparisons unfeasible because results based on such a small group of students tend to fluctuate widely. Results for American Indian students are however included in the graphs in the appendices.

ETHNICITY

Large differences among ethnic groups are evident in both mean scale scores and the percentage of students scoring at Level III or IV on EOC tests. Similar to previous years, White and Asian students had the highest proficiency rates and mean scale scores on most exams in 2008-09. Black/African American students had the lowest proficiency rates and mean scale scores among all racial and ethnic groups on all tests except English I. The proficiency gap (i.e., the difference in the percentage of students scoring at Level III or IV) between Black/African American students and White students in 2008-09 varied by course, ranging from a low of 21.1 percentage points in Physics to 38.5 percentage points in Algebra I.

Changes in performance between 2007-08 and 2008-09 varied by group and by course, although most ethnic groups saw increases in both proficiency and average scale scores across the board. In particular, double-digit proficiency rate increases were seen among Hispanic/Latino students in Biology, Black/African-American students in Geometry and Physics, and Multiracial students in Physics.

STUDENTS WITH DISABILITIES (SWD)

Students with disabilities made gains in average scale scores and proficiency in all 10 EOC courses in 2008-09. The percentage of students with disabilities (SWD) scoring proficient was highest in Physics (94.7%), and surpassed 60% in three other subject areas: Geometry (66.3%), Algebra II (73.0%), and Chemistry (75.1%). The lowest proficiency rate for this group was in English I (50.2%). Average scale scores for the SWD subgroup increased in 2008-09 in every subject. For the first time since 1997-98—the first year that EOC tests became part of the NC statewide testing and accountability system—WCPSS proficiency rates for the SWD subgroup in 2008-09 were above 50% on all tests.

STUDENTS WITH LIMITED ENGLISH PROFICIENCY (LEP)

LEP students made gains in proficiency on all EOC tests in 2008-09 except Chemistry, and gains in average scale scores in every subject except Physics. The highest proficiency rate for LEP students in 2008-09 was in Physics (88.4%). The lowest proficiency rates were in Civics & Economics (48.2%) and English I (43.8%). One-year gains were greatest in Physical Science, where proficiency rates increased 13.6 percentage points.

STUDENTS ELIGIBLE FOR FREE OR REDUCED-PRICE LUNCH (FRL)

As was true for students with disabilities, FRL students also showed gains in average scale scores and proficiency on all 10 EOC tests in 2008-09. Gains in proficiency between 2007-08 and 2008-09 ranged from 3.9 percentage points in Chemistry to 17.7 in Physics. For the first time since 2003-04 - the first year that results were reported by FRL status in the state's testing program - all EOC proficiency rates for the WCPSS FRL subgroup in 2008-09 were above 50%.

PROFICIENCY TRENDS BY ETHNICITY - CORE COURSES

Algebra I

Proficiency percentages for Algebra I increased in 2008-09 for all ethnic groups except Multiracial students (Figure A1). Scores were highest for White (91.0%) and Asian students (92.1%). Overall increases between 2007-08 and 2008-09 were largest for Hispanic/Latino students (3.1 percentage points), followed by Asian (2.9) and Black/African American students (2.6). The proficiency gap between the highest group (Asian) and lowest (Black/African American) was 39.6 percentage points.

Biology[2]

Biology proficiency rates increased between 2007-08 and 2008-09 for all ethnic groups, with Hispanic/Latino students (10.5 percentage points) and Black/African American students (7.6) showing the largest gains. As in past years, White students (92.7%) and Asian students (92.4%) showed the highest overall proficiency rates. The largest proficiency gap was found between White students and Black/African American students (33.7 percentage points).

Civics & Economics

Unlike many of the other tests, the Civics & Economics test has remained unchanged since 2005-06. Therefore, we can accurately make more comparisons across testing years. Proficiency rates in Civics & Economics increased for all ethnic groups in 2008-09 (Figure A3). In fact, proficiency rates in Civics & Economics have increased every year since 2005-06 for all ethnic groups with the exceptions of Multiracial students in 2006-07 and Asian students in 2007-08. The largest gains between 2007-08 and 2008-09 were seen among Black/African American students (4.7 percentage points) and Asian students (3.1). The proficiency gap between the

[2] A new test for Biology was introduced in 2007-08, but it did not have the usual negative impact on scores observed with most new tests. Even so, comparisons should not be made to earlier years.

highest (Asian) and lowest (Black/African American) ethnic subgroups was 27 percentage points in 2008-09.

English I

Proficiency rates for English I increased for every ethnic subgroup in 2008-09 (Figure A4). The largest increase was seen among Hispanic/Latino students (5.7 percentage points), and the smallest increase was for White students (0.7). Asian and White students are the only ethnic subgroups with proficiency rates above 90%. The gap between the highest (White) and lowest (Hispanic/Latino) subgroups was 33 percentage points in 2008-09.

U.S. History

Like Civics & Economics, U.S. History is the other test that has not experienced any changes since 2005-06. Proficiency rates have risen in U.S. History for every ethnic group every year since 2005-06, with the exception of White students in 2007-08 and Multiracial students in 2008-09 (Figure A5). The largest gains in proficiency in 2008-09 were found among Hispanic/Latino students (8 percentage points) and White students (3.9). Since 2005-06, White students have had the highest U.S. History proficiency rates among all ethnic groups each year, ranging from 80.6% to a high of 89.1% in 2008-09. The gap between the highest performing (White students) and lowest performing (Black/African American) ethnic groups was 35.7 percentage points in 2008-09.

NON-CORE COURSES

Algebra II

Algebra II results also show improvement for all ethnic groups since the new test was introduced in 2006-07 (Figure A6). Increases in proficiency between 2007-08 and 2008-09 in particular were greatest for Black/African American students (9.2 percentage points) and lowest for Asian students (1.9 percentage points). Although a proficiency gap still exists between the highest (Asian) and lowest (Black/African American) ethnic subgroups in Algebra II, the gap has decreased by nearly 12 percentage points between 2006-07 and 2008-09.

Chemistry

A new test was introduced in 2007-08 for Chemistry (Figure A7). The percentage of students scoring at Level III or IV increased for all ethnic groups except Multiracial students, and surpassed 80% for all ethnic groups except Black/African-American. However, Black/African-American students showed the largest proficiency gain in 2008-09 (7.2 percentage points). The largest performance gap in 2008-09 was found between Asian and Black/African American students (26 percentage points).

Geometry

Proficiency rates for Geometry have increased each year among all ethnic groups since the most recent edition of the test was introduced in 2006-07 (Figure A8). Between 2007-08 and 2008-09 specifically, increases in proficiency rates were largest for Black/African American students (10 percentage points), and Multiracial students (8). The proficiency gap between the highest (Asian) and lowest-performing (Black/African American) ethnic groups in Geometry in 2008-09 was relatively large—34.6 percentage points—but was down from 46.2 percentage points in 2006-07.

Physical Science

A new test for Physical Science was implemented in 2007-08 (Figure A9). Only White students have had a proficiency rate at or above 75% in the past two years since the new test was introduced. The largest proficiency gains in 2008-09 were found among Black/African-American students (9.4 percentage points) and Hispanic/Latino students (8.8). The proficiency gap between the highest (White) and lowest-performing (Black/African American) ethnic groups in 2008-09 was 29 percentage points.

Physics

Physics was another course that had a new test introduced in 2007-08. Physics proficiency rates have historically been among the highest across the EOCs (Figure A10), in part because it is a course that is generally taken by a select group of higher-achieving students. All ethnic groups scored above 70% proficient in 2008-09, and all posted gains in proficiency rates. The largest gains were found among Black/African-American students (18.1 percentage points) and Multiracial students (14).

SUMMARY

End-of-Course (EOC) test results in WCPSS are showing some positive trends overall in recent years, and those trends largely either continued or accelerated in 2008-09. All 10 subjects showed proficiency gains in 2008-09, with the largest gains seen in Geometry and Physical Science. For the second consecutive year, proficiency rates and average scale scores increased across most subgroups on most tests in 2008-09. The fact that proficiency rates, as well as scale scores, are both increasing suggests that these improvements – measured both quantitatively (higher percentage of students at grade level) and qualitatively (increases in average scale scores) - are occurring across the entire spectrum of achievement.

With respect to performance between different subgroups, similar patterns exist on most EOC tests among ethnic groups, with Asian and White students continuing to outperform their peers regardless of the subject area. With respect to proficiency gaps, the introduction of new standards in some EOCs exacerbated the achievement gaps between ethnic groups, as highlighted in last year's report (Wake County Public Schools, 2009). However, many of those gaps are closing now, as the gains for Black/African-American and Hispanic/Latino students continue to outpace the gains among White and Asian students. In terms of other subgroups, students who are designated as limited English proficient, students with disabilities, and students eligible for free or reduced-price lunch are seeing their scores rise, and in most cases, those increases are larger than the overall increases at the system level, resulting in a closing of achievement gaps for those groups as well. For the first time in 2008-09, proficiency rates for students with disabilities and students eligible for free or reduced-price lunch were above 50% in every subject.

Over the past few years, the resetting of standards on EOC tests has caused some drops in proficiency rates (Wake County Public Schools, 2009). Results from the 2007-08 and 2008-09 school years suggest that WCPSS students are reclaiming the lost ground on many of those measures. This raising of standards clearly had an unequal impact on different subgroups of students, with those who had historically underperformed their peers being pushed even farther behind as these new assessments and standards have been adopted (Appendix A). Fortunately, many of these subgroups are also showing some of the biggest jumps in performance, thereby re-closing those gaps to some degree. However, the average scale scores on those core EOCs for those subgroups (Appendix B) remain in some cases right around the threshold for proficiency (Table 2), suggesting that the "average" student in those subgroups is still barely meeting the state's performance expectations.

Despite the gains in the past two years, current proficiency rates on some of these tests are still at or around 60% for several subgroups of students, including Hispanic/Latino students, Black/African American students, students with disabilities, students from lower-income backgrounds, and students with limited English proficiency. Since many of these same subgroups are the ones that are growing fastest in number and proportion in the WCPSS student population, it is imperative that progress for these groups continue to accelerate. EOC testing results are often used as one indicator of the extent to which high school students are being prepared for their future, whether that future involves postsecondary education or some other calling. The results of the past two years are certainly commendable and trending in the right

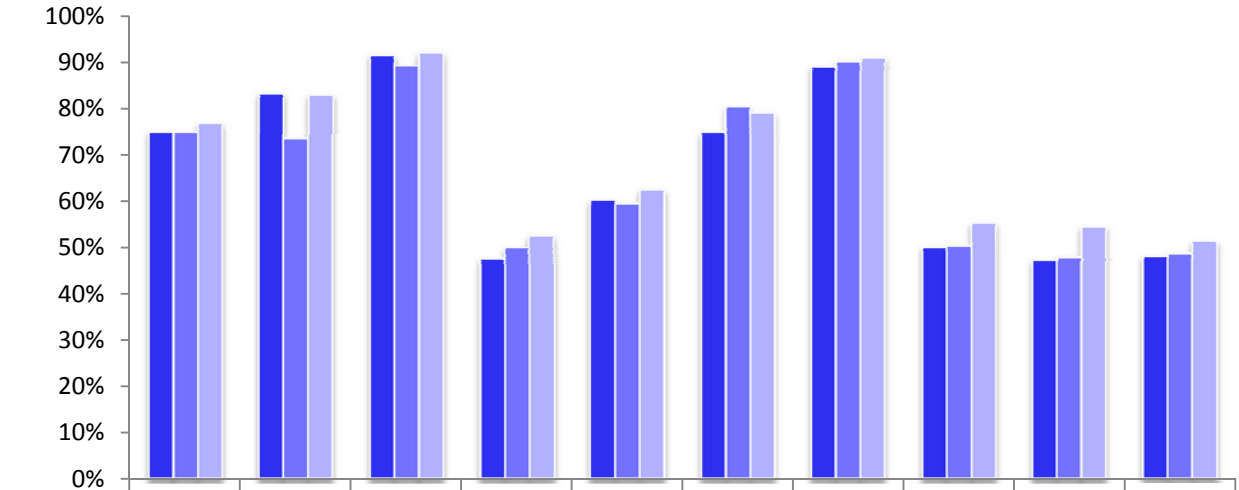
direction. However, success rates for these subgroups of students must continue to improve to ensure that students from all walks of life are leaving school with the tools they need to achieve their full potential.

REFERENCES

Wake County Public Schools. (2009). End-of-Course multiple choice test results: 2007-08. Raleigh, NC: Author. Available at http://www.wcpss.net/evaluation-research/reports/2009/0914eoc07-08.pdf.

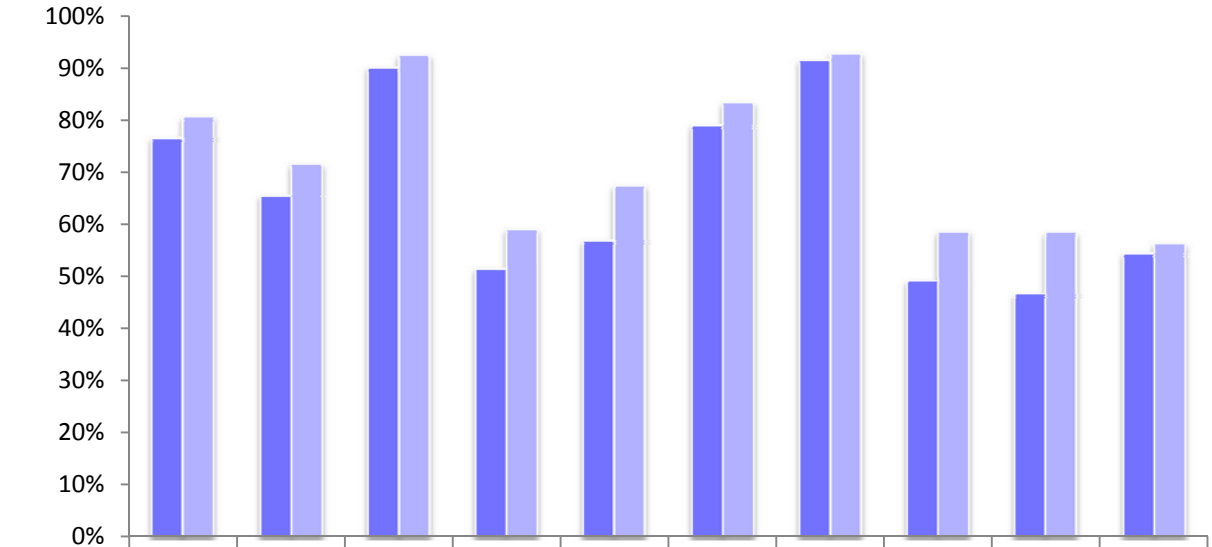
APPENDIX A

Figure A1
Proficiency Rates - Algebra I 2006-07 to 2008-09



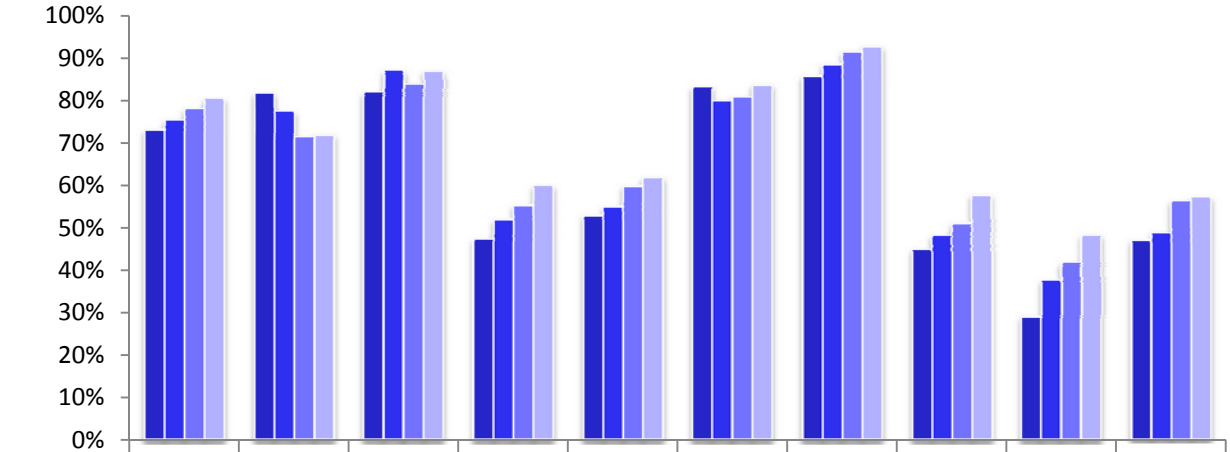
	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2006-07	74.9%	83.3%	91.6%	47.5%	60.1%	74.9%	89.1%	50.1%	47.2%	48.1%
2007-08	75.0%	73.5%	89.2%	49.9%	59.4%	80.3%	90.2%	50.3%	47.9%	48.6%
2008-09	76.7%	82.9%	92.1%	52.5%	62.5%	79.1%	91.0%	55.2%	54.5%	51.3%

Figure A2
Proficiency Rates - Biology 2007-08 to 2008-09



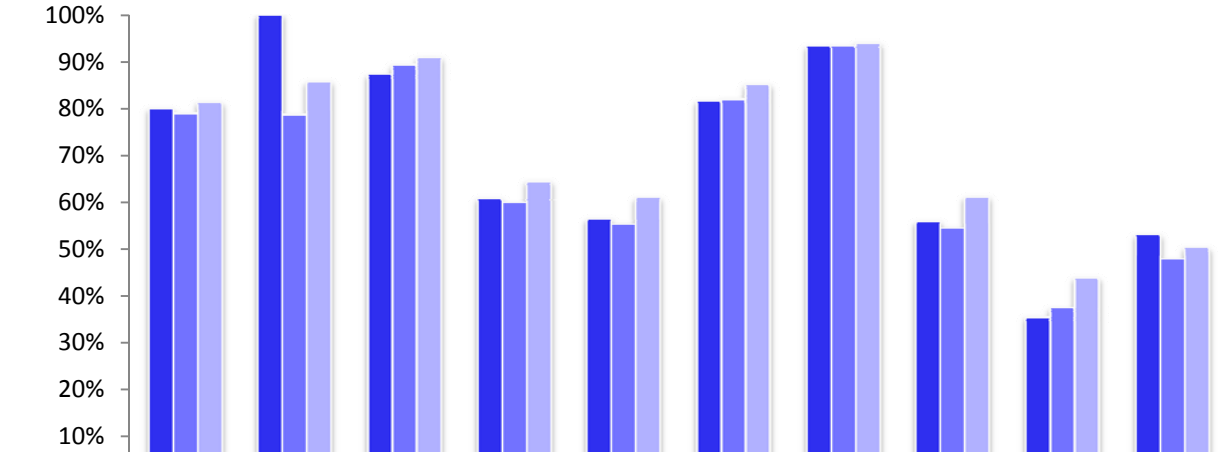
	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2007-08	76.5%	65.4%	90.0%	51.4%	56.8%	78.9%	91.4%	49.0%	46.5%	54.3%
2008-09	80.5%	71.4%	92.4%	59.0%	67.3%	83.2%	92.7%	58.5%	58.3%	56.2%

Figure A3
Proficiency Rates - Civics & Economics 2005-06 to 2008-09



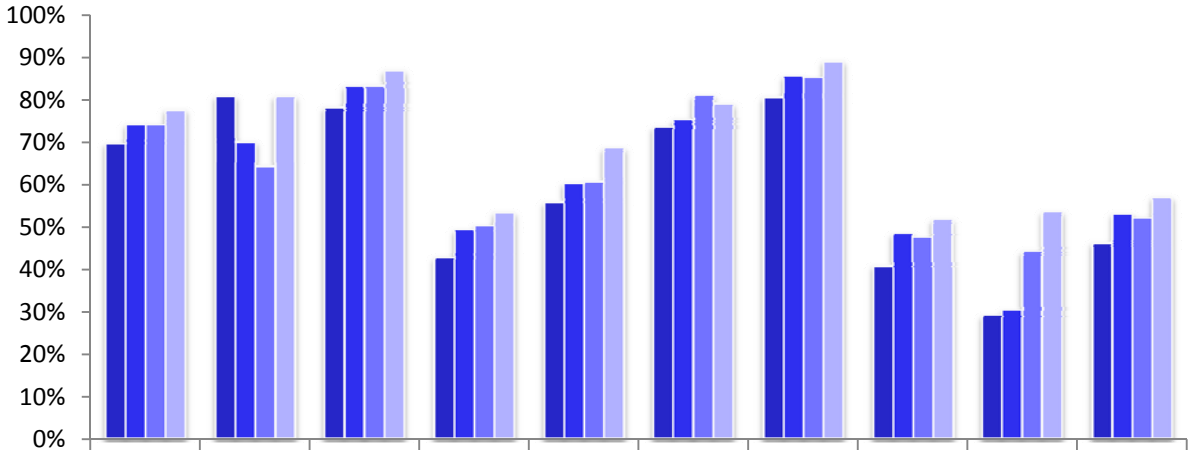
	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2005-06	73.0%	81.8%	81.9%	47.3%	52.9%	83.3%	85.7%	44.9%	29.0%	47.1%
2006-07	75.4%	77.4%	87.1%	51.9%	54.9%	79.9%	88.5%	48.1%	37.6%	48.8%
2007-08	78.0%	71.4%	83.8%	55.2%	59.8%	80.7%	91.5%	51.1%	41.8%	56.3%
2008-09	80.4%	71.9%	86.9%	59.9%	61.9%	83.7%	92.7%	57.7%	48.2%	57.2%

Figure A4
Proficiency Rates - English I 2006-07 to 2008-09



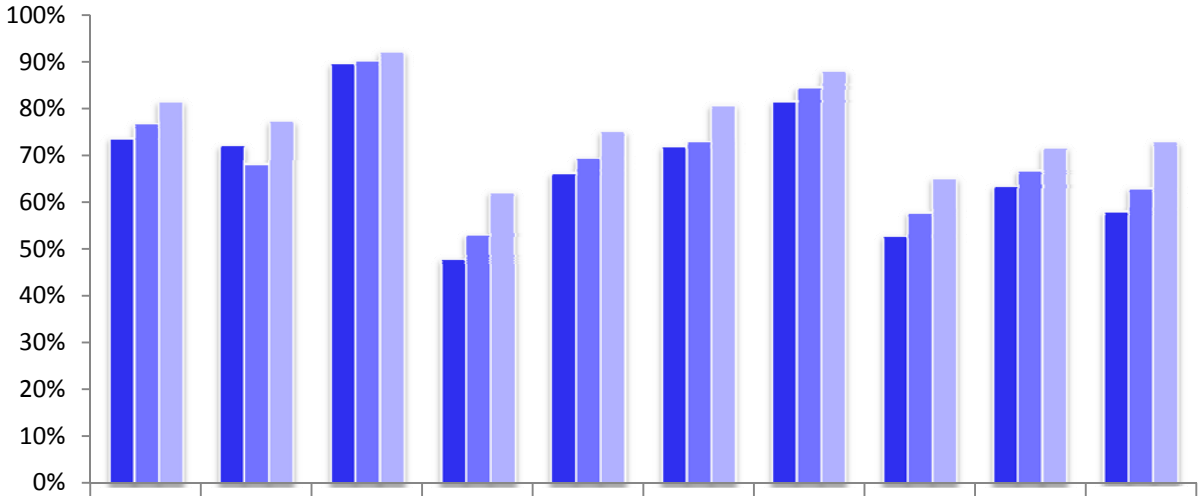
	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2006-07	79.9%	100.0%	87.2%	60.7%	56.3%	81.6%	93.2%	55.8%	35.4%	53.0%
2007-08	78.8%	78.6%	89.2%	59.8%	55.2%	81.9%	93.2%	54.4%	37.4%	47.8%
2008-09	81.2%	85.7%	90.8%	64.4%	60.9%	85.1%	93.9%	61.0%	43.8%	50.2%

Figure A5
Proficiency Rates - U.S. History 2005-06 to 2008-09



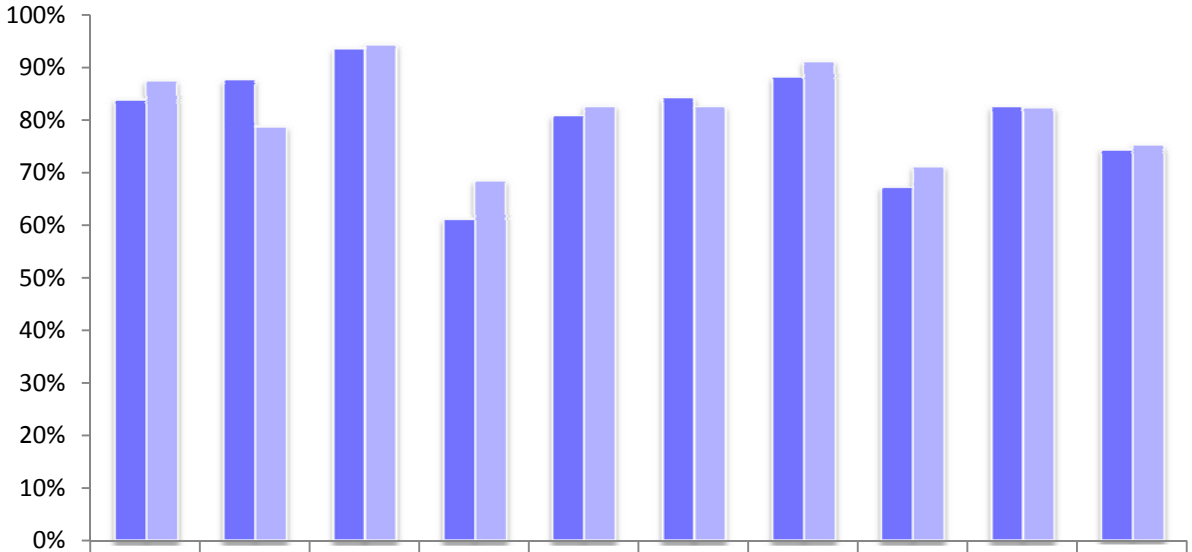
	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2005-06	69.6%	80.8%	78.2%	42.7%	55.8%	73.5%	80.6%	40.8%	29.1%	46.2%
2006-07	74.2%	70.0%	83.2%	49.3%	60.3%	75.3%	85.5%	48.4%	30.3%	53.1%
2007-08	74.1%	64.3%	83.3%	50.2%	60.6%	81.0%	85.2%	47.5%	44.2%	52.1%
2008-09	77.6%	80.8%	86.9%	53.4%	68.6%	79.0%	89.1%	51.7%	53.5%	56.9%

Figure A6
Proficiency Rates - Algebra II 2006-07 to 2008-09



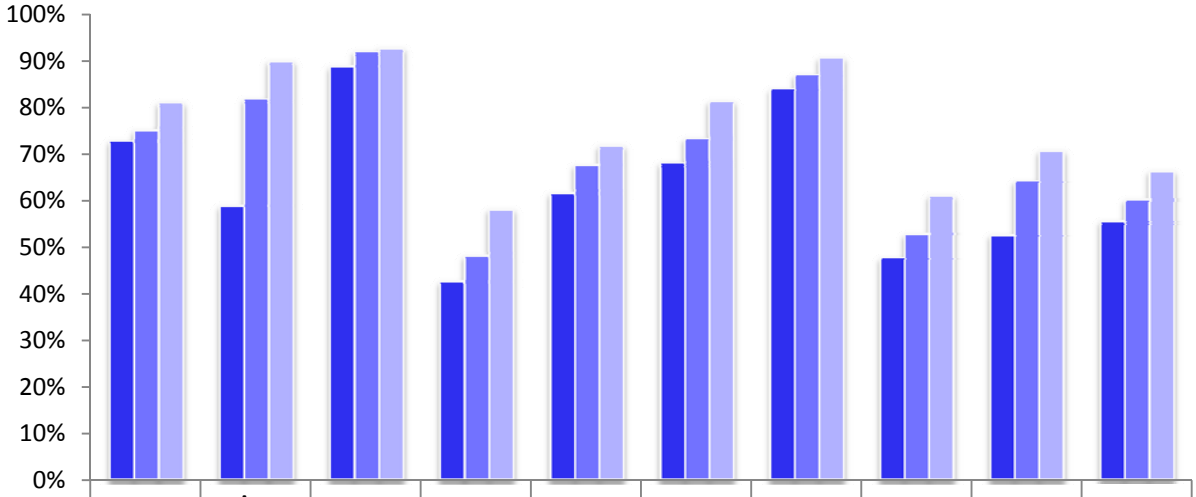
	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2006-07	73.8%	72.2%	89.7%	47.9%	66.3%	72.0%	81.6%	52.8%	63.5%	58.2%
2007-08	76.9%	68.2%	90.3%	53.1%	69.5%	73.0%	84.6%	57.9%	66.9%	63.1%
2008-09	81.6%	77.4%	92.2%	62.3%	75.2%	80.9%	88.1%	65.2%	71.8%	73.0%

Figure A7
Proficiency Rates - Chemistry 2007-08 to 2008-09



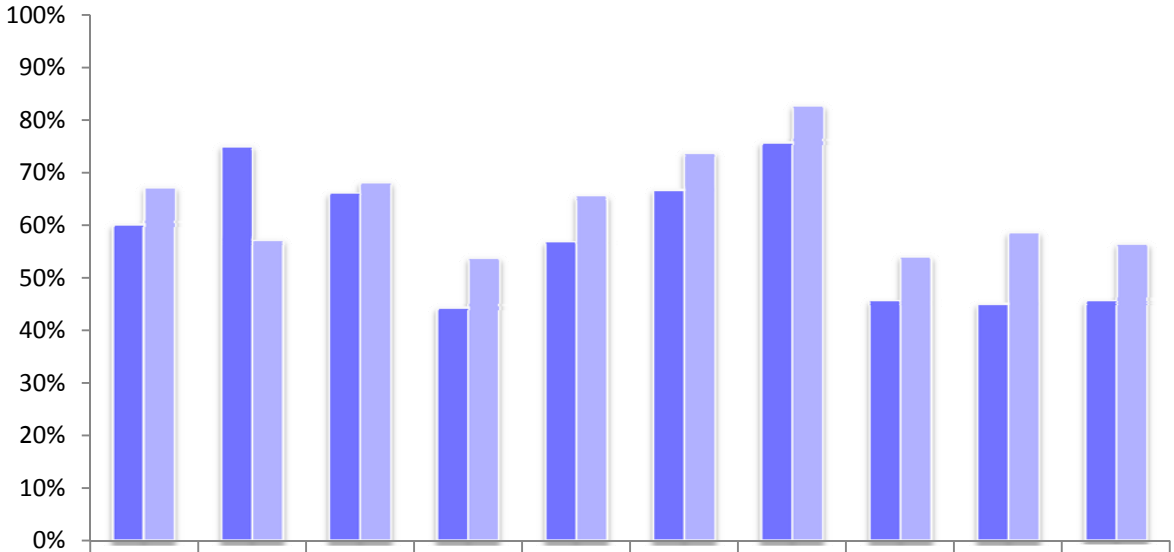
	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2007-08	83.8%	87.5%	93.5%	61.1%	80.7%	84.1%	88.0%	67.1%	82.4%	74.3%
2008-09	87.3%	78.6%	94.3%	68.3%	82.6%	82.4%	91.1%	71.0%	82.2%	75.1%

Figure A8
Proficiency Rates - Geometry 2006-07 to 2008-09



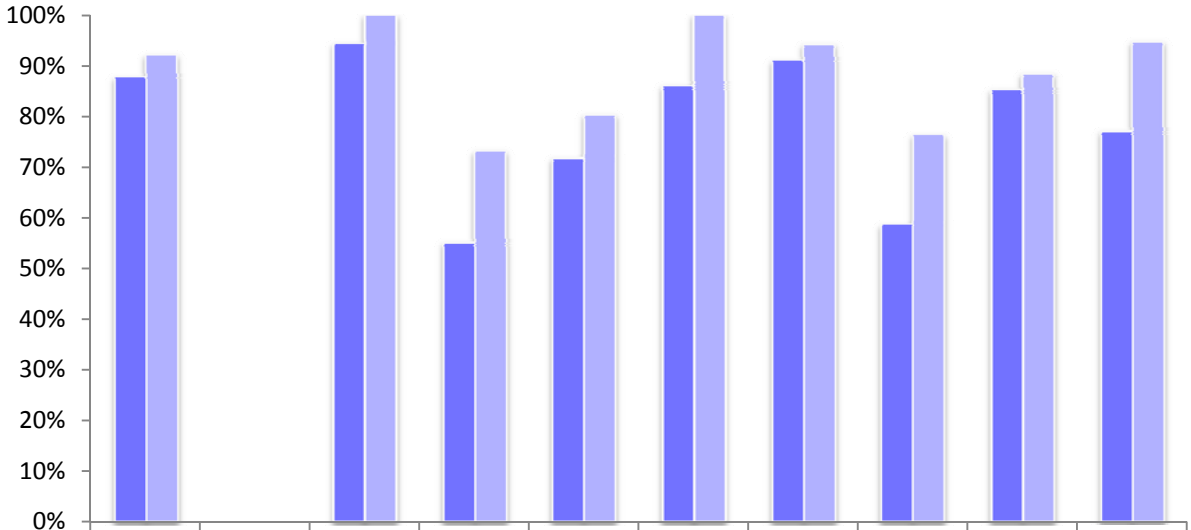
	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2006-07	72.8%	58.8%	88.8%	42.6%	61.6%	68.1%	84.0%	47.7%	52.6%	55.6%
2007-08	75.1%	81.8%	92.0%	48.1%	67.6%	73.3%	87.0%	52.8%	64.2%	60.2%
2008-09	81.0%	90.0%	92.7%	58.1%	71.8%	81.3%	90.7%	61.1%	70.7%	66.3%

Figure A9
Proficiency Rates - Physical Science 2007-08 to 2008-09



	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2007-08	60.1%	75.0%	66.1%	44.3%	56.8%	66.7%	75.7%	45.6%	45.0%	45.6%
2008-09	67.2%	57.1%	68.1%	53.7%	65.6%	73.8%	82.7%	54.0%	58.6%	56.4%

Figure A10
Proficiency Rates - Physics 2007-08 to 2008-09

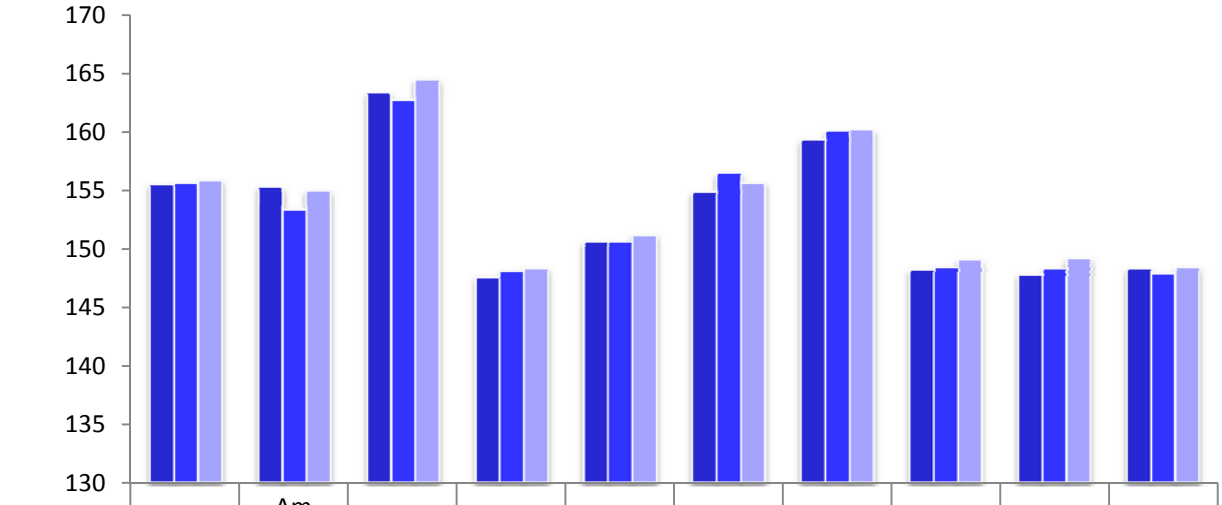


	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2007-08	87.7%		94.3%	55.0%	71.7%	86.0%	91.0%	58.6%	85.2%	77.0%
2008-09	92.1%		100.0%	73.1%	80.3%	100.0%	94.2%	76.3%	88.4%	94.7%

Note: The number of American Indian students taking this test was not large enough to report.

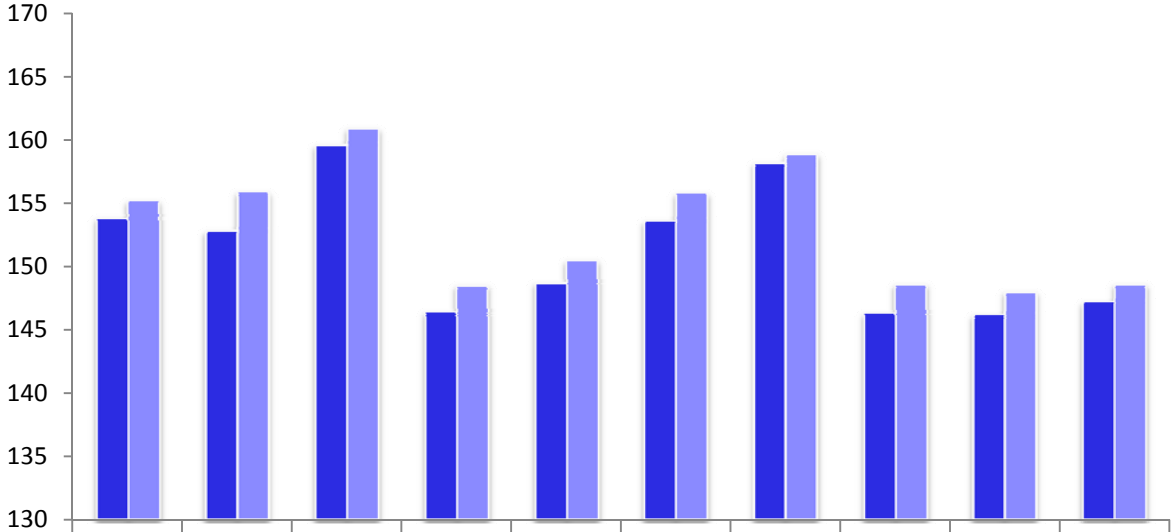
APPENDIX B

Figure B1
End-of-Course Average Scale Scores - Algebra I 2006-07 to 2008-09



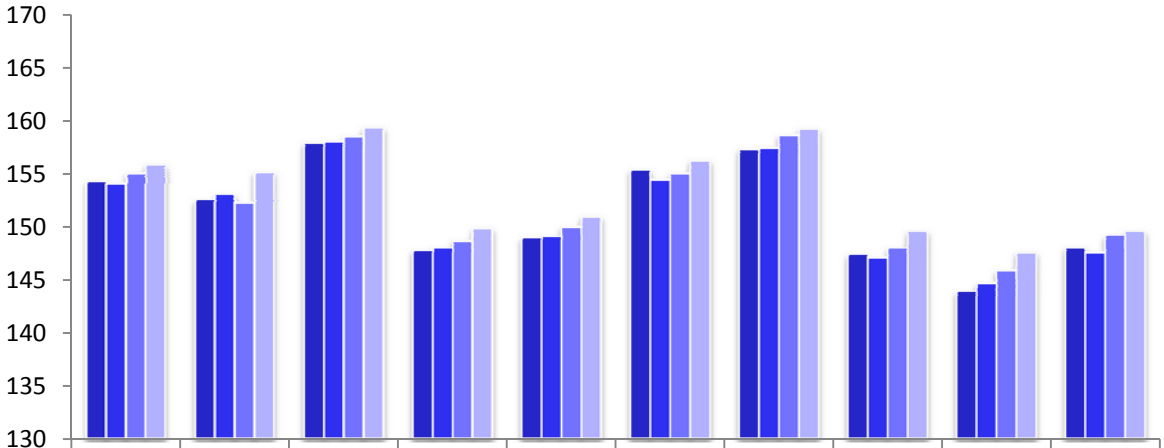
	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2006-07	155.5	155.3	163.4	147.6	150.6	154.9	159.4	148.2	147.8	148.3
2007-08	155.7	153.4	162.8	148.1	150.6	156.5	160.1	148.4	148.3	147.9
2008-09	155.9	155.0	164.5	148.3	151.2	155.7	160.2	149.1	149.2	148.4

Figure B2
End-of-Course Average Scale Scores – Biology 2007-08 to 2008-09



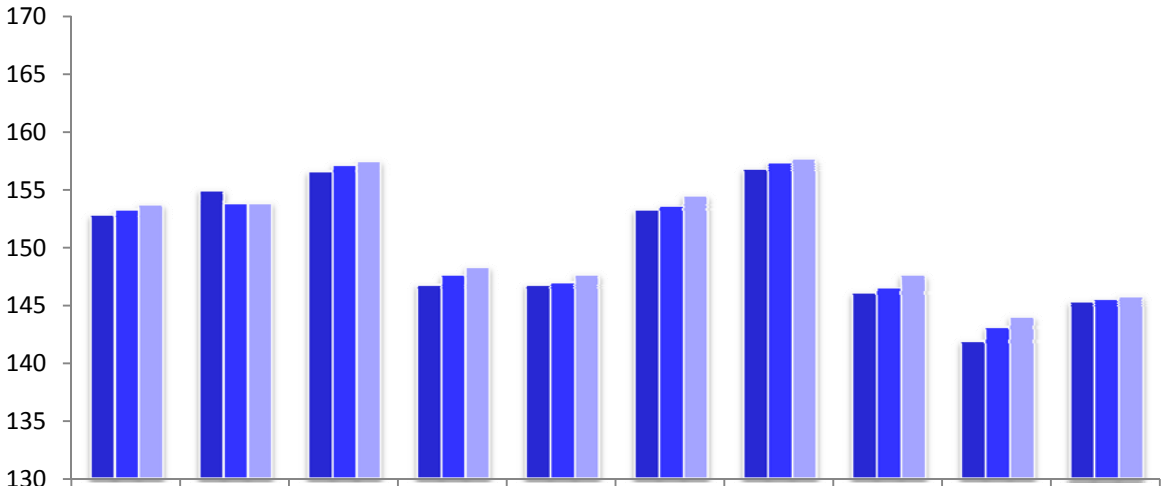
	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2007-08	153.8	152.8	159.6	146.4	148.7	153.6	158.2	146.3	146.2	147.2
2008-09	155.2	155.9	160.9	148.5	150.5	155.8	158.9	148.6	148.0	148.6

Figure B3
End-of-Course Average Scale Scores - Civics & Economics 2005-06 to 2008-09



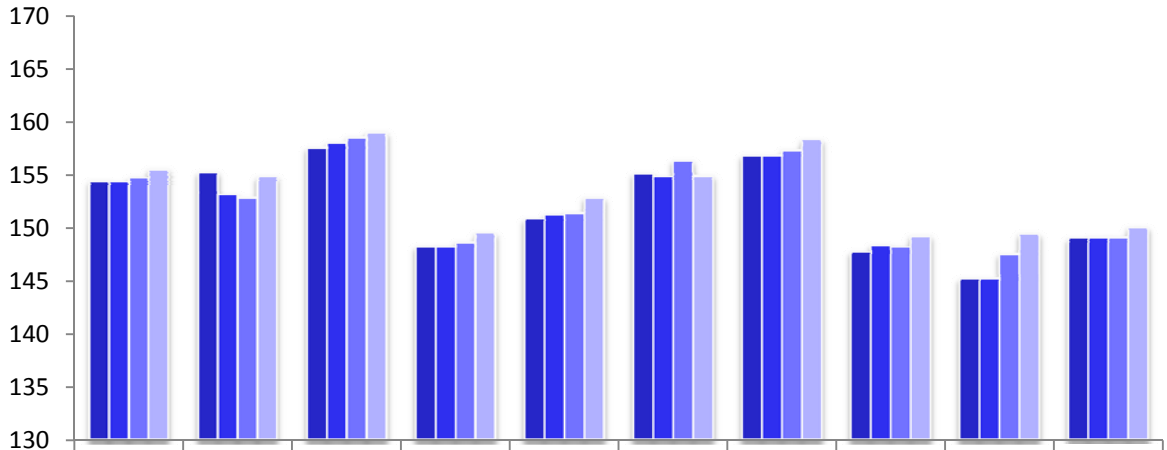
	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2005-06	154.3	152.6	158.0	147.8	149.0	155.4	157.4	147.4	143.9	148.1
2006-07	154.1	153.1	158.1	148.0	149.1	154.5	157.5	147.1	144.7	147.6
2007-08	155.1	152.3	158.6	148.7	150.0	155.1	158.7	148.0	145.9	149.2
2008-09	155.9	155.2	159.4	149.9	151.0	156.3	159.3	149.6	147.6	149.6

Figure B4
End-of-Course Average Scale Scores - English I 2006-07 to 2008-09



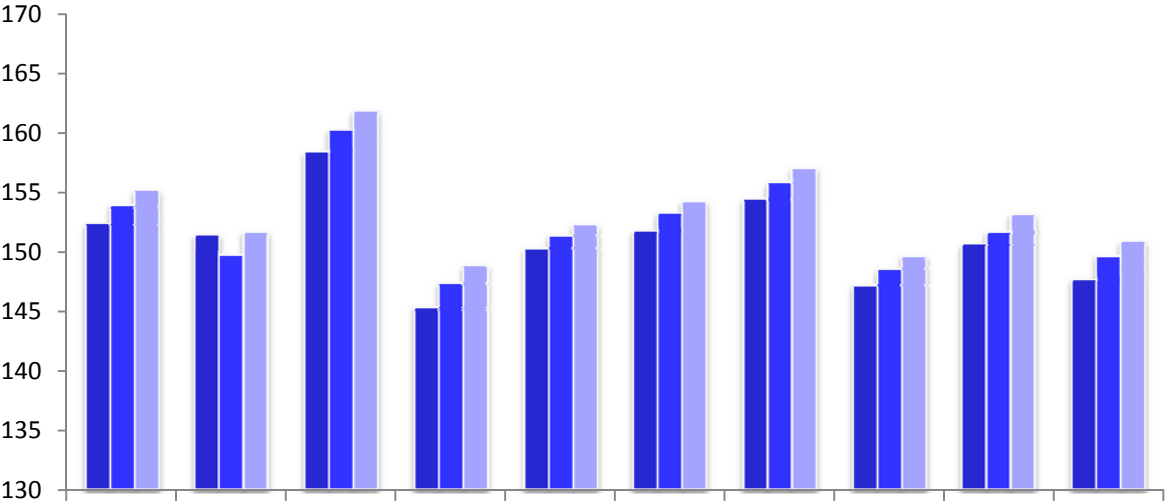
	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2006-07	152.8	155.0	156.6	146.8	146.8	153.3	156.8	146.1	141.9	145.3
2007-08	153.3	153.8	157.2	147.6	147.0	153.6	157.4	146.5	143.1	145.5
2008-09	153.7	153.9	157.5	148.3	147.7	154.5	157.7	147.6	144.0	145.8

Figure B5
End-of-Course Average Scale Scores - U.S. History 2005-06 to 2008-09



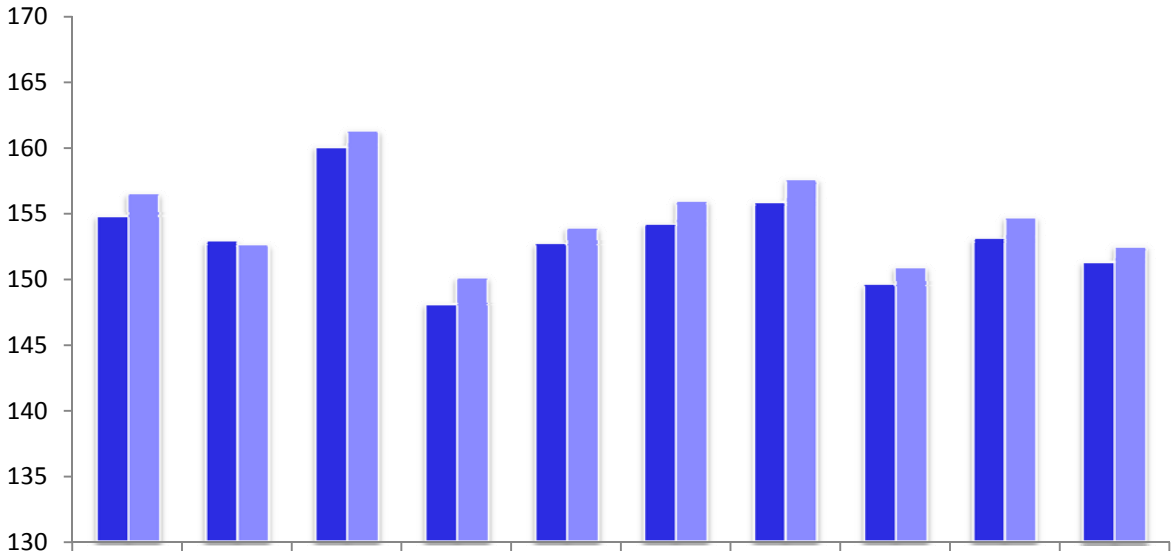
	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2005-06	154.4	155.2	157.5	148.2	150.8	155.1	156.8	147.7	145.2	149.0
2006-07	154.3	153.1	158.0	148.2	151.2	154.8	156.8	148.3	145.2	149.1
2007-08	154.7	152.8	158.5	148.6	151.4	156.3	157.3	148.2	147.5	149.1
2008-09	155.5	154.8	159.0	149.5	152.8	154.9	158.3	149.2	149.4	150.0

Figure B6
End-of-Course Average Scale Scores - Algebra II 2006-07 to 2008-09



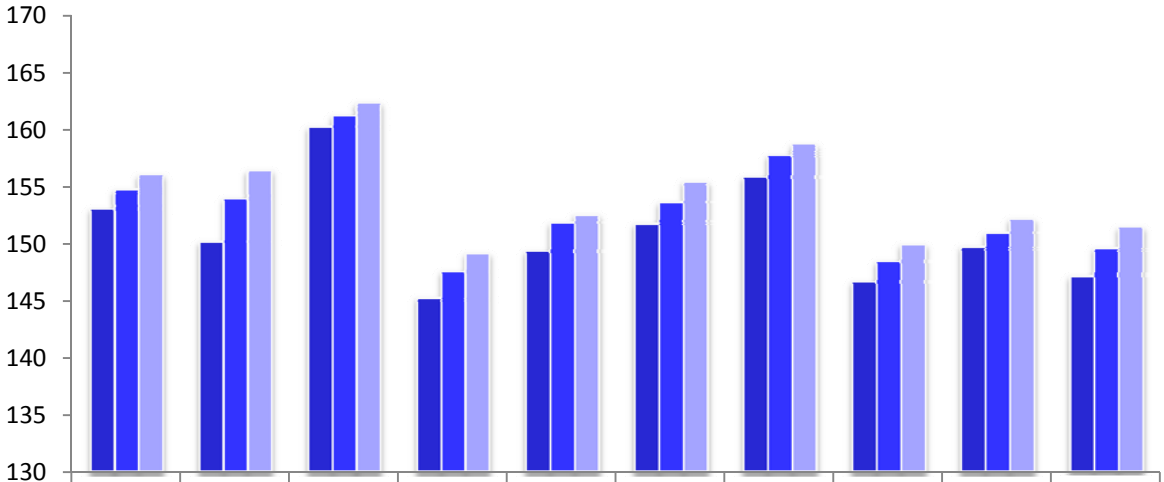
	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2006-07	152.4	151.5	158.5	145.4	150.3	151.8	154.5	147.2	150.7	147.7
2007-08	154.0	149.8	160.3	147.4	151.4	153.3	155.9	148.6	151.7	149.7
2008-09	155.2	151.7	161.9	148.9	152.3	154.3	157.1	149.7	153.2	150.9

Figure B7
End-of-Course Average Scale Scores - Chemistry 2007-08 to 2008-09



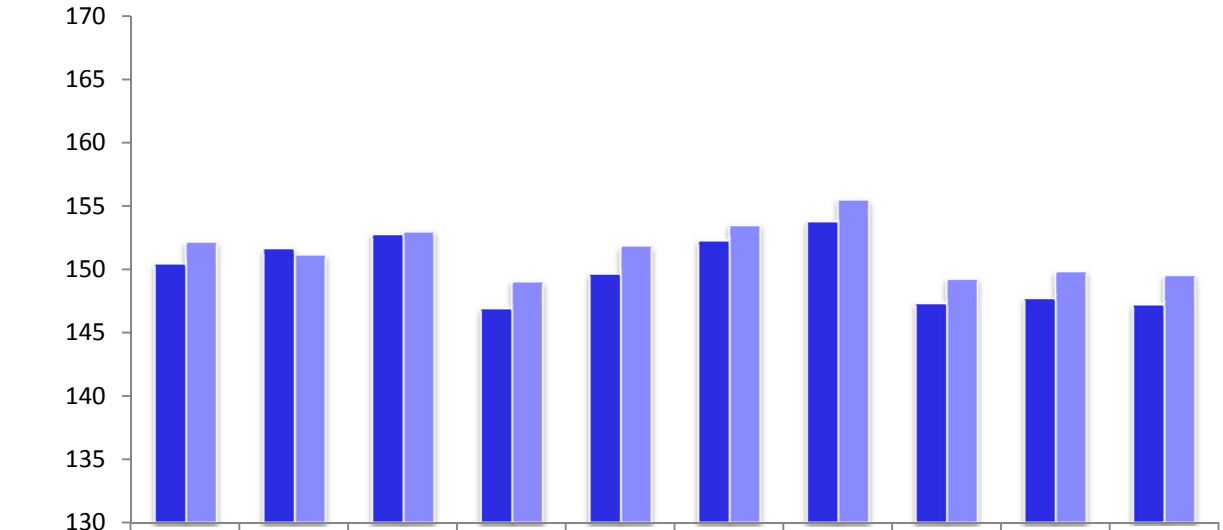
	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2007-08	154.8	152.9	160.1	148.1	152.7	154.2	155.9	149.6	153.1	151.3
2008-09	156.5	152.6	161.3	150.1	153.9	156.0	157.6	150.9	154.7	152.5

Figure B8
End-of-Course Average Scale Scores - Geometry 2006-07 to 2008-09



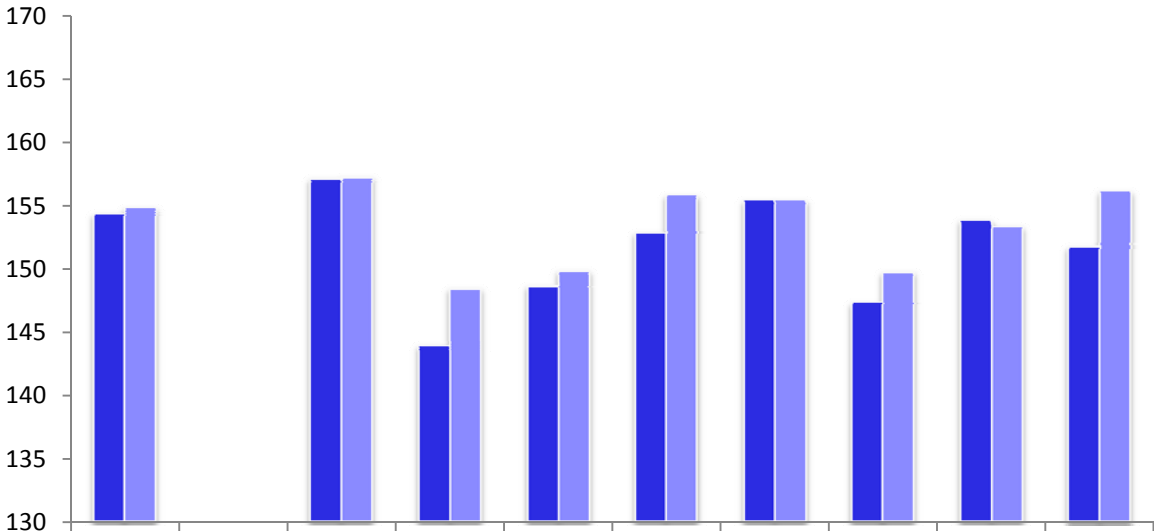
	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2006-07	153.1	150.2	160.3	145.3	149.4	151.8	155.9	146.7	149.8	147.2
2007-08	154.8	154.0	161.3	147.6	151.9	153.7	157.8	148.5	151.0	149.7
2008-09	156.1	156.5	162.4	149.2	152.6	155.5	158.8	150.0	152.2	151.5

Figure B9
End-of-Course Average Scale Scores - Physical Science 2007-08 to 2008-09



	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2007-08	150.4	151.6	152.8	146.9	149.6	152.3	153.8	147.3	147.7	147.2
2008-09	152.1	151.1	153.0	149.0	151.8	153.5	155.5	149.2	149.8	149.5

Figure B10
End-of-Course Average Scale Scores – Physics 2007-08 to 2008-09



	All	Am Indian	Asian	Black	Hispanic	Multi	White	FRL	LEP	SWD
2007-08	154.3		157.1	143.9	148.6	152.8	155.4	147.3	153.8	151.7
2008-09	154.8		157.2	148.4	149.8	155.8	155.4	149.7	153.3	156.1

Note: The number of American Indian students taking this test was not large enough to report.