BREAKING THE LINK

This report analyzes 2016-2017 data from Charlotte-Mecklenburg Schools to determine if there is a link between demographics and outcomes in district schools.

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Charlotte-Mecklenburg Schools

Breaking the Link
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INTRODUCTION

Mecklenburg County, North Carolina, is an area rich in opportunity for many of the people who live here. The area is a diversified regional economic powerhouse with six Fortune 500 companies headquartered in the county and 14 Fortune 1000 companies in the larger metropolitan area.

But it is not equally rich in opportunity for everyone. A 2013 study conducted by Harvard University and the University of California, Berkeley, examined economic mobility in the largest 50 cities in the United States. Charlotte was 50th, a finding that confirmed what many have observed anecdotally: If you are born poor in Charlotte, you are likely to stay that way.

The economic-mobility study's findings sparked alarm and resulted in the formation of an Opportunity Task Force which issued a report in March 2017. That report included a set of broad findings and recommendations. The Opportunity Task Force emphasized that it is the community's collective responsibility to create paths to prosperity. Schools and school districts have an important role to play in building pathways to prosperity but they cannot do this work alone.

Charlotte-Mecklenburg Schools is committed to playing a significant role in the community-wide conversation begun by the Opportunity Task Force. We want to increase equity and excellence in our schools and in our community. It is our goal in this inaugural Breaking the Link report to provide a fresh, current analysis of how our schools and our students performed on a set of indicators – a careful examination of whether school poverty and race continue to be a predictive link to student performance.

Any challenging effort for meaningful change must begin with acknowledgement of hard truths. Thus, this report purposely does not offer proposals or policies for reform, but instead seeks to provide a solid, data-based picture of our schools with the most recent data available. These data will help the district, and the community, make wise and informed decisions on reform and advance our understanding of how to break the link between poverty, race, and academic performance.

Our Approach

The team of authors who worked on this report approached the assignment with three broad questions:

- **What are the racial and income demographics of Charlotte-Mecklenburg Schools?**

  We wanted to examine the differences in the income and racial demographics of our schools.

- **What are CMS school outcomes?**

  We wanted to examine how students have performed academically on a set of measures, disaggregated by school poverty and race.

- **How do key levers linked to outcomes vary across Charlotte-Mecklenburg Schools?**

  We wanted to examine the differences in resource allocation or access among groups of schools on a selected set of key levers that can influence educational outcomes for students.

In our collection, organization, and presentation of data in response to these questions, we kept an open mind, set aside assumptions, and allowed the data to tell the story. We ask that readers do the same as they evaluate the data. Our aim is to share the data contained in this report to inform and catalyze specific steps to deliver on the promise of educational equity and excellence.

Organization of the Report

The three main questions that guided this analysis – *What are the racial and income demographics of CMS schools? What are CMS school outcomes?* and *How do key levers linked to outcomes vary among CMS schools?* – also guide the organization of this report.

In the first section, poverty status is defined for the purposes of this report, and the distributions of schools along a poverty continuum and the geography of Mecklenburg County are displayed. The second section describes and displays standardized test proficiency and college and career readiness rates on End-of-Grade and End-of-Course tests, student academic growth, ACT performance, and the four-year cohort graduation rate. Finally, the third section provides data about the distribution of time, highly effective teachers, and college-level course-taking and exam-passing rates. The data in this report focus on school poverty status as the primary level of analysis with race as the secondary level of analysis.

Historical Perspective: The Persistent Predictive Link

In evaluating our schools today, understanding the historical context is essential. For decades, it was a matter of law and public policy to intentionally provide some students less access to educational opportunities and academic resources. In 1954, our nation took great strides toward reversing those conditions. In that year, the United States Supreme Court ruled in *Brown v. Board of Education of Topeka* that "separate but equal" was unconstitutional. In short, the Supreme Court ruled that a student's racial background could no longer serve as the primary determinant of the conditions of schools that would be offered and accessible. That watershed moment set our nation on a path to correct a set of conditions that were deemed unequal, inequitable, and unjust.

The years of segregation created gaps in achievement between racial groups of students that were wide and, in many ways, predictable. In 1966, those gaps were examined in a report on the state of schooling in America. That report, mandated as part of the Civil Rights Act of 1964, came to be known as the Coleman Report[1]. It outlined findings of a survey on the availability of equal educational opportunities for individuals by race, color, religion, and/or national origin in public education. The survey sampled slightly more than 3,000 schools and more than 600,000 students in grades 1, 3, 6, 9, and 12. The Coleman research team interviewed students, teachers, and principals at these schools, as well as superintendents. To gather objective information about inputs, they asked about teacher and administrative attitudes and other subjective indicators of quality. The findings illuminated the inequalities between black and white students and schools.

The report also contained an assessment of students who completed a battery of tests of achievement. The findings threw into stark relief the academic impact of years of neglect and disenfranchisement. Based on an assessment of verbal ability that was administered:

> At grade 6, the average [black student was] approximately [1.6] years behind the average white. At grade 9, he [was] approximately [2.4] years behind that of the average white. At grade 12, he [was] approximately [3.3] years behind the average white. A similar increase in the grade-level difference [was] shown by the other two tests [of reading comprehension and mathematical achievement]. On all three of these tests, [black students] in the metropolitan Northeast [became] progressively further behind whites in the region as they [went] from grade 6 to grade 12. A similar result [held] for [black students] in all regions [of the country]…[2]

Those gaps were even more pronounced in the metropolitan South, where the average black student in grade 6 was 2.0 years behind his white peers. In grade 9, the gap was 3.0 years. In grade 12 it was 4.2 years. In other words, the achievement gap widened as the students moved through school. These gaps were attributed to a confluence of disadvantages in schools, in communities, and in the educational backgrounds of students. The Coleman Report formally recognized the link between disadvantage and academic performance.

Since then, some things have changed. Discussion of disparities and disadvantage that were once primarily discussions of race have evolved into conversations about income and poverty. As the research cited by the Opportunity Task Force found, disparities due to socioeconomic differences occur in every aspect of the human experience. Any present-day discussion of resource or performance disparities must move beyond race but we cannot dismiss the convergence of race and income in America.

In public education, a student's race and family income affects with whom students attend school. From the 2000-2001 school year to the 2013-2014 school year, the percentage and number of K-12 public schools in the United States that were high-poverty and comprised of mostly black or Hispanic students grew from nine percent (7,009 schools) of all K-12 public schools to 16 percent (15,089).

> In these schools 75 to 100 percent of the students were eligible for free or reduced-price lunch, and 75 to 100 percent of the students were black or Hispanic…While [these] schools represented [only] 16 percent of all K-12 public schools, they represented 61 percent of all high-poverty schools in 2013-14.[3]

This means that if a school is high-poverty, it is most likely composed of primarily black and Hispanic students. It is this intersection of race and poverty in public schools that informs the perspective in this report.

As we look at the academic performance of different racial and income groups over time, the achievement gaps noted in the Coleman Report still exist. Achievement gaps have been monitored nationally through measures such as the National Assessment of Educational Progress (NAEP), which was first administered in 1969. These and similar tests show that the link between students' backgrounds and their academic achievement has been difficult to break, and achievement gaps between the races have been persistent.

1 Coleman et al., 1966. See full list of references at end of report.
2 Coleman et al., 1966.
3 U.S. Government Accountability Office, 2016, p.10.

Despite substantial narrowing of achievement gaps between black and white students, and white and Hispanic students in all grades in both math and reading in the 1970s, racial achievement gaps grew larger in the late 1980s and the 1990s and remain quite large today. The achievement gap on NAEP assessments between students eligible for the National School Lunch Program and those not eligible for the program has remained wide and virtually unchanged for the last 20 years.

Leverage to Break the Link between Student Background and Achievement

Mecklenburg County's journey after the *Brown* decision has been similar to that of our nation. The next era of our district's evolution is to provide the excellence we offer in some schools to every child, preparing all students to lead productive lives. This commitment requires us to undergo consistent self-reflection and evaluation, and then act, to ensure that we deliver on this promise, monitoring the distribution of key resources as well as academic results. We must consistently monitor and work to break the predictive link between student demographics and student achievement that has challenged our nation, our state, and our county.

Although many factors outside schools contribute to student performance, there are levers within our influence that can improve academic achievement. Among the diversity of resources provided, three essential resources that were the focus of this first report were time, great teachers, and access to advanced coursework. There are other important and needed resources as well, but for this report we focused on these three.

TIME

Time in school is a vital resource to maximize student performance. Research shows that time – that is, instructional hours – used well is correlated with improved school performance and increased student test scores[4]. Each state sets its own minimum time requirements for schools. However, time requirements typically do not vary dramatically from state to state. Most require between 175 and 180 days of school and/or between 900 and 1,200 hours of instructional time per year, depending on the grade level. In North Carolina, the state requires 185 days or 1,025 hours of instruction.[5] Studies of how countries, states, school districts, and different types of schools (i.e., traditional and charter) use their allocated time have been conducted. Findings reveal disparities between the amount of time in school that groups of students experience, based on where they live and the school they attend.[6]

Studies of this sort have caused states and urban school districts to take notice. Monitoring the level of access to the valuable commodity of time across schools can provide insight into efforts to break the predictive link between student demographics and student achievement.

GREAT TEACHERS

In addition to time, an important lever for improving student performance is a great teacher, because in education, people matter. Personal narratives are replete with examples of how a great teacher made a difference in the life of a student. Moreover, research affirms the power of a great teacher. Specifically, it has been found that a student's access to a highly effective teacher multiple years in a row, particularly in mathematics, can move a student from below-grade-level to on-grade-level performance. Likewise, a highly effective teacher can take a student from on-grade-level performance to even higher levels of performance and achievement[7]. Thus, monitoring students' access to great teachers is a key lever within our district strategy to improve the performance of schools.

ACCESS TO ADVANCED COURSEWORK

Just as time and great teachers are levers for breaking the link, access to rigorous coursework is vital for post-secondary academic success. Every year, millions of students across the country graduate from high school bound for college. Schools and school districts seek to position the students who enroll to successfully obtain a college degree. Research has demonstrated that the power of a student's course of study in high school overwhelms the predictive power of demographic variables (i.e., gender, race, socioeconomic status) in relation to college attendance and college completion.[8] One indicator of rigorous coursework in high school is Advanced Placement (AP) courses. An analysis of AP course offerings nationally revealed that 74 percent of all urban high schools had an AP program, 76 percent of all high schools offered an AP class in at least three different disciplines, and 58 percent of U.S. high schools offered an AP program that included at least one AP course in English, math, science, and social studies.[9]

4 Patall, Cooper, & Batts, 2010.
5 General Assembly of North Carolina, Session 2011, 2011.
6 Hoxby, Murarka, & Kang, 2009.
7 Sanders & Rivers, 1996.
8 Adelman, 1999; 2006.
9 Theokas & Saaris, 2013.

Despite what appears to be relatively widespread access to AP courses nationally, only a small percentage of high school students attending schools with AP courses actually take them. Nationally, only 12 percent of all high school students who are enrolled in a school that offers AP courses participate in those classes. Among this small minority of high school students across the country, racial and income gaps are apparent. At schools offering these courses, about 16 percent of non-low-income students enrolled in an AP course, compared to less than six percent of their low-income peers. Six percent of all black students and nine percent of all Hispanic students at these schools enrolled in an AP course, while their white counterparts enrolled at a rate of 12 percent, matching the national average.[10] Looking for and closing gaps in AP course-taking rates can help break the link between student demographic characteristics and later college success.

Measuring Success

With the analysis of key levers, we also review student and school performance. As CMS works to provide the conditions necessary for student success, the ultimate measure of our efforts will be the academic achievement of our students. In this report, we examine student achievement by school poverty level, and race within school poverty level, on various measures. Indicators of academic performance include:

- End-of-Grade (EOG) exam performance,
- End-of-Course (EOC) exam performance,
- Education Value-Added Assessment System (EVAAS) growth ratings,
- ACT test performance,
- Advanced Placement (AP) potential and test performance, and
- Four-year cohort graduation rates.

An analysis of school performance through the primary lens of poverty and the secondary lens of race allows us to monitor poverty and achievement gaps, as well as gauge our overall progress in breaking the link between student demographics and student achievement. These measures will be monitored regularly in future iterations of *Breaking the Link*.

The Work Ahead: Pursuing Equity

Breaking the Link does not include recommendations for policies or programs that should be initiated or eliminated based on these analyses. CMS leadership will work with schools and community stakeholders to determine how we can use this analysis to improve performance and enhance educational opportunities for all students.

The Charlotte-Mecklenburg Board of Education[11], the authors of this report, and the community, continue to grapple with the definition of equity. The district has established as foundational that equity is not the same as equality. In some instances, equity means giving those with less more: more time for learning, more highly effective teachers to reduce learning gaps, more access to challenging classes. At the same time, CMS aims to provide access to excellent educational opportunities for every child. The *strategic differentiation* of resources to foster outcomes is an intentional act to prepare students for rich and productive lives. Each student's needs may be different, but those needs should be met at every school in CMS.

The national and local picture painted by the Harvard/UC Berkeley study on economic mobility, coupled with the data presented in this report, is not a pretty one. More than six decades after *Brown*, the reality is that, across our nation, schools remain racially isolated, unfairly limiting the opportunities for too many students. It is our goal to help our community, and our nation, change that shameful fact. *Breaking the Link* is part of our contribution to making that change.

The time is right for us to make Charlotte and Mecklenburg County a place where economic mobility is possible – and CMS is eager to be part of this work.

10 Theokas & Saaris, 2013.

11 Doss Helms, 2017.

SUMMARY OF FINDINGS

We began our research for *Breaking the Link* by identifying three key questions:

- **What are the racial and income demographics of CMS schools?**
  We wanted to examine the differences in the income and racial/ethnic demographics of our schools.
- **What are CMS school outcomes?**
  We wanted to examine how students have performed academically on a set of measures, disaggregated by school poverty and race.
- **How do key levers linked to outcomes vary across CMS schools?**
  We wanted to examine the differences in resource allocation or access between groups of schools on a selected set of key levers that can influence educational outcomes for students.

The data and the answers to these questions reflect many factors beyond schools that contribute to student performance. However, there are levers in education that can change outcomes for students. This report examines three essential resources: time, great teachers, and access to advanced coursework.

We also examine student achievement by poverty level on various measures and the results are telling.

On nearly every measure analyzed in this report, there are differences in performance by school poverty level. In general, students at low-poverty schools perform better than students at moderate-poverty schools, who perform better than students at high-poverty schools. When looking at race, white students substantially outperform their black and Hispanic peers on nearly every measure. In general, the gaps between low-poverty and high-poverty schools are larger than the gaps within a single poverty level. Students of any race at low-poverty schools tend to perform better than students of the same race at high-poverty schools. For example, black students at low-poverty schools, on average, perform better than black students at high-poverty schools.

Some specific findings from the *Breaking the Link* report include:

- For all grade spans, low-poverty schools were composed of mostly white students, whereas in high-poverty schools, the majority of students were black and Hispanic. Moderate-poverty schools' composition was somewhat more balanced between black, white, and Hispanic students.
- On End-of-Grade and End-of-Course standardized state tests, the percentage of students who are grade-level proficient or college and career ready decreased as the level of poverty increased.
- Of the 164 CMS schools with 2016-2017 Education Value-Added Assessment System (EVAAS) growth data, 119 schools (72.6 percent) were classified as meets or exceeds growth. Among low-poverty schools, 85.2 percent were classified as meets or exceeds growth. Among moderate-poverty schools, 64.3 percent of schools were classified as meets or exceeds growth. Among high-poverty schools, 68.5 percent of schools were classified as meets or exceeds growth.
- On the ACT, a college admissions exam, the average composite score decreased from low-poverty schools to moderate-poverty schools to high-poverty schools. Students reaching a composite score of 17 (the minimum composite score required for entrance into UNC system colleges) were more commonly found in high schools classified as low-poverty.
- Nearly half of CMS graduates took a college-level course, defined as an Advanced Placement (AP), International Baccalaureate (IB), or Dual Enrollment (DE) course, during high school. In high-poverty schools, on average, only 25.4 percent of graduates completed a college-level course. In moderate-poverty schools, this percentage was 37.7 percent and in low-poverty schools, it reached 61.1 percent.
- On Advanced Placement (AP) exams, scores of 3, 4, or 5 are considered passing. Just over half of AP exams taken in CMS had passing scores. Yet students at low-poverty schools had an AP exam pass rate nearly 10 times higher than students at high-poverty schools.
- The percentage of students who are chronically absent (missing more than 10 percent of the days they are enrolled) was greater among high-poverty schools, followed by moderate-poverty, and then low-poverty schools for all grade spans. The percentage of chronically absent students in grades 9-12 at high-poverty schools is particularly concerning, especially when compared to students in the same grades at low-poverty schools.
- High-poverty schools had a greater percentage of students with one or more out-of-school suspensions, particularly in grades 6-8. In low-poverty schools, all grade spans had a similar percentage of students with one or more suspensions (<5 percent), whereas in high-poverty schools, there is a steep increase between grades K-5 and the subsequent grade spans (6-8, 9-12).
- The percentage of teachers with an EVAAS rating of Exceeds Expected Growth decreased from low-poverty to moderate-poverty to high-poverty schools. Although the district average percentage of teachers rated as Exceeds Expected Growth who were retained from year to year at each school was 83.5 percent, high-poverty schools had a lower rate of retention (75.3 percent). Further, on average, teachers with less experience (first-year teachers) were more likely to teach in high- or moderate-poverty schools than in low-poverty schools.

These findings, and others contained in the full report that follows, provide insight into significant gaps in how equitable our schools are. The Charlotte-Mecklenburg Board of Education[12] and the authors of this report have grappled with the definition of equity. We have concluded that equity is not the same as equality. In some instances, equity means giving those with less more: more time for learning, more highly effective teachers to reduce learning gaps, more access to challenging classes. This does not diminish our commitment to the overall district goal of providing every student with access to excellent educational opportunities. The strategic differentiation of resources can and should prepare all students to lead rich and productive lives. Each student's needs may be different, but those needs should be met at every school in CMS. It is our hope that this report will help our district and community leadership identify the best ways to meet the needs of all of our students, so that we can finally and fully break the link between poverty, race, and academic outcomes.

12 Doss Helms, 2017.

What are the Racial and Income Demographics of CMS Schools?

WHO ATTENDS CMS SCHOOLS?

In 2016-2017, 147,157 students were enrolled in CMS on the 20th day of school, the official tally recorded by the state. Approximately 39 percent were black, 29 percent were white, 23 percent were Hispanic, 6 percent were Asian, 2 percent were multi-racial, and 0.4 percent were Native American. Students came from 183 countries and spoke 197 languages other than English. More than 16,000 students were English Learners and 13,000 were Exceptional Children.

For the purposes of this report, we asked how the above racial demographics are reflected in our schools. At the same time, we considered the poverty rates in our schools. Then, we began to examine how race and poverty converge in our schools. This intersection frames the remaining analyses presented in this report.

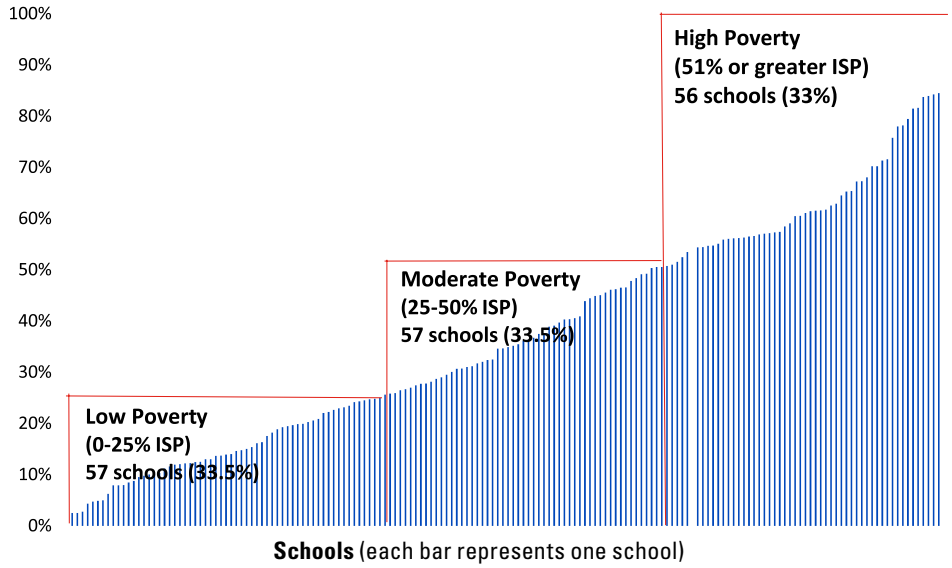
Distribution of Schools by Poverty Status and Race

Beginning in 2014-2015, schools in CMS could take part in the Community Eligibility Provision (CEP) program, which enables high-poverty schools to offer school breakfast and lunch at no charge to all students. In order to qualify, schools must meet a certain threshold of poverty as indicated by their **identified student percentage** (ISP; 40 percent or greater). For this report, schools were coded as low-poverty, moderate-poverty, or high-poverty based on the identified student percentage from the Community Eligibility Provision program.

Based on this method, of the 170 schools in CMS in 2016-2017, 57 schools are considered low-poverty schools (those with an identified student percentage less than 25 percent), 57 are considered moderate-poverty schools (those with an identified student percentage between 25 percent and 50 percent, inclusive), and 56 are considered high-poverty schools (those with an identified student percentage greater than or equal to 51 percent).[13] This categorization is shown in **Figure 1**. For more information on the Community Eligibility Provision, see Appendix A.

Please note that all graphs are for the school year 2016-2017.[14] Also, please note that this report aggregates data from the individual students who attended each school; all of these students' scores are averaged for each group of schools (that is, low-, moderate- or high-poverty schools). Overall district rates or averages are presented with a superscript D (^{D}) to designate that this represents a district number. This indicates that all students from all schools are included in this number. These numbers are also generally reported publicly by Charlotte-Mecklenburg Schools or the North Carolina Department of Public Instruction. See Appendix D for details on the calculation for each measure.

Figure 1: Distribution of Schools Based on Their Identified Student Percentage (ISP) of Students in Poverty



Note: Due to rounding, low-poverty schools have an ISP of 0-24.499 percent, moderate-poverty schools have an ISP of 24.5-50.499 percent, and high-poverty schools have an ISP of 50.5 percent or greater.

13 In the analyses that follow, two schools that serve Exceptional Children (Lincoln Heights and Metro School) and one alternative school (Turning Point) are included only in district enrollment data and in district averages. See Appendix D for more information. Two new schools, Harper Middle College High and eLearning Academy, were open and served students in 2016-17 but did not have ISP data for that year because they were new schools. In order to include them in this report, the ISP from 2017-18 (data collected April 2017) has been applied to the prior year.

14 The data sources for this report include Community Eligibility Provision, North Carolina Department of Public Instruction, PowerSchool, and College Board.

Figure 2: Geographic Distribution of School Poverty Level from 2016-2017 based on the Community Eligibility Provision's Identified Student Percentage.

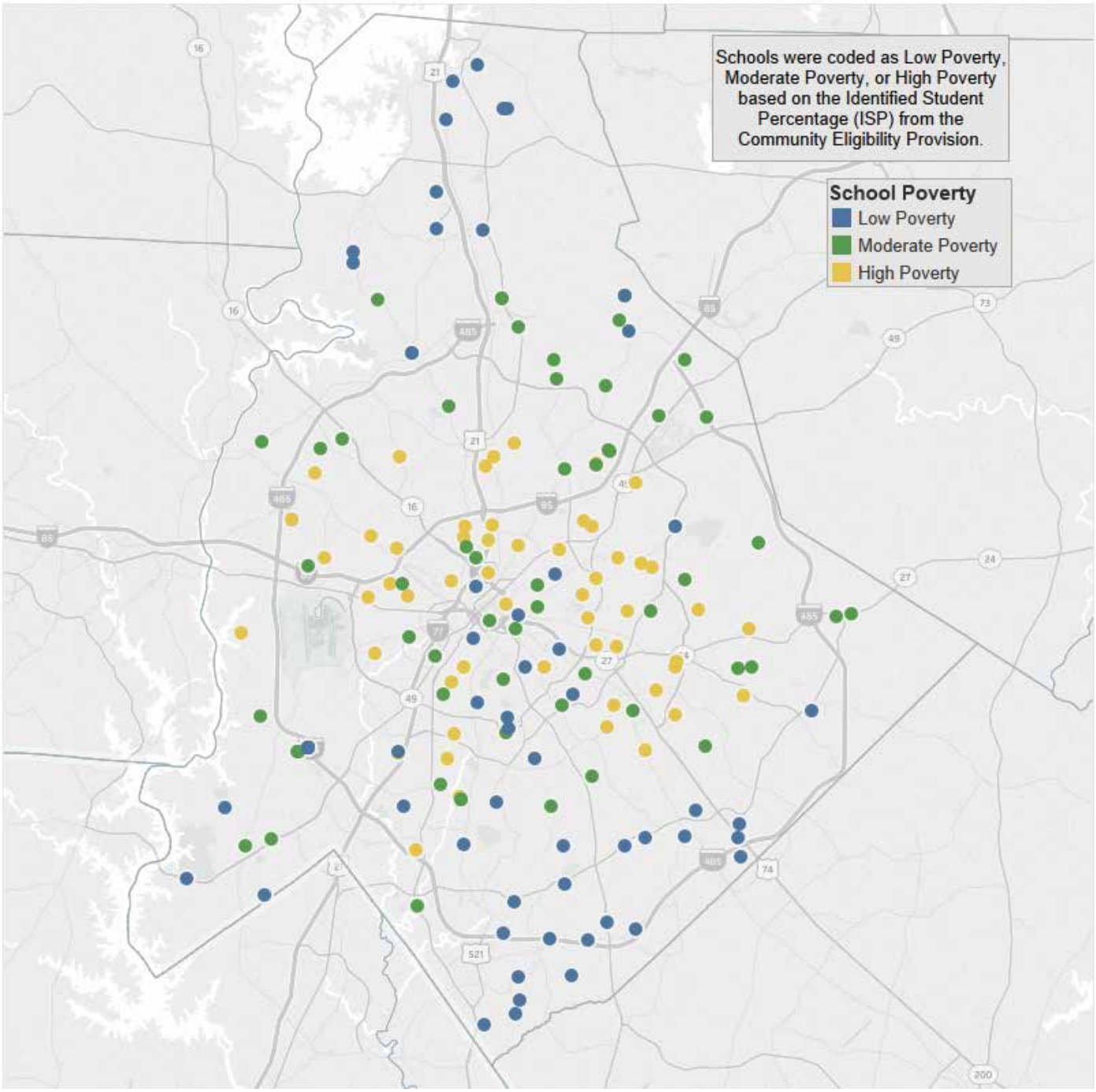


Figure 2 shows the geographic distribution of CMS schools within Mecklenburg County, with colors indicating school poverty classification as defined in this report. High-poverty schools are concentrated in the east, west, and center of Mecklenburg County, and in areas slightly north of uptown Charlotte. Low-poverty schools are concentrated in the south, southeast, and far north, with a few schools near the city center and towards the county's edges.

Enrollment by Poverty Status and Race

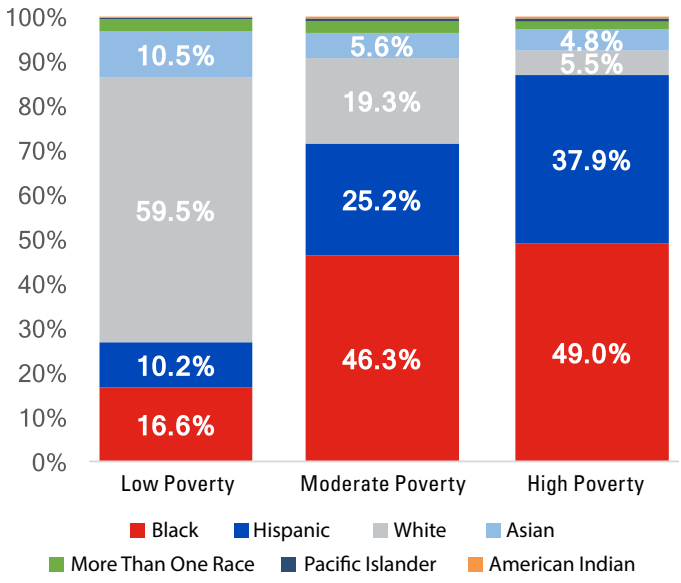
CMS schools vary in size and demographics. The majority of elementary schools serve between 500 and 1,000 students, while middle schools typically serve 1,000+ students and high schools typically serve 1,500 to 3,000 students.

In 2016-2017 there were:

- 95 elementary schools (grades K-5 or K-6),
- 27 middle schools (grades 6-8),
- 29 high schools (grades 9-12 or 11-13),
- 12 K-8 schools,
- 3 6-12 schools,
- 3 Special Program/Alternative schools, and
- 1 K-12 school.

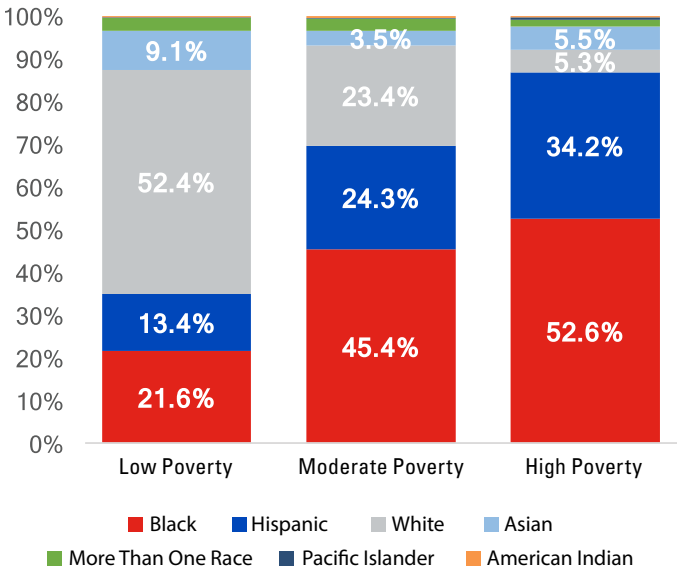
For this report, schools with non-traditional configurations were broken out by grade.[15]

Figure 3a: Enrollment by Race and School Poverty Level – Grades K-5



As displayed in **Figure 3a**, in grades K-5, on average, low-poverty schools are composed of mostly white students (59.5 percent), whereas in high-poverty schools, the majority of students (86.9 percent) are black and Hispanic and only 5.5 percent of students are white. Put another way, the percentage of black and Hispanic students increases from low-poverty schools (26.8 percent) to moderate-poverty schools (71.5 percent) to high-poverty schools (86.9 percent), as the percentage of white students decreases from 59.5 percent in low-poverty schools to 19.3 percent in moderate-poverty schools to 5.5 percent in high-poverty schools.

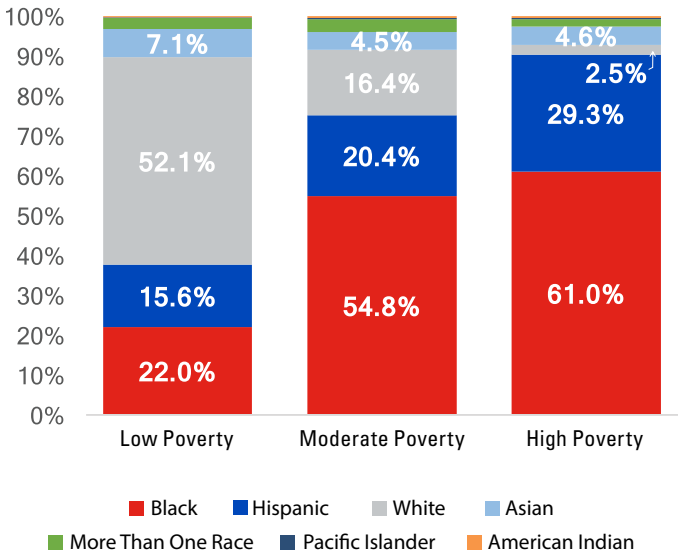
Figure 3b: Enrollment by Race and School Poverty Level – Grades 6-8



As displayed in **Figure 3b**, grades 6-8 look similar to K-5. On average, in grades 6-8, low-poverty schools are composed of mostly white students (52.4 percent), whereas in high-poverty schools, 86.8 percent of students are black and Hispanic, and only 5.3 percent of students are white. That is, the percentage of black and Hispanic students increases from 35.0 percent in low-poverty schools to 69.7 percent in moderate-poverty schools to 86.8 percent in high-poverty schools, whereas the percentage of white students decreases from 52.4 percent in low-poverty schools to 23.4 percent in moderate-poverty schools to 5.3 percent in high-poverty schools.

15 For example, students in grade 7 are listed in the grades 6-8 category, regardless of the grade-span configuration of their school.

Figure 3c: Enrollment by Race and School Poverty Level – Grades 9-12



As displayed in **Figure 3c**, grades 9-12 also look similar. On average, in grades 9-12, low-poverty schools are composed of about half white students (52.1 percent), whereas in high-poverty schools, 90.3 percent of students are black and Hispanic, and only 2.5 percent of students are white. That is, the percentage of black and Hispanic students increases from low-poverty schools (37.6 percent) to moderate-poverty schools (75.2 percent) to high-poverty (90.3 percent). However, the percentage of white students decreases from 52.1 percent in low-poverty schools to 16.4 percent in moderate-poverty schools to 2.5 percent in high-poverty schools.

For all grade spans, Asian student enrollment is similar to white students' enrollment patterns, with low-poverty schools enrolling a greater percentage of Asian students than moderate- or high-poverty schools, on average. Small numbers of American Indian students, Pacific Islander students, and students of more than one race are enrolled in each poverty level.

Overall, as the poverty level of schools increases, schools become less racially diverse. In high-poverty schools, nearly nine of every ten students are black or Hispanic.

Overall, the CMS data looks similar to national patterns. CMS has diverse students from various backgrounds, as do urban school districts across the country. Black, white, and Hispanic students make up the three largest racial subgroups district-wide. Moreover, as poverty increases in CMS schools, so does the concentration of black and Hispanic students. The result is high-poverty schools that are primarily composed of black and Hispanic students; less than 6 percent of students at any grade span in high-poverty schools are white.

Because the majority of CMS students are black, white, or Hispanic, only these three largest racial subgroups (by proportion of total students district-wide) will be included in subsequent graphs[16].

16 Hispanic is one of the options for race that parents may choose when enrolling a child in CMS. Ethnicity options are also given (Hispanic, non-Hispanic) but ethnicity was not used as a variable for this report.

What are CMS School Outcomes?

Figure 4a: Average EOG Reading Rates by School Poverty Level – Grades 3-5

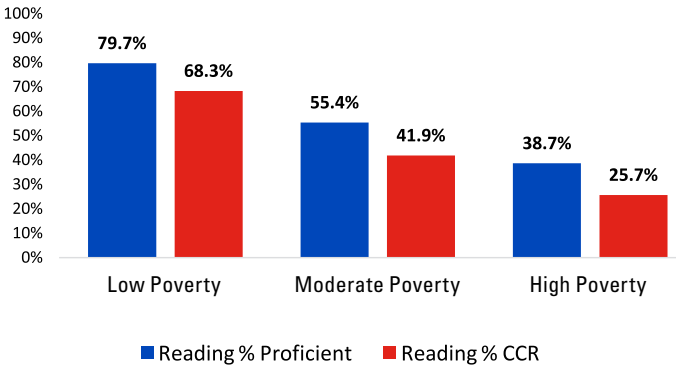
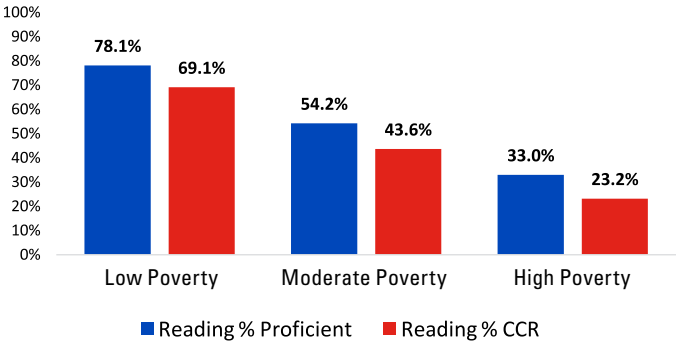


Figure 4b: Average EOG Reading Rates by School Poverty Level – Grades 6-8



Student Achievement and College and Career Readiness

In this section, we examine standardized test performance (grade level proficiency and college and career readiness rates) on End-of-Grade (grades 3-8) and End-of-Course tests, academic growth, ACT performance, and the four-year cohort graduation rate by poverty level and race. This inaugural *Breaking the Link* report is intended to serve as the baseline for future analyses.

End-of-Grade and End-of-Course Test Performance

EOG Reading, Math, and Science Performance

End-of-Grade (EOG) assessments measure students' proficiency on the North Carolina Standard Course of Study (NC*SCOS*) for English Language Arts, Mathematics, and Science adopted by the North Carolina State Board of Education in June 2010. Assessment results are used for school and district accountability under the READY Accountability Model and for federal reporting purposes.

The North Carolina Department of Public Instruction (NCDPI) directs the administration of EOG tests, which are aligned with the NC*SCOS*. Since 1992-1993, the North Carolina EOG Reading and Mathematics Assessments have been administered to all students in grades 3-8. In 2013-2014, the State Board of Education adopted a new methodology for determining achievement levels of students, which categorizes student performance on EOG tests into five levels of achievement (there were previously four levels).

From **Figures 4a** and **4b**, it is clear that the percentage of students who are Grade Level Proficient (GLP; Achievement Levels 3, 4, and 5; designated in the graphs as "Proficient") or College and Career Ready (CCR; Achievement Levels 4 and 5) in Reading decreases from low-poverty to moderate-poverty to high-poverty schools. For example, in grades 3-5 (**Figure 4a**), the percentage of students who are CCR in Reading in low-poverty schools is 68.3 percent versus 25.7 percent of the students in high-poverty schools. A similar trend can be seen in Reading in grades 6-8, Math in grades 3-5 and 6-8, and in Science in grades 5 and 8, as displayed in **Figures 4b-f**.

Figure 4c: Average EOG Math Rates by School Poverty Level – Grades 3-5

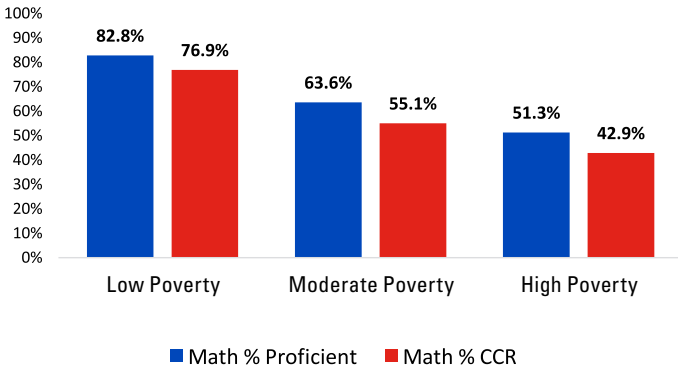


Figure 4e: Average EOG Science Rates by School Poverty Level – Grade 5

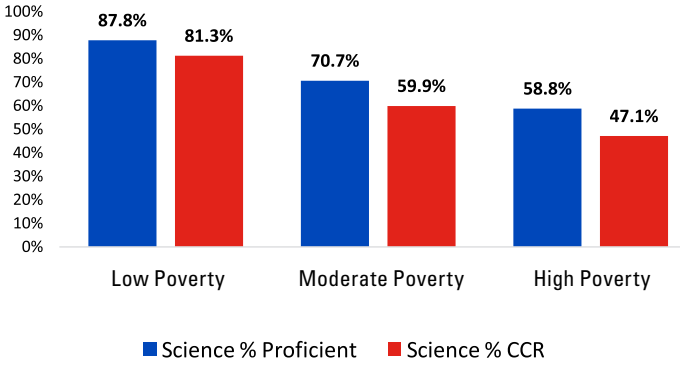


Figure 4d: Average EOG Math Rates by School Poverty Level – Grades 6-8

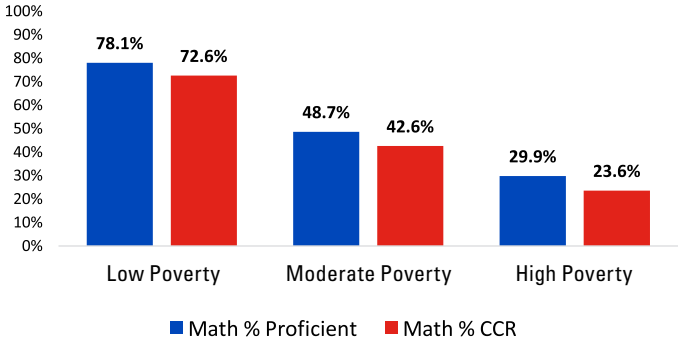
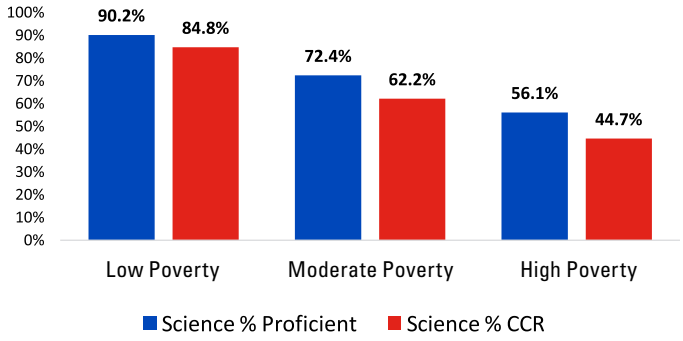


Figure 4f: Average EOG Science Rates by School Poverty Level – Grade 8



Figures 5a-f show CCR rates by school poverty level and race. At low-poverty schools, students of each race have higher rates of Reading CCR than students of the same race at moderate-poverty schools, and in particular, at high-poverty schools. This is true for Reading, Math, and Science. On average, white students at each school poverty level perform substantially better than other racial subgroups in all subjects and grade spans.[17]

Reading

Figure 5a: Average Reading College and Career Readiness Rates by School Poverty Level and Race - Grades 3-5

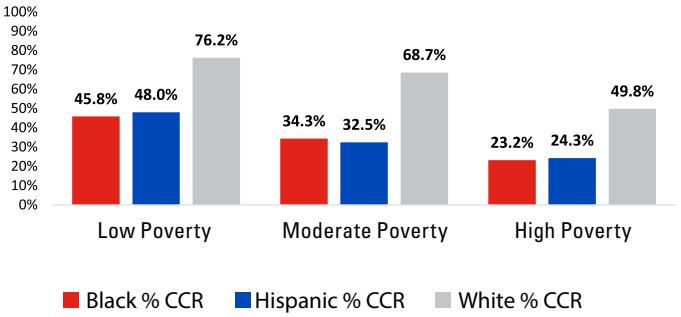
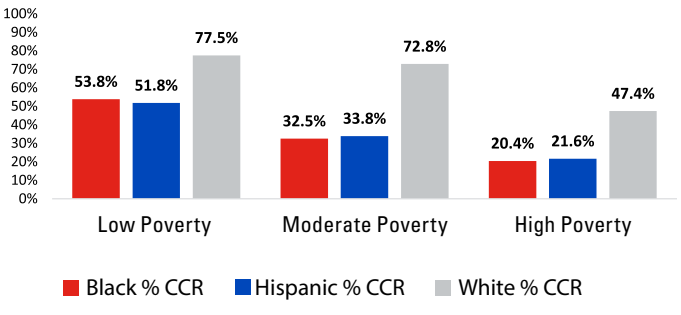


Figure 5b: Average Reading College and Career Readiness Rates by School Poverty Level and Race - Grades 6-8



17 Appendix B displays graphs for Grade Level Proficiency.

Math

Figure 5c: Average Math College and Career Readiness Rates by School Poverty Level and Race - Grades 3-5

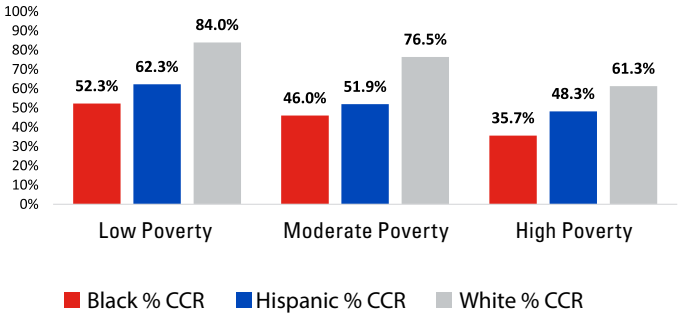
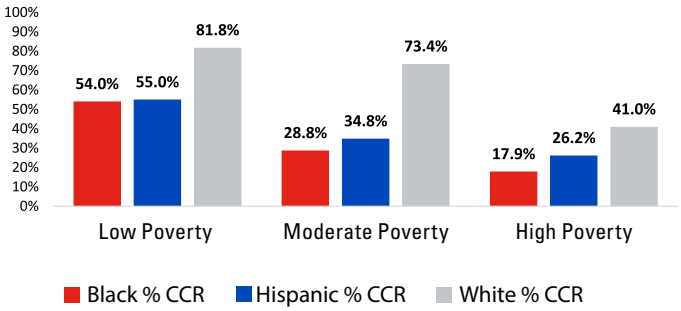


Figure 5d: Average Math College and Career Readiness Rates by School Poverty Level and Race - Grades 6-8



Science

Figure 5e: Average Science College and Career Readiness Rates by School Poverty Level and Race - Grade 5

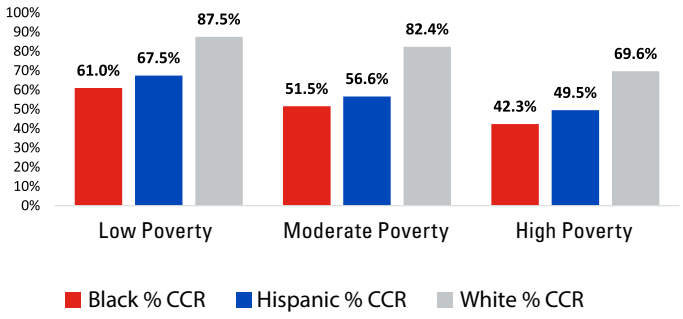


Figure 5f: Average Science College and Career Readiness Rates by School Poverty Level and Race - Grade 8

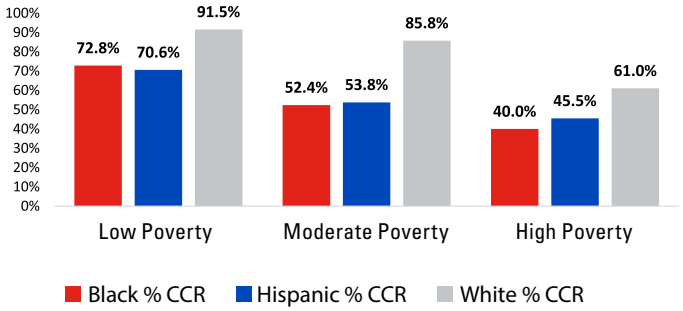


Figure 6a: Average EOC Math I Rates by School Poverty Level - Grades 6-8

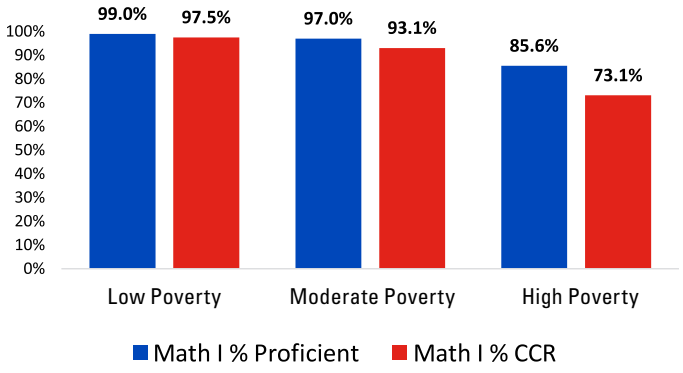
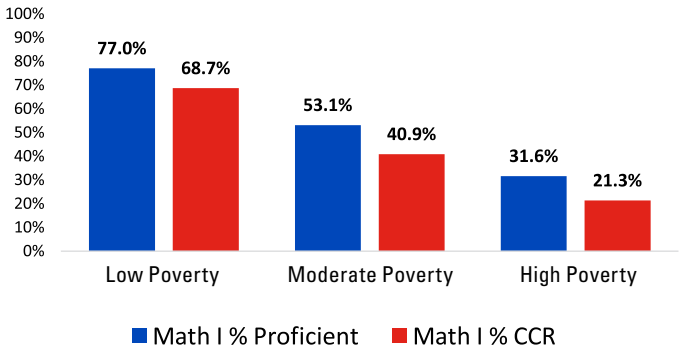


Figure 6b: Average EOC Math I Rates by School Poverty Level - Grades 9-12



End-of-Course Tests: Math I, English II, and Biology

End-of-Course (EOC) tests are given to students at the completion of the Math I, English II, and Biology courses to measure students' proficiency on the North Carolina Standard Course of Study (NC*SCOS*) for each subject. Assessment results are used for school and district accountability under the READY Accountability Model and for federal reporting purposes.

From **Figures 6a-d**, it is clear that the percentage of students who are Grade Level Proficient (GLP; Achievement Levels 3, 4, and 5; designated in the graphs as "Proficient") or College and Career Ready (CCR; Achievement Levels 4 and 5) decreases from low-poverty to moderate-poverty to high-poverty schools on each of the EOC tests. For example, in Math I in grades 9-12 (**Figure 6b**), the percentage of students who are CCR in low-poverty schools is 68.7 percent versus 21.3 percent in high-poverty schools. While the trend is less drastic for Math I in grades 6-8 (**Figure 6a**), it is still present. It is important to note that Math I may be taken in middle school (most often in 8th grade) or high school (most often in 9th grade). It is typically the more advanced students who take Math I in middle school. Of the students who take Math I in middle school[18], approximately 20 percent are black, 16 percent are Hispanic, and 64 percent are white.

Figure 6c: Average EOC English II Rates by School Poverty Level

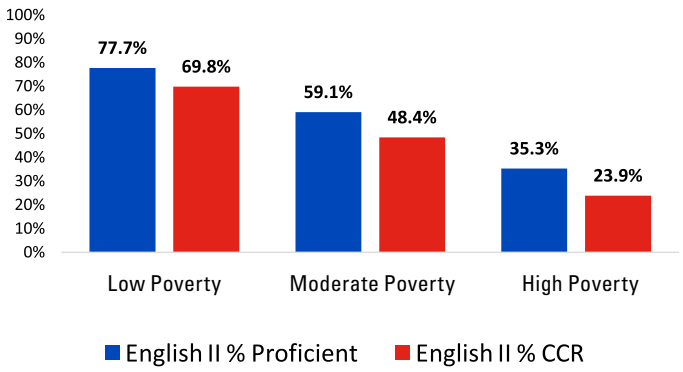
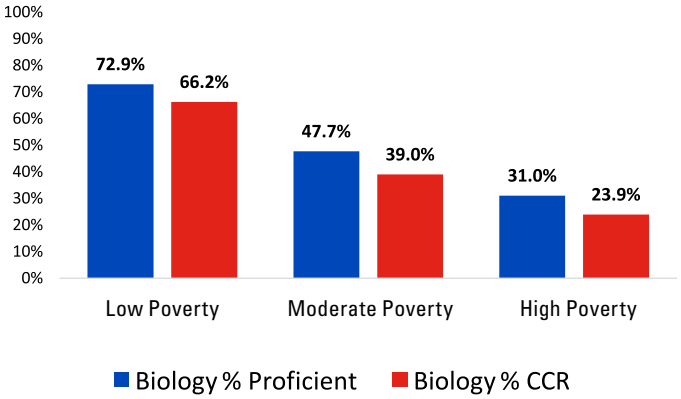


Figure 6d: Average EOC Biology Rates by School Poverty Level



18 of the three races presented here.

In reviewing the EOC performance of racial subgroups at different poverty levels, it is evident that there are notable differences. **Figures 7a-d** display EOC CCR rates by school poverty level and race. At low-poverty schools, students of each race have higher rates of CCR on all tests than students of the same race at moderate-poverty schools and in particular, at high-poverty schools. However, there is less difference by race within school poverty groups for Math I in grades 6-8. As noted previously, students taking Math I in middle school are typically more advanced than students taking Math I in high school. On Math I in high school **(Figure 7b)**, racial gaps re-emerge in low- and moderate- poverty schools, while in high-poverty schools, all three groups have a low percentage of students scoring CCR. On the other EOC exams (English II and Biology), white students have a higher CCR rate than their black and Hispanic counterparts within the same school poverty level.

Figure 7a: Average Math I College and Career Readiness Rates by School Poverty Level and Race - Grades 6-8

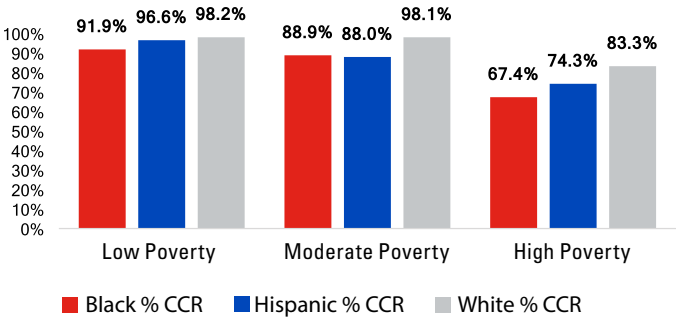


Figure 7b: Average Math I College and Career Readiness Rates by School Poverty Level and Race - Grades 9-12

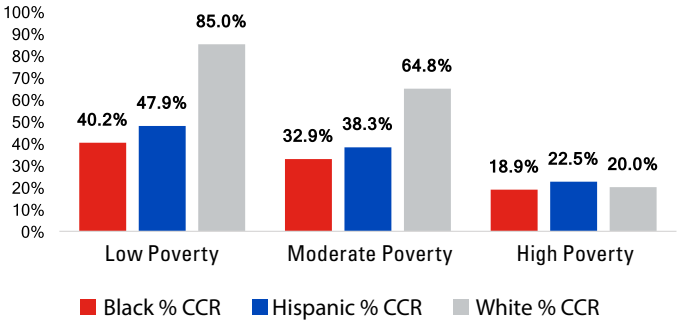


Figure 7c: Average English II College and Career Readiness Rates by School Poverty Level and Race

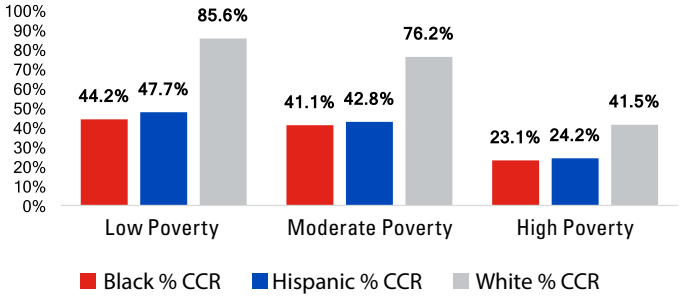
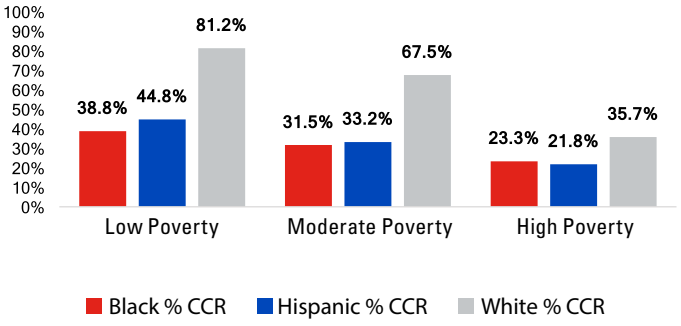


Figure 7d: Average of Biology College and Career Readiness Rates by School Poverty Level and Race



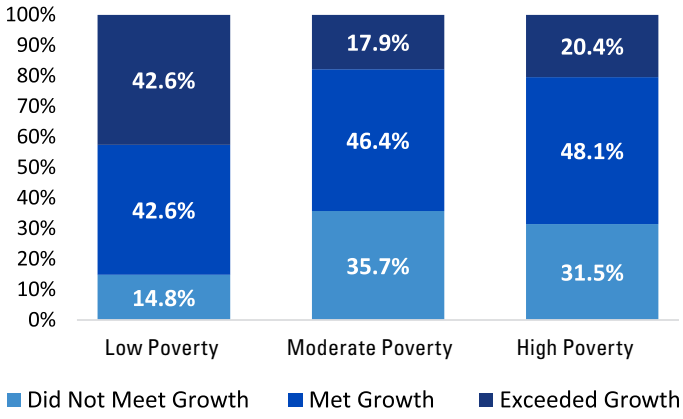
Academic Growth

"Growth" is an indication of the rate at which students learned over the school year. The standard is roughly equivalent to expecting a year's worth of growth for a year of instruction. Each school receives a growth rating from one of three classifications: does not meet expected growth; meets expected growth; or exceeds expected growth.

Figure 8 shows the percentage of schools in each growth category within each poverty category. Of the 164 CMS schools with 2016-2017 Education Value-Added Assessment System (EVAAS) growth ratings, 119 schools (72.6) were classified as meets or exceeds growth. Among the low-poverty schools, 46 of 54 (85.2 percent) were classified as meets or exceeds growth. Of the moderate-poverty schools, 36 out of 56 (64.3 percent) schools were classified as meets or exceeds growth. Among the high-poverty schools, 37 out of 54 (68.5 percent) schools were classified as meets or exceeds growth.

EVAAS growth ratings are not reported by racial or income subgroup. See **Appendix C** for a description of EVAAS growth and the distribution of schools by EVAAS growth index.

Figure 8: Percentage of Schools in Each EVAAS Growth Category by School Poverty Level



ACT Performance

The ACT is used as a college admissions test that measures what a student learned in high school to determine academic readiness for college. The ACT is also an indicator of content mastery. Content-based questions in a multiple choice format cover four subject areas: English, math, reading, and science. Scores range from 1-36 in each subject[19]. A composite (overall) score consisting of the average of the four subject scores is reported.[20]

The following average ACT scores were reported for CMS 11th grade students in 2016-2017: English (17.2[D]), math (19.2[D]), reading (18.9[D]), science (18.7[D]), and overall composite (18.7[D]). **Figure 9** shows that average ACT composite scores by high school range from 13.9 to 24.5 (out of 36).

Figure 10 indicates that these differences between high schools can be meaningfully grouped by school poverty level. Low-poverty schools achieved distinctly higher average ACT composite scores than high-poverty schools, with a 7-point gap indicating meaningful differences in mastery of content. Low-poverty schools achieved an average composite score of 21.3, moderate-poverty schools achieved an average score of 16.8, and high-poverty schools achieved an average score of 14.1.

An examination of ACT composite scores through the lens of school poverty level and race reveals disparities between poverty levels and racial achievement gaps within school poverty levels (**Figure 11**). Black, Hispanic and white students in low-poverty schools outperform their subgroup peers in moderate- and high-poverty schools. At all poverty levels, white students achieve higher average ACT scores than do their black and Hispanic peers. However, the difference between white, black, and Hispanic students is smaller in high-poverty schools. White students in low-poverty schools are the highest performing subgroup of those reported here. Black and Hispanic students in low- and moderate-poverty schools outperform white students in high-poverty schools.

19 A fifth writing section asks students to write a short essay in response to an open-ended question. The writing section is optional on other administrations of the ACT, but is required on the ACT administration given by the state for accountability purposes.

20 In December 2011, the NC State Board of Education approved the ACT to become part of North Carolina's READY Accountability Model. Each year since then, all high school juniors in CMS have taken the ACT at no charge, increasing college accessibility for all students and particularly for low-income students. For more information, please see the NCDPI resources available at http://www.ncpublicschools.org/accountability/act. The rates reported here include only data from the state-administered ACT.

D As noted on page 14, the superscript D indicates that the percentage it follows is a *district average*, rolled up from all individual students' data. These numbers match those that have been publicly reported.

Figure 9: Distribution of Average High School ACT Composite Scores

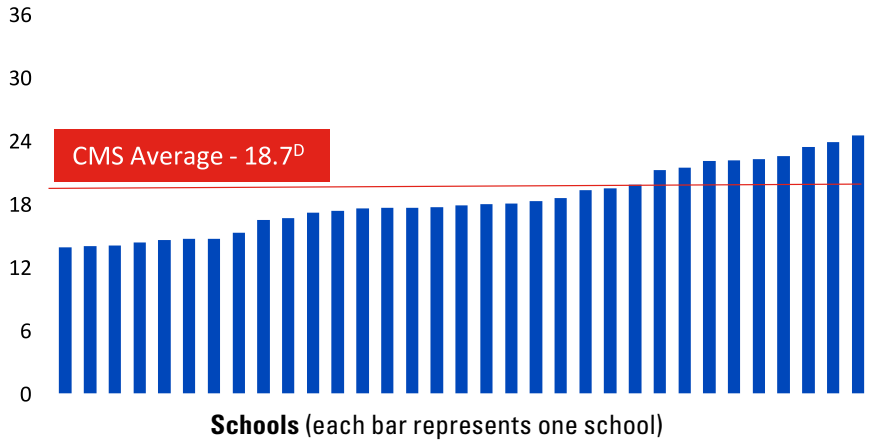


Figure 10: Average ACT Composite Scores by High School Poverty Level

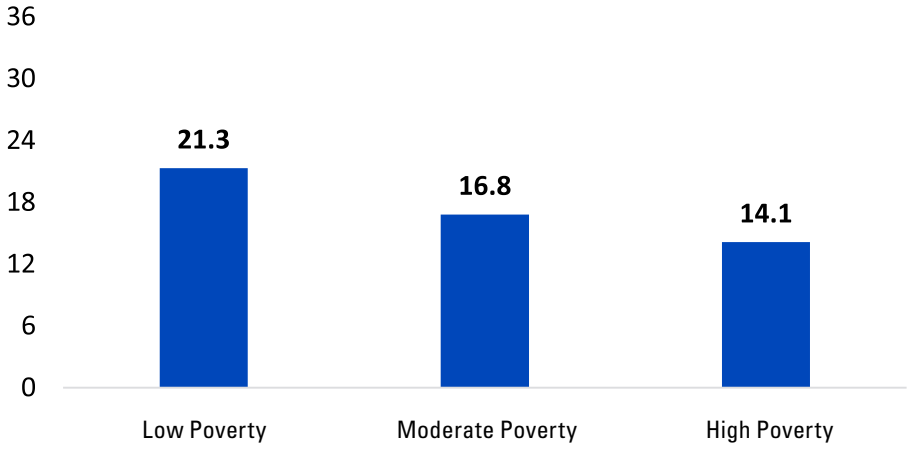
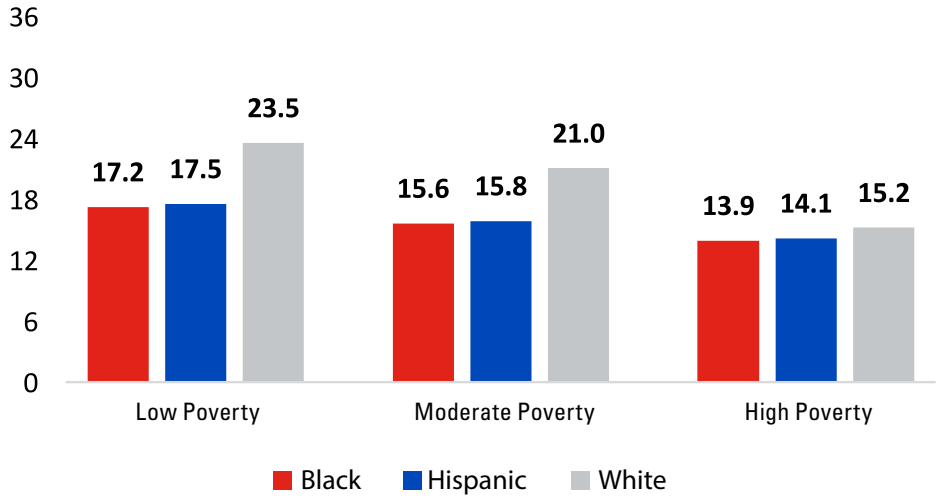


Figure 11: Average ACT Composite Scores by School Poverty Level and Race



ACT Minimum Composite Score of 17

Another way of looking at ACT scores is to compare the percentage of 11th grade students at each school who reach the minimum composite score of 17 required for entrance into UNC system colleges. The CMS overall percentage of students attaining at least a 17 ACT composite score was 56.3 percent[D] (**Figure 12**, below, for the distribution of schools).

Figure 13 shows these same data grouped by school poverty level. Students reaching a composite score of at least 17 are more common in low-poverty high schools. Indeed, at low-poverty schools, on average, three-quarters of students achieve a composite score of 17 or greater. The decline in the percentage of students reaching at least a composite score of 17 is steep as school poverty level increases. At moderate-poverty schools, less than half of students, on average, reach this standard; at high-poverty schools, it is less than a quarter.

Figure 13: Average School Percentage of Students Reaching the UNC Admission Minimum ACT Composite Score of 17 by School Poverty Level

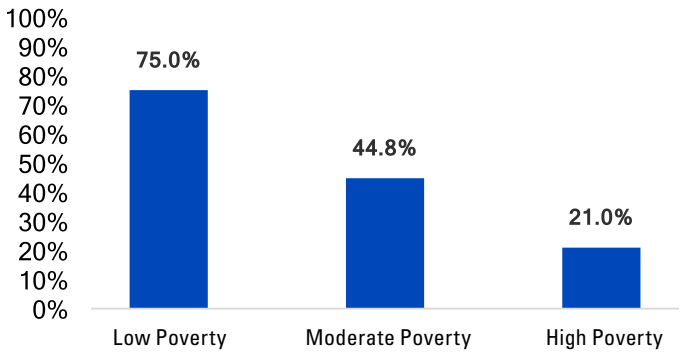
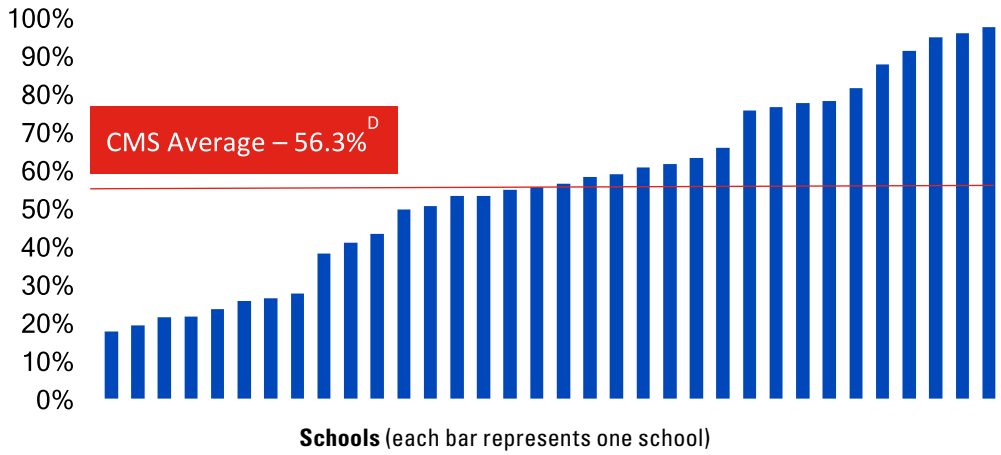


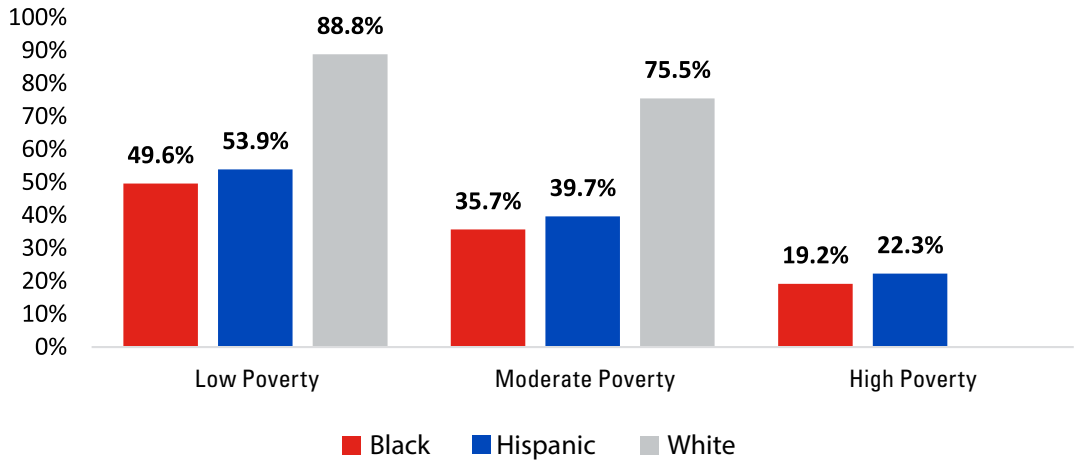
Figure 12: Distribution of CMS High Schools Percentage of Students Meeting the UNC Minimum ACT Composite Score of 17



Disaggregation by student race in **Figure 14** shows that on average at low- and moderate-poverty schools, white students reach the UNC minimum admission score at a much higher rate than do black or Hispanic students. Moving from low-poverty to moderate-poverty schools, students' (of all races) rates of reaching this standard drop notably.

Both race and school poverty level are indicative of this rate, on average. Indeed, on average, black and Hispanic students in low-poverty schools are twice as likely (or more) to reach an ACT composite score of 17 than are students of the same races in high-poverty schools.

Figure 14: Average Percentage of Students Reaching the UNC Admission Minimum ACT Composite Score of 17 by School Poverty Level and Race



The number of white students in high-poverty schools is too small to report. See Appendix D for more information.

Graduation Rate

The four-year cohort graduation rate (CGR) is the percentage of students graduating from high school in four years or fewer, and is computed at the school and district levels. In 2017, the district cohort graduation rate was 89.4 percent[D]. Students included in the 2017 graduation cohort were first-time 9th graders in the 2013-2014 school year. Cohort graduation rates for each high school (**Figure 15**, below) ranged from 75.8 percent to greater than 95 percent[21].

These same data grouped by school poverty level (**Figure 16**) offer insight into the distribution. In low-poverty schools as a group, 95.2 percent of first-time 9th graders in 2013-2014 graduated on time (that is, in four years or fewer). High-poverty schools have an average cohort graduation rate of 77.6 percent, more than ten percentage points below the district average.

Figure 16: School Average Four-Year Cohort Graduation Rate by School Poverty Level

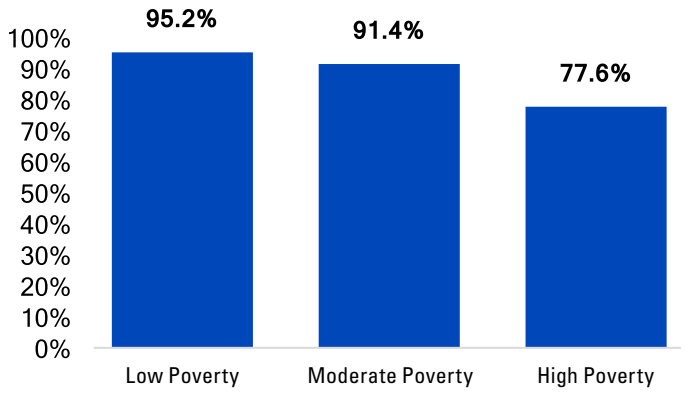
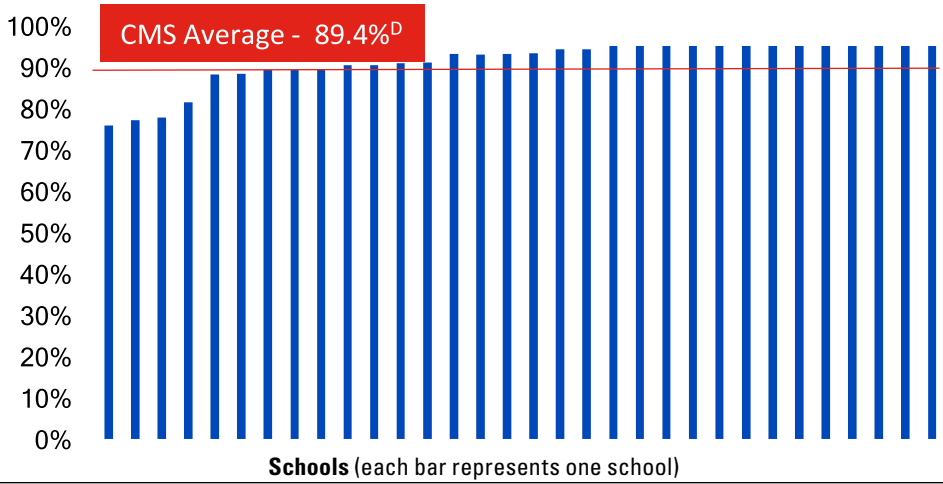
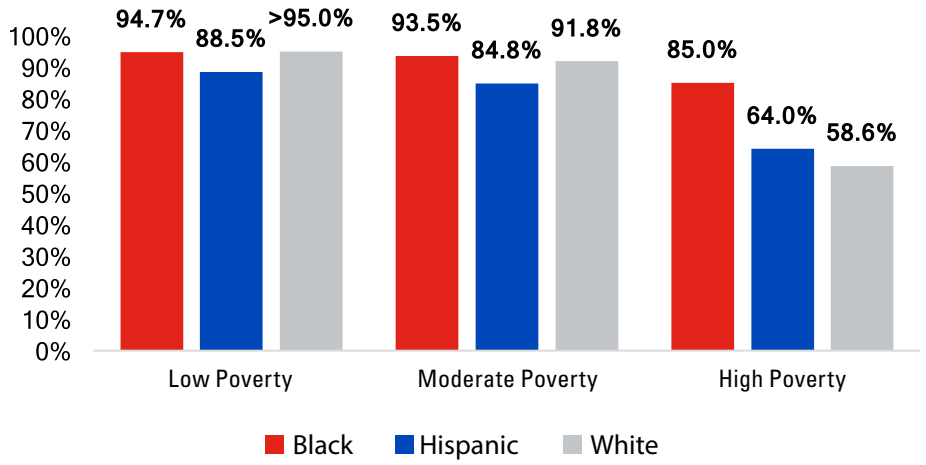


Figure 15: Distribution of High School 4-Year Cohort Graduation Rates



21 Graduation rates at 95 percent or higher must be masked to ensure confidentiality of individual student data. Thirteen schools have a graduation rate of 95 percent or greater and these schools are represented with bars at 95 percent in Figure 15.

Figure 17: School Average Four-Year Cohort Graduation Rate by Poverty Level and Race



Further disaggregating these data (**Figure 17**) reveals that students of different races experience different graduation outcomes, on average, by school poverty level. It is notable that approximately 9 out of 10 black students in CMS graduate on time regardless of school poverty level. Equally striking is that graduation outcomes are distinctly less positive for Hispanic and white students as school poverty increases.

In low-poverty schools in CMS, 94.7 percent of black students and more than 95 percent of white students graduate on time. Although the Hispanic cohort graduation rate is lower, on average, nearly nine out of ten Hispanic students at low-poverty schools still graduate on time. Black students in low- and moderate-poverty schools are more likely to graduate on time than black students in high-poverty schools. Black students in moderate-poverty schools are more likely to graduate on time than both their Hispanic and white peers in moderate-poverty schools.

In high-poverty schools, graduation rates for students of all races are substantially lower than for their counterparts at low-poverty schools. Fully 85.0 percent of first-time 9th grade black students graduate in four years or fewer. However, less than two-thirds of Hispanic and white students graduate in four years or fewer at high-poverty schools. While white students make up a very small proportion of enrolled students in high-poverty schools, Hispanic students make up a substantial proportion of the population in such schools.

In summary, on average, across all of the above measures except graduation rate, there are wide differences in performance between low-, moderate-, and high-poverty schools. The gaps are largest when comparing low- and high-poverty schools, with gaps in College and Career Readiness rates on EOGs and EOCs as large as 30 or 40 percentage points. In some instances, such as in math in grades 6-8, the difference is almost 50 percentage points. Similar disparities can be seen in performance on the ACT exam.

In reading and math in grades 6-8, the gap in College and Career Readiness between low- and high-poverty schools is nearly 50 percentage points.

Differences are also evident in the disaggregation of the data by race. White students within each school poverty level outperform their Hispanic and black peers in nearly every subject on the EOGs and EOCs. Frequently, the largest performance gaps are between white students in low-poverty schools and black students in high-poverty schools. One large gap is in EOG math in grades 6-8, with a 64 percentage point difference between white students in low-poverty schools and black students in high-poverty schools. On the ACT, comparing the percentage of students that reached a composite score of 17, the gap between white students in low-poverty schools and black students in high-poverty schools is nearly 70 percentage points. Collectively, these data demonstrate that, on average, across every performance measure except graduation rate, the predictive link continues to prevail.

How Do Key Levers Linked to Outcomes Vary Among CMS Schools?

HOW DO KEY LEVERS LINKED TO OUTCOMES VARY AMONG CMS SCHOOLS?

Despite the many factors beyond a school's control that influence student performance, there are key levers within our circle of influence that can break the predictive link between student demographics and student achievement. Among them are time, great teachers, and access to advanced coursework. These by no means are silver bullets, nor are they the *only* levers, or resources, that can make a difference for students. These three levers represent a starting place in our analysis of resource distribution and access between schools. In subsequent *Breaking the Link* reports, additional resources will be added and analyzed. In this inaugural report, we start with these.

Time In School

Time in school is a vital resource to maximize student performance. Research shows that time – instructional hours – used well is correlated with improved school performance and increased student test scores. In North Carolina, the minimum instructional hour requirement for schools is 1,025 hours and CMS exceeds this number. This means that all schools have the same number of instructional hours (with the exception of schools on continuous learning calendars). With such parity, one could easily assume that all traditional-calendar schools are working with the same amount of instructional time. However, two areas can dramatically impact instructional time in schools: student absenteeism and out-of-school suspensions (OSS). In this section we look beyond the instructional hours offered, and delve more deeply into student attendance and suspension rates to provide a more nuanced look at the instructional time at each school.

Figure 18a: Distribution of School Average Daily Attendance - Grades K-5

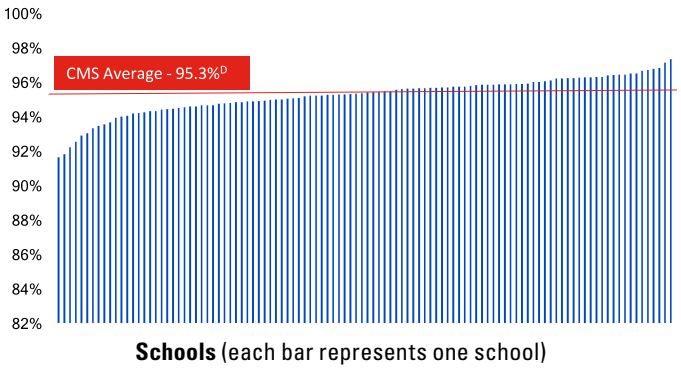


Figure 18b: Distribution of School Average Daily Attendance - Grades 6-8

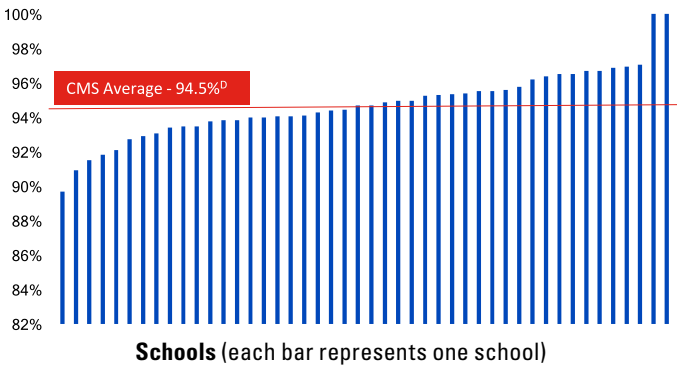
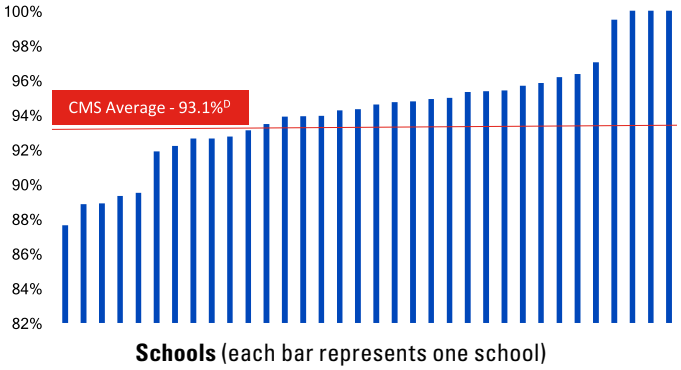


Figure 18c: Distribution of School Average Daily Attendance - Grades 9-12



Average Daily Attendance

Among the many factors that impact student achievement, attendance is one of the strongest determinants of performance. Absences are negatively associated with academic achievement, promotion to the next grade level, high school completion, and future employment opportunities.[22] Furthermore, students with higher rates of absenteeism have lower scores on national standardized tests.[23] These effects are exacerbated for students in urban schools.[24]

Attendance reflects the presence of a student within a school while that school is in session. A student must meet one of three criteria to be considered present: the student must either be present at school, present at a school-sponsored activity that is part of a school program, or personally supervised by a member of school staff. Average Daily Attendance (ADA) reflects the total number of days of attendance for all students divided by the total days enrolled for all students.

Figure 19a: Average Daily Attendance by School Poverty Level: All Levels

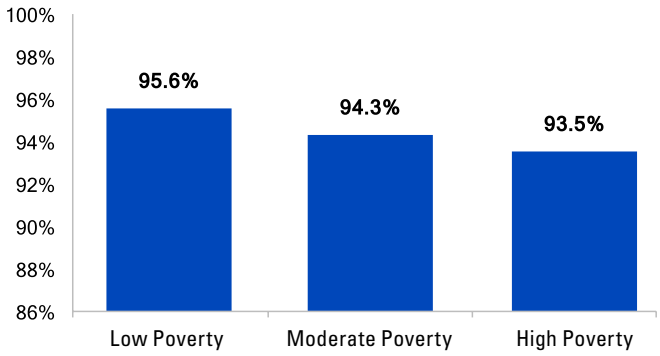


Figure 19b: Average Daily Attendance by School Poverty Level: Grades K-5

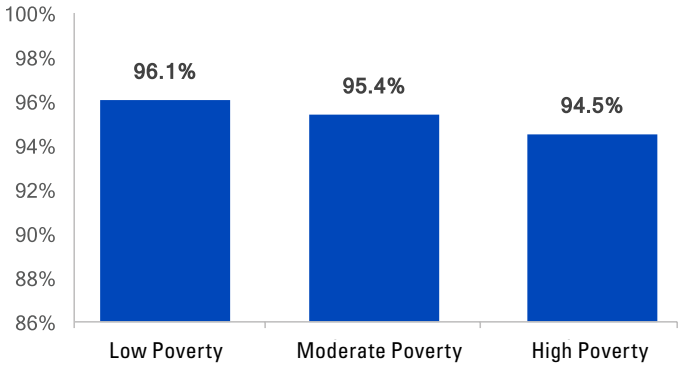


Figure 19c: Average Daily Attendance by School Poverty Level: Grades 6-8

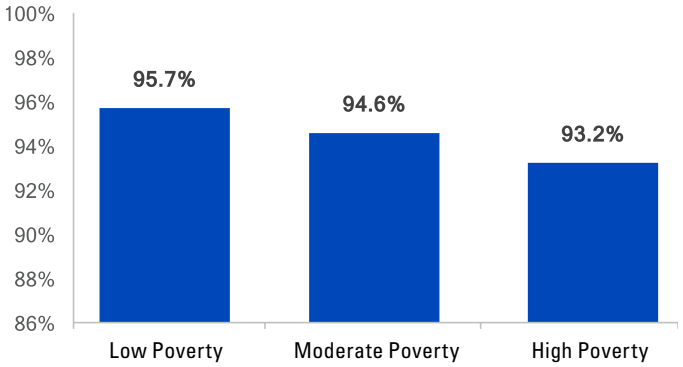
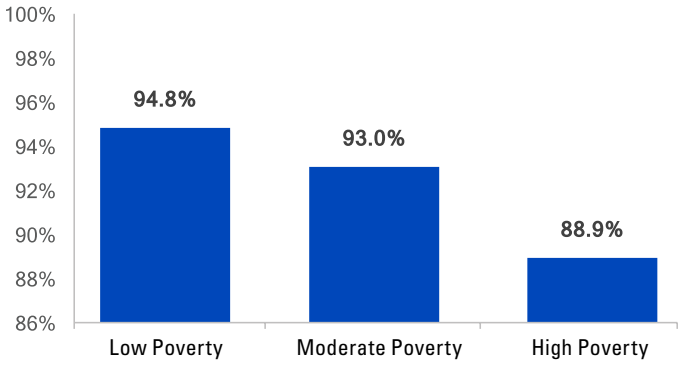


Figure 19d: Average Daily Attendance by School Poverty Level: Grades 9-12



22 Gottfried, 2009; Lehr, Hansen, Sinclair, & Christenson, 2003; Steward, Steward, Blair, Jo, & Hill, 2008.
23 Ginsburg, Jordan, & Chang, 2014; Gottfried, 2009.
24 Balfanz & Legters, 2004; Orfield & Kornhaber, 2001.

CMS students in the aggregate have an average ADA that ranges from 93.1 percent to of 95.3 percent depending on the grade span **(Figures 18a-c)**. When looking at each grade span through the lens of school poverty level, differences in access to instructional time become more apparent. In all grade spans, ADA decreases from low-poverty to moderate-poverty to high-poverty schools **(Figures 19a-19d)**. This pattern is most evident in grades 9-12, where the difference in ADA between low- and high-poverty schools is nearly six percentage points, with students in grades 9-12 in high poverty schools having an ADA of approximately 89 percent **(Figure 19d)**.

Similar dynamics are observed when looking at ADA in each grade span by school poverty level and race. In the aggregate, the ADA in low-poverty schools for all racial groups looks quite similar with rates that range from 94.3 percent for Hispanic students to 95.7 percent for white students **(Figure 20a)**. In moderate-poverty schools, Hispanic students had the lowest ADA within poverty level of the three racial groups reported here. Yet, at high-poverty schools, Hispanic students have an average daily attendance rate of 94.0 percent, the highest of the three racial groups. Overall ADA does seem to be impacted, although in some cases only slightly, by school poverty level for each racial group. This dynamic is observed for each grade span, particularly in grades 9-12.

In grades K-5, there are only slight differences in ADA between low-, moderate-, and high-poverty schools **(Figure 20b)**. This is in contrast to grades 6-8, where differences become more apparent between high-poverty schools and their low- and moderate-poverty counterparts **(Figure 20c)**. In grades 9-12, differences in ADA are very evident as poverty level increases **(Figure 20d)**. Of note, at high-poverty schools in grades 9-12, ADA dips to 89.2 percent for black students, 89.0 percent for white students, and 88.1 percent for Hispanic students, which is the lowest of any racial subgroup reported here.

Figure 20a: Average Daily Attendance by School Poverty Level and Race: All Levels

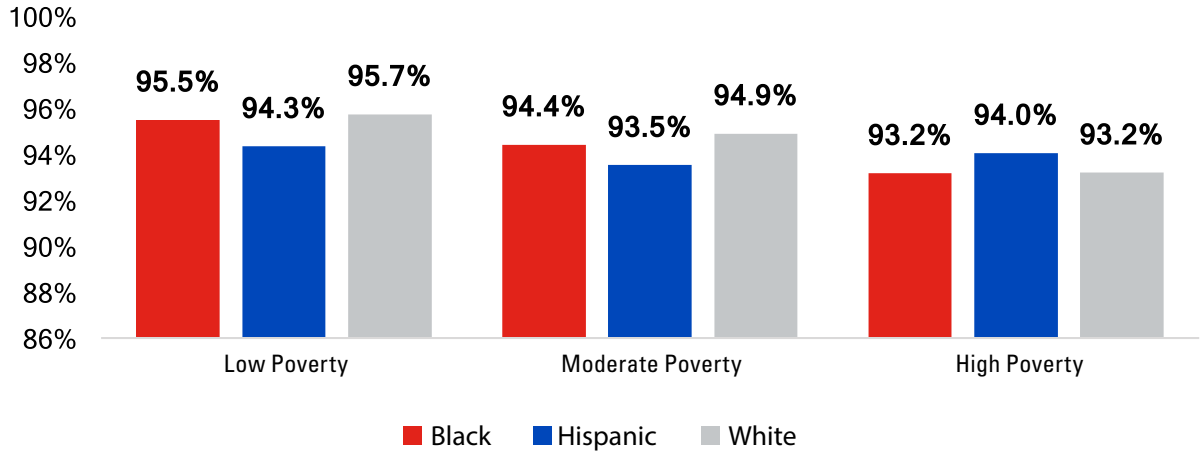


Figure 20b: Average Daily Attendance by School Poverty Level and Race: Grades K-5

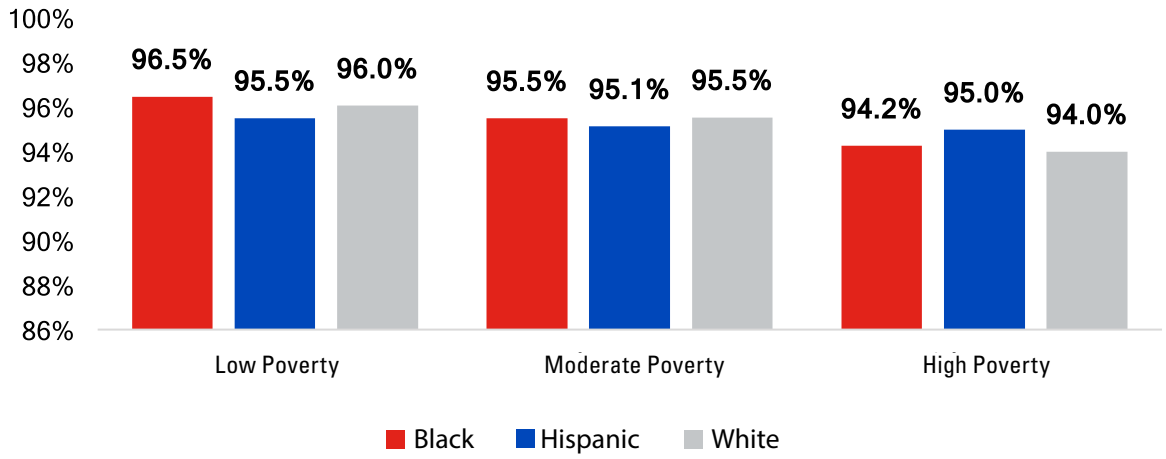


Figure 20c: Average Daily Attendance by School Poverty Level and Race: Grades 6-8

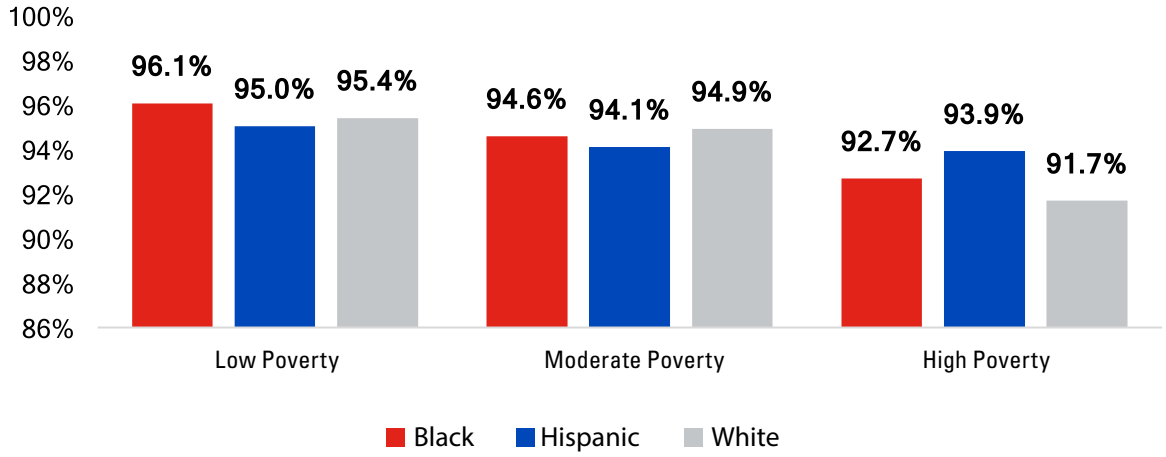
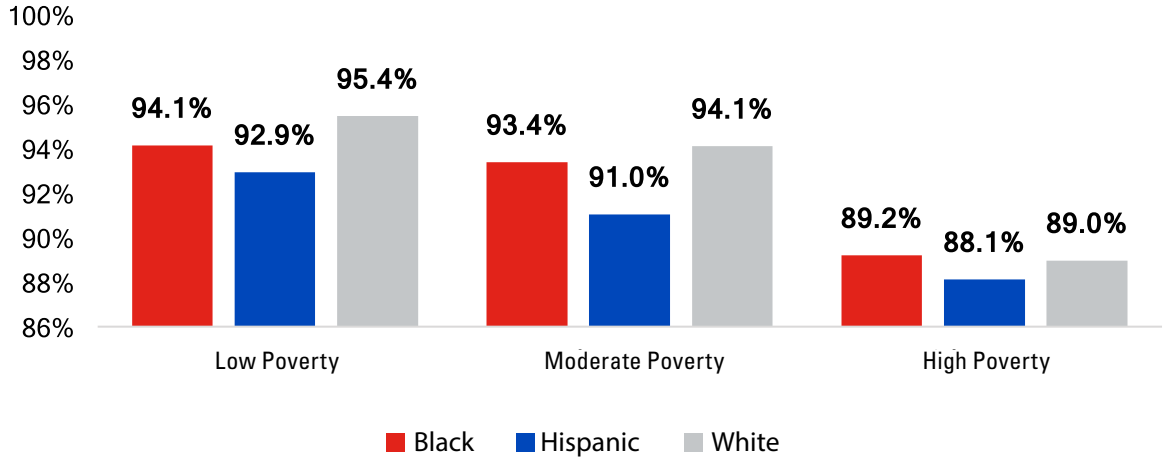


Figure 20d: Average Daily Attendance by School Poverty Level and Race: Grades 9-12



Chronic Absenteeism

As stated above, average daily attendance reflects students' presence in school while school is in session. Sometimes, hidden within any school's ADA is a group of students who are chronically absent. CMS defines chronic absenteeism as missing more than 10 percent of school days enrolled, which is consistent with the way it is often defined by researchers.[25] Research indicates that between 10 percent and 15 percent of U.S. K-12 students are considered chronically absent[26] under this definition. However, there is no common definition among states. A 2016 U.S. Department of Education report estimates that 13 percent of U.S. students, or 6.5 million students, are chronically absent based on a definition of 15 or more school days absent during the school year. In large urban school districts, the rate of chronic absenteeism is even higher.[27] Some researchers[28] liken chronic absenteeism to bacteria in a hospital and describe it as "an unseen force that wreaks havoc on efforts to improve life outcomes". They suggest that if chronic absenteeism is not reduced, it will explain why the school reform efforts of the last 25 years have not been as effective as intended and that chronic absenteeism will continue to negatively impact school improvement efforts. It is for these reasons that chronic absenteeism is included within this report. Please note that out-of-school suspension (OSS) days are counted as days absent.

As shown in **Figures 21a-c**, grades K-5 have the lowest rates of chronic absenteeism (average 10.2 percent [D]), followed by grades 6-8 (average = 14.7 percent [D]), followed by grades 9-12 (average = 20.2 percent [D]). Overall, 13.4 percent [D, 29] of CMS students in grades K-12 missed more than ten percent of school days, which is consistent with the national average.

25 Balfanz & Byrnes, 2012.
26 U.S. Department of Education, 2016.
27 Nauer, Mader, Robinson, & Jacobs, 2014.
28 Ginsburg, Jordan, & Chang, 2014.
29 Based on Strategic Plan result for the district from 2016-2017.

Figure 21a: Percentage of Chronically Absent Students By School (Grades K-5)

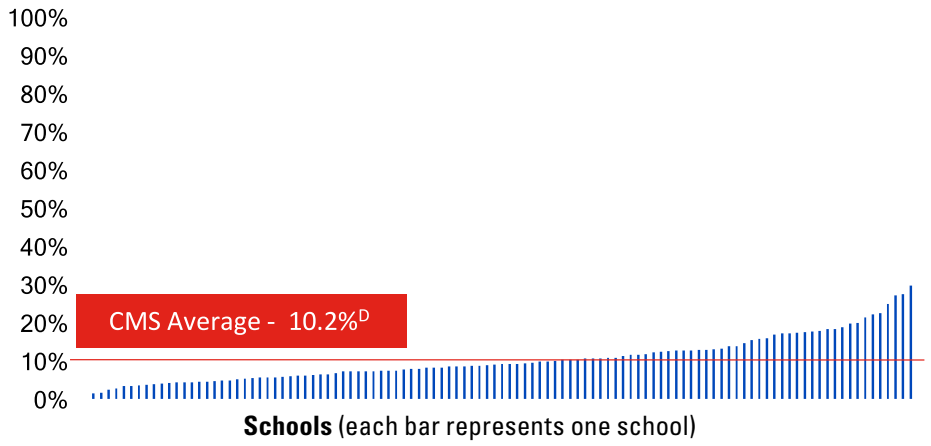


Figure 21b: Percentage of Chronically Absent Students By School (Grades 6-8)

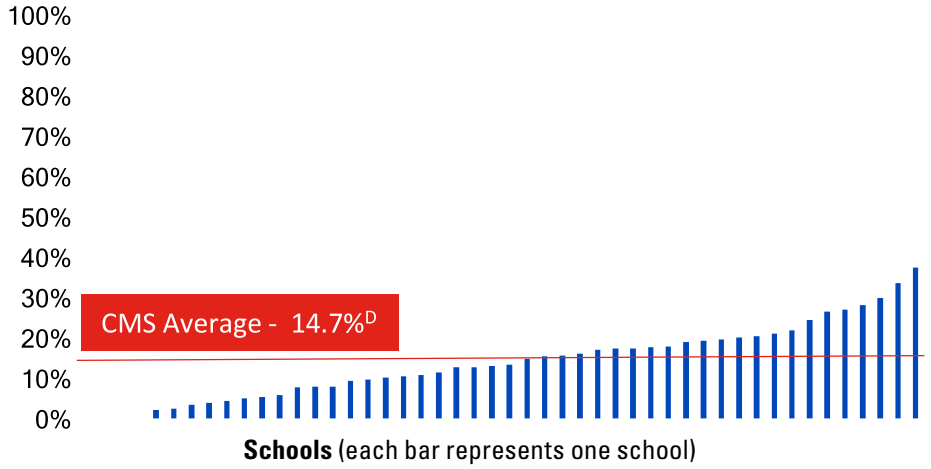
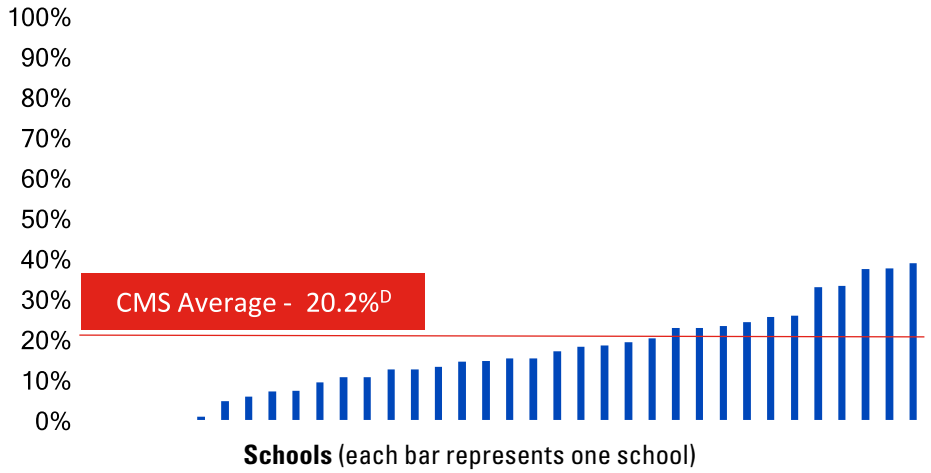
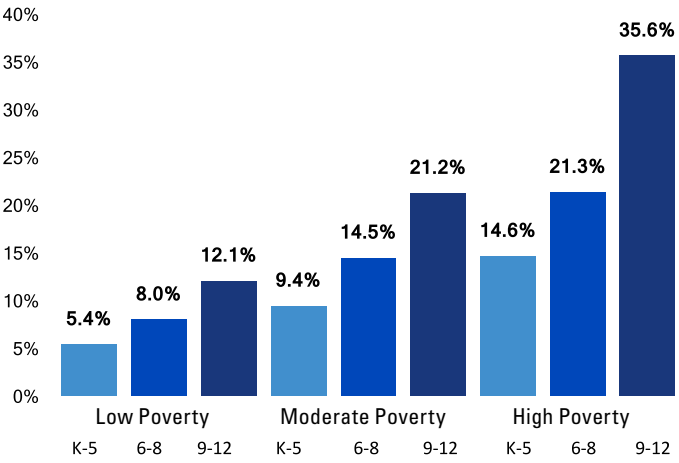


Figure 21c: Percentage of Chronically Absent Students By School (Grades 9-12)



However, a closer look reveals that the percentage of students who are chronically absent is greatest among high-poverty schools, followed by moderate-poverty schools, and then low-poverty schools. This is true for all grade spans **(Figure 22)**. The percentage of chronically absent students in grades 9-12 at high-poverty schools is particularly concerning (35.6 percent), especially when compared to students in the same grades at low-poverty schools (12.1 percent).

Figure 22: Chronic Absenteeism by Grade Span and School Poverty Level



In looking at chronic absenteeism by school poverty level and race, we see variation, with rates increasing from low- to moderate- to high-poverty schools for all races **(Figures 23a-c)**. In particular, chronic absenteeism rates are highest at high-poverty schools for all races. In the secondary grades, chronic absenteeism rates quickly escalate as school poverty level increases. In grades 6-8, chronic absenteeism climbs from low- to moderate- to high-poverty schools, reaching 24.6 percent for black students and 25.4 percent for white students in high-poverty schools. Likewise, in grades 9-12, chronic absenteeism is highest in high-poverty schools, reaching 35.4 percent for black students, 37.4 percent for Hispanic students, and 34.7 percent for white students. This amounts to more than one in three students in high-poverty high schools being absent more than ten percent of the time. Absenteeism at this level can disrupt instructional continuity even for those students who are present and leave large numbers of chronically absent students scrambling to catch up.

Figure 23a: Percentage of Chronically Absent Students by School Poverty Level and Race - Grades K-5

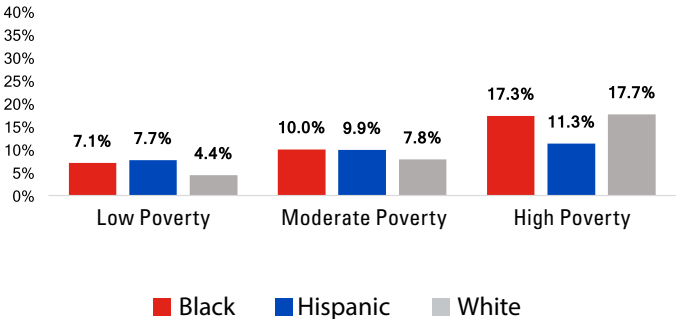


Figure 23b: Percentage of Chronically Absent Students by School Poverty Level and Race - Grades 6-8

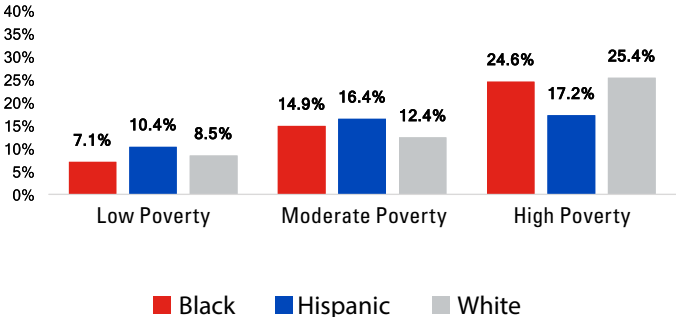
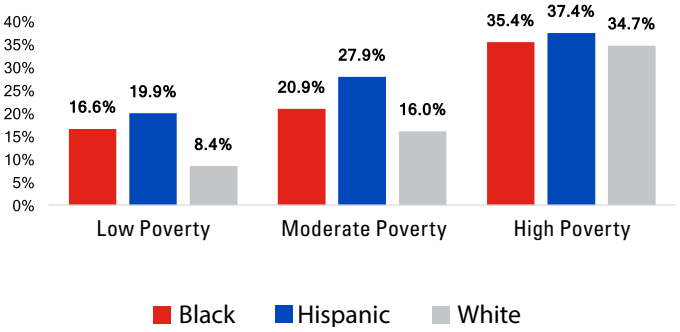


Figure 23c: Percentage of Chronically Absent Students by School Poverty Level and Race - Grades 9-12



Out-of-School Suspensions

In addition to absenteeism, out-of-school suspensions can reduce access to instructional time. Within CMS, a student can be suspended from school for infractions of the Code of Student Conduct. The use of out-of-school suspension (OSS) is reserved as a consequence for student conduct where other documented options either have not been effective or, in the judgment of the principal, will not serve to protect other students and staff at the school or will not preserve an orderly school environment.

District-wide, most incidents (and most incidents that result in OSS) are coded as Unacceptable Behavior (UB) Acts. These types of acts account for 97 percent[D] of all incidents district-wide. The top five UB codes reported from 2016-2017 are aggressive behavior, disruptive behavior, insubordination, fighting, and inappropriate language/disrespect. These five categories make up 72.5 percent[D] of all UB incidents that resulted in OSS in 2016-2017. The related figures and text refer to data for OSS resulting from UB incidents only (that is, "discretionary suspensions").

The percentages of CMS students who were suspended from school at least once during the school year are presented in **Figures 24a-c**. As displayed, on average, 3.3 percent of students have one or more discretionary suspensions in grades K-5, 11.2 percent in grades 6-8, and 9.2 percent in grades 9-12. By school, this varies widely, as some schools suspend less than one percent of students and others suspend more than 20 percent.

In CMS overall, the percentage of students with one or more out-of-school suspensions tends to climb from 6th grade to 9th grade. This corresponds with students' transition in grades 6-9 from childhood to adolescence, a period of time in human development that occurs from approximately ages 10 to 19[30].

Figure 24a: Distribution of School Average Percentage of Students with One or More Discretionary Suspensions - Grades K-5

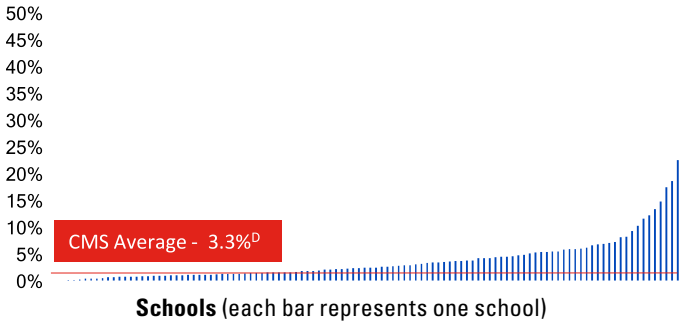


Figure 24b: Distribution of School Average Percentage of Students with One or More Discretionary Suspensions - Grades 6-8

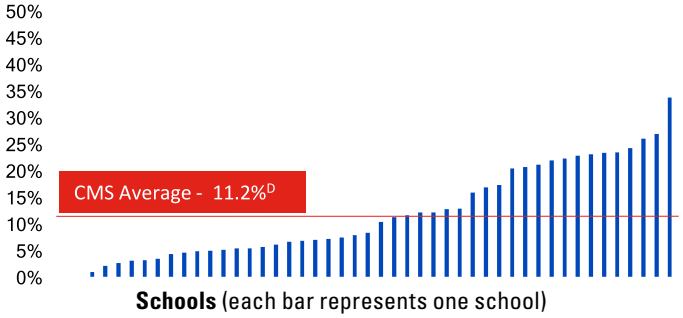
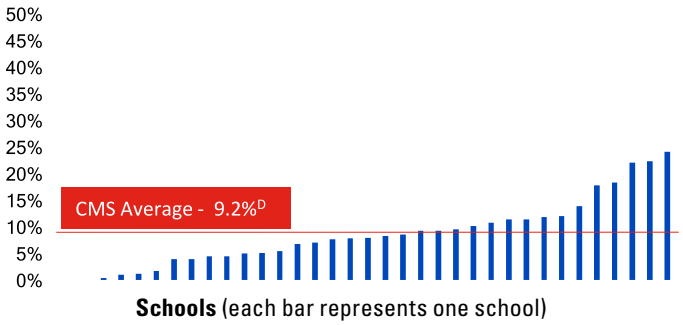


Figure 24c: Distribution of School Average Percentage of Students with One or More Discretionary Suspensions - Grades 9-12



30 World Health Organization, 2017.

As displayed in **Figure 25**, it is evident that high-poverty schools have a greater percentage of students with one or more discretionary suspensions, particularly in grades 6-8 (19.0 percent) and 9-12 (16.8 percent). In low-poverty schools, grades K-5 have the lowest rate of students with one or more discretionary suspensions (1.1 percent). Low-poverty schools in grades 6-8 and 9-12 have very similar suspension rates (4.4 percent and 4.7 percent, respectively). In high-poverty schools, suspension rates are more than three times higher than in low-poverty schools in each grade span.

When looking at suspensions through the lens of school poverty level and race, further trends emerge. In all grade spans, it is evident that the percentage of black students with one or more discretionary suspensions is substantially higher than every other race **(Figures 26a-c**, next page**)**. This is the case in all three poverty levels. In fact, in each poverty level and grade span, the percentage of black students with one or more discretionary suspensions is at least one-and-a-half times higher than the next highest racial subgroup.

In sum, racial disparities in suspension rates are evident in every grade span and every school poverty level. When coupled with data on student average daily attendance and chronic absenteeism, the potential lack of parity in time between schools becomes clear. Though all schools (with the exception of those following a continuous learning calendar) receive the same number of instructional hours annually, high-poverty schools appear to have greater obstacles realizing that time. High suspension rates in high-poverty schools (particularly in grades 6-8 and for black students) and high chronic absenteeism in every grade span in high-poverty schools (but particularly in grades 9-12) combine to erode instructional time at these schools. Though allocations are equal, what is *experienced* by students varies.

Collectively, data presented here demonstrate disparities in instructional time despite equal allocations across schools. In grades K-5, Average Daily Attendance rates across all school poverty levels and racial subgroups reported here are fairly similar. However, differences in rates of chronic absenteeism and OSS are more pronounced, increasing progressively as school poverty increases.

These disparities are magnified in grades 6-8. On average, in grades 6-8, Average Daily Attendance rates in low- and moderate-poverty schools are comparable overall and for each racial subgroup reported here. Black and white students in high-poverty schools have lower Average Daily Attendance than their peers of the same race in other schools, while Hispanic students

The percentage of grades 6-8 students receiving a discretionary suspension in moderate-poverty schools is twice as high as in low-poverty schools, and in high-poverty schools it is more than four times as high as in low-poverty schools.

Figure 25: Percentage of Students with One or More Discretionary Suspensions by Grade Span and School Poverty Level

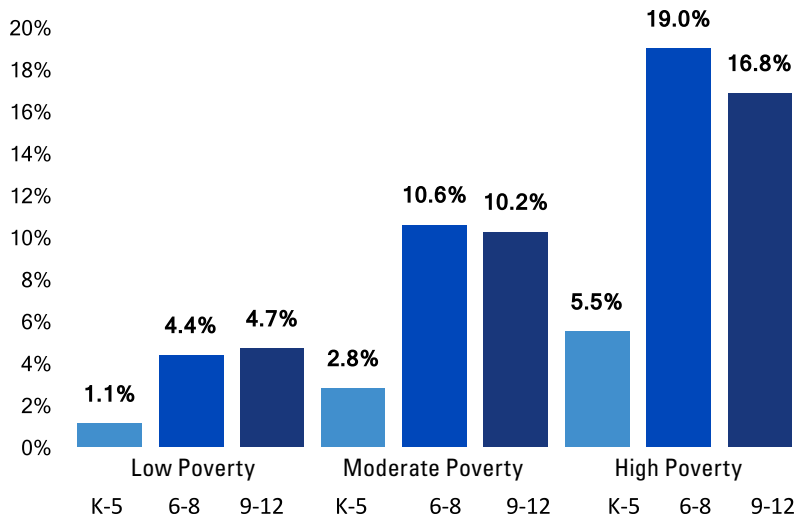


Figure 26a: Percentage of Students with One or More Discretionary Suspensions by School Poverty Level and Race - Grades K-5

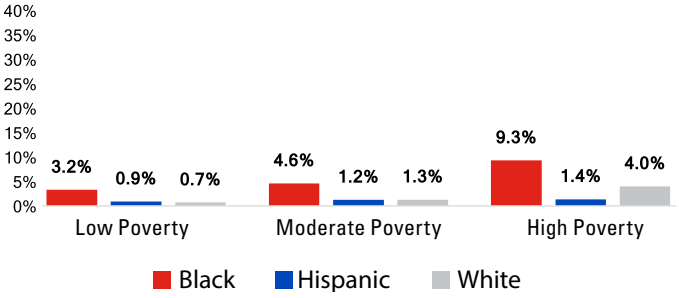


Figure 26b: Percentage of Students with One or More Discretionary Suspensions by School Poverty Level and Race - Grades 6-8

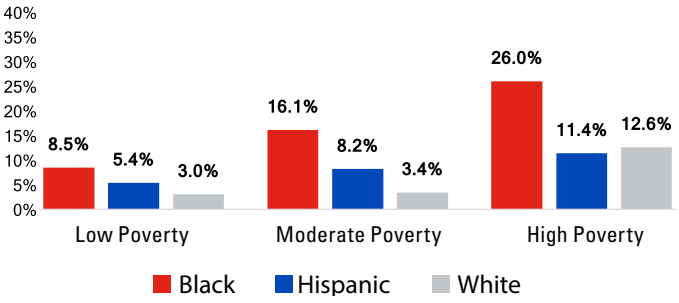
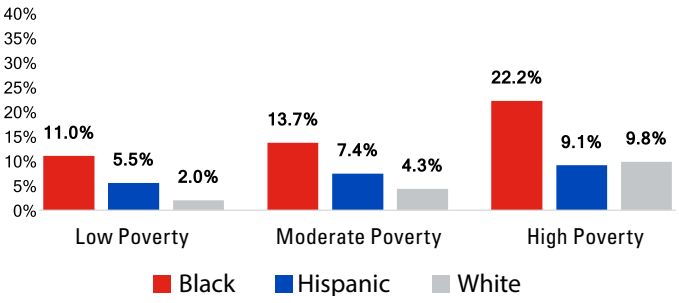


Figure 26c: Percentage of Students with One or More Discretionary Suspensions by School Poverty Level and Race - Grades 9-12



in high-poverty schools keep pace with Hispanic students in moderate and low-poverty schools. As school poverty level increases, chronic absenteeism in grades 6-8 increases sharply. Similar increases in the percentage of students receiving a discretionary suspension are additionally alarming: the percentage of grades 6-8 students receiving a discretionary suspension in moderate-poverty schools is twice as high as in low-poverty schools, and in high-poverty schools it is more than four times higher. These disparities translate into real differences in the way instructional time is experienced by students.

In grades 9-12, the same trends are seen for attendance, chronic absenteeism, and suspensions. Average Daily Attendance rates decline progressively across school poverty levels. Chronic absenteeism increases progressively as school poverty level increases. High-poverty schools, on average, have the highest chronic absenteeism rates in grades 9-12 (32.6 percent; more than four times higher than low-poverty schools, on average). Discretionary suspension rates in grades 9-12 also increase progressively with school poverty level.

In sum, though time is allocated equally to all schools, it is not experienced in the same way in low-, moderate-, and high-poverty schools.

Though time is allocated equally to all schools, it is not experienced in the same way in low-, moderate-, and high-poverty schools.

Highly Effective Teachers

All students benefit from learning from great teachers. Both empirical research and field knowledge establish that teachers matter. If a student has a highly effective teacher multiple years in a row, he or she or can make tremendous academic gains over time.

A fundamental challenge of acting on the finding that great teachers make a difference is reliably identifying the highly effective teachers. Some may know them when they see them. Still, the field of education grapples with identifying these teachers. One way to identify highly effective teachers is to look for teachers who help their students grow academically. The expectation of all teachers is, at a minimum, to succeed in helping each student experience a year's worth of growth for a year's worth of instruction. A teacher who *exceeds* that expectation may be considered highly effective. This approach, though imperfect, is the way highly effective teachers are identified in this report. In this section we look at both the supply of highly effective teachers in the 2016-2017 school year and which students generally get access to them.

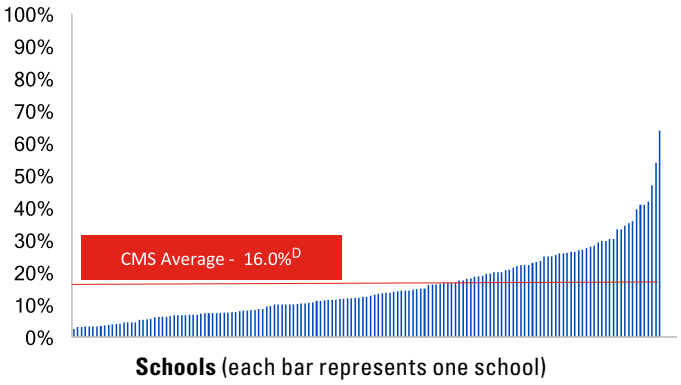
Teachers Exceeding Expected Growth

In North Carolina, teachers who teach in grades or courses that require certain standardized tests at the end of the year participate in an Education Value-Added Assessment System (EVAAS). Those teachers in tested grades and subjects receive one of three ratings indicating the amount of academic growth their students experienced in their classrooms: does not meet expected growth, meets expected growth, or exceeds expected growth.

In 2016-2017, CMS had 960 of 6,004 eligible teachers who received an EVAAS composite, or overall, rating of Exceeds Expected Growth[31]. One hundred fifty-three of 167 CMS schools had one or more of these 960 teachers. **Figure 27** shows the distribution by school of those teachers with an EVAAS rating of Exceeds Expected Growth during the 2016-2017 school year. The average percentage in CMS was 16.0 percent[D].

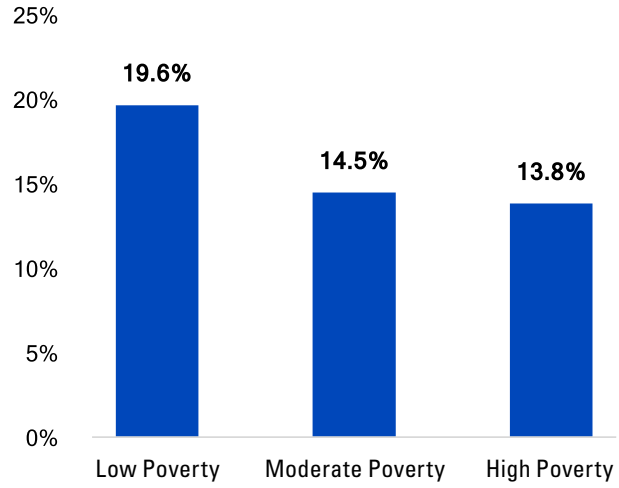
Figure 28 shows these same data grouped by school poverty level. These data show that low-poverty schools, on average, have a greater percentage of teachers who received an EVAAS rating of Exceeds Expected Growth than moderate- and high-poverty schools. Specifically, nearly one in five teachers with an EVAAS rating in

Figure 27: Distribution of EVAAS-Rated Teachers with Ratings of Exceeds Expected Growth



Note: Fourteen schools had zero EVAAS-rated teachers with a composite rating of Exceeds Expected Growth.

Figure 28: Percentage of EVAAS-Rated Teachers Exceeding Expected Growth by School Poverty Level



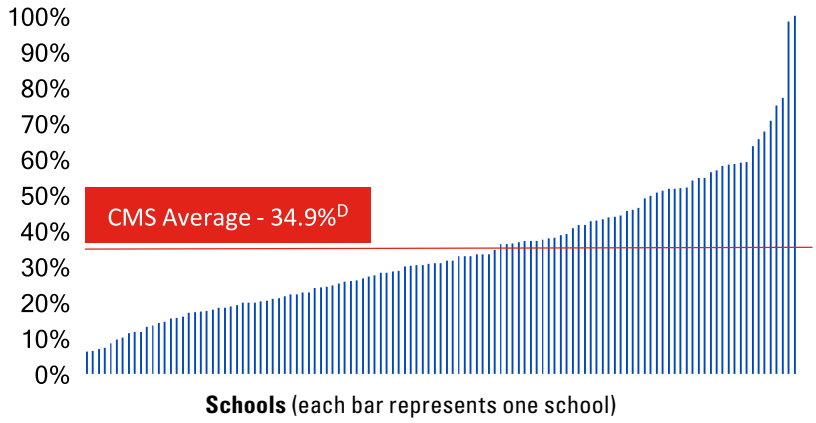
31 Additional teachers received Exceeds Expected Growth ratings for particular subjects but not for the composite, or overall, score. As a reminder, only teachers in tested grades and subjects are eligible to receive any EVAAS rating.

low-poverty schools helped their students achieve more than a year's worth of growth during a single year of instruction. In high-poverty schools, that rate was closer to one in ten teachers with an EVAAS rating.

There is another way to think about the supply of highly effective teachers. Rather than consider teachers who received an EVAAS rating of Exceeded Expected Growth in 2016-2017 at the end of the year, we can consider how many teachers entered the 2016-2017 school year with an EVAAS rating of Exceeds Expected Growth from the previous year. This allows us to look at those teachers who previously proved to be highly effective.

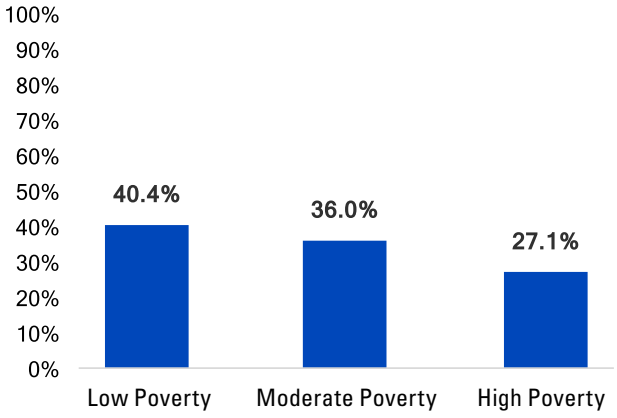
This leads to the question: *How many students in EOG-tested grades and subjects were taught by these teachers who were deemed highly effective in the same subject in the previous school year?* The percentage of students in EOG-tested grades and subjects taught by these teachers in 2016-2017 is shown in **Figure 29**.[32] Rates range widely across schools, from 0 percent to more than 60 percent of students in tested grades being taught by proven highly effective teachers. Looking at these same data through the lens of school poverty level offers additional insight. We see that a greater percentage of students in tested grades within low-poverty schools are taught by highly effective teachers than in moderate-poverty or high-poverty schools **(Figure 30)**.

Figure 29: Percentage of Students Taught in an EOG-Tested Subject by a Teacher Rated as Exceeds Expected Growth in the Same Subject in the Previous School Year*



**Seventeen schools are at 0 percent, meaning that zero teachers at that school had a rating of Exceeds Expected Growth in a subject in 2015-2016 and taught again in the same tested subject.*

Figure 30: Percentage of Students Taught in an EOG-Tested Subject by a Teacher Rated as Exceeds Expected Growth in the Same Subject in the Previous School Year by School Poverty Level

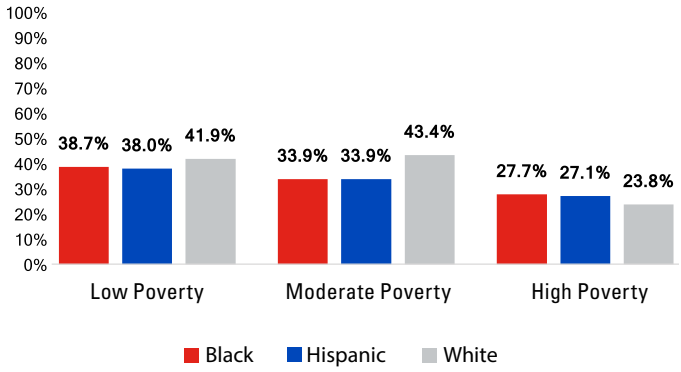


32 Tested subjects and teachers were matched over both years. That is, a teacher must have exceeded growth in 2015-2016 in the same subject as the student was enrolled in during 2016-2017. Using this method, 119 of 136 schools enrolling students in grades 3-8 (in both 2015-2016 and 2016-2017) had one or more students taught by a teacher entering the 2016-2017 school year rated as Exceeds Expected Growth in the same subject.

Figure 31 disaggregates these same data by student race. This graph is meant to answer the question, *Of the teachers who exceeded expected growth in 2015-2016, do students of different races have comparable access to these teachers at various school poverty levels in the 2016-2017 school year?* Again, keep in mind that this graph represents data for only the group of teachers who exceeded growth in 2015-2016 in the same subject in grades 3-8.

We see that in low-poverty and moderate-poverty schools, there is a slight difference in access to highly effective teachers based on student race. In low-poverty schools, black and Hispanic students are separated by about three percentage points from white students, with 38.7 percent of black students and 38.0 percent of Hispanic students in tested grades being taught by a teachers who exceeded growth the year prior, compared to 41.9 percent of white students. In moderate-poverty schools, black and Hispanic students in tested grades have the same level of access to teachers who exceeded growth the year prior (33.9 percent), while white students have a substantially greater rate of access (nearly 10 percentage points greater; 43.4 percent). In high-poverty schools, black and Hispanic students also have about the same level of access to teachers who exceeded growth the year prior (27.7 percent for black students and 27.1 percent for Hispanic students), while white students in tested grades have slightly less access (23.8 percent).

Figure 31: Average Percentage of Students Taught in an EOG-Tested Subject by a Teacher Rated as Exceeds Expected Growth in the Same Subject in the Previous School Year by School Poverty Level and Race



Retention of Teachers Exceeding Expected Growth

In order to best serve and educate students, schools must retain the highly effective teachers on staff from year to year. **Figure 32**, next page, shows the distribution of teachers rated as Exceeds Expected Growth who were retained at each school from 2015-2016 to 2016-2017. The CMS district-wide retention rate of these highly effective teachers was 83.5 percent[D]. Across the district, many schools were able to retain 100 percent of their teachers rated as Exceeds Expected Growth, whereas some schools retained less than half. Again, only teachers in tested grades and subjects are eligible to receive an EVAAS rating. Additionally, two schools that were new in 2016-2017 are excluded from this measure.

These same data grouped by school poverty level **(Figure 33**, next page**)** shows that high-poverty schools retained a lower percentage of teachers who Exceeded Expected Growth (75.3 percent) than the overall district average (83.5 percent[D]). Low-poverty schools, on the other hand, retained a greater percentage of these teachers (86.9 percent) than the district overall.

First-Year Teachers

Highly rated teachers can be difficult to retain and also to attract to schools. As a result, some schools may be faced with a need to continually hire and mentor new, often inexperienced, teachers. Studies[33] using data from North Carolina and Florida show that, on average, teachers with one to two years of experience are more effective than teachers with no experience. The same studies show that inexperienced teachers are more likely to teach in high-poverty schools.

In CMS, the percentage of students assigned to one or more first-year teachers varies by school. Overall, approximately 29.7 percent of CMS students were taught at least one course by a first-year teacher.[34] These rates are higher in middle and high school grades, where students are likely to be assigned to different teachers for each subject, giving them more chances to be assigned to a first-year teacher. The overall distribution of students with first-year teachers in the district is shown in **Figure 34**.

33 Rice, 2010.

34 *First-year* is defined as having less than two full school years of teaching experience by the end of the 2016-2017 school year. Includes teachers who taught for the first time in 2016-2017 or for only a portion of a prior year. Excludes teachers with job titles specific to Arts Education, Physical Education, and ROTC. Teachers who had served in other capacities within CMS (e.g. teacher assistant, substitute teacher) prior to teaching in 2016-2017 are counted as first-year teachers.

Figure 32: Distribution of Percentage of Teachers Rated as Exceeds Expected Growth Retained from 2015-2016 to 2016-2017

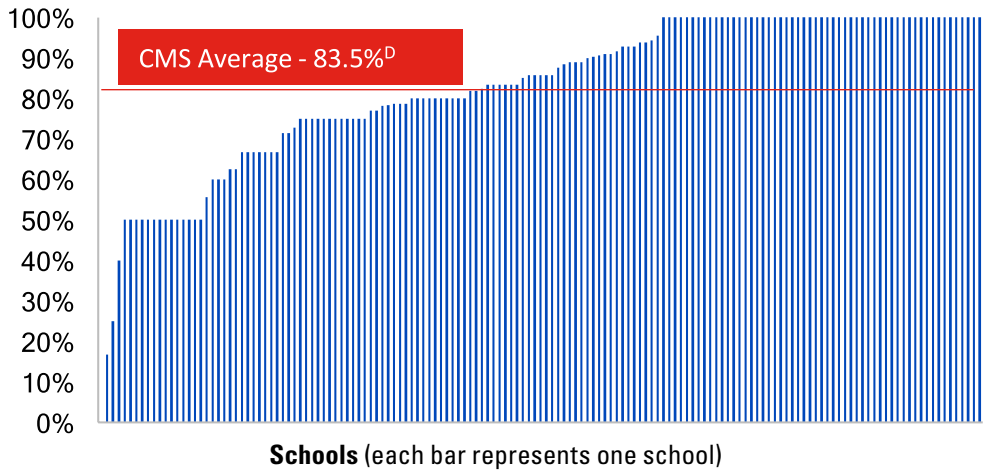


Figure 33: Average School Percentage of Teachers Rated as Exceeds Expected Growth Retained from 2015-2016 to 2016-2017 by School Poverty Level

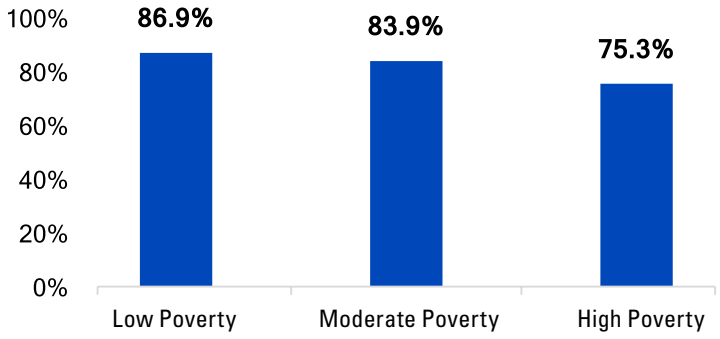
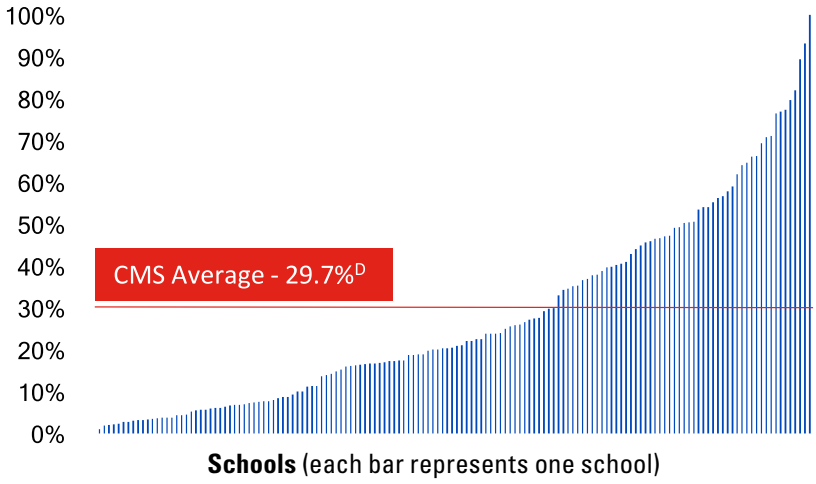


Figure 34: Distribution of Percentage of Students with at Least One First-Year Teacher*



**Note: Nineteen schools had zero students with a first-year teacher*

The same distribution grouped by school poverty level in **Figure 35** shows that there is a smaller percentage of students who have at least one first-year teacher in low-poverty schools than in moderate- and high- poverty schools (20.5 percent vs. 35.2 percent and 34.7 percent, respectively).

As seen in **Figure 36**, additional disaggregation of these data by race shows some variation among major racial groups within school poverty levels. Within every school poverty level, white students have a lesser chance of having a first-year teacher than their black or Hispanic peers. On average, a student of any race attending a low-poverty school is less likely to have a first-year teacher than his or her counterparts in moderate- and high-poverty schools. Black and Hispanic students at moderate- and high-poverty schools are more likely to have a first-year teacher than are black and Hispanic students at low-poverty schools. In contrast, white students at schools of all poverty levels have about a one-in-four or one-in-five chance of having a first-year teacher. In a notable departure from patterns seen in other measures, these rates are slightly higher in moderate-poverty schools, on average, compared to both low- and high-poverty schools.

In summary, on average, students in EOG-tested grades and subjects in high-poverty schools do not receive the same level of access to highly effective teachers as their peers in low-poverty schools. A smaller percentage of teachers in tested grades are rated as exceeding expected growth in high-poverty schools as compared to low- or moderate-poverty schools. Similarly, high-poverty schools retain a lower percentage of highly effective teachers than moderate- and low-poverty schools do. Conversely, the percentage of students with first-year teachers is higher in both moderate- and high-poverty schools than in low-poverty schools. Although disparities in these measures are evident across school poverty levels, racial disparities *within* school poverty levels are somewhat less extreme than in other measures.

Figure 35: Average Percentage of Students with at Least One First-Year Teacher by School Poverty Level

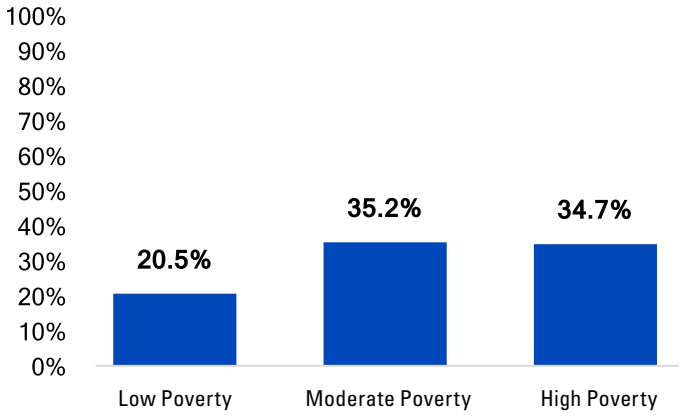
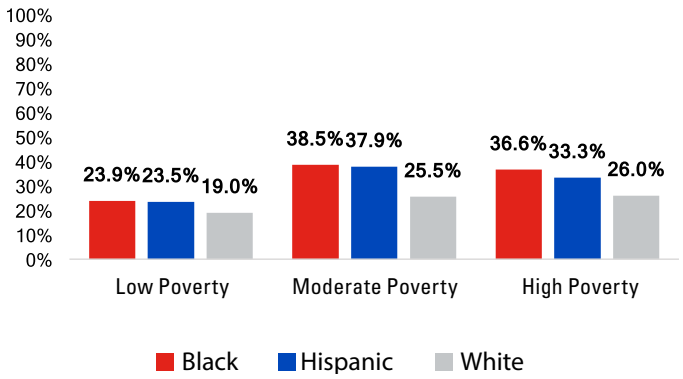


Figure 36: Average Percentage of Students with at Least One First-Year Teacher by School Poverty Level and Race



College Level Courses

Access to rigorous coursework in high school is a key lever in breaking the predictive link between student background and success in college. As stated above, research has demonstrated that a student's course of study in high school can break the link between a student's background (i.e., gender, race, socioeconomic status) and college completion outcome.[35] One type of course offered that is academically rigorous is Advanced Placement (AP). Another type of course (or course of study) is International Baccalaureate (IB). A third type of course is referred to as a dual enrollment course, whereby a student takes a college course while enrolled in high school. Dual enrollment programs allow eligible North Carolina high school students to enroll in college classes tuition-free at North Carolina community colleges and universities through their high schools. Students can earn dual credit by meeting high school graduation requirements, and in many cases, simultaneously earn college credit for successful completion of the course. In this report, we look at course taking in these three areas.

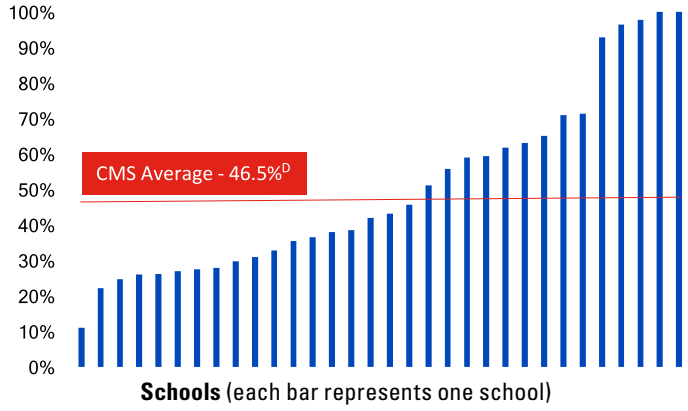
Advanced Placement, International Baccalaureate, and Dual Enrollment

Each CMS high school offers at least one of the three college-level options: AP, IB, or dual enrollment. Successfully completing one or more of these courses is an indicator that a student is ready for college-level coursework. **Figure 37** shows the distribution by school of students who complete at least one college-level course. Nearly half (46.5 percent[D]) of CMS graduates left high school having completed one or more such courses. At a few high schools, over 90 percent of graduates had completed a college-level course; at other high schools, less than a third of graduates had completed one.

The percentage of students completing at least one college-level course before graduation varies by school poverty level and race. In low-poverty schools, on average, 61.1 percent of graduates completed a college-level course **(Figure 38)**. In moderate-poverty schools, the rate was 37.7 percent; in low-poverty schools, it was just 25.4 percent. That is, one-fourth of graduates at high-poverty schools completed a college-level course during high school whereas nearly two-thirds of graduates of low-poverty high schools completed a college-level course during high school.

At a few high schools, over 90 percent of graduates had completed a college-level course; at other high schools, less than a third of graduates had completed one.

Figure 37: Distribution of Percentages of Graduates Completing at Least One College-level* Course by School

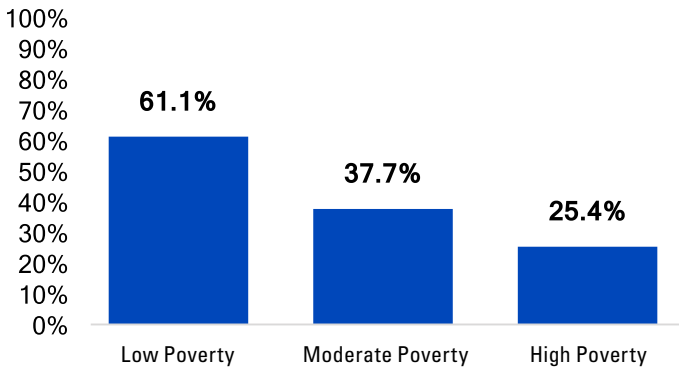


**Advanced Placement, International Baccalaureate, or Dual Enrollment*

35 Adelman, 1999; 2006

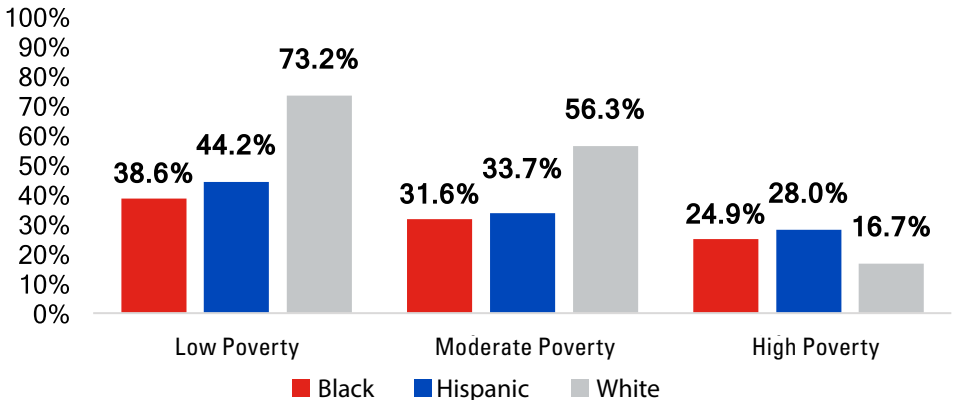
Figure 39 shows these same data grouped by school poverty level and race. Within and across school poverty levels there is a clear pattern by student race: at low- and moderate-poverty schools, there is a difference of at least 24 points between the percentages of white and black graduates completing at least one college-level course, with average rates for Hispanic students slightly above the rates for black students. While only 26.8 percent of white graduates of low-poverty schools *have not completed* a college-level course, only 24.9 percent of black graduates of high-poverty schools *have completed* a college-level course.

Figure 38: Average Percentage of Graduates Completing at Least One College-Level* Course By School Poverty Level



**Advanced Placement, International Baccalaureate, or Dual Enrollment*

Figure 39: Average Percentage of Graduates Completing at Least One College-Level* Course by School Poverty Level and Race



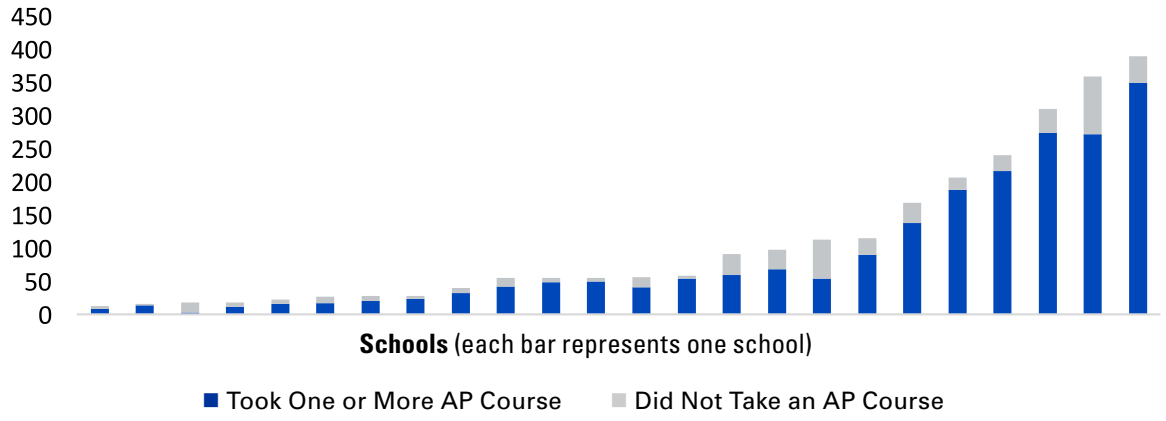
**Advanced Placement, International Baccalaureate, or Dual Enrollment*

Advanced Placement Potential and Participation

It is not assumed that every high school student is prepared to take and succeed in an AP course. A student's level of preparedness can be a result of high school factors or factors largely outside of a high school's influence. In acknowledgement of the diversity of factors that can contribute to a student's preparedness for rigorous coursework in high school, we took a deeper look at AP course-taking for students that exhibited the potential to score a 3, 4 or 5 on an AP exam. This is generally referred to as AP potential.

There are several measures of AP potential. One widely accepted measure of such potential was developed by the company that makes AP exams, the College Board.

Figure 40: School Distribution of Graduates Identified as Having AP Potential Taking at Least One AP Course



Note: Seven high schools have insufficient data for this measure because the total number of 2016-2017 graduates with AP Potential is 10 or fewer.

The College Board calculates a student's probability of passing an AP exam based on his or her PSAT score. A student is identified as having AP Potential if his or her calculated probability of passing an AP exam (getting a 3, 4 or 5) is 60 percent or greater.[36]

Examining the course-taking of students determined to have AP Potential, rather than all students who took an Advanced Placement course, helps us to take a closer look at access. These data indicate, though roughly, how well our high schools advise and support all students who might succeed in college-level coursework to enroll and persist in at least one college-level course. The measure is important because research shows that high-poverty students are less likely, compared to other students, to self-select into AP courses, and less likely to be advised by school staff to do so, regardless of how likely they are to succeed.[37] In fact, early choices about prerequisite course enrollment can determine a student's access to college-level academic rigor later in high school.

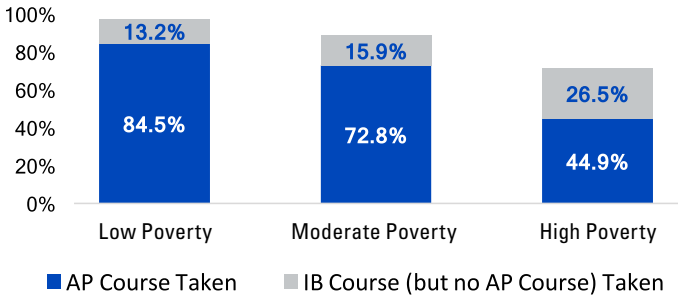
Figure 40 shows the number of 2016-2017 graduates at each school assessed to have AP Potential and indicates whether or not those students ultimately took at least one AP course.

In a low-poverty school, regardless of race, students with AP Potential have about an eight in ten chance of taking at least one AP course.

From viewing **Figure 40**, it is clear schools vary in the number of their graduates exhibiting AP Potential.

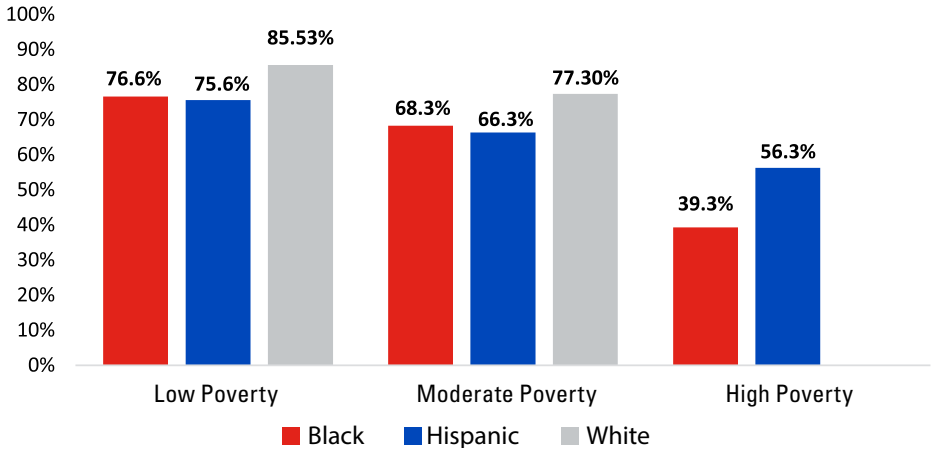
Figure 41 shows the percentage of students, by school poverty level, exhibiting AP Potential who take at least one AP course before graduating. Low-poverty schools enrolled an average of 84.5 percent of their graduates with AP Potential in an AP course. Conversely, high-poverty schools enrolled an average of 44.9 percent of their graduates with AP Potential in at least one AP course, meaning that more than half of students that were likely to succeed in an AP course did not ultimately enroll in one. It is important to note that five high schools have an IB program (two of these are located at high-poverty high schools) and students in these programs may decide to enroll in an IB course rather than an AP course. **Figure 41** also displays the percentage of students with AP Potential who did not enroll in an AP course but did enroll in an IB course.

Figure 41: Average Percentage of Graduates with AP Potential Taking At Least One AP Course (or IB Course) by School Poverty Level



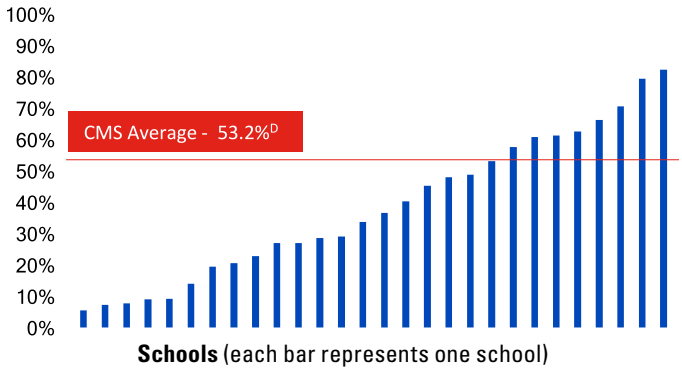
36 Zhang, Patel, & Ewing, 2014.
37 Kyburg, Hertberg-Davis, & Callahan, 2007.

Figure 42: Average Percentage of Graduates with AP Potential Taking At Least One AP Course By School Poverty Level and Race



The number of white students in high-poverty schools is too small to report. See Appendix D for more information.

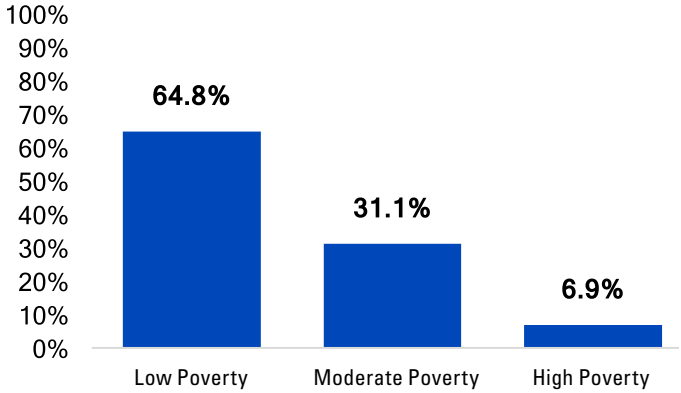
Figure 43: Distribution of 2017 Advanced Placement Exam Pass Rates by High School



Note: Two high schools had rates <5 percent and therefore are not reported; however, students from these schools are included in the district average.

A look at these same data disaggregated by school poverty level and race provides greater insight into access to AP courses. Low-poverty schools appear to be better at enrolling students with AP Potential of all races in an AP course than are other schools, on average. In low-poverty schools, at least three-fourths of all black, Hispanic and white graduates with AP Potential enrolled in at least one AP course, with white students with AP Potential taking at least one AP course at the highest rate (85.5 percent). At moderate-poverty schools, at least two-thirds of all black, Hispanic and white graduates with AP Potential enrolled in an AP course, again with white graduates with AP Potential having the highest rate of course taking (77.3 percent). Only 39.3 percent of black graduates with AP Potential at high-poverty schools, on average, took related AP coursework, compared to 56.3 percent of Hispanic graduates at high-poverty schools. At high-poverty schools, the number of white graduates with AP Potential is too small to report the percentage here.

Figure 44: Average Percentage Of Passing AP Scores by High School Poverty Level



Advanced Placement Exams

Students enrolled in AP courses have the opportunity to take an exam in that subject area. These exams are produced by the College Board. Currently there are thirty-three AP subject exams administered in CMS. Scores for each exam range from 1 to 5, with scores of 3, 4, and 5 considered passing. Students who earn AP exam scores of 3 or above often receive credit for a corresponding college course. Most students taking an AP exam have completed the related AP course, although that is not required in order to take the exam.

Figure 43 displays the percentage of exams taken that are passed (scores of 3, 4, and 5). Just over half (53.2 percent[p]) of AP exams taken in CMS are passed. Some high schools have AP exam pass rates of less than 10 percent, while schools at the other end of the continuum have pass rates higher than 70 percent. **Figure 44** shows averages for each school poverty level.

High-poverty schools have a pass rate dramatically lower than moderate- and low-poverty schools. Specifically, at low-poverty schools, on average, 64.8 percent of AP exams taken are passed. At high-poverty schools, on average, only 6.9 percent of AP exams taken are passed.

In summary, completion rates of college-level courses vary by school poverty level and race. In low-poverty schools on average, more than 60 percent of students complete at least one college-level course. In high-poverty schools, only 25 percent of students do so. Completion rates also differ notably by race, with white students completing college-level courses at rates 35 and 25 percentage points higher than black students

On average, AP exams taken at low-poverty schools are passed at a rate nearly ten times higher than at high-poverty schools.

at low- and moderate-poverty schools, respectively. At high-poverty schools, that racial gap does not hold, but students of all three races complete college-level courses at relatively low rates.

Looking closely at AP course enrollment, more than eight in ten graduates with AP Potential in low-poverty schools had taken one or more AP course. In both low- and moderate-poverty schools, white graduates with AP Potential are about 10 percentage points more likely than their black and Hispanic peers with AP Potential to have taken AP courses. In high-poverty schools, these rates are substantially lower for students of all races, particularly for black students. Even at high-poverty schools, more than half of Hispanic graduates with AP Potential had enrolled in an AP course. Only 39.3 percent of black students with AP Potential in high-poverty schools graduate having taken an AP course: 29 percentage points lower than their black peers in moderate-poverty schools and 37 percentage points lower than their black peers at low-poverty schools. Finally, large gaps in AP exam pass rates by school poverty level indicate that students who are taking college-level coursework at high-poverty schools achieve content mastery at lower rates, and leave high school with less college credit, than their peers at lower poverty schools.

SUMMARY & FUTURE DIRECTIONS

This report serves as a 2016-2017 analysis meant to answer three questions in the context of poverty and race: *What are the racial and income demographics of CMS schools?, What are CMS school outcomes?, and How do key levers linked to outcomes vary among CMS schools?* The report was written in acknowledgement of the **Charlotte-Mecklenburg Board of Education's Policy Code ADA: *Equitable Distribution of Resources***, which aims to maximize the academic achievement of every student.

In summary, for nearly every measure analyzed, there were differences in performance in 2016-2017 by school poverty level and by race. Overall, data revealed that the links between school poverty level, race, and academic performance persist. Students in low-poverty schools consistently outperformed their peers in moderate- and high-poverty schools on EOG, EOC, ACT, and AP exams. Performance was generally more similar within a poverty level for all races than for a single race across poverty levels. Still, with limited exceptions, there were both within–school-poverty-level and across–school-poverty-level achievement gaps between black, Hispanic, and white students. Those gaps were often most pronounced between white students in low-poverty schools and black students in high-poverty schools.

Access to time, highly effective teachers, and college-level courses also varied by school poverty level and race. On average, students in low-poverty schools lost less time due to absenteeism or out-of-school suspensions, had greater access to highly effective teachers, and completed college-level courses at a greater rate than their peers.

The link between poverty and academic outcomes involves many other factors that are not measured in this first report. In future iterations of the *Breaking the Link* report, we hope to include data on some of these, including access to courses, college enrollment and persistence, student engagement, the state of facilities, availability of resources, and per pupil expenditures.

As one example, in the 2015-2016 school year, CMS participated in a regularly-scheduled accreditation review for the district. A finding of the review focused on the

condition of the facilities. On the one hand, it was noted that within the CMS portfolio of schools there are state-of-the-art facilities that are in great condition. On the other hand, too many CMS schools are overcrowded or are in buildings in need of renovation or replacement.

CMS recognizes the need for an increased investment in our facilities. In the spring of 2017, the Charlotte-Mecklenburg Board of Education submitted a request to advance a school bond initiative in excess of $900 million dollars and this was approved by Mecklenburg County voters on November 7, 2017. These funds will accompany the $90 million, six-year investment made by Mecklenburg County to address needed school renovations. As CMS continues working to provide every student with a facility suited to the delivery of a high-quality 21st century education, we will monitor and report on the percentage of our schools meeting a specified set of facility standards. This will go hand-in-hand with ongoing efforts to make annual improvements in addressing this pressing community need.

CMS believes that all students need to be both challenged and supported in school. The availability of a rigorous, high-quality education ought to be distributed equitably among all students regardless of student demographics. In order to close existing gaps and increase opportunities for all students, change is necessary. Providing data to increase awareness in the larger community about the impacts of concentrations of poverty in our schools is only one way to improve support for student needs[38]. The Opportunity Task Force emphasized that it is our collective responsibility to create paths toward prosperity. Its members were emphatic that neither schools nor school systems can lay such ground alone.

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38 Leading on Opportunity Recommendations Matrix

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Appendix A. Community Eligibility Provision Details and List of Schools by Poverty Status Category in 2016-2017.

COMMUNITY ELIGIBILITY PROVISION

Section 104(a) of the Healthy, Hunger Free Kids Act of 2010 amended the National School Lunch Act to provide an alternative to household eligibility applications for free and reduced price meals in high poverty local educational agencies (LEAs, or districts) and schools. The overall purpose of the Community Eligibility Provision (CEP) of the U.S. Department of Agriculture (USDA) is to improve access to nutritious meals for students in high-poverty areas by providing meals to all students at no cost to the student or family.

CEP is available to LEAs and schools with 40 percent or more "identified students" as of the most recent April 1. To determine the Identified Student Percentage (ISP), LEAs and schools divide the number of identified students as of April 1 by the number of enrolled students as of April 1, and then multiply by 100.

Students can be directly certified through (1) Participation in Assistance Programs: a child (or any member of the child's household) receives benefits from the Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF), or Food Distribution Program on Indian Reservations (FDPIR), as determined through direct certification; (2) Receipt of Medicaid and have familial income at or below 133 percent of the Federal poverty level as determined by Medicaid; or (3) Enrollment in a Federally-funded Head Start or comparable State-funded Head Start or pre-kindergarten program, or is a homeless, runaway, migrant, or foster child.

Identified students are a subset of the students who would qualify for free or reduced-price school meals if their families completed a school meal application.

On May 1, 2016, states were required to publish a list of schools and school districts that were eligible or near-eligible for community eligibility in school year 2016-2017. The Food Research & Action Center, in partnership with the U.S. Department of Agriculture, compiled these lists and made them available in a searchable database: *http://frac.org/community-eligibility-database/*. You can also find more information on CEP here: *https://www.fns.usda.gov/sites/default/files/cn/SP22-2016a.pdf* and a fact sheet here: *https://www.fns.usda.gov/sites/default/files/cn/CEPfactsheet.pdf*

School	Identified Student Percentage (ISP)	Poverty Status Category
Elon Park Elementary	2 percent	Low Poverty
Polo Ridge Elementary	2 percent	Low Poverty
Providence Spring Elementary	3 percent	Low Poverty
Elizabeth Lane Elementary	4 percent	Low Poverty
Jay M Robinson Middle	5 percent	Low Poverty
Ardrey Kell High	5 percent	Low Poverty
Providence High	5 percent	Low Poverty
Hawk Ridge Elementary	6 percent	Low Poverty
Community House Middle	8 percent	Low Poverty
Park Road Montessori	8 percent	Low Poverty
South Charlotte Middle	8 percent	Low Poverty
Ballantyne Elementary	8 percent	Low Poverty
Grand Oak Elementary	9 percent	Low Poverty
William Amos Hough High	9 percent	Low Poverty
Sharon Elementary	10 percent	Low Poverty
McKee Road Elementary	10 percent	Low Poverty
Davidson Elementary	10 percent	Low Poverty
Chantilly Montessori	10 percent	Low Poverty
Torrence Creek Elementary	11 percent	Low Poverty
Olde Providence Elementary	12 percent	Low Poverty
Bailey Middle	12 percent	Low Poverty
Bain Elementary	12 percent	Low Poverty
Olympic High-Math English Tech Science	12 percent	Low Poverty

Selwyn Elementary	12 percent	Low Poverty
Levine Middle College High	12 percent	Low Poverty
J.V. Washam Elementary	13 percent	Low Poverty
McAlpine Elementary	13 percent	Low Poverty
Beverly Woods Elementary	13 percent	Low Poverty
Irwin Academic Center	14 percent	Low Poverty
Trillium Springs Montessori	14 percent	Low Poverty
Harper Middle College	14 percent	Low Poverty
Highland Mill Montessori	14 percent	Low Poverty
Crestdale Middle	15 percent	Low Poverty
Dilworth Elementary	15 percent	Low Poverty
Highland Creek Elementary	15 percent	Low Poverty
Waddell Language Academy	15 percent	Low Poverty
Barnette Elementary	16 percent	Low Poverty
Cornelius Elementary	16 percent	Low Poverty
Cato Middle College High	18 percent	Low Poverty
Piedmont IB Middle	18 percent	Low Poverty
Huntersville Elementary	19 percent	Low Poverty
Palisades Park Elementary	19 percent	Low Poverty
Parkside Elementary	19 percent	Low Poverty
Endhaven Elementary	20 percent	Low Poverty
Francis Bradley Middle	20 percent	Low Poverty
Winget Park Elementary	20 percent	Low Poverty
Randolph Middle	20 percent	Low Poverty
Eastover Elementary	21 percent	Low Poverty
Olympic High - Renaissance School	21 percent	Low Poverty
River Gate Elementary	22 percent	Low Poverty
Butler High	22 percent	Low Poverty
Matthews Elementary	23 percent	Low Poverty
Olympic TEAM High School	23 percent	Low Poverty
Myers Park High	23 percent	Low Poverty
Mint Hill Middle	23 percent	Low Poverty
Olympic High - Biotech Health Pub Admin	24 percent	Low Poverty
South Mecklenburg High	24 percent	Low Poverty
Alexander Graham Middle	25 percent	Moderate Poverty
Northwest School of the Arts	25 percent	Moderate Poverty
Carmel Middle	25 percent	Moderate Poverty
Mallard Creek High	25 percent	Moderate Poverty
Hopewell High	26 percent	Moderate Poverty
Lansdowne Elementary	26 percent	Moderate Poverty
Collinswood Language Academy	26 percent	Moderate Poverty
Berewick Elementary	26 percent	Moderate Poverty
Morehead STEM Academy	27 percent	Moderate Poverty
J M Alexander Middle	27 percent	Moderate Poverty
Blythe Elementary	27 percent	Moderate Poverty
Croft Community Elementary	28 percent	Moderate Poverty
eLearning Academy	28 percent	Moderate Poverty
Myers Park Traditional	28 percent	Moderate Poverty
Olympic High-Leadership and Development	29 percent	Moderate Poverty

Cotswold Elementary	29 percent	Moderate Poverty
Ridge Road Middle	29 percent	Moderate Poverty
Southwest Middle School	30 percent	Moderate Poverty
Clear Creek Elementary	31 percent	Moderate Poverty
Mallard Creek Elementary	31 percent	Moderate Poverty
North Mecklenburg High	31 percent	Moderate Poverty
Charlotte Engineering Early College-UNCC	31 percent	Moderate Poverty
Long Creek Elementary	32 percent	Moderate Poverty
Kennedy Middle	32 percent	Moderate Poverty
Smithfield Elementary	32 percent	Moderate Poverty
Independence High	32 percent	Moderate Poverty
Crown Point Elementary	35 percent	Moderate Poverty
Elizabeth Traditional Elementary	35 percent	Moderate Poverty
Phillip O Berry Academy of Technology	35 percent	Moderate Poverty
Performance Learning Center	35 percent	Moderate Poverty
Hawthorne High	35 percent	Moderate Poverty
Rocky River High	36 percent	Moderate Poverty
Steele Creek Elementary	36 percent	Moderate Poverty
Lake Wylie Elementary	37 percent	Moderate Poverty
Pineville Elementary	37 percent	Moderate Poverty
East Mecklenburg High	38 percent	Moderate Poverty
Mountain Island Lake Academy	39 percent	Moderate Poverty
Oaklawn Language Academy	39 percent	Moderate Poverty
Metro School	40 percent	Moderate Poverty
Quail Hollow Middle	40 percent	Moderate Poverty
Stoney Creek Elementary	40 percent	Moderate Poverty
Reedy Creek Elementary	41 percent	Moderate Poverty
Northeast Middle	41 percent	Moderate Poverty
Barringer Academic Center	44 percent	Moderate Poverty
River Oaks Academy	44 percent	Moderate Poverty
University Meadows Elementary	45 percent	Moderate Poverty
Northridge Middle	45 percent	Moderate Poverty
Vance High	46 percent	Moderate Poverty
David Cox Road Elementary	46 percent	Moderate Poverty
Starmount Academy of Excellence	46 percent	Moderate Poverty
Military and Global Leadership Academy	47 percent	Moderate Poverty
West Mecklenburg High	47 percent	Moderate Poverty
Oakhurst STEAM Academy	48 percent	Moderate Poverty
Lawrence Orr Elementary	48 percent	Moderate Poverty
James Martin Middle	49 percent	Moderate Poverty
Coulwood STEM Academy	49 percent	Moderate Poverty
Hornets Nest Elementary	50 percent	Moderate Poverty
Piney Grove Elementary	51 percent	High Poverty
Joseph W Grier Academy	51 percent	High Poverty
Lebanon Road Elementary	51 percent	High Poverty
McClintock Middle	51 percent	High Poverty
Huntingtowne Farms Elementary	52 percent	High Poverty
Shamrock Gardens Elementary	52 percent	High Poverty
Greenway Park Elementary	53 percent	High Poverty

Oakdale Elementary	54 percent	High Poverty
Paw Creek Elementary	54 percent	High Poverty
Albemarle Road Middle	54 percent	High Poverty
Tuckaseegee Elementary	55 percent	High Poverty
Garinger High	55 percent	High Poverty
First Ward Creative Arts Academy	55 percent	High Poverty
Ranson Middle	56 percent	High Poverty
Idlewild Elementary	56 percent	High Poverty
J H Gunn Elementary	56 percent	High Poverty
Sedgefield Middle	56 percent	High Poverty
Windsor Park Elementary	56 percent	High Poverty
Lincoln Heights Academy	56 percent	High Poverty
Winding Springs Elementary	57 percent	High Poverty
Nathaniel Alexander Elementary	57 percent	High Poverty
Whitewater Academy	57 percent	High Poverty
Harding University High	57 percent	High Poverty
Pinewood Elementary	57 percent	High Poverty
Berryhill School	57 percent	High Poverty
Montclaire Elementary	58 percent	High Poverty
Newell Elementary	59 percent	High Poverty
Cochrane Collegiate Academy	60 percent	High Poverty
University Park Creative Arts	61 percent	High Poverty
Albemarle Road Elementary	61 percent	High Poverty
Sterling Elementary	61 percent	High Poverty
Martin Luther King Jr Middle	62 percent	High Poverty
Whitewater Middle	62 percent	High Poverty
Eastway Middle	62 percent	High Poverty
West Charlotte High	63 percent	High Poverty
Rama Road Elementary	63 percent	High Poverty
Nations Ford Elementary	65 percent	High Poverty
Hickory Grove Elementary	65 percent	High Poverty
Statesville Road Elementary	65 percent	High Poverty
Highland Renaissance Academy	67 percent	High Poverty
Winterfield Elementary	67 percent	High Poverty
Briarwood Elementary	68 percent	High Poverty
Devonshire Elementary	70 percent	High Poverty
Turning Point Academy	70 percent	High Poverty
Merry Oaks International Academy	71 percent	High Poverty
Hidden Valley Elementary	72 percent	High Poverty
Thomasboro Academy	76 percent	High Poverty
Westerly Hills Academy	78 percent	High Poverty
Allenbrook Elementary	78 percent	High Poverty
Sedgefield Elementary	79 percent	High Poverty
Walter G Byers School	81 percent	High Poverty
Reid Park Academy	82 percent	High Poverty
Bruns Academy	84 percent	High Poverty
Druid Hills Academy	84 percent	High Poverty
Billingsville Elementary	84 percent	High Poverty
Ashley Park PreK-8 School	85 percent	High Poverty

Appendix B. Grade Level Proficiency by School Poverty for Grades 3-5 Reading, 6-8 Reading, 3-5 Math, 6-8 Math, Grade 5 Science, Grade 8 Science, Grades 6-8 Math I, Grades 9-12 Math I, English II, and Biology.

Figure B1. Average Reading Proficiency Rates by School Poverty Level and Race: Grades 3-5

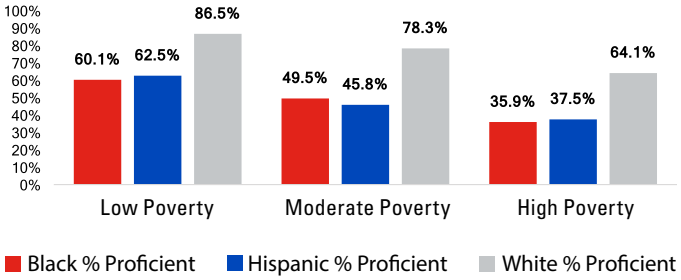


Figure B2. Average Reading Proficiency Rates by School Poverty Level and Race: Grades 6-8

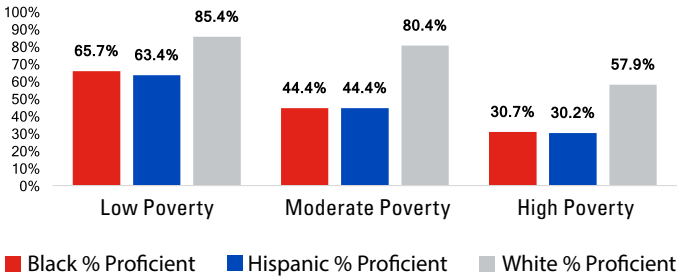


Figure B3. Average Math Proficiency Rates by School Poverty Level and Race: Grades 3-5

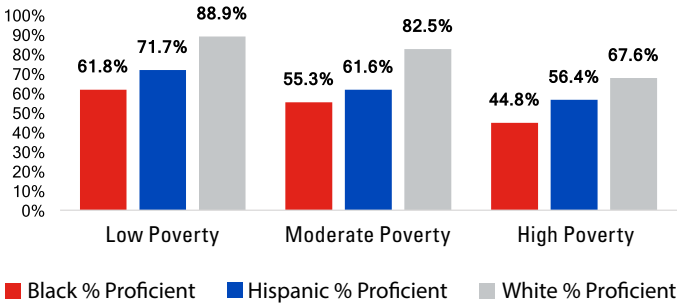


Figure B4. Average Math Proficiency Rates by School Poverty Level and Race: Grades 6-8

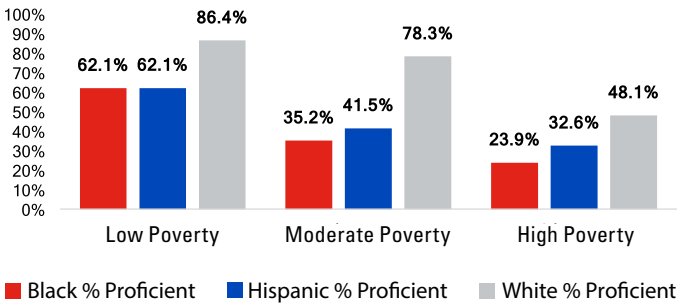


Figure B5. Average Science Proficiency Rates by School Poverty Level and Race: Grade 5

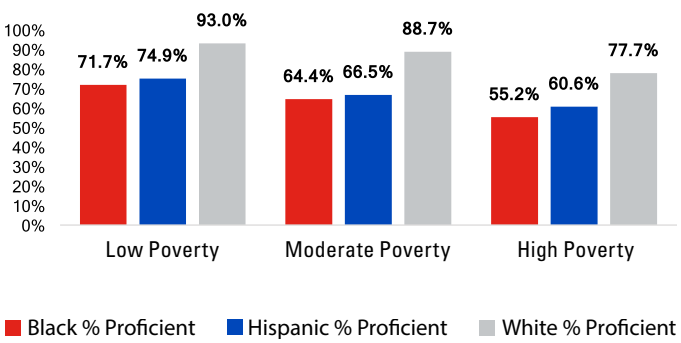


Figure B6. Average Science Proficiency Rates by School Poverty Level and Race: Grade 8

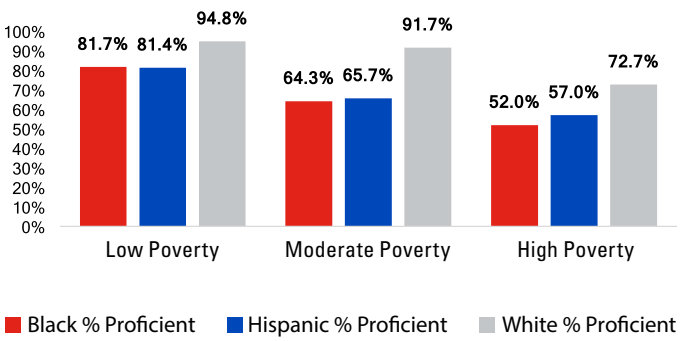


Figure B7. Average Math I Proficiency Rates by School Poverty Level and Race: Grades 6-8

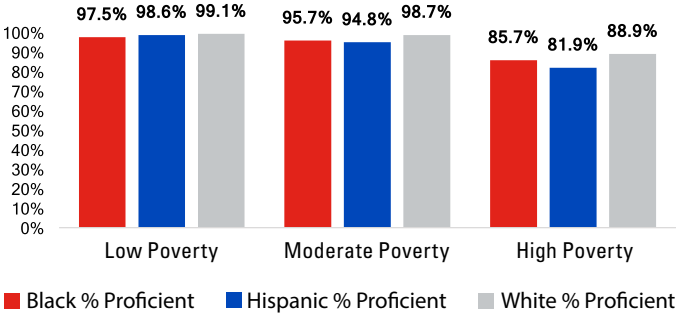


Figure B8. Average Math I Proficiency Rates by School Poverty Level and Race: Grades 9-12

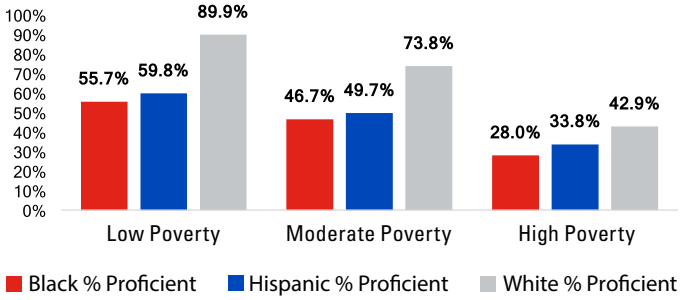


Figure B9. Average English II Proficiency Rates by School Poverty Level and Race

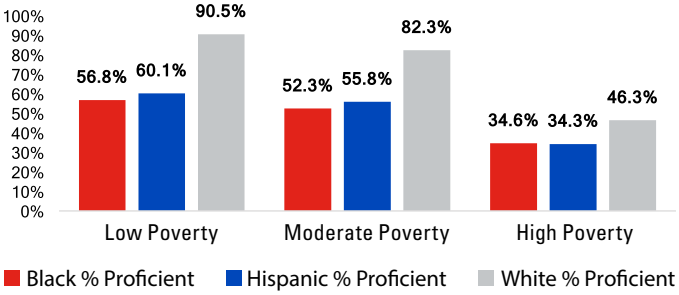
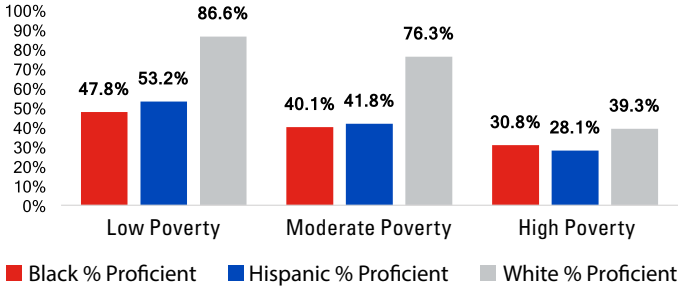


Figure B10. Average Biology Proficiency Rates by School Poverty Level and Race



Appendix C. Education Value-Added Assessment System (EVAAS) Growth.

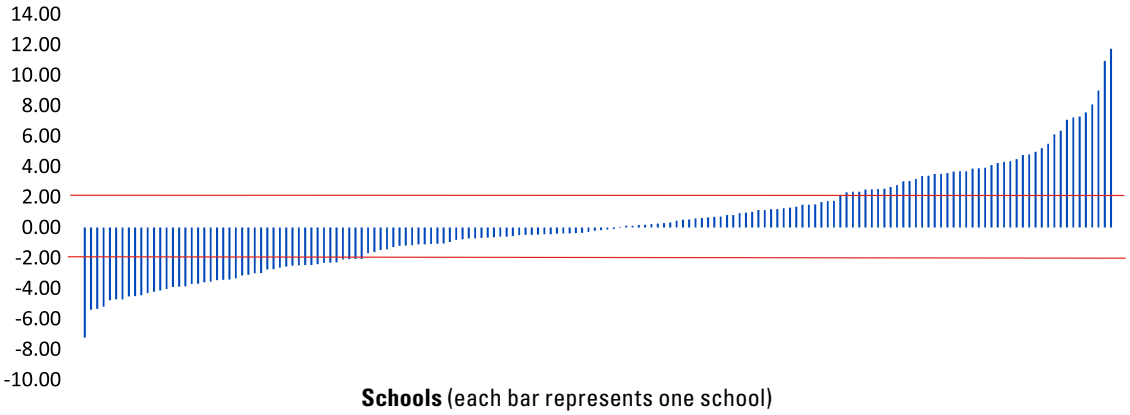
In North Carolina, Accountability Growth composites are computed by SAS using an Education Value-Added Assessment System (EVAAS) score to represent growth at the school level as measured by EOG and EOC assessments.

Schools that receive an index value between -2 and +2 are classified as meeting expected growth. For a school to exceed expected growth, there must be significant evidence that the school's students made more progress than the growth standard, represented by an index value greater than 2. For a school to not meet expected growth, there must be significant evidence that the school's students made less progress than the growth standard, represented by an index value less than -2.

For more information, please see the NC Department of Public Instruction's EVAAS resources at http://www.ncpublicschools.org/effectiveness-model/evaas.

Figure C1 shows the distribution of EVAAS growth indexes for each CMS school for which 2016-2017 EVAAS growth data were reported. A wide range of school growth is evident, with many schools exceeding and some not meeting growth. Schools below -2 did not meet growth expectations and schools above +2 exceeded growth expectations.

Figure C1. Distribution of Schools by EVAAS Growth Index



Appendix D. Measure Definitions and Notes.

Measure	Figure	Definition/Notes	Disaggregation
ISP	**1**	Identified Student Percentage (see Appendix A). Includes all schools.	None - distribution
Geography of ISP	**2**	Identified Student Percentage (see Appendix A). Includes all schools.	None - distribution
Enrollment: K-5	**3a-c**	Average daily enrollment for 2016-2017. Grade span refers to the student's grade level regardless of the grade span configuration of their school. Includes all students in Grades K-5, 6-8, 9-12, respectively.	None - distribution
Enrollment: 6-8			
Enrollment: 9-12			
EOG Reading GLP and CCR 3-5	**4a-f**	Official 2016-2017 end-of-grade scores reported for the school of enrollment by NCDPI. Includes students in the relevant tested grades (but excludes students enrolled at Lincoln Heights, Turning Point, and Metro School).	Poverty
EOG Reading GLP and CCR 6-8			
EOG Math GLP and CCR 3-5			
EOG Math GLP and CCR 6-8			
EOG Science GLP and CCR 5			
EOG Science GLP and CCR 8			
EOG Reading CCR 3-5	**5a-f**	Official 2016-2017 end-of-grade scores reported for the school of enrollment by NCDPI. Includes students in the relevant tested grades (but excludes students enrolled at Lincoln Heights, Turning Point, and Metro School).	Poverty and Race
EOG Reading CCR 6-8			
EOG Math CCR 3-5			
EOG Math CCR 6-8			
EOG Science CCR 5			
EOG Science CCR 8			
EOC Math I All Grades	**6a-d**	Official 2016-2017 end-of-course scores reported for the school of enrollment by NCDPI. Includes students in the relevant tested grades (but excludes students enrolled at Lincoln Heights, Turning Point, and Metro School).	Poverty
EOC Math I All Grades			
EOC English II			
EOC Biology			
EOC Math I 6-8	**7a-d**	Official 2016-2017 end-of-course scores reported for the school of enrollment by NCDPI. Includes students in the relevant tested grades (but excludes students enrolled at Lincoln Heights, Turning Point, and Metro School).	Poverty and Race
EOC Math I 9-12			
EOC English II			
EOC Biology			
EVAAS: School Growth	**8**	2016-2017 school Education Value-Added Assessment System (EVAAS) growth ratings from NCDPI. Schools are rated as not meeting, meeting, or exceeding growth. See Appendix C for more information about school EVAAS ratings. Includes schools that received an EVAAS growth index/status. Excludes 6 schools that did not receive EVAAS growth index/status for 2016-2017: Cato Middle College, Harper Middle College, Levine Middle College, Lincoln Heights, Turning Point, and Metro School.	Poverty
Distribution of ACT Composite Scores	**9**	Average ACT composite scores for 11th grade students (1-36). District average: All 11th grade students who took the ACT. Distribution graph excludes Lincoln Heights, Turning Point, and Metro School.	None - distribution
Average ACT Composite	**10**	Average ACT composite scores for 11th grade students (1-36). Includes 11th grade students who took the ACT (but excludes students enrolled at Lincoln Heights, Turning Point, and Metro School).	Poverty
Average ACT Composite	**11**	Average ACT composite scores for 11th grade students (1-36). Includes 11th grade students who took the ACT (but excludes students enrolled at Lincoln Heights, Turning Point, and Metro School).	Poverty and Race
ACT Benchmark of 17	**12**	Percentage of 11th grade students who reached a composite ACT score of 17, the minimum composite score required for admission to University of North Carolina system schools. District average: 11th grade students who took the ACT. Distribution graph excludes Lincoln Heights, Turning Point, and Metro School. Rates >95% are masked.	None - distribution

ACT Benchmark of 17	**13**	Percentage of 11th grade students who reached a composite ACT score of 17, the minimum composite score required for admission to University of North Carolina system schools.	Poverty
ACT Benchmark of 17	**14**	Percentage of 11th grade students who reached a composite ACT score of 17, the minimum composite score required for admission to University of North Carolina system schools. Includes 11th grade students who took the ACT (but excludes students enrolled at Lincoln Heights, Turning Point, and Metro School). The number of White students in high-poverty schools is too small to report. This is because the numerator for high-poverty white students is 10 or fewer and the overall group denominator is 20 or fewer students.	Poverty and Race
Cohort Graduation Rate	**15**	The percentage of students in the graduation cohort who graduate in four years or fewer. See http://www.ncpublicschools.org/docs/accountability/reporting/2017/cohortgradrate/grdrtcalc17.pdf District average: Students in the graduation cohort who graduate in four years or fewer. Distribution graph excludes Lincoln Heights, Turning Point, and Metro School.	None - distribution
Cohort Graduation Rate	**16**	The percentage of students in the graduation cohort who graduate in four years or fewer. See http://www.ncpublicschools.org/docs/accountability/reporting/2017/cohortgradrate/grdrtcalc17.pdf Includes schools with a graduation rate (but excludes Lincoln Heights, Turning Point, and Metro School): 31 schools.	Poverty
Cohort Graduation Rate	**17**	The percentage of students in the graduation cohort who graduate in four years or fewer. See http://www.ncpublicschools.org/docs/accountability/reporting/2017/cohortgradrate/grdrtcalc17.pdf Includes schools with a graduation rate (but excludes Lincoln Heights, Turning Point, and Metro School): 31 schools.	Poverty and Race
ADA K-5	**18a-c**	Number of days of attendance divided by the total number of school days, for all students. A student is counted as in attendance when he/she is present at school, present at another activity sponsored by the school as part of the school's program, or personally supervised by school staff. District average: Includes all students in Grades K-5, 6-8, 9-12, respectively. Distribution graph excludes Lincoln Heights, Turning Point, and Metro School.	None - distribution
ADA 6-8			
ADA 9-12			
ADA All Levels	**19a-d**	Number of days of attendance divided by the total number of school days, for all students. A student is counted as in attendance when he/she is present at school, present at another activity sponsored by the school as part of the school's program, or personally supervised by school staff. Includes students in the relevant grades (but excludes students enrolled at Lincoln Heights, Turning Point, and Metro School).	Poverty
ADA K-5			
ADA 6-8			
ADA 9-12			
ADA All Levels	**20a-d**	Number of days of attendance divided by the total number of school days, for all students. A student is counted as in attendance when he/she is present at school, present at another activity sponsored by the school as part of the school's program, or personally supervised by school staff. Includes students in the relevant grades (but excludes students enrolled at Lincoln Heights, Turning Point, and Metro School).	Poverty and Race
ADA K-5			
ADA 6-8			
ADA 9-12			
Chronic Absenteeism K-5	**21a-c**	Percentage of students absent more than 10% of days enrolled at that school. When calculating CA, OSS days are tallied as absences because the student was not present for the instructional day. District average: Includes all students in Grades K-5, 6-8, 9-12, respectively. Distribution graph excludes Lincoln Heights, Turning Point, and Metro School.	None - distribution
Chronic Absenteeism 6-8			
Chronic Absenteeism 9-12			
CA: Average School Percentage	**22**	Percentage of students absent more than 10% of days enrolled at that school. When calculating CA, OSS days are tallied as absences because the student was not present for the instructional day. Includes students in the relevant grades (but excludes students enrolled at Lincoln Heights, Turning Point, and Metro School).	Poverty and Grade Span

CA: Average School Percentage K-5 CA: Average School Percentage 6-8 CA: Average School Percentage 9-12	**23a-c**	Percentage of students absent more than 10% of days enrolled at that school. When calculating CA, OSS days are tallied as absences because the student was not present for the instructional day. Includes students in the relevant grades (but excludes students enrolled at Lincoln Heights, Turning Point, and Metro School).	Poverty and Race
OSS: Average School Percentage 1+ OSS K-5 OSS: Average School Percentage 1+ OSS 6-8 OSS: Average School Percentage 1+ OSS 9-12	**24a-c**	Discretionary suspensions are out-of-school suspensions (OSS) resulting from unacceptable behavior (UB) incidents, as opposed to other incident types such as reportable offense or persistently dangerous. OSS are counted at the school at which the student was enrolled at the time the suspension was served. District average: Includes all students in Grades K-5, 6-8, 9-12, respectively. Distribution graph excludes Lincoln Heights, Turning Point, and Metro School.	None - distribution
OSS: Average School Percentage 1+ OSS	**25**	Discretionary suspensions are out-of-school suspensions (OSS) resulting from unacceptable behavior (UB) incidents, as opposed to other incident types such as reportable offense or persistently dangerous. Numerator is all students who receive one or more discretionary OSS in the relevant grades. OSS are counted at the school at which the student was enrolled at the time the suspension was served. Includes students in the relevant grades (but excludes students enrolled at Lincoln Heights, Turning Point, and Metro School).	Poverty and Grade Span
OSS: Average School Percentage 1+ OSS K-5 OSS: Average School Percentage 1+ OSS 6-8 OSS: Average School Percentage 1+ OSS 9-12	**26a-c**	Discretionary suspensions are out-of-school suspensions (OSS) resulting from unacceptable behavior (UB) incidents, as opposed to other incident types such as reportable offense or persistently dangerous. OSS are counted at the school at which the student was enrolled at the time the suspension was served. Includes students in the relevant grades (but excludes students enrolled at Lincoln Heights, Turning Point, and Metro School).	Poverty and Race
EVAAS: Teachers Exceeded Growth	**27**	Percentage of 2016-2017 K-12 teachers teaching any tested subject (i.e., mCLASS, EOG/EOC, NCFE, CTE, SAT/ACT) who received Education Value-Added Assessment System (EVAAS) composite ratings of Exceeds Expected Growth for 2016-2017. See also http://www.ncpublicschools.org/effectiveness-model/evaas/ District average: Includes teachers with a composite EVAAS rating and teaching a tested subject in 2016-2017. Distribution graph excludes Lincoln Heights, Turning Point, and Metro School. Fourteen schools had zero EVAAS-rated teachers with a rating of exceeds expected growth and do not appear in the distribution graph, but are included in the district average.	None - distribution
EVAAS: Teachers Exceeded Growth	**28**	Percentage of 2016-2017 K-12 teachers teaching any tested subject (i.e., mCLASS, EOG/EOC, NCFE, CTE, SAT/ACT) who received Education Value-Added Assessment System (EVAAS) composite ratings of Exceeds Expected Growth for 2016-2017. See also http://www.ncpublicschools.org/effectiveness-model/evaas/ District average: Includes teachers with a composite EVAAS rating and teaching a tested subject in 2016-2017. Distribution graph excludes Lincoln Heights, Turning Point, and Metro School.	Poverty
EVAAS: Students Taught by Teachers Who Exceeded Growth (2yr)	**29**	Percentage of the students taught an EOG-tested subject in 2016-2017 by a teacher who: 1) had taught the same subject (Reading or Math in grades 3-8 or Science in grades 5 or 8) in 2015-2016 (at any CMS school) and 2) had received an EVAAS rating of "Exceeds Expected Growth" in that subject in 2015-2016. For 3rd grade teachers, only Reading EVAAS data is available. Some schools with rates of zero had teachers who exceeded growth in 2015-2016 but who taught a different subject in 2016-2017 or moved schools in 2016-2017. Other schools with rates of zero had no teachers of EOG-tested subjects exceed growth in 2015-2016. District average: Percentage of students taught an EOG-tested subject by teachers with prior year growth level rating of Exceeds Expected Growth for that subject. Distribution graph excludes Lincoln Heights, Turning Point, and Metro School.	None - distribution

EVAAS: Students Taught by Teachers Who Exceeded Growth (2yr)	**30**	Percentage of the students taught an EOG-tested subject in 2016-2017 by a teacher who: 1) had taught the same subject (Reading or Math in grades 3-8 or Science in grades 5 or 8) in 2015-2016 (at any CMS school) and 2) had received an EVAAS rating of "Exceeds Expected Growth" in that subject in 2015-2016. For 3rd grade teachers, only Reading EVAAS data is available. Some schools with rates of zero had teachers who exceeded growth in 2015-2016 but who taught a different subject in 2016-2017 or moved schools in 2016-2017. Other schools with rates of zero had no teachers of EOG-tested subjects exceed expected growth in 2015-2016. Denominator is number of students taught an EOG-tested subject by teachers with prior year growth level ratings for that subject (but excludes Lincoln Heights, Turning Point, and Metro School).	Poverty
EVAAS: Students Taught by Teachers Who Exceeded Growth (2yr)	**31**	Percentage of the students taught an EOG-tested subject in 2016-2017 by a teacher who: 1) had taught the same subject (Reading or Math in grades 3-8 or Science in grades 5 or 8) in 2015-2016 (at any CMS school) and 2) had received an EVAAS rating of "Exceeds Expected Growth" in that subject in 2015-2016. For 3rd grade teachers, only Reading EVAAS data is available. Some schools with rates of zero had teachers who exceeded growth in 2015-2016 but who taught a different subject in 2016-2017 or moved schools in 2016-2017. Other schools with rates of zero had no teachers of EOG-tested subjects exceed expected growth in 2015-2016. Denominator is number of students taught an EOG-tested subject by teachers with prior year growth level ratings for that subject (but excludes Lincoln Heights, Turning Point, and Metro School).	Poverty and Race
EVAAS: Exceeded Growth and Retained	**32**	Percentage of the K-12 teachers who exceeded growth (EVAAS composite) in 2015-2016 that were retained at the same school for 2016-2017 (still employed and assigned to students as of August 30, 2016). Teachers on leave on August 30 but still employed at the school on that date are counted as retained. Denominator is only those teachers who had EVAAS ratings and exceeded expected growth in 2015-2016. Differs from March-to-March teacher retention measures used in other forms of retention reporting. This measure excludes 2 schools that were new in 2016-2017: Harper Middle College and eLearning Academy. District average: Percentage of the K-12 teachers who had an EVAAS composite rating of Exceeds Expected Growth in 2015-2016 that were retained at the same school for 2016-2017. Distribution graph excludes Lincoln Heights, Turning Point, and Metro School.	None - distribution
EVAAS: Exceeded Growth and Retained	**33**	Percentage of the K-12 teachers who exceeded growth (EVAAS composite) in 2015-2016 that were retained at the same school for 2016-2017 (still employed and assigned to students as of August 30, 2016). Teachers on leave on August 30 but still employed at the school on that date are counted as retained. Denominator is only those teachers who had EVAAS ratings and exceeded expected growth in 2015-2016. Differs from March-to-March teacher retention measures used in other forms of retention reporting. This measure excludes 2 schools that were new in 2016-2017: Harper Middle College and eLearning Academy. Also excludes Lincoln Heights, Turning Point, and Metro School.	Poverty
First-Year Teachers	**34**	Percentage of students who were assigned to one or more first-year teacher(s) in 2016-2017. "First-year" is defined as having less than two full school years of teaching experience by the end of the 2016-2017 school year. Includes teachers who taught for the first time in 2016-2017 or for the first time for only a portion of the year in 2015-2016 or a prior year. Excludes teachers with job titles that are specific to Arts Education, Physical Education, and ROTC. Teachers who had served in other capacities within CMS (e.g. teacher assistant, substitute teacher) prior to teaching in 2016-2017 are counted as first-year teachers. District average: Percentage of students who were assigned to one or more first-year teacher(s) in 2016-2017. Considers each student only once across schools. Distribution graph excludes Lincoln Heights, Turning Point, and Metro School. Nineteen schools had zero first-year teachers.	None - distribution

First-Year Teachers	**35**	Percentage of students who were assigned to one or more first-year teacher(s) in 2016-2017. "First-year" is defined as having less than two full school years of teaching experience by the end of the 2016-2017 school year. Includes teachers who taught for the first time in 2016-2017 or for the first time for only a portion of the year in 2015-2016 or a prior year. Excludes teachers with job titles that are specific to Arts Education, Physical Education, and ROTC. Teachers who had served in other capacities within CMS (e.g. teacher assistant, substitute teacher) prior to teaching in 2016-2017 are counted as first-year teachers. Excludes students enrolled at Lincoln Heights, Turning Point, and Metro School.	Poverty
First-Year Teachers	**36**	Percentage of students who were assigned to one or more first-year teacher(s) in 2016-2017. "First-year" is defined as having less than two full school years of teaching experience by the end of the 2016-2017 school year. Includes teachers who taught for the first time in 2016-2017 or for the first time for only a portion of the year in 2015-2016 or a prior year. Excludes teachers with job titles that are specific to Arts Education, Physical Education, and ROTC. Teachers who had served in other capacities within CMS (e.g. teacher assistant, substitute teacher) prior to teaching in 2016-2017 are counted as first-year teachers. Excludes students enrolled at Lincoln Heights, Turning Point, and Metro School.	Poverty and Race
Graduates Completing College-Level Courses	**37**	Percentage of graduates who had completed (enrolled in and received a passing grade for) a college-level course (Advanced Placement, International Baccalaureate, or Dual Enrollment). The school where the student is counted is the school of graduation, not necessarily where the student took the course. District average: Percentage of graduates who had completed (enrolled in and received a passing grade for) a college-level course (Advanced Placement, International Baccalaureate, or Dual Enrollment). Distribution graph excludes Lincoln Heights, Turning Point, and Metro School.	None - distribution
Graduates Completing College-Level Courses	**38**	Percentage of graduates who had completed (enrolled in and received a passing grade for) a college-level course (Advanced Placement, International Baccalaureate, or Dual Enrollment; excludes Lincoln Heights, Turning Point, and Metro School). The school where the student is counted is the school of graduation, not necessarily where the student took the course.	Poverty
Graduates Completing College-Level Courses	**39**	Percentage of graduates who had completed (enrolled in and received a passing grade for) a college-level course (Advanced Placement, International Baccalaureate, or Dual Enrollment; excludes Lincoln Heights, Turning Point, and Metro School). The school where the student is counted is the school of graduation, not necessarily where the student took the course.	Poverty and Race
AP Potential and Participation	**40**	Number of 2016-2017 graduates who had AP Potential in any subject, and the number of those graduates enrolled in at least one AP course (any subject) during grades 9-12. The College Board calculates AP Potential based on a student's probability of passing an AP exam from his or her PSAT score. A student is identified as having "AP Potential" if his or her calculated probability of passing an AP exam (scoring a 3, 4, or 5) is 60% or greater. The school where the student is counted is the school of graduation, not necessarily where the student took the AP course. District average: Number of 2016-2017 graduates who had AP Potential in any subject, and the number of those graduates enrolled in at least one AP course (any subject) during grades 9-12. Distribution graph excludes Lincoln Heights, Turning Point, and Metro School.	None - distribution
AP Potential and Participation	**41**	Number of 2016-2017 graduates at each school who had AP Potential in any subject, and the number of those graduates enrolled in at least one AP course (any subject) during grades 9-12. The College Board calculates AP Potential based on a student's probability of passing an AP exam from his or her PSAT score. A student is identified as having "AP Potential" if his or her calculated probability of passing an AP exam (scoring a 3, 4, or 5) is 60% or greater. The school where the student is counted is the school of graduation, not necessarily where the student took the AP course. Excludes Lincoln Heights, Turning Point, and Metro School.	Poverty

AP Potential and Participation	**42**	Number of 2016-2017 graduates at each school who had AP Potential in any subject, and the number of those graduates enrolled in at least one AP course (any subject) during grades 9-12. The College Board calculates AP Potential based on a student's probability of passing an AP exam from his or her PSAT score. A student is identified as having "AP Potential" if his or her calculated probability of passing an AP exam (scoring a 3, 4, or 5) is 60% or greater. The school where the student is counted is the school of graduation, not necessarily where the student took the AP course. Excludes Lincoln Heights, Turning Point, and Metro School. The number of White students in high-poverty schools is too small to report. This is because the numerator for high-poverty white students is 10 or fewer and the overall group denominator is 20 or fewer students.	Poverty and Race
AP Exam Pass Rate	**43**	Percentage of Advanced Placement (AP) exams with scores of 3, 4, or 5. The denominator is the total number of AP exams taken. District average: Percentage of Advanced Placement (AP) exams with scores of 3, 4, or 5. At 31 schools, at least one AP exam was taken. Distribution graph excludes one high school that had no students pass an AP exam. Also excludes Lincoln Heights, Turning Point, and Metro School.	None - distribution
AP Exam Pass Rate	**44**	Percentage of Advanced Placement (AP) exams with scores of 3, 4, or 5. At 31 schools, at least one AP exam was taken. Also excludes Lincoln Heights, Turning Point, and Metro School. The denominator is the total number of AP exams taken.	Poverty
EOG Reading GLP 3-5	**Appx. B1-6**	Official 2016-2017 end-of-grade scores reported for the school of enrollment by NCDPI. Includes students in the relevant tested grades (but excludes students enrolled at Lincoln Heights, Turning Point, and Metro School).	Poverty and Race
EOG Reading GLP 6-8			
EOG Math GLP 3-5			
EOG Math GLP 6-8			
EOG Science GLP 5			
EOG Science GLP 8			
EOC Math I GLP 6-8	**Appx. B7-10**	Official 2016-2017 end-of-course scores reported for the school of enrollment by NCDPI. Includes students in the relevant tested grades (but excludes students enrolled at Lincoln Heights, Turning Point, and Metro School).	Poverty and Race
EOC Math I GLP 9-12			
EOC English II GLP			
EOC Biology GLP			

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