

2004-05



**WAKE COUNTY
PUBLIC SCHOOL SYSTEM**

**WCPSS OUTCOMES SUMMARY FOR 2004-05,
WITH AN EMPHASIS ON ACHIEVEMENT
GAP STATUS**

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ABSTRACT

The Wake County Public School System (WCPSS) saw improved achievement between the late 1990s and 2003, both in overall trends and results disaggregated by subgroup. Achievement gaps began to close. The percentage of students scoring at grade level is now quite high. In the past three years, the percentage of lower income, minority, and limited-English-proficient students has increased, and the percentage of students at grade level has changed very little. Dropout and graduation rates show some closing of gaps between Black and White students, but not between Hispanic/Latino and White students. Identifying ways to further close achievement gaps and improve other student outcomes is challenging, especially in light of additional graduation requirements which will be added for students entering 9th grade in the 2006-07 school year.

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WCPSS OUTCOMES SUMMARY FOR 2004-05, WITH AN EMPHASIS ON ACHIEVEMENT GAP STATUS

INTRODUCTION

The Wake County Public School System's (WCPSS) Evaluation and Research Department (E&R) has periodically prepared documents such as this one to provide a status report of overall and disaggregated WCPSS student outcomes across a variety of indicators. The report emphasizes the degree to which WCPSS has been successful in closing achievement gaps between subgroups that have had lower and higher achievement.

Gaps have been evident in the achievement of students with different backgrounds and characteristics for many years both nationally and in WCPSS (Educational Research Services [ERS], 2001). Overcoming these gaps has been very challenging for districts and educators across the country. The importance of overcoming these gaps was heightened with the rising expectations that accompanied the federal Elementary and Second Education Act (also referred to as No Child Left Behind [NCLB]) of 2001.

This report does not delve extensively into explanatory factors and possible solutions for achievement gaps. The 2001 ERS summary suggests causes relate to student backgrounds (income, cultural environment, and family) as well as to school characteristics. A past E&R report on achievement gaps provides information on factors which influence achievement gaps, such as kindergarten readiness, staffing factors, and funding, including external resources available to schools (Baenen, Dulaney, Banks, and Yaman, 2002). A variety of supplemental programs have also been employed over the years to try to remediate or accelerate the learning of low achievers. Readers are directed to the Evaluation and Research page of the WCPSS Web site (wcpss.net) for reports on a variety of efforts.

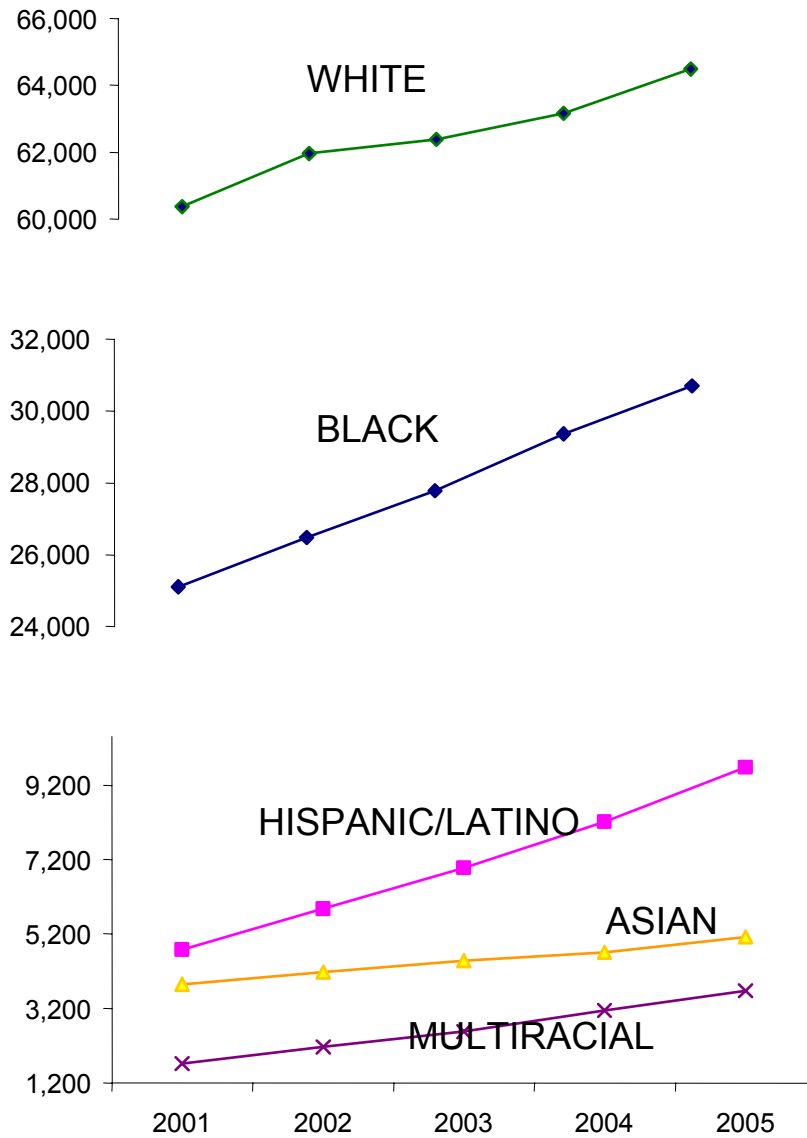
DEMOGRAPHIC INFORMATION

The number of students enrolled in WCPSS has been growing rapidly in recent years (more than 18% between spring 2001 and 2005). Growth in itself brings challenges to all facets of the system's operations.

Added challenges arise from the uneven growth by subgroup (see Figures 1 and 2). Enrollment by all subgroups has grown, but the number of students who qualify for free or reduced-price

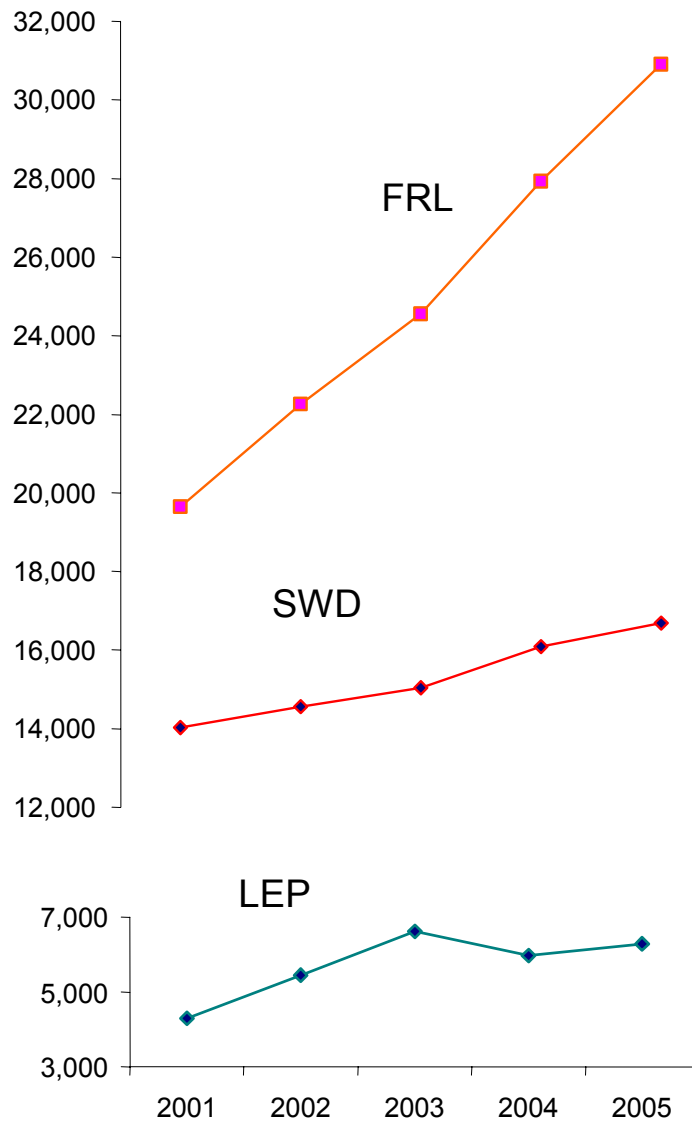
lunches (FRL) has increased much more rapidly than the other groups. The number of Black/African American and Hispanic/Latino students has also grown more rapidly than other ethnic groups; these groups have tended to have higher percentages of students not reaching grade level standards than some other subgroups, increasing the challenge of closing achievement gaps.

Figure 1
WCPSS Enrollment by Ethnicity



Source: Analysis of WCPSS Locator data as of May of each year

Figure 2
WCPSS Membership Trends by Special Populations



FRL = Free or reduced-price lunch SWD = Students with disabilities LEP = Limited English proficiency

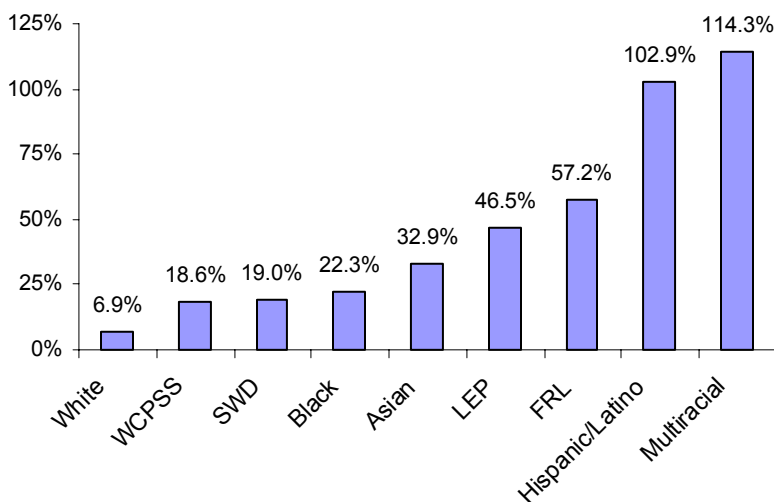
Source: Analysis of WCPSS Locator data as of May of each year

Table 1
Increases in WCPSS Membership, Disaggregated

Group	2001	2002	2003	2004	2005	Increase	Percentage Increase
WCPSS	96,057	100,912	104,464	108,867	113,969	17,912	18.7%
White	60,357	61,959	62,372	63,159	64,495	4,138	6.9%
Black/African American	25,104	26,473	27,778	29,370	30,697	5,593	22.3%
Hispanic/Latino	4,769	5,877	6,978	8,206	9,676	4,907	102.9%
Asian	3,847	4,180	4,483	4,700	5,111	1,264	32.9%
Multiracial	1,719	2,157	2,583	3,139	3,683	1,964	114.3%
SWD	14,021	14,554	15,050	16,088	16,685	2,664	19.0%
FRL	19,654	22,251	24,545	27,920	30,903	11,249	57.2%
LEP	4,286	5,451	6,610	5,974	6,280	1,994	46.5%

Membership percentage increases between 2001 and 2005 show patterns slightly different from student counts, with Multiracial and Hispanic/Latino subgroups standing out as increasing the fastest, followed by FRL and limited-English-proficient (LEP) students. FRL students often are more at risk of school failure due to poverty, and LEP students have special language acquisition issues to address.

Figure 3
Percentage Change in Membership by Subgroup
Spring 2001 to Spring 2005



TESTING OUTCOMES

K-2 ASSESSMENT

(From E&R report: Wake County Public School System K-5 Assessment Results: 2004-05, October 2005.)

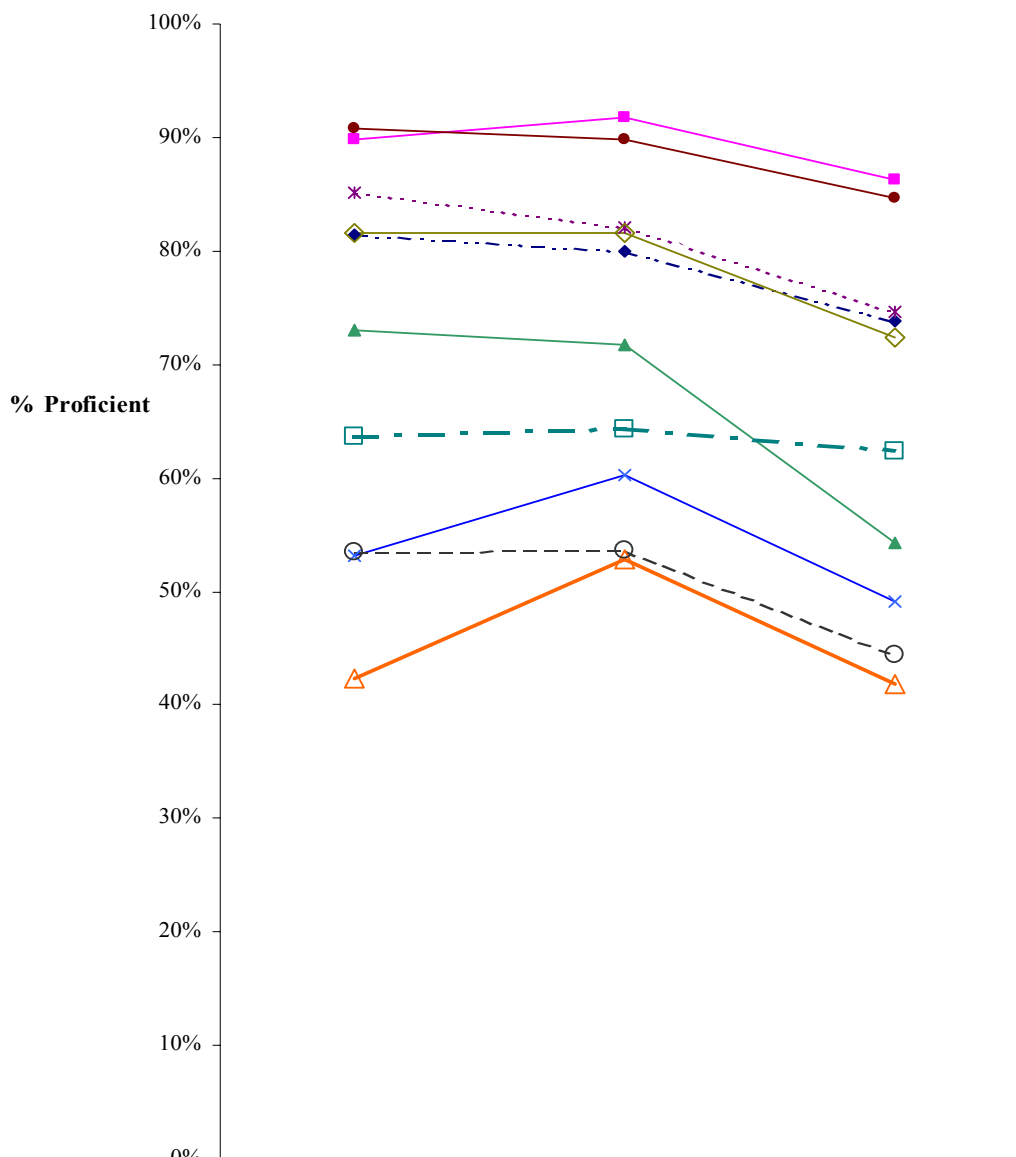
Subgroups vary in performance even upon entry to kindergarten. Research literature points to differences in factors such as home environments, prenatal care, child nutrition, parents' educational backgrounds, family activities, and preschool experiences as possible contributing reasons (Dulaney, Baenen, Banks, Yaman, & Burch, 2001; Baenen, Dulaney, et al., 2002). Over the first few weeks of kindergarten, WCPSS teachers assess students in classroom settings to determine whether students have skills that are considered important for academic success.

WCPSS teachers use performance assessment tasks as well as observations of classroom work to assess each student's status on grade-level expectations. These K-2 assessment results, as illustrated in Figure 4, reveal that teachers perceive differences in achievement between subgroups in the primary grades (as well as later). It is important to remember that students may be included in more than one group.

- Overall, at least 70% of the students showed mastery on key indicators of grade-level success in reading, writing, and math. The percentage of students showing proficiency on all math strands was slightly lower than the percentage of students meeting grade level guidelines for reading book levels or scoring proficient on writing rubrics.
- More than half (52.8-91.8%) of the students in each subgroup showed proficiency on K-2 book-level standards and writing rubric measures, with the exception of LEP students' results for reading book levels (42.4%). In math, three subgroups (Hispanic/Latino, LEP, and SWD) had fewer than half of students showing mastery, with the percentage of students demonstrating mastery of all math strands ranging from 42 to 49%.
- The widest gaps are evident between the performance of Asian and White students (who have the highest percentages overall) and LEP students, Hispanic/Latino students, and students with disabilities (SWD). The largest gaps are between Asian and LEP students, at about 50 percentage points.
- Black/African American students in grades K-2 did relatively well on book-level standards and writing rubric assessments. However, performance was considerably lower in math. The gap between Black/African American students' performance and that of Asian and White students was largest in math at the early grades.

FRL students outperformed Hispanic/Latino students at the K-2 grade span. This may reflect the overlap of Hispanic/Latino students with LEP students, as well as the impact of language acquisition.

Figure 4
% of Students Proficient on Assessments by Subgroup,
Grades K-2, 2004-05



	Book Level Standards	Writing Rubric	All Mathematics Strands
---◆--- American Indian	81.5%	80.0%	73.8%
—■— Asian	89.8%	91.8%	86.3%
—▲— Black	73.1%	71.7%	54.3%
—×— Hispanic/Latino	53.2%	60.3%	49.1%
---*--- Multiracial	85.2%	82.1%	74.6%
—●— White	90.8%	89.9%	84.7%
—□— FRL	63.6%	64.3%	62.3%
—△— LEP	42.4%	52.8%	41.8%
—○— SWD	53.5%	53.7%	44.5%
—◇— All Students	81.6%	81.6%	72.4%

END-OF-GRADE TEST RESULTS FOR THE 2004-05 SCHOOL YEAR

(From E&R report: End-of-Grade Multiple-Choice Test Results for 2004-05; July 2005)

Overall, 90.3% of students met or exceeded grade-level standards in reading (up from 90.0% in 2003-04), and 91.4% met or exceeded grade-level standards in math (down from 92.1% in 2003-04). As shown in Figures 5 and 6, the percent of students scoring in Levels III or IV by subject and grade level increased between spring 1998 and 2003, and has remained relatively stable since that time.

**Figure 5
Reading EOG Scores at or above Grade Level, Spring, 1998-2005**

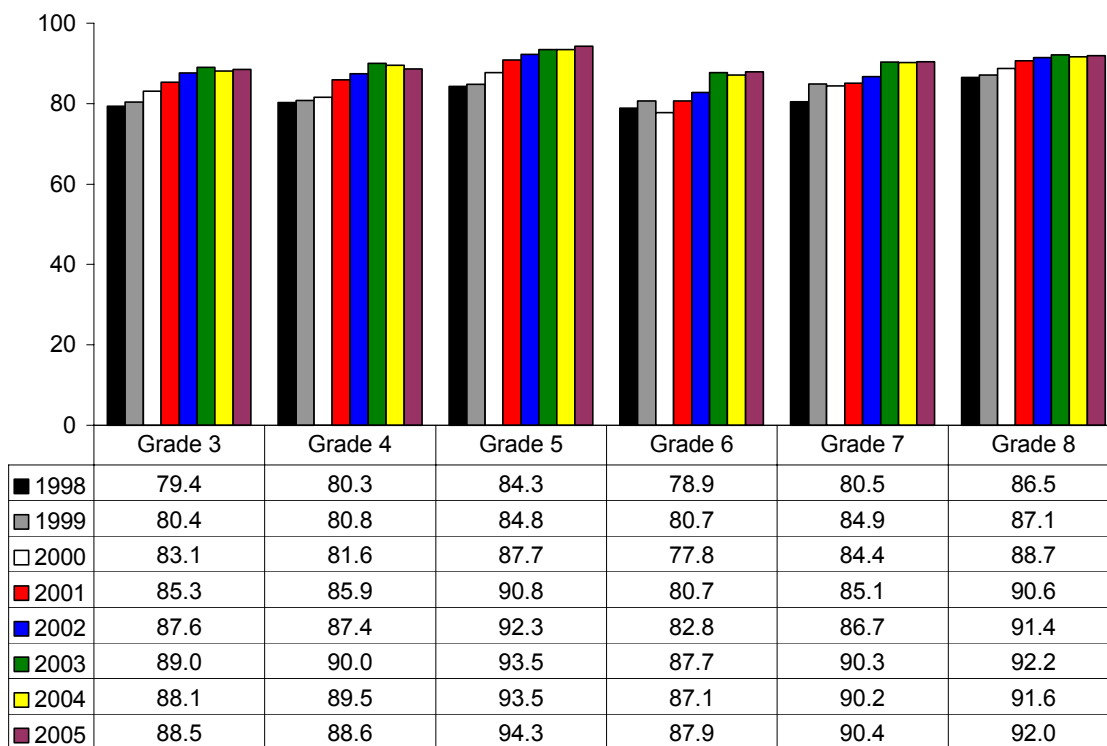


Figure 6
Math EOG Scores at or above Grade Level, Spring, 1998-2005

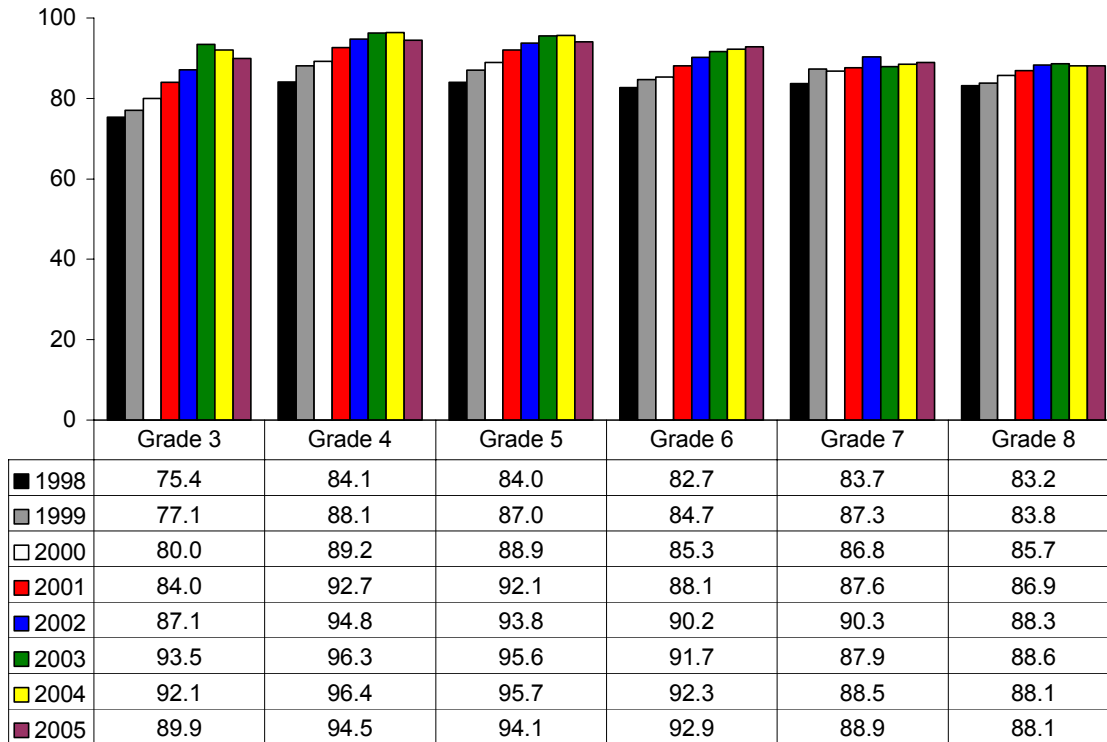
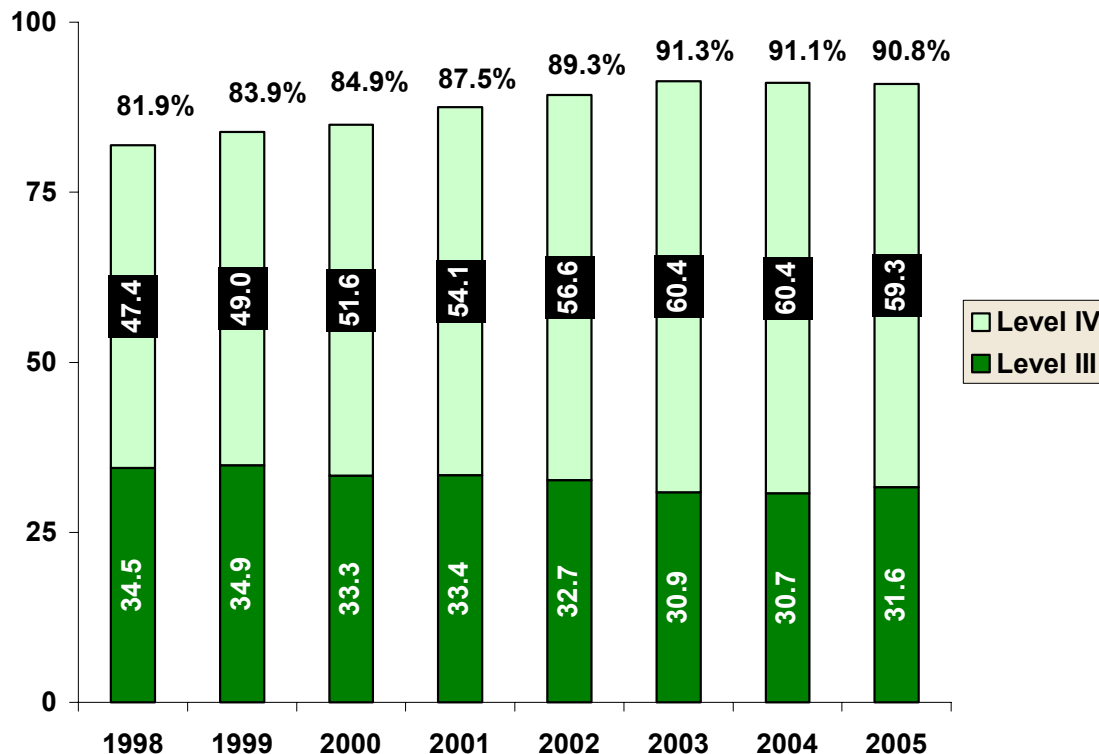


Figure 7 reveals that close to 60% of WCPSS scores were at Level IV in 2004-05 on both the reading and math tests. Performance in the past three years is considerably higher than that seen in 1998.

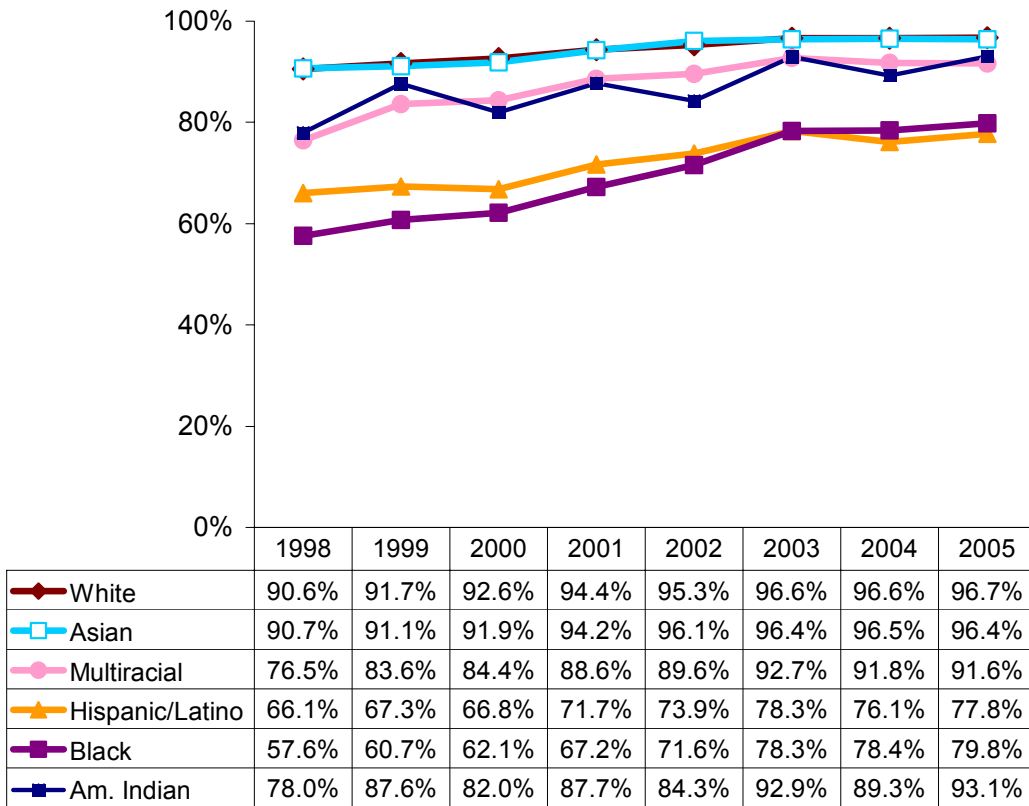
Figure 7
Composite Percentages of All EOG Scores at/above Grade Level
Reading or Math over Time



Figures 8 and 9 reveal that achievement gaps have closed in WCPSS since spring of 1998. All groups have shown increases in the percentage of students scoring at or above grade level in reading or math, with Black/African American students and Hispanic/Latino students showing the greatest increases. Gaps in achievement have remained constant, however, in the past three years.

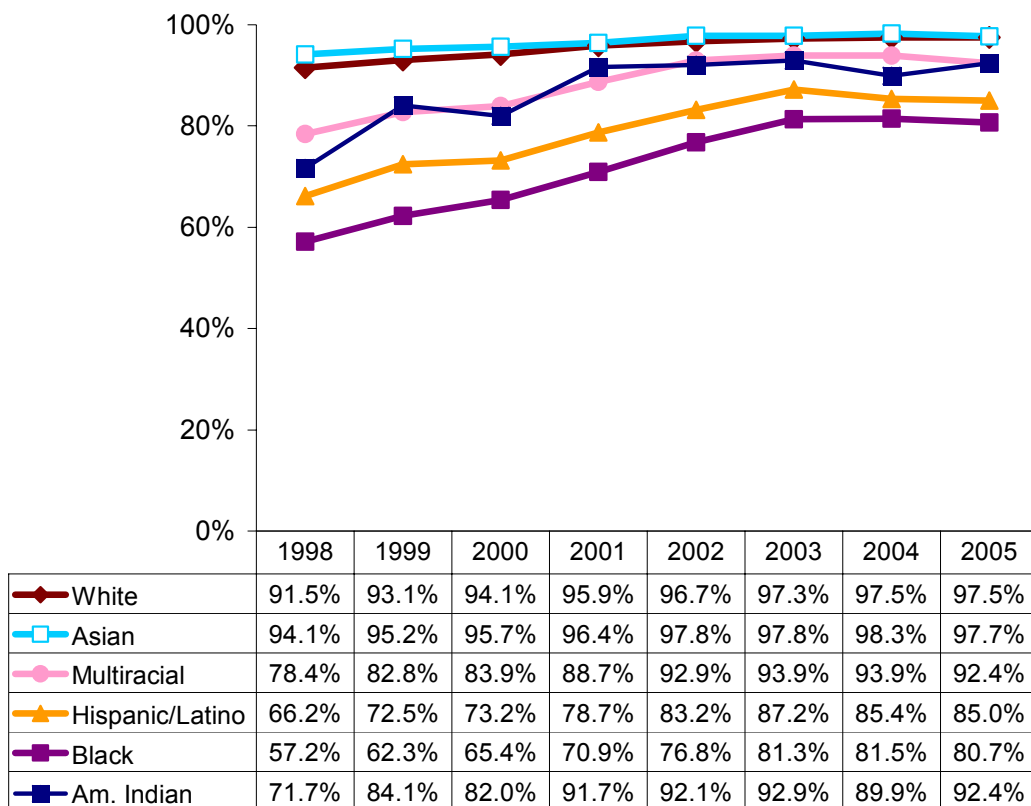
- In reading, the percentage of students in each ethnic group meeting or exceeding grade-level standards either remained about the same or improved.
- In math, the percentage of students in each ethnic group meeting or exceeding grade-level standards in math either remained the same or declined slightly, with the exception of American Indian students who demonstrated a 2.5% increase. The initiation of a new state math curriculum, while testing on the old curriculum, likely contributed, as well as the reduced exemptions for LEP students (impacting the Hispanic/Latino student group the most).

Figure 8
Grade 3-8 Students at or above Grade Level
on Spring EOG in Reading by Race and Ethnicity over Time



Note: First-year LEP students without adequate English proficiency were exempt from testing.

Figure 9
Grade 3-8 Students at and above Grade Level
on Spring EOG in Math by Race and Ethnicity over Time

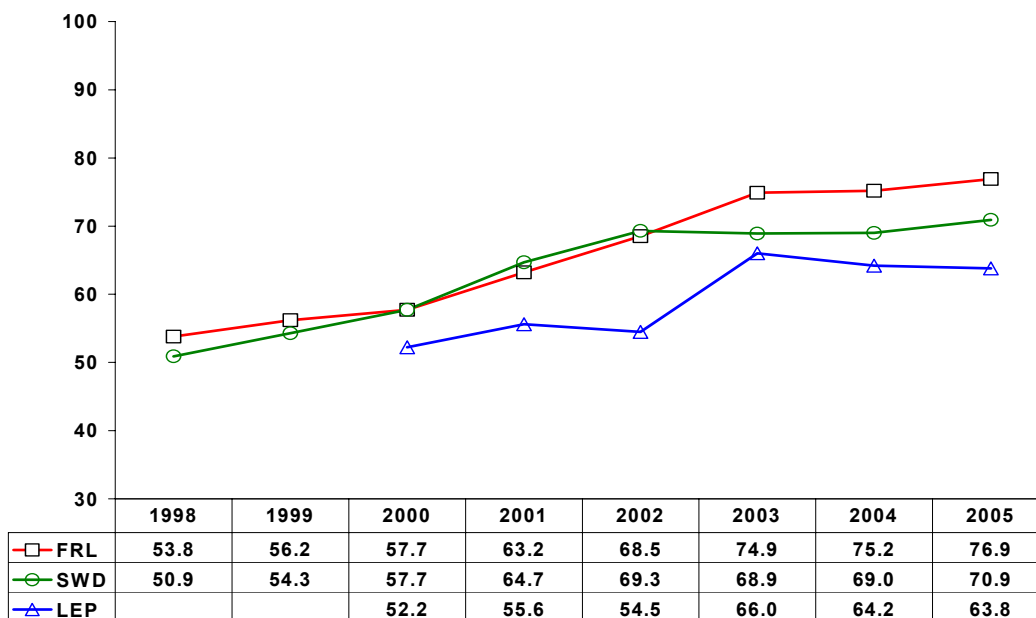


Note: Reflects all EOG test scores, including first-year LEP students. DPI has since removed these students from reporting.

As demonstrated in Figures 10 and 11, FRL, SWD, and LEP students have also shown improved performance on EOG tests since 1998. Comparing spring 2004 to 2005:

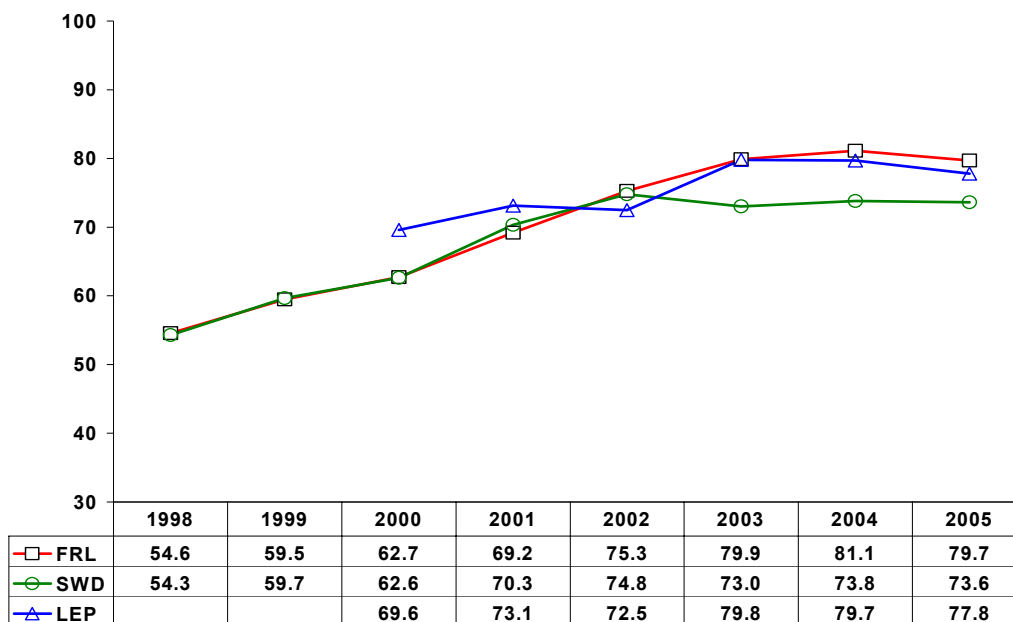
- In reading, FRL and SWD students showed increases in the percentage of students scoring on grade level on the EOG of nearly two percentage points. LEP students, on the other hand, showed a decrease of 0.4 percentage points.
- In math, all three groups showed slight decreases in the percentage of students scoring on grade level (similar to districtwide patterns). SWD student scores decreased only 0.2 percentage points, while FRL and LEP student scores declined by 1.4 and 1.9 percentage points, respectively.

Figure 10
Percent of Grade 3-8 Students at or above Grade Level in Reading on Spring EOG,
Disaggregated by FRL and SWD and LEP



Note: 1998 and 1999 LEP data not available

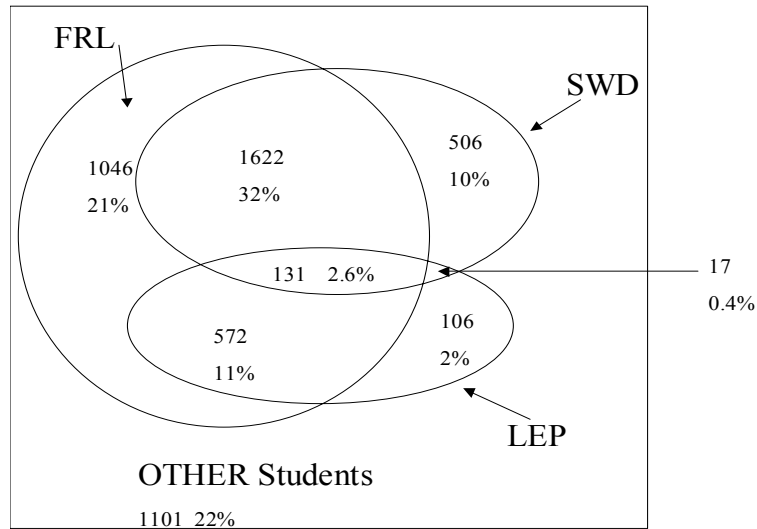
Figure 11
Percent of Grade 3-8 Students at or above Grade Level in Spring EOG in Math,
Disaggregated by FRL and SWD and LEP



Note: 1998 and 1999 LEP data not available

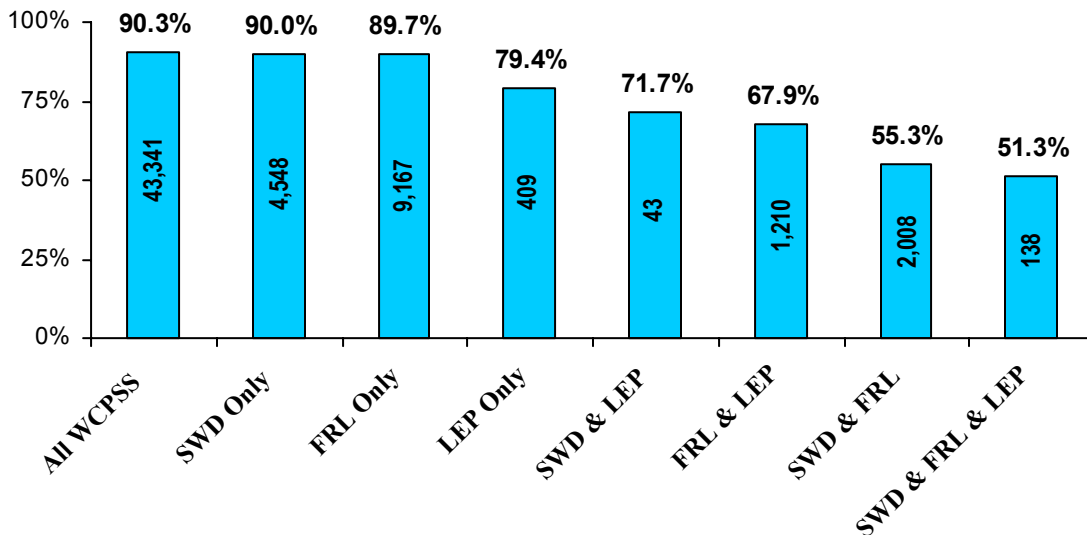
In 2004-05, 5,101 students in grades 3-8 scored at Level I or II on the Reading EOG. The Venn diagram in Figure 12 shows that many had multiple risk factors; 32% (1,622) of these students were both FRL and also identified with a learning disability (SWD); 11% (572) were both FRL and LEP; 2.6% (131) were identified as FRL, SWD, and LEP.

Figure 12
Characteristics of Level I-II Students, 2004-05



Ninety percent of the students who were identified as only FRL or only SWD scored at Level III or IV on the Reading EOG tests, while only 55% of students who were both FRL and SWD scored at Levels III or IV. Students in more than one of these categories appear to be more challenged in terms of reaching grade-level performance.

Figure 13
Students in Selected Subgroups Scoring at Levels III-IV on EOG, 2004-05



END-OF-COURSE TEST RESULTS FOR THE 2004-05 SCHOOL YEAR

(From E&R report: End-of-Course Multiple-Choice Test Results for 2004-05, July 2005)

Compared to 2000-01, End-of-Course (EOC) scores were higher in 2004-05 in seven of the eight courses given throughout this time period. However, increases were not as great as on the EOG tests (see Figure 14).

Compared to 2003-04, average scale scores rose slightly in four of eight subject areas, fell slightly in three subjects and were unchanged in one subject (see Figure 14). The percent of students scoring in the proficient range (Level III or IV) rose slightly in two subjects, fell slightly in five subjects, and was unchanged in one subject (see Figure 15). The composite percentage of all EOC test scores at Level III or IV was unchanged from 2003-04, remaining at 83.2%.

Figure 14
EOC Mean Scale Scores for WCPSS, 1998-99 to 2003-04

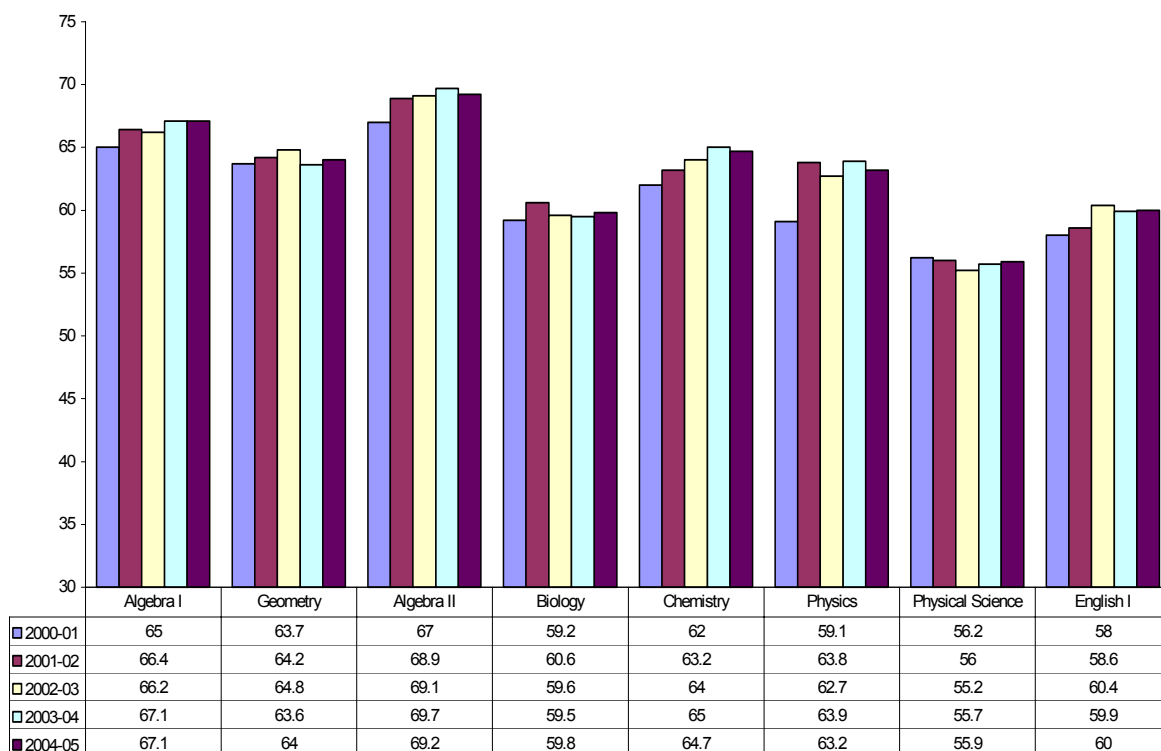
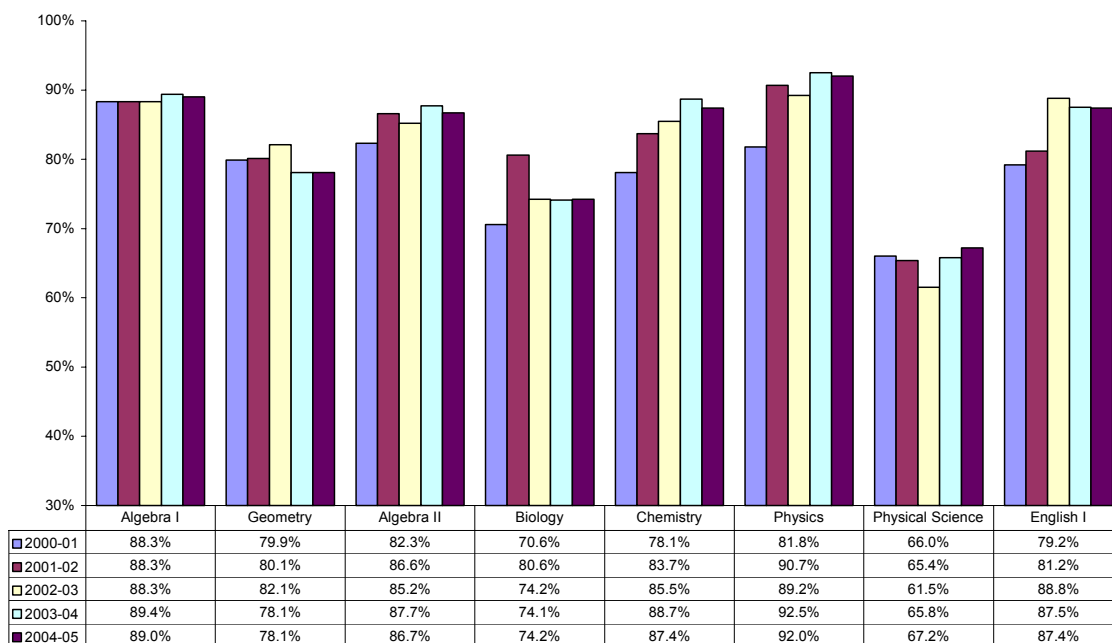


Figure 15
WCPSS Students at Levels III or IV on EOC Tests



Results by ethnicity for three of the five courses students will have to pass are shown in Figures 16-18. The other two tests, related to U.S. History and Civics and Economics, are new; student performance is unknown at this point. Achievement gaps by ethnicity are smallest in Algebra I and largest in Biology, with English I falling in between.

Further disaggregations for 2004-05 are included in Table 2. Most subgroups show the highest achievement in physics and Algebra I, and the lowest in biology and physical science. Differences in performance across tests is marked for some groups. For example, Black/African American, Hispanic/Latino, SWD, LEP, and FRL students all show performance at least 24% higher in chemistry than in biology. Differences are much smaller for other subgroups. In addition, males outperform females in all of the science courses tested, with females outscoring males in English I and Algebra I.

New graduation requirements will require all students who enter 9th grade in the 2006-07 school year to pass five EOC tests in order to graduate (in addition to past requirements). This represents a high standard to reach. We have concerns that this requirement puts undue emphasis on performance on tests, which reflect a snapshot of students' knowledge. In addition, the use of test scores could be seen as undercutting the importance of teachers' judgment of student skills over the full course (students must also pass each of these courses).

Current EOC results suggest many students will have difficulty reaching these new standards, with the subgroups that have traditionally shown lower achievement being the most at risk. EOC Biology results are of particular concern, given that fewer than half of Black/African American students tested and 55% of Hispanic students tested earned proficient scores. Since biology is

only one of five tests which students will have to pass, over half of the Black/African American and Hispanic students in WCPSS are likely at risk of not meeting this requirement. Dramatic improvements in level scores will be necessary if many students are to graduate on time with a diploma.

Figure 16
WCPSS Students at Levels III or IV on English I EOC Test by Race,
2000-01 to 2004-05

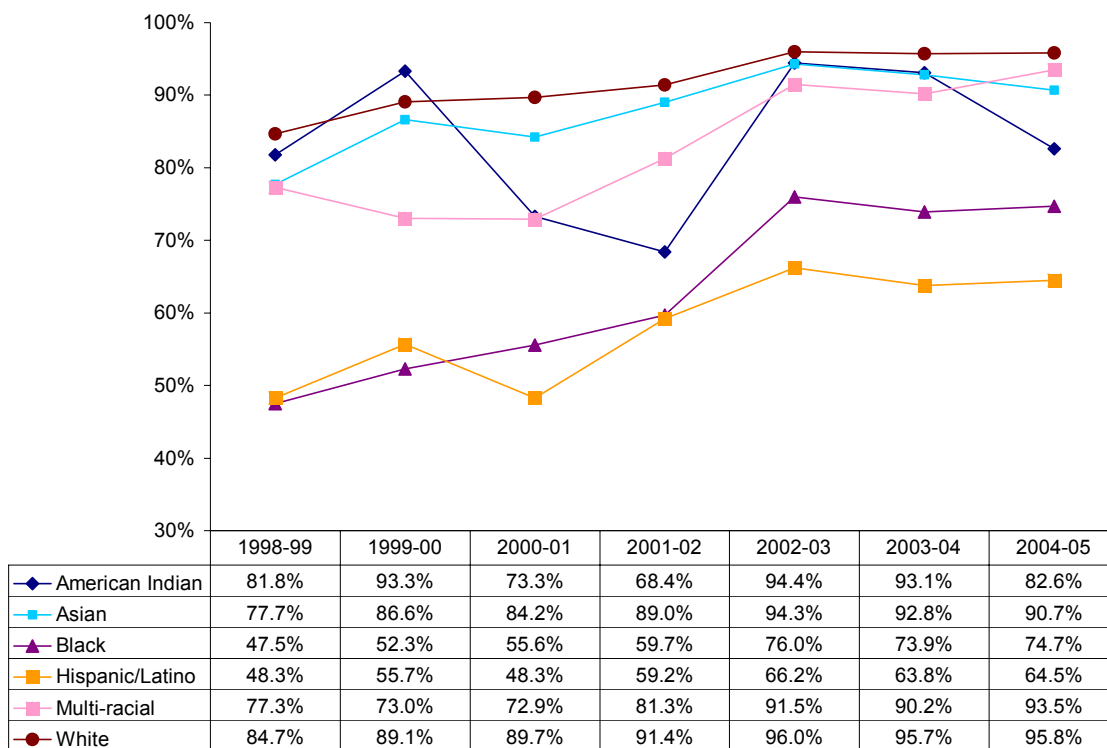


Figure 17
WCPSS Students at Levels III or IV on Algebra I EOC Test
by Race, 2000-01 to 2004-05

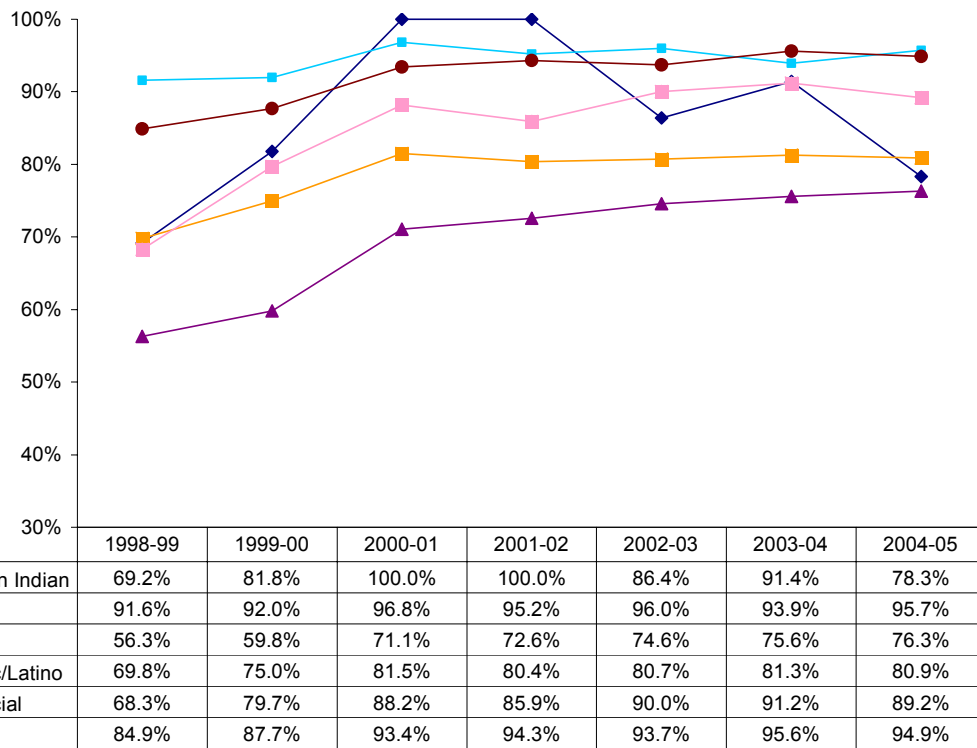
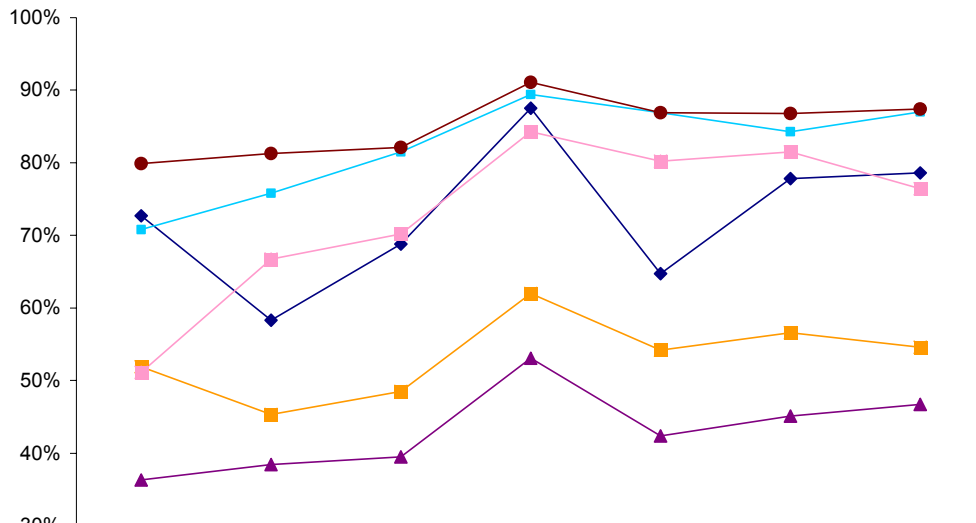


Figure 18
WCPSS Students at Level III or IV on Biology EOC Test by Race,
2000-01 to 2004-05



	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	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%
■ Multi-racial	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%

Table 2
WCPSS Students at Level III or IV in EOCs
for Selected Subgroups, 2004-05

	Algebra I	Algebra II	Geometry	English 1	Biology	Chemistry	Physics	Physical Science
All Students	89.0%	87.7%	78.2%	87.4%	74.1%	87.3%	92.0%	67.2%
Male	88.7%	86.8%	80.9%	84.3%	75.4%	88.8%	93.3%	71.1%
Female	89.2%	86.6%	75.7%	90.6%	72.9%	86.1%	90.2%	63.4%
White	94.9%	91.2%	87.8%	>=95.0%	87.4%	89.8%	93.6%	82.1%
Black/African American	76.2%	71.3%	51.5%	74.6%	46.6%	70.9%	75.6%	51.3%
Asian	>=95.0%	>=95.0%	87.3%	90.7%	87.0%	>=95.0%	94.8%	72.2%
Hispanic/Latino	80.8%	81.1%	68.0%	64.7%	54.6%	84.9%	90.9%	60.8%
Am. Indian	78.3%	84.0%	65.5%	82.6%	78.6%	88.9%	60.0%	72.7%
Multiracial	89.2%	83.4%	75.4%	93.6%	76.4%	91.4%	85.2%	73.1%
SWD	74.7%	76.5%	63.0%	62.3%	47.1%	76.0%	82.3%	55.7%
Not SWD	90.8%	87.4%	79.4%	91.6%	77.8%	87.7%	92.4%	70.2%
AG	>=95.0%	>=95.0%	>=95.0%	>=95.0%	>=95.0%	>=95.0%	>=95.0%	>=95.0%
LEP	72.2%	71.6%	59.7%	29.6%	28.7%	71.8%	81.8%	39.3%
Not LEP	89.5%	86.9%	78.5%	89.3%	75.2%	87.4%	92.0%	67.9%
FRL	75.5%	78.8%	56.1%	67.3%	45.8%	76.2%	82.8%	52.0%
Not FRL	91.9%	88.1%	81.6%	93.1%	80.1%	88.0%	92.3%	72.1%

SWD = Students with Disabilities AG = Academically Gifted LEP = Limited English Proficient FRL = Free or Reduced-Price Lunch

Data Source: NC Department of Public Instruction (www.ncpublicschools.org)

SAT RESULTS FOR THE 2004-05 SCHOOL YEAR

(From E&R report: WCPSS SAT Results 2005; September 2005)

As shown in Table 3, SAT scores for 2005 WCPSS seniors averaged a record-high 1075 in 2004-05, an increase of 12 points above last year. Since 1990, WCPSS students' total scores have increased 76 points, exceeding North Carolina's increase of 62 points and the national increase of 27 points. The average national SAT score in 2004-05 was 1028 and the average N.C. score was 1010.

WCPSS math scores this year increased nine points to 548, the highest they have ever been. WCPSS students scored an average of 527 on verbal, after averaging 524 for the past three years.

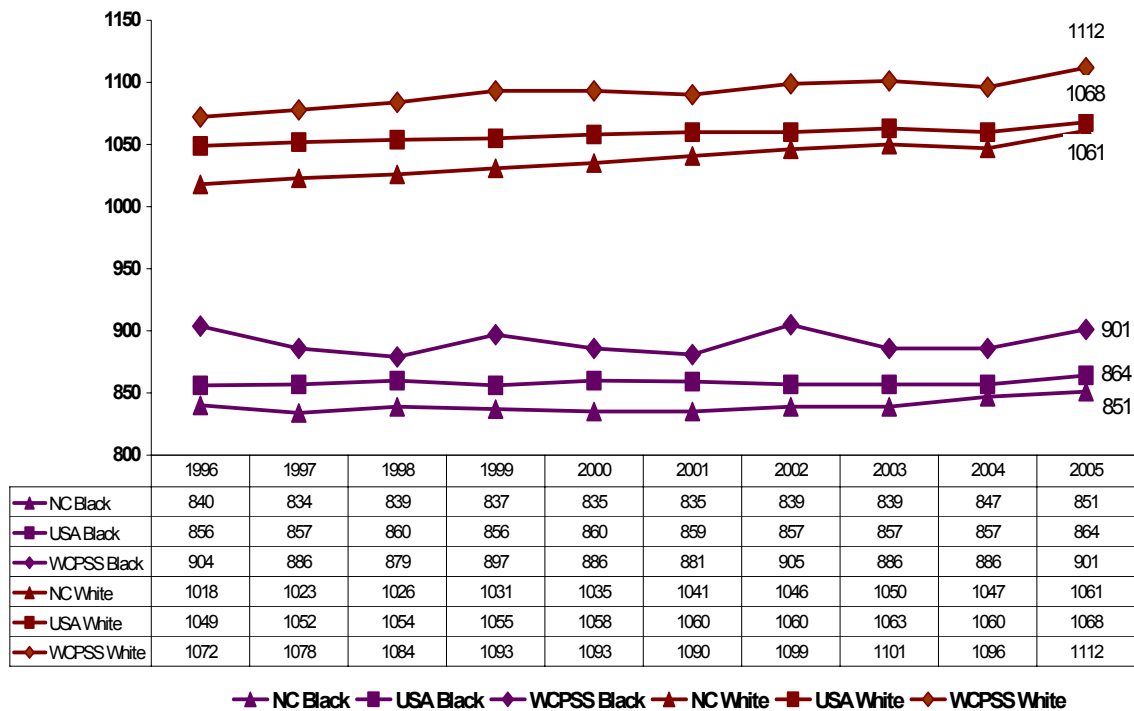
Table 3
SAT Scores for WCPSS, North Carolina, and the US

Year	WCPSS				NC				USA			
	Total	Math	Verbal	Rate	Total	Math	Verbal	Rate	Total	Math	Verbal	Rate
1990	999	498	501	73	948	470	478	55	1001	501	500	40
1991	1007	508	499	75	952	474	478	57	999	500	499	42
1992	1025	516	509	74	961	479	482	57	1001	501	500	42
1993	1031	521	510	76	964	481	483	60	1003	503	500	43
1994	1030	520	510	75	964	482	482	60	1003	504	499	42
1995	1039	524	515	76	970	482	488	60	1010	506	504	41
1996	1042	525	517	73	976	486	490	59	1013	508	505	41
1997	1047	529	518	74	978	488	490	59	1016	511	505	42
1998	1052	531	521	76	982	492	490	62	1017	512	505	43
1999	1059	537	522	76	986	493	493	61	1016	511	505	43
2000	1061	539	522	79	988	496	492	64	1019	514	505	44
2001	1054	534	520	79	992	499	493	65	1020	514	506	45
2002	1067	543	524	79	998	505	493	67	1020	516	504	46
2003	1067	543	524	80	1001	506	495	68	1026	519	507	48
2004	1063	539	524	77	1006	507	499	70	1026	518	508	48
2005	1075	548	527	75	1010	511	499	74	1028	520	508	49

NOTE: The participation rate is the percentage of graduating seniors who took the SAT I.

As shown in Figure 19, total SAT scores for Black/African American and White students vary considerably in WCPSS, North Carolina, and the nation. WCPSS White students and Black/African American students outscore their counterparts in the state and nation. Within WCPSS, White students' average scores have increased 40 points since 1996, while Black students' average scores have not increased (fluctuating up and down over this time span). Compared to 2003-04, WCPSS 2004-05 scores for both White and Black/African American student scores rose by 15 and 16 points, respectively, in 2004-05 compared to 2003-04. Positive, similar improvements left the gap between the two groups basically unchanged.

Figure 19
Average Total SAT Scores



ADVANCED PLACEMENT (AP) RESULTS: 2004-05

(From E&R report: Results from Advanced Placement Tests Given during the 2004-05 School Year; September 2005)

College-level coursework is offered to high school students through the Advanced Placement (AP) program.

Many colleges and universities provide course credit to students who earn a high score on the end-of-year AP exams, which are offered by the College Board. Approximately 60% of students enrolled in AP courses take the corresponding AP exam. The cost to take each AP exam in 2005 was \$82.

AP exam grades determine whether a student is qualified to receive college credit or advanced placement into a higher-level course in college or university. The scores are reported on a five-point scale as follows:

- 5: Extremely well-qualified
- 4: Well-qualified
- 3: Qualified
- 2: Possibly qualified
- 1: No recommendation

All 17 comprehensive high schools in WCPSS offer AP courses, although their availability varies. The number of AP courses taken is rising overall; however, AP course-taking still varies widely among different student subgroups. For example, although they represent only about half of the student population, female students account for more than half of AP enrollments (see Figure 20). With respect to ethnicity, Asian students and White students are over-represented in the AP population relative to their presence in the overall student population, while Black/African American and Hispanic/Latino students are under-represented. It should be noted, however, that this “enrollment gap” between those ethnic groups did appear to close slightly in 2004-05 (Figure 21). Note also that AP enrollment rates for subgroups with smaller numbers of students (e.g., Asian students, American Indian students, etc.) will tend to fluctuate more from year to year, making it difficult to reliably compare their rates to other subgroups.

Figure 20
Student Membership and AP Enrollments by Gender,
2003-04 and 2004-05.

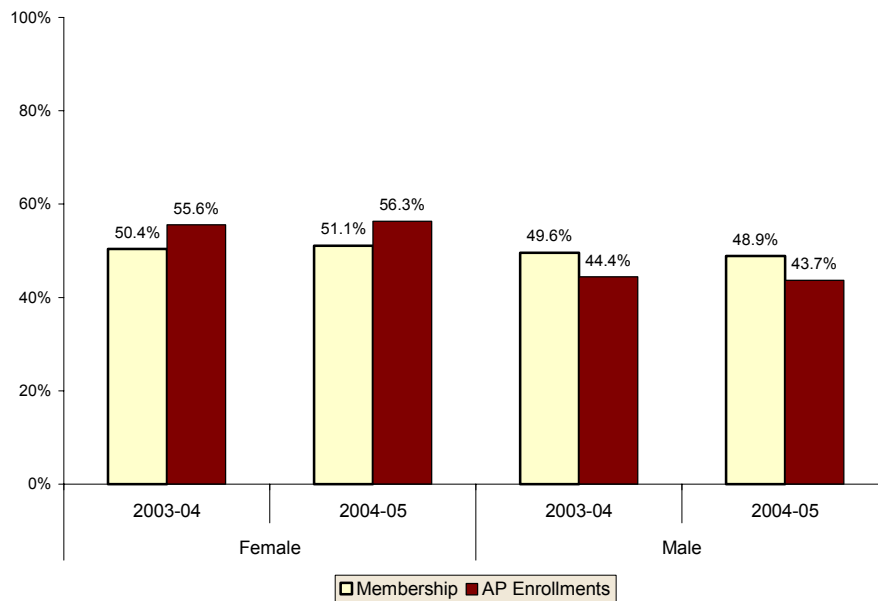
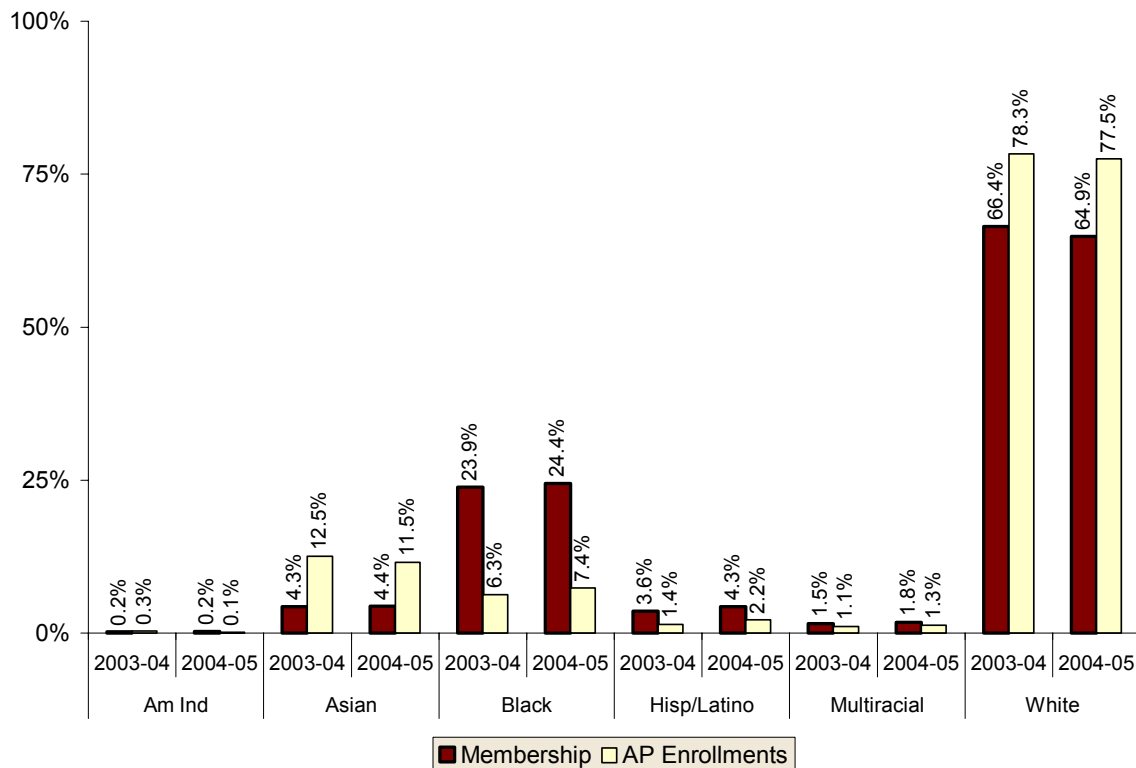


Figure 21
Student Membership and AP Enrollments by Ethnicity,
2003-04 and 2004-05



Analyses of AP reports from the College Board reveal the following (see Table 4):

- The number of AP examinations taken more than doubled between 1996-97 and 2004-05, increasing from 2,785 to 6,365 examinations.
- The percent of exams with scores of 3 or higher has fluctuated between 77 and 80% since 1996-97.
- The percent of WCPSS AP exam scores with scores at or above 3 remains significantly higher than the percent for both the state and the nation.
- Students from most minority racial/ethnic groups are less likely to earn scores of 3 or better than are White or Asian students.

Table 4
Participation and Performance on AP Exams by Racial Subgroups over Time

Race		1997	1998	1999	2000	2001	2002	2003	2004	2005
ALL WCPSS	Number of Exams	2,785	3,197	3,471	3,806	4,320	4,878	5,468	5,534	6,365
	Percent at 3 or Higher	80.4%	79.9%	77.8%	78.1%	77.2%	80.5%	79.4%	78.6%	77.8%
White	Number of Exams	2159	2526	2656	2932	3401	3774	4254	4216	4764
	Percent at 3 or Higher	80.9%	80.2%	77.8%	78.5%	77.6%	81.2%	81.0%	80.1%	79.1%
Black/African American	Number of Exams	88	87	103	130	145	177	191	195	221
	Percent at 3 or Higher	54.5%	59.5%	56.3%	60.8%	54.5%	60.5%	61.3%	56.4%	56.1%
Asian	Number of Exams	327	314	392	477	494	561	717	748	907
	Percent at 3 or Higher	83.2%	81.8%	78.3%	79.7%	79.6%	81.8%	75.7%	76.6%	78.2%
Hispanic/Latino	Number of Exams	48	52	63	80	97	107	106	136	157
	Percent at 3 or Higher	70.8%	88.5%	87.3%	75.0%	79.4%	82.2%	81.1%	75.7%	73.9%
Am. Indian	Number of Exams	4	8	6	22	13	13	16	20	16
	Percent at 3 or Higher	100.0%	50.0%	83.3%	72.7%	84.6%	69.2%	68.8%	65.0%	50.0%
Other	Number of Exams	57	87	121	123	120	135	126	144	165
	Percent at 3 or Higher	80.7%	73.6%	86.7%	87.0%	84.2%	83.0%	79.4%	81.3%	78.2%
Not Stated	Number of Exams	102	123	130	42	50	111	58	75	135
	Percent at 3 or Higher	87.3%	86.2%	80.0%	66.7%	68.0%	79.3%	72.4%	76.0%	74.1%

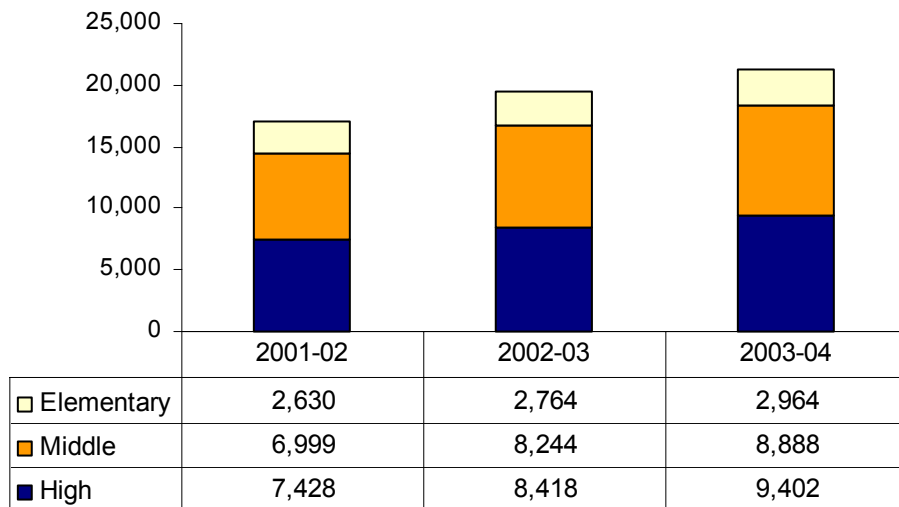
OTHER STUDENT OUTCOMES

SUSPENSION RESULTS FOR THE 2003-04 SCHOOL YEAR

(From an E&R presentation: Contact E&R Department for source)

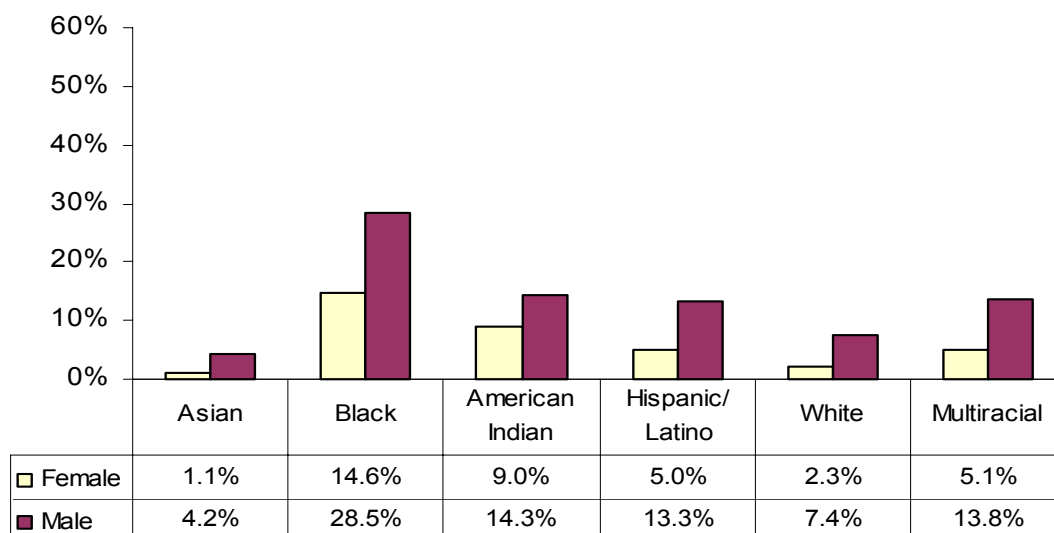
As shown in Figure 22, the number of suspensions has increased since 2001-02. Increases have been greatest at the middle and high school levels. The percentage of WCPSS students suspended in 2003-04 was about 10%.

Figure 22
Number of Suspensions over Time, 2001-02 to 2003-04



As shown in Figure 23, these percentages fluctuated by race and gender. Broken down by racial/ethnic group, Black/African American students were most likely to be suspended. Males were more likely to be suspended than females in every racial/ethnic group.

Figure 23
Percentage of Students Suspended, Disaggregated by Race and Gender, 2003-04



Note: WCPSS suspension rate was 9.79% overall.

Students who are suspended are more likely to have lower grade point averages and to drop out of school. About 1.7% of those not suspended drop out, compared to 7.8% of those suspended short-term and 25.7% of those suspended long-term (Curtis & Harlow, 2004; Harlow 2004).

RETENTION RESULTS FOR THE 2004-05 SCHOOL YEAR

(From unpublished analysis of student enrollment files conducted by the WCPSS E&R School Accountability Office)

As shown in Table 5, the number of students retained in WCPSS over the past three years has been about 4,000 students each year, with the highest number of retentions occurring at kindergarten, first grade, and at grades 9 and 10. The highest number of retentions by far was at grade 9.

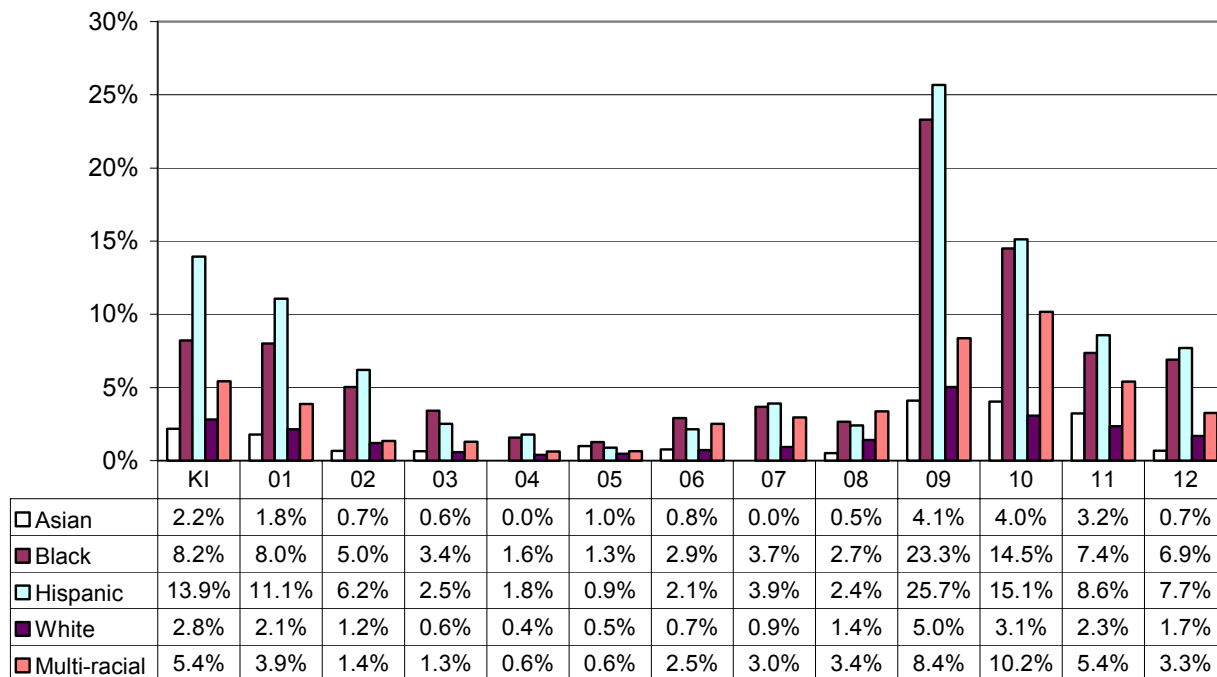
Table 5
Number of Retentions at the End of Each School Year in WCPSS

Grade Level	2002-03	2003-04	2004-05
KI	590	546	556
01	539	483	459
02	289	241	257
03	168	121	138
04	104	65	74
05	83	74	69
06	199	135	135
07	268	194	177
08	177	183	167
09	951	1071	1155
10	480	446	556
11	304	202	279
12	124	201	200
WCPSS Total	4276	3962	4222

Note: Based on comparison of spring grade levels to the following school year

Retention rates at all grade levels are much higher for Black/African American and Hispanic/Latino students than for other ethnic groups, as shown in Figure 24. About one of every four Black/African American and Hispanic/Latino 9th-grade students was retained at grade 9.

Figure 24
2004-05 WCPSS Retention Rates by Grade Level and Ethnicity



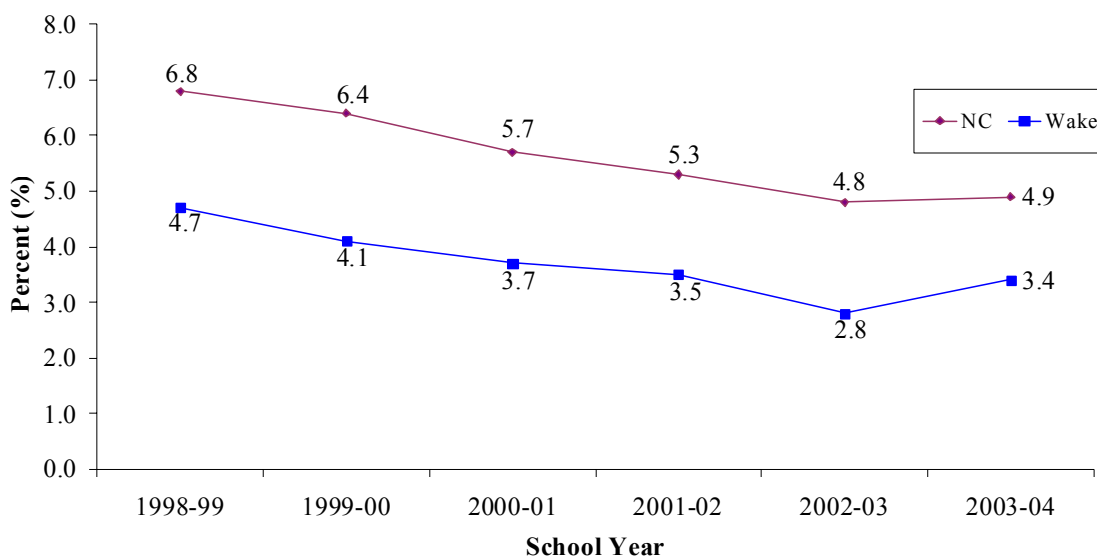
DROPOUT RESULTS FOR THE 2003-04 SCHOOL YEAR

(From E&R report: Dropouts from Wake County Public Schools 2002-03, Dropout Summary Tables 2003-04)

Dropout rates from 2004-05 are not yet available. Between 1998-99 and 2002-03, dropout rates showed a positive downward trend. However, rates rose slightly in 2003-04 (see Figure 25). WCPSS dropout rates have been lower than the state overall across years.

Figure 25

NC and WCPSS Six-Year Dropout Rates Grades 9-12 1999-2004



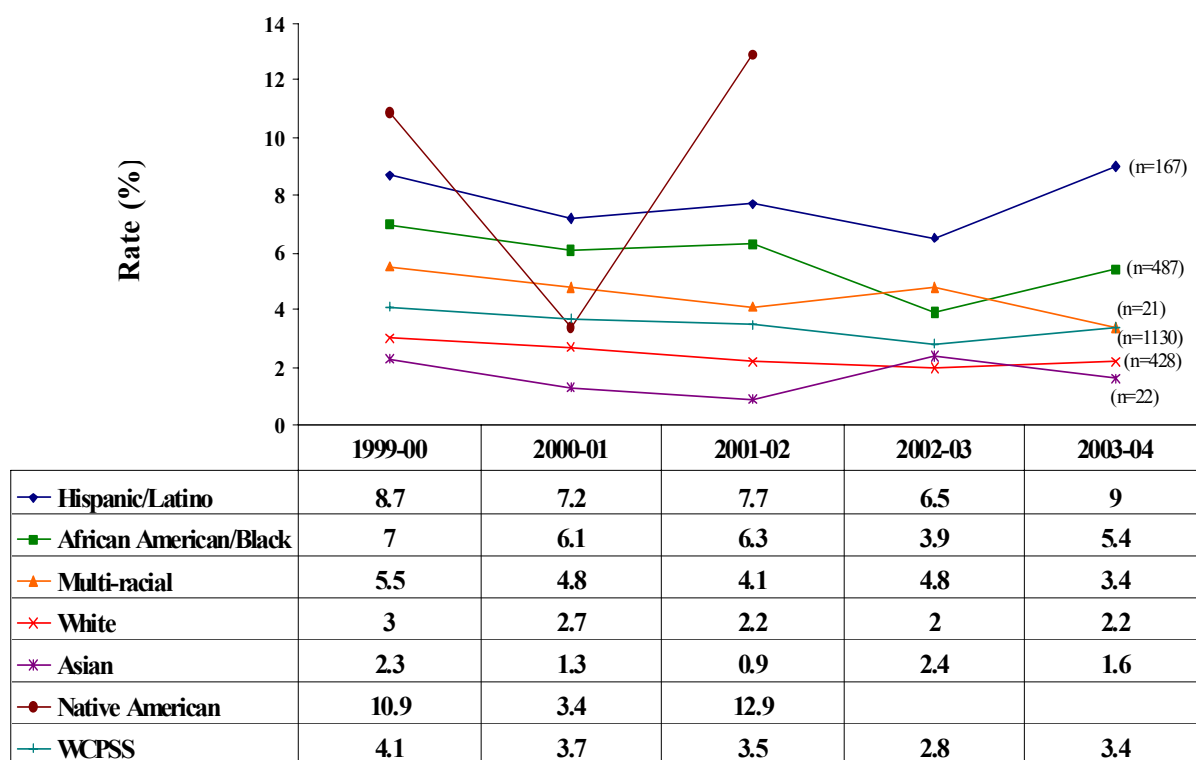
Other important findings based on 2002-03 data were that:

- The WCPSS high school (grades 9-12) dropout rate for 2002-03 (3.4%) was lower than that of other large public school systems in North Carolina. Next lowest was Guilford (3.0%), followed by Mecklenburg (4.0%), Forsyth (5.3%), and Durham (5.8%).
- Dropouts are most commonly 9th-grade students.
- Approximately 75% of the high school dropouts were not in special programs of any kind.
- Twenty-seven percent of the high school dropout cohort was receiving free or reduced-price lunch.

High school trends by racial and ethnic subgroups are illustrated in Figure 26. All racial and ethnic subgroups have shown some improvement in dropout rates since 1999-2000 except Hispanic/Latino students.

- The Hispanic/Latino subgroup has actually seen a small increase during the time period of 0.3%.
- The Black/African American and Multiracial subgroups have shown the greatest improvement during this period, improving by 1.6% and 2.1% respectively.
- White and Asian dropout rates have improved by 0.7%.
- The dropout rate for Native American students has not been included because the number of dropouts was fewer than 5.

Figure 26
WCPSS Dropout Rates for Grades 9-12 by Ethnic Group from 1999-2000 to 2003-04



* Data for Native American students in 2002-03 and 2003-04 were too few to calculate.

GRADUATION RATE STUDY OF THE 1998-99 9TH-GRADE COHORT

(From an E&R report: Graduation Rates of the 1998-99 9th-Grade Cohort: Wake County Public School System.)

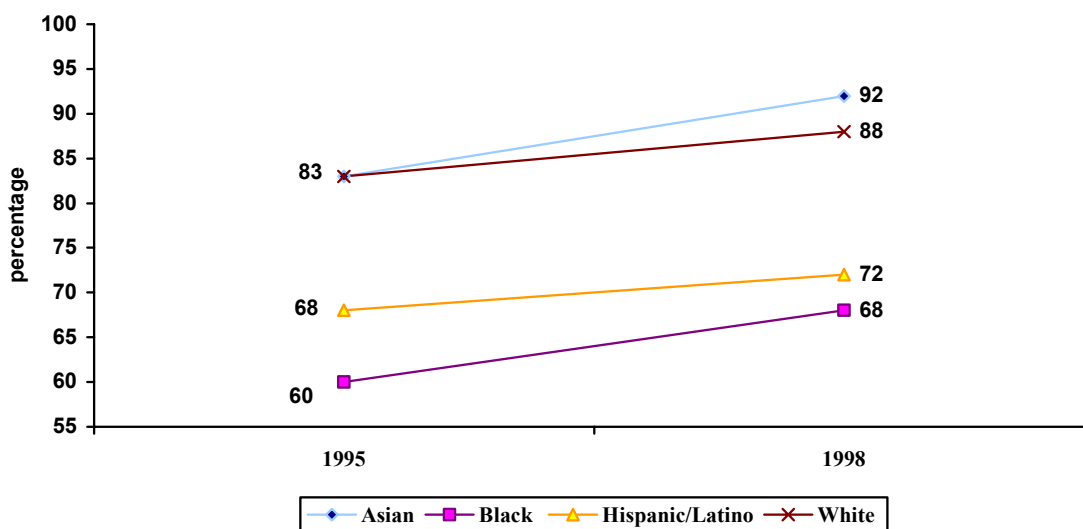
Graduation rates for the 6,037 students in 9th grade for the first time in 1998 revealed that:

- The 1998 graduation cohort rate is six percentage points higher than a comparable 1995 rate.
- The overall subsequent rate of graduation from high school was 83%.
- Female students (87%) were more likely to graduate than male students (79%).

Figure 27 reveals racial subgroup trends.

- All racial subgroups improved between the 1995 and 1998 cohorts, from between four to nine percentage points. Asian students made the greatest gains in graduation rates (nine percentage points), followed by Black/African American students (eight percentage points), White students (five percentage points), and Hispanic/Latino students (four percentage points). Therefore, the gap between Black and White students' graduation rates closed slightly.
- Asian (92%) and White (88%) students were more likely to graduate than Black/African American (68%) and Hispanic/Latino students (72%).

Figure 27
Graduation Rates Comparing the 1995 Cohort to the 1998 Cohort,
Disaggregated by Ethnic Group



GRADUATE INTENTIONS

(From unpublished E&R analyses of graduate intentions for 2004-05.)

Approximately 63% of the 6,570 WCPSS seniors graduating in 2005 indicated their intention to attend a four-year college after graduation, primarily in North Carolina. About 26% planned to attend a two-year college, and nearly 11% planned to enter the military, seek employment, or did not indicate any plans. (See Table 6.)

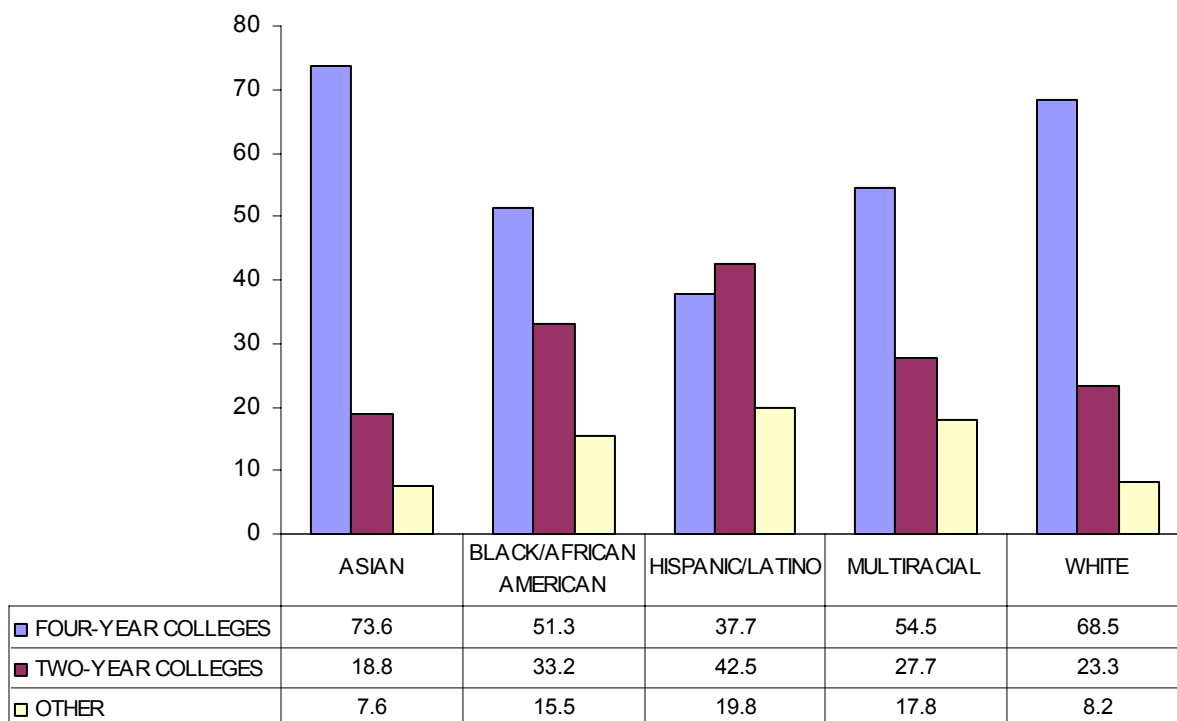
Table 6
WCPSS 2004-05 Graduate Intentions Summary

Diploma Recipients by Intentions		DIPLOMA RECIPIENTS						TOTAL
		AMERICAN INDIAN	ASIAN	BLACK/ AFRICAN AMERICAN	WHITE	HISPANIC/ LATINO	MULTI- RACIAL	
FOUR-YEAR COLLEGES								4,146
Public Senior Insittutions	IN NC	8	179	628	2,293	73	35	3,216
Public Senior Insittutions	OUT OF NC	0	9	39	149	6	9	212
Private Senior Institutions	IN NC	1	19	97	368	12	6	503
Private Senior Institutions	OUT OF NC	0	16	41	143	10	5	215
TWO-YEAR COLLEGES								1,730
Community and Technical Colleges	IN NC	6	50	395	905	108	23	1,487
Community and Technical Colleges	OUT OF NC	0	3	28	21	4	1	57
Private Junior Colleges	IN NC	0	3	44	32	1	2	82
Private Junior Colleges	OUT OF NC	0	0	14	5	0	0	19
Trade, Business, Nursing Schools, etc.	IN NC	0	1	37	32	1	2	73
Trade, Business, Nursing Schools, etc.	OUT OF NC	0	0	3	9	0	0	12
OTHER								694
Military		0	6	46	68	4	2	126
Employment		1	12	129	160	37	10	349
Others/Unknown		1	5	68	127	12	6	219
TOTAL		17	303	1,569	4,312	268	101	6,570

Note: Includes Summer 2004 plus 2004-05 graduates.

Student intentions varied when survey results were disaggregated by race. Asian and White students were most likely to plan on attending a four-year college, followed by Multiracial and Black/African American students. Hispanic/Latino students had the lowest percentage intending to attend a four-year college, with almost equal percentages indicating they intended to attend a two-year versus a four-year college (see Figure 28). Additional detail is available in Table 6 above.

Figure 28
Percent of Graduate Intentions Disaggregated by Race



ACCOUNTABILITY OUTCOMES

ABCs OF ACCOUNTABILITY RESULTS FOR THE 2004-05 SCHOOL YEAR

(From E&R report: ABCs Outcomes for WCPSS for 2004-05)

Results from the 2004-05 North Carolina ABCs Accountability Program for the 131 WCPSS schools showed that:

- 54 schools were designated as “Honor School of Excellence”,
- 7 schools were designated as “School of Excellence”,
- 43 schools were designated as “School of Distinction”,
- 6 schools were designated as “School of Progress”,
- 57 schools exceeded “High Growth” targets, and
- 55 schools exceeded “Expected Growth” targets.

No WCPSS schools were identified as Low Performing by the North Carolina Department of Public Instruction (NCDPI).

Performance Recognition

In order to be a School of Excellence, students must achieve a Level III or IV score on at least 90% of all North Carolina tests taken at that school during the year, and the average gains from pretests to posttests must meet or exceed Expected Growth standards established by the state. In addition to these standards, an Honor School of Excellence must also meet the requirements of Adequate Yearly Progress, as measured by the federal No Child Left Behind program. WCPSS had 61 schools designated School of Excellence or Honor School of Excellence for the 2004-05 school year, down slightly from 64 in 2003-04.

The School of Distinction designation requires that at least 80% of test scores reach Level III or IV and the school must meet or exceed the Expected Growth standards. WCPSS had 43 schools designated as Schools of Distinction for the 2004-05 school year, up from 35 in 2003-04. (Data released by NCDPI on August 4, 2005 fail to identify two WCPSS schools that met the standard as Schools of Distinction. Reedy Creek Middle and West Millbrook Middle will receive the correct recognition at a future meeting of the State Board of Education.)

Growth Recognition

The percentage of WCPSS schools meeting either High Growth or Expected Growth standards rose from 84% in 2003-04 to 86% in 2004-05. High schools had the strongest growth scores, as calculated by NCDPI formulas, with 10 schools achieving High Growth, 7 schools achieving Expected Growth, and no school achieving less than Expected Growth. Elementary Schools had 31 schools achieving High Growth, 40 achieving Expected Growth, and 13 achieving less than Expected Growth. Middle Schools had 15 schools achieving High Growth, 7 achieving Expected Growth, and 6 achieving less than Expected Growth. No WCPSS schools were identified as Low Performing by NCDPI.

Table 7 shows the number and percentage of schools meeting Expected Growth and High Growth targets.

Table 7
ABCs Growth Recognition for WCPSS Schools

		Number of Schools in ABCs Program	Schools Achieving High Growth	Schools Achieving Expected Growth	Schools Not Meeting Expected Growth
Elementary Schools	2001	78	49 (63%)	23 (30%)	6 (8%)
	2002	78	44 (56%)	22 (28%)	12 (15%)
	2003	79	70 (89%)	9 (11%)	0 (0%)
	2004	80	41 (51%)	33 (41%)	6 (8%)
	2005	84	31 (37%)	40 (48%)	13 (15%)
Middle Schools	2001	24	11 (46%)	7 (29%)	6 (25%)
	2002	24	15 (63%)	7 (29%)	2 (8%)
	2003	25	9 (36%)	13 (52%)	3 (12%)
	2004	27	3 (11%)	10 (37%)	14 (52%)
	2005	28	15 (54%)	7 (25%)	6 (21%)
High Schools	2001	15	8 (53%)	7 (47%)	0 (0%)
	2002	15	7 (47%)	8 (53%)	0 (0%)
	2003	16	9 (56%)	7 (44%)	0 (0%)
	2004	16	12 (75%)	4 (25%)	0 (0%)
	2005	17	10 (59%)	7 (41%)	0 (0%)
All Schools (including alternative schools)	2001	120	69 (58%)	39 (32%)	12 (10%)
	2002	120	67 (56%)	37 (31%)	16 (13%)
	2003	123	89 (72%)	31 (25%)	3 (2%)
	2004	125	58 (46%)	47 (38%)	20 (16%)
	2005	131	57 (44%)	55 (42%)	19 (15%)

The WCPSS Evaluation and Research Department disaggregates student achievement using the formulas developed by NCDPI for ABCs Growth targets. Figure 29, Figure 30, and Figure 31 show the Standardized Composite Growth scores for all students and for 18 subgroups for each level—elementary, middle, and high. WCPSS success in reaching high growth is illustrated here, since this higher standard is reflected in the system’s goal for 2008, and reaching high growth can help close achievement gaps. The Level I and II, Level III and Level IV subgroups were created based upon student pretest scores (scores from the prior school year). Other groupings were based upon demographic characteristics.

As shown, the patterns of success by subgroup vary across the three levels. The zero line on the graph represents the High Growth target for the subgroup. Bars rising from the line show that a group has exceeded the target and bars falling below the line show that a group fell short of the target.

Some key findings include:

- Level I and II students showed strong growth in elementary and high school but not in middle school.
- AG students showed strong growth at all levels, with Level IV students who were not AG showing less growth.
- Some gaps in growth existed by ethnicity. Differences by ethnicity were largest in middle schools.
- Subgroups that tend to show lower achievement (e.g., FRL, SWD, LEP, Black/African American, and Hispanic/Latino students) did not show high growth at elementary or middle school levels. At the high school level, four of the five subgroups did show high growth.

Figure 29

WCPSS Elementary
High Growth Composite by Group 2004-05
EOG Reading and Math Grades 3-5

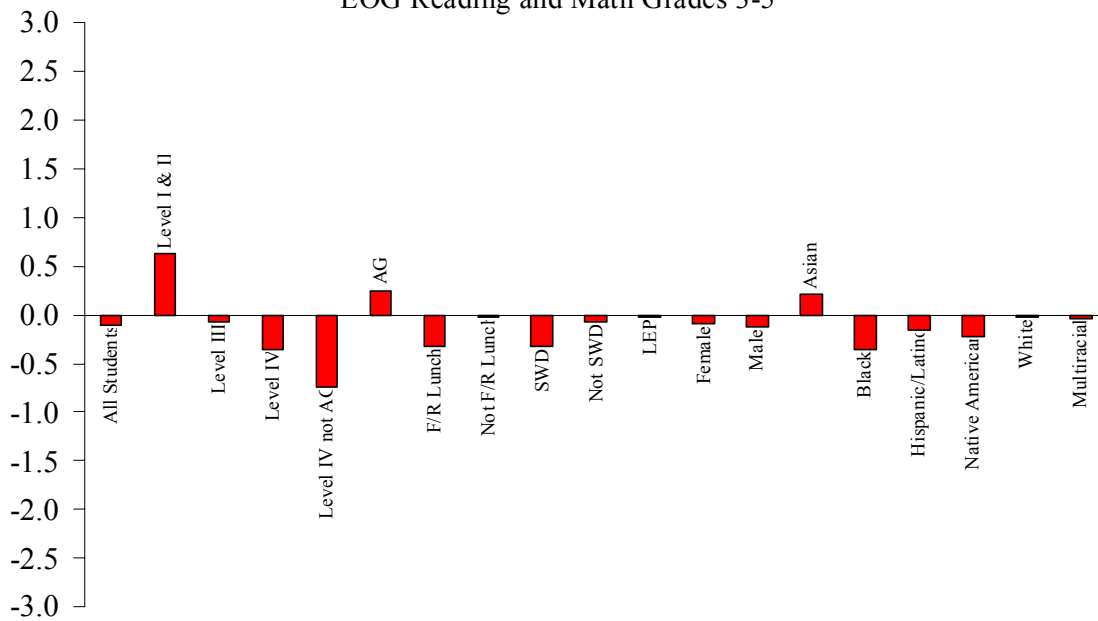


Figure 30
WCPSS Middle Schools
High Growth Composite by Group 2004-05
EOG Reading and Math Grades 6-8 and EOC Math

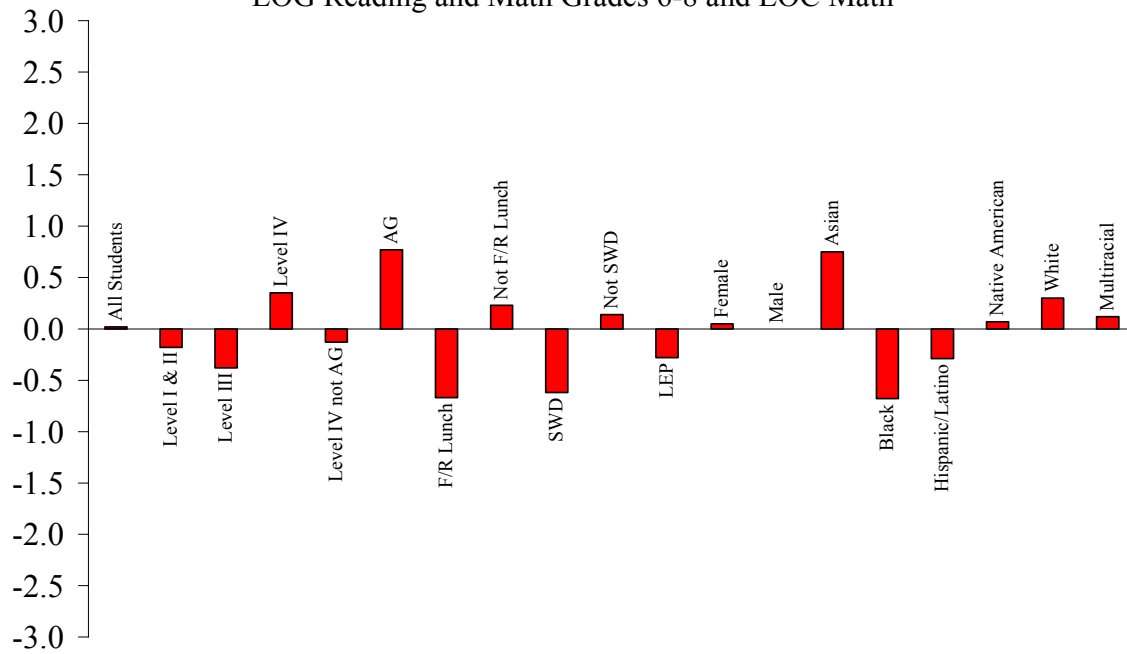
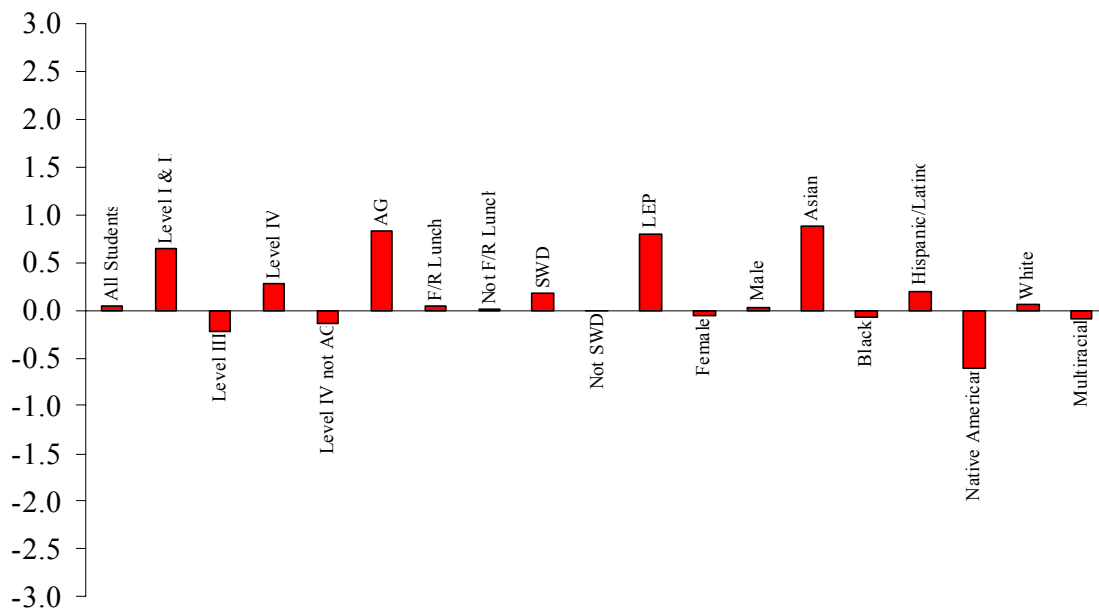


Figure 31
WCPSS High Schools
High Growth Composite by Group 2004-05



NCLB – AYP RESULTS FOR THE 2004-05 SCHOOL YEAR

(From E&R report: Adequate Yearly Progress Results: 2004-05; October 2005)

The 2004-05 school year was the third year of accountability under the federal standards required by the Elementary and Secondary Education Act of 2001 (also referred to as No Child Left Behind [NCLB]), and was the first year that the Annual Measurable Objectives increased. In grades 3-8, the objectives were 76.7% proficiency in reading, up from 68.9%, and 81.0% in math, up from 74.6%. In 10th grade, the Annual Measurable Objectives were given new starting points based on past student performance on English I, Algebra I, and 10th-grade writing tests, which were approved as the high school primary tests.

WCPSS met 66 out of 73 (90.4%) measurable district targets, and, in spite of the new and increased targets, 63% of all WCPSS schools made adequate yearly progress (AYP) in 2004-05 (83 out of 132). Twenty-seven schools missed only one or two targets.

As illustrated in Table 8:

- Students with disabilities and FRL students (economically disadvantaged) were the two subgroups that most often failed to meet AYP targets.
- The number of targets missed did increase with the higher standards for SWD, FRL, LEP, Black/African American, and Hispanic/Latino students.
- Subgroups not shown met all targets.

Table 8
Number of Schools Missing AYP Proficiency Targets by Subgroup
(Based on guidelines that varied somewhat across years)

Subgroup	Reading			Math		
	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05
SWD	18	18	23	38	17	21
FRL	33	6	13	32	8	16
LEP	7	3	4	7	2	4
Black/African American	16	2	8	22	4	12
Hispanic/Latino	9	2	10	7	0	4

SWD = Students with disabilities FRL = Free or Reduced-Price Lunch LEP = Limited English Proficiency

DISCUSSION

WCPSS has made notable progress in improving student achievement and closing gaps across subgroups over time. WCPSS utilizes many approaches to address improving student performance, and E&R has evaluated some of them. (Readers can find the reports at the E&R page of the WCPSS Web site.) The challenge to WCPSS is to determine how we can increase the percentage of students at grade level still further at the same time as we add disproportionate numbers of students who tend to have greater need for support in learning. Concurrently, we must strive for higher achievement for all students, with whatever resources are available.

In addition, we want to improve dropout and graduation rates. We are concerned that new graduation requirements will lead to increased dropout rates and lower graduation rates. The new graduation requirements, which will be effective in 2006-07 for incoming ninth graders, represent a high standard, and put large numbers of minority students at risk of not graduating. The new requirements also appear to put too much weight on test scores, rather than the students' performance throughout the course as indicated by the teachers' grades for the courses.

Some of the questions for future discussion and action include:

- How can we work with the community to encourage greater preschool and other early interventions to reduce achievement gaps that are present when students enter school?
- What strategies can help us increase the performance of those still performing below grade level?
- Are special strategies needed for certain subgroups (such as LEP students) and for students with multiple risk factors in supporting their attainment of grade level performance?
- Can we utilize staff and/or resources in more effective ways?
- How can we encourage more students, particularly Black/African American/African American students, to enroll in more rigorous courses such as Advanced Placement courses? Once they enroll, how can we encourage them to take the tests for possible college credit?
- How can we increase graduation rates?
- Can we dramatically improve pass rates on the End-of-Course tests that will begin to count for graduation for students entering ninth grade in 2006-07? If so, how? If not, can we share data with state policy makers to support a more reasonable alternative?

Achievement gaps relate to factors outside of school control as well as within schools' control. New ideas about approaches to try in schools can come from national research and other school systems. National literature suggests that the following are related to narrowing achievement

gaps (ERS, 2001):

- High expectations for all students
- Challenging curriculum
- Cultural congruence in instruction
- Teaching strategies that promote meaningful participation
- Recognition that teachers and principals are key players
- Extra support for students who need it
- Smaller class sizes at K-3
- Higher teacher quality
- Summer enrichment programs.

Nationally, examples exist of other districts that have been able to close achievement gaps (Cawelti, 1999; Daeschner, Munos, & Barnes, 2004). For example, in Louisville, Kentucky, Daeschner, Munos, and Barnes (2004) found that schools with high poverty who succeeded in attaining high achievement and low-gaps, compared to those who were less successful, had staff who developed school plans that were more specifically designed to address each student's individualized instructional needs and believed that failure was not an option. Goals were measurable, student work was monitored frequently, and distributive leadership elements were applied to ensure equitable access to learning opportunities.

Creative solutions will be needed if we are to attain high growth on the ABCs for all subgroups and 95% of students achieving at grade level at all levels. WCPSS has a Raising Achievement and Closing Gaps Advisory Committee and other committees working on various aspects of these issues. Suggestions for improvement can be sent to E&R (nbaenen1@wcpss.net) for forwarding as appropriate.

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WCPSS OUTCOMES SUMMARY FOR 2004-05, WITH AN EMPHASIS ON ACHIEVEMENT GAP STATUS

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