Does Economic Disadvantage Matter for Student Achievement?

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This Regional Snapshot examines the 10-county school districts in Metro Atlanta, plus city school districts of Atlanta, Buford, Decatur, and Marietta. The Gwinnett County School District has the highest enrollment in the region, with almost 170,000 students, including Pre-K enrollment.
Economic Disadvantage is defined by the number of students eligible for free or reduced-price lunches. Each school system has varying degrees of economic disadvantage, ranging from a high in Clayton County of 87 percent, to a low in the City of Decatur of 21 percent.

Source: GA DOE, 2012-2013 school year
CCRPI Results By School Type
The **College and Career Ready Performance Index (CCRPI)** is a comprehensive measure to assess school quality and improvement that was recently developed by the Georgia Department of Education to replace the Adequate Yearly Progress (AYP) ratings. Each school and district are given an overall index score, which is based on a 1 – 100 scale, where anything 90 above would be essentially an “A”.

The CCRPI is a more comprehensive measure than traditional testing because student achievement on high-stakes test like the CRCT (Criterion-Referenced Competency Tests) comprises only a part of the score (but the majority of the score). Other factors like student growth on tests and how well schools are doing in narrowing the so-called achievement gaps are also calculated in the Index. Finally, there are also bonus points that schools can earn based on a number of factors, including levels of economic disadvantage, special education students, to name a few. (These bonus points could push a school’s score above 100).

The next few slides show the CCRPI scores for schools districts at three levels of schools: Elementary, Middle and High School. We also show the spatial distribution of school level scores.

Please click [here](#) to get more information about how the CCRPI was developed.
The CCRPI scores for elementary schools in the 10-county Atlanta region range from a high of 87.2 in the city of Decatur schools, to a low of 62.9 in DeKalb County schools. Naturally, the levels of economic disadvantage play a role in these scores, and Decatur and Fayette have the two lowest levels of economic disadvantage in the region, while DeKalb, Clayton and Atlanta city have among the highest.

Source: GA DOE, 2012-2013 school year
The CCRPI scores for middle schools in the 10-county Atlanta region range from a high of 90.3 in the city of Decatur schools, to a low of 59.9 in DeKalb County schools. **Again, the levels of economic disadvantage play a role in these scores, and Decatur and Fayette have the two lowest levels of economic disadvantage in the region, while DeKalb, Clayton and Atlanta city have among the highest.**

Source: GA DOE, 2012-2013 school year
The CCRPI scores for high schools in the 10-county Atlanta region range from a high of 92.5 in the city of Buford schools, to a low of 58.6 in Clayton County schools. **In Buford, 50 percent of the district’s students are economically disadvantaged, yet the district has the highest overall CCRPI score.** Still, as with other levels of schools, economic disadvantage is a key determinant in student achievement (which is a key component of the CCRPI), and we will explore this relationship in greater depth in subsequent slides.

Source: GA DOE, 2012-2013 school year
This shows the CCRPI score for elementary schools in the region. The blues represent those with the highest scores; the browns represent those with the lowest scores. There is a definite spatial pattern to student achievement, but since the CCRPI does better reflect some of the economic realities of students, the pattern isn’t as strong as with mapping student achievement alone, which we do in subsequent slides.
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2013 CRCT Results: 3rd Grade Reading
3rd Grade Reading: All Students

Being able to read at grade level in 3rd grade is a key indicator of future success. According to research commissioned by the Annie E. Casey Foundation, students who don't read proficiently by the end of third grade are four times more likely to drop out of high school compared to proficient readers. City of Decatur has the highest percentage of students who exceeded the reading standard for the 3rd grade CRCT at 86 percent. Note that the City of Decatur Schools also has the lowest percentage of students who are classified as economically disadvantaged (see Slide 3).

Source: GA DOE, 2012-2013 school year
3rd Grade Reading: Comparing Economically Disadvantaged to Non-Economically Disadvantaged (10-County Area Aggregated)

This chart compares the 3rd grade reading CRCT results of students who are considered to be economically disadvantaged to those who are not economically disadvantaged. Instead of looking at this by school district, here we aggregate the results to the entire 10-county area. As can be seen, there is a significant gap in the “exceeds” rate between the economically disadvantaged and the non-economically disadvantaged. While 39 percent of the economically disadvantaged students exceeded the standard for 3rd grade reading, almost 77 percent of the non-economically disadvantaged exceeded the standard, an achievement gap of 38 percentage points.

Source: GA DOE, 2012-2013 school year
3rd Grade Reading: Percent Exceeds Standard

This shows the percentage of students who “exceeded” the standard on the 3rd grade reading portion of the CRCT (Criterion Referenced Competency Test). The blues show the school with the highest percentages; the browns show the school with the lowest percentages. There is a definite spatial pattern to student achievement.

Source: GA DOE, 2012-2013 school year
More Spatial Relationships!

What are these two maps depicting? Are they the same map?
Student Achievement and Economic Disadvantage

“Exceed” Rate – 3rd grade reading
(Blues are highest)

Economic Disadvantage
(Blues are lowest)
The map on the left shows the highest performing schools (in blue) on the on 3rd grade reading portion of the CRCT. The map on the right shows the schools with the lowest levels of economic disadvantage (in blue). The maps are almost identical. But, of course, there are some schools with high levels of economic disadvantage that perform well, and vice versa. (This spatial pattern holds true regardless of school level, so we won’t show maps for middle and high schools.)
2013 CRCT Results: 8th Grade Math
Along with 3rd grade reading, 8th grade math is a key indicator of future academic success. (See one source here that pegs 8th grade math proficiency as one of 10 key indicators of academic and overall youth success.) Buford City schools has the highest percentage of students exceeding the math standard for the 8th grade CRCT at 57 percent.

Source: GA DOE, 2012-2013 school year
This chart compares the 8th grade math CRCT results of students who are considered to be economically disadvantaged to those who are not economically disadvantaged. Instead of looking at this by school district, here we aggregate the results to the entire 10-county area. As can be seen, there is a significant gap in the “exceeds” rate between the economically disadvantaged and the non-economically disadvantaged. While only 21 percent of the economically disadvantaged students exceeded the standard for 8th grade math, almost 54 percent of the non-economically disadvantaged exceeded the standard, an achievement gap of 33 percentage points.
This shows the percentage of students who “exceeded” the standard on the 8th grade math portion of the CRCT (Criterion Referenced Competency Test). The blues show the schools with the highest percentages; the browns show the school with the lowest percentages. **There is a definite spatial pattern to student achievement.** And like the 3rd grade reading series of maps, a map of high rates of economic disadvantage by school would look similar.

Source: GA DOE, 2012-2013 school year
Graduation Rates
As with other measures of student achievement, high school graduation rates also are correlated with economic disadvantaged levels. This chart shows the Decatur city schools have the highest graduation rate (94 percent in 2013) in the 10-county region, but, remember, it also had the lowest percentage of students who are classified as economically disadvantaged.

Source: GA DOE, 2012-2013 school year
This shows the graduation rates for high schools in the region. The blues represent those with the highest rates; the browns represent those with the lowest rates. There is a definite spatial pattern to graduation rates as well.
Attendance Rates
Obviously, attendance is a key indicator of student and school success, yet absenteeism still does not have as strong of a correlation to student achievement as does economic disadvantage. This chart shows that Buford City schools has the best attendance outcomes in the 10-county region, with some 66 percent of students missing fewer than five days. Buford also does well among other measures of student success (like CCRT scores, CCRPI, and graduation rates). But other school districts – notably Decatur City and Fayette County – have poorer attendance outcomes, yet still their students achieve at high levels.

Source: GA DOE, 2012-2013 school year
Exceed” Rate – 3rd grade reading (Blues are highest)

Attendance (Blues have best attendance outcomes)

The map on the left shows the highest performing schools (in blue) on the on 3rd grade reading portion of the CRCT. The map on the right shows the schools with the best attendance outcomes (the schools with the highest of percentages of those missing fewer than five days are in blue). Unlike the previous maps that compared 3rd grade reading to levels of economic disadvantage, there isn’t as strong of a spatial correlation between attendance and 3rd grade reading. This isn’t to say that attendance plays no role in student achievement, as there is still a correlation with high achieving schools, at least among elementary schools.
The map on the left shows the highest performing high schools (in blue) in terms of graduation rates. The map on the right shows the schools with the best attendance outcomes (the schools with the highest percentage of those missing fewer than five days are in blue). Here there is a stronger spatial correlation between attendance and graduation rates than what was observed when comparing elementary school attendance outcomes with student achievement.