

Table of Contents

	<u>Page</u>
List of Tables	ii
List of Figures	iii
A Note on the Use of Aggregate SAT Data	iv
Background	1
Results	
Overall Performance.....	2
Gender	4
Race/Ethnicity	5
Family Income	6
Academic Preparation	8
North Carolina and the University of North Carolina System	9
North Carolina’s School Systems and Schools	11
Background on Recentering the SAT I Scores	13
References	14
Appendices	
North Carolina and the Nation	17
Performance of the 117 Public School Systems, Charter Schools, North Carolina School of the Arts, North Carolina School of Science and Mathematics, and the Greensboro Math and Science Center	25
Performance of the Fifty States	45

List of Tables

<u>Table</u>		<u>Page</u>
1	Mean Total SAT Scores for Public School Students in North Carolina and the Nation, 1995-2002	3
2	Mean Verbal and Math SAT Scores for North Carolina and the Nation by Gender, 1996-2002	5
3	Mean SAT Scores for North Carolina and the United States, 1972-2002	19
4	Frequency Distribution of Verbal and Mathematics SAT Scores for North Carolina's Public School Students, 2002	20
5	Mean Total SAT Score by Student Profile Characteristics, 2001-2002	22
6	United States and North Carolina Mean Total SAT Scores by Student Profile Characteristics, 1998-2002	23
7	Mean Total SAT Scores for North Carolina's Public School Systems and Schools, 2000-2002	27
8	Distribution of North Carolina Public School Systems by Mean SAT Scores, 2002	43
9	Mean Verbal, Mathematics, and Total SAT Scores by State, 2002	47
10	Change in Mean Total SAT Score by State, 1990-2002	48

List of Figures

<u>Figure</u>	<u>Page</u>
1	Mean Total SAT Scores for the United States, Southeast Region, and North Carolina, 1990-20022
2	Mean Total SAT Scores for the United States and North Carolina by Gender, 1992-20024
3	Mean Total SAT Scores for North Carolina by Ethnicity, 1994-20026
4	Mean Total SAT Scores for North Carolina by Family Income, 1994-20027
5	Mean Total SAT Scores for Students in North Carolina by Family Income and Racial/Ethnic Group, 20027
6	Mean Total SAT Scores for North Carolina by High School GPA, 1994-20028
7	The 25th, 50th, and 75th Percentile of SAT Mean Total Scores for National College-Bound Seniors, North Carolina’s College-Bound Seniors, Entering Freshmen at Institutions of the University of North Carolina System and Selected Private Universities, Fall 200110
8	Mean Total SAT Score by Percent of Students Tested for all States, 200211
9	Mean Total SAT Score by Percent of Students Tested for all North Carolina Public School Systems, 200212
10	Mean Total SAT Score by Percent of Students Tested for all North Carolina Public High Schools, 200212
11	Distribution of Mathematics SAT Scores for North Carolina’s Public Schools, 200221
12	Distribution of Verbal SAT Scores for North Carolina’s Public Schools, 200221

A Note on the Use of Aggregate SAT Data*

As measures of developed verbal and mathematical abilities important for success in college, SAT scores are useful in making decisions about individual students and assessing their academic preparation. Because of the increasing public interest in educational accountability, aggregate test data continue to be widely publicized and analyzed. Aggregate scores can be considered one indicator of educational quality when used in conjunction with a careful examination of other conditions that affect the educational enterprise.

However, it is important to note that many College Board tests are taken only by particular groups of self-selected students. Therefore, aggregate results of their performance on these tests usually do not reflect the educational attainment of all students in a school, district, or state.

Useful comparisons of students' performance are possible only if all students take the same test. Average SAT scores are not appropriate for state comparisons because the percentage of SAT test-takers varies widely among states. In some states, a very small percentage of the college-bound seniors take the SAT. Typically, these students have strong academic backgrounds and are applicants to the nation's most selective colleges and scholarship programs. Therefore, it is expected that the SAT verbal and mathematical averages reported for these states will be higher than the national average. In states where a greater proportion of students with a wide range of academic backgrounds take the SAT, and where most colleges in the state require the test for admission, the scores are closer to the national average.

In looking at average SAT scores, the user must understand the context in which the particular test scores were earned. Other factors variously related to performance on the SAT include academic courses studied in high school, family background, and education of parents. These factors and others of a less tangible nature could very well have a significant influence on average scores.

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Background

The Scholastic Assessment Test (SAT), considered by many colleges and universities to be a reliable indicator of student preparation for college, was designed to assess developed verbal and mathematical abilities in students. According to the College Board (2002), an estimated 80 percent of four-year colleges and universities without open admission policies use SAT scores in admissions decisions. Due to the weight that many colleges and universities place on SAT scores in admissions decisions, it has become the best known college admissions test. In 2002, nearly half of approximately three million high school graduates took the SAT. Typically, colleges that consider SAT scores in admissions decisions use the scores as part of an analysis that includes other information from the student's high school record, including other predictors and results from other tests.

The SAT has been administered to college-bound students in the United States for nearly 75 years, dating back to 1926 when 8,040 students took the test. The initial group of test takers was homogeneous, consisting primarily of white males. In contrast, the 1.3 million test takers in 2002 was the largest and most diverse group in history, with 35 percent minority student SAT takers. The percentages of SAT takers by gender were similar, with about four percent more females than males.

The 46,180 SAT takers in North Carolina in 2002 represented the five major racial/ethnic groups, but were less heterogeneous than those in the nation, with eight percent fewer non-white test takers. In regard to gender, five percent more females than males took the SAT.

In addition to being reliable indicators of students' preparation for college, aggregate SAT scores for a series of years can reveal trends in the academic preparation of students who take the SAT. Thus, this report includes the 2002 SAT performance of North Carolina's students and historical scores for recent years. However, rankings or residual rankings are not used in this report in compliance with the College Board's *Guidelines on the Uses of College Board Test Scores and Related Data* and with professional standards for educational and psychological testing. The guidelines caution against the use of SAT scores in aggregate form as a single measure to rank or rate states, educational institutions, school systems, schools, or teachers. *A Note on the Use of Aggregate SAT Data* on the previous page provides details for why such uses are inappropriate.

This report presents SAT results for students scheduled to graduate in 2002 and represents students' most recent scores, regardless of when they last took the test. The scores in this report reflect *public and non-public school students* in North Carolina and the United States, except where otherwise noted.

Results

Overall Performance

North Carolina's college-bound seniors continued to close the SAT score gap on their national counterparts in 2002 (see Figure 1). With nearly a five percent increase in SAT takers from the previous year, North Carolina's mean total SAT score (998) increased six points, while the nation's score (1020) did not change. North Carolina has improved its score each year since 1990, except in 1994 when there was no change. From 1990 to 2002, North Carolina gained more points (50) than any other state with more than 12 percent SAT takers (see Table 10). Among the "SAT States," (those states with more than 50 percent SAT takers) North Carolina's 50 point gain since 1990 was also the largest. The 22 point gap between North Carolina's mean and the nation's mean in 2002 was less than one-half the gap in 1990 (when the gap was 53 points) and has reduced more than 70 percent since 1972 when the gap was 83 points (see Table 3 in the Appendices).

The gap between SAT scores in North Carolina and in the Southeast has closed dramatically since 1990 (see Figure 1). The Southeast mean (995) in 2002 increased three points from the previous year but was three points lower than North Carolina's mean. North Carolina's SAT score surpassed the Southeast score for the first time in 2002.

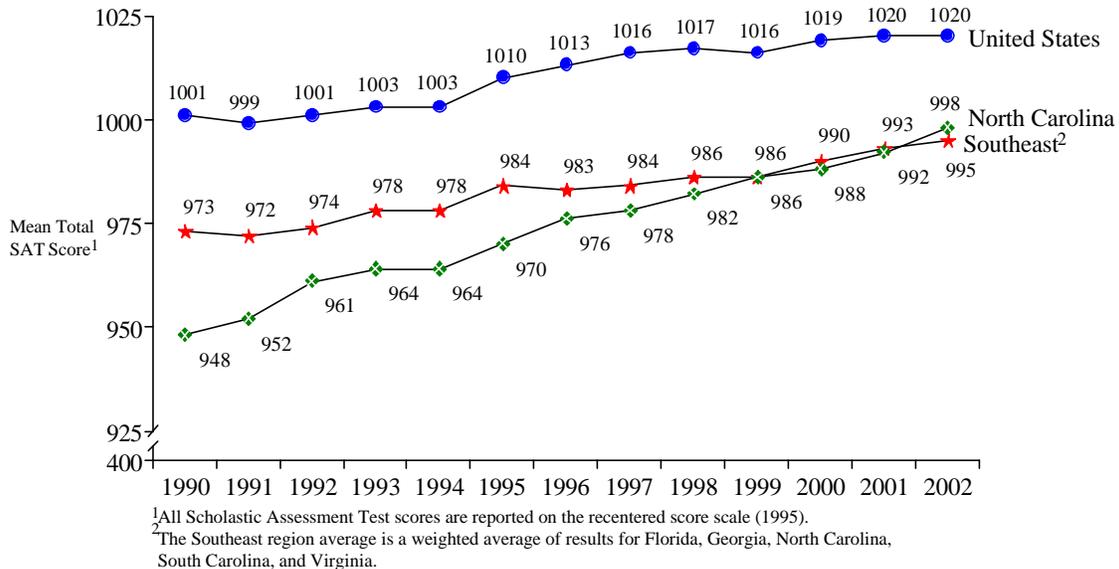


Figure 1. Mean Total SAT Scores for the United States, Southeast Region, and North Carolina, 1990-2002.

Public Schools

Historically, SAT scores of North Carolina's public schools have lagged those of public schools in the nation (see Table 1). However, in recent years, North Carolina's public schools have been progressing at a faster rate than those in the nation. The SAT score gap between North Carolina's *public* schools and those in the nation continued to narrow in 2002. The mean total SAT score for the nation's *public* schools (1012) did not change from the previous year, while the score for North Carolina's public schools (995) increased by five points. The difference between SAT scores for the nation's public schools and North Carolina's public schools has decreased by 23 points since 1995.

Table 1. Mean Total SAT Scores for Public School Students in North Carolina and the Nation, 1995-2002

Year	North Carolina ¹	Nation ¹	Gap ²
1995	863	903	40
1996	974	1008	34
1997	977	1010	33
1998	981	1011	30
1999	983	1010	27
2000	986	1011	25
2001	990	1012	22
2002	995	1012	17

¹All Scholastic Assessment Test scores are reported on the recentered score scale (1995).

²Gap refers to the difference between scores of North Carolina's public school students and public school students in the nation.

Verbal and Mathematics Scores

In past years, North Carolina's students have scored closer to the nation on the verbal portion of the SAT than on the mathematics portion (see Table 3 in the Appendices). In 2002, the nation's verbal score (504) decreased by two points from the previous year. North Carolina's score (493) did not change, which reduced the 13 point verbal score gap of the previous year by two points. In contrast, North Carolina's verbal score in 1991 trailed the nation's score by 21 points.

In mathematics, North Carolina gained four points on the nation in 2002, with the nation's score (516) increasing two points and North Carolina's score (505) increasing six points. The gap between North Carolina's mathematics score and the nation's score narrowed from 15 points in 2001 to 11 points in 2002. In 1991, North Carolina's score had lagged the nation's score by 26 points.

Gender

In North Carolina and the nation, the 2002 SAT results showed females scoring closer to their male counterparts (see Figure 2). Historically, males have scored higher on the SAT than females in North Carolina and in the nation. However, in recent years, females have been improving at a faster rate than males. North Carolina's females scored 984 in 2002, while males scored 1014, leaving a 30-point gap. In 1992, the male-female gap was 38 points. Nationally, the gap between male and female scores was 39 points in 2002, compared with 42 points in 2001 and 47 points in 1992.

The nation's males and females attain higher SAT scores than North Carolina's males and females each year. However, the gap between students in North Carolina and students in the United States has narrowed since 1992. The SAT score gap between North Carolina's males and males in the United States decreased from 48 points in 1992 to 27 points in 2002. For females, the gap decreased from 39 points to 18 points.

The primary difference between the mean SAT scores for males and females in North Carolina and in the nation has consistently been in mathematics (see Table 2). For example, the average gap between the scores of males and females in North Carolina from 1996 to 2002 on the mathematics portion of the SAT has been about 30 points but only about four points on the verbal portion. Nationally, the gender gap has followed a similar trend, with males scoring on average about 35 points higher in mathematics, but only about five points higher on the verbal portion of the SAT from 1996 to 2002.

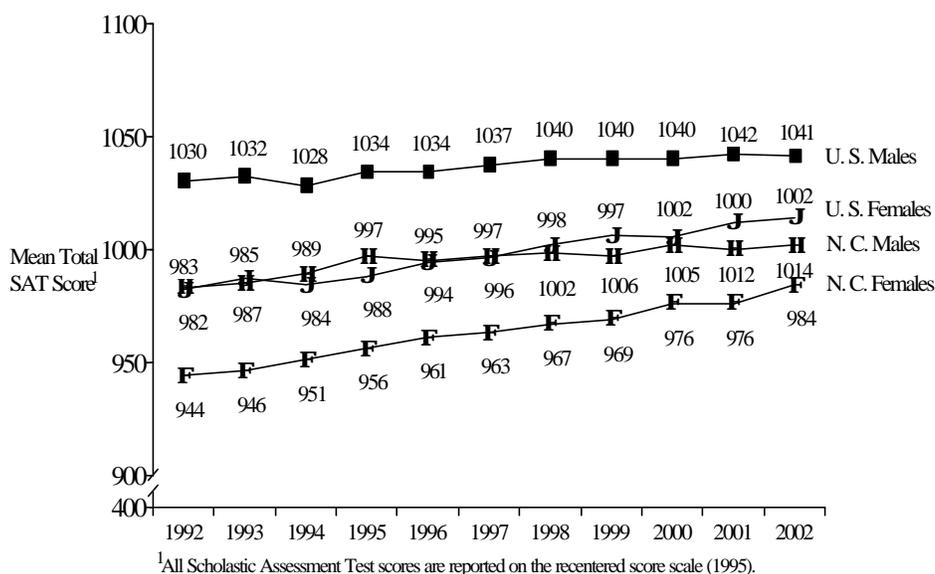


Figure 2. Mean Total SAT Scores for the United States and North Carolina by Gender, 1990-2002.

Table 2. Mean Verbal and Math SAT Scores for North Carolina and the Nation by Gender, 1996-2002

Year	SAT Verbal ¹						SAT Math ¹					
	North Carolina			Nation			North Carolina			Nation		
	M	F	Gap ²	M	F	Gap ²	M	F	Gap ²	M	F	Gap ²
1996	492	489	3	507	503	4	502	472	30	527	492	35
1997	491	489	2	507	503	4	505	474	31	530	494	36
1998	493	488	5	509	502	7	509	479	30	531	496	35
1999	496	490	6	509	502	7	510	479	31	531	495	36
2000	493	492	1	507	504	3	512	484	28	533	498	35
2001	497	490	7	509	502	7	515	486	29	533	498	35
2002	494	492	2	507	502	5	520	492	28	534	500	34

¹All Scholastic Assessment Test scores are reported on the recentered score scale (1995)

²Gap refers to the mean score for males minus the mean score for females.

Race/Ethnicity

White and Asian students typically score higher than other racial/ethnic groups in North Carolina and their scores exceed the national average (see Figure 3). This trend continued in 2002 with North Carolina's White students attaining the highest mean total SAT score (1046), five points higher than their previous year's score. Asian students attained the second highest score (1025), six points below their previous year's score. North Carolina's White and Asian students were the only groups to exceed the United States average (1020) in 2002, by 26 points and five points, respectively. North Carolina's White students scored higher than the national average for the ninth consecutive year, while Asians have scored higher each year since 1994, except 1998.

Table 6 shows mean total SAT scores for racial/ethnic groups in North Carolina and the nation from 1998 to 2002. North Carolina's racial/ethnic groups scoring lower in 2002 than in the previous year were Asian Americans (1025), scoring six points lower; Hispanics (961), scoring 14 points lower; and *Other* (1004), scoring five points lower. American Indian (914), Black (839), and White students (1046) improved their previous years' scores in 2002 by 23 points, 4 points, and 5 points, respectively.

Historically, Hispanic students have been the only racial/ethnic group in North Carolina to score higher than their national counterparts. In 2002, Hispanics continued this trend scoring 961. This score was 14 points lower than their previous year's score, but 50 points higher than the score of their national counterparts. It should be noted however that Hispanics comprised a very small proportion of the total SAT test takers in North Carolina in 2002 (about two percent compared to nine percent nationally) as shown in Table 5.

North Carolina's Black students scored 839 in 2002. This score, a four-point improvement over the previous year's score, was the lowest score among racial/ethnic groups. North Carolina's Black-White SAT score gap was 207 points in 2002, one point more than the previous year. Nationally, the Black-White gap increased to 203 points in 2002 compared to 201 points the previous year.

Nationally, all racial/ethnic groups improved or maintained their previous year's score except Black and Hispanic students (see Table 6). American Indians scored two points higher than the previous year and 48 points higher than their North Carolina counterparts. Of all racial/ethnic groups, North Carolina's American Indian students had the largest scoring difference from a national counterpart in 2002, which has been the trend over the past five years.

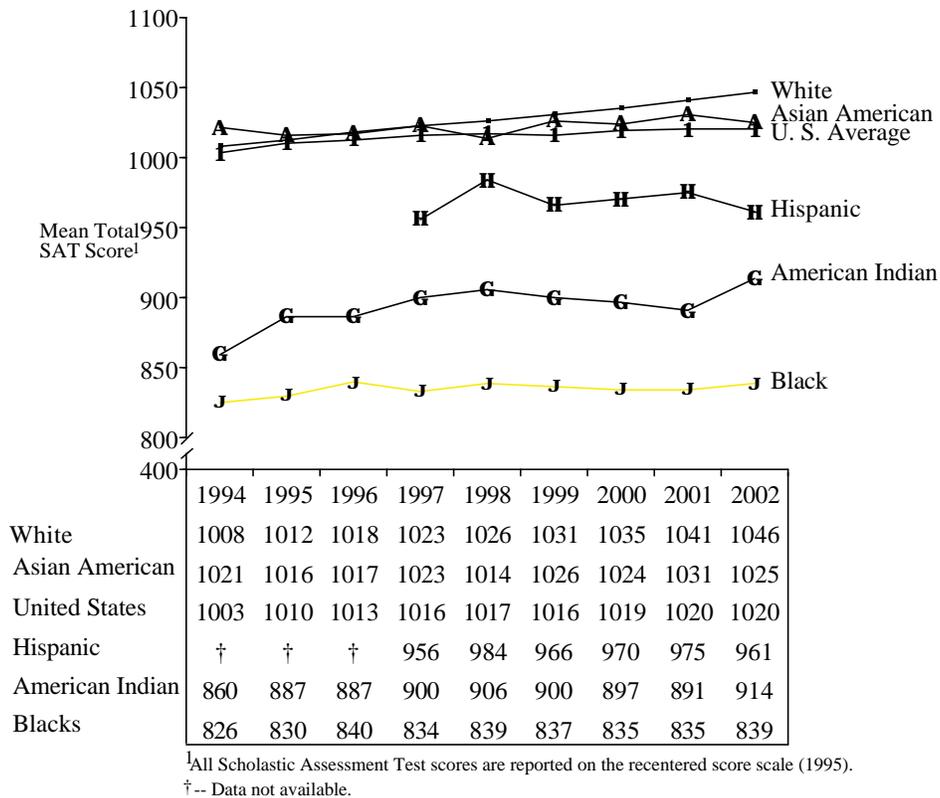


Figure 3. Mean Total SAT Scores for North Carolina by Ethnicity, 1994-2002.

Family Income

In North Carolina and in the nation, the higher the family income the higher the student's mean total SAT score (see Table 5 and Figure 4). Historically, there has been very little change from year to year in the mean total SAT score *within* each family income category. Although a downward trend in scores was shown at the lower two income categories in 2001, this trend reversed slightly in 2002.

The relative difference in mean total SAT score *between* family income categories is also fairly stable from year to year. However, SAT scores between the family income categories \$20,000-\$29,000 dollars and \$30,000-\$39,000 moved closer together in 2002.

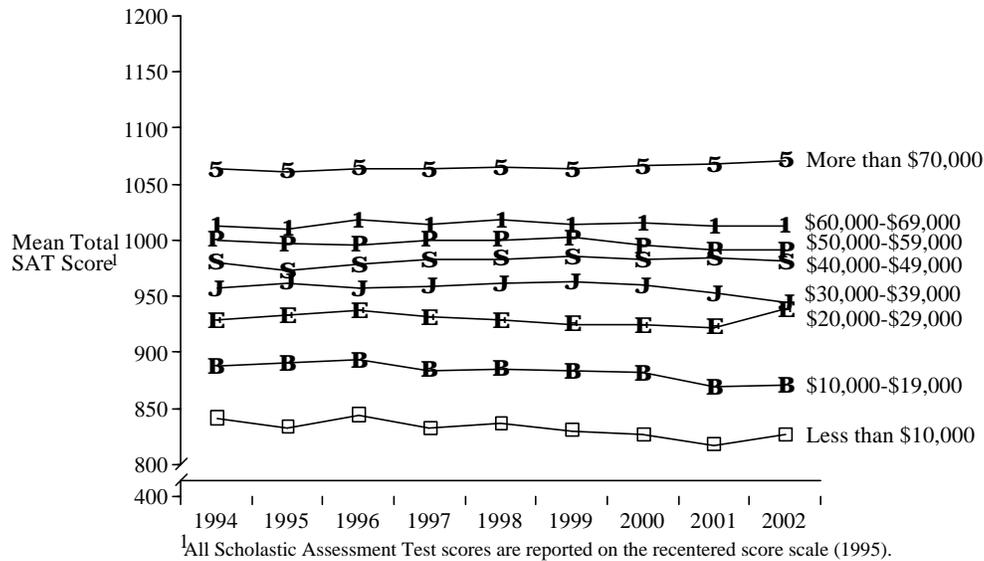


Figure 4. Mean Total SAT Scores for North Carolina by Family Income, 1994-2002.

Mean total SAT scores tend to increase for all racial/ethnic groups with increasing family income. This relationship was observed in 2002 (see Figure 5). White students however whose families were below the poverty line (earned less than \$20,000 per annum) scored higher than Black and American Indian students whose families earned over \$70,000 per annum.

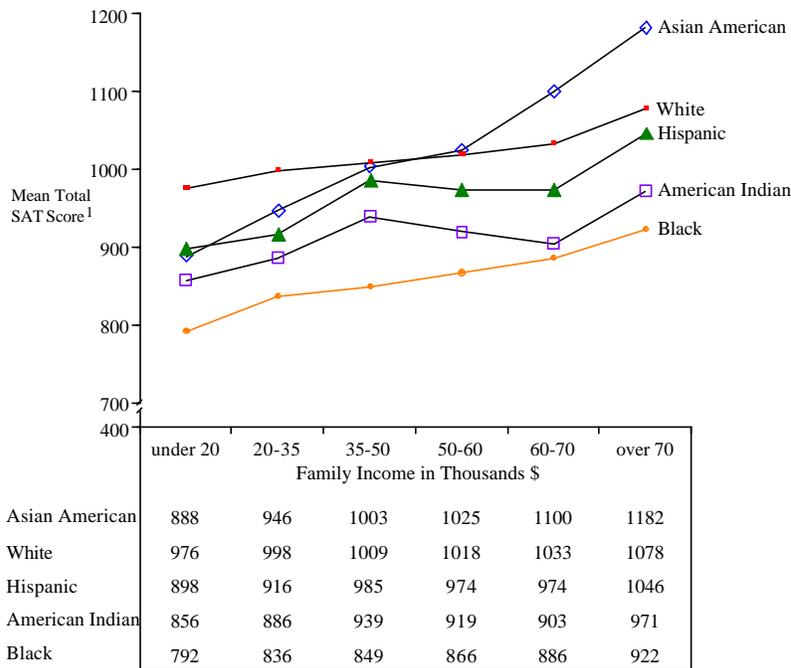
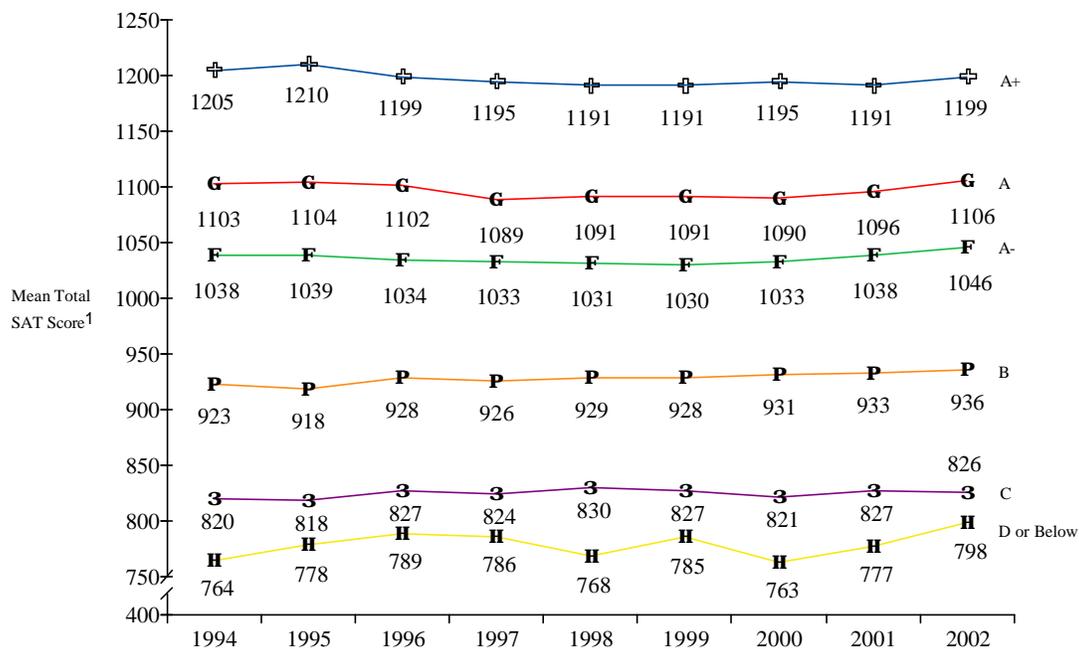


Figure 5. Mean Total SAT Scores for Students in North Carolina by Family Income and Racial/Ethnic Group, 2002.

Academic Preparation

Typically, the higher a student's high school grade point average (GPA), the higher the student's mean total SAT score. Figure 6 shows this trend in North Carolina from 1994 to 2002. SAT scores were up in 2002 from the previous year for all GPAs of A and lower except C. However, North Carolina's students with high school GPAs of A+, A, or A- were further behind their national counterparts than North Carolina's students with B or C averages (see Table 5 in Appendices). This also held true the previous year. North Carolina's students with high school GPAs of A+, A, or A- trail their peers nationally by 34, 61, and 45 points, respectively. However, North Carolina's students with GPAs of A+, A, or A- represented a higher percentage of test takers (45 percent) than that of the nation (41 percent).

North Carolina's students with GPAs of B were 29 points behind their peers nationally and represented 43 percent of North Carolina SAT takers, compared to 47 percent nationally. Students in North Carolina with GPAs of C were 22 points behind their peers nationally and represented 12 percent of SAT takers in North Carolina and 11 percent in the nation. When interpreting such data, one should consider that: (1) SAT test takers might misjudge or wrongly report their grade point averages on the SAT questionnaire, (2) SAT test takers might be receiving inflated grades, or (3) a combination of the two might be operative.



¹All Scholastic Assessment Test scores are reported on the recentered score scale (1995).

Figure 6. Mean Total SAT Scores for North Carolina by High School GPA, 1994-2002.

North Carolina and the University of North Carolina System

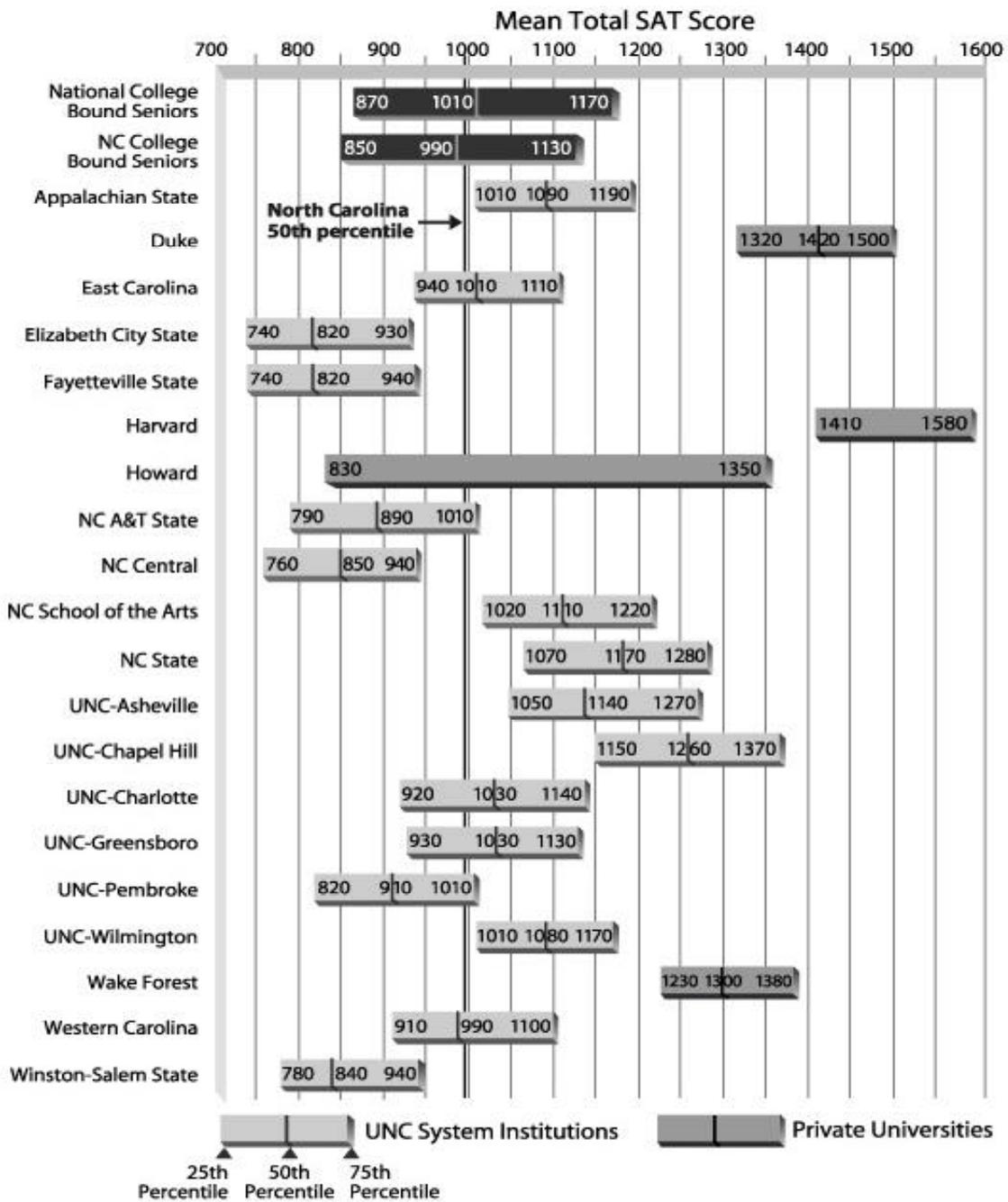
Historically, mean total SAT scores for freshmen entering the University of North Carolina System each year have been higher than those for North Carolina's graduating seniors (The University of North Carolina, 2001). The average total score for freshmen entering the University of North Carolina System from 1991 to 2001 was 1065, while the average for North Carolina's graduating seniors was 975 during the same period, an average difference of 90 points. This trend suggests that many of North Carolina's students who do not perform well on the SAT do not represent a substantial portion of the students who enter the University of North Carolina System. Presumably, these students elect other post-secondary options, which might include community college, military service, or full-time employment.

In 2002, the mean total SAT score (998) for North Carolina's college-bound seniors was 73 points lower than the score (1071) for freshmen entering the University of North Carolina system in 2001. [SAT scores for the University of North Carolina System in 2002 were not available for inclusion in this report.]

Schools within the University of North Carolina System serve a wide variety of student abilities as reflected in the mean total SAT scores of their entering freshmen. In 2001, scores ranged from 837 at Elizabeth City State University to 1257 at the University of North Carolina at Chapel Hill (The University of North Carolina, 2001).

Figure 7 shows graphically the range of total SAT scores between the 25th and 75th percentiles of North Carolina's college-bound seniors, the nation's college-bound seniors, and entering freshmen at the University of North Carolina system institutions and selected other institutions in 2001. The bands in the figure show the range in which the middle half of the students scored -- 25 percent of students scored below the lower end of the band and 25 percent scored at or above the upper end of the band.

The figure shows that each of the University of North Carolina system institutions serves some students who score like the middle 50 percent of college-bound seniors in North Carolina and the nation. Duke, Wake Forest, and Harvard Universities are more likely to serve students who score like the top 25 percent of 2002 college-bound seniors in North Carolina and the nation and less likely to serve students who score like the lower 50 percent. On the other hand, Howard University, recognized as one of the elite Historically Black Colleges and Universities, is unique in that it serves a diverse range of student abilities and might serve students from the upper 75 percent of 2002 college-bound seniors in North Carolina and the nation.



All Scholastic Assessment Test scores are reported on the recentered score scale (1995). Information on the 50th percentile for Howard University's entering freshmen was not available; quartiles for Harvard, Howard, and Wake Forest Universities are based on 2000 data.

Source: The University of North Carolina (2002). Averages and Quartiles of SAT Scores of Entering Freshmen in the University of North Carolina, Fall 2000. Statistical Abstract of Higher Education in North Carolina, 2001-2002. Chapel Hill, NC.; Graham, A. E. & Morse, R. J. (August 1999). How U. S. News ranks colleges. U. S. News & World Report. 84-105.

Figure 7. The 25th, 50th, and 75th Percentile of SAT Mean Total Scores for National College-Bound Seniors, North Carolina's College-Bound Seniors, Entering Freshmen at Institutions of the University of North Carolina System and Selected Private Universities, Fall 2001.

North Carolina's School Systems and Schools

The higher the percentage of students taking the SAT (participation rate), the lower the average SAT scores (The College Board, 1988). While this is true for states (see Figure 8), the opposite association is observed for public school systems and public schools in North Carolina (see Figures 9 and 10). In 2002, the Pearson correlation between the percent of students taking the SAT and the mean total SAT score for *public school systems* in North Carolina was 0.42. For *public schools*, the correlation was 0.52. These correlations suggest that participation rate is a lesser factor in predicting SAT scores for public school systems and public schools than for states.

Also, in view of these correlations, schools and school systems in North Carolina should exercise caution when attributing decreases or increases in mean SAT scores to changes in participation rate. Interpretations of fluctuations in SAT scores at a particular school or system or between schools and systems should take into account that SAT scores are influenced by multiple factors. Among such factors are course-taking patterns, curriculum content, course standards, parental education, and family income. One should also be mindful that about 50% of all schools and school systems in the nation have changes in their mean verbal or math SAT scores of plus or minus 10 points from year to year (The College Board, 2002).

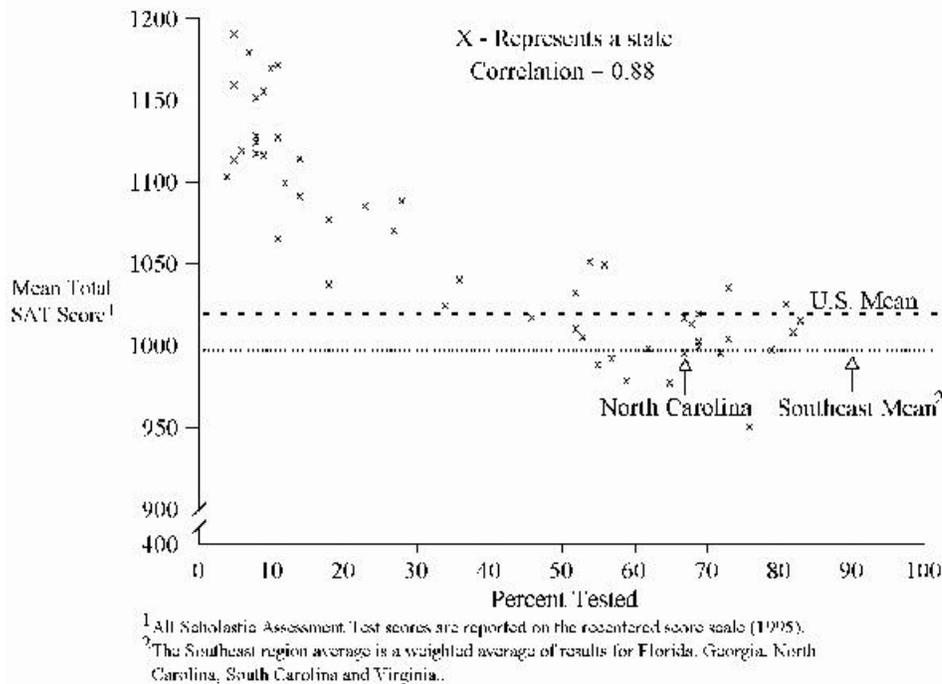


Figure 8. Mean Total SAT Score by Percent of Students Tested for all States, 2002.

Table 7 provides a three-year trend of mean SAT scores for each public school system and school in North Carolina from 2000 to 2002. The three-year trend is reported only for those school systems and schools with SAT scores in 2002. Those school systems and schools without SAT scores in 2002 are not included.

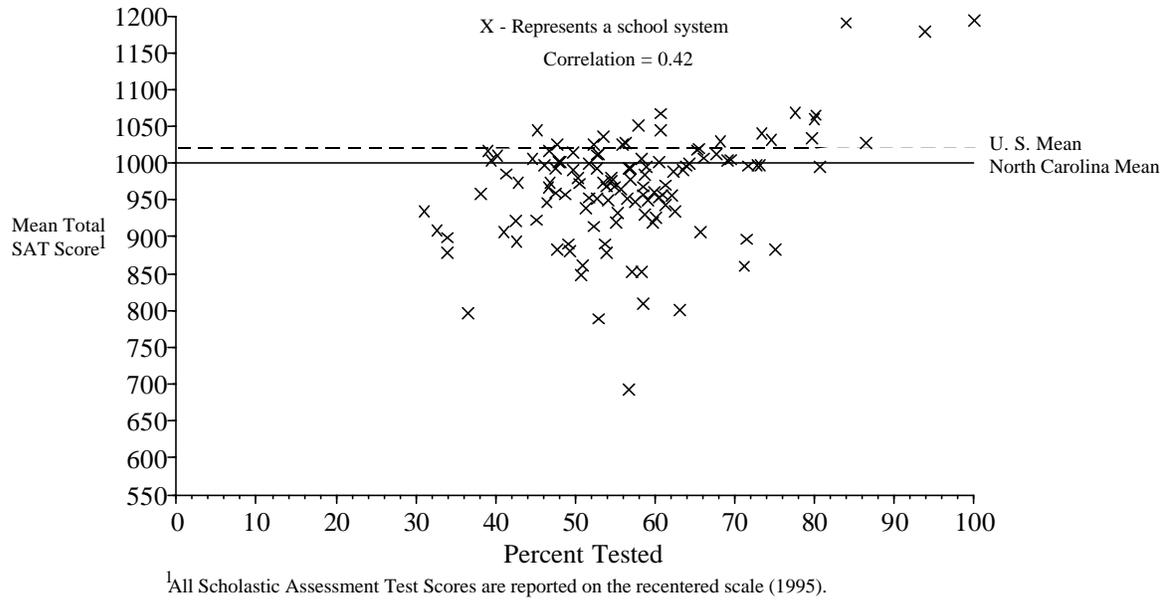


Figure 9. Mean Total SAT Score by Percent of Students Tested for all North Carolina Public School Systems, 2002.

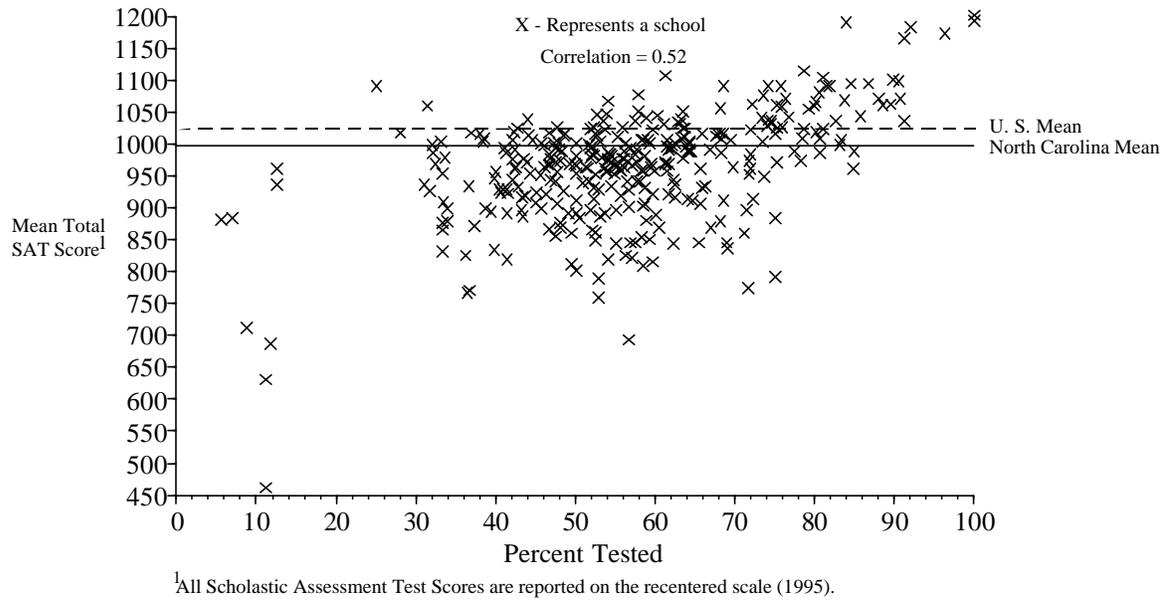


Figure 10. Mean Total SAT Score by Percent of Students Tested for all North Carolina Public High Schools, 2002.

Background on Recentering the SAT I Scores

The College Board recentered the score scale of the SAT I in 1995, re-establishing the original mean score of 500 on the 200-800 scale in order to maintain the SAT's statistical integrity and predictive validity. The scale had not been recalibrated since 1941 when it reflected the norm of some 10,000 students from predominantly private secondary schools who applied to the nation's most selective private colleges and universities. As mean scores shifted below 500, the score distribution became stretched in the upper half and compressed in the lower half.

Now that scores are recentered on the renormed SAT I, they reflect the more than two million students who take the test today. They also reflect a more diverse college-bound population than the group who took the SAT in 1941.

Although a student's score may change after recentering, the rank order of individual scores, expressed as percentiles, remains the same. What is more, a specific score on the verbal test now has the same relative position and meaning as the same score on the math test. For example, a 450 on verbal and math signifies comparable performance in both areas. Before recentering, a score of 450 represented above-average performance on verbal and below-average performance on math. While recentering permits legitimate comparisons of verbal and math scores and reduces earlier confusion, it has no effect on historical score trends, or on the difficulty level of the test and the relative standing of students to each other.

References

Doran, N. J. (2002, Spring). Recentring and realigning the SAT score distributions: how and why. *Journal of Educational Measurement*, 39, 59-84.

The University of North Carolina. (2002, April). *Statistical abstract of higher education in North Carolina, 2001-2002* (Research Report 1-00). Chapel Hill, NC: Author.

The College Board. (2002, August). *Background on the 1,327,831 SAT Takers in the Class of 2002*. New York: Author.

The College Board. (2002). *North Carolina State Summary Report 2001-2002*. Atlanta: Southern Regional Office.

The College Board. (2002). *Electronic File for the 2002 North Carolina State Data*. Princeton, N. J.

Appendices

North Carolina and the Nation

Table 3. Mean SAT Scores for North Carolina and the United States, 1972-2002

Year	United States (US) ¹			North Carolina (NC) ¹			US-NC Gap ²
	Verbal	Math	Total	Verbal	Math	Total	
2002	504	516	1020	493	505	998	22
2001	506	514	1020	493	499	992	28
2000	505	514	1019	492	496	988	31
1999	505	511	1016	493	493	986	30
1998	505	512	1017	490	492	982	35
1997	505	511	1016	490	488	978	38
1996	505	508	1013	490	486	976	37
1995	504	506	1010	488	482	970	40
1994	499	504	1003	482	482	964	39
1993	500	503	1003	483	481	964	39
1992	500	501	1001	482	479	961	40
1991	499	500	999	478	474	952	47
1990	500	501	1001	478	470	948	53
1989	504	502	1006	474	469	943	63
1988	505	501	1006	478	470	948	58
1987	507	501	1008	477	468	945	63
1986	509	500	1009	477	465	942	67
1985	509	500	1009	476	464	940	69
1984	504	497	1001	473	461	934	67
1983	503	494	997	472	460	932	65
1982	504	493	997	474	460	934	63
1981	502	492	994	469	456	925	69
1980	502	492	994	471	458	929	65
1979	505	493	998	471	455	926	72
1978	507	494	1001	468	453	921	80
1977	507	496	1003	472	454	926	77
1976	509	497	1006	474	452	926	80
1975	512	498	1010	477	457	934	76
1974	521	505	1026	488	466	954	72
1973	523	506	1029	487	468	955	74
1972	530	509	1039	489	467	956	83

¹All Scholastic Assessment Test scores are reported on the recentered score scale (1995); all scores refer to both public and non-public school students.

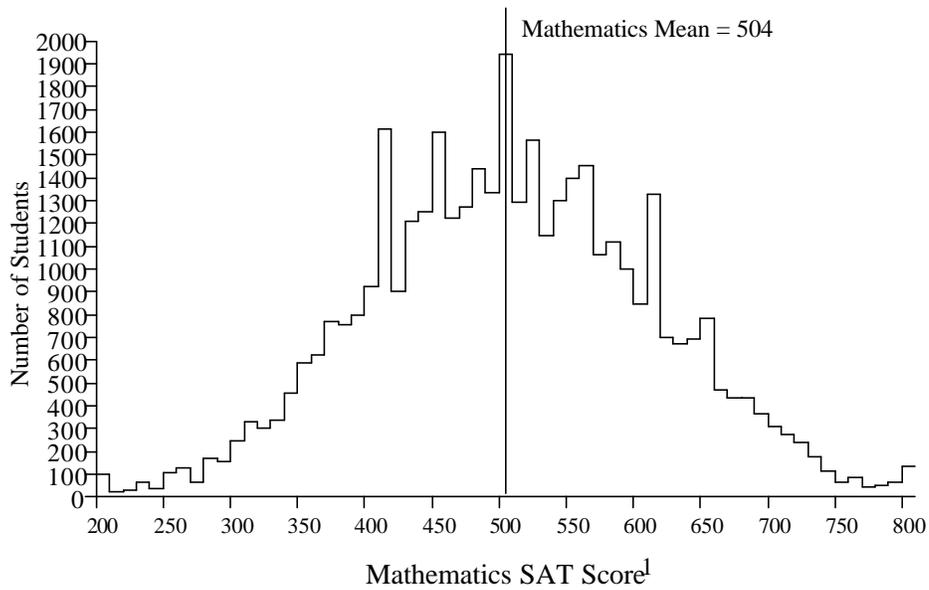
²Gap is the United States mean total SAT score minus North Carolina's mean total SAT score.

Table 4. Frequency Distribution of Verbal and Mathematics SAT Scores for North Carolina's Public School Students, 2002

Verbal (Mean = 491)			Score ¹	Mathematics (Mean = 504)		
Number	Percent	Percentile Rank		Number	Percent	Percentile Rank
100	0.25	99	800	138	0.34	99
25	0.06	99	790	63	0.16	99
38	0.09	99	780	52	0.13	99
70	0.17	99	770	43	0.11	99
90	0.22	99	760	84	0.21	99
68	0.17	99	750	69	0.17	99
108	0.27	99	740	117	0.29	99
153	0.38	99	730	174	0.43	98
109	0.27	98	720	241	0.6	98
213	0.53	98	710	273	0.67	97
247	0.61	97	700	313	0.77	97
272	0.67	97	690	365	0.9	96
296	0.73	96	680	438	1.08	95
368	0.91	95	670	436	1.08	94
388	0.96	94	660	470	1.16	92
459	1.13	93	650	783	1.93	91
661	1.63	92	640	695	1.72	89
478	1.18	90	630	672	1.66	87
962	2.38	89	620	701	1.73	86
623	1.54	87	610	1330	3.28	83
1003	2.48	85	600	847	2.09	81
766	1.89	82	590	1002	2.47	78
1194	2.95	80	580	1122	2.77	76
1112	2.75	77	570	1065	2.63	73
906	2.24	75	560	1452	3.59	70
1422	3.51	72	550	1400	3.46	66
1317	3.25	68	540	1303	3.22	63
1374	3.39	65	530	1151	2.84	60
1449	3.58	62	520	1565	3.87	57
1464	3.62	58	510	1298	3.21	53
1420	3.51	54	500	1946	4.81	49
1621	4	51	490	1334	3.29	45
1572	3.88	47	480	1439	3.55	42
1494	3.69	43	470	1274	3.15	38
1192	2.94	40	460	1228	3.03	35
1603	3.96	36	450	1604	3.96	32
1486	3.67	32	440	1252	3.09	28
1406	3.47	29	430	1209	2.99	25
1356	3.35	25	420	901	2.23	22
1073	2.65	22	410	1612	3.98	19
1172	2.89	20	400	926	2.29	16
1062	2.62	17	390	799	1.97	14
898	2.22	14	380	756	1.87	12
805	1.99	12	370	767	1.89	10
815	2.01	10	360	621	1.53	9
545	1.35	9	350	592	1.46	7
402	0.99	7	340	458	1.13	6
555	1.37	6	330	341	0.84	5
546	1.35	5	320	300	0.74	4
336	0.83	4	310	331	0.82	3
237	0.59	3	300	245	0.61	3
128	0.32	3	290	157	0.39	2
171	0.42	2	280	167	0.41	2
174	0.43	2	270	69	0.17	1
163	0.4	1	260	131	0.32	1
124	0.31	1	250	110	0.27	1
47	0.12	1	240	37	0.09	1
66	0.16	1	230	65	0.16	1
63	0.16	1	220	33	0.08	1
44	0.11	1	210	26	0.06	1
178	0.44	1	200	97	0.24	1
40,489	100.0			40,489	100.6	

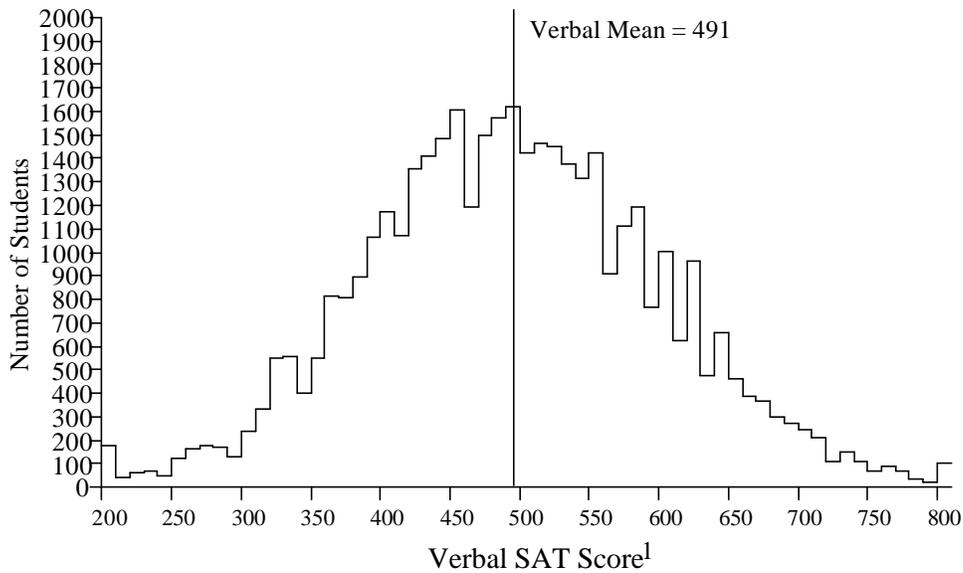
Scholastic Assessment Test scores are reported on the recentered score scale (1995).

Note: Due to rounding, the percentages may not add up to exactly 100.



¹All Scholastic Assessment Test scores are reported on the recentered score scale (1995).

Figure 11. Distribution of Mathematics SAT Scores for North Carolina's Public Schools, 2002.



¹All Scholastic Assessment Test scores are reported on the recentered score scale (1995).

Figure 12. Distribution of Verbal SAT Scores for North Carolina's Public Schools, 2002.

Table 5. Mean Total SAT Score by Student Profile Characteristics, 2001-2002

	United States		North Carolina			Difference from U. S.
	Mean ¹	%	N	Mean ¹	%	
All Students	1020	100	46,180	998	100	-22
Gender						
Male	1041	46	21,039	1014	46	-27
Female	1002	54	25,141	984	54	-18
Race/Ethnicity						
American Indian	962	1	518	914	1	-48
Asian American	1069	10	1,286	1025	3	-44
Black	857	11	8,488	839	21	-18
Hispanic	911	10	799	961	2	50
White	1060	65	28,200	1046	70	-14
Other	1016	4	786	1004	2	-12
Parent Education Level						
No high school diploma	850	5	858	843	2	-7
High school diploma	945	32	13,302	926	35	-19
Associate's degree	978	9	4,614	951	12	-27
Bachelor's degree	1056	28	11,521	1031	30	-25
Graduate degree	1126	26	7,944	1109	21	-17
Family Income (in U.S. dollars)						
Less than 10,000	859	4	1,191	826	4	-33
10,000 - 20,000	888	8	2,593	870	8	-18
20,000 - 30,000	931	10	3,438	919	11	-12
30,000 - 40,000	965	11	4,136	944	13	-21
40,000 - 50,000	997	10	3,409	981	11	-16
50,000 - 60,000	1014	10	3,483	991	11	-23
60,000 - 70,000	1027	9	2,875	1013	9	-14
70,000 - 80,000	1041	8	2,561	1024	8	-17
80,000 - 100,000	1068	11	3,324	1055	11	-13
More than 100,000	1123	19	4,566	1108	14	-15
Total Credits in Six Academic Subjects						
20 or more	1096	52	15,106	1076	46	-20
19 to 19.5	1003	11	3,753	990	11	-13
18 to 18.5	973	10	3,576	964	11	-9
17 to 17.5	948	8	3,085	938	9	-10
16 to 16.5	935	6	2,297	922	7	-13
15 to 15.5	946	5	1,737	914	5	-32
Fewer than 15	890	8	3,602	913	11	23
High School Grade Point Average						
A+ (97-100)	1233	7	3,934	1199	10	-34
A (93-96)	1167	17	7,626	1106	19	-61
A- (90-92)	1091	17	6,320	1046	16	-45
B (80-89)	965	47	17,293	936	43	-29
C (70-79)	848	11	4,458	826	11	-22
D or below (<70)	813	0	141	798	0	-15
High School Class Rank						
Top Tenth	1192	26	7,552	1182	24	-10
Second Tenth	1061	23	6,904	1048	22	-13
Second Fifth	980	25	8,276	961	26	-19
Third Fifth	897	22	7,610	874	24	-23
Fourth Fifth	835	4	1,437	803	4	-32
Fifth Fifth	809	1	290	776	1	-33

¹All Scholastic Assessment Test scores are reported on the recentered score scale (1995); scores include both public and non-public school students.

Note: Due to rounding numbers might not sum to 100%

Table 6. United States and North Carolina Mean Total SAT Scores by Student Profile Characteristics, 1998-2002

	1998 ¹			1999 ¹			2000 ¹			2001 ¹			2002 ¹		
	US	NC	Diff.												
All Students	1017	981	-36	1016	986	-30	1019	988	-31	1020	992	-28	1020	998	-22
Gender															
Male	1040	1002	-38	1040	1006	-34	1040	1005	-35	1042	1012	-30	1041	1014	-27
Female	998	967	-31	997	969	-28	1002	976	-26	1000	976	-24	1002	984	-18
Race/Ethnicity															
American Indian	963	906	-57	965	900	-65	963	897	-66	960	891	-69	962	914	-48
Asian American	1060	1014	-46	1058	1026	-32	1064	1024	-40	1067	1031	-36	1069	1025	-44
Black	860	839	-21	856	837	-19	860	835	-25	859	835	-24	857	839	-18
Hispanic	916	984	68	915	966	51	918	970	52	914	975	61	911	961	50
White	1054	1026	-28	1055	1031	-24	1058	1035	-23	1060	1041	-19	1060	1046	-14
Other	1025	998	-27	1024	1005	-19	1023	1016	-7	1015	1009	-6	1016	1004	-12
Parent Education Level															
No high school diploma	852	841	-11	850	843	-7	855	850	-5	849	837	-12	850	843	-7
High school diploma	950	922	-28	950	924	-26	949	923	-26	948	924	-24	945	926	-19
Associate's degree	980	948	-32	979	944	-35	979	948	-31	980	950	-30	978	951	-27
Bachelor's degree	1057	1016	-41	1056	1021	-35	1058	1024	-34	1058	1027	-31	1056	1031	-25
Graduate degree	1119	1095	-24	1121	1094	-27	1124	1102	-22	1126	1106	-20	1126	1109	-17
Family Income (in U.S. dollars)															
Less than 10,000	873	836	-37	871	830	-41	872	826	-46	864	817	-47	859	826	-33
10,000-20,000	914	885	-29	907	883	-24	907	882	-25	898	869	-29	888	870	-18
20,000-30,000	959	929	-30	954	925	-29	949	924	-25	942	922	-20	931	919	-12
30,000-40,000	992	961	-31	986	963	-23	983	960	-23	976	953	-23	965	944	-21
40,000-50,000	1015	983	-32	1011	985	-26	1008	982	-26	1004	984	-20	997	981	-16
50,000-60,000	1032	1000	-32	1030	1002	-28	1026	995	-31	1021	991	-30	1014	991	-23
60,000-70,000	1046	1018	-28	1043	1014	-29	1039	1015	-24	1035	1012	-23	1027	1013	-14
More than 70,000															
70,000-80,000	1059	1027	-32	1058	1028	-30	1054	1032	-22	1049	1026	-23	1041	1024	-17
80,000-100,000	1085	1060	-25	1082	1054	-28	1079	1056	-23	1074	1056	-18	1068	1055	-13
More than 100,000	1131	1100	-31	1130	1102	-28	1129	1097	-32	1126	1101	-25	1123	1108	-15
Total Credits in Six Subjects															
20 or more	1096	1057	-39	1096	1061	-35	1095	1063	-32	*	*	*	1096	1076	-20
19 or 19.5	1016	993	-23	1012	987	-25	1011	988	-23	*	*	*	1003	990	-13
18 or 18.5	982	957	-25	980	956	-24	984	958	-26	*	*	*	973	964	-9
17 or 17.5	948	923	-25	947	927	-20	957	932	-25	*	*	*	948	938	-10
16 or 16.5	926	898	-28	927	896	-31	944	920	-24	*	*	*	935	922	-13
15 or 15.5	913	887	-26	918	896	-22	936	910	-26	*	*	*	946	914	-32
Fewer than 15	890	888	-2	885	886	1	898	894	-4	*	*	*	890	913	23
High School Grade Point Average															
A+ (97-100)	1242	1191	-51	1240	1191	-49	1238	1195	-43	1235	1191	-44	1233	1199	-34
A (93-96)	1151	1091	-60	1149	1091	-58	1149	1090	-59	1147	1096	-51	1167	1106	-61
A- (90-92)	1096	1031	-65	1092	1030	-62	1093	1033	-60	1092	1038	-54	1091	1046	-45
B (80-89)	970	929	-41	968	928	-40	968	931	-37	968	933	-35	965	936	-29
C (70-79)	858	830	-28	855	827	-28	854	821	-33	853	827	-26	848	826	-22
D or below (<70)	819	768	-51	818	785	-33	811	763	-48	807	777	-30	813	798	-15
High School Class Rank															
Top Tenth	1197	1170	-27	1197	1172	-25	1197	1175	-22	1195	1175	-20	1192	1182	-10
Second Tenth	1073	1038	-35	1071	1044	-27	1071	1046	-25	1066	1048	-18	1061	1048	-13
Second Fifth	994	958	-36	993	961	-32	993	963	-30	987	964	-23	980	961	-19
Third Fifth	907	874	-33	907	877	-30	908	877	-31	906	875	-31	897	874	-23
Fourth Fifth	848	813	-35	846	811	-35	844	817	-27	840	811	-29	835	803	-32
Fifth Fifth	811	774	-37	812	769	-43	809	756	-53	808	769	-39	809	776	-33

¹All Scholastic Assessment Test scores are reported on the recentered score scale (1995); scores include both public and non-public school students.
Note: Due to rounding, numbers might not sum to 100%.

Performance of the 117 Public School Systems, Charter Schools, North Carolina
School of the Arts, North Carolina School of Science and Mathematics, and the
Greensboro Math and Science Center

Table 8. Distribution of North Carolina's Public School Systems by Mean Total SAT Scores, 2002

	Score ¹	School System
	1200	Woods Charter**, Raleigh Charter**
	...	
	1180	Chapel Hill-Carrboro City
	1070	Buncombe, Wake, Watauga
	1060	Asheville City
	1050	Henderson, Moore, Newton Conover City
	1040	Clay, Elkin City, Hickory City, Polk
	1030	Cumtuck, Dare, New Hanover, Shelby City, Swain, Transylvania
2002 United States (1020)	1020	Asheboro City, Cabarrus, Caldwell, Haywood, Iredell-Statesville, Madison, Union
2002 North Carolina (998)	1010	Burke, Carteret, Edenton/Chowan, Johnston, Mount Airy City, Orange, Pamlico, Surry, Wilkes, Winston-Salem/Forsyth
	1000	Alexander, Alleghany, Catawba, Charlotte/Mecklenburg, Cherokee, Davidson, Davie, Durham, Guilford, Jackson, Macon, McDowell, Mitchell, Mooresville City, Yancey
	990	Craven, Hamett, Kannapolis City, Pitt, Stanly
	980	Graham, Granville, Kings Mountain City, Lincoln, Onslow, Randolph, Rowan-Salisbury, Yadkin
	970	Avery, Beaufort, Gaston, Lee, Nash-Rocky Mount, Roanoke Rapids City
	960	Alamance-Burlington, Ashe, Brunswick, Chatham, Cleveland, Cumberland, Montgomery, Rockingham, Wayne, Whiteville City, Wilson
	950	Franklin, Lenoir, Pender, Scotland, Stokes
	940	Duplin, New Century School**, River Mill Academy**, Rutherford
	930	Lexington City, Martin, Person
	920	Caswell, Elizabeth City/Pasquotank, Perquimans, Sampson
	910	Camden, Edgecombe, Richmond
	900	Clinton City, Greene, Hyde
	890	Columbus, Gates, Thomasville City, Tyrrell
	880	Jones, Robeson, Vance
	...	
	860	Bladen, Hoke, Warren, Washington
	850	Anson
	...	
	810	Hertford
	800	Halifax, Northampton
	790	Bertie
	...	
	700	Weldon City

¹All Scholastic Assessment Test scores are reported on the recentered score scale (1995).

**Denotes a charter school.

Notes: Data were not reported for Cape Lookout Marine, Laurinburg Charter, and Thomas Jefferson because the number tested was less than five. Data were not reported for Cape Lookout Marine, Laurinburg Charter, and Thomas Jefferson because the number tested was less than five.

Performance of the Fifty States

Table 9. Mean Verbal, Mathematics, and Total SAT Scores by State, 2002

State	Percent Tested ¹	Mean		
		Verbal ²	Mathematics ²	Total
Alabama	9	560	559	1119
Alaska	52	516	519	1035
Arizona	36	520	523	1043
Arkansas	5	560	556	1116
California	52	496	517	1013
Colorado	28	543	548	1091
Connecticut	83	509	509	1018
Delaware	69	502	500	1002
District of Columbia ³	76	480	473	953
Florida	57	496	499	995
Georgia	65	489	491	980
Hawaii	53	488	520	1008
Idaho	18	539	541	1080
Illinois	11	578	596	1174
Indiana	62	498	503	1001
Iowa	5	591	602	1193
Kansas	9	578	580	1158
Kentucky	12	550	552	1102
Louisiana	8	561	559	1120
Maine	69	503	502	1005
Maryland	67	507	513	1020
Massachusetts	81	512	516	1028
Michigan	11	558	572	1130
Minnesota	10	581	591	1172
Mississippi	4	559	547	1106
Missouri	8	574	580	1154
Montana	23	541	547	1088
Nebraska	8	561	570	1131
Nevada	34	509	518	1027
New Hampshire	73	519	519	1038
New Jersey	82	498	513	1011
New Mexico	14	551	543	1094
New York	79	494	506	1000
North Carolina	67	493	505	998
North Dakota	4	597	610	1207
Ohio	27	533	540	1073
Oklahoma	8	565	562	1127
Oregon	56	524	528	1052
Pennsylvania	72	498	500	998
Rhode Island	73	504	503	1007
South Carolina	59	488	493	981
South Dakota	5	576	586	1162
Tennessee	14	562	555	1117
Texas	55	491	500	991
Utah	6	563	559	1122
Vermont	69	512	510	1022
Virginia	68	510	506	1016
Washington	54	525	529	1054
West Virginia	18	525	515	1040
Wisconsin	7	583	599	1182
Wyoming	11	531	537	1068
United States	46	504	516	1020

¹Percent tested is from The College Board reports. The College Board based percent tested on the projection of high school graduates in 2002 by the Western Interstate Commission on Higher Education, and number of students in the Class of 2002 who took the SAT I: Reasoning Test. Updated projections make it inappropriate to compare percentages for this year with those of previous years.

²Scholastic Assessment Test scores are reported on the recentered score scale (1995).

³Twelfth grade enrollment from QED® was used to calculate the participation rate to control for D.C.'s smaller size and greater variability.

Table 10. Change in Mean Total SAT Score by State, 1990-2002

State	Percent Tested¹ 2002	Mean Total SAT Score² 1990	Mean Total SAT Score² 2002	Change from 1990 to 2002
Alabama	9	1079	1119	40
Alaska	52	1015	1035	20
Arizona	36	1041	1043	2
Arkansas	5	1077	1116	39
California	52	1002	1013	11
Colorado	28	1067	1091	24
Connecticut	83	1002	1018	16
Delaware	69	1006	1002	-4
District of Columbia ³	76	950	953	3
Florida	57	988	995	7
Georgia	65	951	980	29
Hawaii	53	985	1008	23
Idaho	18	1066	1080	14
Illinois	11	1089	1174	85
Indiana	62	972	1001	29
Iowa	5	1172	1193	21
Kansas	9	1129	1158	29
Kentucky	12	1089	1102	13
Louisiana	8	1088	1120	32
Maine	69	991	1005	14
Maryland	67	1008	1020	12
Massachusetts	81	1001	1028	27
Michigan	11	1063	1130	67
Minnesota	10	1110	1172	62
Mississippi	4	1090	1106	16
Missouri	8	1089	1154	65
Montana	23	1082	1088	6
Nebraska	8	1121	1131	10
Nevada	34	1022	1023	1
New Hampshire	73	1028	1038	10
New Jersey	82	993	1011	18
New Mexico	14	1100	1094	-6
New York	79	985	1000	15
North Carolina	67	948	998	50
North Dakota	4	1157	1207	50
Ohio	27	1048	1073	25
Oklahoma	8	1095	1127	32
Oregon	56	1024	1052	28
Pennsylvania	72	987	998	11
Rhode Island	73	986	1007	21
South Carolina	59	942	981	39
South Dakota	5	1150	1162	12
Tennessee	14	1102	1117	15
Texas	55	979	991	12
Utah	6	1121	1122	1
Vermont	69	1000	1022	22
Virginia	68	997	1016	19
Washington	54	1024	1054	30
West Virginia	18	1034	1040	6
Wisconsin	7	1111	1182	71
Wyoming	11	1072	1068	-4
United States	45	1001	1020	19

¹Percent tested is from The College Board reports. The College Board based percent tested on the projection of high school graduates in 2002 by the Western Interstate Commission on Higher Education, and the number of students in the Class of 2002 who took the SAT I: Reasoning Test. Updated projections make it inappropriate to compare percentages for this year with those of previous years.

²Scholastic Assessment Test scores are reported on the recentered score scale (1995); all scores include both public and private school students.

³Twelfth grade enrollment from QED[®] was used to calculate the participation rate to control for D.C.'s smaller size and greater variability.