2006-07

WAKE COUNTY
PUBLIC SCHOOL SYSTEM

WAKE COUNTY PUBLIC SCHOOLS (WCPSS) MIDDLE SCHOOL STUDENT OUTCOMES: 2006-07

Editor

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ABSTRACT

This report draws together various academic performance results for middle school students in WCPSS. Generally speaking, students in grades 6-8 continue to do well on most achievement measures, but there are significant gaps in outcomes between different student subgroups, including ethnic groups, program groups, and also between male and female students. Analysis of student outcomes is provided at the grade level as well as for subgroups. This report also describes demographic trends that impact our student outcomes as well as information about students retained in grade. Finally, the report provides summaries of several research and evaluation efforts related to effective practices for promoting student achievement.

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WCPSS MIDDLE SCHOOL STUDENT OUTCOMES 2006-07

SUMMARY

This report summarizes overall trends in student outcomes at grades 6-8 for 2007-08 and over time for the Wake County Public Schools (WCPSS). This includes not only a variety of testing results but also school accountability measures and promotion/retention rates.

BACKGROUND

Demographic Trends

The student population in WCPSS has been growing rapidly, with an increase of more than 31% since 2001. WCPSS is growing increasingly diverse, with an increase in the percentages of non-White, low income, and limited-English- proficient (LEP) students. The groups that have been growing more rapidly have historically shown lower achievement, increasing the challenge of improving achievement.

Achievement Outcomes - Literacy

End-of-Grade Tests in Reading. Literacy results at the middle school level, based on statewide End-of Grade (EOG) reading tests and the Grade 7 writing test, include the following:

- Generally, the percentage of students scoring at grade level on EOG reading tests has been hovering around 90-91% at the middle school level since spring of 2003.

- Although achievement gaps between various subgroups have not been closing significantly over that time, Black/African American students have demonstrated the largest increase in proficiency rates over that time (4.5%).

- Within each ethnic group, the percentage of female students who scored proficient was higher than for male students, continuing a pattern seen in previous years (WCPSS, 2007).

- The percentage of students scoring proficient on the Grade 7 writing test has been increasing slightly since 2002-03; however, gaps in achievement between students from different subgroups are even larger than those seen on the EOG reading tests.

Grade 7 Writing Test. WCPSS writing results at the middle school level show results above the state level but with room for improvement.

- For the past five years, WCPSS proficiency rates on the state's Grade 7 writing test results have consistently been higher than those for the state as a whole. Since 2002-03, the statewide proficiency rate has gone from 41% to 51%, while the WCPSS proficiency rate has increased from 59% to nearly 65%.
- Grade 7 writing proficiency rates remain among the lowest across all of the tests that are part of the state's testing and accountability program.

- Among various student subgroups in WCPSS, Asian, White, and Female students were the only groups to reach a proficiency rate above 70% in 2006-07. The lowest proficiency rates in 2006-07 were found among the FRL, SWD, LEP, Hispanic/Latino, and Black/African-American subgroups, all of whom had rates lower than 50%. Female students continue to outperform male students on this assessment at Grade 7 by a wide margin.

Achievement Outcomes - Mathematics

Mathematics results are based on EOG tests in mathematics at each grade level, and include the following:

- At grades 6-8, results for 2006-07 show the new mathematics proficiency standard continues to be more difficult to meet than the reading standard. In reading, 91% of students scored proficient, while 74% scored proficient in math.

- Higher percentages of WCPSS students in grades 6-8 scored at grade level in mathematics than was true statewide (65%).

- Middle school gaps in the percentage of students scoring at grade level in mathematics between White and Asian students and Hispanic/Latino and Black/African American students continue to be larger with the new test and standards than was true prior to 2005-06. All subgroups, however, showed modest increases in proficiency in 2006-07. Large gaps persist between students who were low income, had disabilities, or had limited English proficiency and the overall population in WCPSS.

- Overall, female students were slightly more likely to score proficient than Male students. Most of this difference, however, is accounted for by Black/African-American students, where the proficiency rate for female students is about five percentage points higher than for male students.

- Nearly all middle school students who took the Algebra I EOC test scored proficient (98%), with no significant achievement gaps evident by subgroup.

Online Computer Skills Test

Of the eighth grade students who were administered the Online Computer Skills Test in 2006-07, 81.1% passed the test, up from 74% in 2005-06. Passing this test is a graduation requirement, and students who do not pass in 8th grade must retake the test in high school. Other results reveal that:

- Female students have outperformed male students on the Online Computer Skills Test in each of the past two years.
- The achievement gaps between ethnic groups that are evident on the other tests administered in middle school (reading, math, and writing) are also evident on the computer skills test, with passing rates for White and Asian students exceeding those of Black/African American and Hispanic/Latino students by between 23 and 32 percentage points.

- Among FRL, SWD, and LEP students, the FRL subgroup was the only group to achieve a passing rate above 50% in 2006-07.

Retention Rates

WCPSS students are promoted at a high rate, but differences exist in the percentage of students promoted by grade level, ethnicity, academic risk factors, and gender.

- As of the end of the 2006-07 school year, 95.4% of WCPSS' students K-12 were promoted to the next grade level, while 4.6% were retained (5,856 students).

- High school had the highest retention rates, especially at grade 9 (19.5%), but also at grades 10 (10.7%) and 11 (7.3%).

- Elementary had the next highest retention rate, especially at Kindergarten and grade 1 (4.2% and 4.7%, respectively).

- Students in various subgroups in WCPSS show different rates of retention. The subgroups with the highest rates of retention in both of the past two years include FRL, SWD, LEP, Hispanic/Latino, and Black/African American.

- Across the grade spans, middle school students have lower retention rates than do elementary or high school students overall.

ABCs Results

At the middle school level, 93% of WCPSS schools met either the Expected or High Growth standard under the ABCs accountability program in both 2005-06 and 2006-07. However, fewer schools received ABCs recognitions with the new formulas for growth, the re-inclusion of writing, and more rigorous mathematics standards.

- 13 middle schools met their Expected Growth standards and 13 their High Growth standards in WCPSS in 2006-07.

- Four of 28 regular middle schools in WCPSS were able to reach the highest standard of Honor School of Excellence or School of Excellence in 2006-07, up from two of 28 in 2005-06. The most common recognition earned in 2006-07 was as a School of Distinction (12 schools) or School of Progress (10 schools).

- By subject area, students were more likely to make their growth targets in mathematics (60.7%) than in reading (54%). Mathematics, however, also showed larger gaps in growth among student subgroups than reading.
- At the school level, the area where schools were most likely to make at least Expected Growth was Grade 7 reading (93% of schools), while the area schools were least likely to make Expected Growth was Grade 8 reading (35.7%).

AYP Results

Federal AYP standards associated with No Child Left Behind (NCLB) became more difficult to meet in 2005-06 with the introduction of more rigorous proficiency standards for mathematics. Despite a small increase in proficiency rates in mathematics, those difficulties in making AYP were still evident in 2006-07.

- Overall, 18% (5 out of 28) WCPSS middle schools made AYP in 2006-07, down from 29% (8 out of 28) in 2005-06.

- Of the 823 AYP targets that WCPSS middle schools had in 2006-07, 88% were met, down slightly from 90% in 2005-06. As in 2005-06, more mathematics targets were missed in 2006-07 than reading targets.

- Across the elementary, middle, and high school levels, despite meeting over 86% of the district targets (66 of 76), WCPSS continued to be in systemwide improvement. This was because reading targets were missed in all of three levels (3-5, 6-8, and 10) for three consecutive years (2004-2005, 2005-2006 and 2006-07). A systemwide plan for improvement is being implemented. Only three school districts in North Carolina have avoided moving into District Improvement as a consequence of failure to achieve AYP at the district level.

INTRODUCTION AND DEMOGRAPHIC TRENDS

INTRODUCTION

For the second consecutive year, the Evaluation and Research Department (E&R) of the Wake County Public School System is pleased to produce a comprehensive summary of middle school outcomes. The purpose of this report is to provide those interested in middle school outcomes with all the data currently available about student outcomes and effective practices in one volume. Separate reports are being produced that focus on elementary and high school outcomes. We believe these volumes will be helpful to members of Wake County Board of Education, school staff, central services staff, parents, and community members. This report differs from those written in the past, when Wake County Public School System's (WCPSS) Evaluation and Research Department has produced separate reports and bulletins reflecting results on various tests and other student outcomes. One past report that did discuss student outcomes across instruments on a more limited scale was *WCPSS Outcomes Summary for 2004-05, with an Emphasis on Achievement Gap Status.*

Within each volume, the sections include:

- Demographic trends as of spring of each year. This will help contextualize student outcomes.

- Testing outcomes, which are organized by subject—literacy and math.

- Other student outcomes, including retention data, are also provided. The high school level also includes dropout and graduation results.

- Accountability outcomes, including school performance on state ABCs of Public Education and federal Adequate Yearly Progress (AYP) standards, associated with the No Child Left Behind accountability law.

- Findings related to effective practices from E&R studies, to provide ideas on what may or may not be helpful to students.

Decision Rules

Across the various sections of the report, the data presented represent all students in the school system with a few exceptions. Results from state-mandated tests in this report (EOG tests and the writing test) are based only on students able to take the standard version of those assessments. Any exceptions to this general rule are explained within the relevant sections. Results for small numbers of students who take alternate or alternative tests in lieu of those standard assessments are not included, as they are being reported in an upcoming report on alternate assessments. These students are primarily those with moderate to severe disabilities and/or with limited English proficiency, and are relatively small in number, usually less than 5%

of the student population. Therefore, the results in the EOG and writing sections of the report are based on the vast majority of the students in WCPSS in those grade levels.

Group Counts

Throughout this document, we emphasize patterns in results based on percentages. However, we have included enough information to allow the reader to determine the number of students reflected in particular groups whenever feasible. In the demographic section, for example, we will present numbers for the student population in various sub-groups. In the bar graphs presented later, we will report percentages of students and the reader will remember that some population sub-groups are relatively small, while others are relatively large. The percentages presented in the bars, then, will represent different numbers of students. Counts are shown in footnotes or tables at the bottom of graphs when they are of particular importance to understand trends.

Ways to Use This Report

We hope our readers will be able to use this report in several ways:

- To learn about basic trends in outcomes for WCPSS students over time;
- To study achievement gaps over time;
- To get a sense of the number and percent of students who are doing well and how many students may need additional assistance to succeed; and
- To understand what practices might help in efforts to assist students in need.

We welcome feedback on the format and content of this report.

Acknowledgements

This report was truly a team effort across the Evaluation and Research Department. We gratefully acknowledge the help of all E&R staff.

A volume this large and comprehensive could not possibly have been produced without the efforts of many people. Evaluation and Research Department staff who made especially important contributions to the technical and production aspects of this report included Alonda Justice.

DEMOGRAPHIC TRENDS

In this section we describe the nature of the students served in WCPSS, along with changes over time, as context for the student outcomes data that follow. To make the demographic and outcome data as parallel as possible within this report, we used student characteristics information reported in May 2007 in the WCPSS Student Information locator program as our data source. Figures presented here will not match official 20th-day fall enrollments because of changes in the student population during the year.

K-12 Enrollment Trends over Time

By Ethnicity (K-12)

Across grades K-12, the number of students enrolled in WCPSS has been growing rapidly in recent years. Growth challenges all facets of the system's operations. As shown in Table 1, more than 30,450 new students have entered WCPSS schools since 2001, a 31% increase. For all ethnicities except American Indian, the numbers have increased each year. The numbers of Black/African American and Hispanic/Latino students have increased more rapidly than other ethnic groups. The number of Hispanic/Latino students has almost tripled since 2001, which is also true for Multiracial students.

Table 1
Students by Ethnicity, Spring 2001 to Spring 2007, Grades K-12

	2001	2002	2003	2004	2005	2006	2007	Net Increase
American Indian	271	266	270	293	306	326	339	68
Asian	3,925	4,180	4,483	4,694	5,108	5,830	6,601	2,676
Black/African American	25,493	26,473	27,778	29,307	30,684	32,609	34,131	8,638
Hispanic/Latino	4,855	5,877	6,978	8,197	9,676	11,447	13,195	8,340
Multiracial	1,732	2,157	2,583	3,159	3,682	4,304	5,041	3,309
White	61,246	61,959	62,372	63,062	64,478	66,598	68,674	7,428
All WCPSS K-12	97,522	100,912	104,464	108,712	113,934	121,114	127,981	30,459

Data Source: Analysis of WCPSS Student Locator annual May data

Figure 1 displays growth patterns as the percentage of the total district population represented by each ethnicity. The largest percentage increases were for Hispanic/Latino students (up five percentage points) and Multiracial students (up two percentage points). Accordingly, the proportion of WCPSS students who are White decreased (even while the number of White students steadily increased).

Figure 1
Student Population by Ethnicity, Spring 2001 to Spring 2007, Grades K-12

	American Indian	Asian	Black	Hispanic/Latino	Multiracial	White
2001 (97,522)	0.3%	4.0%	26.1%	5.0%	1.8%	62.8%
2002 (100,912)	0.3%	4.1%	26.2%	5.8%	2.1%	61.4%
2003 (104,464)	0.3%	4.3%	26.6%	6.7%	2.5%	59.7%
2004 (108,712)	0.3%	4.3%	27.0%	7.5%	2.9%	58.0%
2005 (113,934)	0.3%	4.5%	26.9%	8.5%	3.2%	56.6%
2006 (121,114)	0.3%	4.8%	26.9%	9.5%	3.6%	55.0%
2007 (127,981)	0.3%	5.2%	26.7%	10.3%	3.9%	53.7%
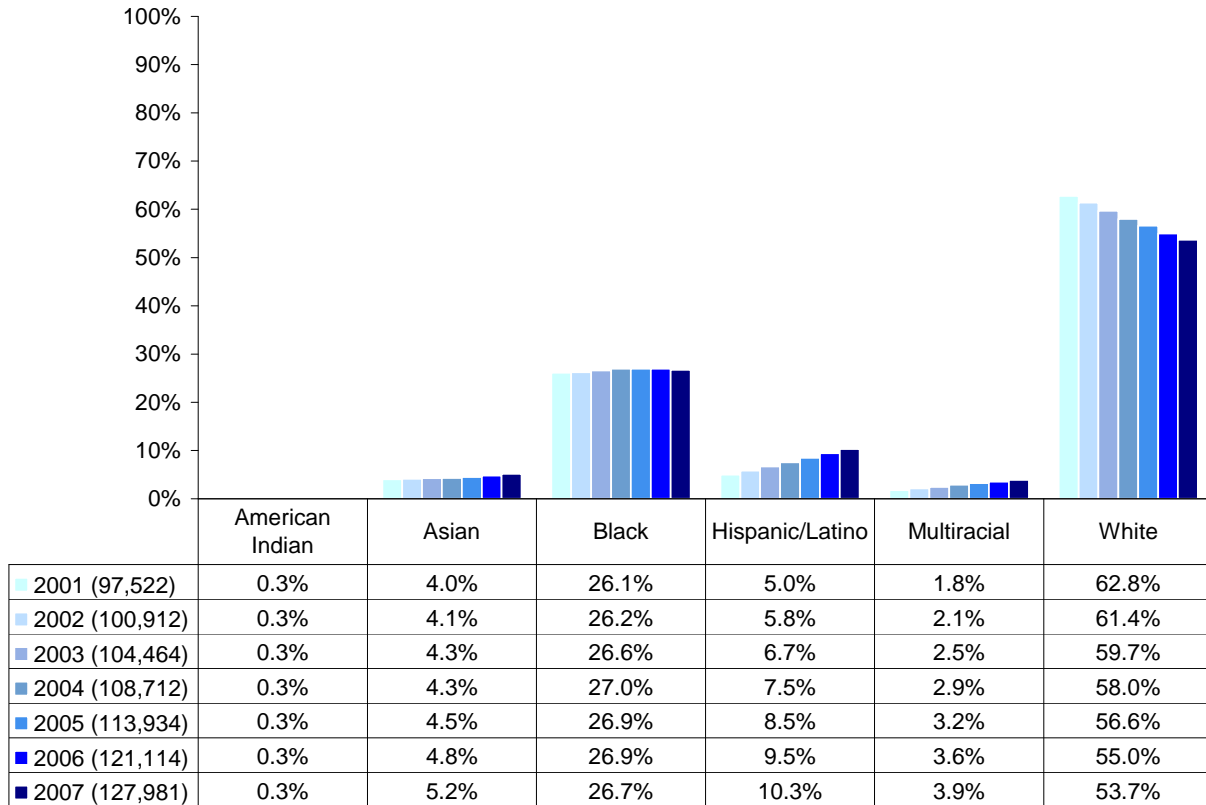
Data Source: Analysis of WCPSS Student Locator annual May data

By Academic Risk Factor (K-12)

In this report, risk factors are defined as students who have limited English proficiency (LEP), students with disabilities (SWD), and/or students who receive free or reduced-price lunch (FRL). Students in these categories often have lower academic proficiency rates. Detailed analyses in WCPSS have shown having more than one of these risk factors correlates with even lower proficiency rates.

Free or Reduced-Price Lunch (FRL) Students

School systems are required to monitor the achievement of low-income students for various purposes, including The Elementary and Secondary Education Act of 1965, as amended by the No Child Left Behind Act of 2001 (NCLB) regulations. Currently, students' FRL status is used as an indicator of socio-economic status. While it is the best indicator available, it is not without problems, and federal officials are exploring other ways to monitor low-income status.

- One issue that arises from using FRL is that qualification for this program is not synonymous with meeting federal poverty level guidelines. To qualify, families may have an income up to 130% of the federal poverty level for free meals or 185% of the federal poverty level for reduced-price meals. Family size is also considered; the maximum income for a family of two is $25,327, while a family of five can earn $44,641.

- Another issue is that families of elementary school students are more likely to apply for FRL than are families of middle or high school students. The reason for this disparity may be due in part to a perception of being singled out, even though individual students' status is kept confidential. Nevertheless, elementary students are more likely to receive FRL than are middle or high school students.

Families have the opportunity to apply for FRL annually. In May 2007, there were 37,215 students in grades K-12 enrolled in the FRL program. This represented approximately 29% of the 127,981 WCPSS students. By level of school, FRL students represent 33% of elementary, 30% of middle, and 21% of high school students enrolled.

Students with Disabilities (SWD)

School districts throughout the nation are required to provide appropriate educational services in the least restrictive environment for students with disabilities. Such disabilities may be manifested physical (blindness, hearing loss, etc.) or psychological (impaired cognitive processing, behavior disorders, etc.). The appropriate educational and support services to enable these students to make academic progress are determined by a committee of educators and other specialists along with the student's parents and are codified in the Individual Educational Plan (IEP) that represents a legal contract between the student's family and the school. The IEP is reviewed periodically and, as necessary, is updated.

The IEP specifies the manner in which educational progress will be measured. Many SWD students participate in the regular testing program, sometimes with testing accommodations or modifications. Such modifications are not intended to create an advantageous situation for the

student. Rather, the modifications are efforts to ensure that the student's testing experience will result in a valid measure of his/her academic progress.

Historically, about 14% of WCPSS students are identified as SWD. In 2007, there were 17,508 students in WCPSS who had disabilities. This is above the 12% cap that the state of North Carolina places on students for whom reimbursement of additional costs of education may be claimed. Thus, about the expenses for the 2% of students above the cap are borne solely by the district. None of these additional expenses is charged to the student's family, of course.

Limited English Proficient (LEP) Students

Selected WCPSS students are designated as Limited English Proficient (LEP) based on their performance on the IDEA Proficiency Test (IPT). Any student whose home language survey indicates English is not the only language spoken in his or her home is assessed with this test upon entry into WCPSS. The IPT consists of four sections: Reading, Listening, Writing, and Speaking. Students can receive one of six levels of scores for each section: Novice Low, Novice High, Intermediate Low, Intermediate High, Advanced, and Superior. The results of the IPT are used to determine a student's LEP status; any student not scoring Superior in all four sections of the test is classified as LEP. An LEP designation qualifies a student for ESL (English as a Second Language) services. LEP students remain eligible for these services until they score Superior on all four sections of the IPT.

In May 2007, 9,478 LEP students were enrolled in WCPSS across grades K-12. In K-12, the LEP percentage of the population is generally inversely related to grade. That is, as the grade increases (4th to 5th, etc.) the percentage of the grade population made up of LEP students within each successive grade is smaller.

Enrollments increased for all academic risk subgroups between spring of 2001 and 2007, with the number of students who qualified as FRL increasing the most rapidly (see Table 2). The most common combinations of characteristics are FRL with LEP or SWD.

When the number within each risk group in Spring 2007 is compared with the number in Spring 2001, it will be seen that the number of LEP and FRL students increased at a considerably greater rate than the 31% increase true for the system overall (Table 1 and 2). The number of LEP students more than doubled and there was an increase of almost 70% for FRL students. While the number of SWD students increased, WCPSS students who are SWD declined slightly as a percentage of the district population overall (Table 2 and Figure 2). Students with more than one academic risk characteristic, while relatively small in numbers, also increased more than the system increase in population overall, especially for the FRL and LEP combination (Table 2).

Table 2
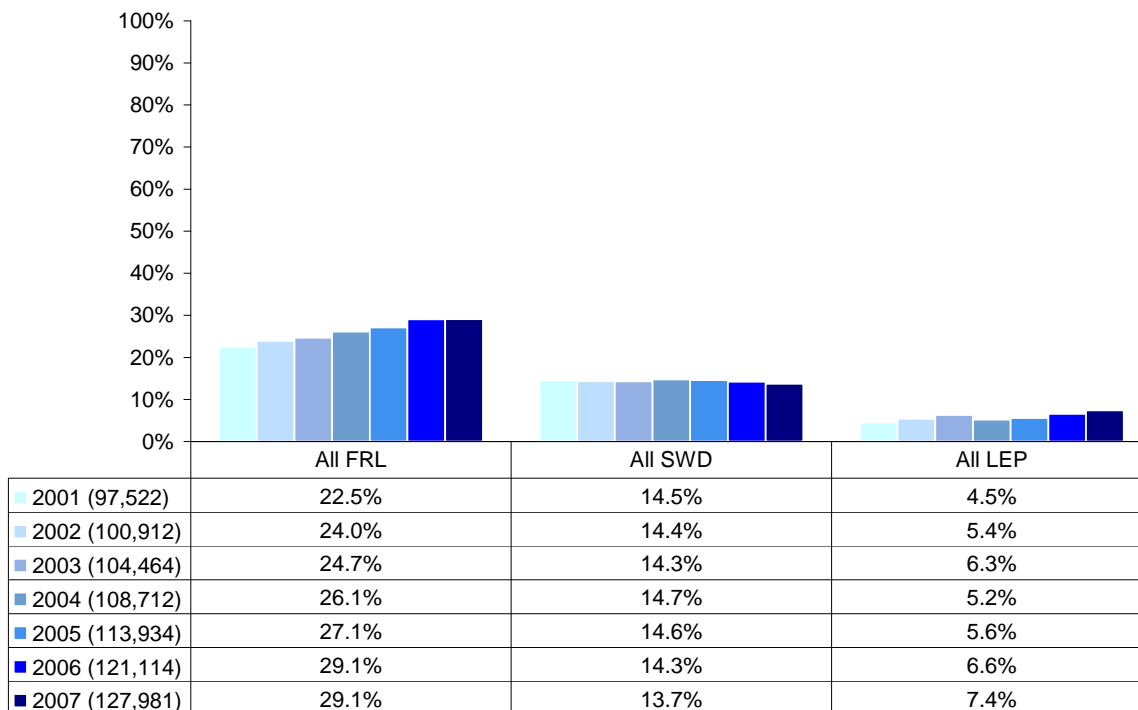**Students by Risk Factor, Spring 2001 to Spring 2007, Grades K-12**

	2001	2002	2003	2004	2005	2006	2007
All FRL	21,959	24,172	25,782	28,428	30,881	35,195	37,215
All SWD	14,179	14,483	14,948	16,025	16,630	17,264	17,508
All LEP	4,398	5,451	6,610	5,659	6,371	7,989	9,478
FRL and LEP	2,686	3,455	4,157	3,801	3,982	5,429	6,172
FRL and SWD	4,806	5,134	5,320	5,851	6,050	6,752	6,689
LEP and SWD	72	96	128	109	115	128	191
FRL and LEP and SWD	204	289	387	408	441	553	725
All WCPSS	**97,522**	**100,912**	**104,464**	**108,712**	**113,934**	**121,114**	**127,981**

Note:　　Students can be counted more than once in the top section of this table if they qualify in more than one category (duplicated count). Students are counted only once on the bottom part of the table (unduplicated count).
Data Source:　Analysis of WCPSS Student Locator annual May data.

While the proportion of WCPSS students who are LEP or who qualify for FRL has increased over time, the percentage of students with disabilities has declined slightly (see Figure 2), even as the number of SWD students increased. The biggest impact of these changes has been an increase in the percentage of FRL students in WCPSS.

Figure 2
Student Population by Risk Factor, Spring 2001-07, Grades K-12

	All FRL	All SWD	All LEP
2001 (97,522)	22.5%	14.5%	4.5%
2002 (100,912)	24.0%	14.4%	5.4%
2003 (104,464)	24.7%	14.3%	6.3%
2004 (108,712)	26.1%	14.7%	5.2%
2005 (113,934)	27.1%	14.6%	5.6%
2006 (121,114)	29.1%	14.3%	6.6%
2007 (127,981)	29.1%	13.7%	7.4%

Note:　　Duplicated counts.
Data Source: Analysis of WCPSS Student Locator annual May data.
Interpretation Example: In 2006-07, 29.1% of all WCPSS students in grades K-12 were identified as FRL students compared to 22.5% in 2000-01.

Table 3 shows gender patterns within academic risk groups by ethnicity. The primary gender-related differences are within SWD groups, where the number of male students is always larger than the number of female students (except for Asian students who qualify for SWD and FRL designation) and in some comparisons is approximately double that of females.

Table 3
Students with Academic Risk Factors by Gender by Ethnicity, Spring 2007, Grades K-12

		Am Indian	Asian	Black	Hispanic/ Latino	Multi-Racial	White	Total
FRL	Female	42	470	10,208	4,558	790	2,441	18,509
	Male	51	470	9,964	4,867	774	2,580	18,706
	Total	93	940	20,172	9,425	1,564	5,021	37,215
SWD	Female	19	90	2,266	494	213	2,670	5,752
	Male	32	154	4,367	963	442	5,798	11,756
	Total	51	244	6,633	1,457	655	8,468	17,508
LEP	Female	1	554	279	3,411	54	245	4,544
	Male	1	669	270	3,623	63	308	4,934
	Total	2	1,223	549	7,034	117	553	9,478
FRL-SWD	Female	6	13	1,658	134	99	366	2,276
	Male	13	13	3,106	312	185	784	4,413
	Total	19	26	4,764	446	284	1,150	6,689
FRL-LEP	Female	1	174	198	2,606	24	90	3,093
	Male	0	197	188	2,576	21	97	3,079
	Total	1	371	386	5,182	45	187	6,172
SWD-LEP	Female	0	12	3	39	4	10	68
	Male	0	20	5	67	5	26	123
	Total	0	32	8	106	9	36	191
FRL-SWD-LEP	Female	0	11	16	227	2	6	262
	Male	0	10	20	419	4	10	463
	Total	0	21	36	646	6	16	725

Note: Duplicated count top section; unduplicated bottom section.
Data Source: May 2007 Student Locator.

Middle School Enrollment Trends over Time

By Ethnicity (Grades 6-8)

Almost 6,000 more students entered WCPSS middle schools from 2001-07, a 26% increase (somewhat smaller than the overall increase across grades K-12). The number of students has increased each year for all ethnic groups except American Indian students (see Table 4). As was true for K-12, the numbers of Black/African American students and Hispanic/Latino students showed the greatest increase in numbers of students.

As Table 4 shows, there was an increase for each ethnicity in Spring 2007 compared with Spring 2001. The Multiracial population more than tripled, increasing from 282 in May 2001 to 1,092 in May 2006, while the Hispanic/Latino population more than doubled, increasing from 1,080 in May 2001 to 2,733 in May 2006 in the same period.
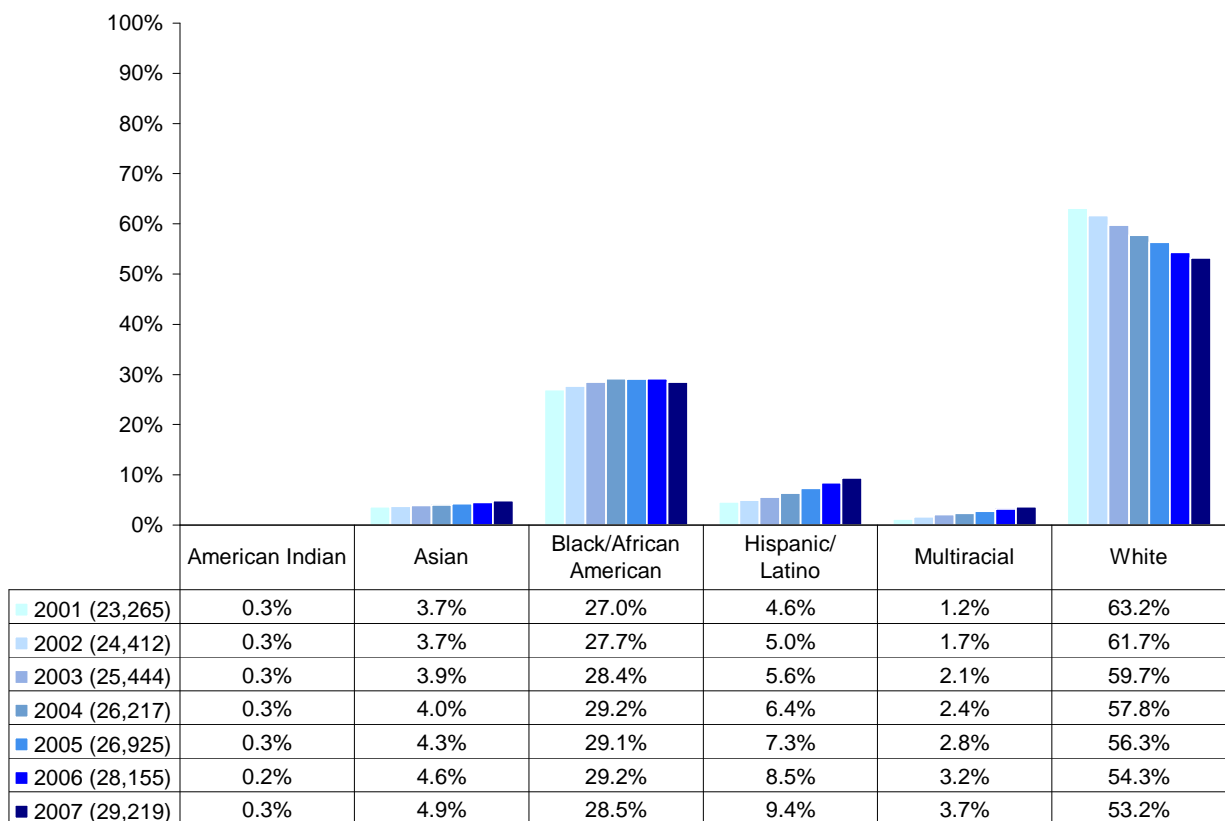
Table 4
Students by Ethnicity, Spring 2001-02 to Spring 2006-07,
Grades 6-8

	2001	2002	2003	2004	2005	2006	2007	Increase 2001 to 2007
American Indian	64	66	69	74	69	68	81	17
Asian	854	907	996	1,055	1,147	1,284	1,433	579
Black/African American	6,289	6,763	7,237	7,643	7,830	8,212	8,332	2,546
Hispanic/Latino	1,080	1,217	1,419	1,678	1,966	2,391	2,733	1,653
Multiracial	282	408	523	620	747	903	1,092	810
White	14,696	15,051	15,200	15,147	15,166	15,297	15,548	852
All WCPSS Middle	**23,265**	**24,412**	**25,444**	**26,217**	**26,925**	**28,155**	**29,219**	**5,954**

Data Source: Analysis of WCPSS Student Locator annual May data

Figure 3 shows a decreasing percentage of White students relative to the total middle school population. With other ethnic groups growing at a faster pace, White students represent a gradually decreasing percentage of the overall membership (as is true of the K-12 population; see Figure 3).

Figure 3
Percentage of Student Population by Ethnicity, Spring 2001–07, Grades 6–8

	American Indian	Asian	Black/African American	Hispanic/ Latino	Multiracial	White
2001 (23,265)	0.3%	3.7%	27.0%	4.6%	1.2%	63.2%
2002 (24,412)	0.3%	3.7%	27.7%	5.0%	1.7%	61.7%
2003 (25,444)	0.3%	3.9%	28.4%	5.6%	2.1%	59.7%
2004 (26,217)	0.3%	4.0%	29.2%	6.4%	2.4%	57.8%
2005 (26,925)	0.3%	4.3%	29.1%	7.3%	2.8%	56.3%
2006 (28,155)	0.2%	4.6%	29.2%	8.5%	3.2%	54.3%
2007 (29,219)	0.3%	4.9%	28.5%	9.4%	3.7%	53.2%

Data Source: May 2007 Student Locator.

By Academic Risk Factor

Table 5 shows the number of middle school students in membership by academic risk factors i.e., FRL, SWD and LEP in spring of each year, as well as combinations of these factors. Enrollments increased for all academic risk subgroups between Spring 2001 and 2007, but those students with the FRL academic risk factor increased the most in number. When the number within each academic risk group in Spring 2007 is compared to the number in Spring 2001, the percentage of LEP and FRL students increased more than the system overall, while the percentage of SWD students increased just slightly more. LEP students showed the greatest increase at 108% (from 778 in May 2001 to 1,620 in May 2007), while the number of FRL students increased 66% (from 5,297 in May 2001 to 8,774 in May 2007).
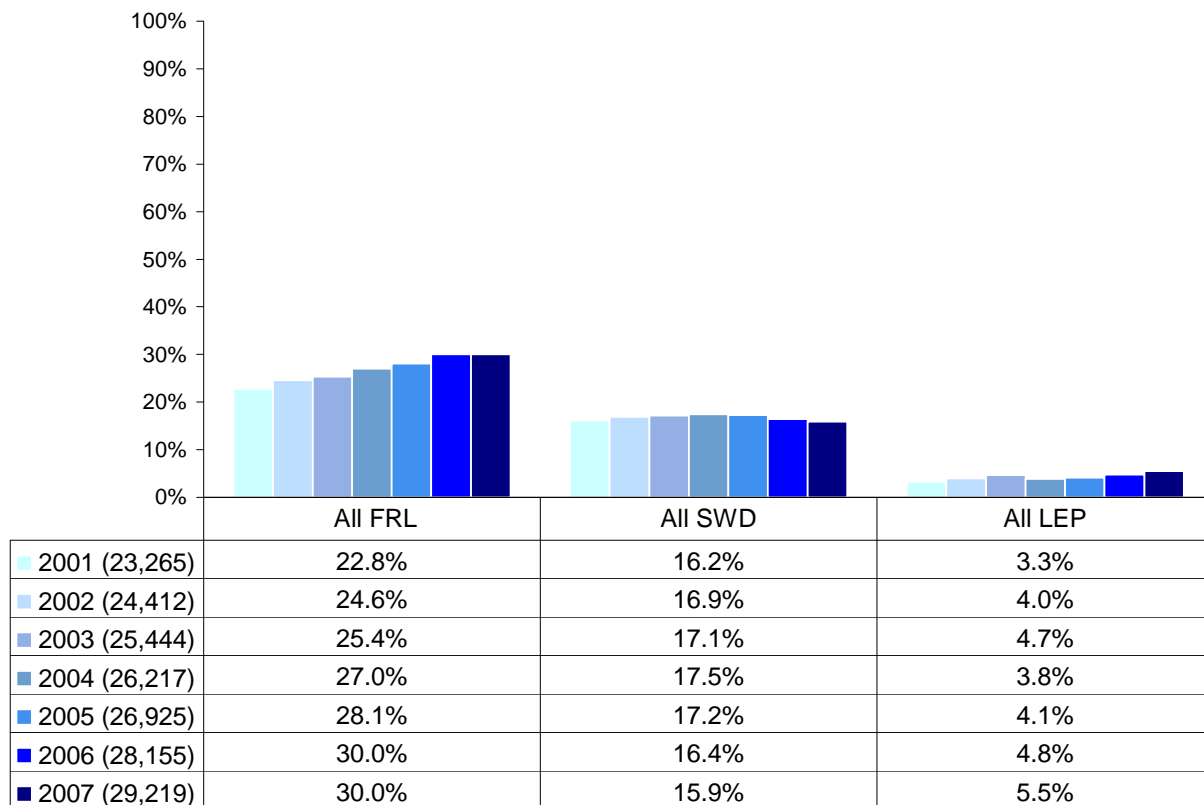
Table 5
Enrollment of Students by Academic Risk Factor, Spring 2001 to Spring 2007, Grades 6-8

	2001	2002	2003	2004	2005	2006	2007
All FRL	5,297	6,005	6,457	7,069	7,570	8,450	8,774
All SWD	3,767	4,121	4,358	4,578	4,639	4,623	4,657
All LEP	778	974	1,189	1,000	1,111	1,355	1,620
FRL and LEP	465	600	730	687	751	912	1,042
FRL and SWD	1,459	1,618	1,679	1,807	1,834	1,965	1,974
LEP and SWD	13	21	25	22	22	34	44
FRL and LEP and SWD	43	56	82	70	92	119	155
All WCPSS Middle	**23,265**	**24,412**	**25,444**	**26,217**	**26,925**	**28,155**	**29,219**

Note: Upper section contains duplicated counts. Lower section contains unduplicated counts.
Data Source: Analysis of WCPSS Student Locator annual May data

Figure 4 displays the percentage of the overall middle school population each year for all FRL, SWD, and LEP students. The figure indicates a marked, steadily increasing percentage of FRL students compared to the other two academic risk factors, with the LEP and SWD student growth percentages fluctuating slightly over the period.

Figure 4
Percentage of Student Population by Academic Risk Factor, Spring 2001 to Spring 2007, Grades 6-8

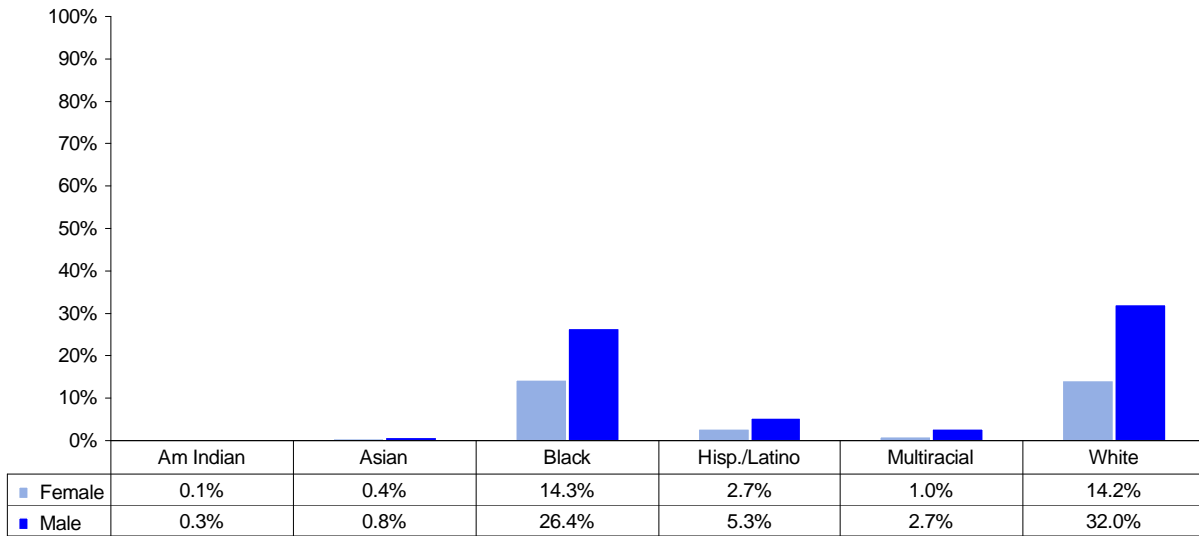|	All FRL	All SWD	All LEP
2001 (23,265)	22.8%	16.2%	3.3%
2002 (24,412)	24.6%	16.9%	4.0%
2003 (25,444)	25.4%	17.1%	4.7%
2004 (26,217)	27.0%	17.5%	3.8%
2005 (26,925)	28.1%	17.2%	4.1%
2006 (28,155)	30.0%	16.4%	4.8%
2007 (29,219)	30.0%	15.9%	5.5%

Data Source: Analysis of WCPSS Student Locator annual May data

Students with Disabilities (SWD)

The number of SWD students in all grades of WCPSS was 17,508 in May 2007. Of those, 4,657 (27%) students were enrolled in grades 6-8.

As shown in Figure 5, the majority of SWD students at the middle school level were White (46%) or Black/African American (41%). More males than females are SWD, with males composing 67% of the SWD population.

Figure 5
SWD Students by Ethnicity and Gender, Spring 2007, Grades 6–8

|	Am Indian	Asian	Black	Hisp./Latino	Multiracial	White
Female	0.1%	0.4%	14.3%	2.7%	1.0%	14.2%
Male	0.3%	0.8%	26.4%	5.3%	2.7%	32.0%

Data Source: May 2007 Student Locator.

Limited English Proficient (LEP) Students

The number of LEP students has been increasing in recent years. In May 2006, 9,478 LEP students were enrolled in all grades in WCPSS. Of those, 1,620 (17%) students were enrolled in grades 6-8.

In K-12, the number of LEP students decreased from kindergarten through twelfth grade. The middle school LEP population was equally distributed across grades, with a slightly higher percentage of the LEP students in sixth grade (37%). The following graph displays the distribution of LEP students across middle school grades.
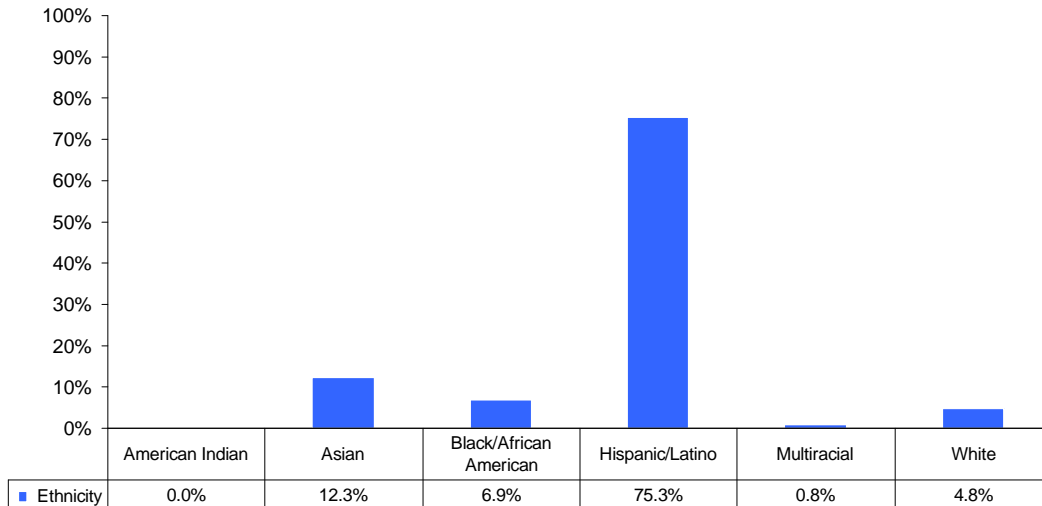
Figure 6
LEP Students by Grade, Spring 2007, Grades 6-8

	Grade 6	Grade 7	Grade 8
■ Grade	36.7%	33.5%	29.8%
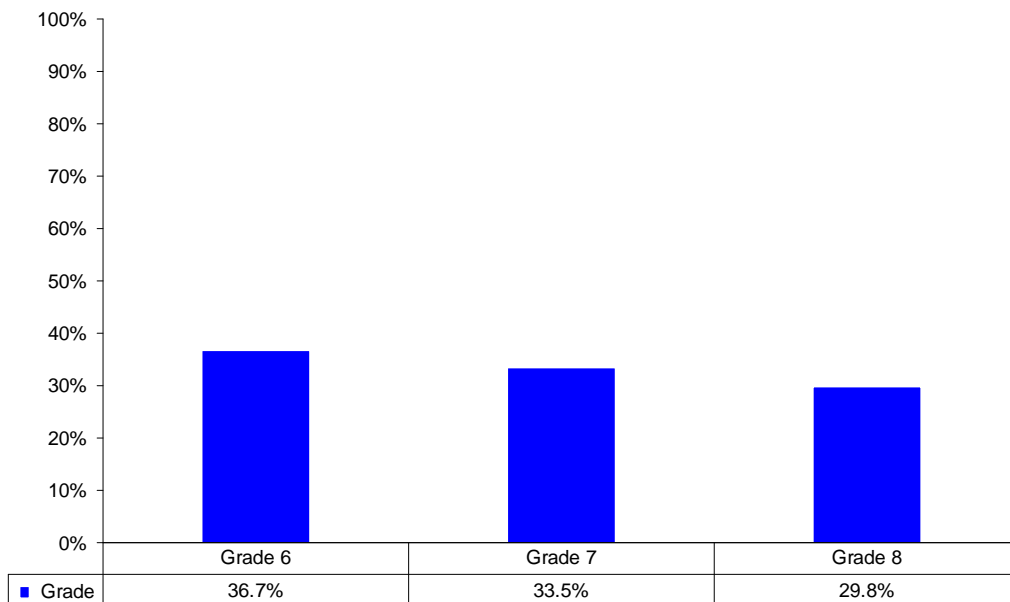
Data Source: May 2007 Student Locator.

While most LEP students were Hispanic/Latino (75% at middle school), the LEP population represented a very diverse group with over 100 different languages. Figure 7 represents the ethnic make-up of the LEP population at the middle school level.

Figure 7
LEP Students by Ethnicity, Spring 2007, Grades 6-8

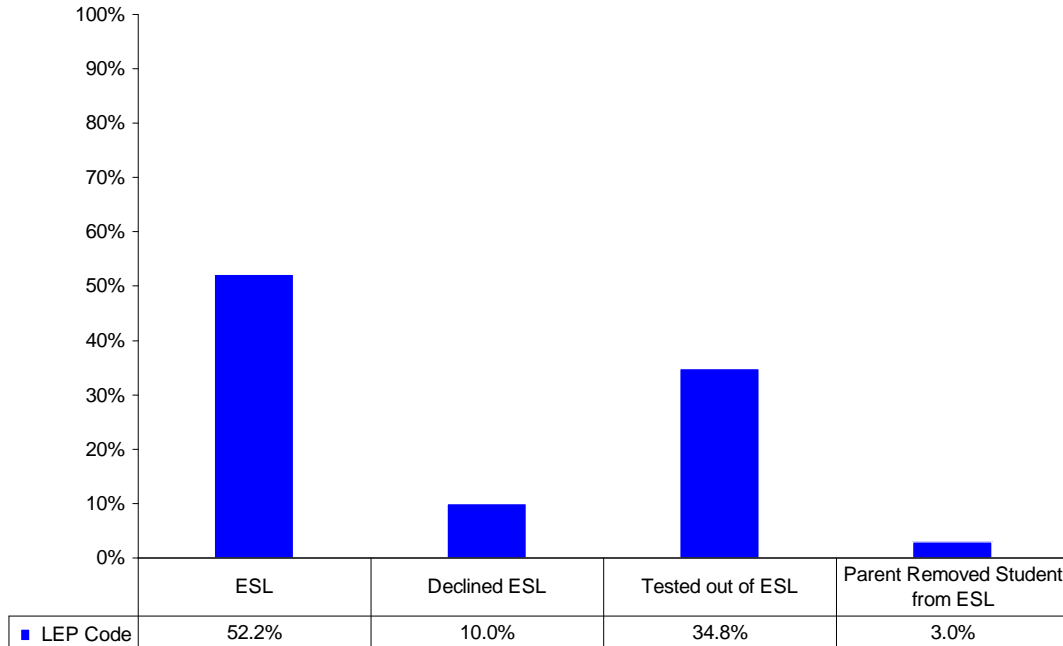|	American Indian	Asian	Black/African American	Hispanic/Latino	Multiracial	White
■ Ethnicity	0.0%	12.3%	6.9%	75.3%	0.8%	4.8%

n = American Indian: 81; Asian: 1,433; Black: 8,332; Hispanic/Latino: 2,733; Multiracial: 1,092; White: 15,548
Data Source: May 2007 Student Locator.

Figure 8 illustrates that the majority of LEP students in WCPSS in May 2007 were enrolled in English as a Second Language (ESL) services (52%). About 10% declined service, and 35% scored high enough on the IDEA Proficiency Test (IPT) to test out of ESL (but not out of LEP status).

Figure 8
Status of LEP Students, Spring 2007, Grades 6-8

|	ESL	Declined ESL	Tested out of ESL	Parent Removed Student from ESL
■ LEP Code	52.2%	10.0%	34.8%	3.0%

n = 1,620
Data Source: May 2007 Student Locator.

Multiple Academic Risk Factors

Figure 9 displays the distribution of FRL, SWD, and LEP students at the middle school level. Overall, 11,681 (40%) middle school students were identified with FRL, SWD, or LEP academic risk characteristics in May 2007. Of these, the most common academic risk factor was FRL at 8,774 (30%); 4,657 (16%) were SWD, and 1,620 (6%) were LEP. Some of these students (11%) had two of the academic risk characteristics. Less than 1% of these students were identified as having all three of the academic risk characteristics.

- Most FRL students had this as their only academic risk factor. Of the students in WCPSS, 5,603, (19%) were identified as having FRL as a single academic risk characteristic; 7% were identified also with SWD as an additional academic risk factor, and 3.6% were identified with LEP as an additional academic risk factor. A small percentage (0.5%) had all three of the academic risk characteristics.

- Most SWD students also had this as their only academic risk factor. Of the students in WCPSS, 2,484 (9%) were identified as having SWD as a single academic risk characteristic. Few SWD students were also LEP (0.2%).

- Most LEP students were also FRL. While 6% of WCPSS middle school students were LEP, only 1% had LEP as a single academic risk characteristic.

Figure 9
Percentage of All Middle Students with Academic Risk Factors, Spring 2007
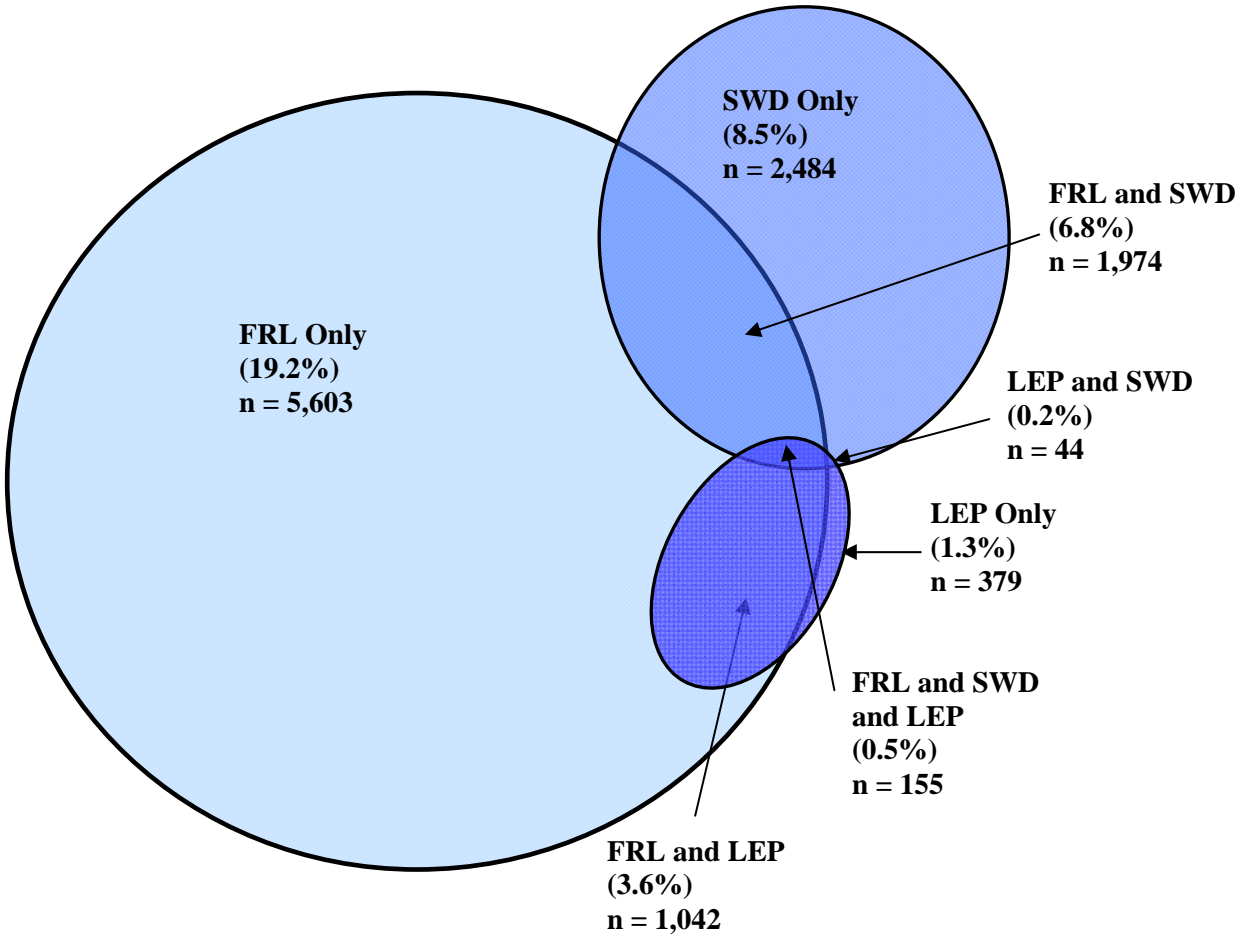
N = 11,681 unduplicated count
Data Source: May 2007 Student Locator

TESTING OUTCOMES – LITERACY

END-OF-GRADE (EOG) MULTIPLE CHOICE TEST READING RESULTS

EOG tests are given to students in reading and mathematics at the end of each school year. These tests consist of multiple-choice items that are derived directly from the Standard Course of Study, which is the state's official curriculum. Individual students' scores are reported as scale scores as well as achievement levels.

The achievement level score categorizes student performance on EOG tests according to four broad levels, defined by the North Carolina Department of Public Instruction (NCDPI). General descriptions are shown below, with more specifics available at the NCDPI Web site, Accountability section (http://www.ncpublicschools.org/accountability/). Levels III and IV are considered proficient (at/above grade level). A small number of students who, for various reasons, are unable to demonstrate their learning on the multiple-choice EOG tests take alternate assessments. The results in this report do not include the results of those alternate assessments, as those results are reported in a separate document.

Table 6
Achievement Levels for the North Carolina Testing Program

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

Note: Official descriptions actually vary by course and are listed in NC State Board of Education Policy HSP-C-018
    http://sbepolicy.dpi.state.nc.us/policies/HSP-C-018.asp?pri=01&cat=C&pol=018&acr=HSP).

Grades 3-8

The percentage of students scoring proficient on EOG Reading tests in grades 3-8 has increased in recent years, from about 84% in 1999-00 to 91% in 2006-07 (Figure 10). The percentage of students in all ethnic groups scoring at grade level has also improved over time, with Black/African American students showing the most improvement (more than 20 percentage points).

In Spring 2007, the achievement gap between Black/African American and White students was 14.4 percentage points, with an 18.6 percentage point gap between Hispanic/Latino and White students. These gaps are considerably smaller than was the case in 1999-2000, when those gaps were 30.5 percentage points and 25.8 percentage points, respectively).

Figure 10
Students Proficient on Reading EOG by Ethnicity,
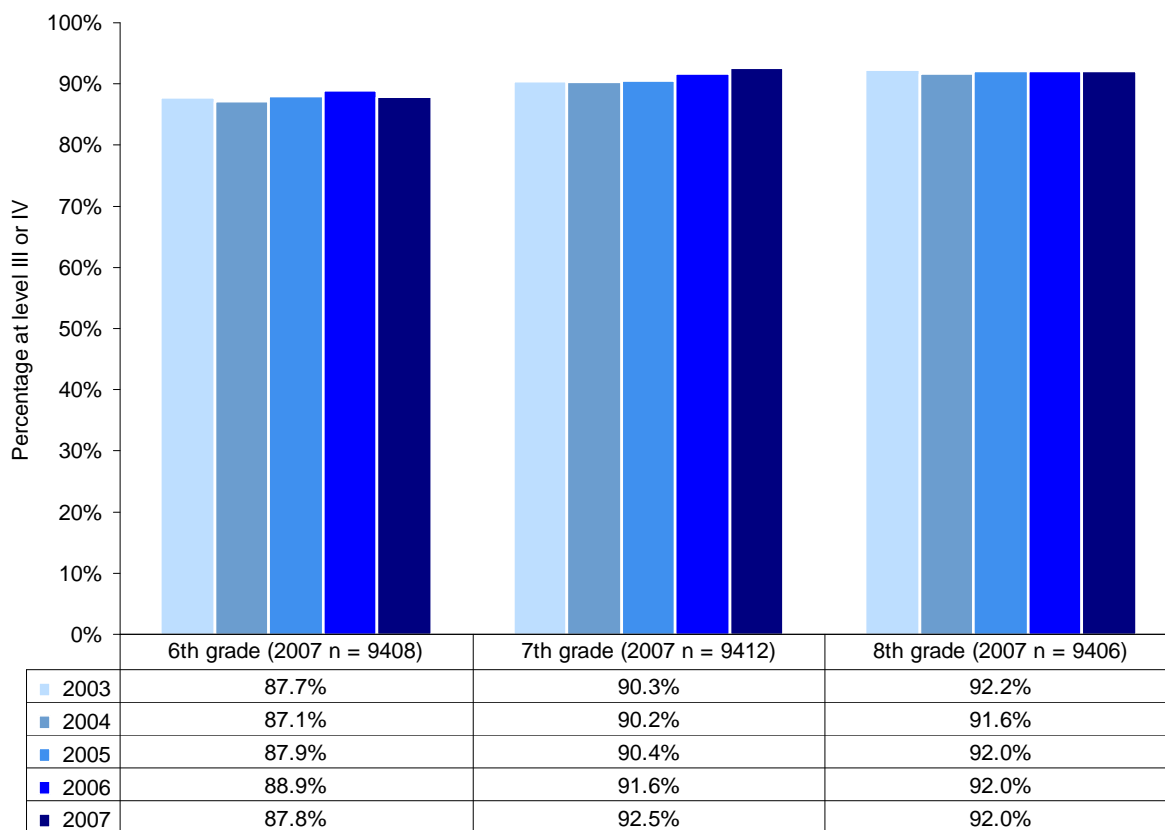**Spring 2000 to Spring 2007, Grades 3-8**
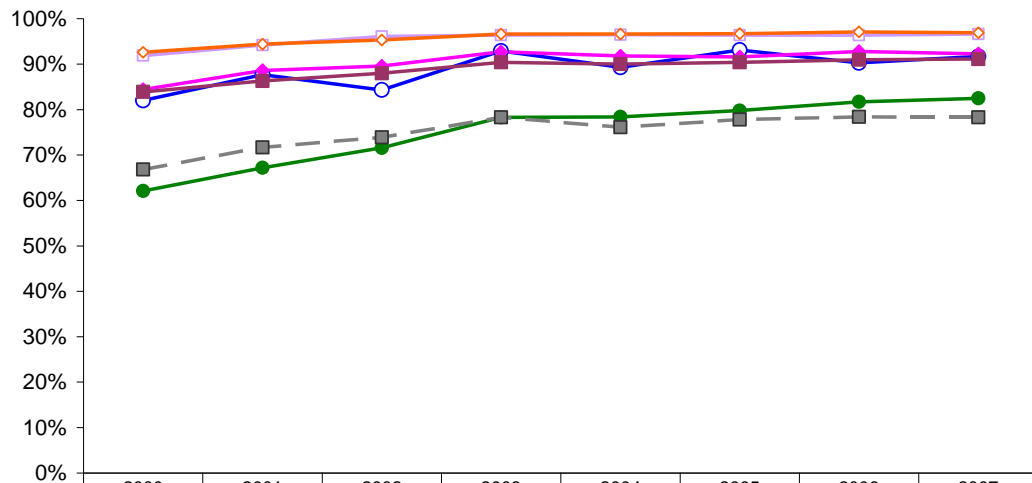
	2000	2001	2002	2003	2004	2005	2006	2007
American Indian 2007 n = 156	82.0%	87.7%	84.3%	92.9%	89.3%	93.1%	90.3%	91.7%
Asian 2007 n = 2,957	91.9%	94.2%	96.1%	96.4%	96.5%	96.4%	96.4%	96.6%
Black/African American 2007 n = 15,292	62.1%	67.2%	71.6%	78.3%	78.4%	79.8%	81.7%	82.5%
Hispanic/Latino 2007 n = 5,681	66.8%	71.7%	73.9%	78.3%	76.1%	77.8%	78.4%	78.3%
Multiracial 2007 n = 2,375	84.4%	88.6%	89.6%	92.7%	91.8%	91.6%	92.8%	92.3%
White 2007 n = 30,947	92.6%	94.4%	95.3%	96.6%	96.6%	96.7%	97.1%	96.9%
All Students	83.9%	86.3%	88.0%	90.4%	90.0%	90.4%	91.0%	91.1%

Grades 6-8

The percentage of middle school students scoring proficient in reading has increased since 2003 at grade 7, while remaining essentially flat in grades 6 and 8 (Figure 11). Proficiency in 2006-07 was similar across grades, with grade 7 and 8 being higher (92%) than grade 6. Overall, nearly 91% of students in grades 6 through 8 scored proficient in 2006-07.

Figure 11
Students Proficient on Reading EOG by Grade Level,
Spring 2003–07, Grades 6-8

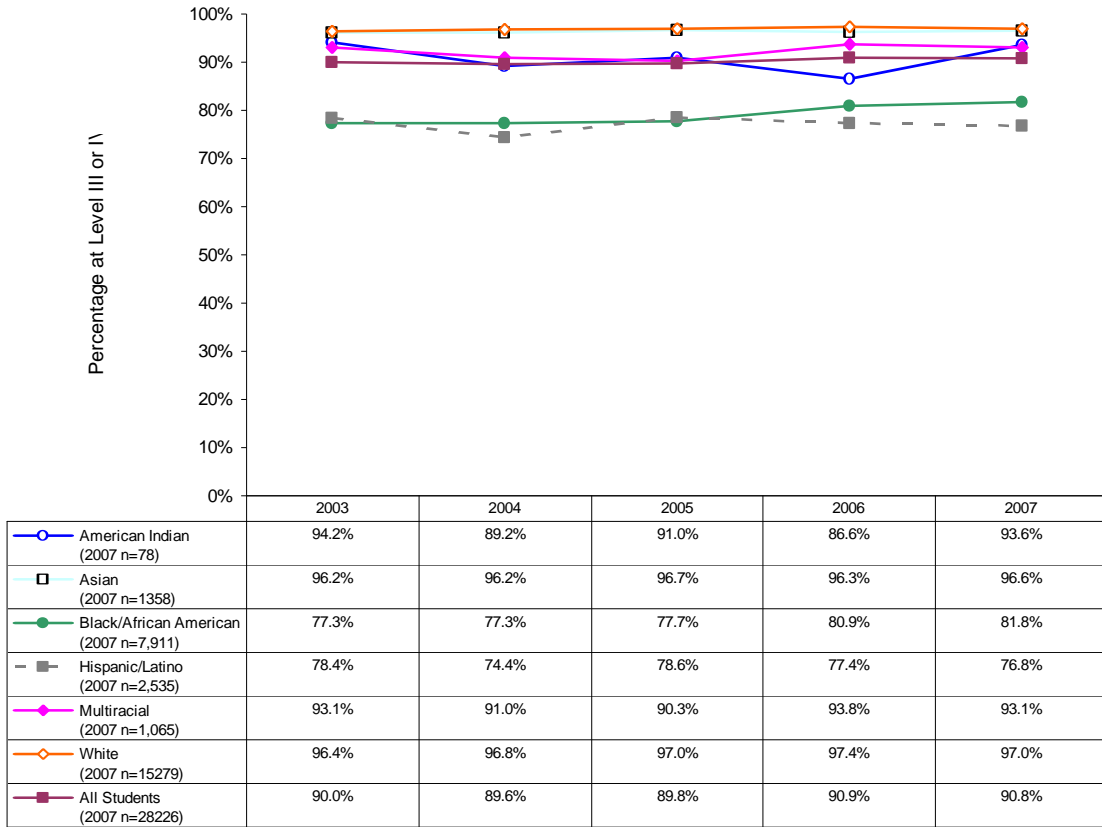|	6th grade (2007 n = 9408)	7th grade (2007 n = 9412)	8th grade (2007 n = 9406)
■ 2003	87.7%	90.3%	92.2%
■ 2004	87.1%	90.2%	91.6%
■ 2005	87.9%	90.4%	92.0%
■ 2006	88.9%	91.6%	92.0%
■ 2007	87.8%	92.5%	92.0%

As previously discussed, ethnic achievement gaps closed somewhat across grades 3-8 between 1999-2000 and 2006-07 (see Figure 12). However, these trends have been monitored separately for grade 6-8 only since 2002-03, and less progress has been evident during that time (see Figure 12).

At the middle school level, the proficiency rate for Black/African American students increased the most (4.5%) between Spring 2003 and Spring 2007 (Figure 12). However, the gaps between ethnic groups in grades 6-8 have not closed significantly. Gaps between White and Asian students (at the high end) and Black/African American and Hispanic/Latino students remain large. Several factors may have contributed to the relatively stable status of these gaps, including the fact that the WCPSS population has been increasing rapidly, especially for FRL
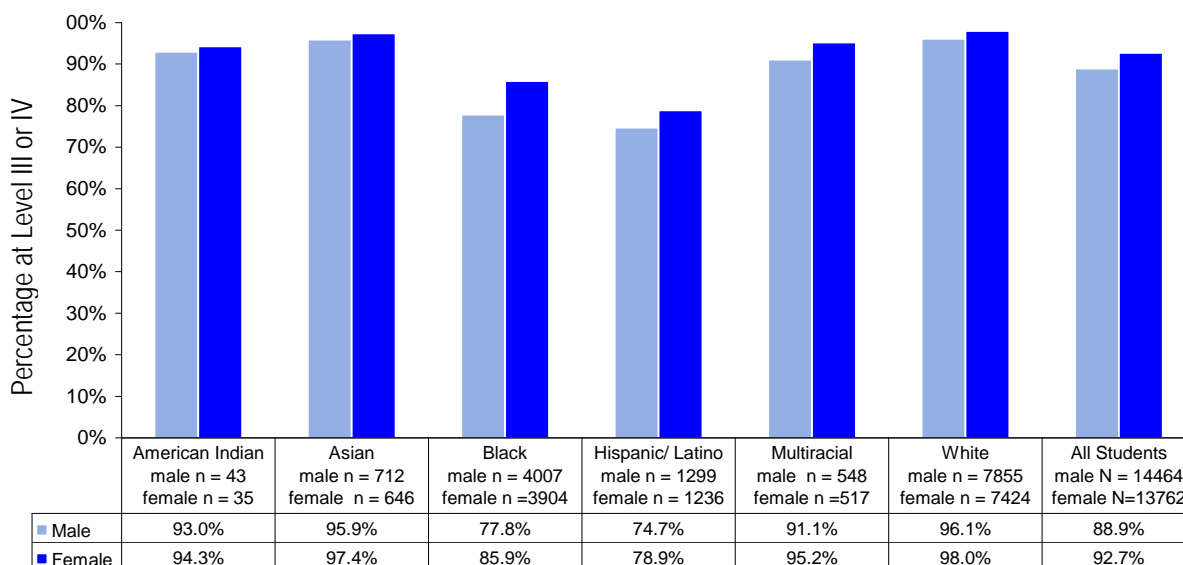
and LEP students, who have traditionally showed lower proficiency and need the most support to reach grade level (see Demographics section for more detail).

Figure 12
Students Proficient on Reading EOG by Ethnicity
Spring 2003 to Spring 2007, Grades 6-8

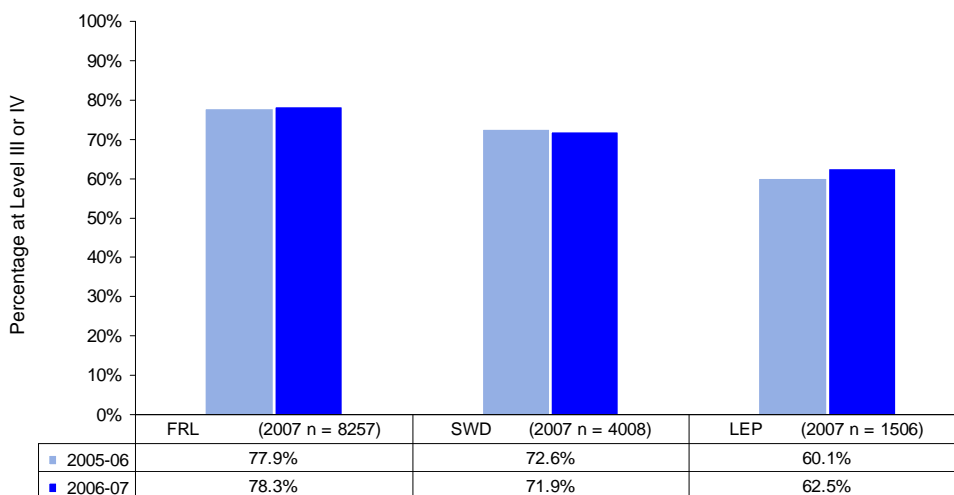|	2003	2004	2005	2006	2007
American Indian (2007 n=78)	94.2%	89.2%	91.0%	86.6%	93.6%
Asian (2007 n=1358)	96.2%	96.2%	96.7%	96.3%	96.6%
Black/African American (2007 n=7,911)	77.3%	77.3%	77.7%	80.9%	81.8%
Hispanic/Latino (2007 n=2,535)	78.4%	74.4%	78.6%	77.4%	76.8%
Multiracial (2007 n=1,065)	93.1%	91.0%	90.3%	93.8%	93.1%
White (2007 n=15279)	96.4%	96.8%	97.0%	97.4%	97.0%
All Students (2007 n=28226)	90.0%	89.6%	89.8%	90.9%	90.8%

In spring 2007, slightly larger percentages (about four percentage points overall) of females than males achieved proficiency in reading within all ethnic groups. Gender gaps were largest for Black/African American, Hispanic/Latino, and Multiracial students (Figure 13).

Figure 13
Students Proficient on Reading EOG by Ethnicity and Gender
Spring 2007 Grades 6-8

	American Indian male n = 43 female n = 35	Asian male n = 712 female n = 646	Black male n = 4007 female n =3904	Hispanic/ Latino male n = 1299 female n = 1236	Multiracial male n = 548 female n =517	White male n = 7855 female n = 7424	All Students male N = 14464 female N=13762
Male	93.0%	95.9%	77.8%	74.7%	91.1%	96.1%	88.9%
Female	94.3%	97.4%	85.9%	78.9%	95.2%	98.0%	92.7%

Among middle school students who qualified for FRL, SWD students, and LEP students, LEP students are least likely to score at grade level (see Figure 14). All three groups are less likely to score proficient than students without an academic risk factor, as is shown in Figure 14. It will be helpful to remember that 90.7% of all students in these grades were reading at/above grade level, so the gap between all students and students with these risk factors is on the order of 12 to 28 percentage points.
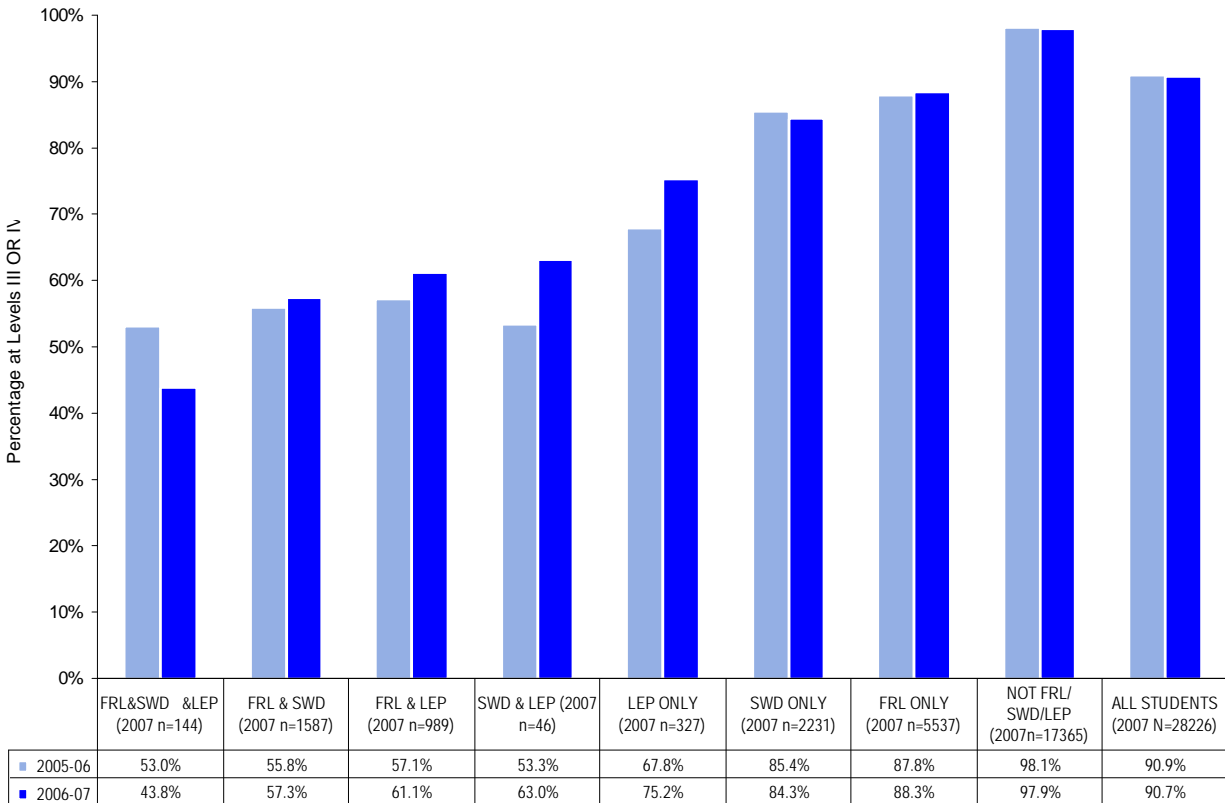
Figure 14
Students Proficient on Reading EOG by Academic Risk Factors,
2005-06 to 2006-07 Grades 6-8

	FRL (2007 n = 8257)	SWD (2007 n = 4008)	LEP (2007 n = 1506)
2005-06	77.9%	72.6%	60.1%
2006-07	78.3%	71.9%	62.5%

Note: Duplicated count (i.e., students could be in more than one of these groups).

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As shown in Figure 15, when these results are broken down further, the percentage of students scoring proficient in reading was higher for students with only one of these academic risk factors than for students with more than one. Over the past two years, the percentage of middle school students who had multiple risk factors and scored proficient has ranged from the 40s to the 60s.

Figure 15
Students Proficient on Reading EOG by Academic Risk Subgroup Combinations,
2005-06 to 2006-07, Grades 6-8

	FRL&SWD &LEP (2007 n=144)	FRL & SWD (2007 n=1587)	FRL & LEP (2007 n=989)	SWD & LEP (2007 n=46)	LEP ONLY (2007 n=327)	SWD ONLY (2007 n=2231)	FRL ONLY (2007 n=5537)	NOT FRL/ SWD/LEP (2007n=17365)	ALL STUDENTS (2007 N=28226)
2005-06	53.0%	55.8%	57.1%	53.3%	67.8%	85.4%	87.8%	98.1%	90.9%
2006-07	43.8%	57.3%	61.1%	63.0%	75.2%	84.3%	88.3%	97.9%	90.7%

Note: Unduplicated count

GRADE 7 WRITING ASSESSMENT RESULTS

North Carolina began its statewide writing assessment in the 1983-84 school year with tests administered to students in grades 6 and 9. From the beginning, the North Carolina Writing Assessment emphasized student composition skills, and scoring rubrics were designed to holistically assess students' abilities to create good written compositions in standardized single session testing environments. In 1995-96, testing shifted to grades 4, 7, and 10. In 2001, NCDPI staff began a process that resulted in new writing assessments and scoring procedures for grades 4, 7, and 10. The new procedures were approved by the State Board of Education (SBE) on January 9, 2003, and statewide pilot testing occurred in March 2003.

N.C. Writing Assessment Scoring Procedures

New administration and scoring procedures for the writing assessment went into effect during the 2002-03 school year. Scoring was significantly different from the model previously used. Therefore, comparisons to previous years are inappropriate. As in previous years, two individual readers evaluated content (focus, organization, support and elaboration, and style). However, beginning in 2002-03, readers also rated the convention (sentence formation, usage, and mechanics) displayed in the writing sample. Each reader gave a content score from 1 to 4 or a no score (NS) for essays that were off topic and could not be evaluated. A conventions score ranging from 0 to 2 was also given by each reader.

The major change in scoring procedures incorporated the conventions score into the total writing score for each student. The total writing score is computed by combining the content scores and the conventions scores from both scorers using the following equation:

> The Total Writing Score = (the sum of the content scores from the two independent readers multiplied by 2) plus (the sum of the conventions scores from the two readers).

The new scoring method results in student scores ranging from a low of 4 (in a case where both readers gave content scores of 1 and conventions scores of 0) to a high of 20 (where both content scores are 4 and both conventions scores are 2).

As is true for most other North Carolina state tests, total scores from the writing test are distributed into four achievement levels (I, II, III, and IV). The level definitions are similar to those used for EOG and EOC testing. Level I scores are considered far below grade level, Level II slightly below grade level, Level III at grade level, and Level IV well above grade level (Table 7). Prior to 2003, conventions ratings were not part of the total writing score, and the content scores of two readers were averaged, resulting in final scores ranging from 1.0 to 4.0.

Table 7
Writing Test Total Score Ranges by Level

Level I	4-7
Level II	8-11
Level III	12-16
Level IV	17-20

Types of Writing

Writing scores tend to fluctuate from year to year based, at least in part, upon the type of writing and subject matter of the prompt. Based upon the recommendations of the North Carolina Writing Assessment Task Force and the State Board of Education Ad Hoc Writing Committee, the grade 4 prompt currently takes the form of a personal narrative or imaginative narrative. The grade 7 prompt requires an extended argumentative response, and the grade 10 prompt asks students for an extended informational response either in the form of a definition or a cause/effect relationship. Figure 16 shows the prompt utilized by NCDPI for the 2006-07 writing assessments at grade 7.

Figure 16
Grade 7 Writing Prompt, 2006-07 School Year

Students in the seventh grade who participated in the General Writing Assessment were asked to write a problem/solution response to the following argumentative prompt:

Your local newspaper is sponsoring a contest titled "Making a Difference,' Students have been encouraged to write an essay on how they can "make a difference" by improving their school or local community. The winning essay will be published in the education section of the newspaper.

Write an essay for the newspaper editor in which you propose a solution to make your school or community a better place.

While comparisons of the percentages of students at each achievement level can be made to previous years, it must be remembered that different prompts are used each year, the group of students taking the test changes each year, and students may find some prompts more difficult than others.

Exemptions from the writing assessment are similar to those offered for the EOG reading test, with additional alternate assessments available. LEP students, for example, are exempt if they first entered a U.S. school within the past year, and they score below intermediate high on a language proficiency test (IPT) required by the state for students whose home language is not English . These students are tested in writing with the IPT instead.
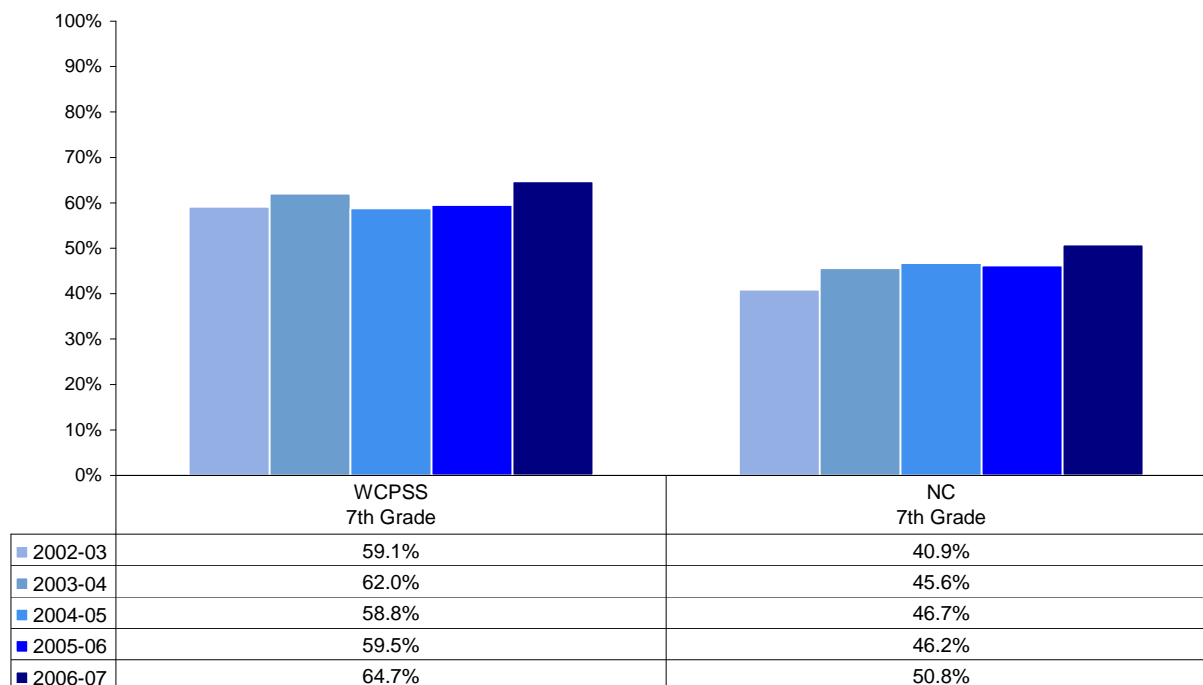
Writing Assessment Results

WCPSS writing results at the middle school level show results above the state level but with room for improvement. For the past several years, WCPSS proficiency rates on the state's Grade 7 Writing Test have been consistently higher than those for the state as a whole. However, the gap between the state and WCPSS has closed slightly over that time, as the statewide rate has risen slightly (about 10 percentage points) while the WCPSS rate has fluctuated around 60% (Figure 17).

Over time, a clear pattern of improvements has been shown by North Carolina students as a whole. In WCPSS, however, no pattern of sustained improvement has been seen, although the increase in 2006-07 is encouraging. Grade 7 writing proficiency rates remain among the lowest across all of the tests that are part of the state's testing and accountability program. Writing scores count toward a school's ABCs performance composite, which impacts a school's chances of being designated as a School of Excellence or Distinction (see the ABCs section of this report for further information).
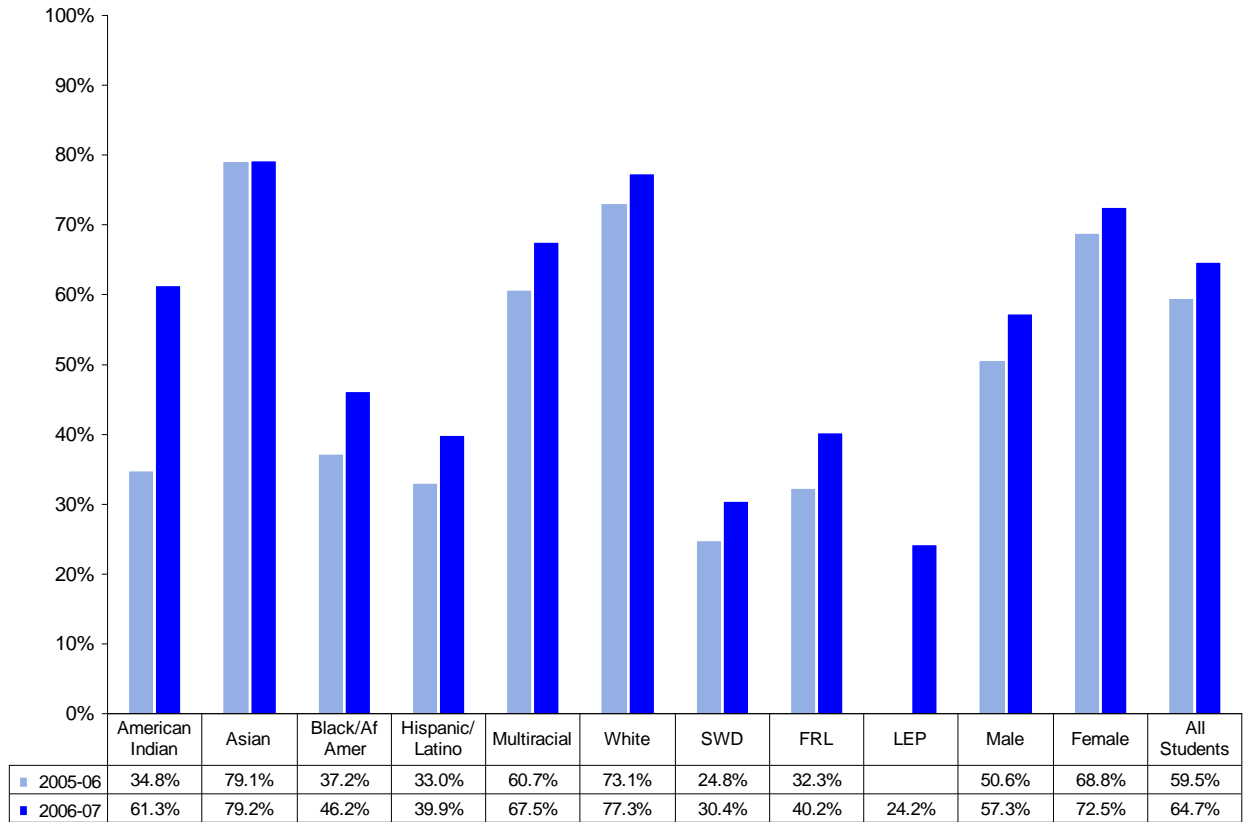
Among various student subgroups in WCPSS, Asian, White, and female students were the only groups to reach a proficiency rate above 70% in 2006-07 (Figure 18). However, disaggregation of the data shows that all sub-groups either stayed steady or increased their proficiency rates between 2005-06 and 2006-07 (Figure 18). The lowest proficiency rates in 2006-07 (for groups that had at least 25 tested students) were found among the LEP, FRL, SWD, Black/African American, and Hispanic/Latino subgroups, all of whom had rates lower than 50%. Females outperform males on this assessment at grade 7 by a substantial margin.

Figure 17
Percentage of Students Proficient on Writing Assessment, Spring 2003-07, Grade 7

	WCPSS 7th Grade	NC 7th Grade
2002-03	59.1%	40.9%
2003-04	62.0%	45.6%
2004-05	58.8%	46.7%
2005-06	59.5%	46.2%
2006-07	64.7%	50.8%

Figure 18
WCPSS Writing Test Results by Subgroup, 2005 to 2007, Grade 7

	American Indian	Asian	Black/Af Amer	Hispanic/ Latino	Multiracial	White	SWD	FRL	LEP	Male	Female	All Students
2005-06	34.8%	79.1%	37.2%	33.0%	60.7%	73.1%	24.8%	32.3%		50.6%	68.8%	59.5%
2006-07	61.3%	79.2%	46.2%	39.9%	67.5%	77.3%	30.4%	40.2%	24.2%	57.3%	72.5%	64.7%

Note: 2005-06 LEP data is not available
Data Source: July 2006 NCDPI report.

TESTING OUTCOMES—MATHEMATICS

END OF GRADE (EOG) MULTIPLE-CHOICE TEST MATHEMATICS RESULTS

The achievement level score categorizes student performance on EOG tests according to four broad levels, defined by NCDPI. More detail on the definition of each level is included in the Literacy part of this Testing Outcomes section. In general, Levels III and IV represent mastery of grade-level work or beyond, while Levels I and II represent non-mastery or inconsistent mastery, respectively.
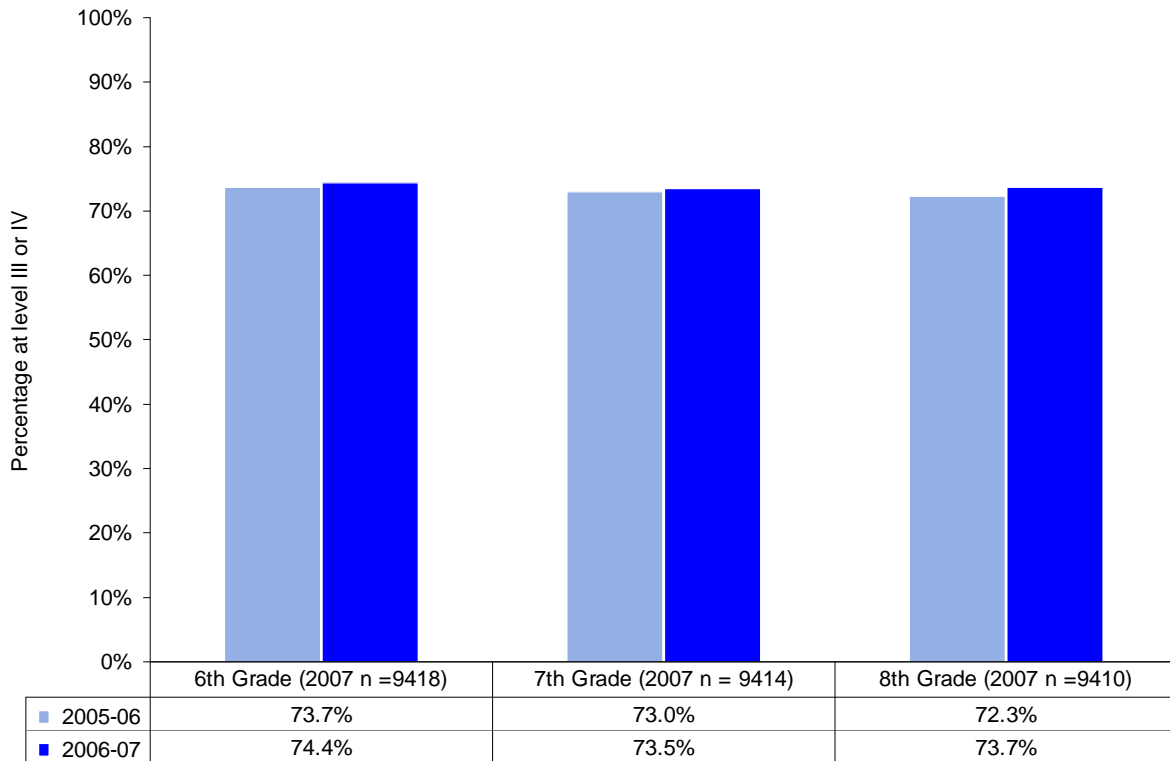
New mathematics tests were used in 2005-06 for the first time, with new achievement level cut scores for proficiency. The mathematics standard is more challenging on this edition of the test than in past years. Therefore, comparisons of proficiency rates prior to 2005-06 are not made in this report. Figure 19 illustrates this difference by comparing the distribution of students across achievement levels for reading and mathematics. Whereas the majority of students in WCPSS score in Achievement Level IV in Reading, only about one-third currently do so under the new mathematics standard.

Figure 19
Reading and Mathematics, EOG Scores by Achievement Level
Spring 2006-07, Grades 3–8
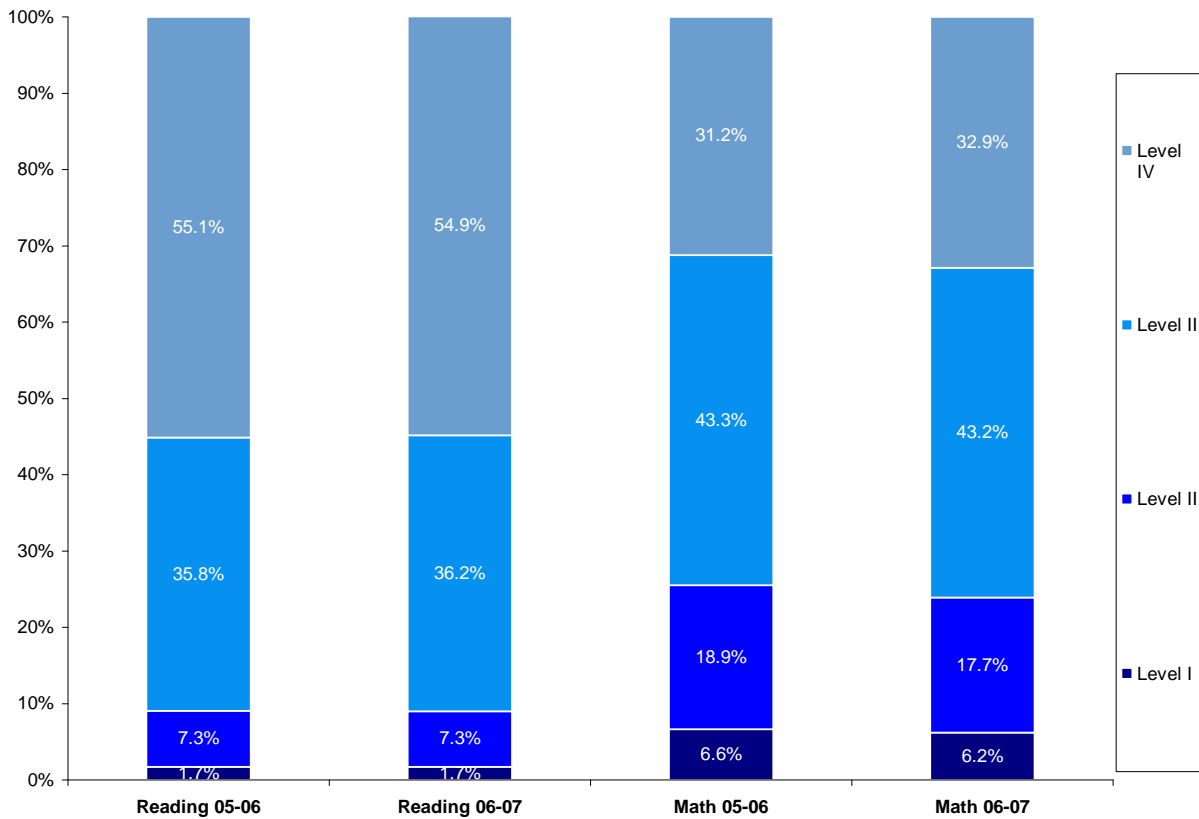
With the new standards set for mathematics, the overall percent of middle grade students who scored proficient in 2006-07 was nearly 74%. A slight increase (around 1%) was seen at each of the three grade levels (Figure 20). For the second consecutive year, higher percentages of WCPSS students met grade level standards than was true across the state (74% compared to 65% statewide).
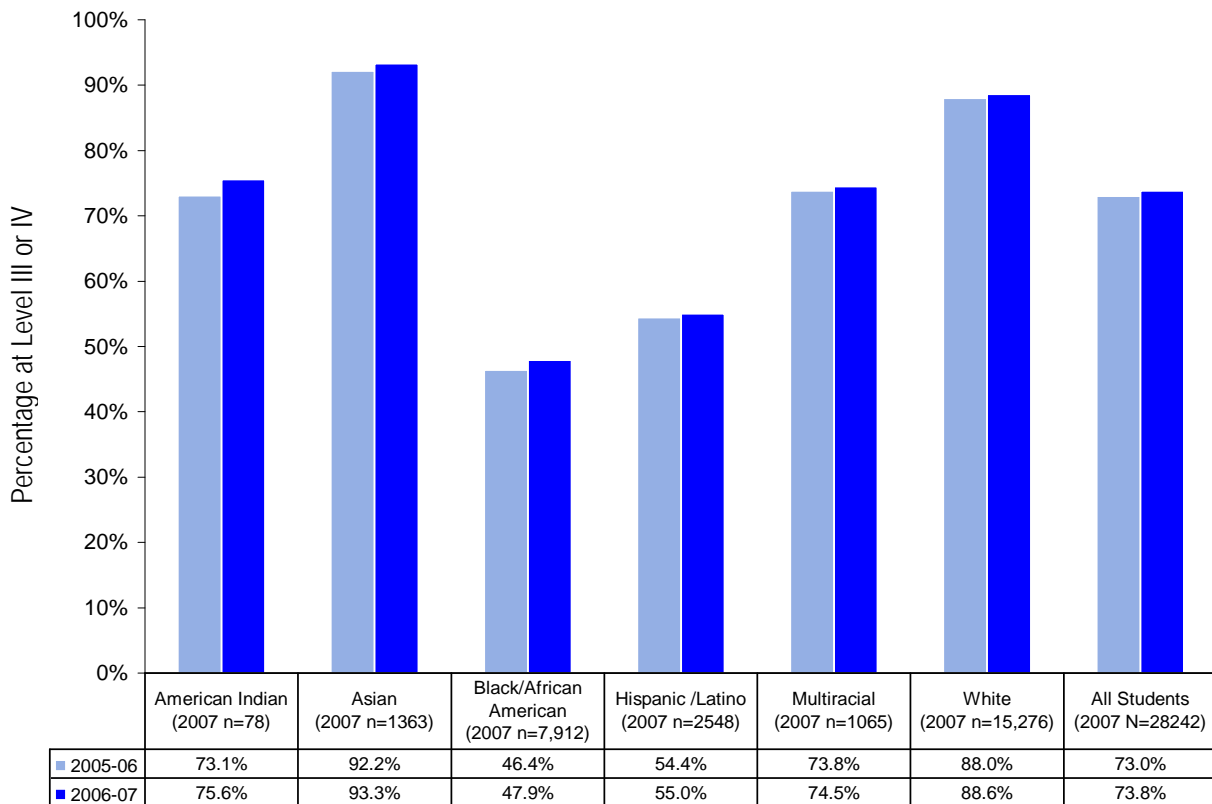
Figure 20
Students Proficient on Mathematics EOG by Grade Level
2005-06 to 2006-07, Grades 6-8

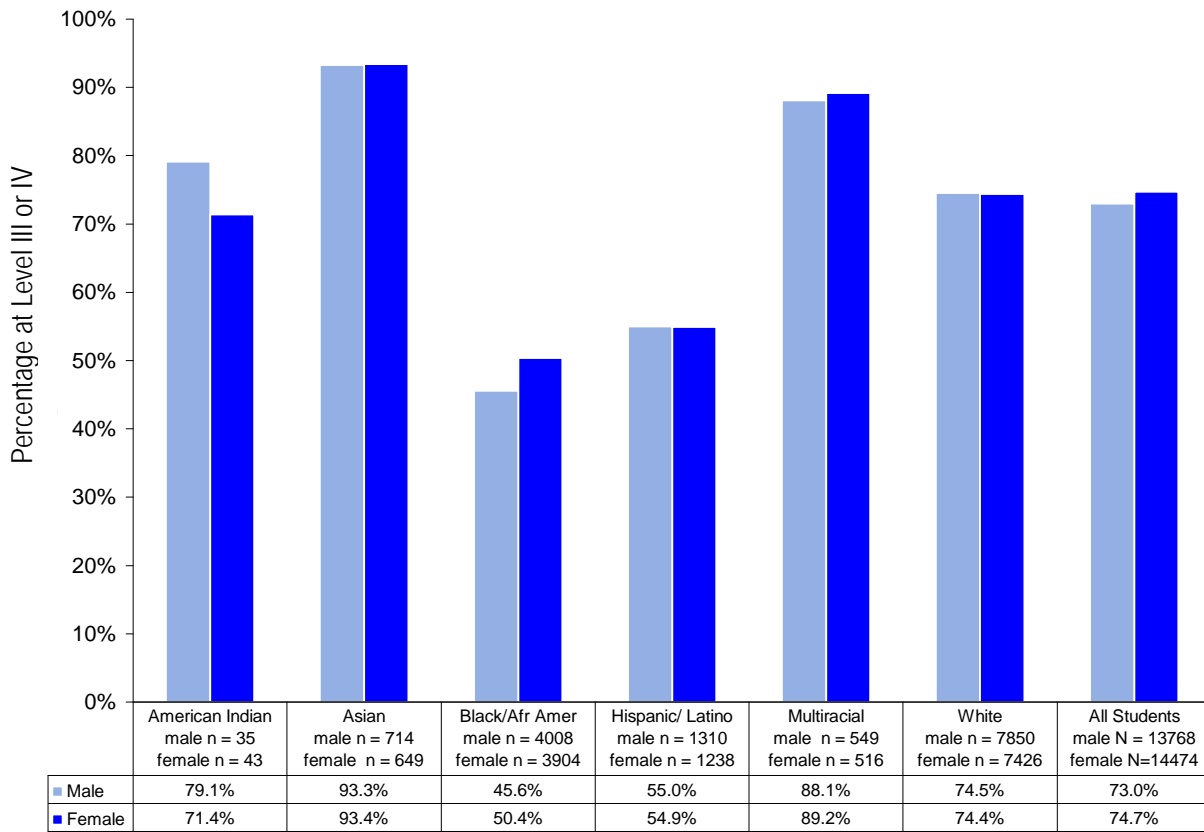|	6th Grade (2007 n =9418)	7th Grade (2007 n = 9414)	8th Grade (2007 n =9410)
▪ 2005-06	73.7%	73.0%	72.3%
▪ 2006-07	74.4%	73.5%	73.7%

EOG Mathematics Proficiency by Subgroup

Proficiency rates in 2006-07 varied from 48% to 93% for ethnic subgroups, with the highest proficiency rates among Asian and White students, and the lowest among Black/African American and Hispanic/Latino students. Although slight increases were evident for all groups, achievement gaps across ethnic groups showed little change between 2005-06 and 2006-07, and are much larger with the new level cut scores than they were on the previous versions of the test (McMillen & Haynie, 2005). This may be due to relatively larger numbers of Hispanic/Latino and Black/African American students who had been scoring just slightly above the old Achievement Level III cut point. There is little appreciable difference in the performance of Male and Female students, with the exceptions of American Indian students, where Male students outperformed Females, and Black/African American students, where the Female proficiency rate was higher than that for Males in 2006-07 (Figure 22).

Figure 21
Students Proficient on Mathematics EOG by Ethnicity
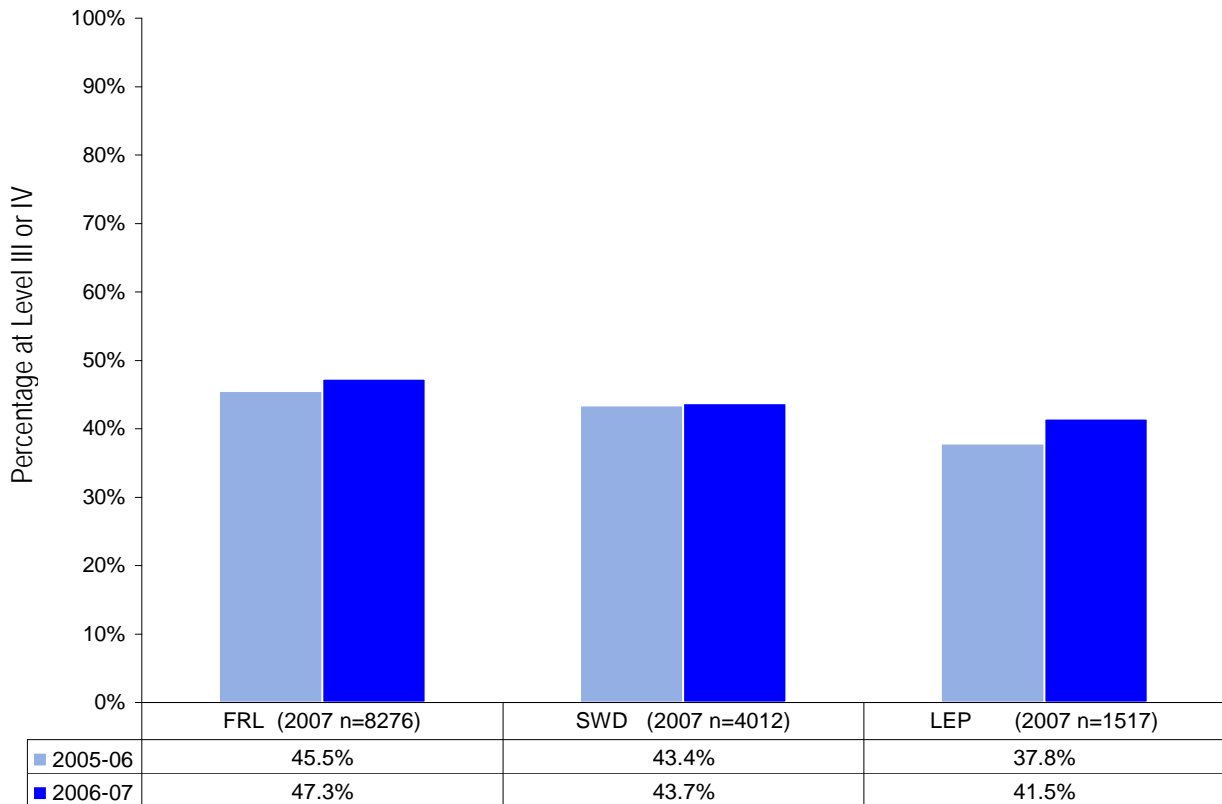**2005-06 to 2006-07, Grades 6-8**

	American Indian (2007 n=78)	Asian (2007 n=1363)	Black/African American (2007 n=7,912)	Hispanic /Latino (2007 n=2548)	Multiracial (2007 n=1065)	White (2007 n=15,276)	All Students (2007 N=28242)
2005-06	73.1%	92.2%	46.4%	54.4%	73.8%	88.0%	73.0%
2006-07	75.6%	93.3%	47.9%	55.0%	74.5%	88.6%	73.8%

Figure 22
Students Proficient on Mathematics EOG by Ethnicity and Gender
Spring 2007, Grades 6-8

	American Indian male n = 35 female n = 43	Asian male n = 714 female n = 649	Black/Afr Amer male n = 4008 female n = 3904	Hispanic/ Latino male n = 1310 female n = 1238	Multiracial male n = 549 female n = 516	White male n = 7850 female n = 7426	All Students male N = 13768 female N=14474
■ Male	79.1%	93.3%	45.6%	55.0%	88.1%	74.5%	73.0%
■ Female	71.4%	93.4%	50.4%	54.9%	89.2%	74.4%	74.7%

In 2006-07, proficiency rates among students who were FRL, SWD, or LEP were lower than students without such characteristics. FRL, SWD, and LEP students all showed proficiency rates below 50% in both 2005-06 and 2006-07. LEP students showed the lowest percentage of students proficient of the three groups. However, rates for both FRL and LEP students did improve appreciably in 2006-07 (Figure 23).
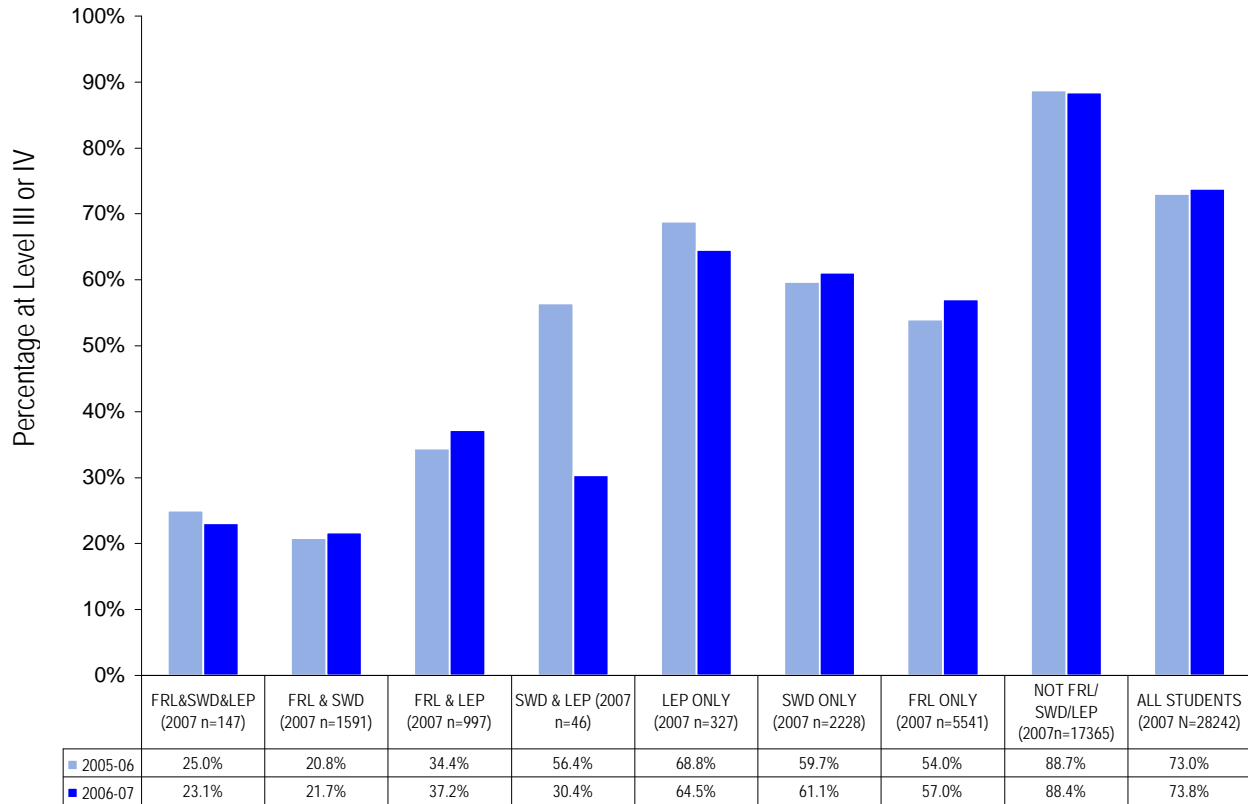
Figure 23
Students Proficient on Mathematics EOG by Academic Risk Factors,
2005-06 to 2006-07, Grades 6-8

	FRL (2007 n=8276)	SWD (2007 n=4012)	LEP (2007 n=1517)
■ 2005-06	45.5%	43.4%	37.8%
■ 2006-07	47.3%	43.7%	41.5%

Note: Duplicated Count

As shown in Figure 24, when these results are broken down further, the percentage of students scoring proficient in mathematics was higher for students with only one of these academic risk factors than for students with more than one. Over the past two years, only 21-25% of middle school students who were SWD and FRL or SWD, FRL, and LEP scored at proficient levels in mathematics. Although a large drop was seen in 2006-07 for students who are both SWD and LEP, it should be noted that the number of students in this group is very small. Group results when the number of students is relatively small will tend to fluctuate more over time than results for larger student groups.

Figure 24
Students Proficient on Mathematics EOG by Academic Risk Subgroup Combinations
2005-06 to 2006-07, Grades 6-8

	FRL&SWD&LEP (2007 n=147)	FRL & SWD (2007 n=1591)	FRL & LEP (2007 n=997)	SWD & LEP (2007 n=46)	LEP ONLY (2007 n=327)	SWD ONLY (2007 n=2228)	FRL ONLY (2007 n=5541)	NOT FRL/ SWD/LEP (2007n=17365)	ALL STUDENTS (2007 N=28242)
2005-06	25.0%	20.8%	34.4%	56.4%	68.8%	59.7%	54.0%	88.7%	73.0%
2006-07	23.1%	21.7%	37.2%	30.4%	64.5%	61.1%	57.0%	88.4%	73.8%

Note: Unduplicated Count

END-OF-COURSE (EOC) ALGEBRA I RESULTS

The North Carolina Department of Public Instruction (NCDPI) requires that all schools administer multiple-choice EOC tests to students enrolled in selected courses (i.e., Algebra I, Algebra II, geometry, English I, biology, chemistry, physical science, physics, U.S. History, and Civics & Economics). Like EOG tests, EOC tests are aligned with the Standard Course of Study in each of the subjects tested and use a multiple-choice format. While most courses and their associated tests are taken by high school students, Algebra I is taken by a large enough number of middle school students to be included here. Like EOG tests, middle school EOC test results are used for state accountability purposes (see the ABCs sections of this report for more information).

As with EOG tests, student performance on EOC multiple-choice tests is also measured by both a scale score and an achievement level. The four broad achievement levels each represent a different level of competency in a subject area (Table 8). General level descriptions are consistent with those used for EOG tests in the earlier grades.

Table 8
**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 actually vary by course as listed in N.C. State Board of Education Policy HSP-C-010
(http://sbepolicy.dpi.state.nc.us/policies/HSP-C-010.asp?pri=01&cat=C&pol=010&acr=HSP).

Overall, 29% of all Algebra I EOCs in WCPSS were taken by students at the middle school level. At the middle school level, those taking the course and test tend to show high mathematics achievement in previous years. This trend continued in 2006-07 with more than 98% of middle school students in WCPSS who took Algebra I scoring proficient (Figure 25).

Achievement gaps between ethnic groups were not evident among middle school Algebra I students in 2006-07, with at least 90% of students in each ethnic group scoring proficient. Note that this pattern differs from the pattern at high school. One possible explanation for this is that the population of students taking Algebra I in middle school is different from the high school Algebra I population. For example, White and Asian students are more likely to take algebra in middle school than Black/African American and Hispanic/Latino students. Overall, 84% of middle school Algebra I students are White or Asian.

Figure 25
Algebra EOC Proficiency by Level and Ethnicity, 2006-07
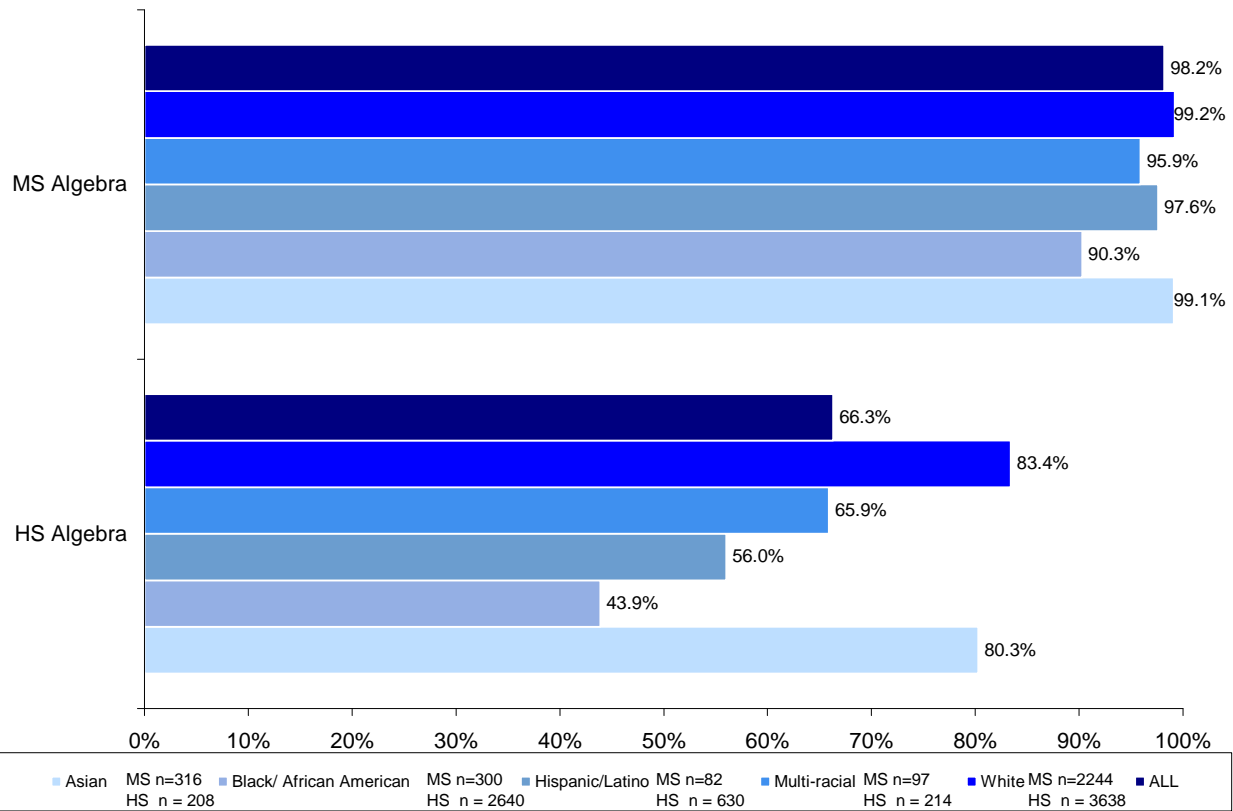
Notes: Middle School (MS) n = 3043 (American Indian n =4 – not shown)
High School (HS) n = 7344) (American Indian n = 14 – not shown)

.

OTHER STUDENT OUTCOMES

RETENTION RATE

Background

The WCPSS Board of Education's Promotion and Intervention policy, adopted in February 2000, requires students to demonstrate proficiency in grade-level competencies in English/language arts and mathematics to be promoted each year. The WCPSS policy recognizes the statutory authority of the principal to make all final promotion decisions. Additional details regarding the Promotion and Intervention policy can be found on the WCPSS Web site at:
(http://www.wcpss.net/promotion-intervention) and in Board Policy 5530.

At the high school level, promotion retention decisions are based on the credits students earned through successful completion of specific required courses (for example, the appropriate English credit is required for promotion to the next grade level). EOC tests in the five required courses contribute 25% to students' final grades in the course. The state allows districts to consider a test score within one standard error of measurement as proficient for purposes of student promotion decisions, which WCPSS began to do during the 2006-07 school year. Students have the opportunity for retests and a committee review of portfolio and other evidence of mastery if students do not pass the course because of an EOC score. Additional information on the courses required for promotion can be found on the WCPSS Web site at:
(http://www.wcpss.net/curriculum-instruction/docs_downloads/planning-guides).

Overall Retention Rates

At the end of each school year, students are identified by schools as promoted, graduated, or retained, and this information is submitted to the Department of Public Instruction. Graduates are considered promoted. (Any changes in status as of fall are not reflected in these data.) Based on this definition, a very high percentage (95.4%) of WCPSS' students K-12 were promoted, in 2006-07, while 4.6% were retained. While the percentage retained is low, this percentage is up slightly from 2005-06, when 4% of WCPSS students were retained. Retainees also represent a large number of students who will require added instruction, up nearly 1,000 students from 4,876 students in 2005-06 to 5,856 students (see Table 9).

Grade Level

The following table also displays the promotion and retention rates of WCPSS students by grade level. While most students at all grade levels were promoted, promotion rates varied by grade, ranging from 80.5% at grade 9 to 99.5% at grade 5. There were distinct differences among grade levels and grade spans in retention rates for 2006-07.

- The high school level had the highest retention rates. By grade, 9th-grade students had the highest rate of retention (19.5%), followed by grade 10 (10.7%), and grade 11 (7.3%). All three percentages are higher than in 2005-06, but grade 9 had an alarming increase, up from

15.0% to 19.5%. This means one in five 9th-grade students were not promoted to tenth grade this past spring.

- The elementary level had the next highest retention rate. Kindergarten and grade 1 had the highest rate of retention (4.2 and 4.7%) within the grade span, down very slightly from 2005-06.
- Middle schools had the lowest retention rate, with about one percent of students retained at each grade.

Table 9
Promotion/Retention, 2005-06 and 2006-07, Grades K – 12

Grade	School Year	Number Retained	Percent Retained	Number Promoted	Percent Promoted	Total
KI	2005-06	513	4.8%	10,206	95.2%	10,719
	2006-07	480	4.2%	10,838	95.8%	11,318
1	2005-06	495	4.8%	9,881	95.2%	10,376
	2006-07	527	4.7%	10,662	95.3%	11,189
2	2005-06	278	2.8%	9,780	97.2%	10,058
	2006-07	278	2.6%	10,302	97.4%	10,580
3	2005-06	134	1.4%	9,636	98.6%	9,770
	2006-07	175	1.7%	10,196	98.3%	10,371
4	2005-06	80	0.9%	9,215	99.1%	9,295
	2006-07	82	0.8%	10,094	99.2%	10,176
5	2005-06	49	0.5%	9,286	99.5%	9,335
	2006-07	52	0.5%	9,656	99.5%	9,708
6	2005-06	125	1.3%	9,223	98.7%	9,348
	2006-07	84	0.9%	9,620	99.1%	9,704
7	2005-06	127	1.4%	9,303	98.7%	9,430
	2006-07	106	1.1%	9,578	98.9%	9,684
8	2005-06	135	1.5%	9,093	98.5%	9,228
	2006-07	119	1.2%	9,576	98.8%	9,695
9	2005-06	1,489	15.0%	8,473	85.1%	9,962
	2006-07	2,013	19.5%	8,324	80.5%	10,337
10	2005-06	756	8.9%	7,733	91.1%	8,489
	2006-07	968	10.7%	8,064	89.3%	9,032
11	2005-06	402	5.3%	7,240	94.7%	7,642
	2006-07	598	7.3%	7,554	92.7%	8,152
12	2005-06	293	4.1%	6,790	95.9%	7,083
	2006-07	374	4.9%	7,248	95.1%	7,622
Total	**2005-06**	**4,876**	**4.0%**	**115,859**	**96.0%**	**120,735**
	2006-07	**5,856**	**4.6%**	**121,712**	**95.4%**	**127,568**

Data Source: WCPSS Student Information Systems data file of K-12 students flagged as promoted, graduated, or retained as of the end of the 2005-06 and 2006-07 school years.
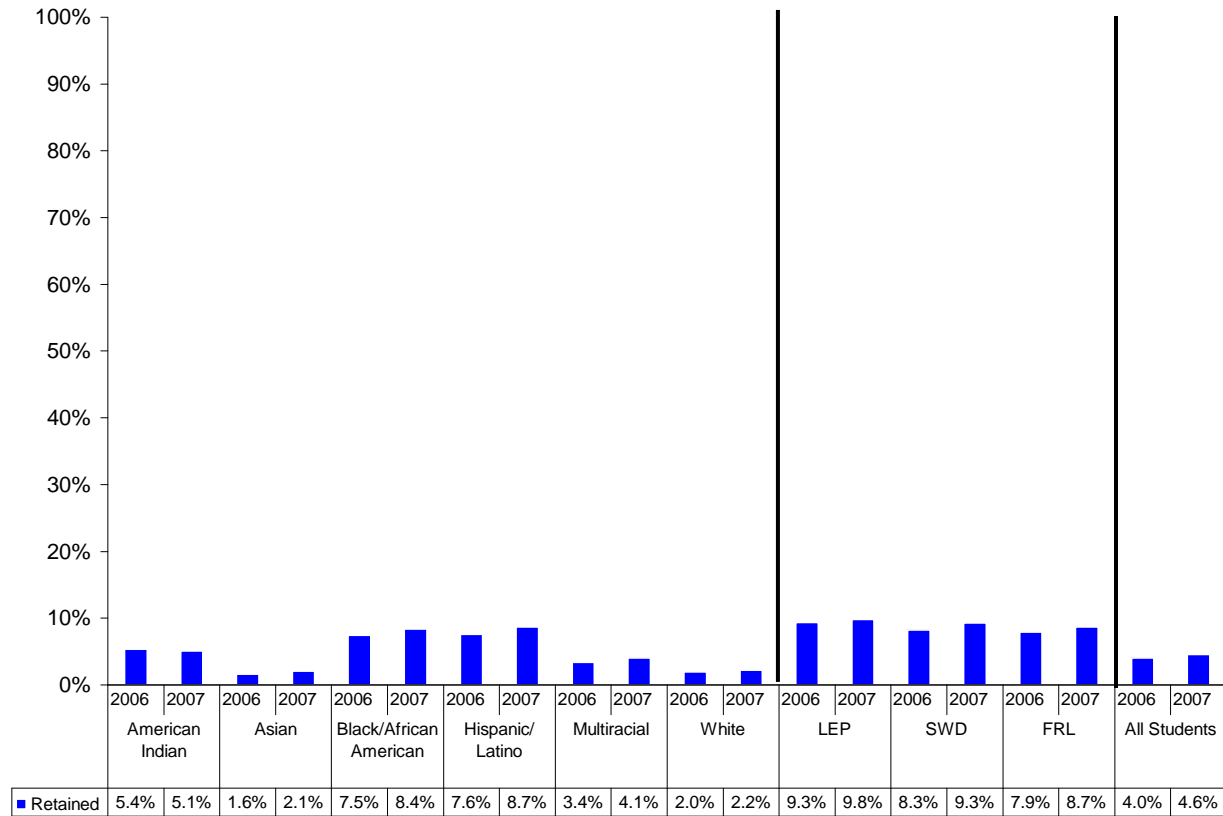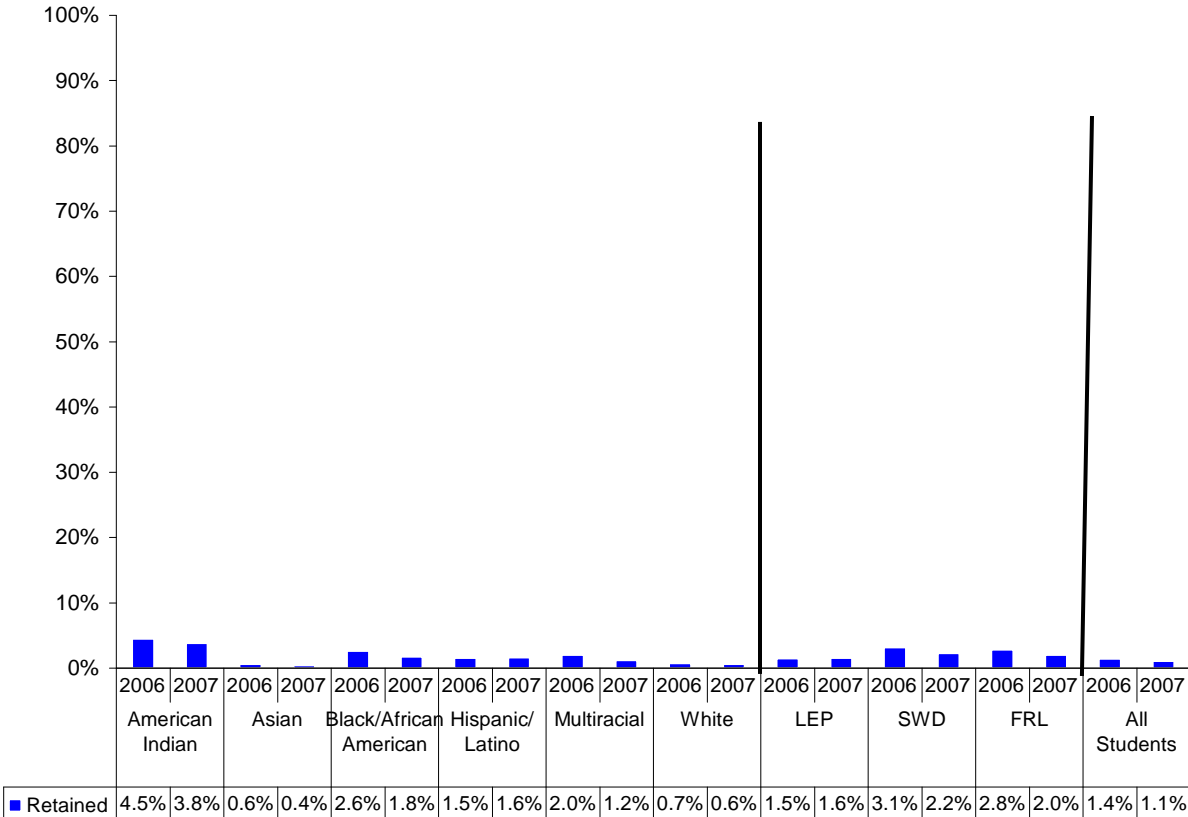
The higher rate of retention at the high school level probably reflects the different criteria used to determine promotion to the next grade. High school promotion/retention decisions are made based on successful completion of specific required courses, and students do not have to repeat the full year. Principals and school committees can make promotion recommendations for required courses where the student fails the EOC, but this is generally only done when the student has passed the course based on the other criteria. At the elementary level, higher rates of retention at kindergarten and grade 1 may reflect the belief that retention is preferable in the early grade levels to ensure that students have mastered basic skills, the belief that there is less stigma attached to retention in the early grades, maturation considerations, or local standards for grade-level status.

Ethnicity and Academic Risk Factors

More than 90% of students in all NCLB subgroups (ethnicity, FRL, LEP, SWD) in WCPSS were promoted K-12 each of the last two years. However, retention rates varied by subgroup.   While the overall retention rate in WCPSS for 2006-07 was 4.6%, the percentage of students in each subgroup retained varied from 2% to over 9%. Overall trends for 2006-07 reveal that:

- LEP students had the highest rate of retention (9.8%),
- SWD and FRL students also had higher retention rates (about 9%) than other subgroups,
- Among racial groups, Black/African American and Hispanic/Latino students had the highest rates of retention (approximately 8.5%), and
- All subgroups except American Indians had slightly higher retention rates in 2006-07 than in 2005-06.

Figure 26
Percentage of Students Retained for Each NCLB Group, 2005-06 and 2006-07,
Grades K – 12

	American Indian		Asian		Black/African American		Hispanic/ Latino		Multiracial		White		LEP		SWD		FRL		All Students	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
■ Retained	5.4%	5.1%	1.6%	2.1%	7.5%	8.4%	7.6%	8.7%	3.4%	4.1%	2.0%	2.2%	9.3%	9.8%	8.3%	9.3%	7.9%	8.7%	4.0%	4.6%

Note:
1. 2006 N = 120,014 2007 N = 127,555
2. All ethnic groups had greater than 4,000 or more students except American Indian, which had 317 in 2005-06 and 332 in 2006-07.
3. Ethnic counts are unduplicated, but other counts are duplicated. Thus, some students are reflected in more than one group.
2. Subgroup percentages reflect students within these groups and not the percentage of all students.

Data Source: WCPSS Student Information Systems data file of K-12 students flagged as promoted, graduated, or retained as of the end of the 2005-06 and 2006-07 school years.

Interpretation Example: The percentage of SWD students retained K-12 increased from 8.3% in 2006 to 9.3% in 2007.

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As the figure 27 shows, for grades 6-8:

- Within racial groups at the middle school level, American Indian and Black/African American students had the highest rate of retention.
- Rates overall either stayed level or went down for most subgroups in 2006-07.

Figure 27
Percentage of Students Retained for Each NCLB Group, 2005-06 and 2006-07, Grades 6-8

	American Indian		Asian		Black/African American		Hispanic/ Latino		Multiracial		White		LEP		SWD		FRL		All Students	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
■ Retained	4.5%	3.8%	0.6%	0.4%	2.6%	1.8%	1.5%	1.6%	2.0%	1.2%	0.7%	0.6%	1.5%	1.6%	3.1%	2.2%	2.8%	2.0%	1.4%	1.1%

Note: 1. 2006 N = 27,951 and 2007 N = 29,082
            2. Ethnic counts are unduplicated, but other counts are duplicated. All groups had over 897 students
               except American Indian (67 in 2005-06 and 79 in 2006-07).
            3. Subgroups percentages reflect students within these groups and not the percentage of all students.
Data Source: WCPSS Student Information Systems data file of K-12 students flagged as promoted, graduated, or
              retained as of the end of the 2005-06 and 2006-07 school years.
Interpretation Example: The percentage of Black students retained decreased from 2.6% in 2006 to 1.8% in 2007.

Characteristics of Retained Students
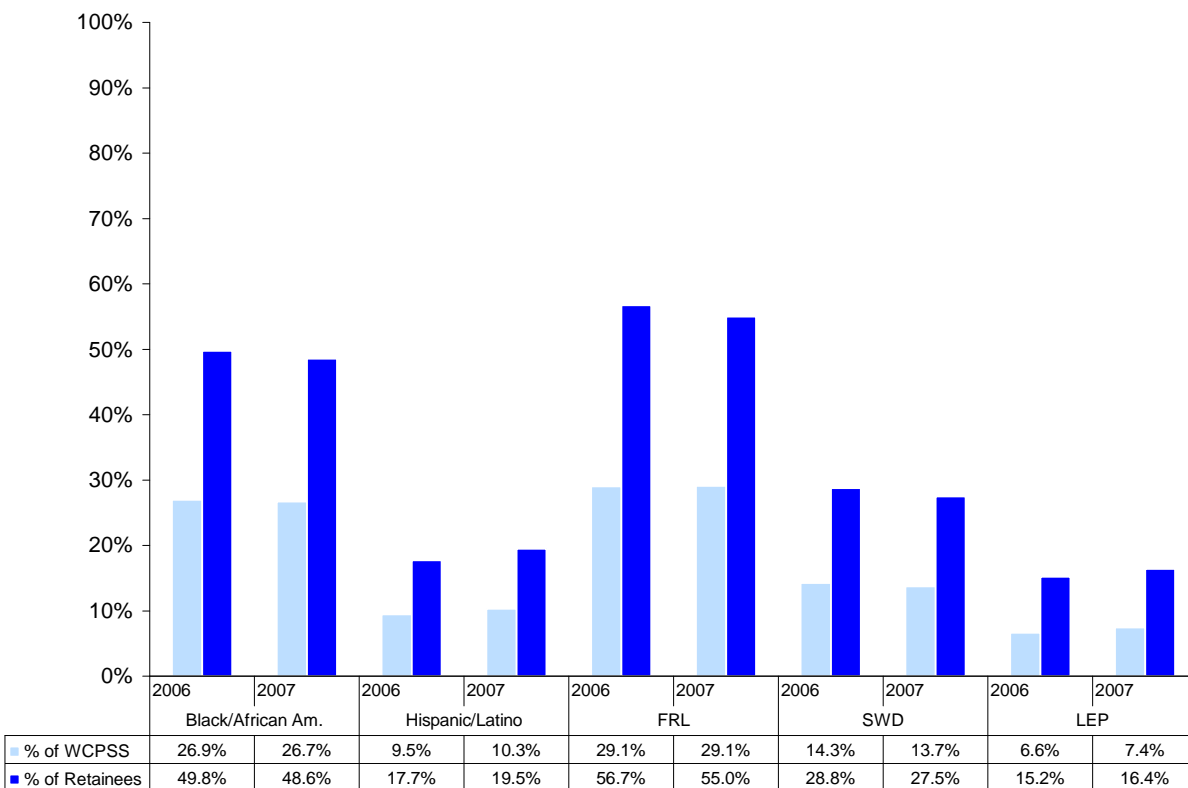
Subgroups and Gender

Another way to examine retention is the characteristics of those who are retained. Of the 5,856 students retained K-12 in 2006-07, the largest percentages of students were Black/African American (48.6%) followed by White (26%). More boys than girls were retained for all subgroups studied.

The proportion of students retained within each NCLB group is not equally distributed. The next figure displays all of the ethnic and academic risk subgroups that were over-represented among those retained at the end of 2005-06 and 2006-07, relative to the overall WCPSS population. The patterns did not change between 2005-06 and 2006-07; shifts in percentages from each group were small.

- The percentages of students retained within academic risk subgroups was approximately twice as high as their representation in the WCPSS overall.

- By ethnicity, Black/African American and Hispanic/Latino students were retained at close to twice their representation in the WCPSS population. Asian and White students were under-represented, while American Indian students were proportionally represented among retainees (not shown).

Figure 28
Student Subgroups Over-Represented among those Retained in WCPSS
Relative to WCPSS Grades K-12, 2005-06 and 2006-07

	Black/African Am.		Hispanic/Latino		FRL		SWD		LEP	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
% of WCPSS	26.9%	26.7%	9.5%	10.3%	29.1%	29.1%	14.3%	13.7%	6.6%	7.4%
% of Retainees	49.8%	48.6%	17.7%	19.5%	56.7%	55.0%	28.8%	27.5%	15.2%	16.4%

Note: 1. 2006 N= 4,838 retained
          2. 2007 N= 5,856 retained
          3. Ethnic counts are unduplicated, but other counts are duplicated.
Data Source: WCPSS Student Information Systems data file of K-12 students flagged as promoted, graduated, or
          retained as of the end of the 2005-06 and 2006-07 school years.
Interpretation Example: The percentage of retainees who were Hispanic/Latino increased from 17.7% in 2006 to
          19.5% in 2007. This is greater than their percentage in the overall WCPSS population (9.5% and
          10.3% of WCPSS students in 2005-06 and 2006-07).

Academic Risk Factor Combinations

Figure 29 displays students retained at the end of 2005-06 and 2006-07 for all possible
combinations of FRL, SWD, and LEP students K-12. Each student is represented in only one of
the categories in the following figure. Patterns were similar both years, with the largest shift
being an increase of 2% in those retained who had no academic risk factors. Based on 2006-07:

- Overall, students with only one academic risk factor represented just less than half of the
  retained students (45%), while those with multiple factors represented about one fourth of
  retainees (26%).
- Of those retained, the largest percentages of those retained were those students who were
  FRL only and those who had no academic risk factors (29% each).

- Students who were both FRL and SWD represented the next highest percentage of retained students (14% of retainees), followed by those who were only SWD (12%).

Figure 29
Students Retained by Academic Risk Group Combinations
at the End of 2005-06 and 2006-07, Grades K-12

2006   **2007**
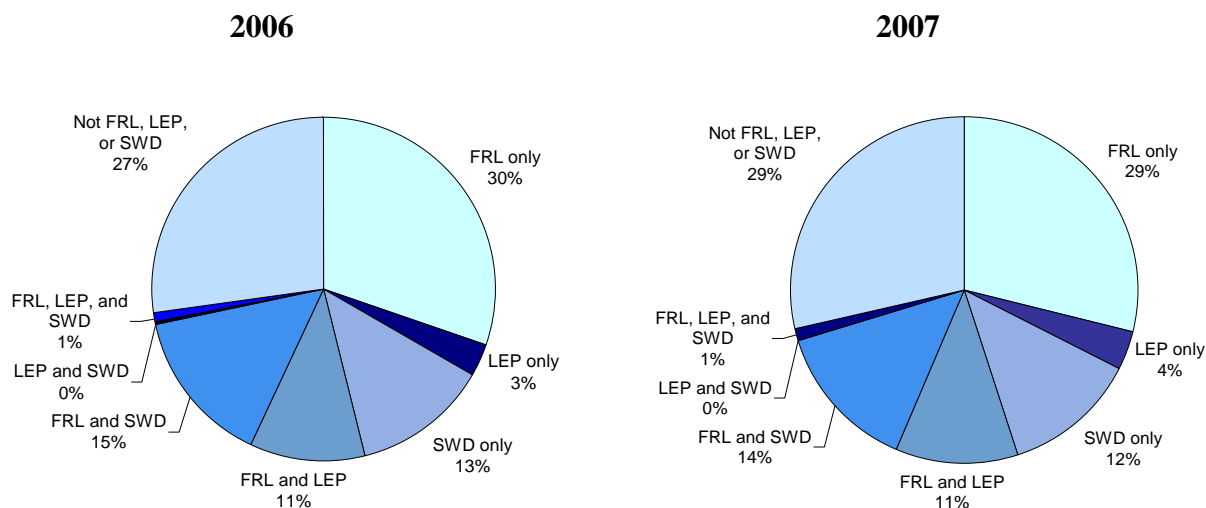
Note: LEP and SWD students are shown as 0% of retainees due to rounding. The actual percentages are less than 1%.

Data Source: WCPSS Student Information Systems data file of K-12 students flagged as promoted, graduated, or retained as of the end of the 2005-06 and 2006-07 school years.

Interpretation Example: The percentage of retained students who were FRL only decreased from 30% in 2006 to 29% in 2007.

Summary

While WCPSS students were promoted at a high rate, the promotion rate varied by grade level, ethnicity, academic risk factors, and gender. The high school level had the highest rate of retention, followed by the early elementary school grades (kindergarten and grade 1). The percentages of students retained within academic risk subgroups was approximately twice as high as WCPSS overall. Students with academic risk factors as well as Black/African American and Hispanic/Latino students were similarly over-represented among retained students relative to their percentage of the population. Male students were retained at a higher rate than female students.

RESULTS OF NORTH CAROLINA ONLINE TEST OF COMPUTER SKILLS

Test Description

The North Carolina Computer Skills Test is a high school diploma requirement that is designed to measure the North Carolina Standard Course of Study for Computer/Technology Skills (DPI, 2007). This course of study is a K-12 curriculum. The test measures the six strands defined by the K-12 North Carolina Standard Course of Study for Computer/Technology Skills adopted by the State Board of Education in 2004. The six strands are: 1) Societal/ Ethical Issues, 2) Database, 3) Spreadsheet, 4) Keyboard Utilization/Word Processing/Desk Top Publishing, 5) Multimedia /Presentation, and 6) Telecommunications/Internet.

Students are administered the test beginning in grade 8, with a maximum of two opportunities to score proficient on the test during the year. The test is also used in the Performance Composite in the ABCs (refer to the ABCs section of this report for more information). Beginning in grade 9, students are offered remediation and opportunities to retest throughout high school until they score proficient on the test and therefore meet this diploma requirement. Each high school develops strategies as to how they will remediate students.

The state's computer skills test began as a two-part test consisting of a series of multiple-choice questions and a performance-based component in which students completed routine tasks on a computer. Beginning in 2005-06, students entering grade 8 for the first time were assessed with the new Online Test of Computer Skills during a fall and/or spring testing window. This test is not administered with computer software with which students are familiar, such as Microsoft Office or Microsoft Works. The program that is used is NCDESK, which was developed through North Carolina State University, and which can be downloaded for student use at any grade level (NCSU, 2006). The online test is secure and password protected.

The Computer Skills Alternate Assessment is available for students whose school does not have Internet capabilities or for students who are blind. This test is a combination of a paper and pencil (multiple-choice test) and a performance test. During the performance test, students complete various tasks that are scored by the test administrator with a DPI-developed rubric. The test administrator will then fill in "Yes" or "No" for each task on the student's bubble sheet – "Yes" (per the rubric, the student has mastery of this task.) or "No" (the student does not have mastery of this task). Bubble sheets are then forwarded to the NCDPI for scoring. Only six WCPSS students were assessed with this alternative test in 2005-06.

In 2006-07, two specific groups of students were not required to take the test. One group was made up of students assessed with the Alternate Assessment Portfolio (AAP) in 2005-06. These students are identified as students with most significant cognitive disabilities and will receive a certificate upon completion of their high school requirements rather than a regular diploma. The second group included students identified as limited English proficient (LEP) who were in their first year in a U.S. school and scored below intermediate high on their initial IDEA Proficiency Test (IPT). LEP students, however, must eventually meet the computer skills requirement in order to receive a diploma

Test Results

Of the 8th grade students who were administered the Online Computer Skills Test during the regular 2006-07 school year, 81% of students tested passed the test, up slightly from 74% in 2005-06 (Figure 30).

Figure 30
Online Computer Skills Test Proficiency for All Students, 2006-07, Grade 8


2005-06	2006-07
74.0%	81.1%
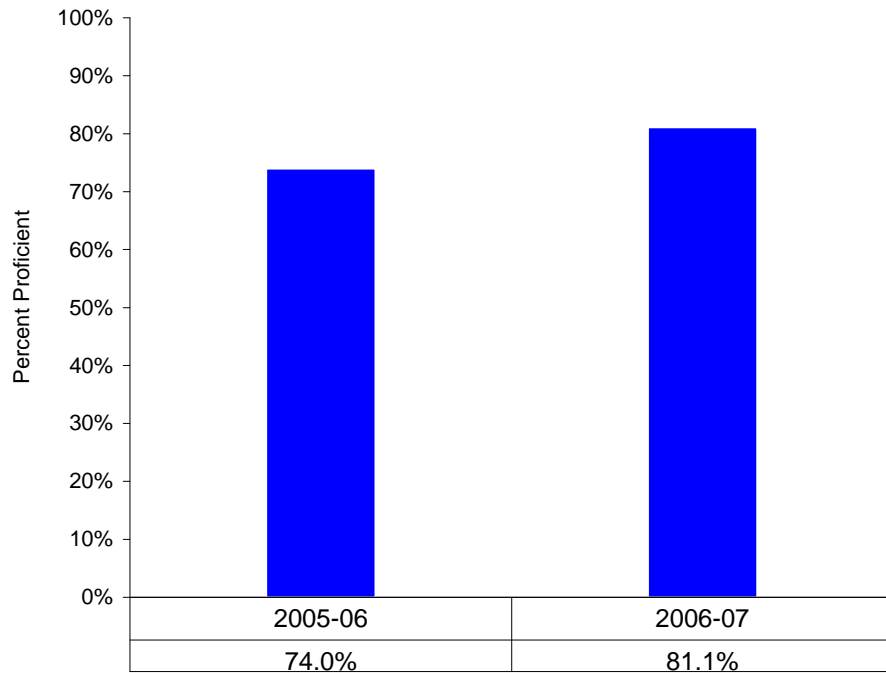
N = 8,433
Note: The percent proficient reported in 2005-06 was updated after publication of the report. The updated percent is used in this report.

Computer Skills Proficiency by Subgroup

Over the past two years, females were somewhat more likely to score proficient on the computer test than males, by a margin of 5-7 percentage points (Figure 31), with both groups posting gains between 2005-06 and 2006-07.

Figure 31
Percent Proficient Online Computer Skills Test by Gender, 2005-06 and 2006-07, Grade 8

	2005-06	2006-07
■ Female	77.5%	83.6%
■ Male	70.5%	78.7%
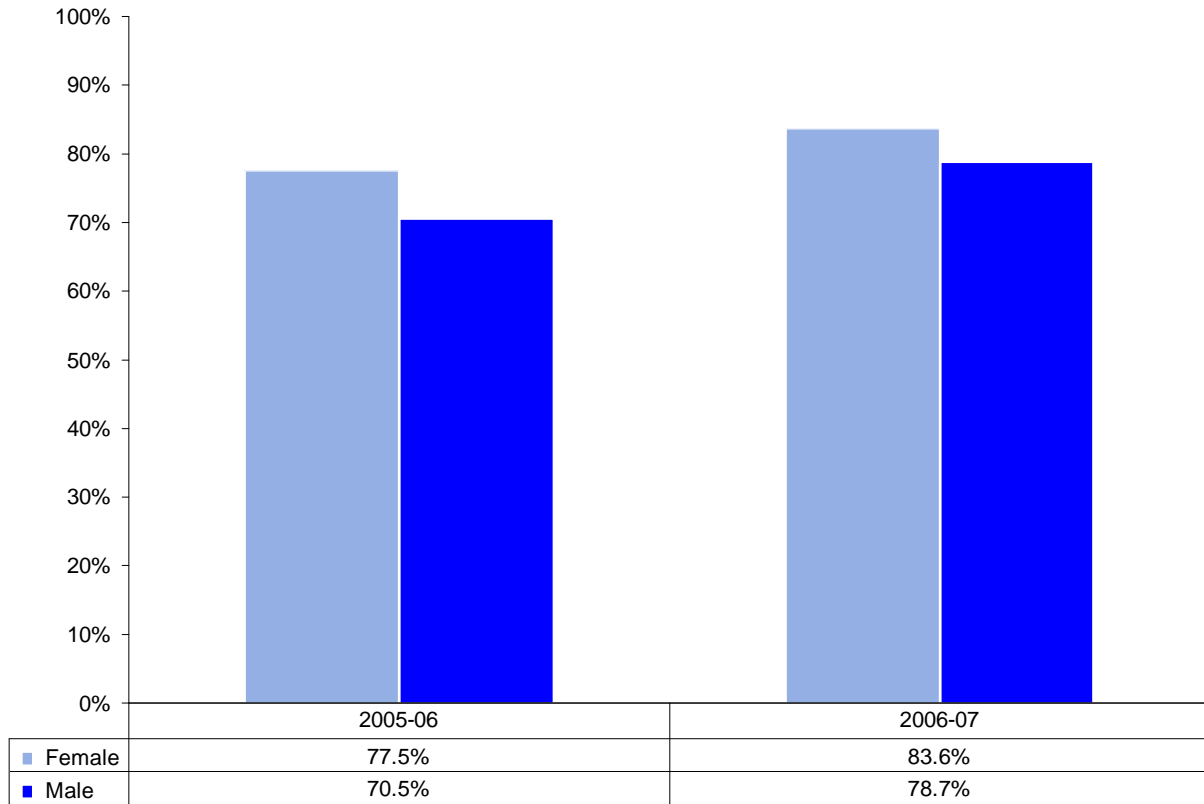
Over the past two years, the Asian and White subgroups have demonstrated the highest proficiency on the online computer skills test. Black and Hispanic/Latino students have demonstrated the lowest proficiency during that time (Figure 32), although both of those subgroups posted large gains in 2006-07.

Figure 32
Percent Proficient Online Computer Skills Test by Ethnicity 2005-2007, Grade 8

	American Indian	Asian	Black	Hispanic/Latino	Multiracial	White
■ 05-06 Percent Proficient	85.7%	85.4%	50.3%	49.5%	73.2%	89.3%
■ 06-07 Percent Proficient	80.0%	88.7%	65.2%	59.1%	80.7%	92.4%
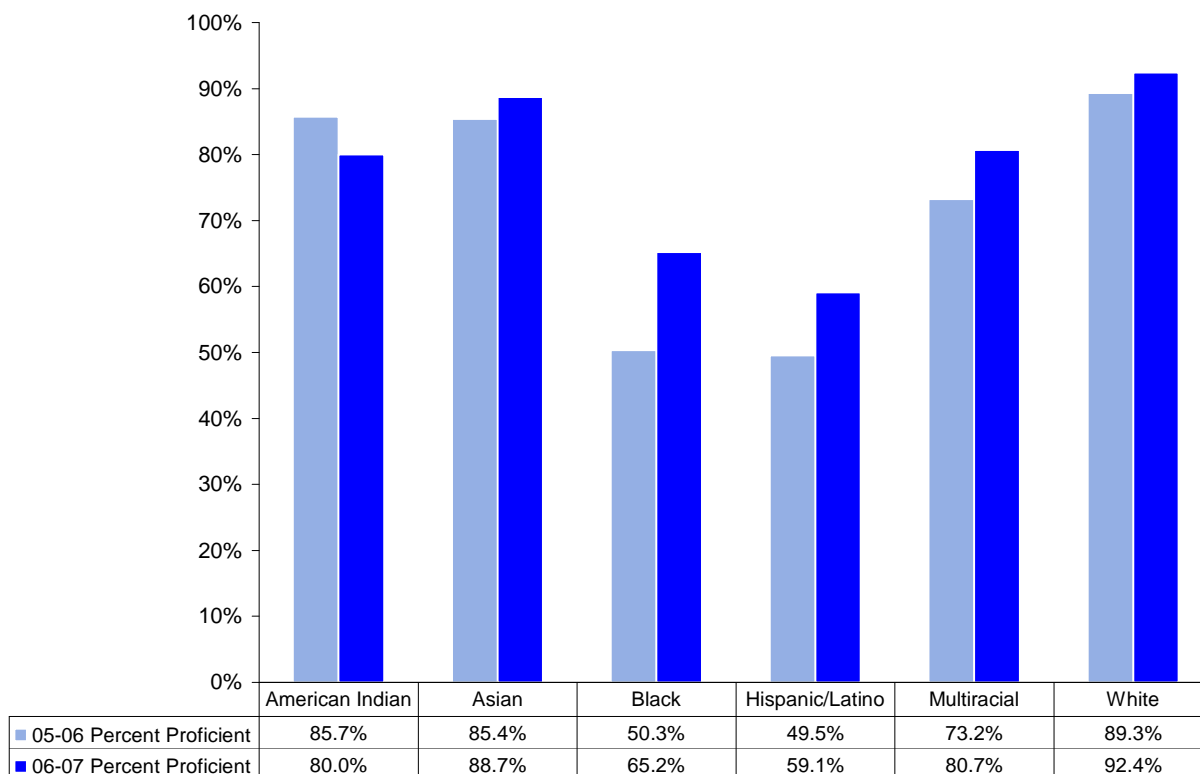
Computer Skills Proficiency by Academic Risk Factors

Of the 8th grade SWD students in 2006-07, just under half scored proficient, down slightly from over 56% in 2005-06. Thus, SWD students had more difficulty meeting this new standard than their non-SWD peers. Of the LEP students tested, 43.6% scored proficient on the test by the end of the school year, up slightly from 2005-06. Thus, LEP students had even more difficulty meeting this requirement than SWD students (Figure 33).

One group of 138 students was identified as both LEP and SWD. Students identified within both academic risk factors scored proficient on the test less often than did students in either subgroup by itself, with only 22% of this subgroup scoring proficient by the end of 2006-07.

Figure 33
Proficiency on Online Computer Skills Test by Academic Risk Groups,
2006-07, Grade 8

	2005-06	2006-07
All Students	74.0%	81.1%
LEP	33.1%	43.6%
SWD	56.5%	49.4%
FRL	46.5%	58.5%
Not FRL	85.1%	90.0%
SWD/LEP	35.6%	22.1%
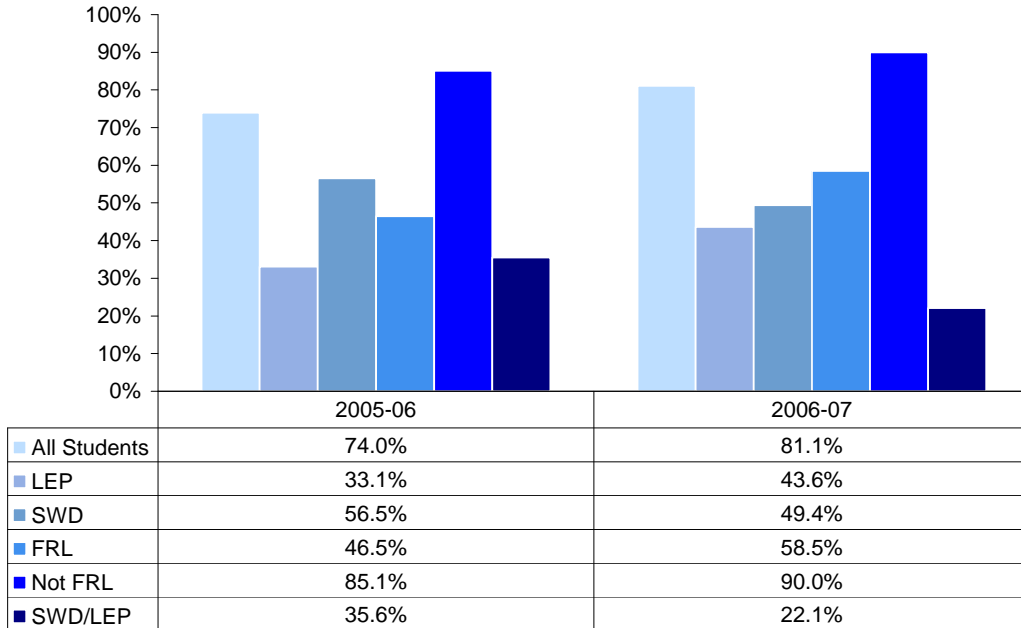
Economically disadvantaged students, defined as those who receive free or reduced price lunch, showed much lower proficiency percentages in both 2005-06 and 2006-07 than those who were not economically disadvantaged.

ACCOUNTABILITY OUTCOMES

ABCs RESULTS

The ABCs of Accountability Model for elementary and middle schools was first implemented in the 1996-97 school year. It includes both a performance component, which evaluates the extent to which students score proficient on various tests in each school and a growth component, which evaluates the extent to which students make progress from one year to the next. During 2005-06, major changes in the ways the school growth is calculated were implemented.   While ABCs results still represent the extent to which WCPSS schools are meeting state standards, caution must be taken when comparing recent results to those prior to 2005-06. Results for 2005-06 will therefore be emphasized as a baseline for the coming years. More information on the details of the model can be found at http://abcs.ncpublicschools.org/abcs/.

The performance component of the model, which is measured by the Performance Composite, addresses the percentage of test scores at or above grade level (Levels III or IV), and it includes all students tested (including alternate assessments). Tests included in this calculation for middle schools include EOG reading, EOG mathematics, computer skills, writing, and EOC tests (Algebra I, Geometry, Algebra II).

The growth component deals with students' scores from one year to the next, and includes only students with both scores in a subject who attended a school for 140 days or more. Growth calculations are based solely on EOG and EOC scores, and do not include the other tests mentioned above. In addition to meeting the 140 days in membership requirement, for a student's test scores to be included in the growth part of the model, the student must have a score from the previous year in the same subject in order to measure their growth.

ABCs Growth Standards

The basic assumption of the ABCs growth component is that a student should be expected to do at least as well on various EOG tests as he or she has done on prior EOG tests compared to all other students who took the test in the standard-setting year. The standard-setting year is typically the first year that a test becomes operational and students receive scores for the test. Under the growth component of the model, schools can be designated as not meeting growth, meeting "Expected Growth", or meeting "High Growth." Growth results are calculated for each student in reading and mathematics.
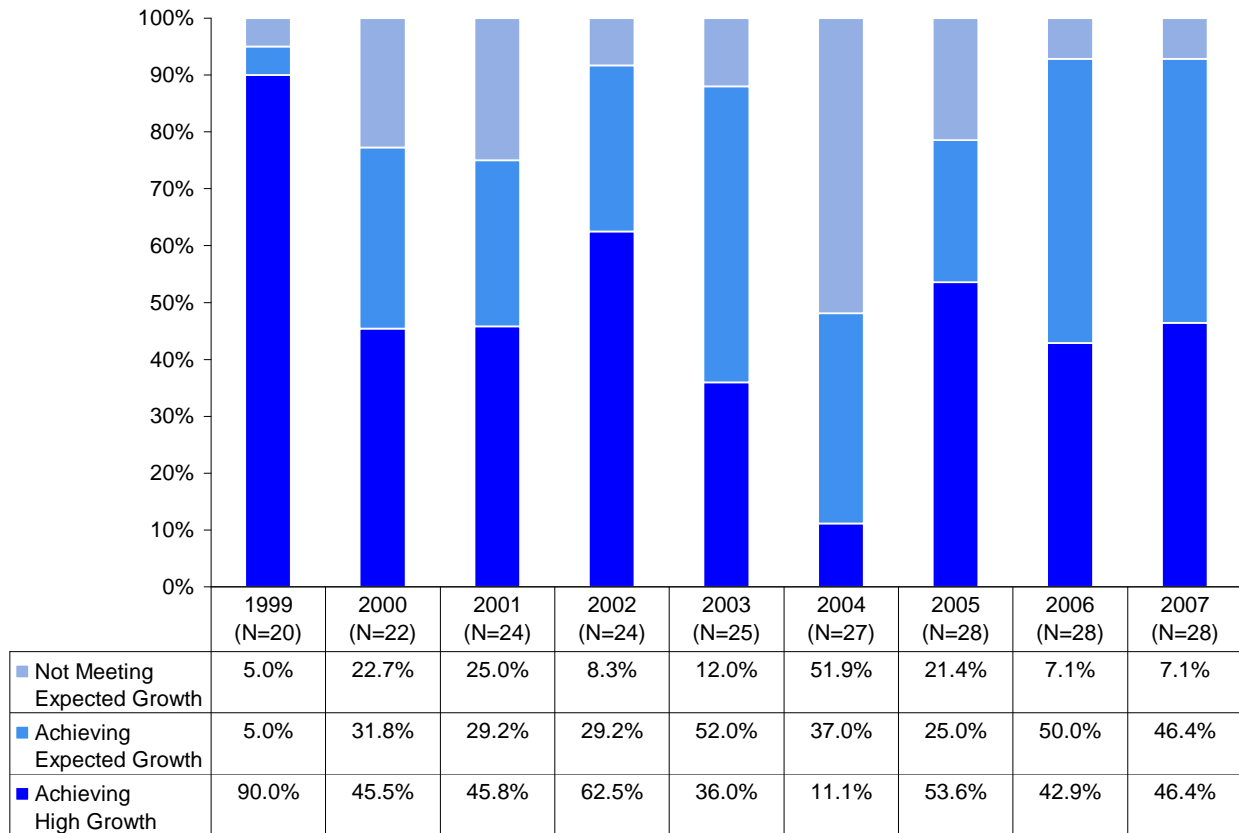
- Schools that meet the Expected Growth standard demonstrate an average amount of growth across all students equal to one year's growth.
- Schools that meet the High Growth standard must first meet the Expected Growth standard. Then, they must also have 60% of students meet their individual growth targets across all tests.

Overall, 14 of the 28 WCPSS middle schools met the Expected Growth standard and 12 made high growth in 2005-06, for a total of 93%, see Figure 34. In 2006-07, 13 schools made Expected Growth and 13 made High Growth. The vast majority of WCPSS middle schools have

made at least Expected Growth every year since 1998-99, with the exception of 2003-04. The year-to-year fluctuation in the percentages of schools in each category may be due in part to changes in how growth has been calculated over time.
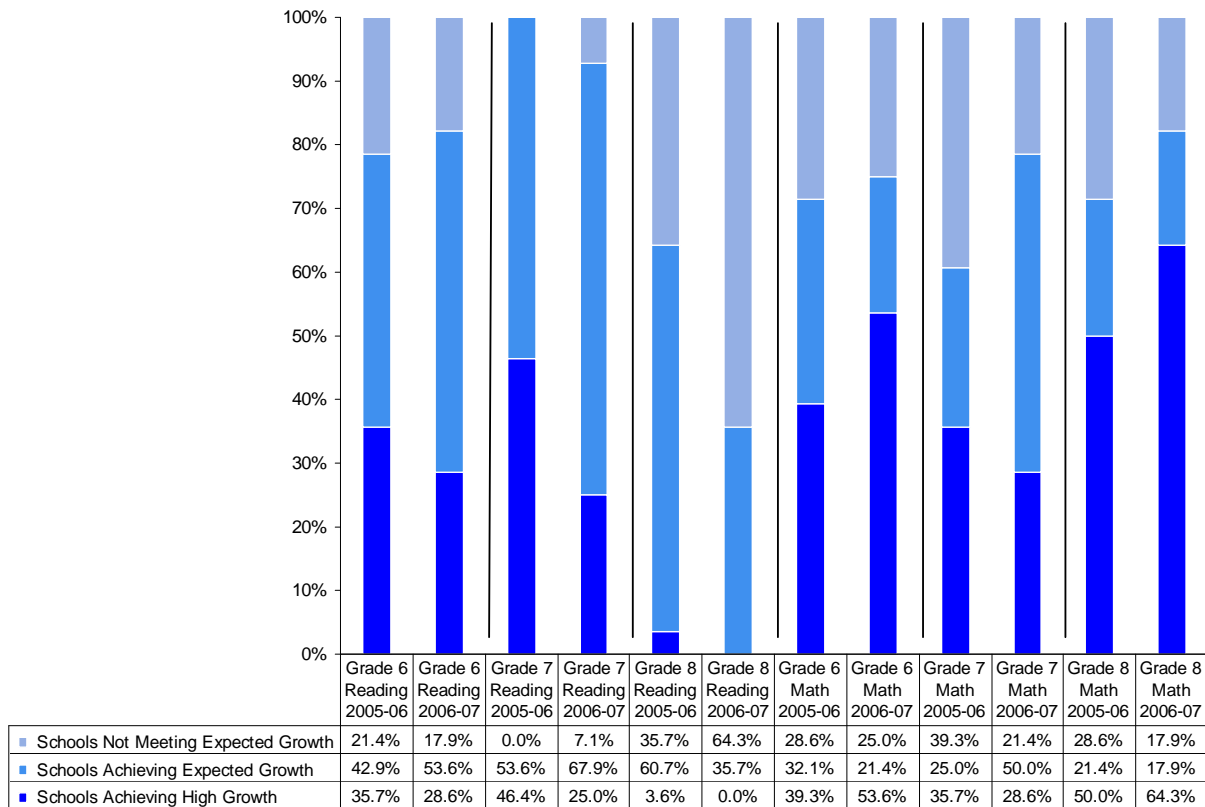
Figure 34
WCPSS ABCs Growth Summary over Time, 1999-2007 Grades 6-8

	1999 (N=20)	2000 (N=22)	2001 (N=24)	2002 (N=24)	2003 (N=25)	2004 (N=27)	2005 (N=28)	2006 (N=28)	2007 (N=28)
Not Meeting Expected Growth	5.0%	22.7%	25.0%	8.3%	12.0%	51.9%	21.4%	7.1%	7.1%
Achieving Expected Growth	5.0%	31.8%	29.2%	29.2%	52.0%	37.0%	25.0%	50.0%	46.4%
Achieving High Growth	90.0%	45.5%	45.8%	62.5%	36.0%	11.1%	53.6%	42.9%	46.4%

Interpretation Example: In 2007, 46.4% of middle schools in Wake County achieved high growth, it is an increase of about 3% from the previous year.

When examined by grade level and subject, growth results were strongest in Grade 7 Reading in 2006-07, with 26 of 28 (93%) WCPSS middle schools achieving Expected or High Growth. Mathematics results were more even across grades, with 75% to 82% of schools meeting their Expected or High Growth standards. Grade 8 Reading was the one area where the majority of middle schools failed to make at least Expected Growth in 2006-07.
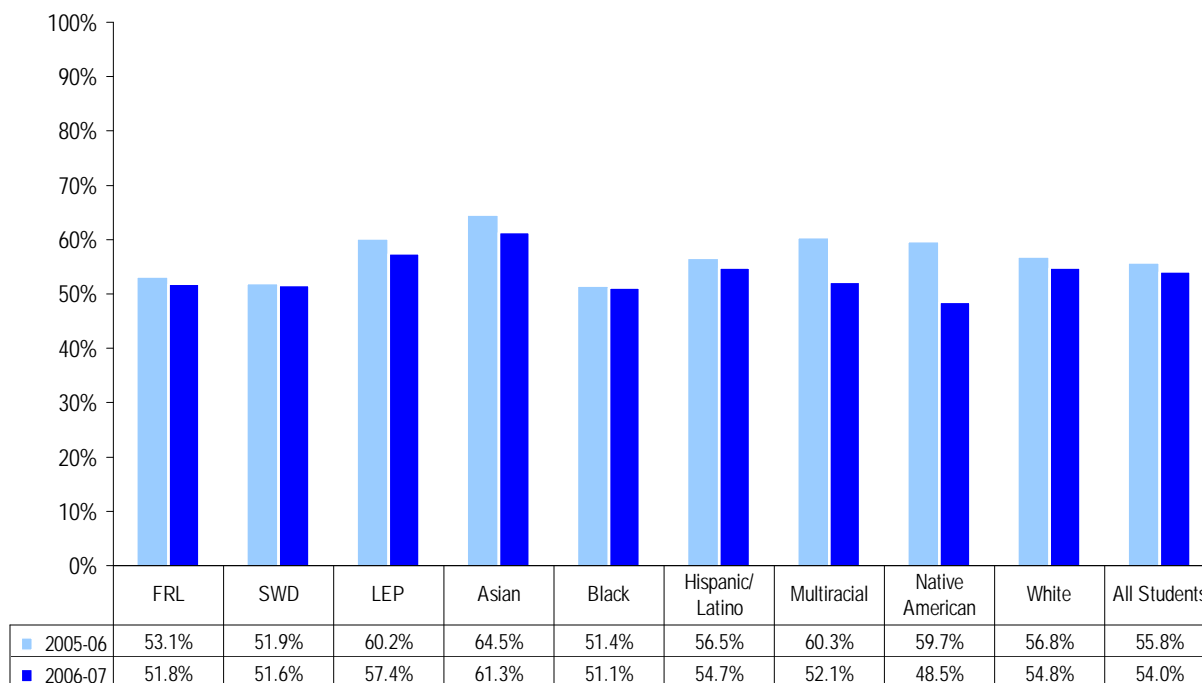
Figure 35
Middle Schools ABCs Growth Results by Grade and Subject,
2005-06 and 2006-07

	Grade 6 Reading 2005-06	Grade 6 Reading 2006-07	Grade 7 Reading 2005-06	Grade 7 Reading 2006-07	Grade 8 Reading 2005-06	Grade 8 Reading 2006-07	Grade 6 Math 2005-06	Grade 6 Math 2006-07	Grade 7 Math 2005-06	Grade 7 Math 2006-07	Grade 8 Math 2005-06	Grade 8 Math 2006-07
Schools Not Meeting Expected Growth	21.4%	17.9%	0.0%	7.1%	35.7%	64.3%	28.6%	25.0%	39.3%	21.4%	28.6%	17.9%
Schools Achieving Expected Growth	42.9%	53.6%	53.6%	67.9%	60.7%	35.7%	32.1%	21.4%	25.0%	50.0%	21.4%	17.9%
Schools Achieving High Growth	35.7%	28.6%	46.4%	25.0%	3.6%	0.0%	39.3%	53.6%	35.7%	28.6%	50.0%	64.3%

Interpretation Example: The percentage of WCPSS middle schools achieving at least expected growth for 6th grade reading increased by about 5% from 2005-06 to 2006-07 from 78.6% to 82.2%, even though there was a smaller percentage of schools who achieved high growth, (from 35.7% to 28.6%)

Because growth in reading and mathematics is now calculated student by student, a useful metric for measuring schools' success in these areas is to tally the number of individual students who demonstrate one year's growth in one year's time, according to the state's expectations. As demonstrated in Figure 36, the overall percentage of WCPSS middle school students reaching their growth target for ABCs in reading was 54%, down slightly from 56% in 2005-06. Results for most student subgroups were in the low to mid-50s in 2006-07, and were generally down slightly compared with 2005-06.

Figure 36
Percentage of Students by NCLB Subgroups Meeting Growth Targets in Reading, 2005-06 and 2006-07, Grades 6-8

	FRL	SWD	LEP	Asian	Black	Hispanic/ Latino	Multiracial	Native American	White	All Students
2005-06	53.1%	51.9%	60.2%	64.5%	51.4%	56.5%	60.3%	59.7%	56.8%	55.8%
2006-07	51.8%	51.6%	57.4%	61.3%	51.1%	54.7%	52.1%	48.5%	54.8%	54.0%

Interpretation Example: Asian students showed a decrease of the percentage of students meeting their growth target in Reading from 2005-06 to 2006-07 (64.5% to 61.3%)

As demonstrated in Figure 37, the overall percentage of WCPSS students reaching their growth target in mathematics was almost 61%, up from 58% in 2005-06. This increase was evident across all NCLB sub-groups. The percentage of each subgroup meeting their growth target in mathematics varied from 53% to 71%. In both 2005-06 and 2006-07, this range of results was wider across subgroups than was seen in reading (Figure 37). Over the past two years, the highest percentage of students meeting growth targets were found for Asian and White students, while the lowest percentages were found among FRL, SWD, and Black/African American students.

Figure 37
Percentage of Students by NCLB Subgroups Meeting Growth Targets in Mathematics, 2005-07, Grades 6-8

	FRL	SWD	LEP	Asian	Black	Hispanic/ Latino	Multiracial	Native American	White	All Students
2005-06	49.7%	49.6%	56.3%	68.1%	48.7%	55.1%	56.6%	50.9%	61.5%	57.7%
2006-07	52.9%	53.0%	59.4%	71.3%	52.9%	56.4%	60.9%	56.1%	64.1%	60.7%
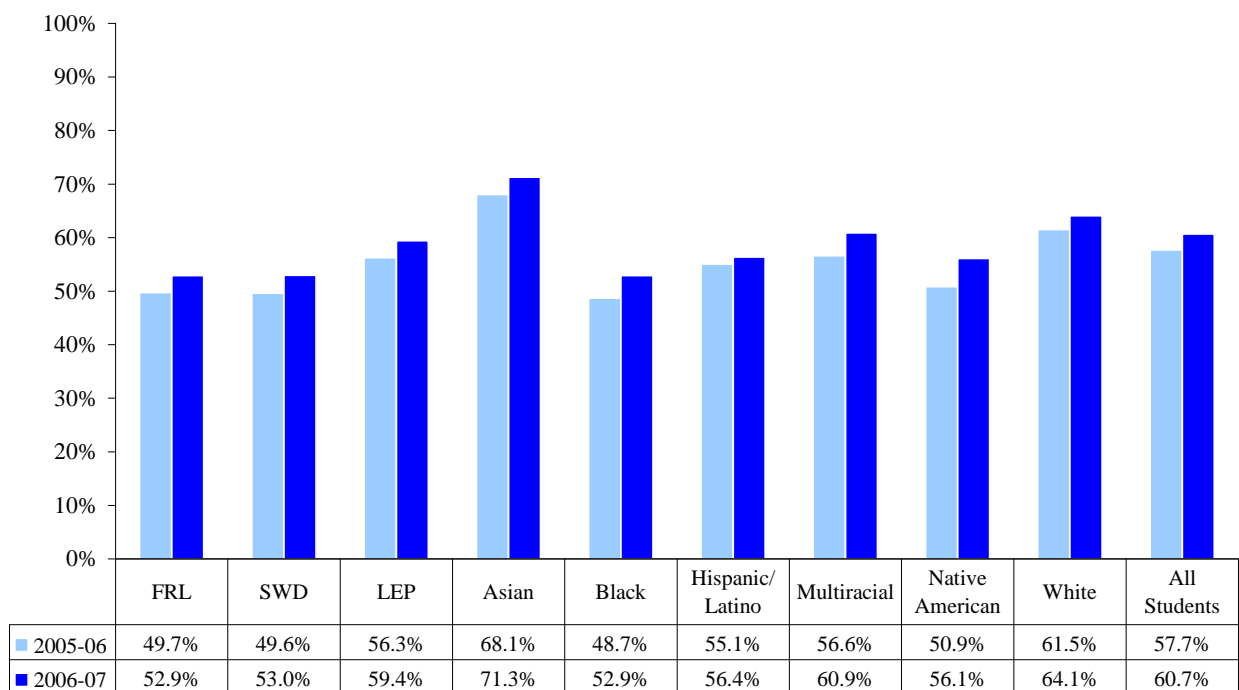
Interpretation Example: 60.7% of all tested students in Wake County middle schools met their growth expectation in
            Mathematics in 2006-07

60

ABCs Performance Standards

The second component of the ABCs accountability model is the Performance Composite, which is based on the percentage of proficient scores across all tests in a school (i.e., Levels III and IV). Definitions of these levels are described in the Testing Outcomes (EOG) section of this report.

School Recognitions

State recognitions are based on both the growth and performance components. In order to be awarded a state recognition, a school must both make at least the Expected Growth standard *and* have a certain percentage of their test scores fall into the Level III or Level IV range. Table 10 provides the definition for each recognition category the state applied to schools under this accountability program in 2006-07, and the number of WCPSS schools that earned each type of recognition are displayed in both Table 10 and Figure 38.

Table 10
ABCs Awards and Recognitions 2006-07

Recognition Category	# Middle Schools N=28
Schools Making High Growth attained their high growth standard. Certified staff members each receive up to $1,500 and teacher assistants up to $500.	*13*
Schools Making Expected Growth attained their expected growth standard (but not their high growth standard). Certified staff members each receive up to $750 and teacher assistants up to $375.	*13*
Honor Schools of Excellence are schools that made at least expected growth, had at least 90% of their test scores at or above Achievement Level III, and met federal Adequate Yearly Progress (*AYP*) standards. These schools receive banners, certificates, and incentive awards for expected or high growth.	*2*
Schools of Excellence are schools that made at least expected growth and had at least *90%* of their test scores at or above Achievement Level III but did not make AYP. These schools receive banners, certificates, and incentive awards for expected or high growth.	*2*
Schools of Distinction are schools that made at least expected growth and had at least *80%* of their test scores at or above Achievement Level III (but were not Honor Schools of Excellence or Schools of Excellence). They receive plaques, certificates, and incentive awards for expected or high growth.	*12*
Schools of Progress are schools that made at least expected growth and had at least *60%* of their test scores at or above Achievement Level III (but were not Honor Schools of Excellence or Schools of Excellence or Distinction). They receive certificates and incentive awards for expected or high growth.	*10*
Schools Receiving No Recognition did not make their expected growth standards but had at least *60%* of their test scores at or above Achievement Level III.	*2*
Priority Schools are schools that had less than 60% of their test scores at or above Achievement Level III, irrespective of making their expected growth standards, and are not Low-Performing Schools.	*0*
Low-Performing Schools are those that failed to meet their expected growth standards and had significantly less than 50% of their test scores at or above Achievement Level III.	*0*

Note: Adapted from http://www.ncpublicschools.org/docs/accountability/reporting/abc/2006-07/execsumm.html . Schools may be counted in top section above the shaded row as well as bottom section.

In both 2005-06 and 2006-07, the majority of WCPSS middle schools were designated as either Schools of Distinction or Progress under the ABCs recognition categories (Figure 38). In both years, there were no WCPSS middle schools designated as either Priority Schools or Low-Performing Schools.

Figure 38
Percent of WCPSS Middle Schools by ABCs Designation, 2005-06 and 2006-07

	2006 (N=28)	2007 (N=28)
■ Priority School	0.0%	0.0%
■ School of Progress	46.4%	35.7%
■ No Recognition	7.1%	7.1%
■ School of Distinction	39.3%	42.9%
■ School of Excellence	0.0%	7.1%
■ Honor School of Excellence	7.1%	7.1%
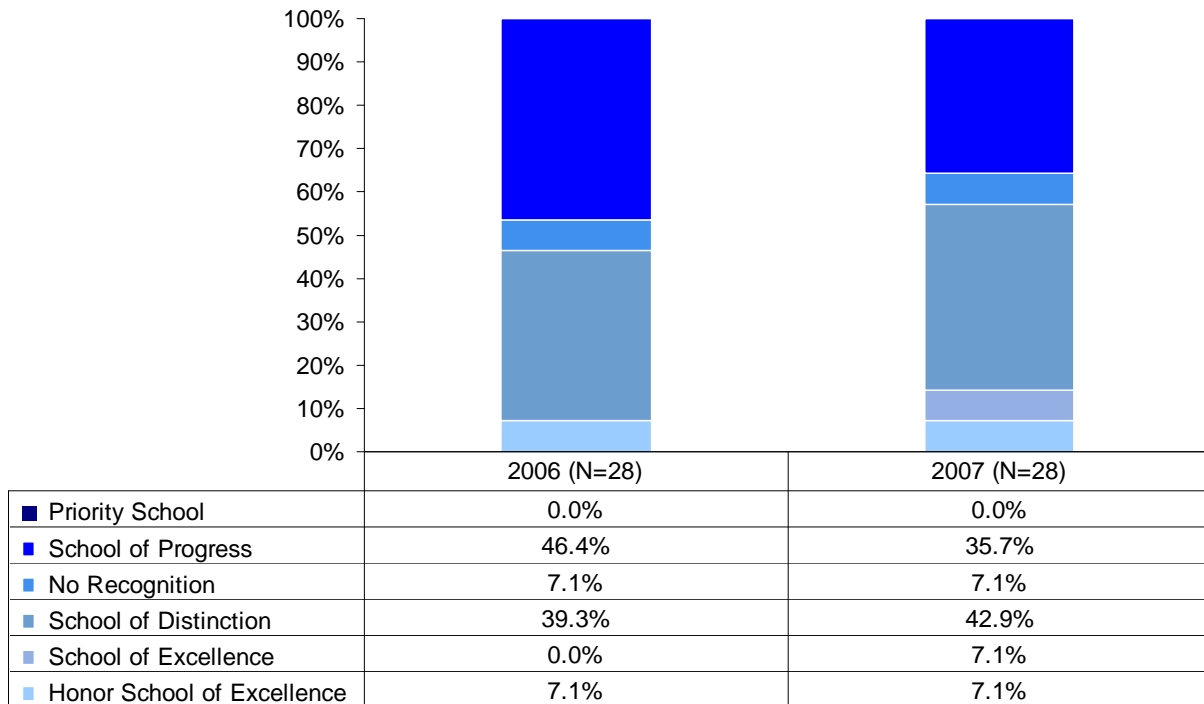
Interpretation Example: 7.1% of Wake County middle schools earned the recognition category of Honor School of Excellence in 2006-07, which means that they were a school of excellence and also met AYP.

AYP RESULTS

Adequate Yearly Progress (AYP) is a series of targets that schools, school districts, and states must meet each year to fulfill the requirements of the federal Elementary and Secondary Education Act (also referred to as the No Child Left Behind Act of 2001). The ultimate goal is for 100% of students to score proficient in reading and mathematics by 2013-14.

In North Carolina, the primary measures used are EOG tests for grades 3-8 and selected EOC tests for high schools. High school measurements are based on Algebra I (for mathematics) and a combination of English I EOC tests and the 10th-grade Writing Test (for reading). The 10th-grade High School Comprehensive Test is also used for a small number of students who had not taken Algebra I and/or English I course.

Each school may have up to ten student subgroups that must meet the prescribed targets in both reading and mathematics; these include all students plus students who are American Indian, Asian, Black/African American, Hispanic/Latino, Multiracial, White, economically disadvantaged (defined as FRL), LEP students, and SWD students.

The achievement of these targets is measured by the percentage of students who take certain tests, as well as the percentage of students who pass those tests. Proficiency targets are set to increase incrementally every three years until they all become 100% in 2013-14. In order for a school to be designated as achieving AYP, all subgroups of students must have met the following targets:

- 95% participation rate in the school's appropriate reading assessment
- 95% participation rate in the school's appropriate mathematics assessment
- Proficiency target in reading (76.7% in grades 3-8; 35.4% in grade 10)
- Proficiency target in mathematics (65.8% in grades 3-8; 70.8% in grade 10 based on Algebra I)

In addition to the four participation and performance targets for each subgroup, the school as a whole must also show progress on another "academic indicator." Schools that have 12th graders use the graduation rate, while all other schools use attendance rate.

Thus, a school could potentially have as many as 41 targets, including participation targets, proficiency targets, and the school-wide academic indicator. All targets must be met for a school to meet AYP. If a school misses even one of those targets, the school fails to make AYP. Whether a school makes AYP each year influences the performance categories into which the state classifies schools each year (see the ABCs section of this report for further details). Also, for schools that receive certain federal funding under Title I of the Elementary and Secondary Education Act, failing to make AYP for multiple consecutive years can result in mandatory interventions such as supplementary tutoring, offering students the option to transfer to other schools, or even reconstituting the school with a new staff in more extreme cases. In WCPSS only elementary schools receive Title I funds at this time. (See NCDPI's Web site for more information on NCLB and AYP in North Carolina Public schools at http://www.ncpublicschools.org/nclb/ .)

For AYP proficiency rates at the school level, schools are responsible for the performance of any subgroup for which there are at least 40 students in grades 3-8 or grade 10 who have been in membership for a full academic year. (A full academic year is defined by the state as 140 of the 180 possible days in membership during the school year.) AYP subgroups with a minimum of 40 students enrolled on the first day of testing (regardless of how many of those students meet the membership requirement) must also meet the "95% tested" requirement for both reading and mathematics assessments.

If a particular subgroup meets the 95% participation rate but does not meet the target proficiency for a subject area, the subgroup can still meet AYP through what is referred to in the law as the "Safe Harbor" provision. The Safe Harbor provision is invoked if the subgroup has reduced the percentage of students *not* proficient by 10% from the previous year for that subject area *and* if the subgroup shows progress on the other academic indicator (attendance or graduation rate). However, Safe Harbor is not available if the subgroup did not have 40 students in both the current and the previous year.

The aforementioned changes in mathematics standards made AYP more difficult to reach starting in 2005-06. Adjustments to targets by DPI did not fully compensate for the change in standards. WCPSS' mathematics 3-8 EOG proficiency went from 92% in 2004-05 to 75% in 2005-06, a drop of 17 percentage points. In that same year, the statewide mathematics AYP target was dropped 15 percentage points. AYP will also be more difficult to reach in future years, since the overall goal of 100% of students meeting targets in 2013-14 has not changed, thereby requiring more rapid improvement in the coming years to reach that goal.

AYP Middle School Results

In 2006-07, the number of targets per middle school ranged from 21 to 37, with 15 middle schools having more than 31 targets (Figure 39). Since 2004-05, the distribution has been sliding to the left as displayed in the chart, implying that the number of targets per school is increasing over that time span.
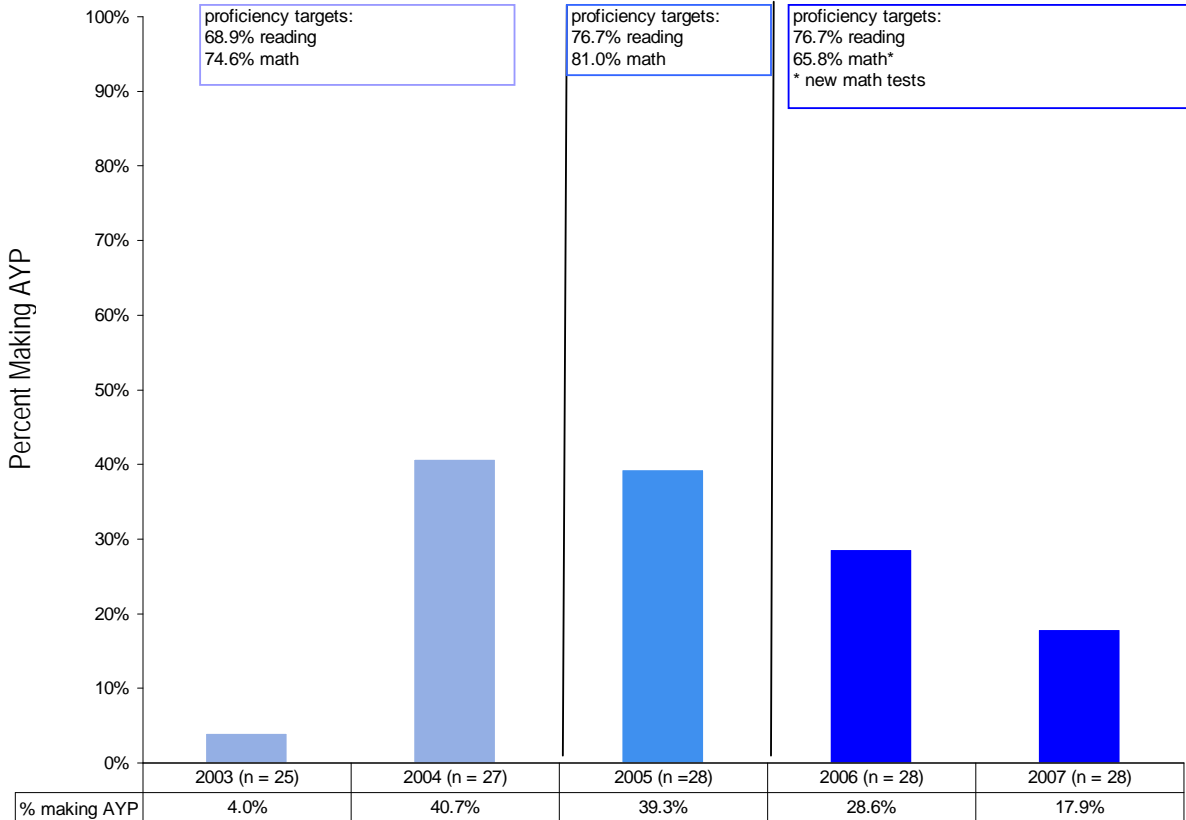
Figure 39
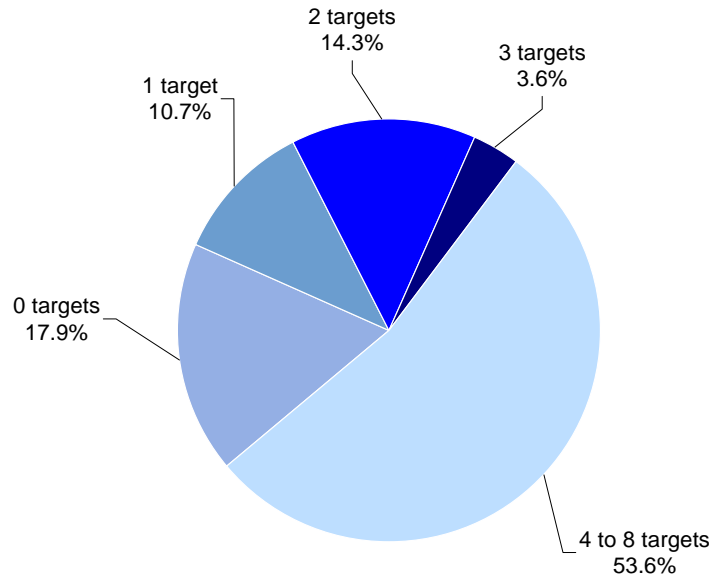**Number of Schools with Various Numbers of AYP Targets, 2004-05 through 2006-07**

	0 to 5 targets	6 to 10 targets	11 to 15 targets	16 to 20 targets	21 to 25 targets	26 to 30 targets	31 to 35 targets	36 to 40 targets
2004-05	0	0	1	2	15	7	3	0
2005-06	0	0	0	0	11	7	9	1
2006-07	0	0	0	0	6	7	13	2
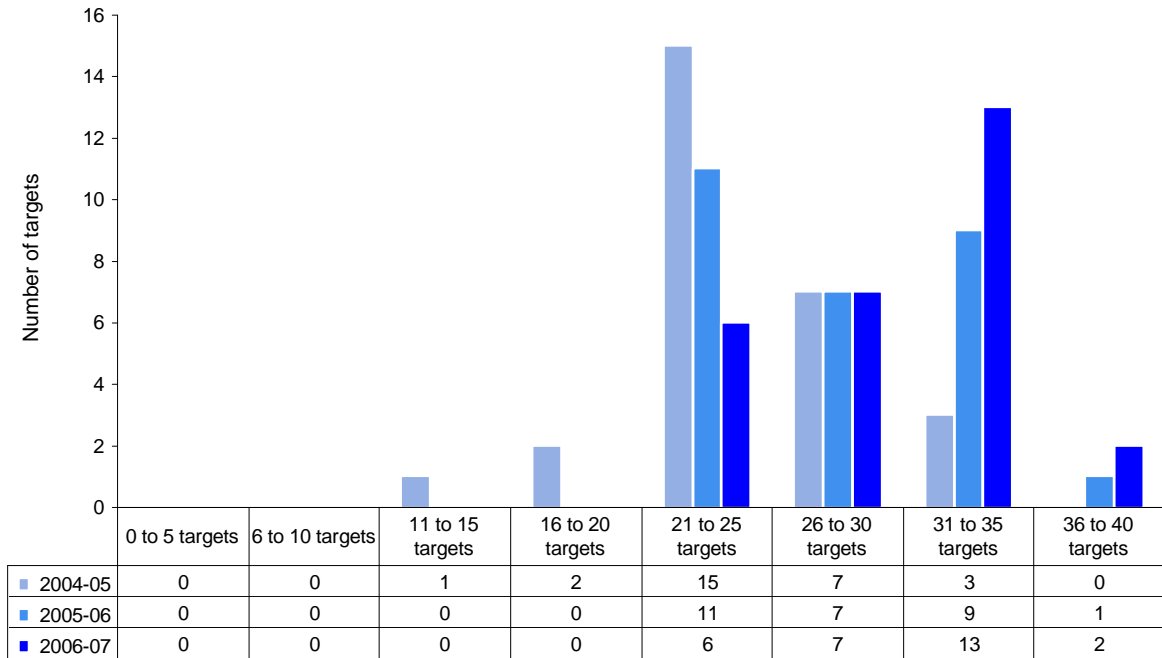
Interpretation Example: In 2006-07 there were 13 schools that had 31 – 35 AYP targets as compared to 9 schools in 2005-06 and 3 schools in 2004-05.

Slightly fewer WCPSS middle schools met AYP in 2006-07 than the three previous years. Overall, about 18% (5 out of 28) of WCPSS middle schools made AYP by meeting all of their targets, down from 28.6% in 2005-06 and around 40% the two years prior to that (Figure 40). Another 25% of middle schools missed AYP in 2006-07 by failing to hit only 1 or 2 targets. The majority of middle schools however failed to hit 4 to 8 AYP targets (Figure 41).

Figure 40
Middle Schools Making AYP, Spring 2003-07, Grades 6–8

	2003 (n = 25)	2004 (n = 27)	2005 (n =28)	2006 (n = 28)	2007 (n = 28)
% making AYP	4.0%	40.7%	39.3%	28.6%	17.9%

proficiency targets:
68.9% reading
74.6% math

proficiency targets:
76.7% reading
81.0% math

proficiency targets:
76.7% reading
65.8% math*
* new math tests

Figure 41
Percent of Middle Schools and Number of Targets Missed, 2006-07

N = 28
Interpretation Example: 17.9% of the 28 middle schools missed 0 AYP targets

Overall, 88% of the middle school targets were met (745 of 842) in 2006-07, down slightly from 90% in 2005-06. When disaggregated by subject and subgroup, mathematics targets were missed more often than reading targets (77 vs. 20; Figure 42). This pattern was also evident in 2005-06 (WCPSS, 2007). Of the targets missed, the subgroups most likely to miss targets were SWD, FRL, and Black/African-American students.

Of the 23 schools that missed AYP, 14 missed reading and mathematics targets, eight missed only mathematics targets, and one only missed one reading target.

Figure 42
Number of Targets Missed by Subgroup and Subject, 2006-07, Grades 6-8

	SWD MT	BLK MT	FRL MT	SWD RD	HSP MT	LEP MT	TOT MT	LEP RD	HSP RD	MUL MT
■ Targets missed	18	18	17	12	10	8	5	5	3	1
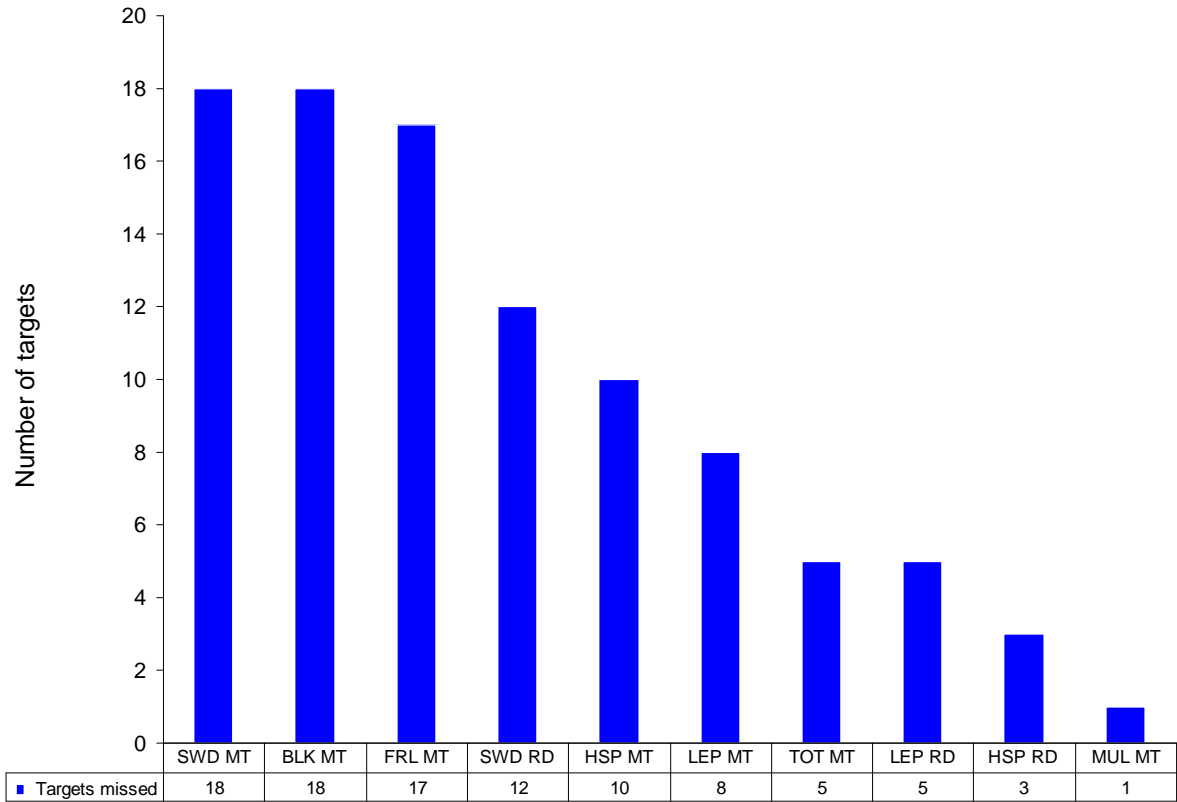
Note: 1. MT = mathematics; RD = reading
          2. 97 targets were missed overall
   Interpretation Example: 18 middle schools missed the SWD mathematics target.

School District Status

School systems overall are also assessed relative to NCLB standards. The district is held
accountable for any subgroup with at least 40 students or 1% of tested students, whichever is
greater. Despite meeting over 86.8% of targets (66 of 76), WCPSS stayed in Title I "district
improvement" status for the second year. This was because one or more reading targets were
missed in all three grade spans (3-5, 6-8, and 10) for three consecutive years (2004-2005, 2005-
2006, and 2006-07). Only three of North Carolina's 115 systems are not in district improvement
at this time, indicating how difficult it is to meet state standards with every subgroup on every
test. A systemwide plan for improvement is being implemented in response, as required by
federal law.

EFFECTIVE PRACTICES FOR MULTI-RISK STUDENTS

Staff attitudes, instructional leadership, instructional practices, collaboration, training, and use of resources can make a difference to the learning progress of students with multiple needs.

Analysis of WCPSS EOG performance results indicates that those students who have the most difficult reaching accountability standard in WCPSS schools were those with more than one of the following characteristics: were eligible for free or reduced-price lunch (FRL), have disabilities (SWD), and/or have limited English proficiency (LEP).

Our study compared characteristics and practices of schools that were having greater and lesser success in promoting students with multiple academic risk factors (Baenen et al., 2006). We first analyzed student demographics, teacher characteristics, resource allocations, the overall percentage of students performing at grade level, and school climate. The populations served by the schools that were more successful with multiple-risk students actually had more challenging populations, but also had more resources to address their needs.

We also collected data in the schools through observations (of the whole school and individual teachers), staff interviews, and staff checklists. An analysis of middle school trends suggest that higher-growth schools, compared to lower-growth schools:

☑ High Expectations and Positive Attitudes

☑ Challenging Learning Experiences for All Students

☑ Supportive Leadership

☑ Collaboration

☑ Effective Use of Data

☑ Curriculum and Resources

- focus more on how to address student needs and less on barriers to addressing needs,
- have more informal administrator visits in classrooms,
- have more training in working with at-risk groups, and more frequently use resources such as assessment data, extra adults in classrooms, technology, and instructional pacing guides.

Surveyed schools mentioned the use of the North Carolina Standard Course of Study (NC ScoS) to guide their work, and most mentioned modifying the curriculum to meet student needs. Stronger schools used the C&I Web site resources more often and expressed more opinions that were positive about their ability to adapt the curriculum to their students.

Both the higher- and lower- growth middle schools mentioned school-based barriers to learning such as the need for extra adults, the fast pace of the curriculum, class size, and insufficient technology resources. The primary difference between the two sets of schools was that higher-growth school staff focused more on how they were addressing these challenges, while lower-growth schools tended to use them as reasons for their limited success with these students. Lower-growth schools also mentioned scheduling and teacher quality issues more often than lower-growth schools. Finally, schoolwide observations suggest higher-growth schools let students take the lead on their instruction more often than the lower-growth schools (working individually or in groups). These initial results merit further study and discussion.

WCPSS STUDENTS WITH MULTIPLE ACADEMIC RISKS: ACHIEVEMENT PATTERNS AND SCHOOL EXPERIENCES
(For full report: http://www.wcpss.net/evaluation-research/reports/2007/0623effective_multirisk_study.pdf)

Purpose

Analysis of student data has shown that students who qualify for free- or reduced-price lunch (FRL), students with disabilities (SWD), and students with limited English proficiency (LEP) are less likely to score at grade level, and that those with more than one of these academic risk factors show lower achievement than those with just one. Yet many of these students do score at grade level on state and local assessments.

Recently, Wake County Public School System's (WCPSS) Evaluation and Research Department undertook a second study of students with multiple academic risk factors, focusing on achievement patterns over time and school and home experiences that support positive achievement patterns.

Findings

The quantitative analyses in our study revealed that about 11% of WCPSS elementary and middle school students have two or three academic risk factors. Fifth and eighth grade students' improvement on achievement test scores, compared to similar students (expressed as residual scores), revealed that only 7-16% of students had all positive or all negative residuals for three consecutive years. This indicates these students clearly had increases in their achievement scores above or below those predicted for three years in a row.

For the qualitative part of our study, we examined the cases of 16 students with multiple academic risks in more depth. Eight had positive patterns of achievement over time and eight had negative patterns. The group with positive achievement patterns was more likely than the group with negative achievement patterns to show signs of resiliency. Resiliency is *the ability to overcome difficult circumstances, often with the help of school staff, families, and/or the community* (McElrath, 2005).

Students with positive achievement patterns are more likely to display a positive sense of purpose, with a strong motivation to succeed and high expectations. These students often have strong support and exposure to hobbies/high-interest activities as well.

Resilient students often take on extra challenges with the belief that they could succeed. They exhibit a sense of autonomy, an understanding of their relation to others, positive feelings about their capabilities, and an ability to overcome negative circumstances.

They also are likely to have social competence and problem-solving skills, with the ability to identify and access resources and learn "how they learn."

> **Traits of Resiliency:** One student in our study had a fierce determination to come to school every day even though he faced health concerns.
>
> Another student who overcame multiple academic risks took music lessons at school for many years and was involved in sports as well.
>
> Another student in our study was taken from a traumatic living situation and placed with a close relative. With substantial support and encouragement, she was able to improve her grades after the move, despite her disability as well as her challenging life circumstances.

Student Characteristics

Students with positive achievement patterns were more likely to enjoy reading. They also showed formative assessment scores that were at grade level or that improved to grade level over time. Regardless of achievement, most students planned to attend college; expectations tended to mirror those of their parents or guardians.

Most of the LEP students entered WCPSS in kindergarten or first grade with limited English skills. Those with more positive achievement patterns showed stronger English skills over time. Most LEP students studied were older than is typical for their grade. Attendance and conduct tended to be strong, although occasional conduct issues were more common for LEP students who showed more negative achievement patterns. LEP students with positive achievement patterns also were more likely to be involved in sports, academic activities, or music.

Attendance and conduct were stronger for SWD students with positive achievement patterns.

School Experiences

Many classroom strategies mentioned as important in national research were used with both groups in our study. Teachers of all students in our study mentioned the importance of building relationships with students and of using small-group instruction. Providing supplemental report and coordinating efforts across teachers and were also commonly mentioned.

Providing structure was mentioned more often for cases with positive achievement patterns than cases with negative achievement patterns overall. Within the LEP and SWD cases, some practices were commonly noted:

- For LEP students, flexible grouping, positive reinforcement, homework, and motivation strategies were mentioned as being helpful.
- Among SWD students, modifying assignments and breaking them down into smaller chunks was mentioned much more often for cases with positive achievement patterns.

Family Support

Homework completion was an issue for all students in our study. In LEP cases with positive achievement patterns, students were more likely to complete homework than in cases with negative achievement patterns. Decreased English-language ability among parents of LEP students made it difficult for most of them to provide homework support. However, most LEP students did receive some support at home from parents or older siblings.

Among SWD students, only half of the students in our study completed homework regularly. In SWD cases with positive achievement patterns, students had somewhat stronger homework and family support than cases with negative achievement patterns.

Parents and guardians of students with positive achievement patterns were more likely to attend school conferences than were the cases with negative achievement patterns. Among LEP cases, fathers from the cases with positive achievement patterns were more likely to attend conferences.

How Teachers and Families Can Help

It's important for teachers and other school staff to know students well enough to determine their interests, what motivates them, the challenges they face, their past school successes and issues, and the resources available in the home or in their community. All of these can be critical to success in school. Teachers should reach out to involve parents and the community in whatever ways are feasible.

Teachers can suggest low-cost or free community activities related to student interests or instructional activities to provide intellectually stimulating opportunities that might also build connections and learning. Helping students understand the relationship between grades in school and future college attendance and careers can motivate students who want to attend college primarily to play sports. Finding alternative ways to give students practice without homework can have a positive impact on students facing multiple risks. Teachers can also help students understand the critical role of homework and test performance in bolstering grades.

Teachers and/or families can secure tutoring or mentoring for students at school or in the community. This is particularly important for LEP students who are still learning English, given that schools' ESL programs (especially at the elementary level) focus primarily on a specific language arts curriculum rather than on providing students with help for classwork or homework.

Parents and guardians are key to helping children succeed in school. They can provide a place for homework, check on homework completion, limit television and video viewing, and show that they place a high value on their child's learning.

Students with multiple academic risks clearly can achieve academically. We hope this newsletter provides ideas that help students facing multiple risks to succeed in school. By working together, parents and teachers can influence students' personal, social, and academic skills to make a positive difference in their success in school and beyond.

DISCUSSION

In this report, we bring together a variety of measures of performance for WCPSS middle schools. We believe that by presenting a comprehensive look at a variety of outcomes, the reader of this report will be better able to look easily across those measures and get a more holistic picture of student achievement in middle schools than would be possible by examining each measure in isolation. WCPSS continues to show strong performance on most student outcome measures, despite the rapid population growth and increasingly diverse population served in WCPSS. However, continuing and new challenges must be addressed.

Proficiency, Rising Standards, and Achievement Gaps

Of particular importance are changes originating at the state level. It is widely known, for example, that the State Board of Education has taken a policy position that is intended to bring about greater rigor in both the curricula offered to North Carolina students and greater rigor in the tests that measure mastery of those curricula. The initial effects of this policy shift were seen in the outcomes for mathematics in grades 3 through 8 in 2005-06. Although this report demonstrates that those mathematics results improved slightly in 2006-07 (the second year of the implementation of those new standards), the State Board will be raising standards for reading in 2007-08. Therefore we can anticipate a parallel situation in reading, whereby proficiency rates will drop significantly under the new standards, and then begin a slow and relentless march upward in the years that follow.

One troubling side effect of these increases in standards is that they often result in a widening of the various achievement gaps that have historically plagued public education. When curriculum and testing standards become more demanding as they did in mathematics in 2005-06, the student groups most affected in terms of lower proficiency rates tended to be those who had the most trouble meeting the "old" standards. The net result was that students from lower-income homes, students receiving special education services, students in selected ethnic groups, and students who currently lack the necessary understanding of English required to fully benefit from typical classroom instruction (i.e., LEP students) collectively fell further behind their peers on those assessments. When the 2007-08 EOG reading standards are reset, the achievement gaps in those subjects can also be anticipated to widen. As more middle school students are deemed "non-proficient" with increasing standards, schools will have to ensure that opportunities for remediation are available to a larger pool of students, while simultaneously continuing to offer the most rigorous curriculum pathways to as many students as possible, even those whose performance may *appear* to slip when the state's expectations are raised.

The raising of standards is also problematic for middle schools with respect to making Adequate Yearly Progress (AYP) under the federal No Child Left Behind Act. Middle schools have historically had more difficulty meeting AYP standards than elementary schools, in part because they are generally larger and more diverse, and in part because proficiency rates on reading and mathematics tests tend to be lower in middle school than in earlier grades. Although AYP standards have been legitimately criticized since their very inception in 2001, the general inability of middle schools to meet those standards is nonetheless a reflection of the aforementioned achievement gaps. The disparities in passing rates on state tests across

subgroups is undoubtedly the most vexing achievement problem at all grade spans, and AYP is just another place where those disparities are reflected.

In addition to disparities by subgroups identified in the NCLB legislation, middle school results also point to notable differences in outcomes for male and female students. On nearly every outcome measure that is disaggregated by gender in this report, females outperform males. On EOG Reading and Mathematics tests, the male-female gap is particularly large for Black/African-American students. Female students most noticeably outperform their male counterparts on the 7th grade Writing test. The linkage between these gender discrepancies and later outcomes in high school as well as possible intervention strategies designed to close this particular achievement gap are not well articulated at this point, but may be in need of further investigation.

As problematic as these types of proficiency gaps are, however, this analysis of middle school outcomes uncovers an even more troubling trend with respect to achievement growth. Growth is in many ways the most salient indicator of school accountability because it measures how much progress students make from one year to the next *regardless* of the skills and knowledge they bring to school on Day 1. It is therefore immune from the changes in "cut scores" that occur when the State Board raises standards, and also sets a theoretically level playing field for every school and student. Whether a student is deemed proficient or not depends heavily on where proficiency cut scores are set, whereas the expectation of how much progress a student should make from one year to the next is calculated without regard to whether the student is currently proficient or not. It is, in a sense, a truer measure of the value added by the school. Looking at the percentage of middle schools who meet the state's expectations for growth, the vast majority of WCPSS middle schools must be commended for meeting or even exceeding those expectations.

When growth is analyzed at the individual student level, however, the picture becomes more complicated. Theoretically, even students who are having trouble meeting proficiency standards should still be expected to make a year's worth of progress in a year's worth of time, and the proficiency gaps we see when we analyze the percentage of students passing the test should not exist when we shift gears and measure progress instead of absolute performance. In middle school reading, this is in fact the case, as the percentage of students meeting their growth expectations is not appreciably different from one student subgroup to the next. In mathematics, however, a slightly different picture emerges. The patterns seen in subgroup proficiency rates in mathematics are also demonstrated when growth is measured. Essentially, some student subgroups are clearly behind in terms of passing rates, and the growth results imply that those same groups are falling further behind each year because they are not making the same amount of progress as their peers. If these trends continue, we would anticipate a widening of the mathematics proficiency gap in years to come. If proficiency gaps are to be closed, the only way to make that happen is to ensure that underperforming subgroups grow at a faster rate than their peers, not a slower rate. To use the analogy of an automobile, the achievement gap in reading appears to be stuck in neutral; in mathematics, we may see it go in reverse in the near future.

Computer Skills Achievement

The final trend of note in these middle school outcomes is in the area of computer skills. The computer skills test is typically taken by 8th graders, and although it counts toward the school's overall performance composite under the ABCs, the more important role that it plays is as a graduation requirement for all students. Each student must take and pass the computer skills test before they can graduate from high school, and 8th grade represents the initial window of opportunity to meet that requirement for most students. Although computer skills are supposed to be infused into the curriculum at all grades, they are typically not formally assessed until 8th grade.

Passing rates on the computer skills test in 2006-07 were at 81%–that is, about four out of every five 8th graders managed to pass the test by the time they left 8th grade, as it was given at least twice to any student who required more than one opportunity to pass it during 8th grade. This still means, however, that one out of every five middle school students is moving on to high school still needing to meet this requirement. This imposes additional burdens on high schools, who already must get students to pass five other tests and complete a graduation project in order to obtain a diploma (see the high school student outcomes report for more information). In one sense, because computer skills is not associated with a specific course that students take, the learning of these skills becomes everyone's responsibility, which is often a recipe for making it no one's responsibility, as no individual or department is solely responsible for teaching those competencies. Raising proficiency rates on the computer skills test (and thereby reducing the number of students who leave middle school without meeting the requirement) may require additional explicit, dedicated instruction in the objectives in the computer skills curriculum and/or further integration of technology skills students' core subject instructional time.

Despite the pessimistic tone of the past several paragraphs, middle school achievement in WCPSS still has many more positives than negatives. Student performance on virtually every indicator in this report exceeds statewide averages and has done so for several years. With a population of students that is growing and changing rapidly in recent years, WCPSS middle schools continue to demonstrate achievement outcomes that are the envy of middle schools throughout our state, particularly those in other large urban school systems. Continuous improvement, however, requires an unvarnished assessment of performance in all areas and requires us to avoid the trap of being satisfied with that which is merely "good enough."

The Superintendent of the Wake County Public Schools has articulated a vision calling for all students to graduate on time prepared for the future. In support of this vision, the first strategic directive in the Superintendent's goals stresses learning and teaching. A number of important program responses to this call for improved learning and teaching have been reinforced or are being launched. For example, schools are supporting professional learning communities, a structure that can provide ways for teachers to collaborate more fully around the needs of their students. School-based data teams are also being encouraged in all schools to utilize data more effectively to inform instruction. A recently completed curriculum audit has also resulted in significant changes that are starting to take shape across the entire district. The ripple effects of these kinds of interventions may not be seen right away, but the fundamental cultural shifts they are causing in the way schools do business hopefully will leverage significant and lasting positive change for years to come.

In a larger sense, learning and teaching are impacted by all staff of WCPSS, by all parents, and the entire community. While this report has focused primarily on student achievement outcomes, the assistance of all those whose work supports student learning—district and school staff, parents, community members, and others—will be required to ensure that all students do in fact graduate on time, prepared for the future.

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E&R Report No. 07.12
April 2008

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