MEASURING UP
WAKE COUNTY PUBLIC SCHOOL SYSTEM
EVALUATION AND RESEARCH DEPARTMENT

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END-OF-COURSE MULTIPLE-CHOICE TEST RESULTS, 2004-05

Authors: Brad McMillen, Glenda Haynie, and Chuck Dulaney

ABSTRACT

End-of-Course (EOC) test results in the Wake County Public School System (WCPSS) for 2004-05 remained largely unchanged from 2003-04. Average scale scores rose slightly in four subjects and dropped slightly in three others. The percentage of students scoring proficient (Level III or IV) dropped slightly in six subjects and rose slightly in two others. Proficiency rates exceeded 85% in Algebra I, Algebra II, English I, Chemistry, and Physics. Physical Science had the lowest proficiency rate (67.2%) but showed the largest improvement for the second consecutive year. Significant gaps remain among various student subgroups based on factors such as ethnicity, disability status, and family income. Among ethnic groups, Black/African American students have demonstrated the largest proficiency gains on six of the eight EOC tests since 1998-99.

BACKGROUND

The North Carolina Department of Public Instruction (NCDPI) requires that all schools administer End-of-Course (EOC) tests to students enrolled in eight courses usually taken in high school. The 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, and Physics) and use a multiple-choice format. NCDPI has recently revised the U.S. History curriculum and its associated EOC test, and a new Civics and Economics course has also been added this year. EOC tests in these subjects will be given for the first time in 2005-06, bringing the total number of EOC tests in the state's accountability program to ten. The results in this document focus on the eight tests given in 2004-05.

Under the state's ABCs of Public Education accountability program, targets for average EOC scores are established for each school. The tests must be given during the last two weeks of the course. Results are then used for state accountability programs.

Key Topics

Student performance on EOC multiple-choice tests is measured by both a scale score and an achievement level. There are four broad 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 eight EOC tests administered in 2004-05.

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.

Table 2
EOC Achievement Levels by Scale Score Ranges

	Level I	Level II	Level III	Level IV
Algebra I	31-44	45-54	55-65	66-96
Algebra II	33-45	46-57	58-68	69-102
Biology	28-46	47-54	55-64	65-85
Chemistry	31-47	48-55	56-64	65-90
English I	28-42	43-51	52-60	61-82
Geometry	32-45	46-56	57-66	67-93
Physics	23-42	43-51	52-62	63-91
Physical Science	30-43	44-53	54-63	64-86

Impact of Block Schedule

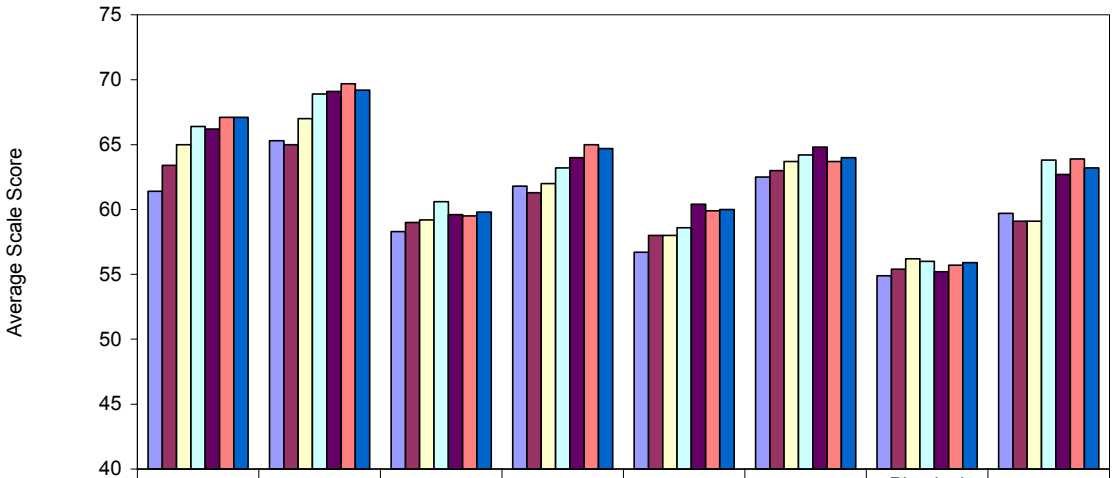
Prior to districtwide implementation of a 4x4 block schedule in WCPSS high schools in 2003-04, very few students took two EOC tests in the same subject in the same school in one year. (Note: Southeast Raleigh High School and Fuquay-Varina High School implemented block schedules earlier than other schools.) In 2003-04, approximately 430 students took an EOC course and test in the fall block, and retook the same course and test in the spring block at the same school. If the students did not change schools, only the second score was included for analysis in this report in order to be consistent with state reporting. If a student changed schools from fall block to spring block, both test scores were reported as required by the ABCs accountability program.

OVERALL RESULTS[1]

MEAN SCALE SCORES

As shown in Figure 1, average EOC scale scores rose slightly in 2004-05 in Geometry, Biology, Physical Science, and English I. Average scale scores fell slightly in Algebra II, Chemistry, and Physics, and were unchanged in Algebra I.

Figure 1
EOC Mean Scale Scores, 1998-99 to 2004-05



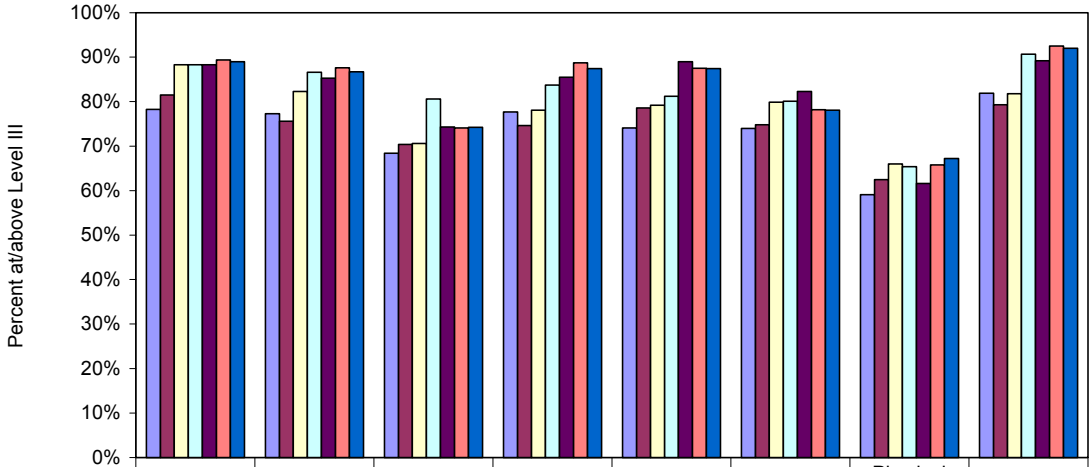
	Algebra I	Algebra II	Biology	Chemistry	English I	Geometry	Physical Science	Physics
1998-99	61.4	65.3	58.3	61.8	56.7	62.5	54.9	59.7
1999-00	63.4	65.0	59.0	61.3	58.0	63.0	55.4	59.1
2000-01	65.0	67.0	59.2	62.0	58.0	63.7	56.2	59.1
2001-02	66.4	68.9	60.6	63.2	58.6	64.2	56.0	63.8
2002-03	66.2	69.1	59.6	64.0	60.4	64.8	55.2	62.7
2003-04	67.1	69.7	59.5	65.0	59.9	63.7	55.7	63.9
2004-05	67.1	69.2	59.8	64.7	60.0	64.0	55.9	63.2

ACHIEVEMENT LEVEL RESULTS

Students scoring in Levels III and IV are considered to have consistently demonstrated mastery of course subject matter and skills. The percentage of students scoring at Levels III or IV on EOC exams showed little change from the previous year, as shown in Figure 2. The distribution of scores across all four achievement levels for each of the eight EOC tests shows that the percentage of scores at Level IV varied widely among subjects, ranging from a high of 56.5% in Algebra I to a low of 10% in Physical Science (Figure 3).

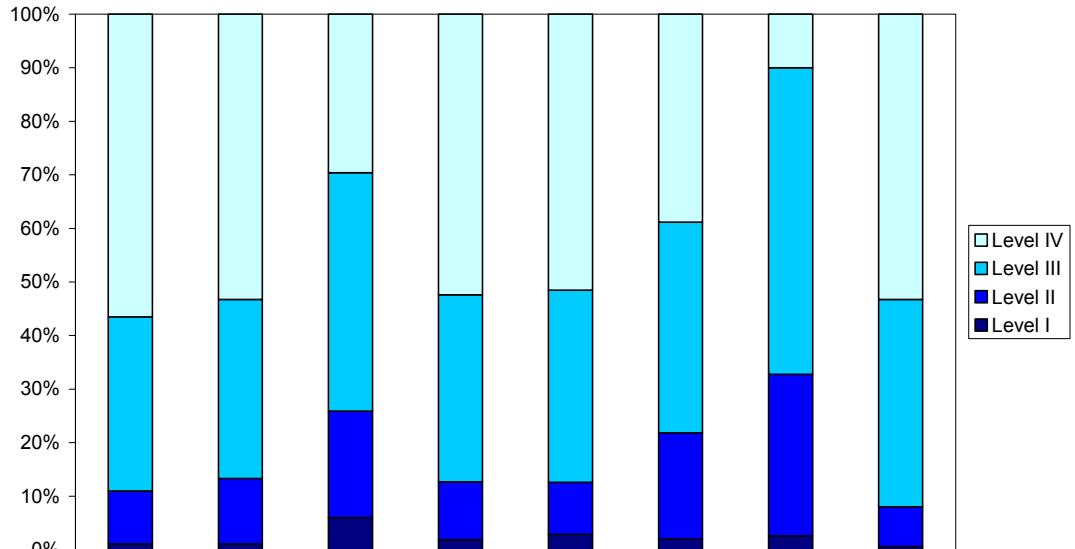
[1] All data in this report are consistent with the state data reported at http://www.ncpublicschools.org/accountability/reporting/leaperformancearchive/ where possible. Whenever a data point was not available from that site, the data were calculated internally by WCPSS.

Figure 2
Percentage of Students Scoring at or above Level III, 1998-99 to 2004-05



	Algebra I	Algebra II	Biology	Chemistry	English I	Geometry	Physical Science	Physics
1998-99	78.3%	77.3%	68.4%	77.7%	74.1%	74.0%	59.1%	81.9%
1999-00	81.5%	75.6%	70.4%	74.6%	78.6%	74.8%	62.5%	79.3%
2000-01	88.3%	82.3%	70.6%	78.1%	79.2%	79.9%	66.0%	81.8%
2001-02	88.3%	86.6%	80.6%	83.7%	81.2%	80.1%	65.4%	90.7%
2002-03	88.3%	85.3%	74.3%	85.5%	89.0%	82.3%	61.6%	89.2%
2003-04	89.4%	87.6%	74.1%	88.7%	87.5%	78.2%	65.8%	92.5%
2004-05	89.0%	86.7%	74.2%	87.4%	87.4%	78.1%	67.2%	92.0%

Figure 3
Percentage of Scores by Achievement Level, 2004-05



	Algebra I	Algebra II	Biology	Chemistry	English I	Geometry	Physical Science	Physics
Level IV	56.5%	53.2%	29.6%	52.4%	51.5%	38.8%	10.0%	53.2%
Level III	32.5%	33.4%	44.5%	34.9%	35.9%	39.3%	57.3%	38.7%
Level II	9.9%	12.2%	19.9%	10.8%	9.7%	19.8%	30.2%	7.4%
Level I	1.1%	1.1%	6.0%	1.9%	2.9%	2.0%	2.6%	0.6%

COMPOSITE EOC PERFORMANCE OVER TIME

Figure 4 details the trend in overall EOC performance by displaying the percentage of EOC scores at or above Level III across all eight of the tests that were given in 2004-05. Other EOCs which were given in years prior to 2004-05 (i.e., U. S. History and Economic, Legal, and Political Systems) are not included to allow for comparability across years. Of the 49,450 EOC exams taken by WCPSS students in 2004-05, 83% resulted in scores at or above Level III. Although this figure has remained largely unchanged for the past four years, the percentage of scores in the Level IV range increased for the seventh straight year in 2004-05 (Figure 5).

Figure 4
Percentage of Scores at or above Level III across Eight EOCs, 1998-99 to 2004-05

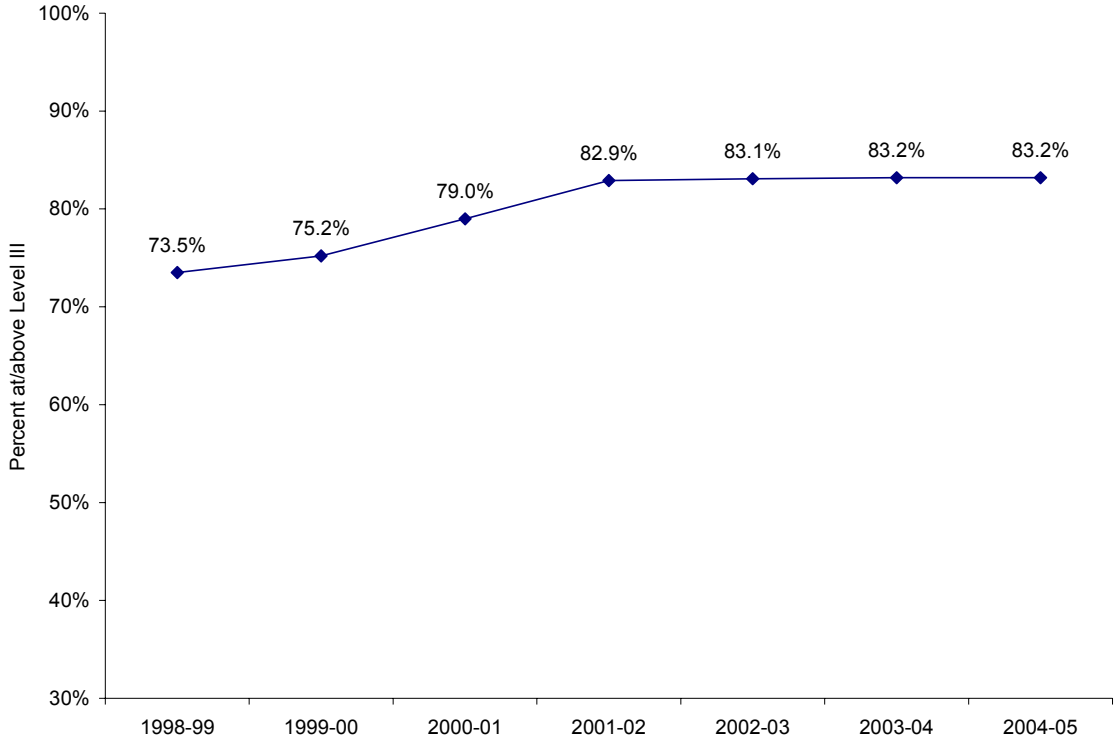
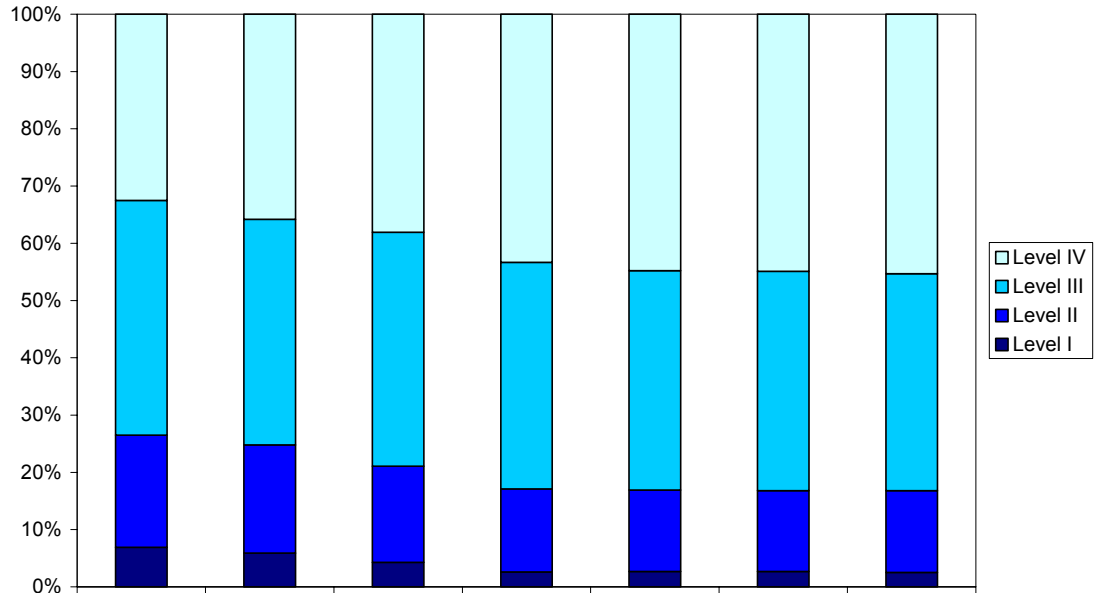


Figure 5
Percentage of Scores by Achievement Level across Eight EOCs, 1998-99 to 2004-05



	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Level IV	32.5%	35.8%	38.1%	43.3%	44.8%	44.9%	45.3%
Level III	41.0%	39.4%	40.9%	39.5%	38.3%	38.3%	37.9%
Level II	19.6%	18.9%	16.8%	14.5%	14.2%	14.1%	14.3%
Level I	6.9%	5.9%	4.3%	2.6%	2.7%	2.7%	2.5%

RESULTS BY SUBGROUP

Tables 3 and 4 in Appendix A show the percentage of students who scored at or above Level III (i.e., proficient) and the mean scale scores on each EOC exam in 2004-05 for 15 disaggregated groups. Summary data for the previous year is presented in Appendix A, Tables 5 and 6. The results described in this section are based on the data in Tables 3 through 6.

GENDER

Female students were more likely than male students to score proficient in 2004-05 in both Algebra I and English I, but male students had higher proficiency rates in all other subjects. This pattern of results is identical to the results for 2003-04. The largest proficiency differences between the two groups in 2004-05 occurred in Physical Science (6.7 percentage points higher for male students) and English I (6.2 points higher for female students). With respect to mean scale scores, male students posted higher means in all subjects in 2004-05 except English I.

ETHNICITY

Large differences among racial and 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

students, and Asian students had the highest proficiency percentages and mean scale scores in 2004-05. White students achieved their highest proficiency percentage on the English I exam (95.8%), while the highest proficiency level for Asian students was in Chemistry (95.8%).

Black/African American students had the lowest proficiency percentages and mean scale scores among all racial and ethnic groups on six of the eight tested subjects. 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 2004-05 varied by course, ranging from a low of 18 percentage points in Physics to nearly 41 percentage points in Biology.

Changes in proficiency rates by ethnic group varied by group and by course. The percentage of Black/African American students scoring proficient increased slightly in five out of eight EOC tests: Algebra I, English I, Biology, Geometry, and Physical Science. The percentage of White students scoring proficient increased slightly on three out of the eight tests: Biology, English I, and Geometry. For longitudinal data on EOC achievement levels disaggregated by ethnicity, see Figures 6 through 13.

STUDENTS WITH DISABILITIES (SWD)[2]

The percentage of students with disabilities (SWD) scoring proficient was highest in Physics (82.3%), and surpassed 70% in three other subject areas: Algebra I (74.9%), Algebra II (76.6%), and Chemistry (76.0%). The lowest proficiency rate for this group was in Biology (47.2%), a subject that is among the lowest-scoring exams for most other student subgroups as well.

Similar to 2003-04, the difference in proficiency rates between students with and without disabilities was largest in Biology (30.7 percentage points) and English I (29.3). Biology and Physical Science were the only two EOC tests on which the proficiency rate for students with disabilities increased in 2004-05.

STUDENTS WITH LIMITED ENGLISH PROFICIENCY (LEP)

The highest proficiency rate for LEP students in 2004-05 was in Physics (81.8%). The lowest proficiency rates were in Biology (28.9%) and English I (29.5%). Algebra I was the only course in which LEP students showed a gain in proficiency rate between 2003-04 and 2004-05.

The proficiency gap between LEP and non-LEP students was widest in English I (59.9 percentage points) and biology (46.4). The smallest gaps between LEP and non-LEP students was in Physics (10.2 percentage points) and Algebra II (15.3).

[2] The data presented in this report for students with disabilities includes scores only on the regular multiple-choice EOC tests, administered either with or without modifications and accommodations. Scores from the various alternate assessments, which a select group of students with disabilities take in lieu of the regular multiple-choice test, are not included in this report.

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

The percentage of FRL students scoring at Level III or IV surpassed 75% in three out of eight subjects: Algebra I (75.6%), Chemistry (76.4%), and Physics (82.8%). The lowest proficiency percentages for this group were in Biology (46.0%) and Physical Science (52.1%).

In both 2003-04 and 2004-05, there was a gap of 20 percentage points or more in proficiency between FRL and non-FRL students in four of eight subjects: Biology, Geometry, English I, and Physical Science. The difference between the two groups in each of the past two years was fewer than 15 percentage points in Algebra II, Chemistry, and Physics. It should be noted, however, that these three courses are electives and that fewer students from low-income families enrolled in these courses.

PROFICIENCY TRENDS BY ETHNICITY

Figures 6 through 13 in Appendix A show the percentage of students in each racial and ethnic group who scored at Level III or IV on the eight EOC tests that were administered each year between 1998-99 and 2004-05. Data for certain subgroups and certain tests must be interpreted carefully due to small numbers of test takers. Results for Multiracial and American Indian students in particular are based on small numbers of students for most tests, and therefore are likely to fluctuate more dramatically from year to year.

Discussion of these results is divided into core and non-core courses. Core courses are taken by almost all students prior to graduation from high school, whereas non-core courses are typically taken by a more select group of students.

CORE COURSES

Algebra I

Proficiency percentages for Algebra I show a steady pattern of improvement for most ethnic groups over the past seven years (Figure 6). Overall increases between 1998-99 and 2004-05 were largest for Black/African American students (a 20 percentage point increase), followed by Hispanic/Latino students (11.1 points), and White students (10 points). Scores for Asian students have hovered around 95-96% proficient over the past five years.

Biology

Between 1998-99 and 2004-05, the percentages of students scoring proficient in each ethnic group increased for every ethnic group (Figure 7). The largest increase was for Asian students (16.2 points), followed by Black/African American students (10.4 points), White students (7.5 points), and Hispanic/Latino students (2.7 points). Despite these increases, proficiency rates for both Black/African American and Hispanic/Latino students in 2004-05 remain below 60%. Biology is also the subject with the largest proficiency gaps between ethnic groups.

English I

Proficiency rates for English I show a steady pattern of improvement for most ethnic groups as well (Figure 8). Increases between 1998-99 and 2004-05 were largest for Black/African

American students (27.2 points), followed by Hispanic/Latino students (16.2 points), Asian students (13 points), and White students (11.1 points).

NON-CORE COURSES

Algebra II

Algebra II results also show improvement for most ethnic groups over the past seven years (Figure 9). Similar to Algebra I, increases between 1998-99 and 2004-05 were again largest for Black/African American students (15.1 points), followed by White students (10.5 points), and Hispanic/Latino students (5.3 points). Scores for Asian students increased by 4.9 percentage points during that time, and have been above 90% for the past five years.

Chemistry

Proficiency percentages for chemistry show improvement for most ethnic groups over the past seven years (Figure 10). Overall increases between 1998-99 and 2004-05 were largest for Hispanic/Latino students (21.7 points), followed by Black/African American students (11.1 points), White students (9.3 points), and Asian students (8.5 points). It should be noted, however, that fewer than 100 Hispanic/Latino students took the Chemistry EOC each year prior to 2004-05.

Geometry

Proficiency percentages for Geometry have also increased among most ethnic groups over the past seven years (Figure 11), although the increases are smaller than for most other EOC tests. Between 1998-99 and 2004-05, increases in proficiency rates were largest for Black/African American students (7.7 points), followed by White students (7.1 points). Rates for Hispanic/Latino and Asian students actually declined during that time by 2.6 and 0.1 percentage points, respectively. The proficiency gap between the highest (White) and lowest performing (Black) ethnic group in Geometry was 36.3 points; only Biology had a larger proficiency gap between the highest and lowest group in 2004-05.

Physical Science

Proficiency rates for Physical Science show a steady pattern of improvement for most ethnic groups over the past seven years (Figure 12). Increases between 1998-99 and 2004-05 were largest for Black/African American students (19.5 points), followed by White students (8.9 points). Although scores have trended upward for other ethnic groups as well over that time, the number of students in those groups taking the Physical Science EOC test in most cases was relatively small.

Physics

Physics proficiency rates are generally among the highest across the eight EOCs (Figure 13), in part because it is a course that has historically been taken by a select group of higher-achieving students. Increases in proficiency rates between 1998-99 and 2004-05 were much larger for Black/African American students (27.2 points), than White students (8.2 points) or Asian students (5.8 points). Scores for other ethnic groups have fluctuated widely over that time span, due primarily to small numbers of students taking the test.

SUMMARY

End-of-Course (EOC) test results in WCPSS showed little significant change between 2003-04 and 2004-05. Whether measured by percentage of students scoring at or above Level III (i.e., proficiency rate) or average scale scores, results across subjects showed only minor changes – both up and down – in 2004-05. Physical Science showed the largest gains overall for the second consecutive year. Scores on most other EOCs, however, as well as the concomitant achievement gaps between various student subgroups, show a two-to-three year trend of little or no change. Since 1998-99, however, significant improvements in proficiency rates are evident among all ethnic groups, with Black/African American students posting the largest gains in six of the eight EOC tests that were administered each year during that span, and the second-largest gains in the other two.

The lack of positive change in EOC results over the past few years must also be interpreted in the context of rising enrollments in many of the non-core courses that have associated state tests (e.g., Algebra II, Geometry, etc.). A larger percentage of WCPSS students are enrolling in these courses in recent years, which have historically been populated by a disproportionate number of high-achieving students. If these courses are in fact increasingly serving a less "academically elite" group of students, it would suggest that maintaining a high overall level of performance might be a positive outcome.

Looking ahead, low proficiency rates in Biology are of particular concern. Students in the incoming 9th grade class in 2006-07 will have to earn at least a Level III score on that exam in order to graduate under a newly enacted State Board of Education policy. Level III scores on the Algebra I and English I exams and on the newly implemented U.S. History and Civics & Economics EOC exams will also be required for graduation under that policy. The effect that this new policy will have on graduation rates remains to be seen, but the various proficiency gaps that exist among subgroups of students – by ethnicity, disability status, family income, etc. – suggest that the new policy is certain to affect some groups more severely than others.

Appendix A

Additional EOC Results by Subgroup

Table 3
Percentage of Students Scoring at/above Level III by Subgroup and Course, 2004-05

	Algebra I		Algebra II		Geometry		English I		Biology		Chemistry		Physical Science		Physics	
	%	*# Tested*	%	*# Tested*	%	*# Tested*	%	*# Tested*	%	*# Tested*	%	*# Tested*	%	*# Tested*	%	*# Tested*
All Students	89.0%	*9,297*	86.7%	*7,251*	78.1%	*7,409*	87.4%	*8,921*	74.2%	*7,653*	87.4%	*4,630*	67.2%	*2,632*	92.0%	*1,657*
Female	89.2%	*4,765*	86.6%	*3,788*	75.5%	*3,850*	90.6%	*4,382*	73.0%	*3,841*	86.2%	*2,506*	63.4%	*1,326*	90.2%	*712*
Male	88.8%	*4,532*	86.8%	*3,463*	80.8%	*3,559*	84.4%	*4,539*	75.5%	*3,812*	88.7%	*2,124*	71.1%	*1,306*	93.3%	*945*
American Indian	78.3%	*23*	84.0%	*25*	65.5%	*29*	82.6%	*23*	78.6%	*28*	88.9%	*9*	72.7%	*11*	60.0%	*5*
Asian	95.7%	*420*	95.6%	*384*	87.2%	*391*	90.7%	*386*	87.0%	*368*	95.8%	*285*	72.2%	*54*	94.8%	*174*
Black/African American	76.3%	*2,514*	71.4%	*1,512*	51.4%	*1,707*	74.7%	*2,595*	46.7%	*2,098*	70.9%	*669*	51.4%	*1,127*	75.6%	*135*
Hispanic/Latino	80.9%	*487*	81.1%	*285*	67.8%	*323*	64.5%	*544*	54.6%	*394*	86.3%	*124*	61.1%	*157*	90.9%	*33*
Multiracial	89.2%	*212*	83.4%	*151*	75.1%	*173*	93.5%	*217*	76.4%	*174*	91.3%	*69*	73.1%	*67*	85.2%	*27*
White	94.9%	*5,641*	91.2%	*4,894*	87.7%	*4,786*	95.8%	*5,156*	87.4%	*4,591*	89.8%	*3,474*	82.2%	*1,216*	93.6%	*1,283*
FRL	75.6%	*1,668*	73.9%	*731*	55.9%	*1,002*	67.3%	*1,980*	46.0%	*1,325*	76.4%	*280*	52.1%	*637*	82.8%	*64*
Not FRL	91.9%	*7,629*	88.1%	*6,520*	81.6%	*6,407*	93.2%	*6,941*	80.1%	*6,328*	88.1%	*4,350*	72.1%	*1,995*	92.3%	*1,593*
LEP	72.5%	*265*	71.6%	*109*	59.8%	*127*	29.5%	*292*	28.9%	*180*	71.8%	*39*	39.3%	*61*	81.8%	*11*
Not LEP	89.5%	*9,032*	86.9%	*7,142*	78.4%	*7,282*	89.4%	*8,629*	75.3%	*7,473*	87.5%	*4,591*	67.9%	*2,571*	92.0%	*1,646*
SWD	74.9%	*1,066*	76.6%	*478*	63.0%	*557*	62.4%	*1,286*	47.2%	*909*	76.0%	*167*	55.6%	*543*	82.3%	*62*
Not SWD	90.8%	*8,231*	87.4%	*6,773*	79.3%	*6,852*	91.7%	*7,635*	77.9%	*6,744*	87.8%	*4,463*	70.3%	*2,089*	92.4%	*1,595*
AG	99.4%	*2,336*	98.2%	*1,883*	99.1%	*1,927*	99.9%	*1,925*	99.2%	*1,808*	97.2%	*1,599*	99.3%	*134*	98.0%	*767*

Note: FRL = Eligible for federal free or reduced-price lunch program; LEP = Limited English Proficient; SWD = Students with Disabilities; AG = Academically Gifted students.

Table 4
Mean Scale Scores by Subgroup and Course, 2004-05

	Algebra I		Algebra II		Geometry		English I		Biology		Chemistry		Physical Science		Physics	
	Mean	*# Tested*	Mean	*# Tested*	Mean	*# Tested*	Mean	*# Tested*	Mean	*# Tested*	Mean	*# Tested*	Mean	*# Tested*	Mean	*# Tested*
All Students	67.1	*9,297*	69.2	*7,251*	64.0	*7,409*	60.0	*8,921*	59.8	*7,653*	64.7	*4,630*	55.9	*2,632*	63.2	*1,657*
Female	66.8	*4,765*	68.8	*3,788*	63.2	*3,850*	60.8	*4,382*	59.4	*3,841*	64.0	*2,506*	55.1	*1,326*	61.9	*712*
Male	67.5	*4,532*	69.6	*3,463*	64.8	*3,559*	59.1	*4,539*	60.3	*3,812*	65.5	*2,124*	56.6	*1,306*	64.2	*945*
American Indian	65.2	*23*	65.6	*25*	60.0	*29*	58.9	*23*	60.0	*28*	65.2	*9*	56.5	*11*	52.4	*5*
Asian	73.7	*420*	76.0	*384*	69.8	*391*	62.5	*386*	63.8	*368*	68.6	*285*	57.1	*54*	64.6	*174*
Black/African American	60.4	*2,514*	62.4	*1,512*	57.0	*1,707*	55.2	*2,595*	53.9	*2,098*	59.9	*669*	53.4	*1,127*	56.6	*135*
Hispanic/Latino	62.2	*487*	66.1	*285*	60.7	*323*	54.1	*544*	55.6	*394*	63.8	*124*	54.7	*157*	59.3	*33*
Multiracial	66.4	*212*	68.2	*151*	62.6	*173*	61.0	*217*	59.8	*174*	65.3	*69*	57.1	*67*	64.5	*27*
White	70.1	*5,641*	70.9	*4,894*	66.3	*4,786*	62.7	*5,156*	62.5	*4,591*	65.4	*3,474*	58.2	*1,216*	63.8	*1,283*
FRL	60.5	*1,668*	63.5	*731*	58.1	*1,002*	54.0	*1,980*	53.8	*1,325*	61.0	*280*	53.7	*637*	59.4	*64*
Not FRL	68.6	*7,629*	69.8	*6,520*	64.9	*6,407*	61.7	*6,941*	61.1	*6,328*	65.0	*4,350*	56.6	*1,995*	63.3	*1,593*
LEP	60.0	*265*	63.8	*109*	59.4	*127*	47.3	*292*	50.2	*180*	62.1	*39*	52.0	*61*	57.5	*11*
Not LEP	67.4	*9,032*	69.2	*7,142*	64.1	*7,282*	60.4	*8,629*	60.0	*7,473*	64.7	*4,591*	56.0	*2,571*	63.2	*1,646*
SWD	61.7	*1,066*	64.6	*478*	59.7	*557*	53.3	*1,286*	54.2	*909*	61.7	*167*	54.2	*543*	60.2	*62*
Not SWD	67.8	*8,231*	69.5	*6,773*	64.4	*6,852*	61.1	*7,635*	60.6	*6,744*	64.8	*4,463*	56.3	*2,089*	63.3	*1,595*
AG	76.1	*2,336*	77.2	*1,883*	72.1	*1,927*	67.1	*1,925*	67.3	*1,808*	69.0	*1,599*	63.6	*134*	66.8	*767*

Note: FRL = Eligible for federal free or reduced-price lunch program; LEP = Limited English Proficient; SWD = Students with Disabilities; AG = Academically Gifted students.

Table 5
Percentage of Students Scoring at/above Level III by Subgroup and Course, 2003-04

	Algebra I		Algebra II		Geometry		English I		Biology		Chemistry		Physical Science		Physics	
	%	*# Tested*	%	*# Tested*	%	*# Tested*	%	*# Tested*	%	*# Tested*	%	*# Tested*	%	*# Tested*	%	*# Tested*
All Students	89.4%	*9,176*	87.6%	*6,548*	78.2%	*7,412*	87.5%	*8,574*	74.1%	*7,974*	88.7%	*4,162*	65.8%	*2,808*	92.5%	*1,409*
Female	89.7%	*4,668*	86.7%	*3,369*	75.3%	*3,803*	90.0%	*4,270*	72.7%	*4,061*	87.3%	*2,217*	60.5%	*1,305*	89.1%	*559*
Male	89.1%	*4,508*	88.7%	*3,179*	81.2%	*3,609*	85.0%	*4,304*	75.5%	*3,913*	90.2%	*1,945*	70.5%	*1,503*	94.8%	*850*
American Indian	91.4%	*35*	71.4%	*7*	80.0%	*20*	93.1%	*29*	77.8%	*18*	100.0%	*6*	77.8%	*9*	100.0%	*3*
Asian	93.9%	*378*	93.6%	*360*	91.5%	*365*	92.8%	*333*	84.3%	*350*	92.0%	*276*	76.6%	*47*	89.9%	*149*
Black/African American	75.6%	*2,446*	72.4%	*1,198*	51.3%	*1,593*	73.9%	*2,395*	45.1%	*2,122*	74.4%	*578*	46.6%	*1,157*	85.7%	*112*
Hispanic/Latino	81.3%	*433*	79.4%	*218*	63.9%	*291*	63.8%	*503*	56.6%	*373*	78.4%	*97*	52.9%	*189*	88.0%	*25*
Multiracial	91.2%	*182*	88.1%	*118*	72.1%	*147*	90.2%	*184*	81.5%	*157*	86.4%	*66*	69.4%	*49*	86.7%	*15*
White	95.6%	*5,702*	91.5%	*4,647*	86.7%	*4,996*	95.7%	*5,130*	86.8%	*4,954*	91.4%	*3,139*	83.5%	*1,357*	93.8%	*1,105*
FRL	75.5%	*1,510*	76.9%	*528*	55.6%	*797*	67.8%	*1,657*	45.7%	*1,199*	75.2%	*246*	47.8%	*617*	80.6%	*62*
Not FRL	92.2%	*7,666*	88.6%	*6,020*	80.9%	*6,615*	92.2%	*6,917*	79.1%	*6,775*	89.5%	*3,916*	70.9%	*2,191*	93.1%	*1,347*
LEP	71.7%	*269*	78.0%	*150*	61.4%	*166*	40.7%	*337*	39.1%	*258*	87.0%	*69*	43.3%	*104*	84.0%	*25*
Not LEP	90.0%	*8,907*	87.9%	*6,398*	78.5%	*7,246*	89.4%	*8,237*	75.2%	*7,716*	88.7%	*4,093*	66.7%	*2,704*	92.7%	*1,384*
SWD	76.3%	*1,067*	77.5%	*382*	65.3%	*593*	62.8%	*1,186*	46.7%	*930*	78.5%	*158*	52.4%	*561*	84.0%	*25*
Not SWD	91.2%	*8,109*	88.3%	*6,166*	79.3%	*6,819*	91.4%	*7,388*	77.7%	*7,044*	89.1%	*4,004*	69.2%	*2,247*	92.7%	*1,384*
AG	99.7%	*2,134*	98.9%	*1,544*	98.5%	*1,642*	100.0%	*1,618*	98.7%	*1,472*	98.1%	*1,319*	98.6%	*139*	98.7%	*557*

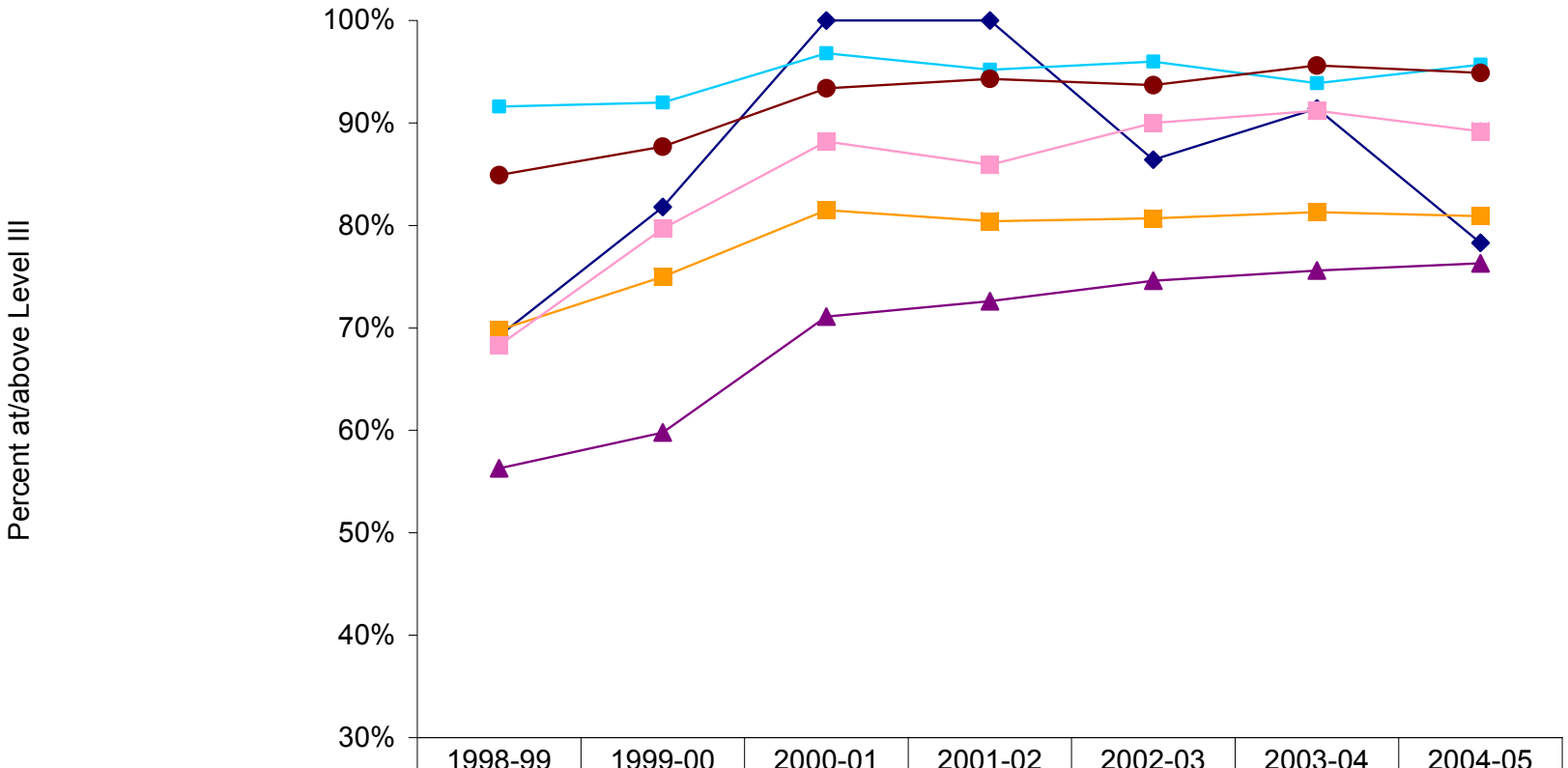
Note: FRL = Eligible for federal free or reduced-price lunch program; LEP = Limited English Proficient; SWD = Students with Disabilities; AG = Academically Gifted students.

Table 6
Mean Scale Scores by Subgroup and Course, 2003-04

	Algebra I		Algebra II		Geometry		English I		Biology		Chemistry		Physical Science		Physics	
	Mean	*# Tested*	Mean	*# Tested*	Mean	*# Tested*	Mean	*# Tested*	Mean	*# Tested*	Mean	*# Tested*	Mean	*# Tested*	Mean	*# Tested*
All Students	67.1	*9,176*	69.7	*6,548*	63.7	*7,412*	59.9	*8,574*	59.5	*7,974*	65.0	*4,162*	55.7	*2,808*	63.9	*1,409*
Female	66.8	*4,668*	69.0	*3,369*	62.9	*3,803*	60.8	*4,270*	59.1	*4,061*	64.2	*2,217*	54.7	*1,305*	62.3	*559*
Male	67.4	*4,508*	70.4	*3,179*	64.5	*3,609*	59.0	*4,304*	59.9	*3,913*	65.9	*1,945*	56.6	*1,503*	65.0	*850*
American Indian	66.1	*35*	59.7	*7*	61.3	*20*	61.9	*29*	59.1	*18*	67.0	*6*	56.3	*9*	68.3	*3*
Asian	73.2	*378*	75.3	*360*	69.3	*365*	62.4	*333*	63.3	*350*	68.3	*276*	56.2	*47*	65.7	*149*
Black/African American	60.3	*2,446*	63.1	*1,198*	56.9	*1,593*	55.1	*2,395*	53.6	*2,122*	60.2	*578*	52.7	*1,157*	58.3	*112*
Hispanic/Latino	62.8	*433*	65.7	*218*	60.8	*291*	53.6	*503*	55.6	*373*	61.4	*97*	53.6	*189*	59.0	*25*
Multiracial	66.4	*182*	68.9	*118*	62.5	*147*	60.4	*184*	60.7	*157*	63.3	*66*	56.9	*49*	61.8	*15*
White	70.0	*5,702*	71.1	*4,647*	65.6	*4,996*	62.6	*5,130*	62.1	*4,954*	65.7	*3,139*	58.6	*1,357*	64.3	*1,105*
FRL	61.0	*1,510*	64.2	*528*	57.8	*797*	54.0	*1,657*	53.8	*1,199*	60.7	*246*	52.9	*617*	58.7	*62*
Not FRL	68.3	*7,666*	70.1	*6,020*	64.4	*6,615*	61.4	*6,917*	60.5	*6,775*	65.2	*3,916*	56.5	*2,191*	64.1	*1,347*
LEP	60.1	*269*	67.6	*150*	61.2	*166*	48.6	*337*	52.8	*258*	64.6	*69*	52.1	*104*	63.0	*25*
Not LEP	67.3	*8,907*	69.7	*6,398*	63.7	*7,246*	60.4	*8,237*	59.8	*7,716*	65.0	*4,093*	55.9	*2,704*	63.9	*1,384*
SWD	61.2	*1,067*	65.3	*382*	59.7	*593*	53.2	*1,186*	54.1	*930*	62.6	*158*	53.6	*561*	62.0	*25*
Not SWD	67.9	*8,109*	69.9	*6,166*	64.0	*6,819*	61.0	*7,388*	60.2	*7,044*	65.1	*4,004*	56.3	*2,247*	63.9	*1,384*
AG	76.1	*2,134*	77.3	*1,544*	71.5	*1,642*	66.9	*1,618*	66.8	*1,472*	69.5	*1,319*	63.7	*139*	67.6	*557*

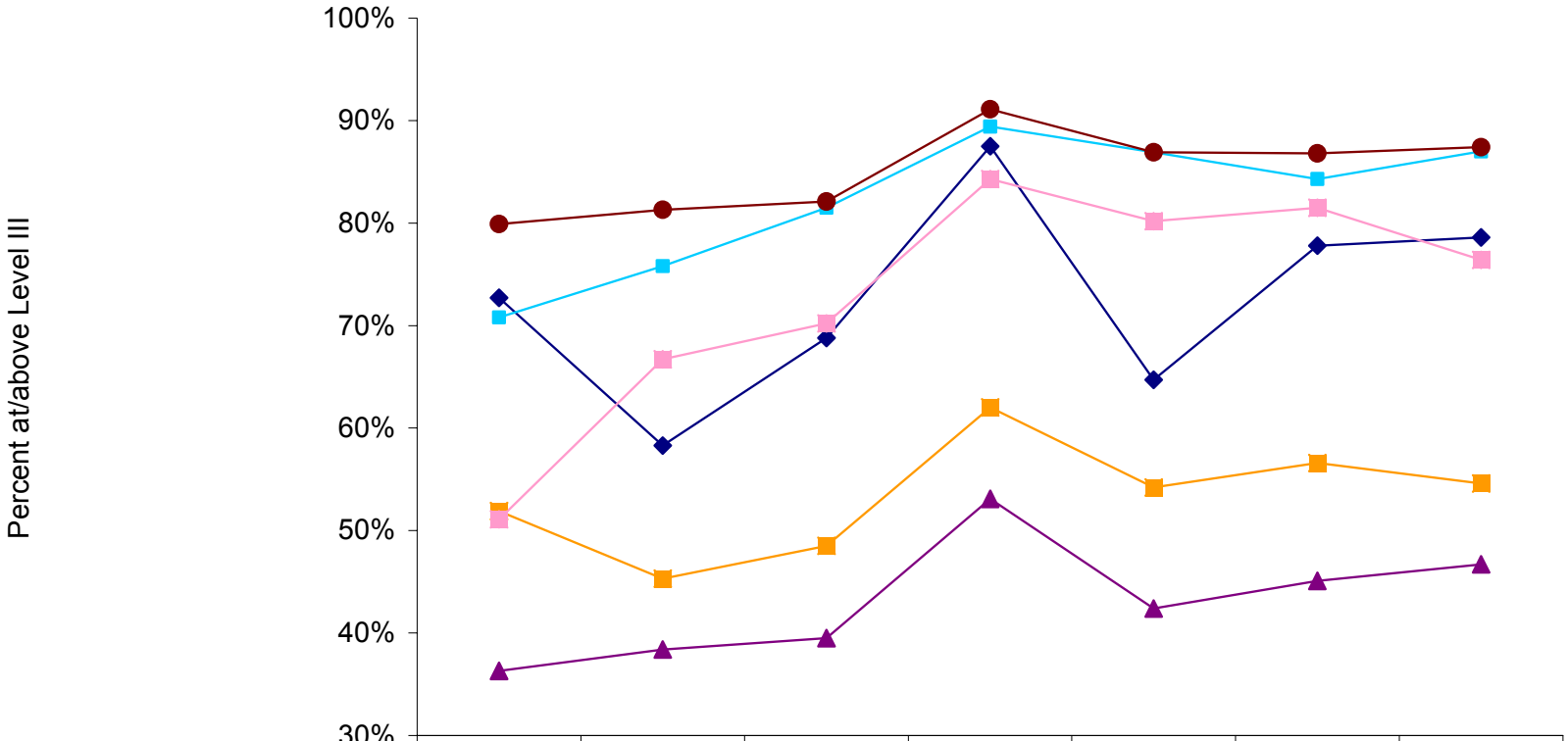
Note: FRL = Eligible for federal free or reduced-price lunch program; LEP = Limited English Proficient; SWD = Students with Disabilities; AG = Academically Gifted students.

Figure 6
Percentage of Students Scoring at/above Level III in Algebra I by Ethnicity, 1998-99 through 2004-05



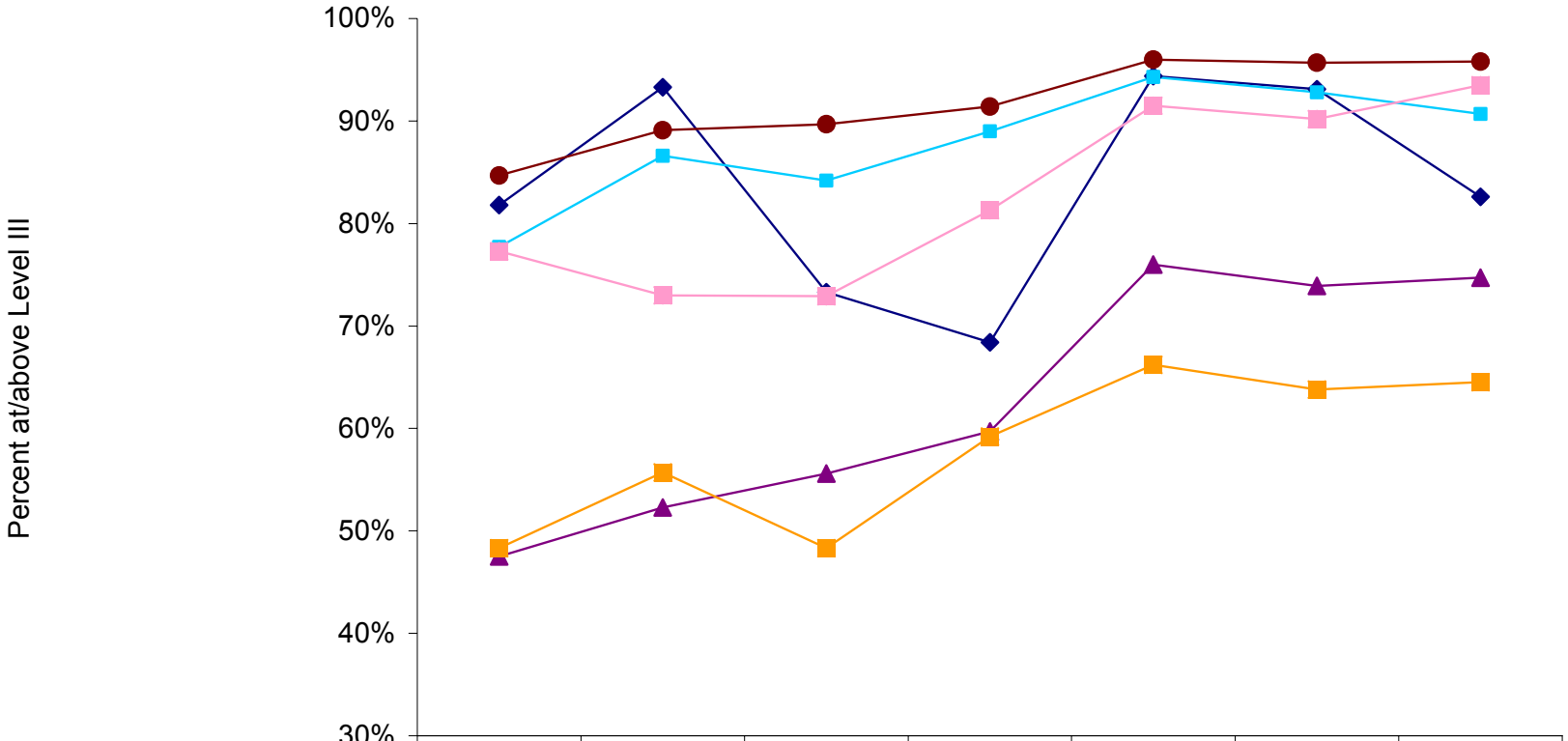
	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
American Indian	69.2%	81.8%	100.0%	100.0%	86.4%	91.4%	78.3%
Asian	91.6%	92.0%	96.8%	95.2%	96.0%	93.9%	95.7%
Black/African American	56.3%	59.8%	71.1%	72.6%	74.6%	75.6%	76.3%
Hispanic/Latino	69.8%	75.0%	81.5%	80.4%	80.7%	81.3%	80.9%
Multiracial	68.3%	79.7%	88.2%	85.9%	90.0%	91.2%	89.2%
White	84.9%	87.7%	93.4%	94.3%	93.7%	95.6%	94.9%

Figure 7
Percentage of Students Scoring at/above Level III in Biology by Ethnicity, 1998-99 through 2004-05



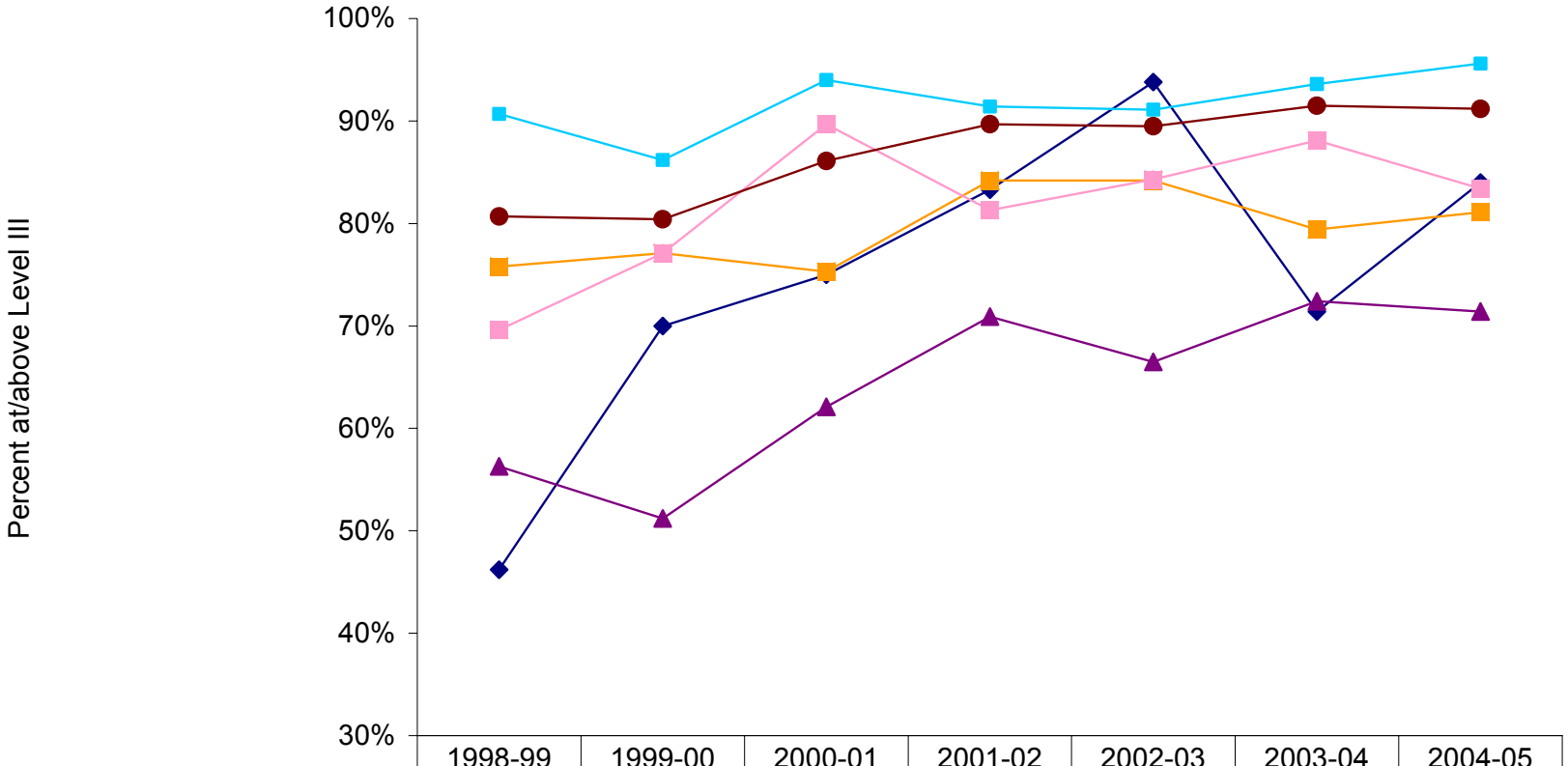
	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
American Indian	72.7%	58.3%	68.8%	87.5%	64.7%	77.8%	78.6%
Asian	70.8%	75.8%	81.5%	89.4%	86.9%	84.3%	87.0%
Black/African American	36.3%	38.4%	39.5%	53.1%	42.4%	45.1%	46.7%
Hispanic/Latino	51.9%	45.3%	48.5%	62.0%	54.2%	56.6%	54.6%
Multiracial	51.1%	66.7%	70.2%	84.3%	80.2%	81.5%	76.4%
White	79.9%	81.3%	82.1%	91.1%	86.9%	86.8%	87.4%

Figure 8
Percentage of Students Scoring at/above Level III in English I by Ethnicity, 1998-99 through 2004-05



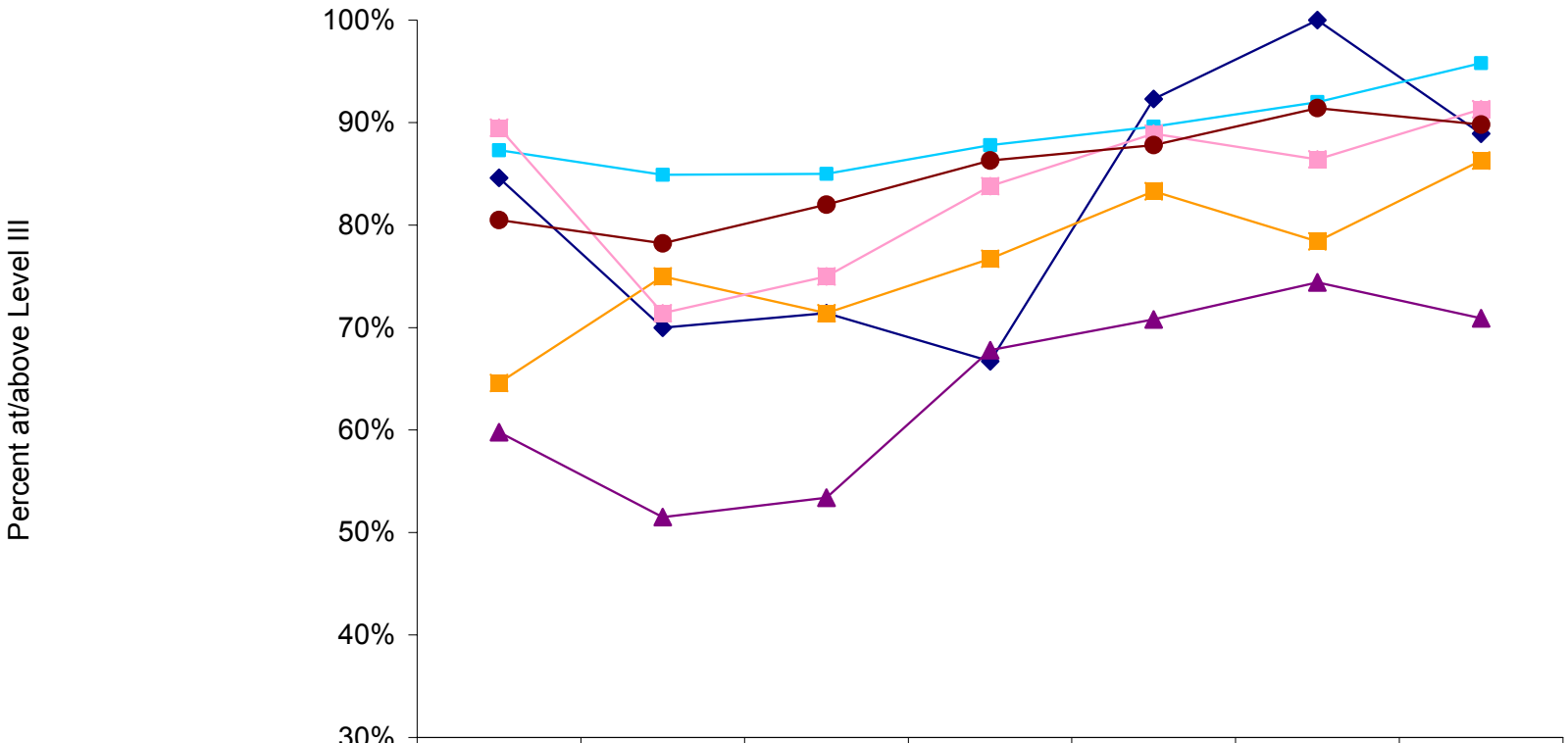
	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
American Indian	81.8%	93.3%	73.3%	68.4%	94.4%	93.1%	82.6%
Asian	77.7%	86.6%	84.2%	89.0%	94.3%	92.8%	90.7%
Black/African American	47.5%	52.3%	55.6%	59.7%	76.0%	73.9%	74.7%
Hispanic/Latino	48.3%	55.7%	48.3%	59.2%	66.2%	63.8%	64.5%
Multiracial	77.3%	73.0%	72.9%	81.3%	91.5%	90.2%	93.5%
White	84.7%	89.1%	89.7%	91.4%	96.0%	95.7%	95.8%

Figure 9
Percentage of Students Scoring at/above Level III in Algebra II by Ethnicity, 1998-99 through 2004-05



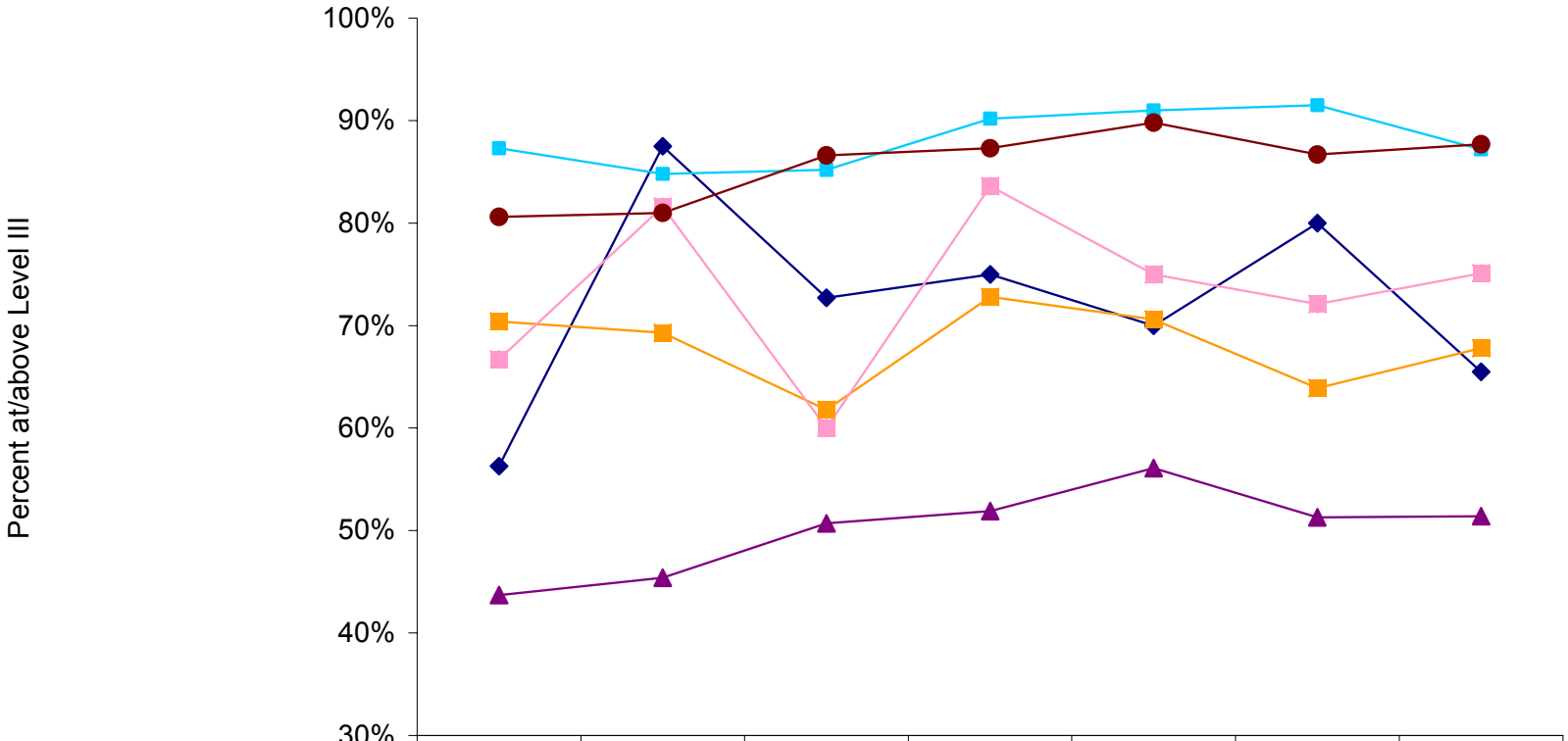
	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
American Indian	46.2%	70.0%	75.0%	83.3%	93.8%	71.4%	84.0%
Asian	90.7%	86.2%	94.0%	91.4%	91.1%	93.6%	95.6%
Black/African American	56.3%	51.2%	62.1%	70.9%	66.5%	72.4%	71.4%
Hispanic/Latino	75.8%	77.1%	75.3%	84.2%	84.2%	79.4%	81.1%
Multiracial	69.6%	77.1%	89.7%	81.3%	84.3%	88.1%	83.4%
White	80.7%	80.4%	86.1%	89.7%	89.5%	91.5%	91.2%

Figure 10
Percentage of Students Scoring at/above Level III in Chemistry by Ethnicity, 1998-99 through 2004-05



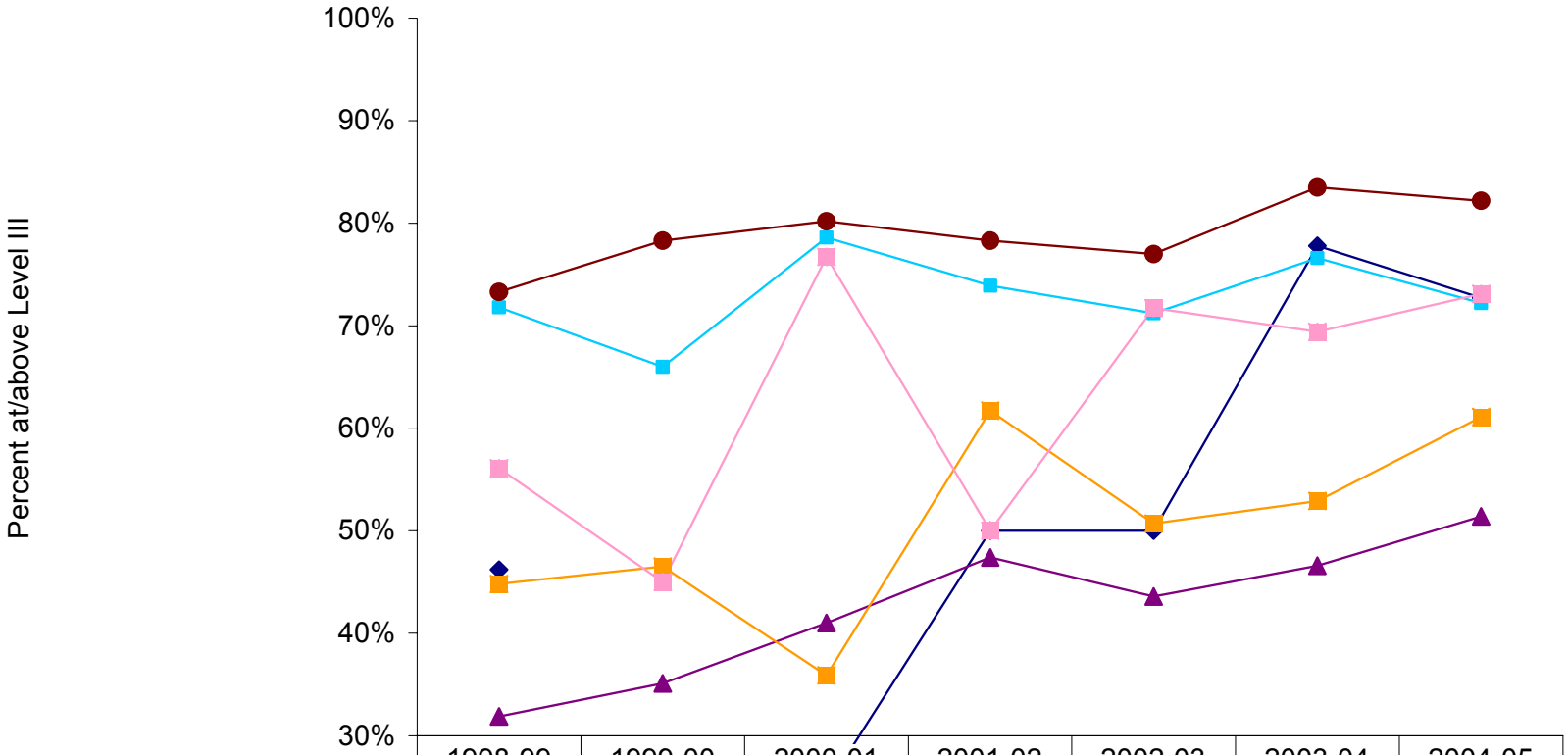
	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
American Indian	84.6%	70.0%	71.4%	66.7%	92.3%	100.0%	88.9%
Asian	87.3%	84.9%	85.0%	87.8%	89.6%	92.0%	95.8%
Black/African American	59.8%	51.5%	53.4%	67.8%	70.8%	74.4%	70.9%
Hispanic/Latino	64.6%	75.0%	71.4%	76.7%	83.3%	78.4%	86.3%
Multiracial	89.5%	71.4%	75.0%	83.8%	88.9%	86.4%	91.3%
White	80.5%	78.2%	82.0%	86.3%	87.8%	91.4%	89.8%

Figure 11
Percentage of Students Scoring at/above Level III in Geometry by Ethnicity, 1998-99 through 2004-05



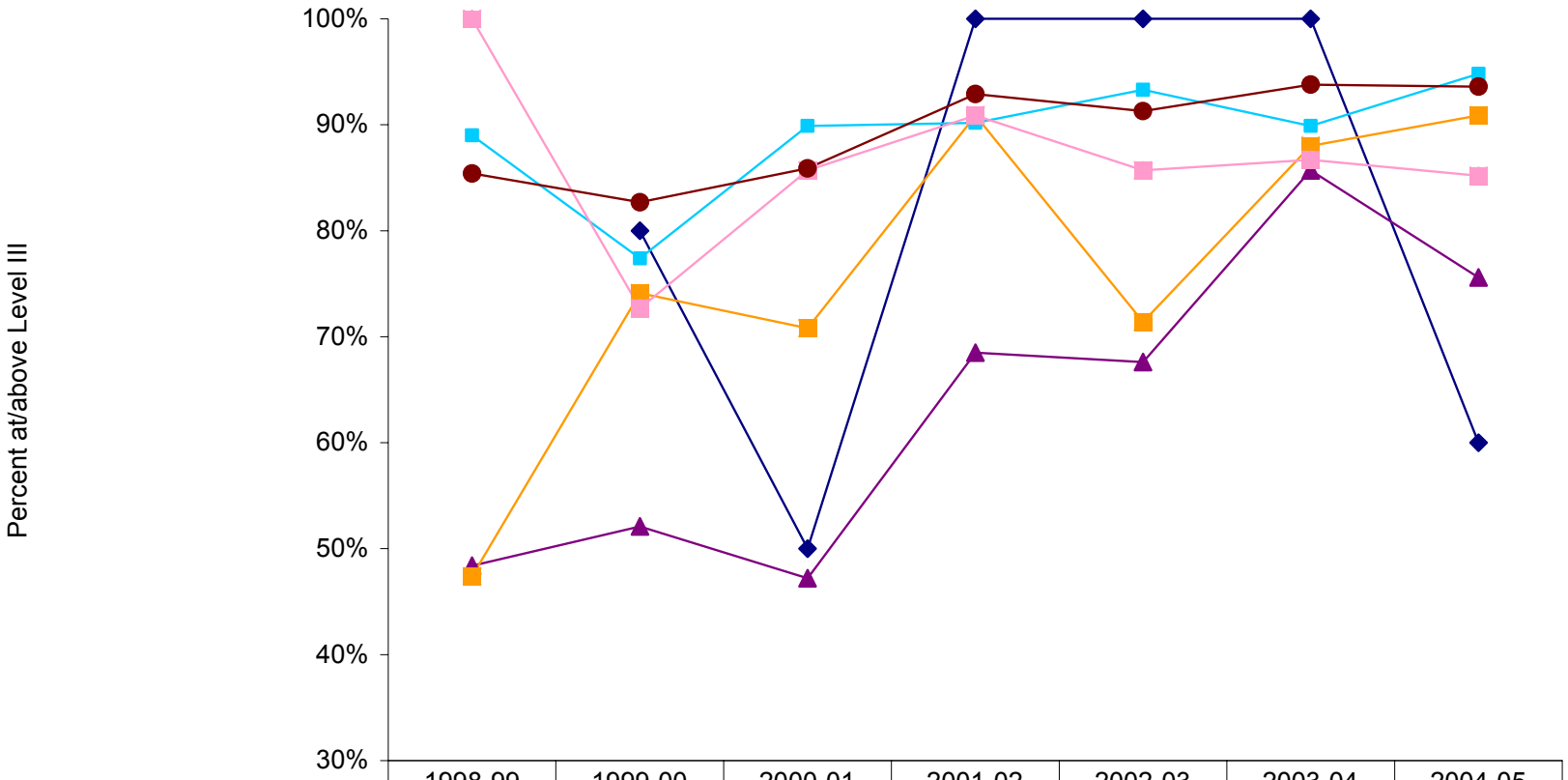
	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
American Indian	56.3%	87.5%	72.7%	75.0%	70.0%	80.0%	65.5%
Asian	87.3%	84.8%	85.2%	90.2%	91.0%	91.5%	87.2%
Black/African American	43.7%	45.4%	50.7%	51.9%	56.1%	51.3%	51.4%
Hispanic/Latino	70.4%	69.3%	61.8%	72.8%	70.6%	63.9%	67.8%
Multiracial	66.7%	81.6%	60.0%	83.6%	75.0%	72.1%	75.1%
White	80.6%	81.0%	86.6%	87.3%	89.8%	86.7%	87.7%

Figure 12
Percentage of Students Scoring at/above Level III in Physical Science by Ethnicity, 1998-99 through 2004-05



	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
American Indian	46.2%		25.0%	50.0%	50.0%	77.8%	72.7%
Asian	71.8%	66.0%	78.6%	73.9%	71.2%	76.6%	72.2%
Black/African American	31.9%	35.1%	41.0%	47.4%	43.6%	46.6%	51.4%
Hispanic/Latino	44.8%	46.5%	35.9%	61.7%	50.7%	52.9%	61.1%
Multiracial	56.1%	45.0%	76.7%	50.0%	71.7%	69.4%	73.1%
White	73.3%	78.3%	80.2%	78.3%	77.0%	83.5%	82.2%

Figure 13
Percentage of Students Scoring at/above Level III in Physics by Ethnicity, 1998-99 through 2004-05



	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
American Indian		80.0%	50.0%	100.0%	100.0%	100.0%	60.0%
Asian	89.0%	77.4%	89.9%	90.2%	93.3%	89.9%	94.8%
Black/African American	48.4%	52.1%	47.2%	68.5%	67.6%	85.7%	75.6%
Hispanic/Latino	47.4%	74.1%	70.8%	90.9%	71.4%	88.0%	90.9%
Multiracial	100.0%	72.7%	85.7%	90.9%	85.7%	86.7%	85.2%
White	85.4%	82.7%	85.9%	92.9%	91.3%	93.8%	93.6%