

# MEASURING UP



WAKE COUNTY  
PUBLIC SCHOOL SYSTEM

EVALUATION AND RESEARCH DEPARTMENT

## ANALYSIS OF 2008-09 WCPSS SAT SCORES

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1. In 2008-09, students in Wake County Public Schools (WCPSS) posted average SAT scores of 548 in mathematics, 526 in critical reading, and 511 in writing. The combined score for mathematics and critical reading was 1074, with a total average score of 1585. The combined mathematics and critical reading score was 15 points higher than the combined score for 2007-08. The average combined mathematics and critical reading score for seniors in North Carolina was down one point from 2007-08 at 1006. On average, across the nation, the score also slipped one point from 1017 to 1016.
2. Since 1990, the average SAT combined score (mathematics and verbal/critical reading) for WCPSS students has moved from 999 to 1074. The average score for North Carolina has moved from 948 to 1006, while the national average score has gone from 1001 to 1016. Thus, WCPSS students have added 75 points to their combined score over the period, while state students have added 58 points and nationally, students have added 15 points.
3. In 1990, WCPSS trailed the national average by 2 points. By 2009, WCPSS exceeded the national average by 58 points. Similarly, in 1990, WCPSS exceeded the state average by 51 points. In 2009, the difference was 68 points.
4. Since 1990 students across the nation, the state, and the district have improved scores on the mathematics portion of the test faster than they have the verbal/critical reading portion. While the nation added 14 points to the mathematics score and only 1 point to the critical reading score, the state added 41 points to their mathematics score and only 17 points to the critical reading average. Students in WCPSS added 50 points to the mathematics score and 25 points to the reading score average.
5. In March 2006, the Educational Testing Service re-introduced the writing portion of the SAT. WCPSS students scored on average 12 points over the nation and 24 points over the state average on this test in 2007-08. In 2008-09, these numbers increased so that WCPSS students on average scored 18 points more than the national average and 31 points more than the state average.

6. For the first time in 2008-09, participation rates in WCPSS were below 70%. Indeed, the rate fell by 9 percentage points as compared with the year before. At the state level, participation was steady at 63%, the same as in 2007-08. Nationally, there was a one percentage point increase in participation from 45% in 2007-08 to 46% in 2008-09. All of the data described above may be found in Table 1, Figure 2, and Figure 3 below.
7. Table 2 shows the top 12 average scores for North Carolina school districts. The score shown is the total score (mathematics plus critical reading plus writing). The number of test-takers included in the calculation is also shown. From this table, it may be seen that WCPSS students had the 4<sup>th</sup> highest average score in the state and the largest number of test-takers by far.
8. Compared with other large school districts in the state, WCPSS had both higher average scores and higher participation rates. As may be seen in Table 3, all districts in the cohort experienced lower participation rates in 2008-09 than in the prior year and half of the cohort (Durham, Guilford, and Forsyth) had lower average scores in 2008-09 than in the prior year. Students in Charlotte-Mecklenburg and Cumberland school districts posted 1 and 3 point gains, respectively.
9. A comparison of the average performance of male and female students in the district shows that, when considering the mathematics and critical reading portions combined, female students continue to lag male students. However, between 2007-08 and 2008-09, female students improved their score on average by 20 points, whereas male students posted an 8 point gain. Over the long term, female test-takers have gained, on average, 29 points while male students have gained 12. See Figure 4 for more detailed information.
10. Figure 5 shows the disaggregation of SAT scores by race/ethnicity over time. In all three categories—White, Black/African American, and Hispanic/Latino—WCPSS students continue to outperform their state and national counterparts. Moreover, the improvement rate for WCPSS students is much faster than for their comparison groups. For example, while WCPSS Black/African American students improved by 21 points between 2004 and 2009, there was only an 8 point improvement for state Black/African American students over the same period and, nationally, there was actually a decline of 2 points. White students in WCPSS, the state and the nation showed a more positive, but similar, pattern. WCPSS Hispanic/Latino students showed a large gain (38 points) from 2004 to 2009, while the average score for state and national Hispanic/Latino students actually lost 1 and 2 points, respectively.

In summary, WCPSS students posted a very large gain on the SAT during 2008-09 as compared with prior performance, posting the largest average gain since 1992. Compared with the nation and the state, as well as with other large districts in the state, WCPSS has seen remarkable improvements for all ethnic/racial groups and for female test-takers. The one troublesome note remains the dropping participation rate, which mirrors the drop in other large districts in the state. While this drop may be, at least in part, a reflection of the local, state, and national economy, it should be monitored closely by principals, teachers, and counselors in our schools.

Note: There are fifty scores that DPI has included in Wake's SAT average from a now defunct high school, East Wake High, which result in slight variations in the WCPSS calculated score averages. Our report uses the data from College Board.

# WCPSS SAT Results 2009

Figure 1: SAT Scores for WCPSS, NC, and USA, 2009

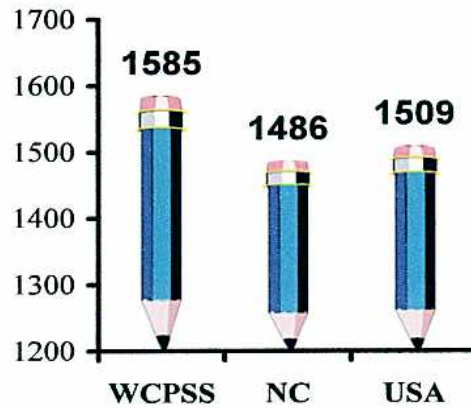


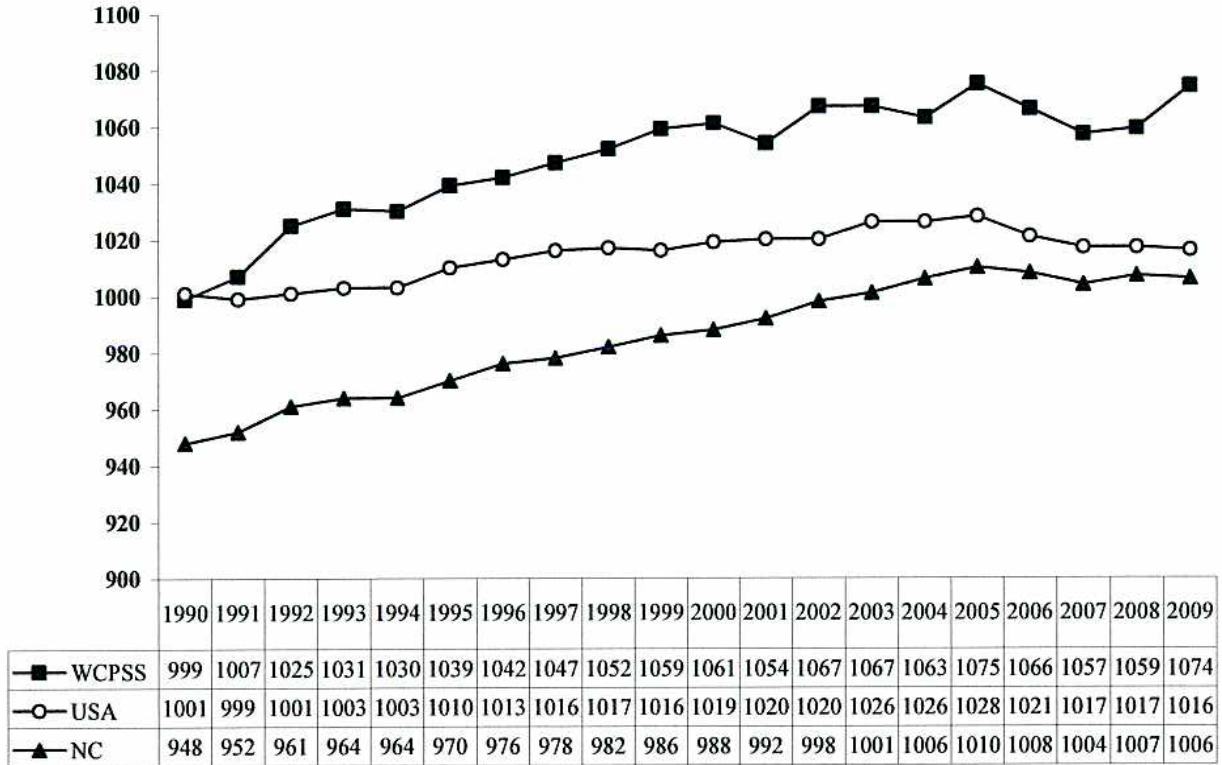
Table 1: WCPSS, NC, and USA SAT Scores, 1990-2009

Year	WCPSS				NC				USA			
	Total	Math	Verbal	Rate	Total	Math	Verbal	Rate	Total	Math	Verbal	Rate
1990	999	498	501	73	948	470	478	55	1001	501	500	40
1991	1007	508	499	75	952	474	478	57	999	500	499	42
1992	1025	516	509	74	961	479	482	57	1001	501	500	42
1993	1031	521	510	76	964	481	483	60	1003	503	500	43
1994	1030	520	510	75	964	482	482	60	1003	504	499	42
1995	1039	524	515	76	970	482	488	60	1010	506	504	41
1996	1042	525	517	73	976	486	490	59	1013	508	505	41
1997	1047	529	518	74	978	488	490	59	1016	511	505	42
1998	1052	531	521	76	982	492	490	62	1017	512	505	43
1999	1059	537	522	76	986	493	493	61	1016	511	505	43
2000	1061	539	522	79	988	496	492	64	1019	514	505	44
2001	1054	534	520	79	992	499	493	65	1020	514	506	45
2002	1067	543	524	79	998	505	493	67	1020	516	504	46
2003	1067	543	524	80	1001	506	495	68	1026	519	507	48
2004	1063	539	524	77	1006	507	499	70	1026	518	508	48
2005	1075	548	527	75	1010	511	499	74	1028	520	508	49
2006	1066	544	522*	77	1008	513	495*	71	1021	518	503*	48
2007	1057	538	519*	79	1004	509	495*	71	1017	515	502*	48
2008	1059	541	518*	73	1007	511	496*	63	1017	515	502*	45
2009	1074	548	526*	64	1006	511	495*	63	1016	515	501*	46

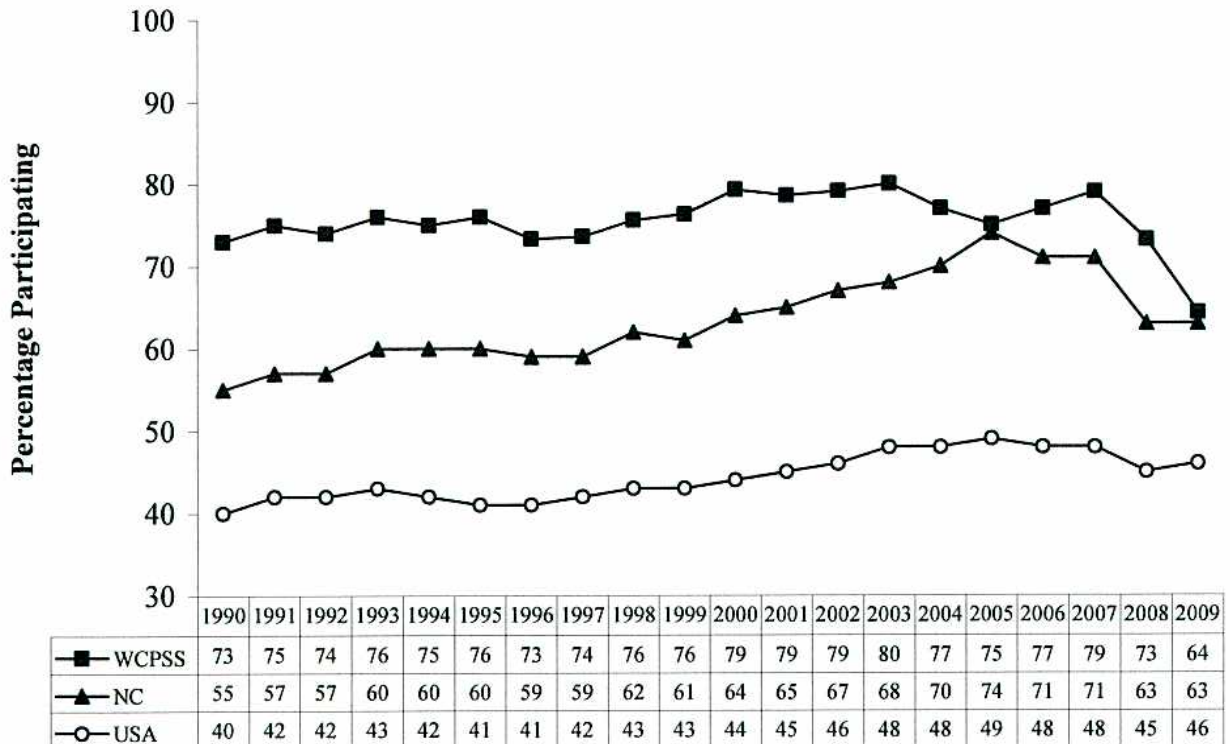
\*The Verbal test became the Critical Reading (CR) test in March 2005, resulting in test content changes.

Note: The participation rate is the percentage of graduating students who took the SAT I.

**Figure 2: SAT Scores, 1990-2009**



**Figure 3: SAT Participation Rates, 1990-2009**



**Table 2: Top 12 NC District SAT Averages, 2009**

LEA	2009 M+CR+W*	Number of Test-Takers
Chapel Hill-Carrboro	1751	678
Watauga	1630	200
Elkin City	1591	53
<b>Wake</b>	<b>1585</b>	<b>5288</b>
Hickory City	1585	166
Asheville City	1556	178
Buncombe	1551	816
Carteret	1548	287
Transylvania	1546	114
Henderson	1544	407
Moore	1532	368
Davie	1531	178

\*Math+Critical Reading+Writing

**Table 3: Comparison of Wake SAT Scores to Similar Large North Carolina Districts**

LEA	2008				2009			
	Total	Math	Critical Reading	Part. Rate	Total	Math	Critical Reading	Part. Rate
<b>Wake</b>	<b>1059</b>	<b>541</b>	<b>518</b>	<b>73.2</b>	<b>1074</b>	<b>548</b>	<b>526</b>	<b>64.3</b>
Durham	967	484	483	68.4	965	489	476	63.2
Charlotte-Mecklenburg	1006	510	496	68.4	1007	510	497	60.6
Guilford	991	503	488	65.0	988	500	488	58.6
Forsyth	1009	510	499	64.5	1002	505	497	57.9
Cumberland	946	477	469	53.2	949	479	470	51.3

Notes: When the actual number of graduates was not known, participation rates reported by NCDPI are used. 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 graduating class for the district and for each high school.

Figure 4: WCPSS SAT Totals by Gender, 1998-2009

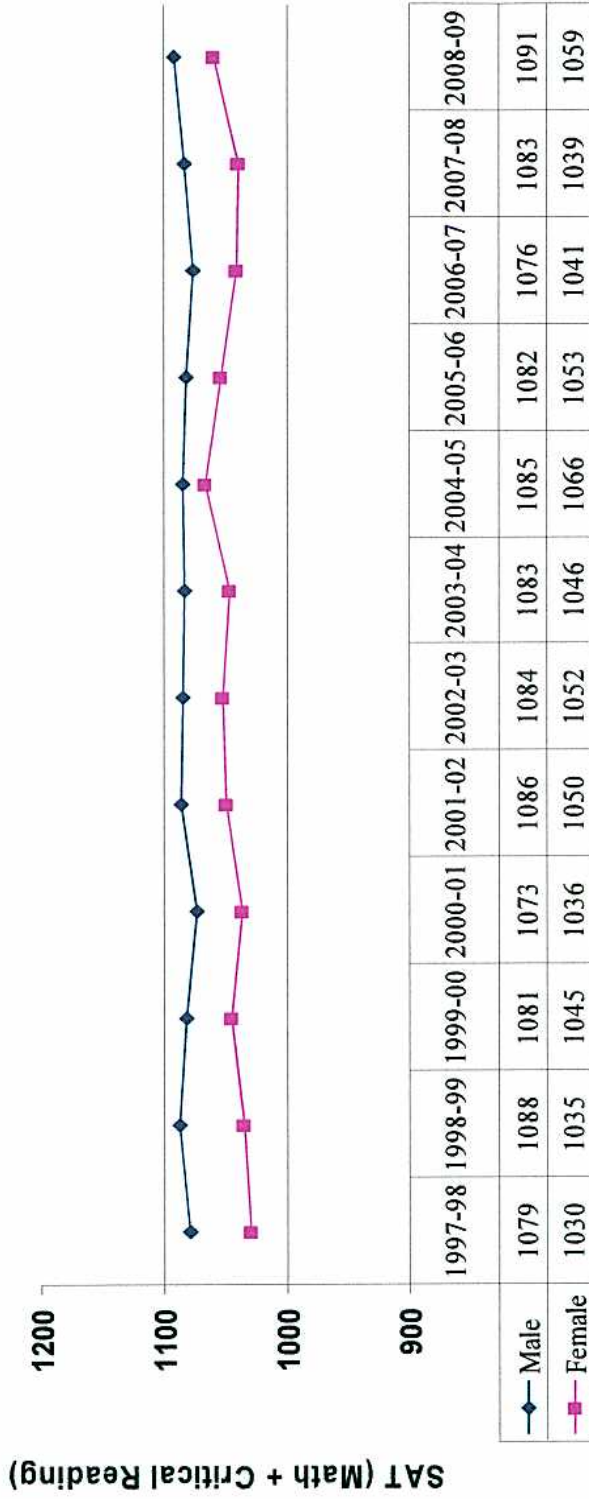


Figure 5: WCPSS SAT by Ethnicity, 1996-2009

