



## SCHOLASTIC ASSESSMENT TEST (SAT) RESULTS: 2002-03

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### ABOUT THE SAT

The Scholastic Assessment Test (SAT), more formally known as the SAT I: Reasoning Test, is a national examination, offered through the College Board. The exam is designed to assess a student's potential for success at the college level and is required for admission to many colleges and universities. The SAT I is a three-hour test of students' general verbal and mathematical skills. The exam uses a multiple-choice format, and results for each section are scored on a scale from 200 to 800 points. Nationwide, approximately 1.4 million students in the 2002-03 graduating class took the SAT I, representing about one-half of all high school graduates.

The other component of the SAT testing program is the SAT II: Subject Tests. The SAT II exams measure knowledge of specific subject areas and the ability to apply that knowledge. However, only about 10% of SAT I test-takers take one of the SAT II Subject Tests.

This bulletin summarizes national, state, and county SAT I data for seniors who took the test any time during their high school years through March, 2003. If a student took the test more than once, the most recent score is used. The statistics presented are based on reports provided by the College Board.

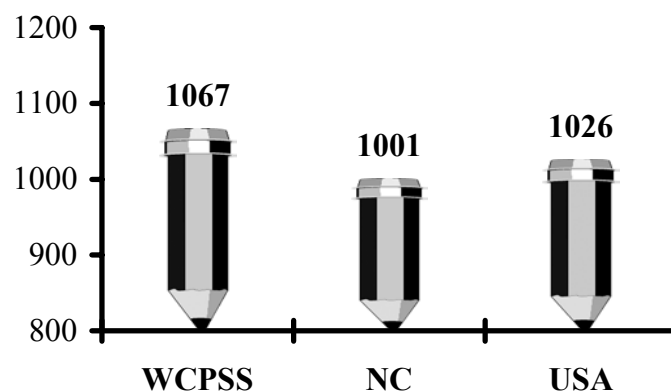
### WCPSS AVERAGE STAYS AT 1067

The average total SAT score for Wake County Public School System (WCPSS) seniors in 2002-03 was 1067 (out of a possible 1600 points), matching last year's highest-ever district score. Average scores on both the math section (543) and the verbal section (524) remained the same as scores in 2001-02.

The *participation rate* of the WCPSS senior class increased slightly from 79% of graduating seniors in 2001-02 to 80% in 2002-03, far above both state (68%) and national participation rates (48%).

As shown in Figure 1, the WCPSS average total score remains substantially higher than the North Carolina and United States averages.

**Figure 1**  
Average Total SAT Scores



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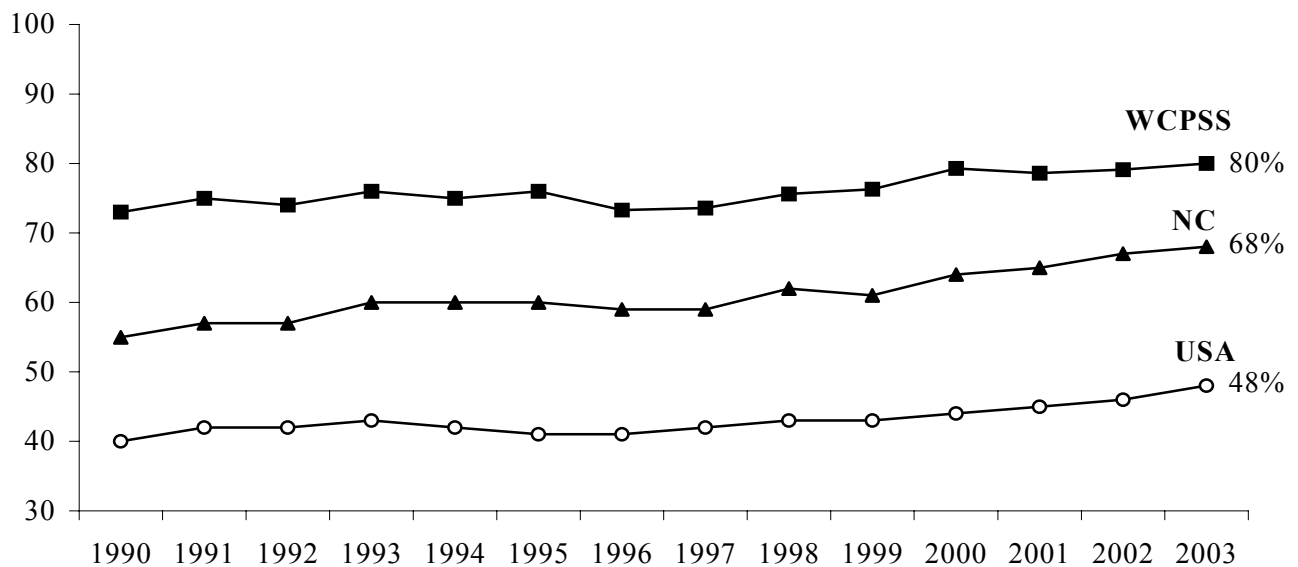
## PARTICIPATION IN THE SAT EXAM

Although students can take the SAT exam 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 once no matter how often they took the exam. According to the College Board, 4,531 students in the WCPSS 2002-03 graduating class took the SAT I prior to graduation. Most of these students (77%) took the exam for the last time during their senior year. However, about 22% of graduating seniors last took the exam during their junior year, and according to College Board records, a few students last took the test in the sophomore year of high school.

Compared to the previous year, the number of WCPSS graduating seniors who took the SAT I rose 6%, from 4,278 in 2001-02 to 4,531 in 2002-03. Participation of the 2002-03 WCPSS senior class increased slightly from the previous year, from 79% to 80% of graduating seniors, far above both state and national participation rates. In the state of North Carolina, participation rose one percentage point to 68%. Participation in the exam among all U.S. seniors rose two points to 48%.

Participation rates at WCPSS' 15 comprehensive high schools ranged from 58% to 95% of graduating seniors. The average participation rate was 80%. Compared to 2001-02, participation rates increased at nine high schools, decreased at four, and stayed the same at two.

**Figure 2**  
**SAT Participation Rates in WCPSS, NC, and USA Over Time**



### Note

The participation rate in WCPSS was calculated by dividing the number of senior students who took the SAT by the size of the 2002-03 graduating class. Participation rates were near the 75% mark for 10 years, and rose to 79% for the prior three years. 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.

## WCPSS SAT SCORES COMPARED WITH STATE AND NATIONAL SCORES

While the average SAT score of WCPSS seniors did not increase in 2002-03, it remains substantially higher than the average for seniors in North Carolina and the U.S. The average WCPSS senior taking the SAT exam scored 24 points higher on the math test and 17 points higher on the verbal test than the average senior across the country.

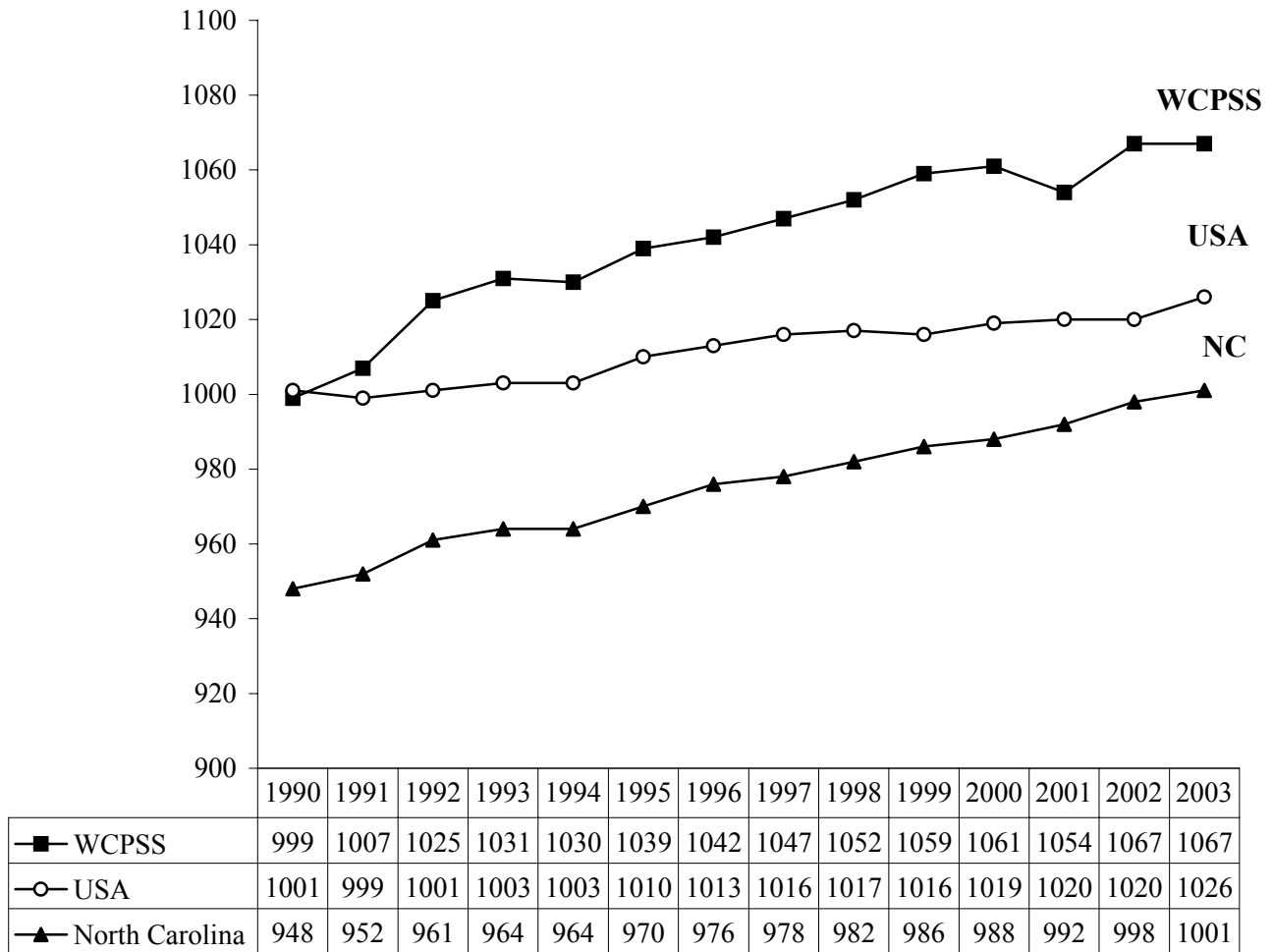
Since 1990, the average score on the verbal test has risen 23 points in WCPSS, and the average score on the math test has risen 45 points. The WCPSS total score increase of 68 points since 1990 exceeds both the national increase of 25 points and the North Carolina increase of 53 points over the same time period.

**Figure 3**  
**WCPSS, NC, and USA Scores Over Time**

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

Figure 4 shows average total SAT scores over the past 13 years for WCPSS, North Carolina, and the U.S.. With the exception of 2001, when the average score dropped seven points, WCPSS has seen a steady increase in its SAT scores over the past 13 years.

**Figure 4**  
**WCPSS, NC, and USA Total Scores Over Time**



## COMPARISONS WITH OTHER SCHOOL DISTRICTS

In 2002-03, WCPSS had the fifth highest average SAT score of districts across the state. In 2001-02, WCPSS was ranked second in the state. Chapel Hill-Carrboro continues to lead NC districts with an average score of 1178 in 2002-03. Figure 5 shows average total scores for the top school districts in North Carolina. It should be noted that average scores in smaller school districts fluctuate more from year to year than those in larger districts. In addition, participation rates in some districts are substantially lower than those in other districts.

**Figure 5**  
**Top NC District Scores**

School District	1999-2000	2000-01	2001-02	2002-03	Number of Test-Takers 2003 (Part. Rate)
Buncombe County	1059	1060	1066	1072	848 (61%)
Chapel Hill	1175	1185	1177	1178	633 (92%)
Transylvania	1004	1033	1027	1087	130 (55%)
Watauga	1054	1057	1064	1078	215 (72%)
WCPSS	1061	1054	1067	1067	4531 (80%)

WCPSS' average SAT score continues to outpace those of other large urban districts in North Carolina as shown in Figure 6. Furthermore, with a participation rate of 80%, WCPSS leads most large NC districts in high school student participation in the SAT exam.

**Figure 6**  
**Comparison of Wake to Similar Large North Carolina Districts**

School District	2001-02				2002-03			
	Total	Math	Verbal	Part. Rate	Total	Math	Verbal	Part. Rate
WCPSS	1067	543	524	79%	1067	543	524	80%
Charlotte-Mecklenburg	996	502	494	73%	1001	504	497	70%
Cumberland	952	471	481	52%	946	470	476	51%
Durham	994	505	489	81%	999	504	495	80%
Guilford	995	503	492	72%	996	502	494	72%
Winston-Salem/Forsyth	1002	506	496	73%	1005	506	499	67%

**Note**

SAT participation rates reported by the College Board are based upon estimates of counts of graduating seniors 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. The North Carolina Department of Public Instruction (NCDPI) uses 8<sup>th</sup> month twelfth grade membership rather than actual numbers of graduates. Whenever the actual number of graduates is known, WCPSS uses that count to calculate participation rates, dividing the number of senior students who took the SAT by the size of the 2002-03 graduating class for the district and for each high school.

Average SAT scores for WCPSS also compared well to similar large school districts in other states as shown in Figure 7. WCPSS' average total score surpassed that of most districts but was lower than the average total score in Fairfax County, VA. WCPSS' participation rate was lower than those in three comparable districts in Georgia.

**Figure 7**  
**Comparison of Wake to Similar Large Urban/Suburban Districts**

School District	2001-02				2002-03			
	Total	Math	Verbal	Part. Rate	Total	Math	Verbal	Part. Rate
Wake County, NC	1067	543	524	79%	1067	543	524	80%
Cobb County, GA	1032	517	515	85%	1038	518	520	83%
Fulton County, GA	1039	528	511	89%	1049	530	519	89%
Gwinnett County, GA	1033	527	506	84%	1036	527	509	88%
Anne Arundel, MD	1048	533	515	NA	1055	535	520	55%
Fairfax County, VA	1096	556	540	NA	1100	564	546	NA
Virginia Beach, VA	1009	503	506	62%	NA	NA	NA	NA

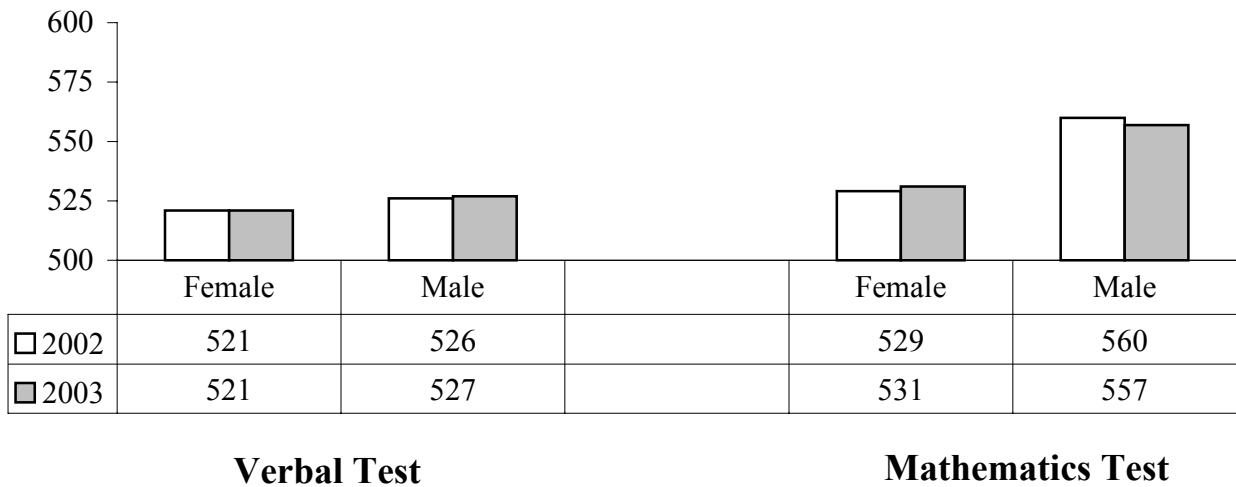
**Note**

Information on SAT results and participation rates is based on reports posted on each school district's web site. Participation rates for some districts were not reported. SAT results from Virginia Beach, VA were not available at the time of this report's publication.

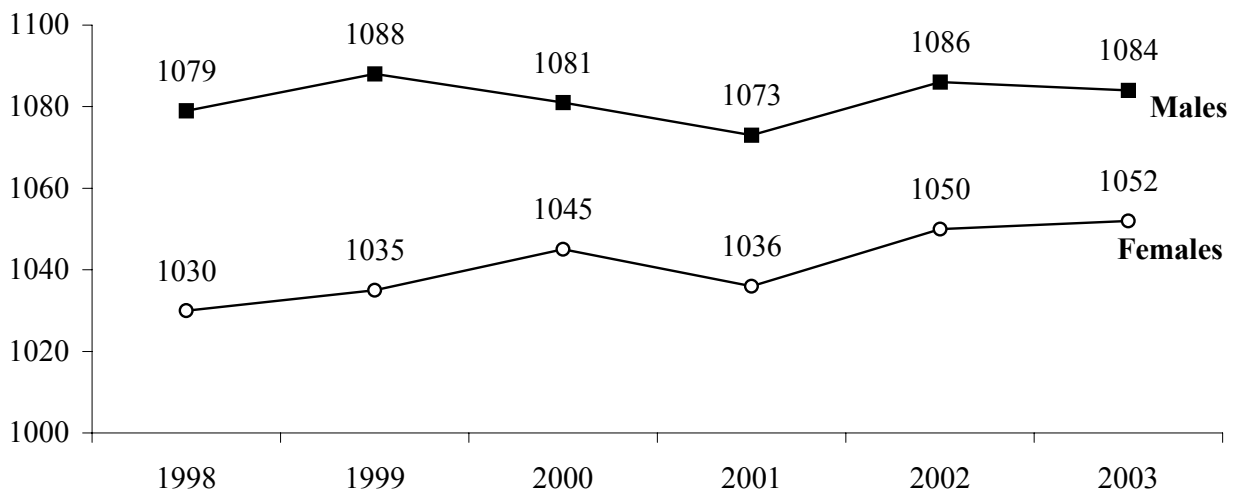
### SAT SCORES BY GENDER

Slightly more female students than male students (2,375 vs. 2,156) in WCPSS took the SAT exam in 2002-2003, but males performed better on the exam than females. The average total score for male students (1084) was 32 points higher than that of female students (1052), with most of the difference coming on the math test. Male students had an average math score of 557 while female students had an average score of 531. Compared to 2001-02, however, the difference in the total average scores between the groups declined four points (the total score for male students dropped 2 points while the total for female students rose 2 points). As shown in Figure 9, the gap between male and female scores is the smallest that it has been in six years.

**Figure 8**  
Average SAT Scores by Gender, 2002-03



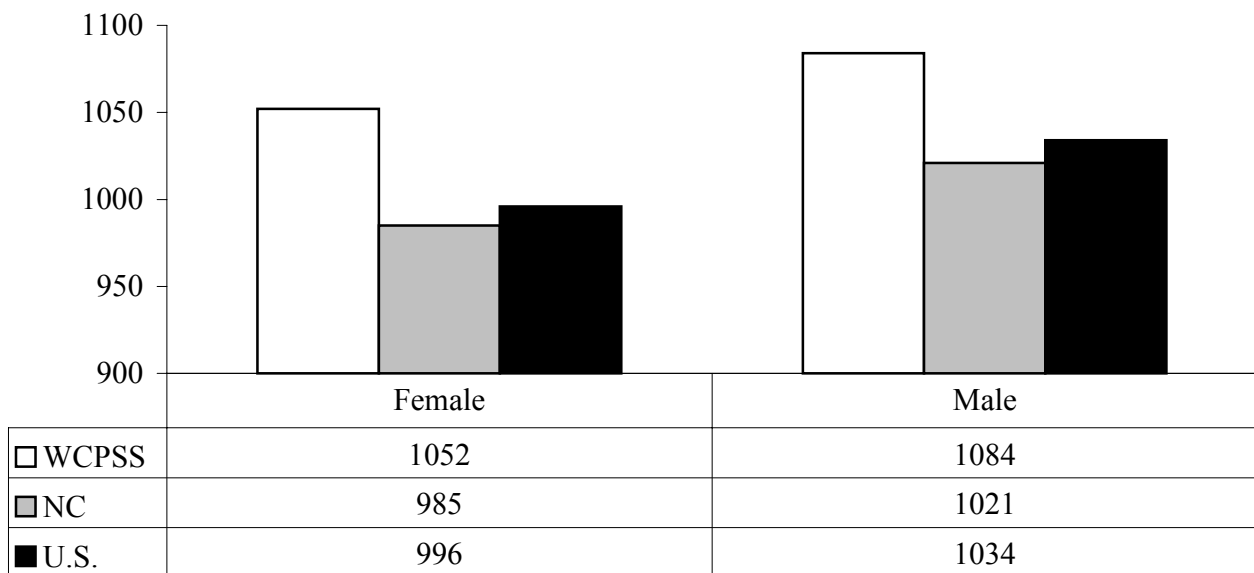
**Figure 9**  
Average Total SAT Scores by Gender 1998-2003



## GENDER COMPARISONS WITH NC AND THE U.S.

Average total SAT scores for both male and female students in WCPSS were substantially higher than averages for their counterparts in North Carolina and in the U.S. As shown in Figure 10, female students in WCPSS scored 67 points higher, on average, than female students in North Carolina and 56 points higher than their counterparts in the U.S. The average total score for male students in WCPSS was 63 points higher than the average in North Carolina and 50 points higher than the average in the U.S. as a whole.

**Figure 10**  
Average Total SAT Scores by Gender in WCPSS, NC, and U.S.A.





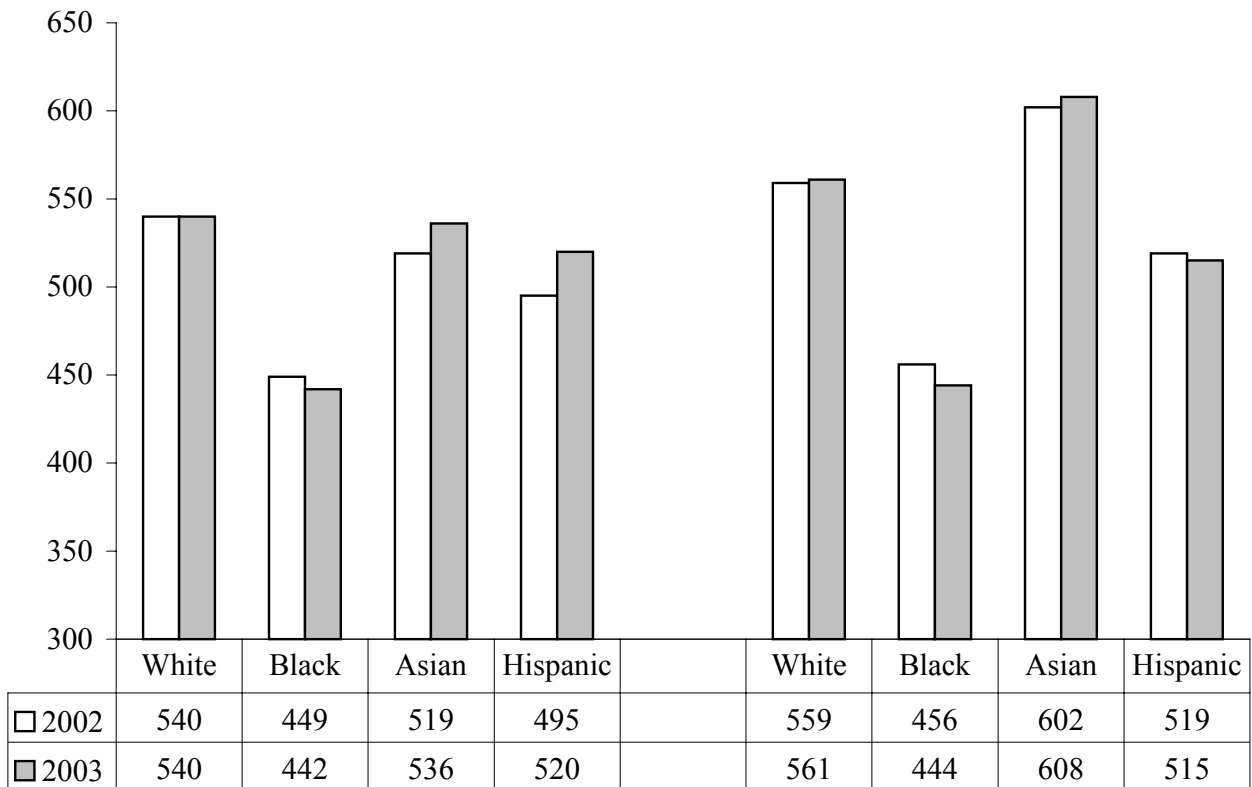
## SAT SCORES BY RACE

As in past years, there were large differences in average SAT scores among racial and ethnic groups. White students performed the best on the verbal test, with an average score of 540, while Asian students received the highest score on the math test (608). Figure 11 shows how each sub-group performed on the two sections of the SAT exam.

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 rose dramatically in 2002-03. The percentage of test-takers not reporting race rose from 6% in 1997-98 to 25% in 2002-03. This raises questions about the validity of the disaggregated SAT scores.

If additional analyses show that average scores of students choosing to self-report their race are not biased by the missing race data, the SAT achievement gap widened slightly in 2002-03. Average scores of Asian students rose on both the verbal and math sections. Scores of White students were the same as the previous year on the verbal test and rose two points on the math test. Average scores of Hispanic/Latino students rose on the verbal test but fell on the math test, and scores of Black students fell on both tests, as shown in Figure 11.

**Figure 11**  
**WCPSS SAT Scores by Race 2002-03**



**Verbal Test**

**Mathematics Test**

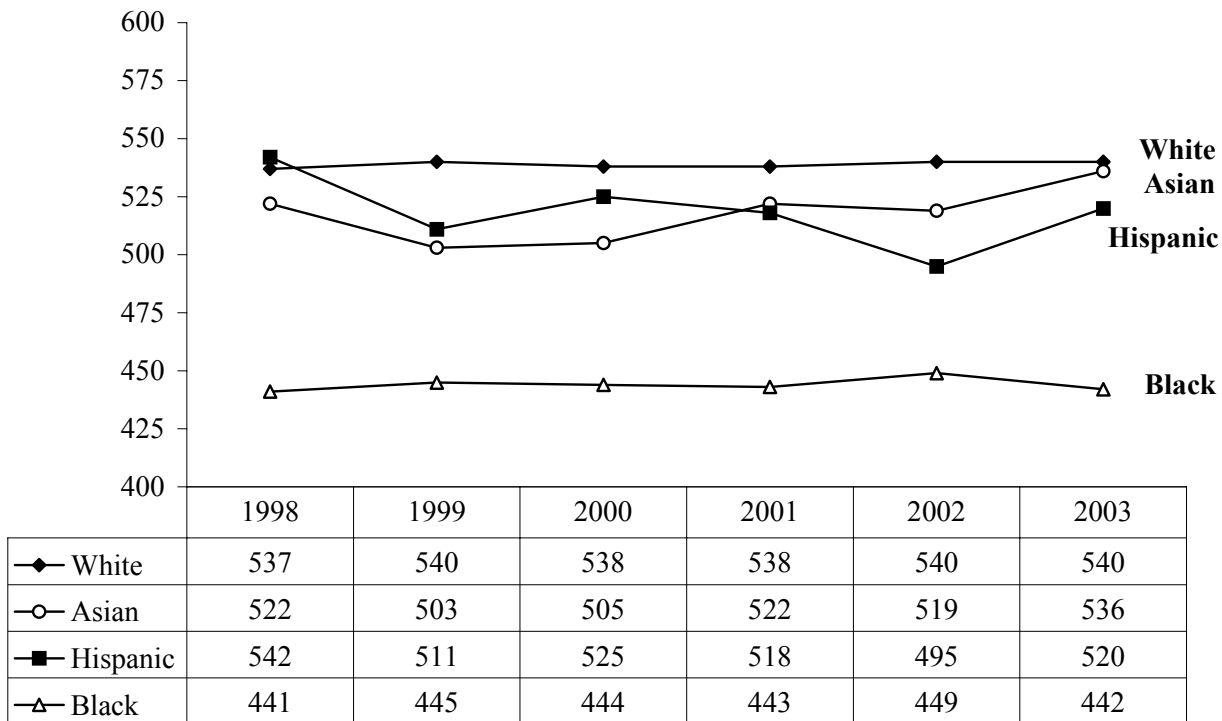
## SAT SCORES BY RACE OVER TIME

As shown in Figures 12 and 13, when compared to 2001-02, Asian and Hispanic/Latino students made the largest gains on the verbal test, while the average score of Black students declined on both the verbal and math tests. The average score for White students stayed the same on the verbal test (540), and increased two points on the math test (561). Asian students' scores rose on average 17 points on the verbal test (536) and six points on the math test (608). These represent the highest scores by Asian students on both tests in six years.

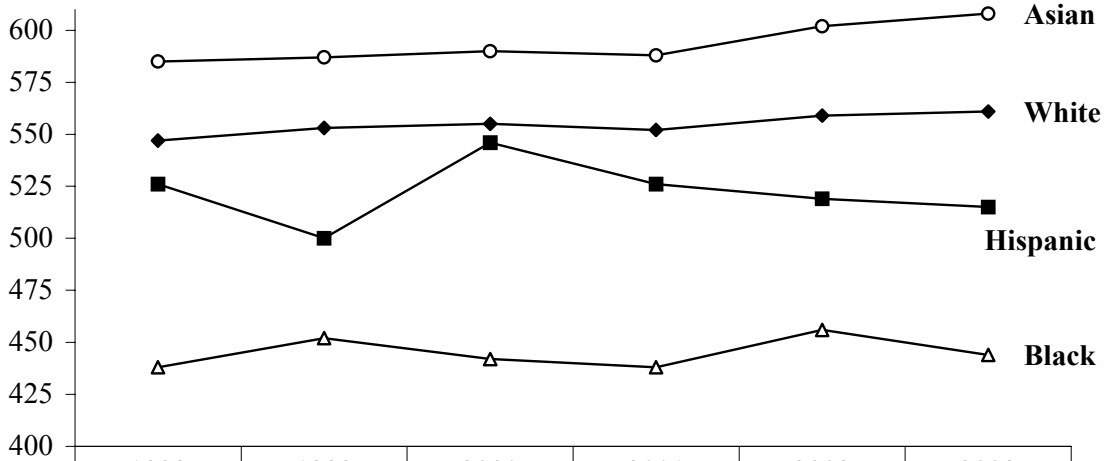
Hispanic/Latino students scored an average of 520 on the verbal test (up 25 points from 2001-02). However, on the math test, their average dropped four points to 515. There is no clear trend in the direction of average SAT scores among Hispanic /Latino students over the past six years. One explanation may be the relatively small number of Hispanic/Latino students who have taken the SAT test in a given year (81 in WCPSS in 2002-03).

The average scores of Black students declined the most of any subgroup on both tests. Compared to 2002-03, their average score on the verbal test dropped seven points to 442, while their average on the math test declined twelve points to 444. As a result of these declines, the gap between Black students' average scores and those of other subgroups widened on both sections of the SAT test in 2002-03.

**Figure 12**  
**WCPSS Average SAT Verbal Scores By Race, 1998-2003**



**Figure 13**  
**WCPSS Average SAT Math Scores By Race, 1998-2003**

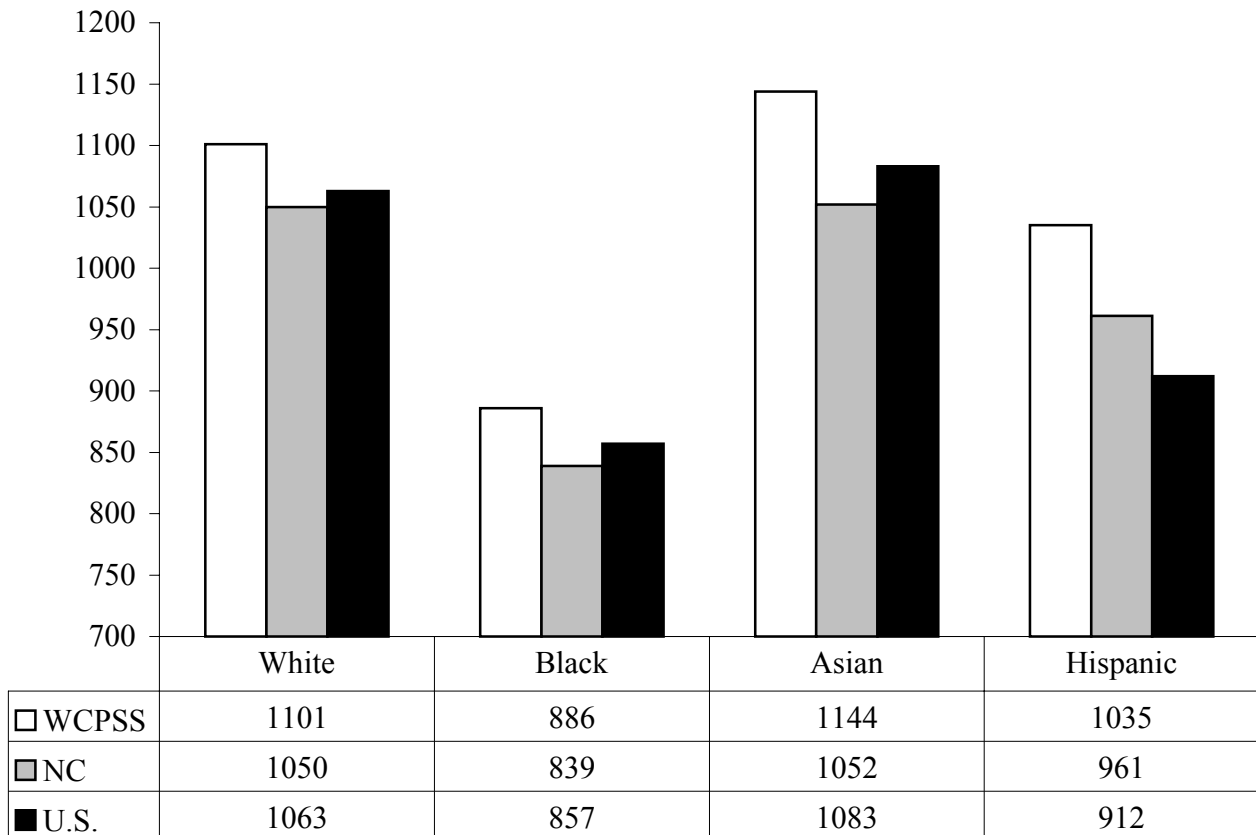


	1998	1999	2000	2001	2002	2003
—○— Asian	585	587	590	588	602	608
—◆— White	547	553	555	552	559	561
—■— Hispanic	526	500	546	526	519	515
—△— Black	438	452	442	438	456	444

## RACIAL AND ETHNIC COMPARISONS WITH NC AND THE U.S.

Average total SAT scores for racial and ethnic subgroups were higher in WCPSS than in North Carolina and the U.S. in 2002-03. White students in WCPSS had an average score of 1101, 51 points higher than the average for this group in the state (1050) and 38 points higher than the average for the U.S. (1063). Similarly, Black students in WCPSS outscored their counterparts in NC by 47 points and in the U.S. by 29 points. Asian students in WCPSS had an average total score of 1144, which was 92 points higher than the average in NC and 61 points higher than the average in the country as a whole. Hispanic/Latino students outscored their counterparts in the state by 74 points and in the U.S. by 123 points. Figure 14 compares WCPSS average total scores for each racial/ethnic group with averages for the NC and the U.S.

**Figure 14**  
**Average Total SAT cores by Race in WCPSS, NC, U.S.A.**



## SAT PERFORMANCE AND PARTICIPATION BY SCHOOL

As shown in Figure 15, average total SAT scores rose at eight WCPSS high schools in 2002-2003 and declined at seven. The high schools showing the largest increases were Wakefield (+50 points), Green Hope (+41), and Fuquay-Varina (+29). Average scores for students at Green Hope and Wakefield were reported for the first time in 2001-02. The high schools showing the largest decreases in average total scores were Southeast Raleigh (down 34 points), Sanderson (down 26), and Enloe (down 18).

Average total SAT scores varied widely across area high schools. Enloe continued to lead WCPSS with an average score of 1146, followed by Green Hope (1111) and Apex (1107). All but two schools had averages surpassing the 1000-point mark. The exceptions were East Wake (962) and Garner (986). Twelve out of 15 WCPSS high schools had higher average scores than the national average (1026).

Participation in the SAT exam in 2001-2002 also varied considerably across WCPSS high schools. The highest participation rate was at Green Hope (95%), followed by Broughton (94%), and Enloe (92%). Schools with the lowest participation rates were Garner (58%), Fuquay-Varina (61%), East Wake (66%), and Wake Forest (68%). Overall, the percentage of seniors taking the SAT exam in WCPSS was much higher than the comparable national rate (48%), and for 12 out of 15 high schools, the participation rate was higher than the North Carolina rate (69%).

Compared to 2001-02, participation rates increased at nine high schools, decreased at four, and stayed the same at two. The high schools showing the largest increases in participation were East Wake and Apex (both up 6 percentage points), and Broughton, Garner, and Green Hope (all +5 percentage points). The high schools showing the largest decreases in participation were Leesville (down 8 percentage points) and Wake Forest (down 6 percentage points).

**Figure 15**  
**WCPSS School-by-School SAT 2000-2003 Scores**

	2000-01				2001-02				2002-03			
	Part.	Verbal	Math	Total	Part.	Verbal	Math	Total	Part.	Verbal	Math	Total
<b>USA</b>	45%	506	514	1020	46%	504	516	1020	48%	507	519	1026
<b>NC</b>	65%	493	499	992	67%	493	505	998	68%	495	506	1001
<b>Wake County</b>	79%	520	534	1054	79%	524	543	1067	<b>80%</b>	<b>524</b>	<b>543</b>	<b>1067</b>
<b>Apex</b>	84%	536	558	1094	76%	536	554	1090	82%	542	565	1107
<b>Athens</b>	81%	520	556	1076	86%	530	559	1089	87%	527	564	1091
<b>Broughton</b>	89%	526	545	1071	89%	532	561	1093	94%	526	554	1080
<b>Cary</b>	80%	525	539	1064	77%	518	552	1070	77%	522	540	1062
<b>East Wake</b>	76%	470	485	955	60%	477	493	970	66%	476	486	962
<b>Enloe</b>	90%	573	575	1148	92%	577	587	1164	92%	572	574	1146
<b>Fuquay-Varina</b>	68%	474	499	973	63%	483	504	987	61%	500	516	1016
<b>Garner</b>	50%	476	494	970	53%	489	513	1002	58%	482	504	986
<b>Green Hope</b>	NA	NA	NA	NA	90%	524	546	1070	95%	546	565	1111
<b>Leesville</b>	87%	525	541	1066	94%	538	559	1097	86%	535	557	1092
<b>Millbrook</b>	78%	495	506	1001	78%	506	517	1023	80%	509	531	1040
<b>Sanderson</b>	82%	522	535	1057	82%	521	546	1067	84%	510	531	1041
<b>SE Raleigh</b>	84%	523	523	1046	87%	523	538	1061	83%	507	520	1027
<b>Wakefield</b>	NA	NA	NA	NA	84%	494	513	1007	85%	516	541	1057
<b>Wake Forest</b>	78%	508	517	1025	74%	503	511	1014	68%	509	520	1029

**Note**

- The participation rate is the percentage of graduating seniors who took the SAT I.
- Average SAT scores for Green Hope and Wakefield were reported for the first time in 2001-02.
- Average SAT scores for Middle Creek High School, which opened in 2002-03, were not reported by the College Board.