

E&R Report No. 04.26

May, 2005

SCHOLASTIC ASSESSMENT TEST (SAT) RESULTS: 2003-04

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ABSTRACT

This report summarizes national, state, and county SAT data for Wake County Public School System's (WCPSS) graduating seniors who took the test any time during their high school years through March 2004. The statistics presented are primarily based on reports provided by the College Board and the North Carolina Department of Public Instruction. The average total SAT score for WCPSS graduating seniors in 2003-04 was 1063, down from 1067 in 2002-03. The average score on the verbal subtest stayed at 524, while the average score on the mathematics subtest dropped from 543 to 539. The participation rate for WCPSS graduating seniors also dipped slightly from 80% in 2002-03 to 77% in 2003-04. Both the WCPSS total SAT score and participation rate, however, remain higher than the corresponding state and national figures.

BACKGROUND AND SUMMARY OF RESULTS

The Scholastic Assessment Test (SAT), formally known as the SAT I Reasoning Test, is a national examination offered by the College Board. The exam measures potential for success at the post-secondary level and is required for admission to many colleges and universities. The SAT administered in 2003-04 was a three-hour test of general verbal and mathematical skills. The exam used a multiple-choice format, and results for each subtest were scored on a scale from 200 to 800 points. Nationwide, about 1.4 million students in the 2003-04 graduating class took the SAT, representing about half of all high school graduates. A new version of the SAT, which contains a new writing component, was introduced beginning in March 2005.

This bulletin summarizes national, state, and county SAT data for seniors who took the test any time during their high school years through March 2004. If a student took the test more than once, the most recent score is used.

The average total SAT score for Wake County Public School System (WCPSS) seniors in 2003-04 was 1063 (out of a possible 1600 points), dropping four points from 2002-03. The average score on the verbal subtest stayed at 524, while the average score on the mathematics subtest dropped from 543 to 539.

Key Topics

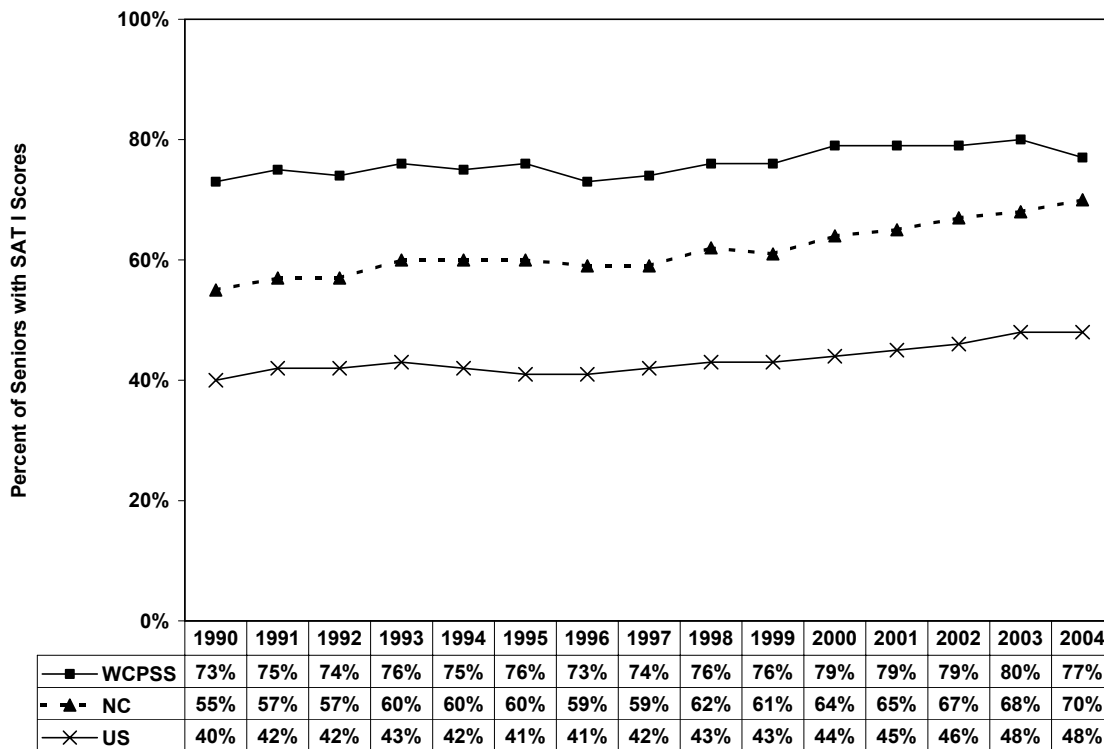
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SAT PARTICIPATION

Although students can take the SAT multiple times during their high school years, the College Board reports only the most recent test score of students who indicate they plan to graduate in the reporting year. Students are counted only once no matter how often they took the exam. According to the College Board, 4,655 students in the WCPSS 2003-04 graduating class took the SAT prior to graduation. Most of these students (80%) took the exam for the last time during their senior year. However, nearly 20% of graduating seniors last took the exam during their junior year, and according to College Board records, a small number of students took the test in their sophomore year, at which time they self-reported that they planned to graduate from a WCPSS school in 2004.

Compared to the previous year, the number of WCPSS graduating seniors who took the SAT rose 7%, from 4,531 in 2002-03 to 4,655 in 2003-04. However, the participation rate for WCPSS graduating seniors dropped slightly from 80% in 2002-03 to 77% in 2003-04, implying that the increase in the number of test takers did not keep pace with the increase in the size of the graduating cohort. The participation rate for WCPSS remained well above both the state and national participation rates (Figure 1).

Figure 1
SAT Participation Rates for WCPSS, North Carolina and the U. S.
1989-90 through 2003-04



The participation rate in WCPSS was calculated by dividing the number of seniors who took the SAT by the size of the graduating class. Participation rates reported by the College Board are based upon estimates of enrollment compiled through national surveys. While the College Board rates are probably accurate at the state and national level, they are not accurate at the district and

individual school level. Therefore, participation rates for WCPSS in this report have been calculated from district records.

SAT RESULTS

Despite a slight drop, the average WCPSS SAT score remained substantially higher than the North Carolina and U. S. averages in 2003-04. The average WCPSS graduating senior in 2003-04 scored 21 points higher on the mathematics test and 16 points higher on the verbal test than the average graduate across the country.

Since 1989-90, the average verbal score has risen 23 points in WCPSS, and the average mathematics score has risen 41 points. The WCPSS total score increase of 64 points since 1990 exceeds both the corresponding national (25) and North Carolina (58) increases. Figures 2 through 4 provide information on SAT trends over time for WCPSS, North Carolina, and the nation as a whole.

Figure 2
Average Total SAT Scores for WCPSS, North Carolina and U. S.
1998-99 through 2003-04

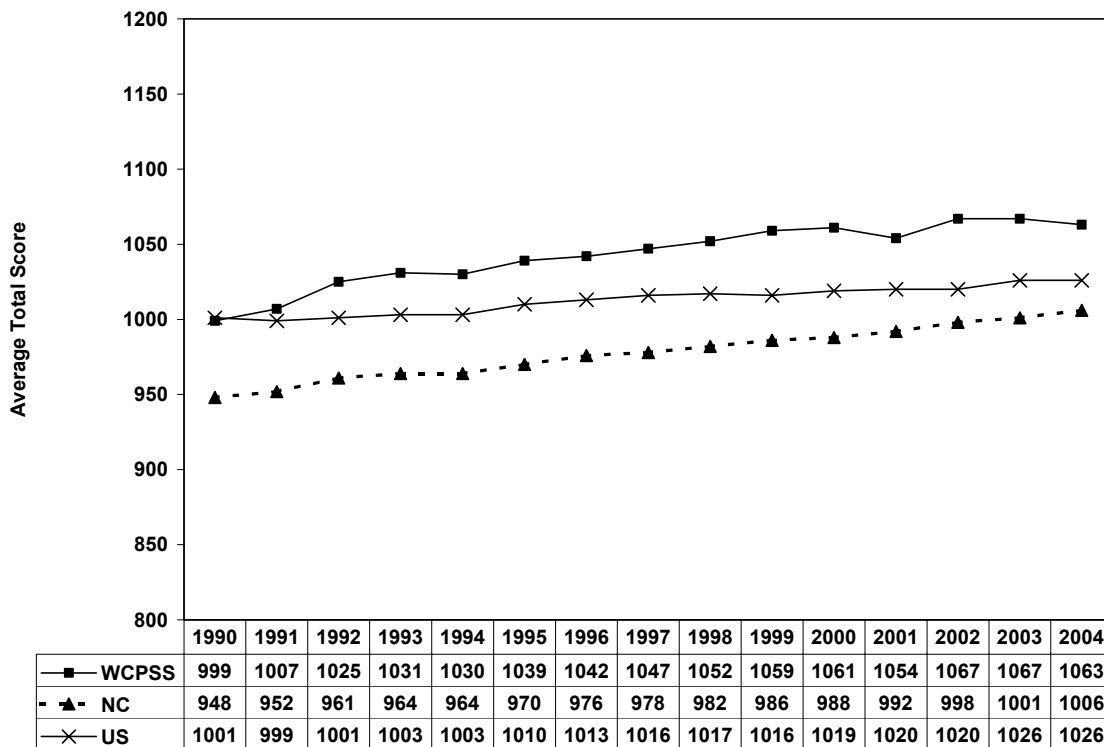


Figure 3
Average SAT Mathematics Subtest Scores for WCPSS, North Carolina and U. S.
1998-99 through 2003-04

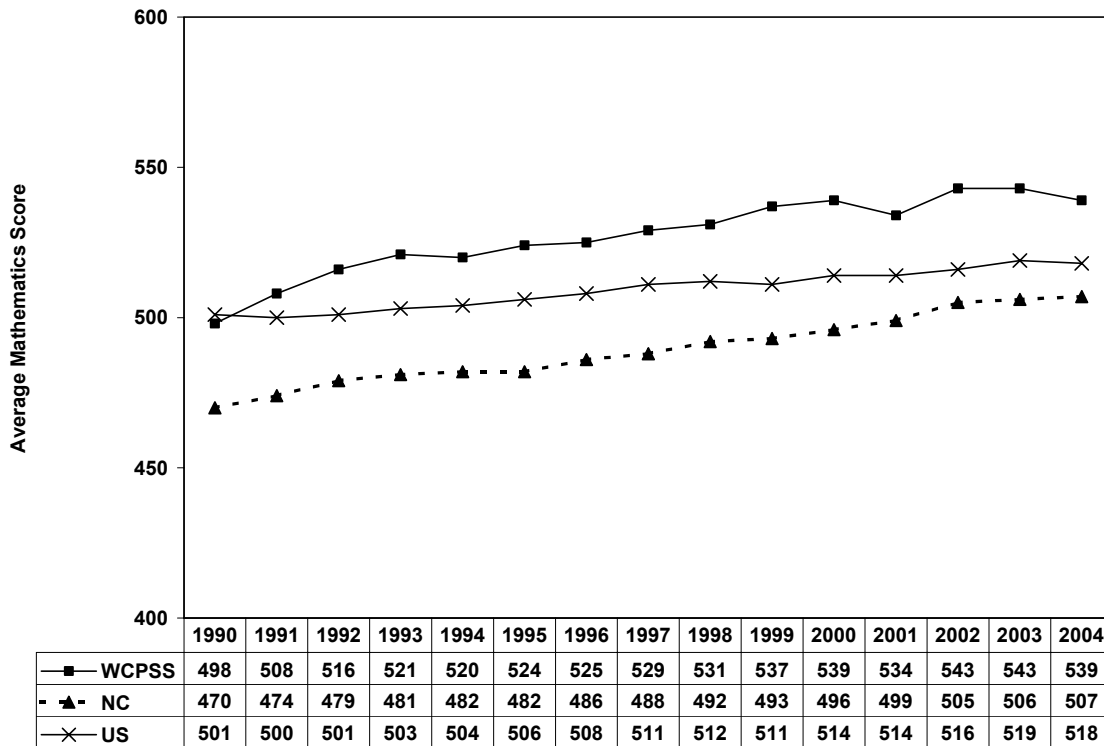
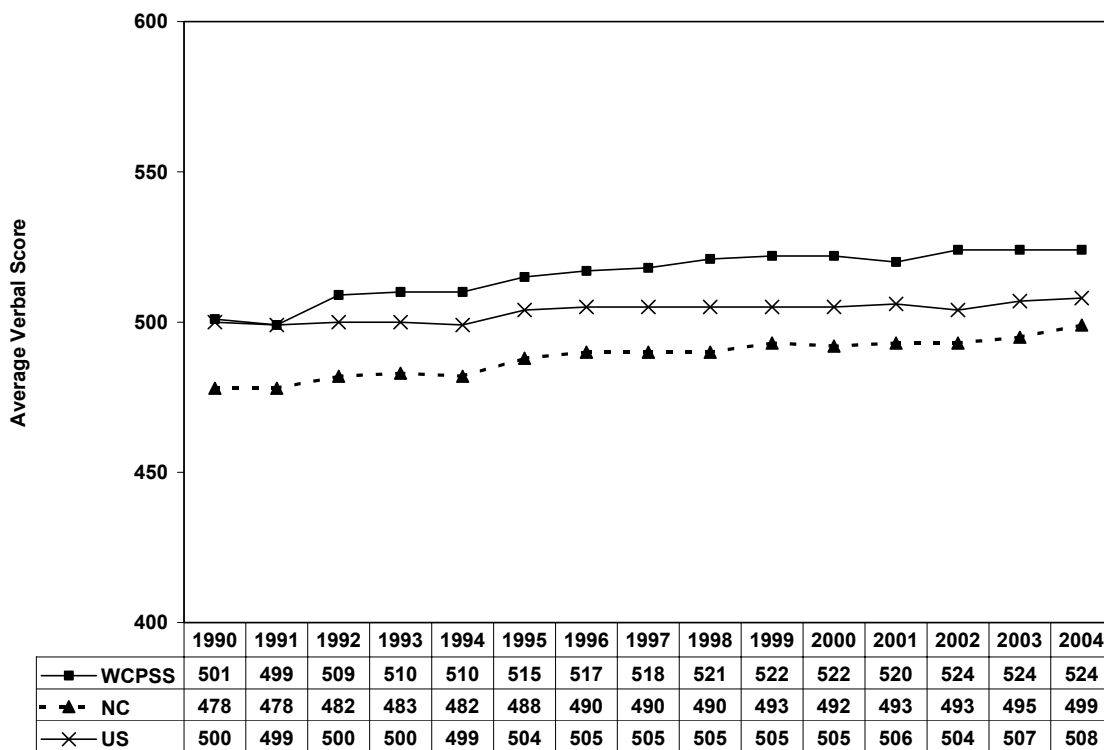


Figure 4
Average SAT Verbal Subtest Scores for WCPSS, North Carolina and the U. S.
1998-99 through 2003-04



COMPARISONS WITH OTHER DISTRICTS

In 2003-04, WCPSS had the fifth highest average SAT score of all North Carolina public school districts. The Chapel Hill-Carrboro school district continues to lead North Carolina with an average score of 1184 in 2003-04. Figure 5 shows average total scores for the top five districts in North Carolina based on 2003-04 SAT scores. It should be noted that average scores in smaller districts fluctuate more from year to year than those in larger districts due to smaller numbers of test takers.

Figure 5
North Carolina Districts with the Highest SAT Scores in 2003-04

School District	1999-00	2000-01	2001-02	2002-03	2003-04	# Test-Takers 03-04 (Part. Rate)
Chapel Hill	1175	1185	1177	1178	1184	635 (91%)
Transylvania County	1004	1033	1027	1087	1073	149 (60%)
Elkin City	1007	1016	1040	1072	1069	37 (53%)
Buncombe County	1059	1060	1066	1072	1068	831 (59%)
WCPSS	1061	1054	1067	1067	1063	4,655 (77%)

WCPSS average SAT scores continue to dramatically outpace those of other large urban districts in North Carolina (Figure 6). Furthermore, the WCPSS participation rate has remained at or near the top among those same districts.

Figure 6
**Average SAT Scores for WCPSS and Other Large North Carolina School Districts
2002-03 through 2003-04**

School District	2002-03				2003-04			
	Total	Math	Verbal	Part. Rate	Total	Math	Verbal	Part. Rate
WCPSS	1067	543	524	80%	1063	539	524	77%
Charlotte/Mecklenburg	1001	504	497	70%	1005	503	502	70%
Cumberland	946	470	476	51%	962	481	481	53%
Durham	999	504	495	80%	1001	504	497	78%
Guilford	996	502	494	72%	1011	508	503	68%
Winston-Salem/Forsyth	1005	506	499	67%	992	499	493	68%

Note: The North Carolina Department of Public Instruction (NCDPI) uses 12th grade membership from April of each year rather than actual numbers of graduates to determine participation rates. Whenever the actual number of graduates is known, WCPSS uses that figure to calculate participation rates, dividing the number of seniors who took the SAT by the size of the 2003-04 graduating class for the district and for each high school.

Recent SAT scores for WCPSS have also compared well to similar large districts in other nearby states as shown in Figure 7. The WCPSS average total score surpassed that of each comparison district except Fairfax County (VA) over the past two years. The WCPSS participation rate, however, was lower than that of three comparable districts in Georgia during the same period.

Figure 7
Average SAT Scores for WCPSS and Other Large Urban/Suburban Districts
2002-03 through 2003-04

School District	2002-03				2003-04			
	Total	Math	Verbal	Part. Rate	Total	Math	Verbal	Part. Rate
WCPSS	1067	543	524	80%	1063	539	524	77%
Cobb County (GA)	1038	518	520	83%	1040	519	521	83%
Fulton County (GA)	1049	530	519	89%	1056	533	523	79%
Gwinnett County (GA)	1036	527	509	88%	1037	527	510	87%
Anne Arundel County (MD)	1055	535	520	49%	1059	536	523	48%
Fairfax County (VA)	1100	564	546	N/A	1105	558	547	N/A
Virginia Beach (VA)	1014	505	509	66%	1010	502	508	61%

Note: Information on SAT results and participation rates is based on reports posted on each district's web site. Participation rates for some districts were not available.

SAT RESULTS BY GENDER

Slightly more female students than male students (2,460 vs. 2,195) in WCPSS took the SAT in 2003-04, but male students performed better on the exam than female students. The average total score for male students was 37 points higher than that of female students (Figure 8). This gender gap has narrowed by 12 points since 1997-98. Most of this difference continues to be accounted for by the mathematics subtest, where male students outscored female students by 32 points in 2003-04 (Figure 9).

Figure 8
Average WCPSS Total SAT Scores by Gender
1997-98 through 2003-04

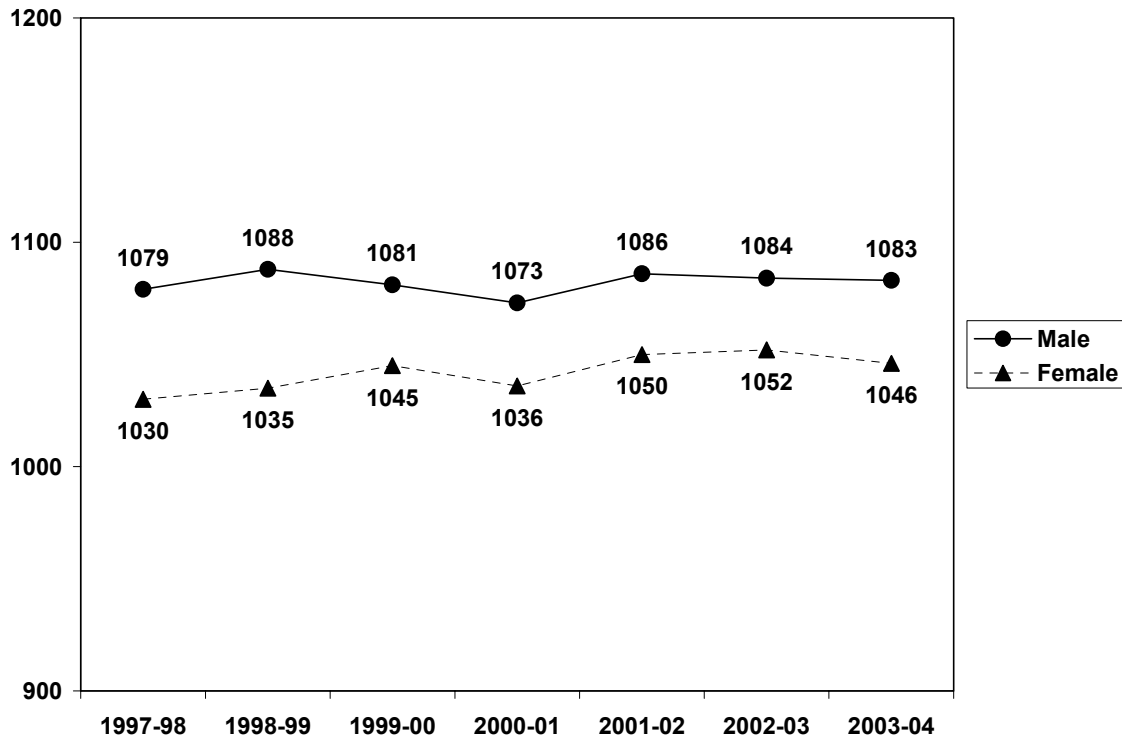
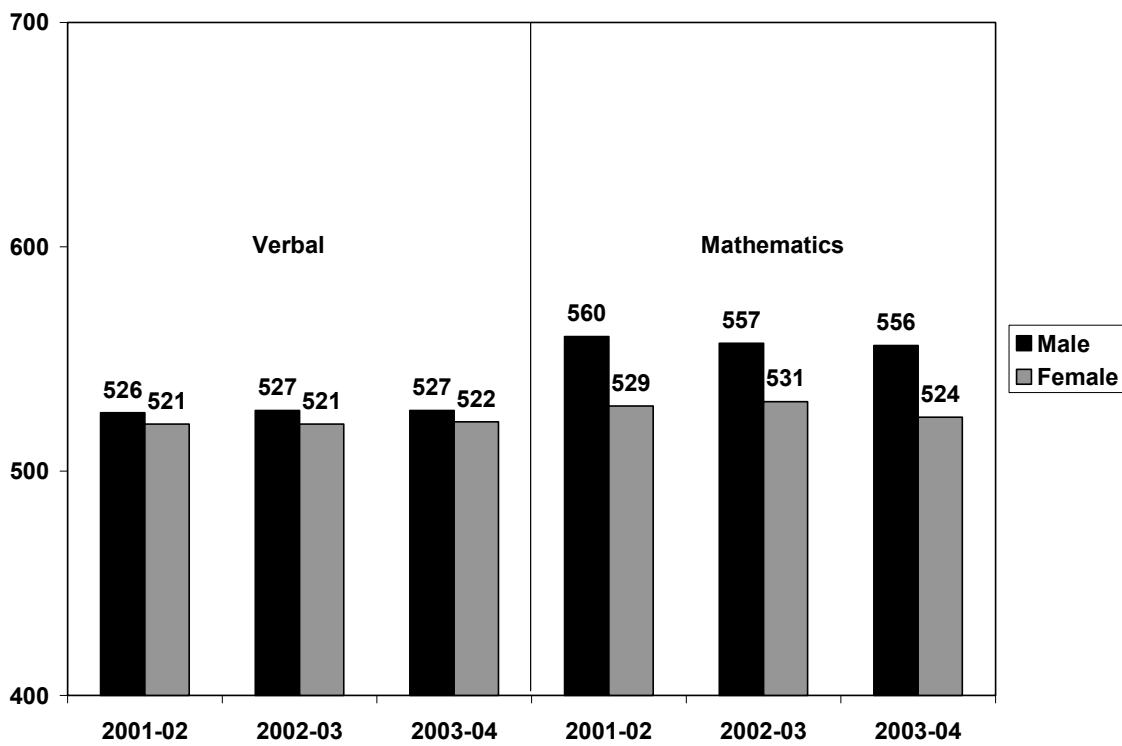
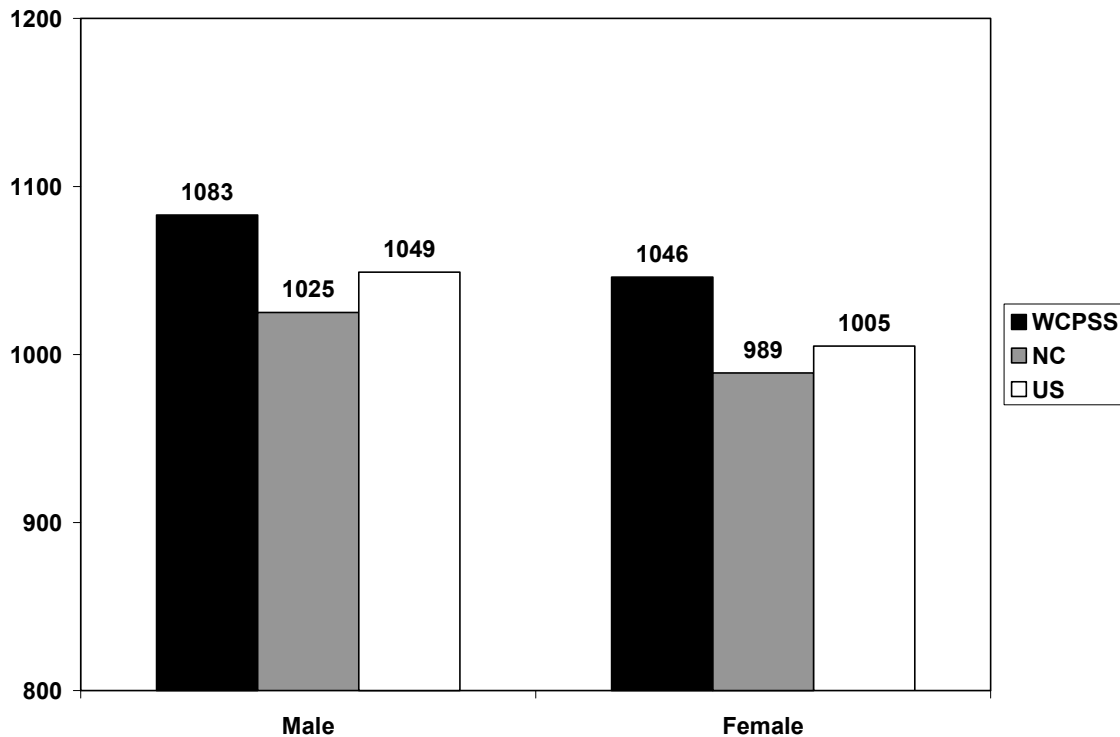


Figure 9
Average WCPSS SAT Subtest Scores by Gender
2001-02 through 2003-04



As was true with the overall results, both male and female WCPSS students in 2003-04 posted higher scores than their counterparts in North Carolina and in the U.S. As shown in Figure 10, female students in WCPSS scored 57 points higher, on average, than female students in North Carolina and 41 points higher than their counterparts in the U.S. The average total score for male students in WCPSS was 58 points higher than the average in North Carolina and 34 points higher than the U. S. average.

Figure 10
Average Total SAT Scores by Gender for WCPSS, North Carolina and the U. S.
2003-04



SAT SCORES BY ETHNICITY

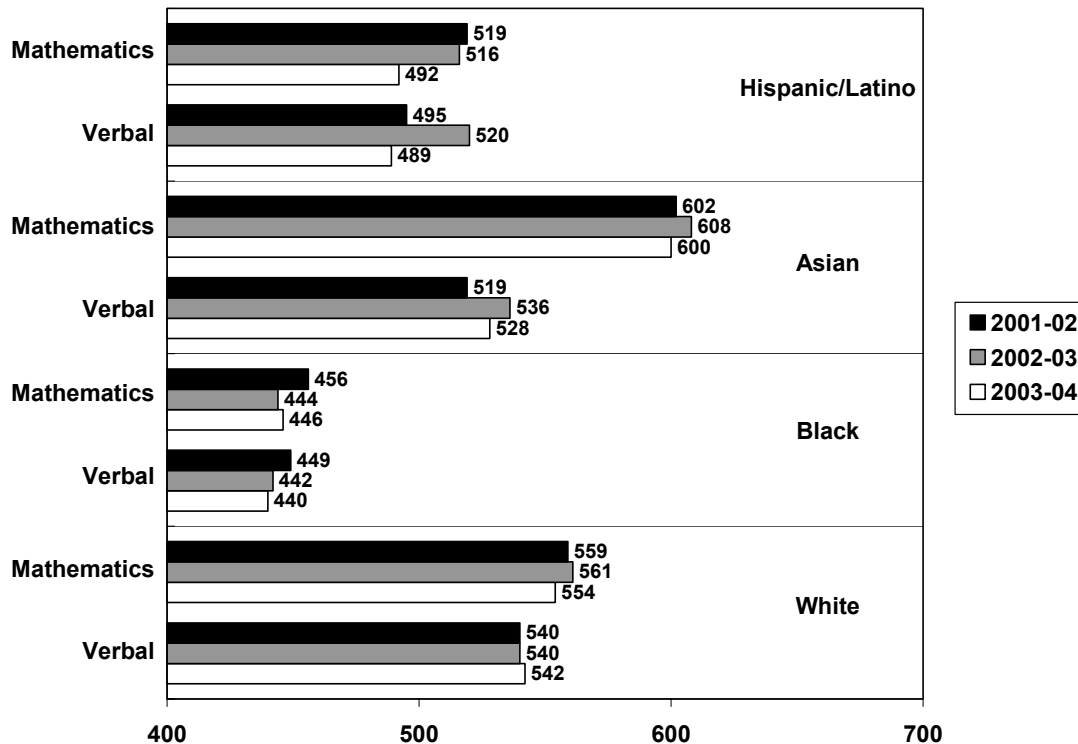
As in past years, there were large differences in average SAT scores among WCPSS ethnic groups. White students scored the highest on the verbal test, with an average score of 542, while Asian students received the highest score on the math test (600). Figure 11 shows how each ethnic subgroup performed on the two sections of the SAT exam in 2003-04.

The statistics presented below are based on disaggregated data reported by the College Board. It must be noted that the percentage of students choosing not to report their racial/ethnic group to the College Board when they registered to take the SAT has risen dramatically in recent years. Both in WCPSS and the nation as a whole, 19% of test-takers chose not to report their ethnicity in 2003-04. This raises questions about the validity of disaggregated SAT scores for ethnic groups. In addition, ethnic groups with small numbers of test-takers will experience greater fluctuations in scores from year to year.

Assuming that the average scores for these subgroups are not biased by the missing race data, there were some notable changes in scores between 2002-03 and 2003-04 (Figure 11). SAT

scores of White students rose two points on the verbal subtest and fell seven points on the mathematics subtest. Average scores for Hispanic/Latino students and Asian/Pacific Islander students fell on both subtests. When compared to 2002-03, Black/African-American students were the only ethnic subgroup to score higher in mathematics in 2003-04. Similarly, White students were the only ethnic subgroup to score higher on the verbal subtest.

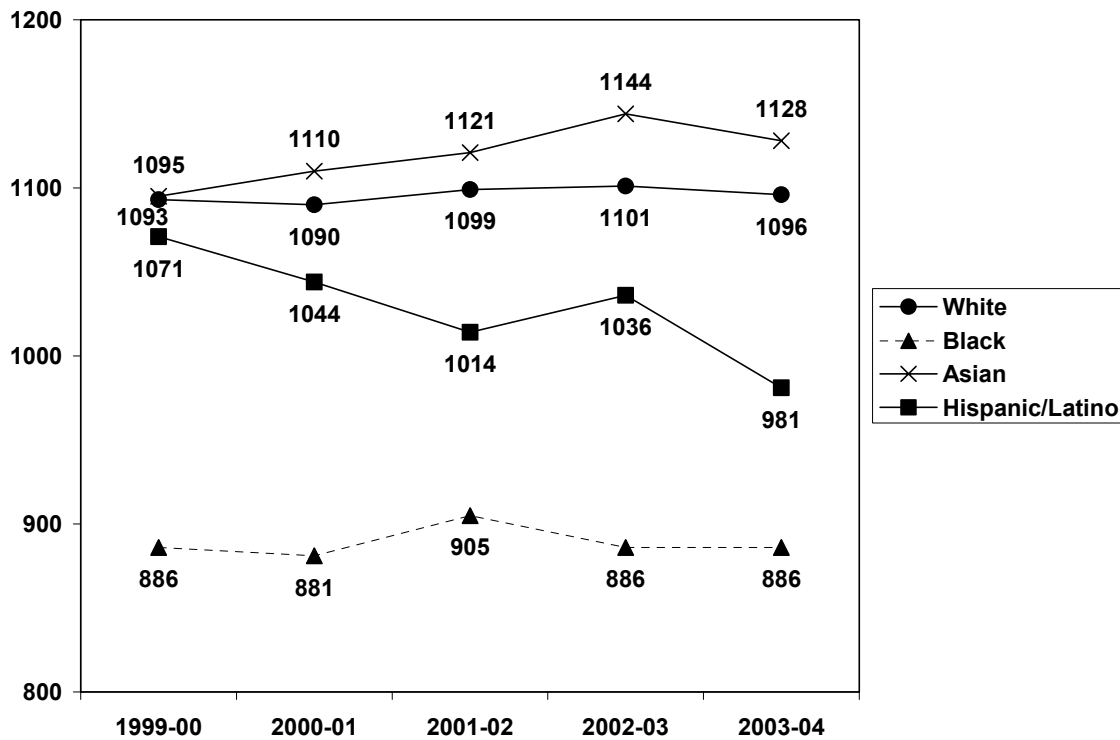
Figure 11
Average WCPSS SAT Subtest Scores by Ethnicity
2001-02 through 2003-04



Note: Data not shown for American Indian/Native Alaskan students because there were fewer than 25 test-takers in that subgroup.

Figure 12 illustrates the trend in the SAT achievement gap by ethnicity for WCPSS. Overall, SAT total scores have remained largely level for both Black and White students in recent years. Scores for Asian students have risen overall, while scores for Hispanic/Latino students have declined about 90 points on average over the past five years.

Figure 12
Average WCPSS Total SAT Scores by Ethnicity
1999-00 through 2003-04

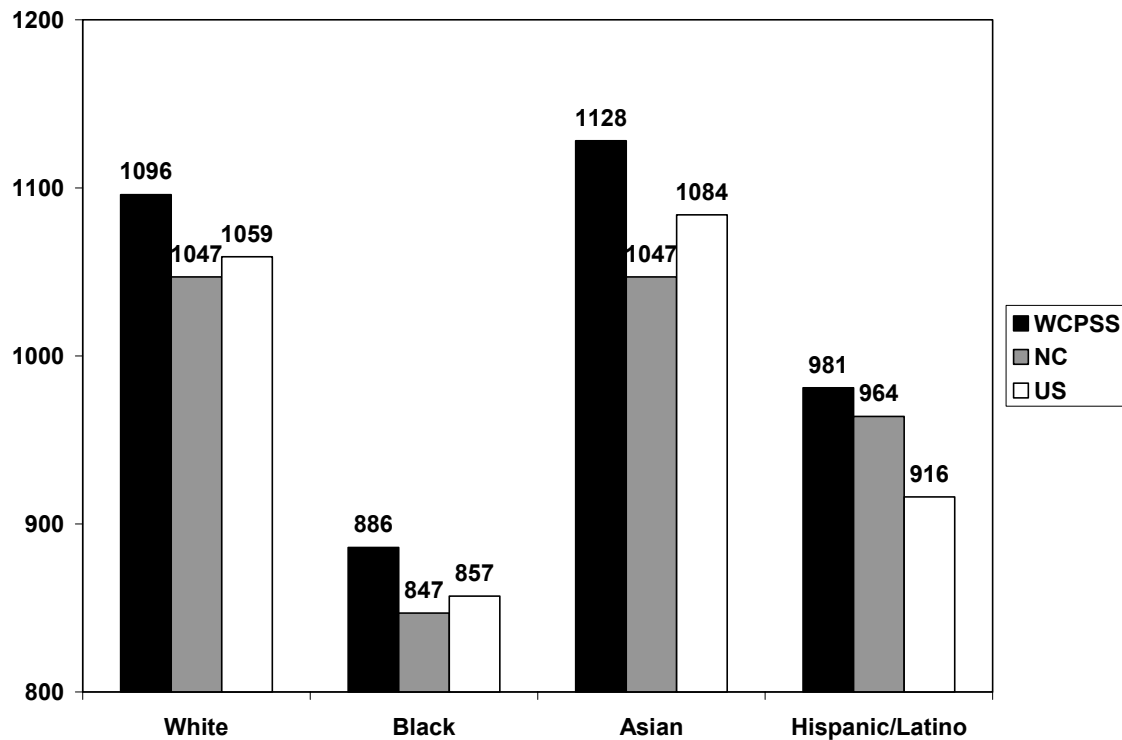


Note: Data not shown for American Indian/Native Alaskan students because there were fewer than 25 test-takers in that subgroup.

Average total SAT scores for ethnic subgroups were higher in WCPSS than in North Carolina and the U.S. in 2003-04. White students in WCPSS had an average score 49 points higher than White students statewide and 37 points higher than White students nationwide. Similarly, Black students in WCPSS outscored their counterparts in North Carolina by 39 points and in the U. S. by 29 points.

Asian students in WCPSS had an average total score 81 points higher than their North Carolina counterparts and 44 points higher than Asian students nationwide. Hispanic/Latino students outscored their counterparts in North Carolina by 17 points and in the U. S. by 65 points. Figure 13 compares WCPSS average total scores for each ethnic subgroup with averages for the North Carolina and the U. S.

Figure 13
Average Total SAT Scores by Ethnicity for WCPSS, North Carolina and the U. S.
2003-04



SAT RESULTS FOR WCPSS HIGH SCHOOLS

As shown in Figure 14, average total SAT scores rose at seven WCPSS high schools in 2003-04 and declined at eight. The high schools showing the largest increases were Sanderson (22 points) and Leesville (17). The high schools showing the largest decreases in average total scores were Millbrook (29 points) and Apex (17).

Average total SAT scores varied widely across area high schools in 2003-04. Enloe continued to lead WCPSS with an average score of 1153, followed by Green Hope (1114) and Leesville (1109). Nine of the fifteen WCPSS high schools had averages surpassing the national average score of 1026.

Participation rates at the 15 comprehensive high schools operating during 2003-04 ranged from 62% to 93% of graduating seniors. The highest participation rate was at Broughton (93%), followed by Green Hope (90%), and Southeast Raleigh (87%). Schools with the lowest participation rates were Garner (62%), Fuquay-Varina (62%), Wake Forest (64%) and East Wake (65%). The percentage of seniors taking the SAT exam exceeded the national rate at each WCPSS high school, and all but four also exceeded the statewide rate.

Compared to 2002-03, SAT participation rates in 2003-04 decreased at 12 WCPSS high schools and increased at three. The high schools showing increases in participation were Garner (4 percentage points), Southeast Raleigh (4), and Fuquay-Varina (1). The high schools showing the largest decreases in participation were Sanderson (8 percentage points), Apex (6), and Enloe (6).

Figure 14
WCPSS School-by-School SAT Scores and Participation Rates
2001-02 through 2003-04

	2001-02				2002-03				2003-04			
	Rate	Verbal	Math	Total	Rate	Verbal	Math	Total	Rate	Verbal	Math	Total
US	46%	504	516	1020	48%	507	519	1026	48%	508	518	1026
North Carolina	67%	493	505	998	68%	495	506	1001	70%	499	507	1006
WCPSS	79%	524	543	1067	80%	524	543	1067	77%	524	539	1063
Apex	76%	536	554	1090	82%	542	565	1107	76%	530	560	1090
Athens	86%	530	559	1089	87%	527	564	1091	76%	532	557	1089
Broughton	89%	532	561	1093	94%	526	554	1080	93%	537	544	1081
Cary	77%	518	552	1070	77%	522	540	1062	75%	535	536	1071
East Wake	60%	477	493	970	66%	476	486	962	65%	472	488	960
Enloe	92%	577	587	1164	92%	572	574	1146	86%	573	580	1153
Fuquay-Varina	63%	483	504	987	61%	500	516	1016	62%	506	516	1022
Garner	53%	489	513	1002	58%	482	504	986	62%	481	491	972
Green Hope	90%	524	546	1070	95%	546	565	1111	90%	545	569	1114
Leesville	94%	538	559	1097	86%	535	557	1092	83%	543	566	1109
Millbrook	78%	506	517	1023	80%	509	531	1040	75%	497	514	1011
Sanderson	82%	521	546	1067	84%	510	531	1041	76%	531	532	1063
SE Raleigh	87%	523	538	1061	83%	507	520	1027	87%	504	513	1017
Wakefield	84%	494	513	1007	85%	516	541	1057	84%	515	532	1047
Wake Forest	74%	503	511	1014	68%	509	520	1029	64%	506	517	1023

Note: The participation rate is the percentage of graduating seniors who took the SAT at each school. The College Board did not report average SAT scores for Middle Creek High School, which opened in 2002-03.