

## Data Spotlight

### The White-Black Performance Gap in Washington: Is the Gap Widening for All Black-African American Students?

At the January 2015 State Board of Education meeting, the Board heard that the White-Black performance gap reduction for Washington student groups was among the bottom performers of all the states for which the gap reductions could be computed. The analysis described to the Board showed that Washington was one of eleven states where the White-Black performance gap increased from the 2003 NAEP administration to the 2013 NAEP administration, while the other 27 states showed a reduction in the White-Black performance gap. For each of the NAEP assessments (4<sup>th</sup> Grade Reading, 4<sup>th</sup> Grade Math, 8<sup>th</sup> Grade Reading, and 8<sup>th</sup> Grade Math) the White-Black performance gap increased from 1.2 to 6.5 scaled score points (4.1 scaled score point average). To view the full presentation to the Board, go to <http://www.sbe.wa.gov/documents/BoardMeetings/2015/Jan/NAEPGaps50States.pdf>.

In response to Board discussion and questions, this work frames the White-Black performance gap in the context of poverty, as measured by the students qualifying for the Free and Reduced Price Lunch (FRL) Program. The research question addressed here is:

Does the White-Black performance gap on the NAEP assessments differ for student groups when poverty status (FRL or Not FRL) is considered?

#### Methodology

To answer the research question, the NAEP 4<sup>th</sup> and 8<sup>th</sup> grade reading and math assessment data from the six most recent NAEP administrations (2003 and 2013) were analyzed. The NAEP State Comparison online tool found at <http://nces.ed.gov/nationsreportcard/statecomparisons/> computes the average scaled score differences for a NAEP assessment between two administrations for the groups being compared; in this case, Black and White students by poverty (FRL) status. The gap differences for each of the four NAEP assessments were computed separately, averaged, and collapsed into the table and chart shown below. In this analysis a positive value means that the average scaled score of the White student group was greater than the average scaled score for the Black student group. On the summary table below, we would hope to see lower values for 2013 as compared to 2003 as this would indicate that the performance gaps are narrowing over time.

Summary Table showing the White-Black performance gaps by assessment and by poverty status.

	White-Black Achievement Gap*									
	4 <sup>th</sup> Grade Reading		8 <sup>th</sup> Grade Reading		4 <sup>th</sup> Grade Math		8 <sup>th</sup> Grade Math		Average	
	Not FRL	FRL	Not FRL	FRL	Not FRL	FRL	Not FRL	FRL	Not FRL	FRL
2003	12.9	10.0	19.5	9.3	11.3	10.7	20.7	12.8	16.1	10.7
2005	13.7	2.9	17.0	17.9	12.6	11.1	20.5	11.0	15.9	10.7
2007	19.3	14.7	18.5	19.9	24.9	14.6	18.5	8.8	20.3	14.5
2009	20.1	8.0	26.3	18.8	14.5	9.5	17.1	15.6	19.5	13.0
2011	15.4	10.8	18.0	11.4	15.7	11.2	17.7	14.3	16.7	11.9
2013	11.4	16.0	14.7	14.2	13.0	7.9	12.2	17.7	12.8	14.2

\*Note: average scaled score difference on the NAEP between White and Black student groups by poverty status.

## Data Spotlight

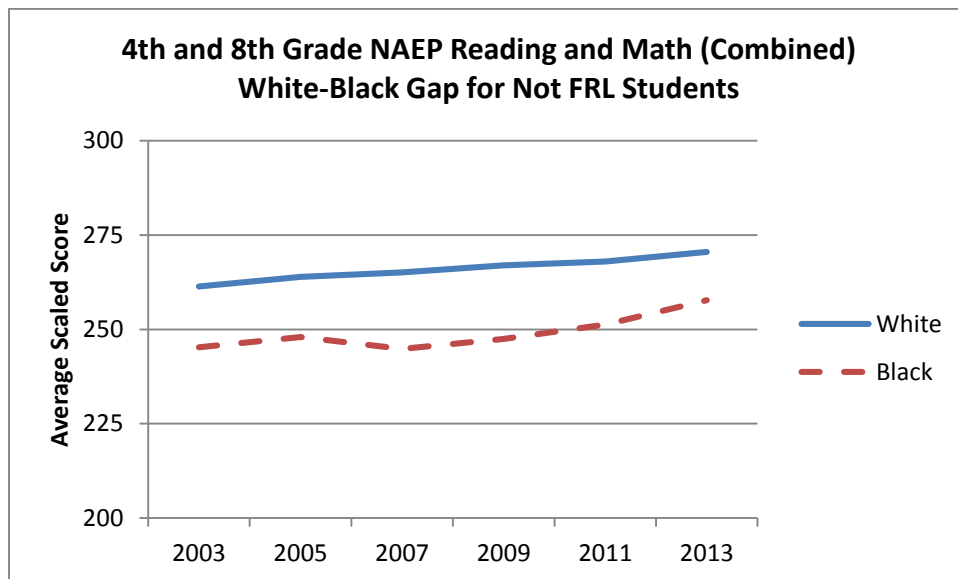
---

### Findings

The chart below shows how the performance of the White-Not FRL student group compares to the performance of the Black-Not FRL student group over multiple years. In combination, the summary table and chart show that the White-Not FRL student group consistently performs higher than the Black-Not FRL student group on all four NAEP assessments. Also, that the White-Black performance gap decreased 1.5 to 8.5 scaled score points for the assessments, except for the 4<sup>th</sup> Grade NAEP Math where the gap increased 1.7 scaled score points.

When the 4<sup>th</sup> and 8<sup>th</sup> Grade NAEP Reading and Math assessments are combined and averaged, the White-Black performance gap decreases by approximately 3.3 scaled score points in 2013 as compared to 2003. The White-Black performance gap for Not FRL students was 16.1 scaled score points in 2003, increased to 20.3 scaled score points in 2007, and decreased to 12.8 scaled score points in 2013.

From this portion of the analyses, the data show that Black students who do not qualify for FRL are improving on the NAEP at a greater rate than are White students who do not qualify for FRL. **For students not living in poverty (Not FRL), the White-Black performance gaps are mostly narrowing.**



The chart below shows how the performance of the White-FRL student group compares to the performance of the Black-FRL student group over multiple years. When used together, the summary table and chart show that the White-FRL student group consistently performs higher than the Black-FRL student group. The White-Black performance gap increased 4.9 to 6.0 scaled score points for all assessments, except for the 4<sup>th</sup> Grade NAEP Math where the gap decreased by 2.9 scaled score points.

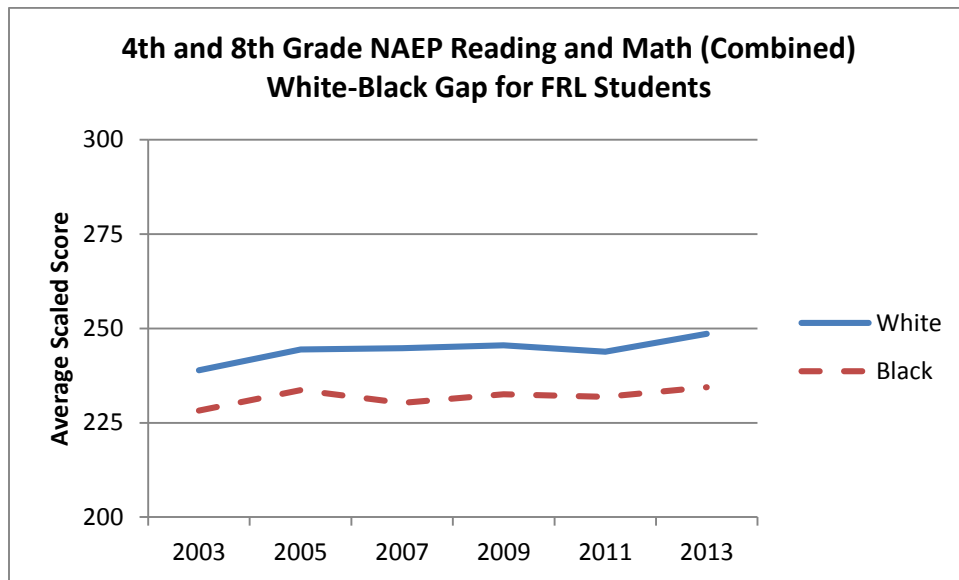
When the 4<sup>th</sup> and 8<sup>th</sup> Grade NAEP Reading and Math assessments are combined and averaged for students in poverty (FRL), the White-Black performance gap increased by approximately 3.5 scaled score

## Data Spotlight

---

points in 2013 as compared to 2003. The White-Black performance gap for FRL student groups was 10.7 scaled score points in 2003 and increased to 14.2 scaled score points in 2013.

These data show that Black students who qualify for FRL are improving on the NAEP, but at a lower rate than are White students who qualify for FRL. **For the students living in poverty (FRL), the White-Black performance gaps are mostly widening.**



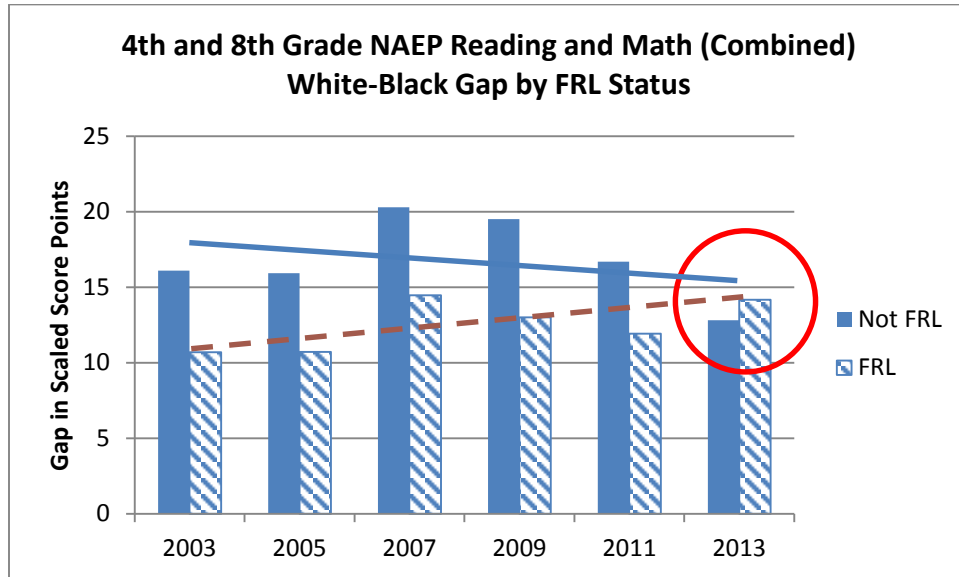
### Summary of the Analyses

The performance of both the White student group and the Black student groups is improving for all of the NAEP assessments and for both the FRL and Not FRL student groups. However, the White student group continues to perform at a higher level than the Black student group on all of the examined NAEP administrations, regardless of student poverty (FRL) status.

Two curious and related findings are reported here.

- First, the White-Black performance gap is narrowing for Black students who do not qualify for FRL but widening for Black students who qualify for FRL. The trend lines are shown on the bar chart below, and see how the trend lines converge and nearly join at 2013, the most recent assessment data year.
- Second, the White-Black performance gap for the Not FRL group was larger than that for the FRL group for the 2003 to 2011 NAEP administrations. And in general, the year-to-year changes in the performance gap for the FRL group tracked the gap for the Not FRL group. However, on the 2013 NAEP administration and for the first time, the White-Black performance gap for the FRL group was larger than the gap for the Not FRL group.

## Data Spotlight



More about this Analysis

The 2013 NAEP data show that the Black student group in Washington is among the highest performing of the states with reportable populations. On the 4<sup>th</sup> Grade NAEP, the Washington Black student group was ranked the 8<sup>th</sup> highest in reading and the 6<sup>th</sup> highest in math. On the 8<sup>th</sup> Grade NAEP, the Washington Black student group was ranked the 5<sup>th</sup> highest in reading and the 7<sup>th</sup> highest in math.

The NAEP assessment program provides an excellent database from which to monitor student progress but the conclusions drawn from these data could be impacted by new, federally required, student demographic coding. Almost certainly, the disaggregation into additional student groups (including the Two or More student group) beginning in 2011 has an impact on this gap analysis. The White and Black student groups are not formulated on the same criteria in 2003 as compared to 2013, which means that the Black student group formulated in 2003 is not perfectly comparable to the Black student group formulated in 2013. The same can be said of the White student groups for the same years.

Compared to other states, the Washington Black student group performs at a higher than average level and the student group is improving. Even considering the limitations of the data, the White-Black performance gap is unacceptably large and is not narrowing for all Black students.