

Helping All Students Learn: Identifying School Districts in Virginia that are Significantly Narrowing Achievement Gaps

Introduction

There are many ways that achievement gaps between student groups can narrow, but only one best embodies the principles that no child “be left behind”—that is by reducing the gap between groups while simultaneously improving each group’s performance. In an effort to highlight school districts in Virginia that have achieved this goal, Standard & Poor’s has analyzed the state’s student performance data. This report is a product of that analysis.

Through this research, Standard & Poor’s has identified eight school districts that have significantly narrowed achievement gaps between 2003 and 2004.

Issue Overview

In far too many classrooms across America, the academic performance of black, Hispanic and economically disadvantaged students is more likely to lag behind that of their white or more well-off classmates.

It is no mystery that these longstanding achievement gaps exist; they have been well documented by researchers for decades, and their closure is one of the most persistent challenges in American education. In fact, narrowing and ultimately closing achievement gaps on states’ reading and math tests is one of the explicit goals of the federal No Child Left Behind (NCLB) Act, and the impetus behind many school improvement efforts across the nation.

Yet the challenge of narrowing achievement gaps is a more complex undertaking than is often realized. For example, where racial achievement gaps are concerned, it is not enough to simply decrease the *difference* in the average proficiency rates between white and minority students, because the gap can narrow as the result of one group’s falling or static test scores. This is illustrated when a higher-performing group’s scores decline, while a lower-performing group’s scores remain stable. The result: a narrowed gap without any improvement in achievement. Therefore, a narrowing achievement gap is most significant when the average proficiency rates of both groups being compared increase¹.

Equity in achievement levels between different student groups is a critically important goal that is receiving well-deserved attention by educators and policymakers alike. However, casual observers of racial achievement gaps may erroneously infer that low academic performance is a problem primarily among minority children. While it is true that when compared to white students, a higher *percentage* of black and Hispanic students fail to demonstrate “proficiency” on many states’ reading and math tests, a higher *number* of whites fail to do so in many states. In other words, whites, not minorities, frequently make up the greatest number of students lacking

¹ This assumes the higher-performing group has not already reached 100% proficiency.

proficiency in reading and/or mathematics compared to any other racial group. Moreover, Asian students—themselves a minority group in most American communities—are more likely than any other racial group to meet or exceed performance standards on many states' tests.

These circumstances demonstrate why it is important to identify school districts that are narrowing achievement gaps while improving the performance of *all*—not just some—student subgroups. Although achievement gaps have narrowed in some school districts, they persist in many others, in spite of the hard work of educators and the increasing investments that have been made in public education. One reason may be due to different levels of effectiveness in local curriculum, instruction and assessment practices. Another reason is that achievement levels are only partly affected by school programs. Parental support, peer influence, neighborhood conditions and community norms also play a major role, and vary from one school population to another. Yet in an era of standards-based education, schools are called upon to help *all* students meet rigorous academic standards, regardless of race or socio-economic background. Doing so, however, remains an illusive goal in many communities.

This does not mean that progress has not been made. Most recently, in July 2005, the federal government announced in its long-term trend report that 9-year-old black and Hispanic students made greater progress than whites in reading and math on the National Assessment of Educational Progress (NAEP), which is known as the “nation’s report card.” On the other hand, similar progress was not found across all tested grade levels, which underscores the need to identify those K-12 districts that have made the most progress in narrowing their achievement gaps while raising the performance of all students.

Indeed, the purpose of this analytical report, in part, is to identify such school districts, so that their most promising educational practices might be studied and replicated by other districts that are struggling to narrow their own achievement gaps. Furthermore, this report aims to provide policymakers and educators greater insight to the complex nature of achievement gaps, and to analyze recent but limited progress toward closing them.

Lastly, it is hoped that this report sheds light on the power of using data to probe for diagnostic insights that can help inform educators’ decision making. Using data to raise student achievement is the reason Standard & Poor’s and the National Education Data Partnership developed SchoolMatters.com. Standard & Poor’s hopes the data and tools on the website, such as the “Better Performers” search feature, will be used by local practitioners and policymakers around the country to further explore these issues and to benchmark educational success.

Defining the Achievement Gap

There are many ways that achievement gaps can be defined and assessed. Given the local, state and federal emphasis on measurable academic standards, this report focuses on differences in “proficiency” rates on state reading and math tests among student subgroups. Racial achievement gaps are analyzed between white students and their black and Hispanic peers, since these are the three largest racial groups enrolled in the nation’s schools. This report also analyzes gaps between economically disadvantaged students and their non-economically disadvantaged peers.

In states that do not report data for non-economically disadvantaged students, economically disadvantaged students are compared to the average of all students.² Future reports may examine achievement gaps between other student subgroups, which are best analyzed separately, since their smaller populations introduce larger margins of error that can compromise the statistical reliability of analytical findings.

There are essentially five ways that an achievement gap can be narrowed. These ways are not equally beneficial, as can be plainly observed in the adjacent table, where they are listed in order of declining benefit to the system's students as a whole.

The optimal way to reduce the gap between lower- and higher-performing groups requires that both groups simultaneously improve their performance. This analysis focuses on achievement gap reductions that are achieved in conjunction with performance improvements by both groups.

For local diagnostic purposes, proficiency rates are typically disaggregated by specific grade-level and subject-area tests, such as a fourth grade reading test. However, this report takes a more global view, since the goal under NCLB is for all students to demonstrate proficiency on all reading and math tests, across all tested grade levels combined, by 2014. Accordingly, Standard & Poor's has created a unique summary ratio that combines all of a state's reading and math proficiency rates into a single indicator known as Reading and Math Proficiency, or RaMP. The RaMP indicator simply represents the percentage of scores from all reading and math tests combined that meet or exceed state standards. The same types of achievement gaps measured by individual subject-area and grade-level tests are also found when measuring achievement gaps with RaMP. Therefore, this report uses RaMP to measure overall achievement gaps between different subgroups of students, and to determine whether those achievement gaps are being narrowed.

Five Ways to Narrow the Achievement Gap

1. Lower-performing group improves more than the higher-performing group improves
2. Lower-performing group improves while the higher-performing group remains unchanged
3. Lower-performing group improves while the higher-performing group declines
4. Lower-performing group remains unchanged while the higher-performing group declines
5. Lower-performing group declines less than the higher-performing group declines

Methodology

For this report, Standard & Poor's analyzed changes in RaMP over the 2002-03 and 2003-04 school years, the most recent two-year period for which test data are available from a subset of states³. These differences were used to determine which school districts have narrowed the achievement gap between at least one set of student subgroups by more than 5 percentage points,

² Due to the lack of available data, it is not possible to analyze achievement gaps for student groups identified by more than one characteristic at a time. For example, achievement data are available for economically disadvantaged students, and for Hispanic students, but not economically disadvantaged Hispanic students.

³ RaMP indicators were tabulated from data reported by each state's department of education, as found at www.schoolmatters.com.

while simultaneously increasing the RaMP of both subgroups being compared. For example, if a district has raised its white students' RaMP from 62% to 65%, while raising its black students' RaMP from 40% to 49%, it has narrowed its black-white RaMP achievement gap from 22 percentage points to 16 points, for a net reduction of 6 percentage points. Providing this district met other criteria selected by Standard & Poor's, which are detailed below, on the basis of its 6-percentage point reduction it would be recognized in this report. However, if the district had only narrowed the achievement gap by 4 points, or had only increased the RaMP of black students but not white students, it would not be recognized.

Furthermore, within each state, only those districts that serve all grades levels are included in this particular report. Future reports may address achievement gaps within other types of districts. Elementary districts, high school districts, and charter school districts that serve a subset of grade levels have been omitted from this analysis because their RaMP values would not be comparable to those of comprehensive school districts, and would need to be analyzed using different criteria and statistical parameters.

Additionally, to address issues of statistical significance, Standard & Poor's has limited its analysis to districts with sufficiently large populations of students within each subgroup being analyzed. To be considered, each subgroup being measured must represent, on average, 30 students enrolled per grade. For example, to be recognized for narrowing its black-white achievement gap, a district must have at least 30 white students and 30 black students, on average, per grade level. This enrollment requirement serves as a proxy for the number of students tested, recognizing that the statistical reliability of test results for small populations of students can be problematic. This is not meant to discount the efforts of school districts that have narrowed achievement gaps among subgroups comprised of fewer students; it simply means that the test results' margin of error is large enough to reduce confidence with which such data can be interpreted.

In summary, for the purposes of this report, a school district must meet *all* of the following criteria to be recognized as having made significant progress in narrowing achievement gaps between two student subgroups, including those that:

- serve all grades K-12;
- enroll 30 students per grade level, on average, in a subgroup for that subgroup's data to be analyzed;
- reduce at least one achievement gap between student subgroups in RaMP rates by more than 5 percentage points from one year to the next; and
- simultaneously raise the RaMP rates of both of the subgroups being compared.

In addition to Virginia, sufficient RaMP data to perform this analysis were available for 12 states across the country, including Arizona, Arkansas, California, Delaware, Indiana, Kansas, Kentucky, Massachusetts, New York, Pennsylvania, South Dakota, and Washington. Each of these states administered its reading and math tests in a consistent set of grade levels over the time period analyzed, ensuring that the RaMP rates can be reasonably compared from one year to the next.

Virginia Summary Findings

On the whole, school districts with achievement gap reductions that meet this report's criteria are fairly rare. However, there clearly are a number of districts whose accomplishments stand out as both difficult and desirable to achieve. These districts are recognized here in the hopes that they serve as benchmarks and sources of promising practices for educators elsewhere in the state.

Identifying School Districts

- Standard & Poor's has identified eight school districts (6.1% of the 132 K-12 school districts in the state) for significantly narrowing achievement gaps. These districts have reduced at least one achievement gap between two student subgroups by more than 5 percentage points while simultaneously improving the proficiency rates of each of these subgroups.
- Of these eight school districts, five have been recognized for narrowing the gap between economically and non-economically disadvantaged students, while three districts have been recognized for reducing their black-white gap and one district has been recognized for narrowing its Hispanic-white gap.
- The three districts recognized for narrowing the black-white achievement gap are among 75 K-12 districts statewide that have sufficient numbers of students to measure a black-white achievement gap.
- The one district recognized for narrowing the Hispanic-white achievement gap is among nine K-12 school districts statewide that have sufficient numbers of students to measure a Hispanic-white achievement gap. This district has the added distinction of narrowing the achievement gap between its economically disadvantaged and non-disadvantaged students.
- The five districts recognized for narrowing the achievement gap between economically disadvantaged students and non-economically disadvantaged students are among 109 K-12 districts statewide that have sufficient numbers of students to measure an achievement gap.

Proficiency Trends

- Overall, reading and math proficiency (RaMP) rates have increased by an average of 4.7 percentage points in these eight districts compared to an average 2.2- percentage point increase for all K-12 districts statewide.
- The black-white achievement gap has been narrowed by 6.2 percentage points in the districts being recognized, compared to the gap narrowing by an average of 1.1 points for all K-12 districts statewide. Black students in these districts have increased their RaMP rates by 9.1 percentage points, while white students have improved by 2.9 points.
- However, there is still room for additional progress. The average black-white achievement gap for these districts remains 21.9 percentage points. By contrast, the average achievement gap for all K-12 districts statewide is 20.8 points.

- The Hispanic-white achievement gap has been narrowed by 8.3 percentage points in the one district being recognized, compared to the gap narrowing by an average of 2.1 points in all K-12 districts statewide. Hispanic students in this district have increased their RaMP rates by 10 percentage points, while white students have improved by 1.7 points.
- However, there is still room for additional progress. The Hispanic-white achievement gap for this district remains at 21.6 percentage points. By contrast, the average Hispanic-white achievement gap for all K-12 districts statewide is 10.2 percentage points.
- The achievement gap between economically disadvantaged students and non-economically disadvantaged students has been narrowed by an average of 7.5 percentage points in the five districts being recognized, compared to the gap narrowing by an average of 1.7 points in all K-12 districts statewide. In these five districts, economically disadvantaged students have raised their RaMP rates by 10 percentage points, while non-economically disadvantaged students have improved by 2.5 points.
- However, there is still room for additional progress. The average gap between economically and non-economically disadvantaged students in the districts being recognized remains at 13.8 percentage points. This compares to a 15.0-percentage point gap for all K-12 districts statewide.

Virginia K-12 School Districts that are Significantly Narrowing Achievement Gaps

Narrowing State Test Reading and Math Proficiency Gaps, 2002-03 through 2003-04

| School District | County | Enrollment | Reading and Math Proficiency (RaMP) (%) | Change in Proficiency Gaps (percentage points) | | |
|------------------------------------|-----------------|------------|---|--|-----------------------------|---|
| | | | | Black and White Students | Hispanic and White Students | Economically Disadvantaged and Non Disadvantaged Students |
| Botetourt County Public Schools | Botetourt | 4,761 | 78.2 | | | -6.8 |
| Brunswick County Public Schools | Brunswick | 2,433 | 57.1 | -7.3 | | |
| Charles City County Public Schools | Charles City | 918 | 65.1 | | | -10.5 |
| Fluvanna County Public Schools | Fluvanna | 3,336 | 74.2 | -5.6 | | |
| King William County Public Schools | King William | 1,866 | 68.8 | | | -5.8 |
| Manassas City Public Schools | Manassas City | 6,803 | 77.3 | -5.7 | | |
| Middlesex County Public Schools | Middlesex | 1,341 | 74.7 | | | -6.8 |
| Winchester City Public Schools | Winchester City | 3,624 | 73.1 | | -8.3 | -7.6 |
| Average of Districts Listed | | 3,135 | 71.1 | -6.2 | -8.3 | -7.5 |
| Statewide Average (K-12 Districts) | | 9,023 | 72.5 | -1.1 | -2.1 | -1.7 |

RaMP and Enrollment data displayed are for 2003-04 unless otherwise indicated

Readers interested in finding out about trends in achievement gaps in other states where Standard & Poor's has conducted this analysis are encouraged to review individual state reports and the report that synthesizes the data from all of these states. All can be found at www.schoolmatters.com.

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