



POLICY REPORT

South Carolina Policy Council

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An Analysis of 2010 SAT Scores, Part II: Performance Down, Achievement Gap Up Over Past Five Years

By Simon Wong

This is the final report in our ongoing analysis of the state's 2010 SAT scores. For readers not familiar with our previous work, here is a recap of what we have done:

- In our first report we looked at the [2009 scores](#), finding that South Carolina had the lowest scores in the South and that even South Carolina's best students compare unfavorably to their peers in other states.
- In our second report we provided an initial analysis of the state's 2010 scores, observing that South Carolina now has the [second-worst score in the nation](#) (second only to Maine, which requires all high school students to take the SAT). (See how [your county](#) did.)
- Subsequently, we conducted an analysis of the S.C. Department of Education's assertion that even if scores are down, participation is up. [As we demonstrated](#), the data clearly shows statewide participation is down – particularly for Whites and African Americans.
- Finally, we showed – again in response to the DOE – that there is [no definitive correlation between high participation rates and low scores](#). Thus, even if participation rates had increased, this could not be used as an excuse for lower scores. (See the [participation rate in your county](#).)

In our final installment of this series, we'll provide a more in depth analysis of the 2010 scores, looking, in particular, at:

- SAT performance over the past 10 years
- SAT performance compared to other Southern states
- Economic and ethnic achievement gaps
- The performance of South Carolina's best students compared to their peers in other states

Performance Is Down Over the Past 5 Years

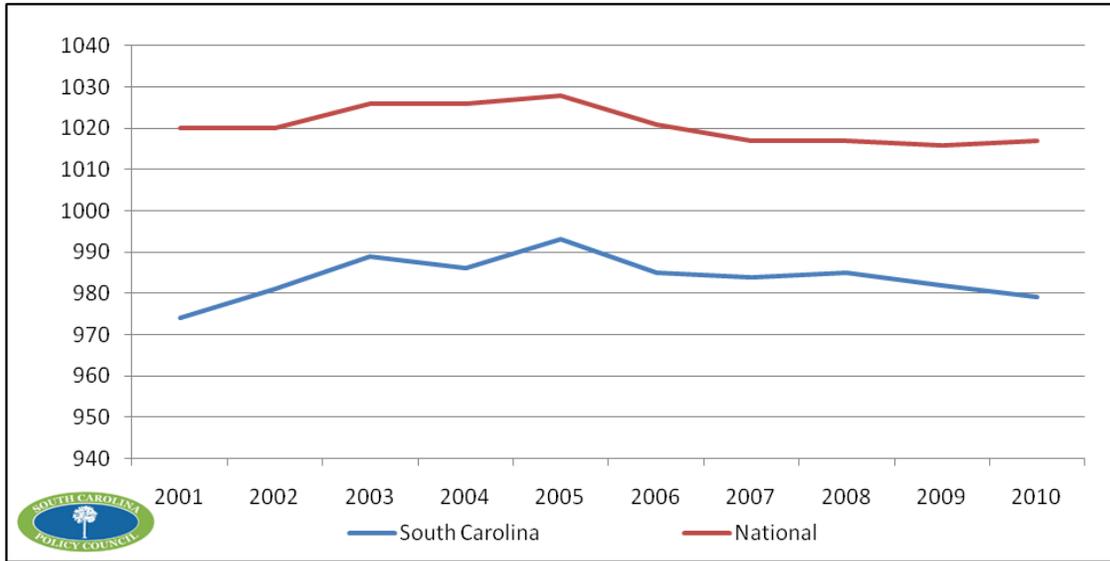
For 2010, South Carolina student performance on the SAT dropped by 5 points to a lowest-in-the-South average score of 1447 – or approximately the 44th percentile.¹

¹The percentile rank is the percentage of students whose scores fall below a particular scaled score. For example, a score in the 44th percentile means the student fared better than 44 percent of all students who took the same SAT.

Among the three testing sections, South Carolina students performed best in mathematics, with an average score of 495; and worst in writing, with an average score of 468. In critical reading, South Carolina students had an average score of 484. Average scores for all three sections declined from last year: scores for critical reading and writing fell by 2 points each. Mathematics dropped by 1 point.

The chart below shows that South Carolina’s average composite score in critical reading and mathematics (CR + M) has consistently ranked below the national average.²

South Carolina SAT Scores vs. National SAT Scores



Although the state’s scores improved from 2001 to 2005, the average composite score for these two categories fell by 8 points in 2006 – compared to a nationwide average decline of 7 points. Since then, South Carolina’s SAT average CR + M score has hovered at around the same level and not bounced back up to above 1000.

- In 2005, South Carolina’s average composite CR + M score was 993 (45th percentile) while the national average was 1028. The gap is 35 points.
- In 2010, South Carolina had an average composite CR + M score of 979, which correlates to the 44th percentile. The national average also dropped to 1017, or the 51st percentile. The gap is 38 points.

²Before 2006, the SAT I exam consisted of two sections: critical reading and mathematics – abbreviated CR + M. Up to 2006, SAT I test takers could earn a maximum 1600 composite score. In 2006, the College Board introduced a writing section, and the maximum composite score increased to 2400. For comparison purposes, only critical reading and mathematics scores are used for 10-year comparisons conducted here. Otherwise, this paper always refers to the 2400 composite score scale.

- Since 2005, which marks the high point for the state’s SAT performance over the past 10 years, South Carolina’s average composite critical reading and mathematics score has dropped by 14 points.

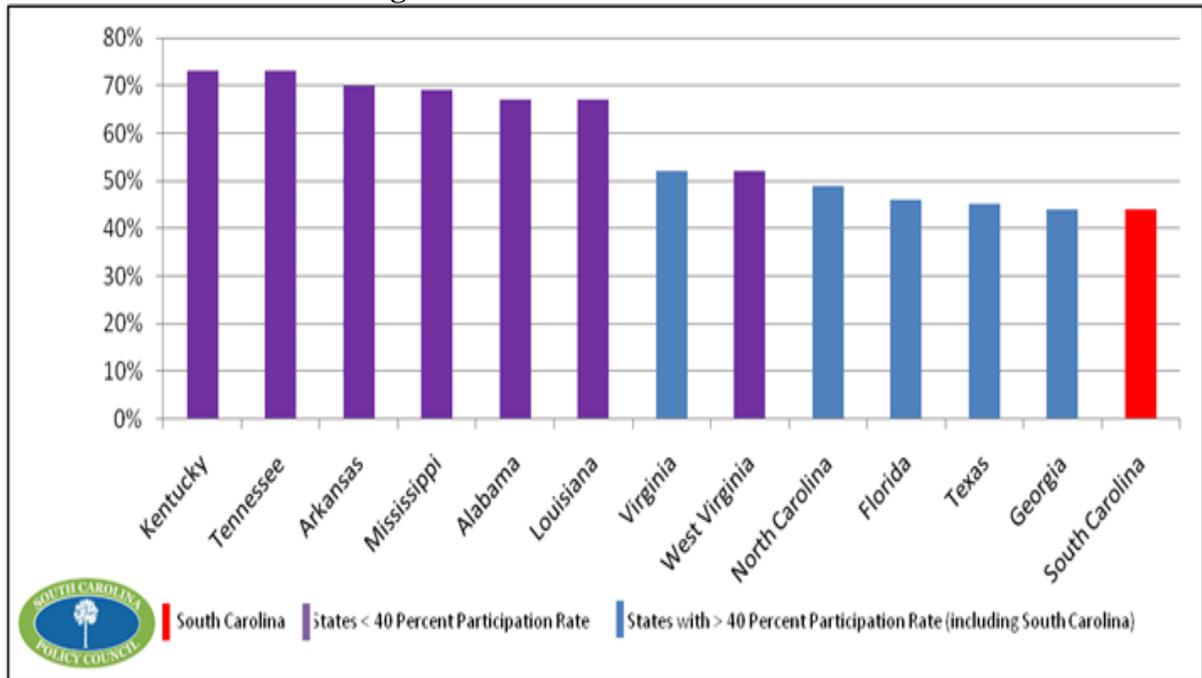
Lowest in the South

[As noted in our previous report](#), South Carolina student performance on the 2009 SAT dropped by 9 points to a lowest-in-the-South average of 1452, corresponding to the 44th percentile. In 2010 graduating seniors in South Carolina again placed in the 44th percentile and again scored lowest in the South.

South Carolina’s 2010 average composite score of 1447 was the lowest among 13 Southern states. The chart below translates the average score of all 13 states into percentile rank. Kentucky had the highest average composite score in the South: 1713, which corresponds to the 73rd percentile. Eight of thirteen states had average scaled scores higher than the 50th percentile ranking – that is, higher than the national average. The other five, including South Carolina, were below the national average.

Among the six Southern states in which more than 40 percent of graduating seniors took the SAT,³ only Virginia had an average mean score higher than the national average.

2010 SAT Percentile Ranking for Southern States



³Our recent fact sheet, [“Improved Access No Excuse for Lower Scores,”](#) indicates that a 40 percent participation rate marks the cut off between states that rely primarily on the SAT and those that rely primarily on the ACT. States that have more than 40 percent of seniors taking the SAT can be said to have a test taker segment that closely resembles the overall population of graduating seniors. Participation rates vary greatly, with a gap of 37 percentage points between the Southern state (Texas, 53 percent) with the highest rate and the state with the lowest (West Virginia, 16 percent).

Achievement Gaps Have Expanded Over Past 5 Years

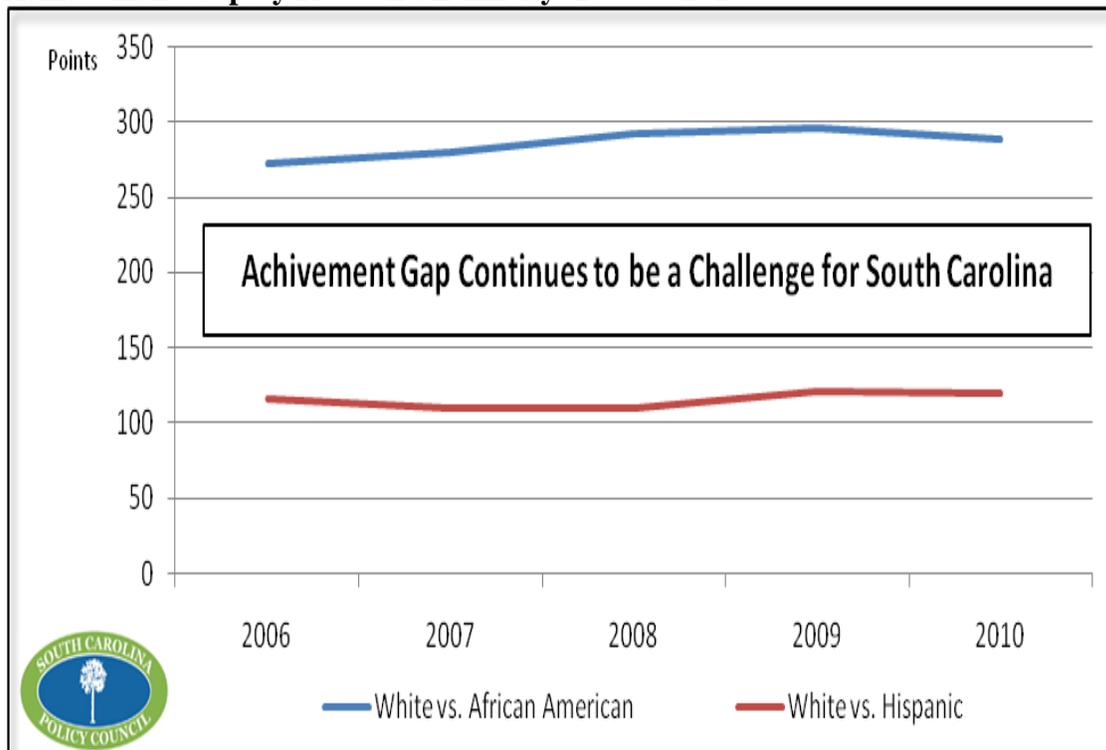
The gap between low-income and high-income students continued to expand in 2010. Students from households earning more than \$200,000 had an average score of 1646, up 13 points from last year. Students from households earning between \$0 and \$20,000 scored an average of 1268, 241 points below the national average. In total, the gap between South Carolina’s wealthiest and poorest households was 378 points, up 3 points from the previous year.

When the scaled score is translated into a percentile spread, the achievement gap is even more striking. Students from the highest-earning households scored in the 67th percentile while students from the lowest-earning households scored in the 23rd percentile. This means the average poorest South Carolina student can outperform only 23 out of 100 students nationwide who took the same SAT.

In addition, the achievement gap between the state’s two largest racial groups decreased by 8 points from 2009 to 2010. African-American test scores declined by 1 point overall – from 1240 to 1239. By comparison, scores for White students declined by 9 points from 1536 to 1527. The result was a 288 point gap. The achievement gap between African Americans and Whites has increased by 16 points since 2006.

The achievement gap between Whites and Hispanics declined by 1 point from the previous year, to 119 points in 2010. Since 2006, however, the achievement gap has increased by 3 points, with a 116 point gap registered in 2006.

Achievement Gap by Race and Ethnicity: 2006 to 2010



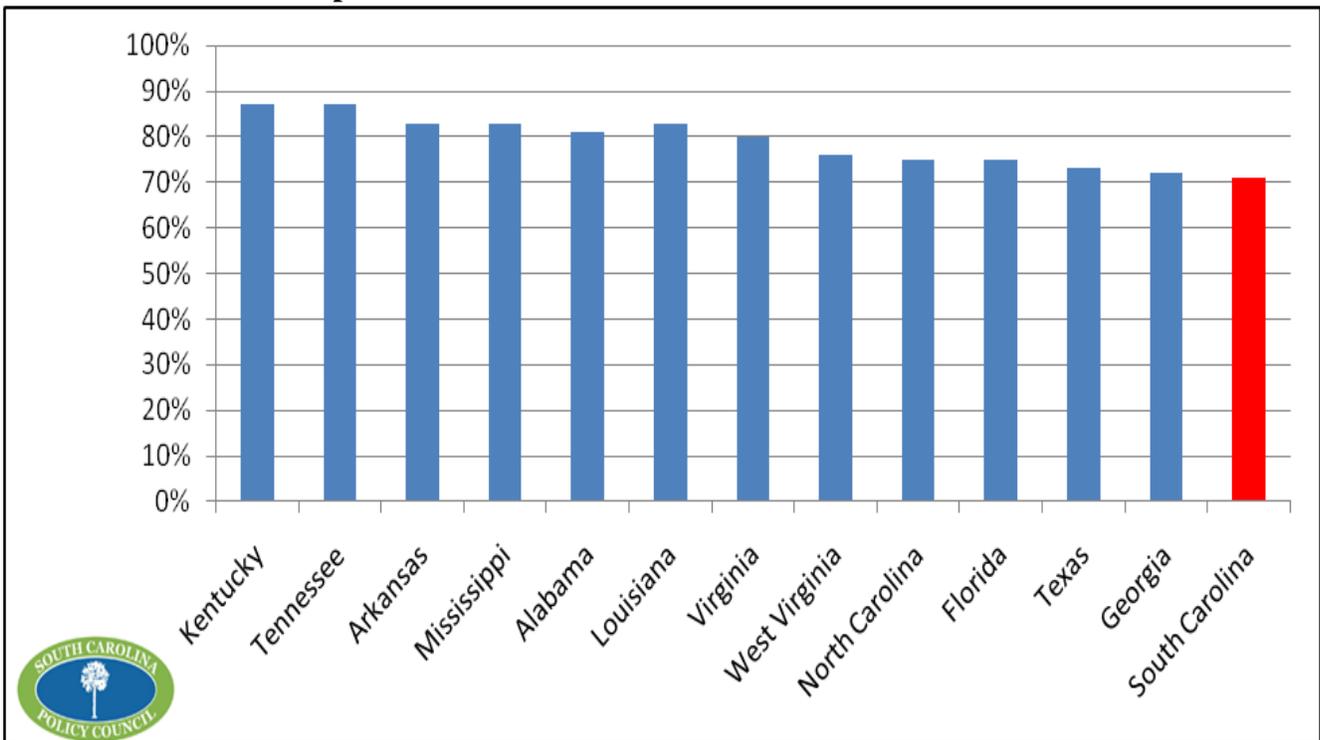
It is also worth noting that scores for students from middle class income groups have declined over the past five years. The average score for students from households earning between \$20,000 and \$40,000 fell from 1386 in 2006 to 1352 in 2010. Students from households earning between \$40,000 to \$60,000 saw a decline of 36 points, from an average score of 1464 in 2006 to 1428 in 2010.

South Carolina’s Best Students Are Average in Other States

As we’ve written before, [South Carolina’s top students](#) do not compare favorably to their peers in other states.

South Carolina students in the top 10 percent of their class scored an average composite of 1689, placing them in the 71st percentile nationwide. By comparison, Kentucky’s “top 10 percent” students scored an average composite of 1877, placing them in the 87th percentile. As the chart below indicates, South Carolina’s best students ranked last on the SAT when compared to their peers in other Southern states.

Performance of Top Students on 2010 SAT: Southern States



Even worse, South Carolina’s best students, on average, scored worse than the average student in two other Southern states: Kentucky and Tennessee. Both Kentucky’s and Tennessee’s average composite percentile ranking was 73 percent. This means South Carolina’s top 10 percent students, who scored in the 71st percentile, performed *worse* than the average of all SAT test takers in Kentucky and Tennessee.

South Carolina's second-best students, those ranking between the 10th and 20th percentile in their class, scored an average composite of 1489, placing them in the 49th percentile. In other words, South Carolina's second-best, or above-average, students performed at just below the national average for all students. By contrast, all other Southern states' second-best students performed at least above the 50th percentile.

South Carolina students identified as average – that is, between the 20th and 40th percentile in their class – also ranked lowest in the South. Their average composite score was 1392, placing them in the 36th percentile. Only two Southern states, South Carolina and West Virginia, saw scores for average students dip below the 40th percentile. On the other hand, average-ranked students in four Southern states – Kentucky, Tennessee, Arkansas and Alabama – scored above the 50th percentile.

Limiting our comparison to only the six Southern states that rely primarily on the SAT (see footnote 3), we also find that our best, above-average and even worst students compare unfavorably to similar students in other states.

- Virginia ranked best among the six Southern states with high participation rates. It had an average score of 1521 (52nd percentile), 12 points higher than the national average. Virginia also had a higher participation rate than South Carolina.
- South Carolina's average students performed at the 36th percentile while scores for average students in the remaining five states ranged from the 41st to 45th percentile.
- Florida's bottom "three-fifth" students – who rank between the 60th and bottom percentiles of their class – scored at the 28th percentile, the highest among these six Southern states. Similarly ranked students in South Carolina scored in the 23rd percentile – lowest among all six states with high participation rates.

The table on the following page indicates how students in the top 10 percent, second top 10 percent, second fifth and also final 60 percent of their class compared to their peers in other Southern states. South Carolina was last in every category.

As indicated by the arrows in the table, scores for all ranks – best, above-average, average and below average – of South Carolina test takers fell in 2010. South Carolina was the only state in the South to see such a comprehensive decline. By contrast, West Virginia was the only state in the South with gains for all students as ranked by class placement.

2010 SAT Performance by Class Rank: Southern States

Southern States	Statewide Average		Highest Tenth		Second Tenth		Second Fifth		Final Three Fifths	
	Scaled Score	%	Scaled Score	%	Scaled Score	%	Scaled Score	%	Scaled Score	%
Kentucky	↑1713	73	↓1877	87	↓1663	68	↑1569	58	↓1406	39
Tennessee	↑1712	73	↓1875	87	↑1714	73	↑1594	61	↓1432	41
Arkansas	↔1684	70	↑1832	83	↓1625	65	↑1528	54	↓1347	32
Mississippi	↓1666	69	↑1829	83	↓1581	60	↓1425	41	↓1300	26
Alabama	↓1652	67	↑1827	81	↓1589	62	↓1483	56	↓1353	38
Louisiana	↓1650	67	↓1797	83	↓1599	61	↑1546	47	↓1395	32
Virginia	↑1522	52	↓1735	80	↓1497	57	↓1401	45	↓1288	27
West Virginia	↑1521	52	↑1775	76	↑1558	50	↑1457	38	↑1310	25
North Carolina	↓1485	49	↓1734	75	↑1545	56	↑1442	43	↑1301	26
Florida	↓1473	46	↑1726	75	↑1534	54	↑1441	43	↑1318	28
Texas	↓1462	45	↑1711	73	↑1518	52	↑1428	41	↓1308	27
Georgia	↓1453	44	↑1704	72	↔1508	51	↑1426	41	↓1301	26
South Carolina	↓1447	44	↓1689	71	↓1489	49	↓1392	36	↓1272	23

Districtwide Performance

We have already posted [data on districtwide performance](#), including a [map that shows test scores](#) by county for the past 5 years. We also constructed a [map that shows participation rate](#) by county for the past 10 years – from 2001 to 2010.

In 2010, 47 of South Carolina's 85 school districts saw their scores decline while 38 districts saw their scores rise over the past year. York 4-Fort Mill had the highest composite score in 2010: 1577, placing it in the 60th percentile. Scores for the district, though, dropped by 10 points from the previous year.

York also had 418 test takers and so it's score is a more reliable indicator of performance than scores from districts with fewer than 100 test takers. Yet consider that when compared to other Southern states, York 4-Fort Mill still scored lower than the average composite score in six other states: Kentucky, Tennessee, Arkansas, Mississippi, Louisiana and Alabama.

Among districts that had at least 100 test takers, Laurens-55 had the biggest gain, jumping 124 points from 1265 to 1389.

Last year, Anderson-3 had the highest composite score overall: 1620, placing it in the 64th percentile. However, Anderson-3 only had seven test takers in 2009. In 2010, the district saw a sharp drop, with scores declining by 199 points to 1421. Anderson-3 had 14 test takers this year.

Nothing in the foregoing should be construed as an attempt to aid or hinder passage of any legislation.

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