

E&R Report No. 06.08

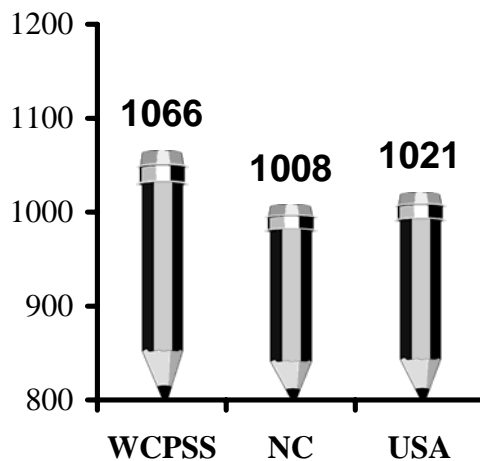
September 2006

### SAT SCORES: 2005-06

1. In 2005-2006, students in Wake County Public Schools (WCPSS) posted average SAT scores of 544 in mathematics, 522 in verbal, and 510 in writing. The combined score for verbal and mathematics was 1066, while the total score was 1576. The combined verbal and mathematics score was 9 points lower than the combined score for 2004-2005. Declines in average verbal/mathematics scores were also noted for North Carolina and for the nation as a whole. However, the 1066 score for WCPSS students continues a trend of improving scores observed over the last 17 years.
2. Over the 17-year period, the average SAT combined score (verbal and mathematics) for WCPSS students has moved from 999 to 1066. The average score for North Carolina has gone from 948 to 1008, while the average for the U.S. has gone from 1001 to 1021. Thus, students in Wake have added 67 points to their average score as compared with 60 and 20 points for the state and nation, respectively.
3. In 1990, WCPSS trailed the national average by 2 points. By 2006, WCPSS exceeded the national average by 45 points. Similarly, in 1990, WCPSS exceeded the state average by 51 points. In 2006, that lead had increased to 58 points.
4. For all three groups, the average mathematics score has improved faster than has the verbal score: WCPSS added 46 points in mathematics and 21 in verbal while NC has added 43 points in mathematics and 17 points in verbal. For the nation, the change has been 17 for mathematics and 3 for verbal.
5. The participation rate for WCPSS students has always exceeded rates for the state and the nation. However, the state has experienced a 16 percentage point change on this dimension, moving from 55% to 71%. The state is now within 6 percentage points of the WCPSS rate, which has risen from 73% in 1990 to 77% in 2006. Nationally, there have never been more than 49% of students participating in the SAT during the 17 year period under consideration.
6. All individual high schools in Wake County except three had combined score averages greater than the averages for the state. The range of averages within the district was 955 to 1173.

7. This year, the Educational Testing Service re-introduced the writing test. WCPSS students on average scored 13 points over the national average and 25 points over the state average on this test. Table 5 displays the scores for the math and verbal tests, as well as the combined score. Then, the writing scores for individual schools are provided along with the grand total average score, which combines the average verbal, mathematics, and writing scores.
8. In summary, it may be observed that students in WCPSS did not achieve the same average mathematics and verbal combined score on the SAT in 2005-2006 as was true the prior year. This was also true for the U.S. as a whole and for North Carolina. However, year-to-year comparison is not a useful method for gauging success, especially when longer-term trend data are available. Over the long term, WCPSS students have made steady progress in improving SAT scores. The increased participation rate in 2005-2006 is noteworthy as is the average writing score in WCPSS, which exceeded averages for the state and the nation.

**Figure 1: 2006 SAT Scores for WCPSS, NC, and USA**

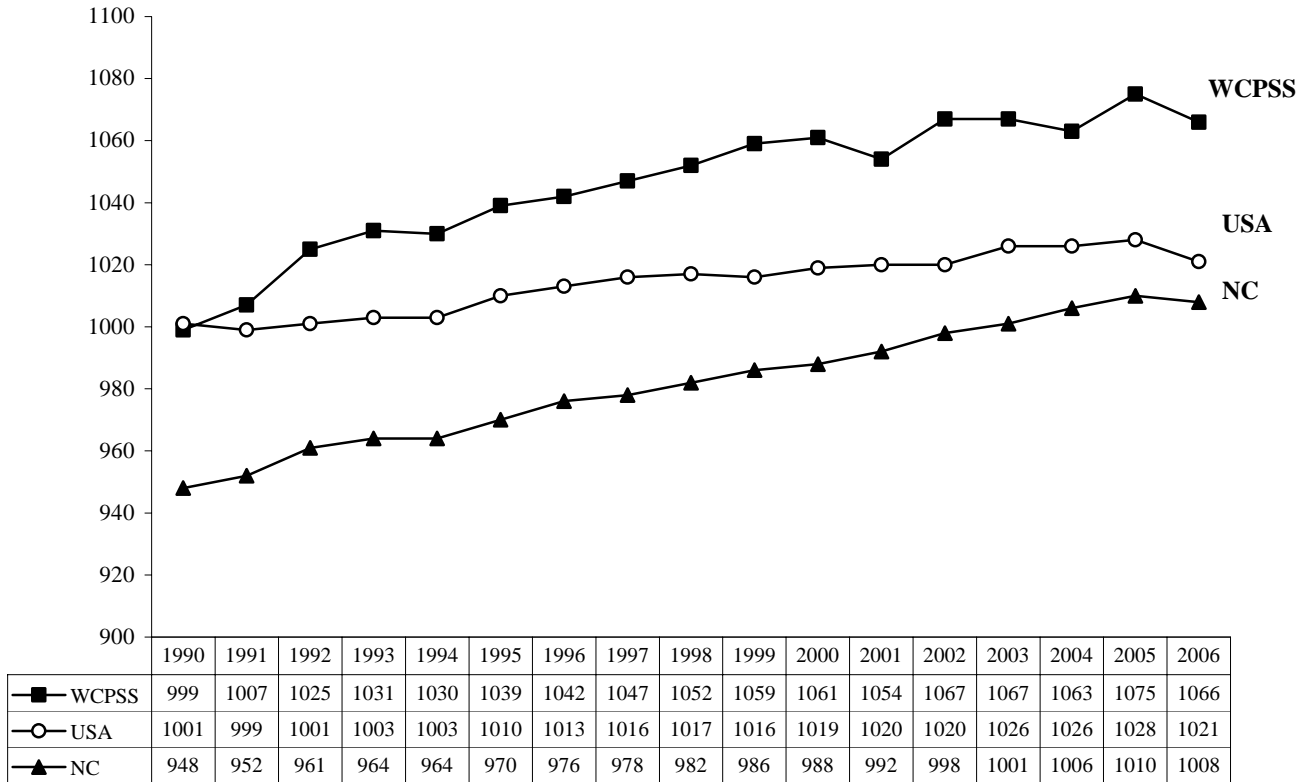


**Table 1: WCPSS, NC, and USA Scores Over Time**

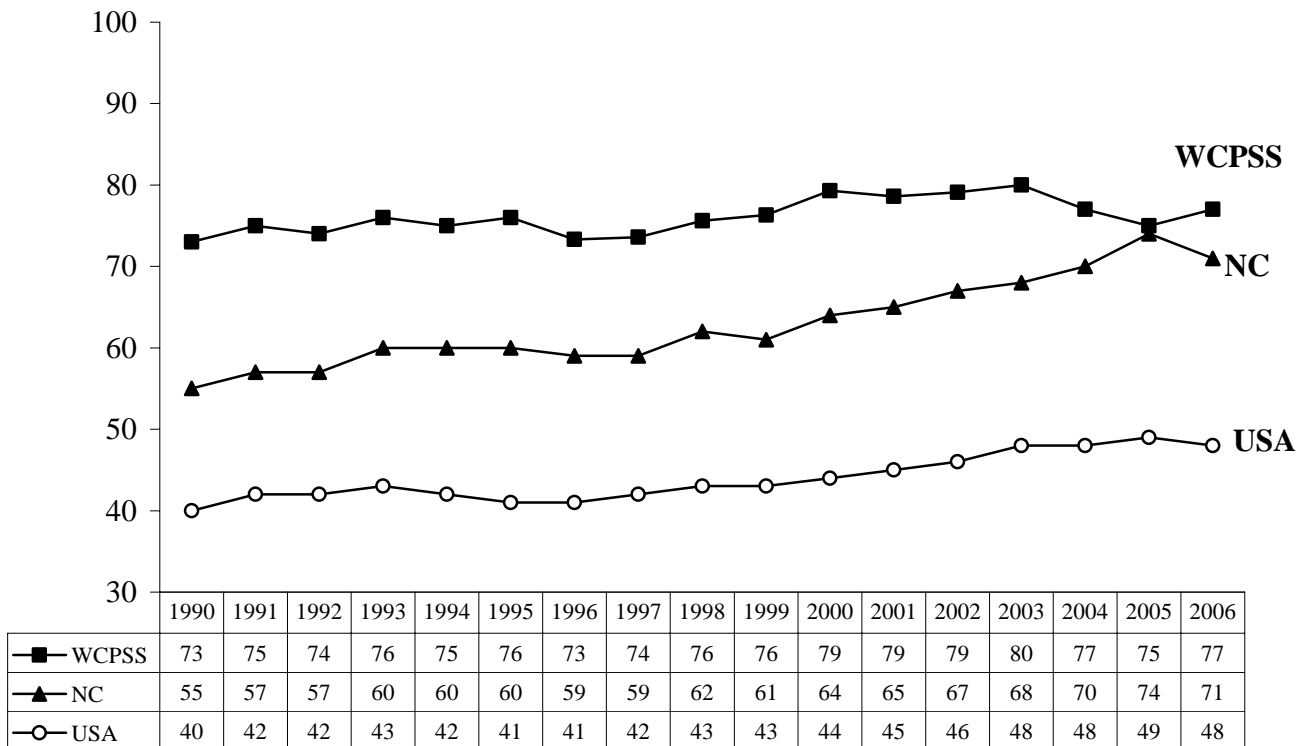
| Year        | WCPSS |      |        |      | NC    |      |        |      | USA   |      |        |      |
|-------------|-------|------|--------|------|-------|------|--------|------|-------|------|--------|------|
|             | Total | Math | Verbal | Rate | Total | Math | Verbal | Rate | Total | 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> | 1067  | 543  | 524    | 80   | 1001  | 506  | 495    | 68   | 1026  | 519  | 507    | 48   |
| <b>2004</b> | 1063  | 539  | 524    | 77   | 1006  | 507  | 499    | 70   | 1026  | 518  | 508    | 48   |
| <b>2005</b> | 1075  | 548  | 527    | 75   | 1010  | 511  | 499    | 74   | 1028  | 520  | 508    | 49   |
| <b>2006</b> | 1066  | 544  | 522    | 77   | 1008  | 513  | 495    | 71   | 1021  | 518  | 503    | 48   |

The participation rate is the percentage of graduating seniors who took the SAT I. See note below Table 3.

**Figure 2: SAT Scores 1990-2006**



**Figure 3: SAT Participation Rates 1990-2006**



**Table 2: Top NC District Scores**

| <b>System</b>             | <b>2006<br/>M+V</b> | <b>Number of Test-<br/>Takers in 2006</b> |
|---------------------------|---------------------|---|
| Chapel Hill-Carrboro City | 1189                | 719                                       |
| Asheville City            | 1124                | 135                                       |
| Watauga County            | 1100                | 218                                       |
| Transylvania County       | 1092                | 122                                       |
| <b>Wake County</b>        | 1066                | 5,237                                     |
| Orange County             | 1053                | 243                                       |
| Buncombe County           | 1052                | 848                                       |

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

| <b>LEA</b>            | <b>2005</b> |      |        |               | <b>2006</b> |      |        |               |
|-----------------------|-------------|------|--------|---------------|-------------|------|--------|---------------|
|                       | Total       | Math | Verbal | Part.<br>Rate | Total       | Math | Verbal | Part.<br>Rate |
| <b>Wake</b>           | 1075        | 548  | 527    | 75.2          | 1066        | 544  | 522    | 77.0          |
| Charlotte-Mecklenburg | 1008        | 507  | 501    | 68.5          | 995         | 504  | 491    | 68.7          |
| Cumberland            | 955         | 480  | 475    | 57.4          | 959         | 484  | 475    | 54.0          |
| Durham                | 1005        | 506  | 499    | 74.8          | 987         | 500  | 487    | 70.5          |
| Guilford              | 994         | 502  | 492    | 70.0          | 994         | 504  | 490    | 70.3          |
| Winston-Salem/Forsyth | 1015        | 512  | 503    | 66.7          | 1016        | 516  | 500    | 66.2          |

\*When the actual number of graduates was not known, participation rates reported by NCDPI are used.

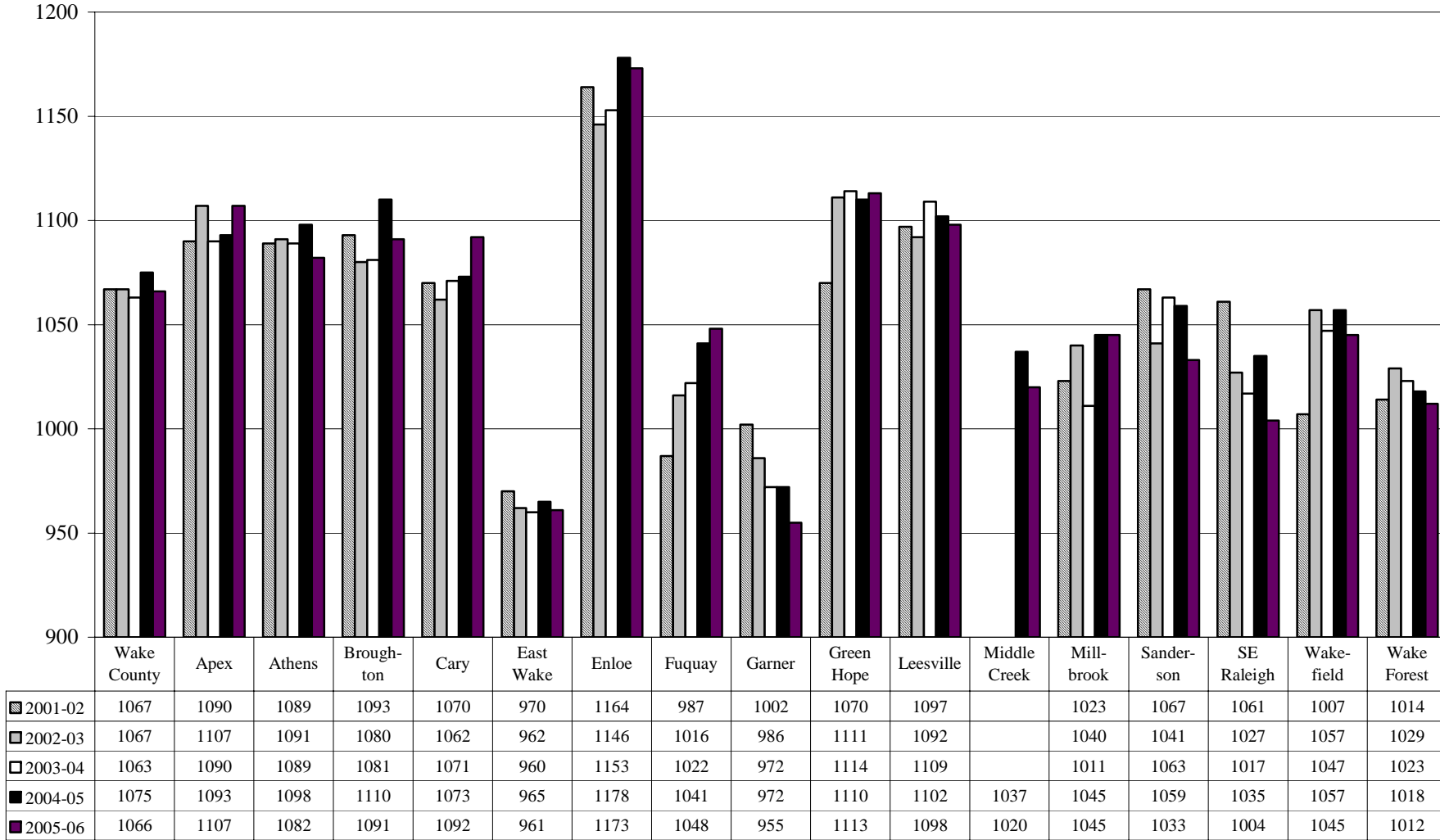
Note: SAT participation rates reported by the College Board are based upon estimates of counts of graduating seniors compiled through national surveys. While the College Board rates are probably accurate at the state and national level, they are not accurate at the district and individual school level. 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 graduating class for the district and for each high school.

**Table 4: Wake County Public School System  
Average SAT Scores and Participation Rates for Three Years for High Schools**

|                     | 2003-04 |      |        |       | 2004-05 |      |        |       | 2005-06 |      |        |       |
|---------------------|---------|------|--------|-------|---------|------|--------|-------|---------|------|--------|-------|
|                     | Part.   | Math | Verbal | Total | Part.   | Math | Verbal | Total | Part.   | Math | Verbal | Total |
| <b>USA</b>          | 48%     | 518  | 508    | 1026  | 49%     | 520  | 508    | 1028  | 48%     | 518  | 503    | 1021  |
| <b>NC</b>           | 70%     | 507  | 499    | 1006  | 74%     | 511  | 499    | 1010  | 71%     | 513  | 495    | 1008  |
| <b>Wake County</b>  | 76.6%   | 539  | 524    | 1063  | 75.2%   | 548  | 527    | 1075  | 77.0%   | 544  | 522    | 1066  |
| <b>Apex</b>         | 76.5%   | 560  | 530    | 1090  | 81.9%   | 561  | 532    | 1093  | 89.5%   | 564  | 543    | 1107  |
| <b>Athens</b>       | 76.6%   | 557  | 532    | 1089  | 77.1%   | 566  | 532    | 1098  | 79.0%   | 562  | 520    | 1082  |
| <b>Broughton</b>    | 90.3%   | 544  | 537    | 1081  | 91.4%   | 566  | 544    | 1110  | 88.8%   | 552  | 539    | 1091  |
| <b>Cary</b>         | 74.0%   | 536  | 535    | 1071  | 74.6%   | 538  | 535    | 1073  | 77.9%   | 554  | 538    | 1092  |
| <b>East Wake</b>    | 59.2%   | 488  | 472    | 960   | 48.6%   | 493  | 472    | 965   | 47.7%   | 489  | 472    | 961   |
| <b>Enloe</b>        | 85.7%   | 580  | 573    | 1153  | 88.0%   | 590  | 588    | 1178  | 89.3%   | 594  | 579    | 1173  |
| <b>Fuquay</b>       | 64.7%   | 516  | 506    | 1022  | 55.8%   | 533  | 508    | 1041  | 63.0%   | 539  | 509    | 1048  |
| <b>Garner</b>       | 59.5%   | 491  | 481    | 972   | 54.3%   | 497  | 475    | 972   | 55.8%   | 485  | 470    | 955   |
| <b>Green Hope</b>   | 89.9%   | 569  | 545    | 1114  | 95.1%   | 570  | 540    | 1110  | 89.4%   | 575  | 538    | 1113  |
| <b>Leesville</b>    | 82.1%   | 566  | 543    | 1109  | 82.4%   | 564  | 538    | 1102  | 82.7%   | 564  | 534    | 1098  |
| <b>Middle Creek</b> |         |      |        |       | 63.2%   | 528  | 509    | 1037  | 72.3%   | 518  | 502    | 1020  |
| <b>Millbrook</b>    | 75.3%   | 514  | 497    | 1011  | 75.1%   | 538  | 507    | 1045  | 85.9%   | 533  | 512    | 1045  |
| <b>Sanderson</b>    | 79.4%   | 532  | 531    | 1063  | 67.0%   | 542  | 517    | 1059  | 69.8%   | 526  | 507    | 1033  |
| <b>SE Raleigh</b>   | 89.4%   | 513  | 504    | 1017  | 85.5%   | 524  | 511    | 1035  | 77.8%   | 512  | 492    | 1004  |
| <b>Wakefield</b>    | 84.1%   | 532  | 515    | 1047  | 78.9%   | 539  | 518    | 1057  | 81.2%   | 535  | 510    | 1045  |
| <b>Wake Forest</b>  | 64.0%   | 517  | 506    | 1023  | 67.0%   | 515  | 503    | 1018  | 67.8%   | 516  | 496    | 1012  |

NOTE: Schools with 10 or fewer participants are not included in this table. The participation rate is the percentage of graduating seniors who took the SAT I.

**Figure 4: WCPSS Average Total SAT Scores By High School Over Four Years**



**Table 5: 2005-06 Participation Rates, Math, Verbal, and Writing Scores**

|                     | <b>2005-06</b>    |             |               |            |                |              |
|---------------------|-------------------|-------------|---------------|------------|----------------|--------------|
|                     | <b>Part. Rate</b> | <b>Math</b> | <b>Verbal</b> | <b>M+V</b> | <b>Writing</b> | <b>M+V+W</b> |
| <b>USA</b>          | 48%               | 518         | 503           | 1021       | 497            | 1518         |
| <b>NC</b>           | 71%               | 513         | 495           | 1008       | 485            | 1493         |
| <b>Wake County</b>  | 77.0%             | 544         | 522           | 1066       | 510            | 1576         |
| <b>Apex</b>         | 89.5%             | 564         | 543           | 1107       | 527            | 1634         |
| <b>Athens</b>       | 79.0%             | 562         | 520           | 1082       | 516            | 1598         |
| <b>Broughton</b>    | 88.8%             | 552         | 539           | 1091       | 532            | 1623         |
| <b>Cary</b>         | 77.9%             | 554         | 538           | 1092       | 517            | 1609         |
| <b>East Wake</b>    | 47.7%             | 489         | 472           | 961        | 458            | 1419         |
| <b>Enloe</b>        | 89.3%             | 594         | 579           | 1173       | 564            | 1737         |
| <b>Fuquay</b>       | 63.0%             | 539         | 509           | 1048       | 492            | 1540         |
| <b>Garner</b>       | 55.8%             | 485         | 470           | 955        | 448            | 1403         |
| <b>Green Hope</b>   | 89.4%             | 575         | 538           | 1113       | 530            | 1643         |
| <b>Leesville</b>    | 82.7%             | 564         | 534           | 1098       | 518            | 1616         |
| <b>Middle Creek</b> | 72.3%             | 518         | 502           | 1020       | 495            | 1515         |
| <b>Millbrook</b>    | 85.9%             | 533         | 512           | 1045       | 502            | 1547         |
| <b>Sanderson</b>    | 69.8%             | 526         | 507           | 1033       | 506            | 1539         |
| <b>SE Raleigh</b>   | 77.8%             | 512         | 492           | 1004       | 486            | 1490         |
| <b>Wakefield</b>    | 81.2%             | 535         | 510           | 1045       | 502            | 1547         |
| <b>Wake Forest</b>  | 67.8%             | 516         | 496           | 1012       | 482            | 1494         |

NOTE: Schools with 10 or fewer participants are not included in this table. The participation rate is the percentage of graduating seniors who took the SAT I.