

Sound Basic Education for All: An Action Plan for North Carolina

Providing an Equal Opportunity for a Sound Basic Education in North Carolina's High-Poverty Schools: Assessing Needs and Opportunities

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Introduction

To inform the *Leandro v. State of North Carolina* Action Plan, the Learning Policy Institute examined the within-school and out-of-school barriers to obtaining a sound basic education facing students who attend North Carolina's high-poverty schools. High-poverty schools are schools where 75% or more students are at risk because their families' low incomes qualify them for federally subsidized free or reduced-cost meal programs at school.¹ Because of the concentration of at-risk students at high-poverty schools, these schools deserve focused attention as the state seeks to remedy its failure to provide all students with a constitutionally required opportunity for a sound basic education.

The Context

The state of North Carolina must roll up its sleeves, step in, and, utilizing its constitutional authority and power over the LEAs [local education agencies], cause effective educational change when and where required. It does not matter whether the lack of opportunity to obtain a sound basic education is caused by teachers, principals, lack of instructional materials or other resources, or lack of leadership and effort. The state must step in with an iron hand get the mess straight.

—Judge Howard Manning Jr.²

In 1997, the Supreme Court of North Carolina (the Court) ruled that North Carolina must provide an equal opportunity for a sound basic education to all students — one that allows students to gain a level of proficiency in subjects such as math, history, geography, physical sciences, and civics and also to succeed either in post-secondary education or the workforce.

Since 2004, the rulings in *Leandro* have also emphasized that the state must pay particular attention to the education opportunities provided to those the Court considers “at-risk.” As defined by the Court in *Leandro II*, at-risk students are those with one of the following characteristics are from a low-income family; participate in free or reduced-cost lunch programs; have parents with low-level education; show limited proficiency in English; are a member of a racial or ethnic minority group; or live in a home headed by a single parent or guardian.³ The Court also recognized that the state must provide at-risk students with additional support — more resources, more time, focused attention, and adequately targeted remediation services — if they are to have an equal opportunity for a sound basic education, given the risks they face. The *Leandro* standard is not equality among

schools and students but rather that all schools need the resources and capacity required to ensure all students have an opportunity for a sound basic education.⁴ The Court wrote:

Every school be provided, in the most cost-effective manner, the resources necessary to support the effective instructional program within that school so that the educational needs of all children, including at-risk children, to have the equal opportunity to obtain a sound basic education, can be met.

While the Court did not specifically address the needs of children with disabilities, it is undisputed that such children are entitled to the opportunity for a sound basic education and, like all at-risk children, require additional resources in order to achieve that opportunity.⁵

In 2018, Judge David Lee, who assumed supervision of the case following Judge Manning's retirement, made clear his view that compliance with the *Leandro* ruling has not been achieved:

There is an ongoing constitutional violation of every child's right to receive the opportunity for a sound basic education, . . . the SBE [State Board of Education] is not supervising and administering a public school system that is Leandro compliant. The Court record is replete with evidence that the Leandro right continues to be denied to hundreds of thousands of North Carolina children.⁶

As the opening quote from Judge Manning indicates, the educational obstacles facing the state's at-risk students are very real, very steep, and require a sense of urgency. Thousands of young North Carolinians are not being prepared for full participation in the global interconnected economy and society of the 21st century. The costs to them and to the state are considerable and if left unattended will result in a weaker future for all North Carolinians. This cost does not even count the moral imperative that is at the heart of the *Leandro* ruling. To allow any child in the state to lack the human and material resources they need to develop their talents is counter to the concept of equality of educational opportunity and a basic sense of fairness.

Overarching Themes

This report will provide dozens of findings about the challenges to obtaining a sound basic education experienced by students attending high-poverty schools in North Carolina. Several overarching themes emerge from these findings that form a coherent narrative into which the specific findings and recommendations should be placed and interpreted:

1. The within-school and out-of-school barriers that at-risk North Carolina students face in most high-poverty schools are identifiable and together make academic success difficult to achieve. Many of these barriers are the result of a lack of human and material resources. These disadvantages are not random or incidental. They are predictably cumulative and endure into adulthood. The learning potential and other assets that the children of North Carolina bring to school, including at-risk children, are not fully developed by the schools they attend. Many well-meaning professionals working in high-poverty

the schools struggle to overcome barriers to learning that have been created through policies (or lack thereof) that perpetuate or repeat the failure to provide the educational resources, support, and opportunities students require to have their educational needs met.

2. Economically disadvantaged students of color, in particular, face barriers to learning that have deep historical roots. Although the *Leandro* ruling focused primarily on socioeconomic status as defining the meaning of “at risk,” it would be shortsighted to ignore the consequences that racial discrimination has had on the educational opportunities of students of color. North Carolina has been the locus of pivotal educational equity litigation, notably 1971’s *Swann v. Charlotte-Mecklenburg Board of Education*, in which the U.S. Supreme Court demanded that the state use all tools at its disposal to dismantle policies that resulted in segregated schools. This ruling stood for decades and became a model for successful integration. But in the decades since *Swann*, it remains largely true that students of color are very likely to attend schools that are racially isolated and schools with a high number of students from impoverished or low-income families.
3. There is a pressing need to find long-term solutions to the educational challenges students from impoverished and low-income families face, particularly students of color. Overcoming a single or double obstacle to learning often requires determination and support; overcoming multiple obstacles that are embedded in history and discrimination requires more than a quick fix or a reform-of-the-day — it requires addressing the structural, fiscal, and historical barriers that define the social ecology in which most high-poverty schools operate. In addition, location matters. Effective solutions require addressing the resource and capacity challenges in urban, suburban, rural, and remote areas as they seek to offer adequate support to students from impoverished and low-income families.
4. These challenges, fortunately, are by no means insurmountable. In fact, effective and efficient solutions are well within reach. What is called for is a coordinated and adequately funded suite of policies that address the core issues facing high-poverty schools and the communities they serve. There is little room for error and no time for avoidable delays.

Map of the Report

This report is organized as follows. This section places our study of high-poverty schools in the context of prior research on high-poverty schools that makes clear they warrant special consideration in an effort to provide all students an equal opportunity for a sound basic education. Section 2 describes our study approach — our questions, data sources, and analytic strategy. The sections that follow report our findings on the current status and needs of high-poverty schools relative to an equal opportunity for a sound basic education. Section 3 describes the universe of high-poverty schools in North Carolina, the children who attend them, and the communities in which they are located. Section 4 reports existing and new evidence that demonstrates a strong, negative relationship between attending a high-poverty school and the attainment of a sound basic education (as defined by *Leandro*), and access to the *Leandro* tenets. Focusing on the three tenets laid out in the *Leandro* case Section 5 reports the relationship between supply, quality, stability of educators, and essential resources and supports

— challenging curriculum, adequate materials, a safe and supportive school climate, and the funding all these require — and student outcomes; we then document insufficiencies and inequalities in access in high-poverty schools. Sections 6 and 7 turn to analyses of how an equal opportunity to a sound basic education in high-poverty schools is further compromised by harms to learning that stem from adverse conditions in high-poverty North Carolina communities and by the lack of state resources and supports to address these harms. We next consider how existing policies contribute to all these patterns.

The concluding section of the report describes evidence-based best practices for remedying inadequacies and opportunities in high-poverty schools and communities that would allow the state to intervene in ways that could provide what children in high-poverty schools require for an equal opportunity to achieve a sound basic education in their schools. Toward that end, it lays out several specific policy recommendations that have the capacity to lift the state’s high-poverty schools so that they meet the constitutional requirements identified in the *Leandro* rulings and provide all of North Carolina’s students the opportunities to learn that they deserve.

Prior Research

A great deal of prior research has established the challenges facing high-poverty schools — lower performance, unequal resources and opportunity, out-of-school conditions that pose additional barriers to students’ educational success. At the same time, research has also made clear that there are ways to address the challenges faced by high-poverty schools. Both the challenges and the availability of remedies justify paying attention to high-poverty schools in North Carolina in addressing the requirements of *Leandro*.

Students at high-poverty schools have consistently lower outcomes, due in part to an independent negative effect of poverty concentration.

There is considerable evidence both nationally and in North Carolina that high-poverty schools do far less well in providing students a sound basic education, as evidenced most starkly in the lower student outcomes at these schools — achievement test scores, high school dropout and graduation rates, and readiness for postsecondary education. The lower outcomes at high-poverty schools reflect, in part, the well-documented relationship between the individual student’s socioeconomic status and school success.⁷

But there is more to the story than the negative impact on educational outcomes that correspond to an individual student’s poverty status. High-poverty schools and high-poverty communities *themselves* have a negative impact on school success — one that goes beyond the impact of individual poverty. Economically disadvantaged children who attend more advantaged schools in more advantaged communities do better than economically disadvantaged children who attend schools in which most students are also economically disadvantaged and which are in poor communities.⁸ Hundreds of studies since have replicated these findings. A school’s average socioeconomic status has as much of an influence on a student’s academic achievement as the student’s individual socioeconomic status.⁹

High-poverty schools often lack resources and opportunities that affect outcomes positively and that are especially important for educationally disadvantaged students.

There are several factors that help explain why high-poverty schools themselves and the neighborhoods where they are located diminish students' educational success. These are factors worthy of the *Leandro* court's attention, as they erect barriers to a sound basic education. One is that high-poverty schools have fewer of the resources and opportunities that help students learn and succeed, including those specified in the *Leandro* tenets. Ample evidence from national and North Carolina studies document the impact of resources and the opportunities they permit on students' engagement in school and their outcomes. This is especially the case for economically disadvantaged students, students of color, and students with disabilities.¹⁰

As public schools are primarily funded through local property taxes and insufficient grants-in-aid, research shows that public schools in communities of concentrated poverty demonstrate substantially less per-pupil expenditures compared to their wealthier counterparts. A 2019 study by the Public School Forum found in North Carolina "a chronic and growing gap in public school funding between the highest and lowest-wealth counties in the state." The 10 highest spending counties spent on average \$3,200 per student compared to \$755 by the lowest spending counties, with a gap of \$2,445 per student.¹¹

The connection between inadequate funding and a student's race and economic status sabotages efforts made to create adequately resourced schools. High-poverty schools face stark differences in facilities, course offerings, curriculum challenge, materials and equipment, as well as in the general environment and culture in which they attend school. Additionally, the rationing of high-quality curriculum through tracking can begin as early as kindergarten or first grade, which often decides which students will be placed in "gifted" or remedial programs. Recent studies have found that this pattern of tracking is found in many North Carolina school districts.¹²

Typically, high-poverty schools are "bottom-heavy," offering fewer college preparatory courses and more remedial vocational courses.¹³ These disparities are compounded by the fact that upper-income parents are able to lobby more effectively for academic programs, computers, and libraries, and tolerate less neglect when it comes to building maintenance and physical amenities.¹⁴ All too often, the latest technology, materials, and curriculum specialists such as reading consultants are available to affluent schools but not schools in areas of concentrated poverty.¹⁵ It should be noted, however, that in North Carolina, high school students do have access to a wide range of communication technologies.¹⁶

School finance disparities mean that schools in areas of concentrated poverty often pay lower salaries than jurisdictions with more resources.¹⁷ In addition, teacher preferences can play a fundamental role in the uneven distribution of effective instruction, as many prefer to work with high-achieving, more affluent and whiter student bodies.¹⁸ These dynamics limit high-poverty schools' ability to attract and retain qualified and experienced teachers, which leads to significantly higher teacher turnover rates. High-poverty schools lose 20% of their faculty on average every year. As schools struggle to fill these vacancies each year, they perpetuate a cycle of novice or unprepared teachers instructing students with the greatest needs.¹⁹ These disparities in resources have consequences. For example, a North Carolina study found that student achievement gains were significantly greater for

students whose teachers were National Board Certified, as well as for those whose teachers had strong academic and teaching preparation and lengthier experience in teaching.²⁰

This lack of critical school resources is particularly damaging in high-poverty communities because they cannot be offset, as they often are in advantaged ones, by families paying for out-of-school time learning support and enrichment available in their communities — tutors, art and music lessons, summer programs, etc. Altogether, resource inequities pervade the current system and the current research gives substance to the proposition that better distribution can yield more equitable outcomes.

Adverse conditions in high-poverty communities create barriers to learning in high-poverty schools.

Life in communities of concentrated poverty can have negative effects on the well-being of all residents. It is particularly difficult for those families who are themselves poor. Scholars have called this the “double burden” of poor families living in extremely poor communities.²¹ Adverse conditions associated with poverty include food insecurity, substandard housing or homelessness, unemployment, unsafe neighborhoods, lack of access to social and health services, and a range of traumatic experiences.²² The negative effects of concentrated poverty in communities on such things as crime rates, school dropout rates, and the likelihood that individuals will remain poor are found once the poverty rate exceeds 20%, and grow rapidly before leveling off around 40%.²³

From an early age, children living in areas of concentrated poverty experience the harmful effects of cumulative disadvantage on their cognitive, social, and intellectual development and achievement.²⁴ Limited access to home environments with rich language and experiences, low birth weight, low levels of parental education, and greater likelihood of single-parent households all have a negative relationship to educational outcomes. Children growing up in single-parent families, for example, typically do not have the same economic or human resources available as those growing up in two-parent families.

A great deal of evidence demonstrates how and why these adverse conditions in high-poverty communities have a detrimental effect on academic success. In sub-optimal environments, learning opportunities are proven to be far more predictive of subsequent learning than are genes.²⁵ Even in pregnancy, the impact of maternal stress on prenatal brain development relates to toddler behavior, child temperament, and learning.²⁶ Chronic and excessive stress in adolescence shortens the window of increased neural capacity and growth, and the subsequent effect on brain development has implications for future risky decisions that can influence educational outcomes.²⁷

The neural effects of stress and adverse conditions on young children are further compounded by other factors associated with living in poverty. Studies published in the *American Journal of Clinical Nutrition*, *Pediatrics*, and the *Journal of the American Academy of Child and Adolescent Psychiatry* document the negative effects of hunger on children’s academic performance and behavior in school. Even at the most marginal level of household food deprivation, children who live in food insufficient households have significantly lower arithmetic scores, are more likely to repeat a grade, and have difficulty getting along with other children.²⁸ Studies document how simply skipping breakfast can have adverse effects on school connectedness, absenteeism, and cognitive performance in areas such as problem-solving, memory, and attention.²⁹ Parent-reported anxiety scores for children

facing severe hunger were more than double those of children with no hunger, along with significantly higher levels of internalized behavioral problems and chronic illness counts.³⁰

Children who face housing insecurity are likely to change schools more frequently and during the school year, which is associated with lower school engagement, poorer grades, and a higher risk of dropping out.³¹ Homeless children are especially likely to suffer from depression, behavioral problems, or severe academic delay.³² Living in substandard housing increases health risks, which in-turn lead to higher levels of school absenteeism. Exposure to environmental toxins, such as lead-based paint and cigarette smoke, have led to poorer health outcomes including higher levels of depression, asthma, diabetes, and heart disease. This may be exacerbated by lower-quality and less available health care.³³

Neighborhood peer groups can increase the likelihood of involvement in criminal activity and drug use, as well as victimization.³⁴ For children, exposure to neighborhood violence is associated with a decline in mental health from trauma and emotional stress, the development of unhealthy stress-reduction habits such as smoking, and an increase in violent behavior that can lead to suspension or arrest.³⁵ These factors push children from violent neighborhoods to fall farther behind their peers as they progress through school.³⁶

High levels of unemployment in communities of concentrated poverty can alter community norms around work and school.³⁷ High-poverty communities often lack the informal networks that are key to labor force participation and face a stigma that discourages employers from hiring residents.³⁸ In addition, the limited availability of goods and resources in high-poverty communities can mean that people pay more for necessities than those in less poor communities.³⁹ This makes children in families that lack secure parental employment especially vulnerable.

Policies and interventions can improve education outcomes at high-poverty schools, and resources matter.

Interventions and supports exist to offset these barriers and increase opportunities for children in high-poverty schools, although most schools struggle to adequately provide them. At the most basic level, greater funding to schools can improve student performance.⁴⁰ With additional resources, high-poverty schools can be more attractive to effective and experienced teachers and improve school resources and support, such as expanded learning time and enriched curriculum opportunities. Studies have found that additional learning time can increase average overall academic achievement with the greatest benefits for disadvantaged students.⁴¹ Children in poverty often lack access to books compared to their wealthier peers, which contributes to disparities in basic literacy from an early age. Additional funding can be used to put print materials in the hands of all youth. Such strategies improve the behavioral, educational, and psychological outcomes for disadvantaged children.⁴² While the issue of funding disparities is of critical significance, it is part of the larger structural issues — such as teacher and leader recruitment and retention — that must be addressed if all children in North Carolina are to have a sound basic education.

Interventions that address the negative impact of adverse conditions on student achievement can increase students' opportunity for educational success, including high-quality early childhood programs, school-based health and social supports, and learning time and opportunities beyond the traditional school day and year.

Schools that extend free school lunch to all students are proven to reduce stigma that limits participation, reduce food insecurity for needy students, improve student readiness to learn, and reduce administrative burden.⁴³ As economically disadvantaged children are less likely to have access to resources that can alleviate poor mental and physical health, additional resources in high-poverty schools such as nurses or mental health and social welfare counselors help shift the burden off of teachers who are unprepared to deal with these challenges.⁴⁴

Research also shows that interventions which promote two-way communication between a child's home and school are integral to strengthening academic success.⁴⁵ Community- school partnerships facilitate involvement by allowing families and community members to participate in shared learning activities in the school. Parental involvement influences developmental and educational outcomes through mechanisms such as modeling, reinforcement, and instruction.⁴⁶ Students with highly involved parents are more likely to have higher grades, attend school regularly, have better social skills, show improved behavior, and adapt well to school.⁴⁷ Parent universities, workshops, and related programming throughout the year can further help families navigate the complexities of school partnerships, career and college planning, and disability or supplemental services, and can provide information about how the education system works in order to advocate effectively for their children.⁴⁸

Research Approach

With the prior research in mind and the charge to understand the current situation in North Carolina schools, the research team sought to document the overall landscape of high-poverty communities and schools, the within- and out-of-school challenges, and the role of policy. The research team also sought to identify key differences between high-poverty schools and low-poverty schools to get a sense of how these differences might affect students' opportunity to obtain a sound basic education. To this end, the following questions were posed for the high-poverty schools study.

- » How many high-poverty schools (HPS) are there? Who attends them? Where are they located?
- » What is the larger context of high-poverty schools — the scale and scope of poverty in the state?
- » Do high-poverty schools limit students' opportunity for a sound basic education?
- » Do high-poverty schools provide access to the tenets?
- » Do high-poverty schools provide supports to offset barriers and risks stemming from concentrated poverty?
- » Do state policies support, and in what ways do they constrain, HPS's provision of opportunities and supports?

Definitions

The primary goal of this study is to understand the experiences of students attending high-poverty schools. This requires a clear definition of high-poverty schools and low-poverty schools. The research team rely on the U.S. Department of Education, National Center for Education Statistics (NCES) definition.

The U.S. Department of Education divides schools into four categories based on the percent of qualifying children. Low-poverty schools are defined as public schools where 25% or less of the students are eligible for free or reduced-price lunch (FRPL), and mid-low-poverty schools are those schools where 25 to 50% of the students are eligible for FRPL. High-poverty schools are defined as public schools where more than 75% of the students are eligible for FRPL, and mid- to high-poverty schools are those schools where 50 to 75% of the students are eligible for FRPL.⁴⁹ This is not a perfect measure of poverty levels at a school, since it depends on families applying for the program. So, for example, the identified poverty rates at senior high schools tend to be lower than those at

middle and elementary schools in the same communities. However, FRPL eligibility remains the best measure of school-level poverty available.⁵⁰

The research team ran into a complication, however, caused by a recent federal policy decision. The variables used to calculate percentage of economically disadvantaged have been distorted by what's called the "community eligibility provision" (CEP) in the FRPL program that allows schools in poor communities to provide meals to every student without having to identify each child. While this policy better addresses the needs of students with food insecurity, an unintended consequence is that the district no longer collects accurate data on individual student poverty. To address this concern, the research team used the formula that the federal government uses to estimate the actual number of economically disadvantaged children at schools using the CEP.⁵¹

Accordingly, the following definitions to identify high- and low-poverty schools in North Carolina were used:

» **High-Poverty Schools.** Schools with either:

75% or more individual students certified as economically disadvantaged (ED). ED students qualify for the federal FRPL program because their family incomes are less than 185% of the poverty level.⁵²

or

47% or more individual students certified as ED and the school participates in the CEP. (Note: USED uses a 1.6 multiplier to estimate the actual number of ED students from those certified as ED in CEP schools, given lower rates of individual certification ($47\% \times 1.6 = 75.2\%$))

» **Low-Poverty Schools.** Schools with fewer than 25% ED students (NCES).

These definitions are consistent with how the federal government and most researchers classify high- and low-poverty schools.

Methods

To conduct this study, the Learning Policy Institute drew on findings from existing studies using North Carolina data, conducted secondary analyses of existing data sets, surveyed a representative sample of principals, and conducted site visits which included observations, focus groups, and interviews with educational leaders, teachers, and school staff. To recommend actions to remedy the existing problems, the research team drew on evidence about best practices nationwide for improving students' opportunities and outcomes in high-poverty schools using cost-effective strategies, as well as on North Carolina examples of these practices.

Secondary Analysis of Existing Data

Data was obtained from several sources of student, school, and district administrative records. In part, these records are collected by the North Carolina Department of Public Instruction (DPI) and managed by the North Carolina Education Research Data Center (NCERDC) at Duke University. These datasets include millions of

students and teachers identified with unique identification numbers. The research team obtained NCERDC datasets from 2006 to the most recently available year (often 2016-2017), that include the following data:

- » **Student and teacher demographics:** race, ethnicity, age, grade, Limited English Proficiency status, migrant status, homelessness status, free/reduced price lunch eligibility;
- » **School characteristics:** pupil-teacher ratio, counts of free/reduced price lunch eligible students, and the count of students by race, ethnicity, and grade;
- » **School learning opportunities and resources:** per pupil expenditures, access to materials and technology, and access to student support staff;
- » **Indicators of educator quality:** educational attainment, licensure type, experience, National Board Certification;
- » **Indicators of school working conditions:** Working Conditions Survey results, educator salary; and
- » **Student outcomes:** End-of-Grade (EOG) and End-of-Course (EOC) exam achievement and growth, graduation rates, exclusionary discipline experiences.

This study also drew from the **Teachers Working Conditions (TWC) Survey**, an anonymous statewide survey of licensed school-based educators to assess teaching conditions at the school, district, and state level. The TWC is was established by the North Carolina Professional Teaching Standards Commission and is administered by the New Teacher Center.

In addition, the research team drew from **The American Community Survey (ACS)**, a publicly available data source that provides annual data on employment, demographics, and indicators of socioeconomic status by district, county, region, and state. These data provide information on out-of-school factors that impact student outcomes.

All coding was conducted with STATA statistical software. Economic supply and demand modeling relied on both STATA and Excel. For the second set of questions related to the current state of North Carolina high-poverty schools, data was merged by unique student identification codes.

North Carolina Principal Survey

In fall 2018, the research team administered a survey of the full population of NC principals. This survey included 75 items that addressed the components of a sound basic education. The researchers developed a list of potential items from existing surveys used in other studies or contexts. These surveys included:

- » Illinois 2011 Principal Survey¹

¹ https://www.isbe.net/documents/blank_survey_11.pdf

- » Schools and Staffing Survey²
- » TALIS Principal Survey³
- » Survey of California Principals (Learning Policy Institute)⁴
- » National Teacher and Principal Survey⁵
- » Teach for America Survey⁶
- » Pennsylvania Teacher and Principal Evaluation Survey⁷
- » VAL-ED Survey⁸

From a master list of items that addressed the domains and topics of interest, the researchers narrowed the list of survey items and then tested and made final revisions to the survey. The survey was administered via SurveyMonkey to 2,657 principals through an established principal contact list made publicly available by the NCDPI. The survey was open for respondents for five weeks. The total survey response rate was 31% (832 completed survey responses). Survey data was cleaned and then analyzed using statistical software packages STATA and SPSS to generate the descriptive statistics and cross-tabulations required for analysis.

Site Visits

This study of High-Poverty Schools incorporated a case study methodology. Site selection began with a review of administrative data for all North Carolina school districts. The research team considered school poverty level, composition of the student body, school level, school size, school performance, and region to identify four case study sites that represented a range of experiences of students in the state's high-poverty schools. The research team engaged in preliminary phone calls with school principals to obtain further background information and secure site liaisons to help coordinate visits (See Exhibit 1 for an overview description of the sites included in the study).

2 <https://nces.ed.gov/surveys/sass/pdf/1112/SASS2A.pdf>

3 <http://www.oecd.org/education/school/43081362.pdf>

4 https://gettingdowntofacts.com/sites/default/files/2018-09/GDTFII_Report_Sutcher.pdf

5 https://nces.ed.gov/surveys/ntps/pdf/1516/Principal_Questionnaire_2015-16.pdf

6 https://www.rand.org/pubs/research_reports/RR2192.html

7 <http://www.education.pa.gov/Teachers%20-%20Administrators/Teacher%20and%20Principal%20Evaluation%20Survey/Pages/default.aspx>

8 https://valed.ioeducation.com/pdfs/Sample_Survey.pdf

Exhibit 1. Site visit locations

	Grade Span	Region	School Size*	Percent Economically Disadvantaged	Percent Students of Color
Enka Middle School Buncombe County Schools	7–8	Western	596	Between 55% and 60%	24%
The Grey Culbreth Middle School Chapel Hill-Carrboro City Schools	6–8	North Central	711	Between 20% and 25%	40%
Lewis Chapel Middle School Cumberland County Schools	6–8	Sandhills	586	Greater than 90%	93%
Townsend Middle School Robeson County Schools	5–8	Sandhills	193	Greater than 90%	96%

Source: [NC 2016-2017 State, District, and School Level Summary Data](#); [2016-2017 Free and Reduced Meal Application Data](#); [NC Statistical Profile: 2016-2017 Pupils in Membership in Race and Sex](#)

*School size = Final Average Daily Membership (ADM)

The LPI team conducted site visits in 2018 and 2019 for each of the four case studies. The research team interviewed approximately a total of 85 participants in person (including 30 teachers, 10 counselors, 15 parents, 20 students and 10 school or district administrators), with additional follow-up interviews conducted by phone as necessary. Also, the research team conducted focus groups with middle school students about their experiences in the classroom, with their peers, and with administrators and other support staff to understand more richly how students feel and experience their schools themselves. The research team also observed classroom instruction and other school-based extracurricular activities.

Interview analysis was conducted using a combination of inductive and deductive coding. Interview and observational data were supplemented by a review of artifacts including district and school documents and online reports.

Findings: North Carolina Has Large Numbers of HPS and Students Attending HPS

*In 2018, the Department of Public Instruction counted 1,520,457 students attending 2,598 North Carolina public schools. The overwhelming majority (94%) were in 2,421 traditional district schools, while 92,406 (6%) attended the state's 168 charters.*⁵³ The student composition of these schools reflects the scale and scope of poverty and inequality in North Carolina and, especially, the increasing concentration of economically disadvantaged children and children of color in high-poverty communities. A third of the state's schools — a total of 843 in the DPI data from 2017 — enroll 404,505 students, most of whom are from low-income families. Most of these schools are located in high-poverty communities. Other schools, mostly located in far wealthier communities, serve only a small fraction of economically disadvantaged children.

This section of the report describes and contrasts North Carolina's high- and low-poverty schools and the students who attend them. These data reveal considerable similarities among the schools in each category, as well as some important differences. Later sections focus in more detail on whether and how conditions in and around these two groups of schools intersect with the schools' ability to provide all students with a sound basic education. Of particular interest will be whether and how North Carolina's high-poverty schools further jeopardize the equal opportunities of the large number of at-risk students who attend them.

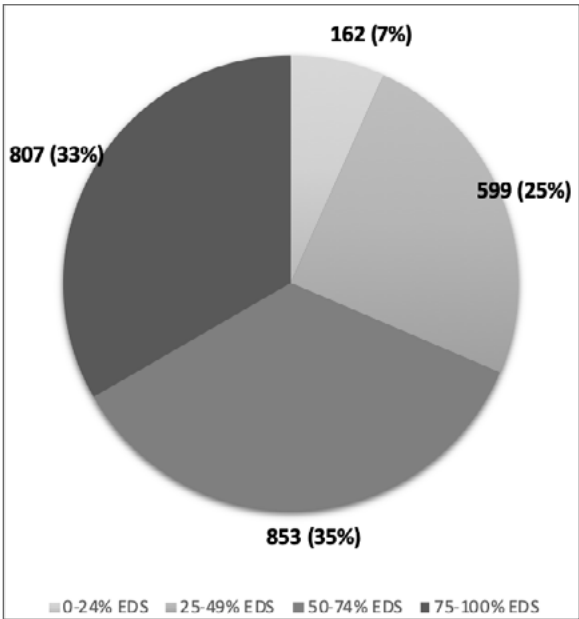
High- and Low-Poverty Schools and Their Students

Using the definition established by the U.S. Department of Education's National Center for Educational Statistics (NCES) in 2017, 33% (807) of the state's traditional schools are high-poverty schools, as are 21% (36) of charters. These are schools where three-quarters or more (75%+) of the students are economically disadvantaged. At the other end of the spectrum, nearly half of charter schools meet the federal definition of low-poverty schools, in that fewer than a quarter of their students are economically disadvantaged (-25%). In contrast, only 7% (162)

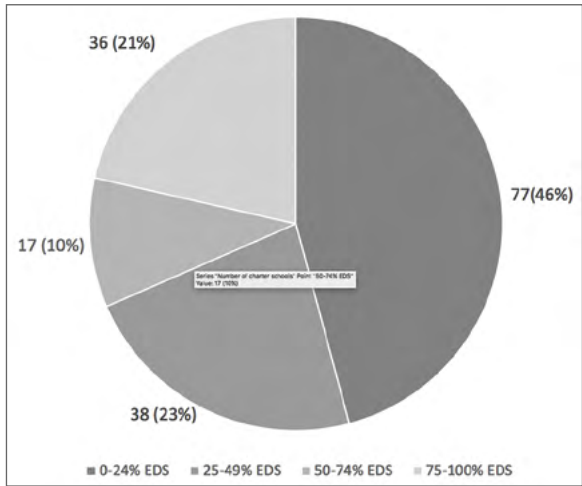
of traditional district schools are low-poverty schools. The following tables show how many of North Carolina's district and charter schools fall into various levels of poverty, as defined by NCES.

Exhibit 2. Poverty levels of district and charter schools

NC District Schools



NC Charter Schools

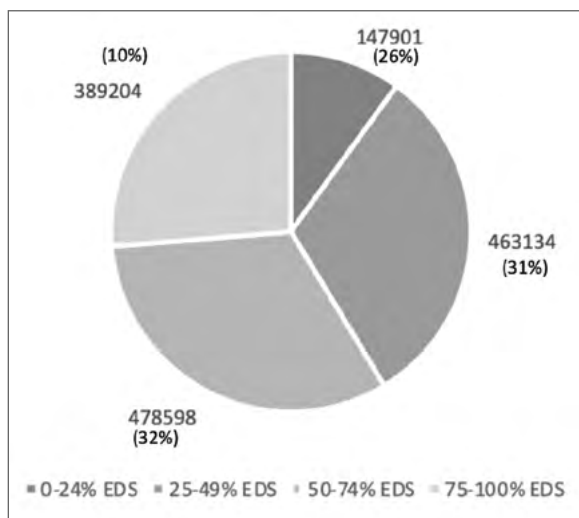


Source: LPI analysis of DPI data

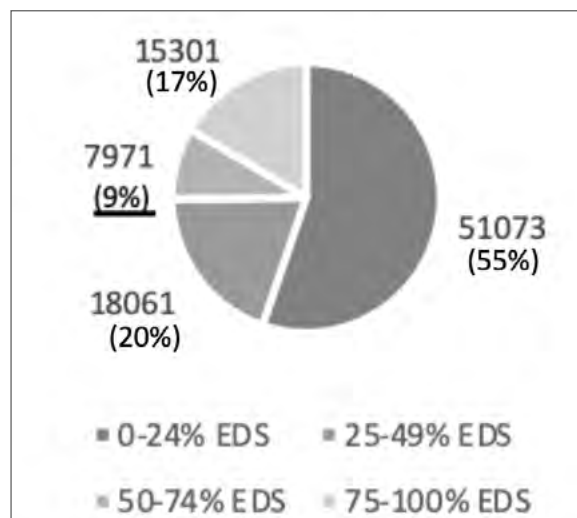
Approximately one and half million young people attend North Carolina public schools, most of them in traditional district schools (94%) and the remainder (6%) in charter schools. The following table shows how these students are distributed among district and charter schools at different poverty levels.

Exhibit 3. Enrollment of North Carolina students in district and charter schools at different poverty levels (percentages are % of all NC students)

Students in District Public Schools



Students in Charter Schools



Source: Analysis of NCERDC

Of note here is that a significant proportion of North Carolina students attend high-poverty schools, far more than those attending low-poverty schools (26% versus 13%). Also of note is that district schools and charter schools are very different in this regard, with charter students far more likely than district students to be in low-poverty schools. Among district schools, 2.6 times as many students attend high-poverty schools as attend low-poverty schools. In the charter sector, 3.3 times as many students attend low-poverty schools as attend high-poverty charter schools.

The most obvious reason why there are so many high-poverty schools is that nearly half of North Carolina’s children (43%) live in poor or low-income homes. A second reason is that, although economically disadvantaged children live nearly everywhere in North Carolina, many are concentrated in low-income communities. Moreover, both child poverty rates and the number of neighborhoods characterized by concentrated poverty are increasing.

High-Poverty Schools Are In Every Corner of the State

High-poverty schools are located in every region of the state, although proportionately fewer are in the West and Northwest. Low-poverty traditional schools are less evenly distributed with three-quarters of them located in the North Central and Southwest regions.

Exhibit 4. Distribution of low- and high-poverty district schools by SBE region

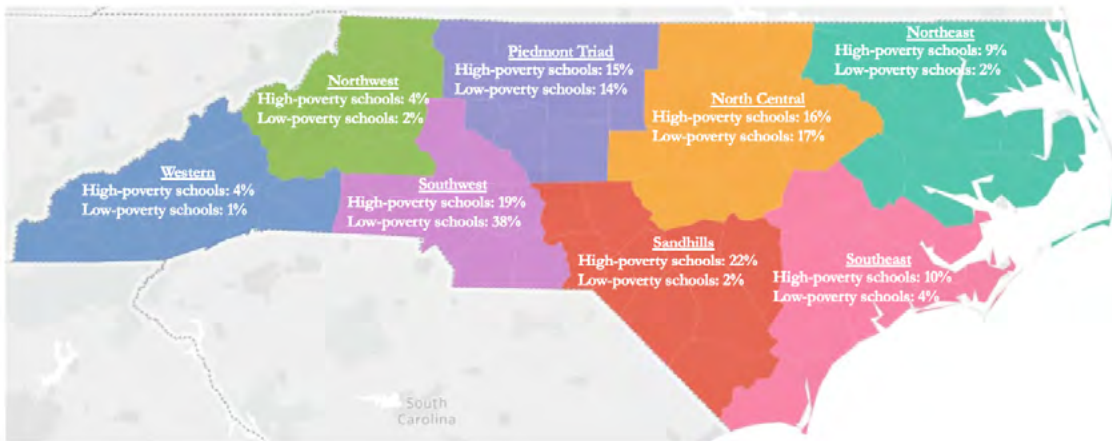
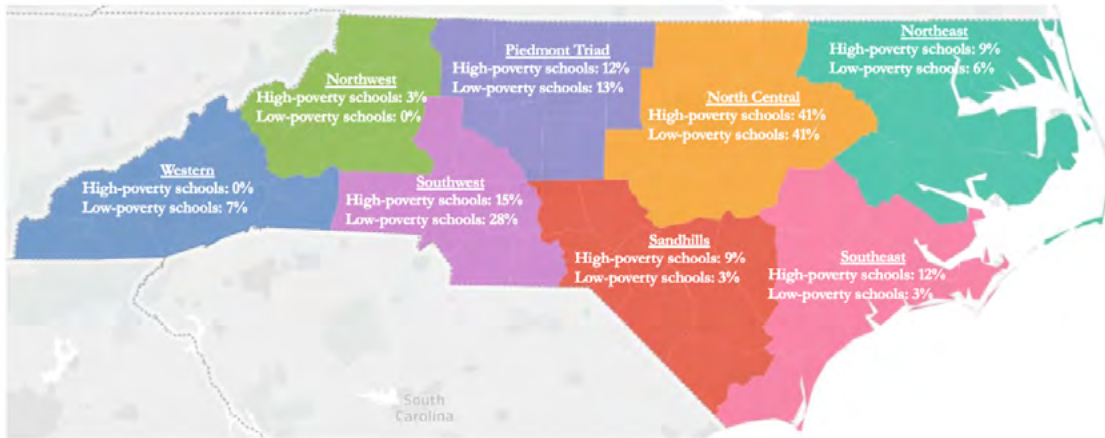
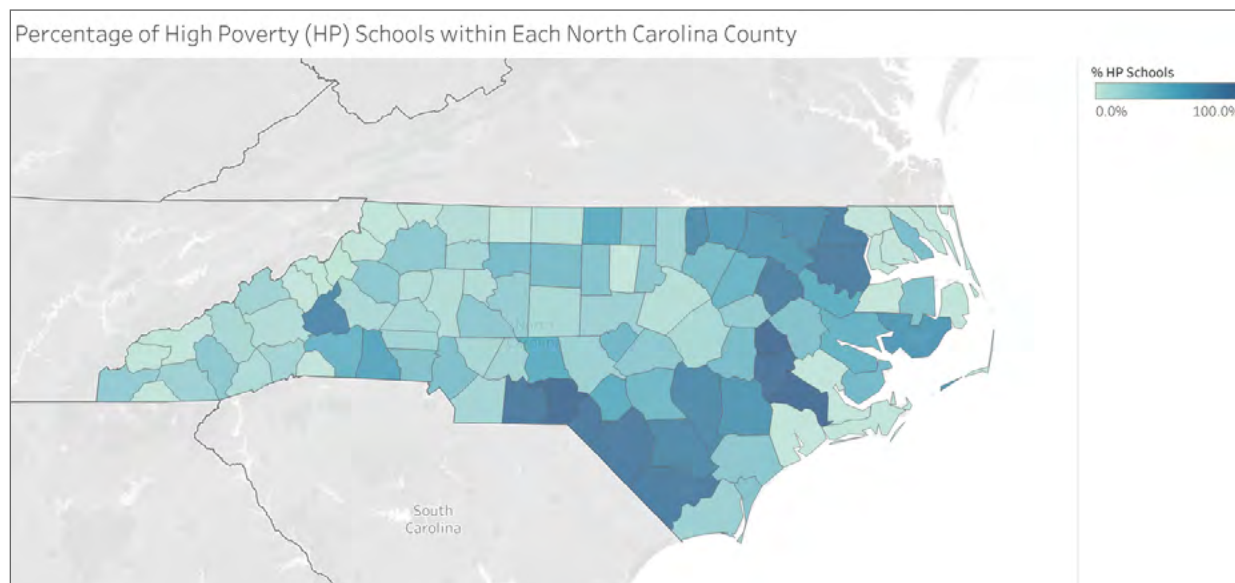


Exhibit 5. Distribution of low- and high-poverty charter schools by SBE region



Notably, only 21 counties have high-poverty charters comprised of 75% or more economically disadvantaged students. In contrast, 78 counties have high-poverty district schools. The map below shows the percent of district schools in each county that are high-poverty schools.

Exhibit 6. Percent of each county's schools that are high-poverty schools



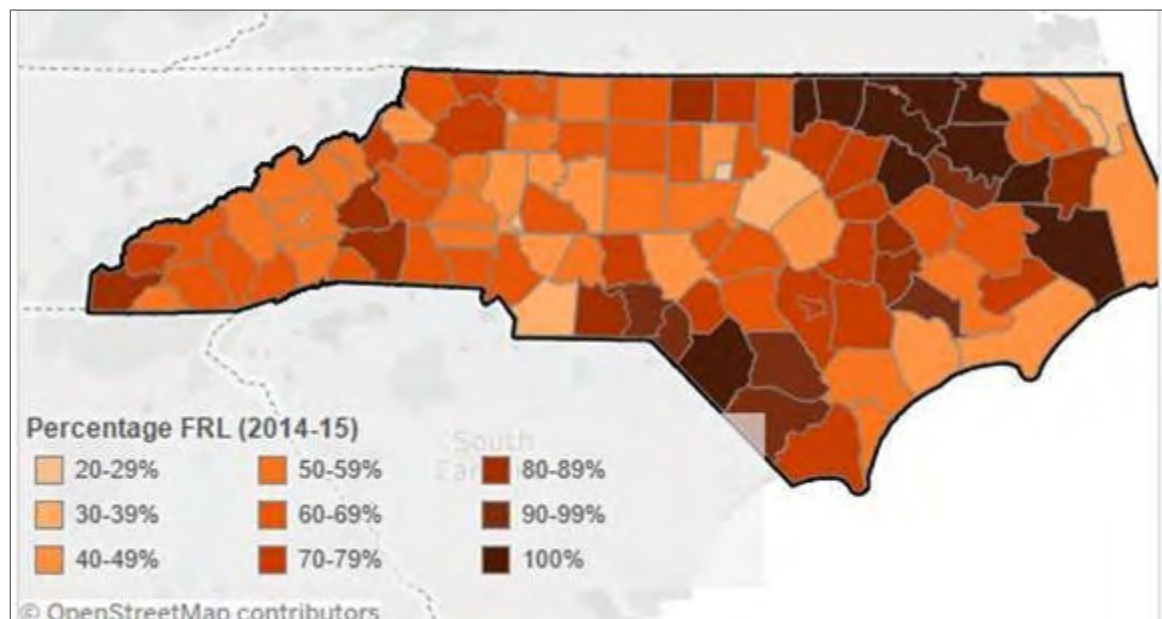
Poverty is Increasing and Increasingly Concentrated

The most obvious reason that there are so many high-poverty schools in North Carolina is that there are so many poor children in North Carolina. The state ranks 37th among the states in child poverty, with 21% (476,438) of its children living in households below the federal poverty line.⁵⁴ Seven percent of North Carolina households live in deep poverty, with incomes at or below 50% of the federal poverty level — less than \$12,300 per year for a family of four. This amounts to a little more than \$8 per person, per day.⁵⁵ Forty-eight percent (1,085,279) live in households with incomes that are less than twice the federal poverty threshold — the amount that researchers have found to be necessary to meet most basic needs. In the 2016–17 school year, 60% of North Carolina public school students received free or reduced-price lunches based on their family's low income, 10 points higher than the level of participation a decade earlier.⁵⁶ These are all children who meet the *Leandro* definition of “at-risk” students.

A second reason for the large number of high-poverty schools is that, although economically disadvantaged children live nearly everywhere in North Carolina, many are concentrated in particular communities.

The statewide 21% child poverty rate masks a wide range among the state's 100 counties. Between 2011 and 2016, 10 counties had average child poverty rates of less than 20% and another 10 counties had rates above 40%. The lowest child poverty levels at the county level was 11% in Orange County and the highest was 53% in Northampton County.⁵⁷ Watauga County and Scotland County experience the highest rates of deep poverty in North Carolina, where nearly a fifth of households live in deep poverty.⁵⁸ The map below shows both the spread of child poverty across the state and the fact that many children whose low family incomes made them eligible for free or reduced-price meals at school are concentrated in the state's most distressed counties.⁵⁹

Exhibit 7. Free and reduced price meal eligibility (schools begin CEP), 2014–15



Source: *The Friday Institute, 2017*

Child poverty rates also vary considerably among neighborhoods within counties, and neighborhoods of concentrated poverty are increasing in the state. Nationally, the number of extremely poor neighborhoods (more than 40% poverty) and the number of people living in them has grown dramatically since 2000, with the greatest increases in North Carolina.⁶⁰ In 2000, 37 North Carolina neighborhoods had poverty rates of 40% or higher, with 84,493 people (1% of the total population) living in those communities. By 2016, the number of concentrated poverty neighborhoods had risen to 109 and they included more than 348,000 residents (4% of the total population). That also means that the percentage of people in poverty living in concentrated poverty neighborhoods more than doubled from 4 to 10%, reflecting both increasing poverty and increasing economic segregation.⁶¹

Nearly half (774,483) of North Carolina students are economically disadvantaged, in that they live in families whose low incomes make them eligible for federally subsidized meals at school. Approximately 4% (30,462) of these students attend charter schools, where they comprise 33% of the charter school population. The other 96% (744,021) of these economically disadvantaged students are in district schools, where they make up 52% of district school students.

Most High-Poverty Schools Are in High-Poverty Communities

Economically disadvantaged students are distributed unevenly among North Carolina schools, as would be expected given the concentration of poverty in the state described above. In fact, 36% (269,550) of the state's economically disadvantaged students attending district schools are in schools where 75% or more of their

classmates are also economically disadvantaged. In charters, the proportion is even greater; 43% of the economically disadvantaged students that attend charters (13,074 of 30,462) are in high-poverty schools.

Because most North Carolina students go to school in the neighborhood where they live, it follows that schools where most students are poor tend to be in the most economically distressed communities and that schools with few poor students are in the least distressed communities. The following table shows the distribution of high- and low-poverty district schools among counties by tier of economic distress. While nearly half of the high-poverty district schools are located in the most distressed counties, only one low-poverty district school is.

Exhibit 8. HPS by County Economic Distress Ratings

	Low-poverty schools	High-poverty schools
Tier 1 (most distressed)	1	380
	1%	47%
Tier 2	26	246
	16%	30%
Tier 3 (least distressed)	135	181
	83%	22%
Total	162	807
	100%	100%

High-Poverty Schools Are Disproportionately Schools of Color; Low-Poverty Schools Are Mostly White

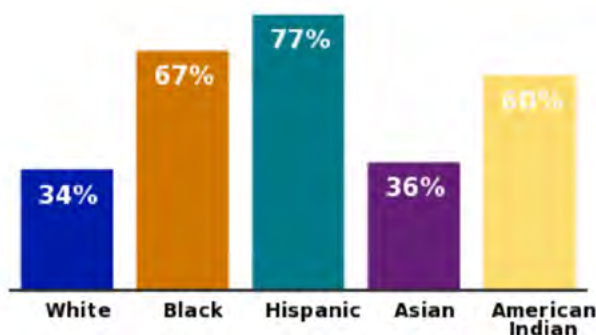
Given the level of economic segregation in the state, one would expect schools with mostly poor students to be located in poor neighborhoods and that low-poverty schools will be found in wealthier neighborhoods. However, it is also the case that high-poverty schools are disproportionately comprised of students of color and located in communities of color. That is in part attributable to the fact that poverty status and racial group membership are highly correlated, with people of color (especially Blacks, Hispanics/Latinx, and American Indians) far more likely to be poor than Whites. It also results from residential patterns of racial segregation, in which people of color who are not poor are more likely than their white counterparts to live in poor communities.⁶²

The concentration of poverty in the state, described above, is racially skewed.⁶³ African American North Carolinians are more likely than Hispanic/Latino North Carolinians to live in neighborhoods with the highest poverty rates (40% or higher) and far more likely than white North Carolinians to live in such neighborhoods.

Child poverty in North Carolina is unevenly distributed among racial groups. Economic hardship is a significant problem for children of all racial groups, but it is most severe for children of color who face other historical and

social disadvantages that compound poverty. The table below shows that the likelihood of Black, Hispanic, and American Indian children living in low-income families is about twice that of children who are white or Asian.

Exhibit 9. Children in low-income families in North Carolina, by race, 2015



National Center for Children in Poverty (<http://nccp.org/>) North Carolina Demographic Profiles

High- and low-poverty schools reflect the intersection of race and economic status. Statewide, students of color make up 52% of the student population — Whites, 49%. However, disproportionate percentages of students of color attend high-poverty schools and high-poverty schools are located disproportionately in communities of color. That also means that disproportionate percentages of white students attend low-poverty schools, and these schools are located disproportionately in white communities.

Exhibit 10. Attendance at high- and low-poverty district schools by students from different racial groups

	All NC district schools (% of NC district students)	Attending HP district schools	Attending LP district schools
Students of Color	52%	77%	33%
White students	48%	23%	67%

Exhibit 11. Attendance at high- and low-poverty charter schools by students from different racial groups

	All charter schools (% of charter students)	Attending HP charter schools	Attending LP charter schools
Students of Color	44%	93%	29%
White students	56%	7%	71%

Source: LPI analysis of 2017 DPI data

Specifically, 39% of North Carolina students of color in the state attend high-poverty district schools, and they comprise 77% of all students attending such schools. Another 14,303 students of color attend high-poverty

charter schools, and they comprise 93% of all students attending such schools. A total of 567 (70%) of the state’s high-poverty district schools are 75% or more students of color; 694 (86%) are 50% or more students of color. These proportions are significantly larger than students of color’s representation in the student population statewide.

In contrast to their over-representation in high-poverty schools, students of color are dramatically underrepresented in the state’s low-poverty schools — schools where fewer than 25% of the students are from low-income families. Only 33% of students at low-poverty district schools are students of color; only 29% of students at low-poverty charters are students of color. In total, only 64,187 of the state’s 807,732 students of color (8%) attend low-poverty schools.

The situation for white North Carolina students is very different. White students make up 49% of all North Carolina students, but they comprise 56% of charter school attendees. Only 89,127 of white students in district schools (13% of the total) attend high-poverty district schools. Whites make up only 23% of students in these schools, compared with their representation of 48% of district school students. Another 998 white students attend high-poverty charter schools, where they comprise only 7% of students at such schools. Only 4% (33) of the 804 high-poverty district schools are 75% white, and 14% (113) are more than 50% white. This pattern also holds among the state’s charter schools. Less than 1% (1 of the 102) of the majority white charter schools is a high-poverty school.

In contrast, the 98,548 white students attending low-poverty district schools make up 67% of the students attending such schools. Whites also make up 71% of students attending low-poverty charter schools. In total, 134,787 of the state’s 763,511 white students (18%) attend low-poverty schools, more than twice as many as students of color at such schools.

Exhibit 12. High- and low-poverty district schools by racial/ethnic composition

	Number and percent low-poverty schools	Number and percent high-poverty schools
50%+ Students of Color	20 12%	694 86%
75%+ Students of Color	1 <1%	461 57%
50%+ White students	142 88%	113 14%
75%+ White students	48 30%	33 4%
Total	162 100%	807 100%

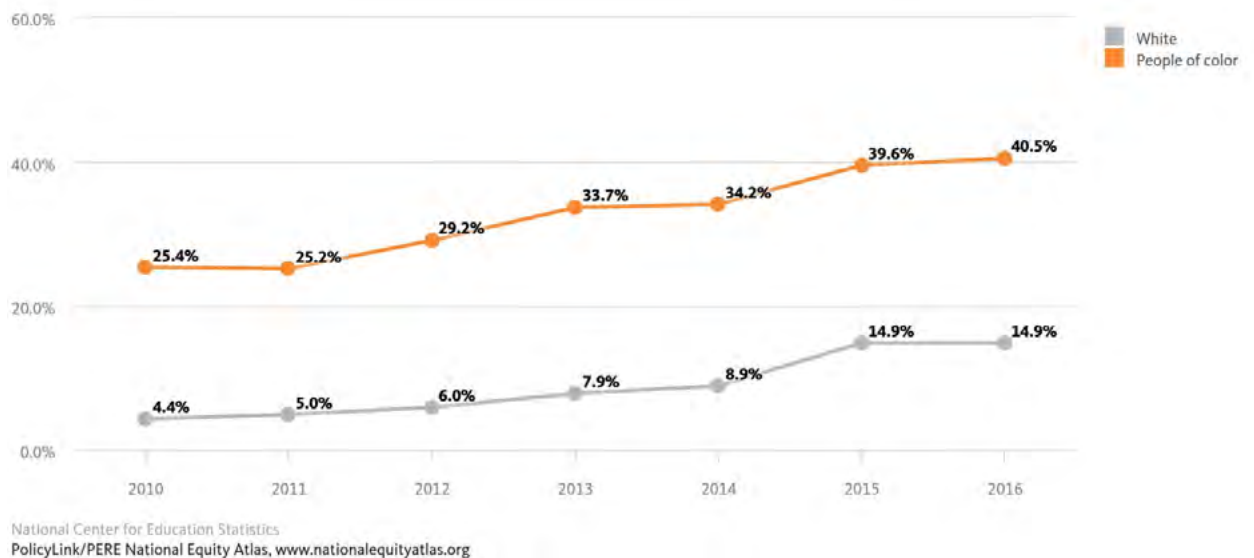
Exhibit 13. High- and low-poverty charter schools by racial/ethnic composition

	Number and percent low-poverty schools	Number and percent high-poverty schools
50%+ Students of Color	9 12%	35 97%
75%+ Students of Color	2 3%	34 94%
50%+ White students	68 88%	1 3%
75%+ White students	41 53%	1 3%
Total	77 100%	36 100%

Source: LPI analysis of 2017 DPI data

Parallel to the increases of poverty and poverty concentration in the state over the past several years, the percentage of students of color attending high-poverty schools has also increased. The following figure shows the increases by race over between 2010 and 2016.

Exhibit 14. Percent of students in high-poverty schools: North Carolina, all public schools, 2010–2016



High-Poverty Schools Are Located Disproportionately in Majority-Minority Communities and Low-Poverty Schools in Majority White Communities

Consonant with these patterns of student enrollment, the communities in which high-and low-poverty schools are located also display racial patterns, with the racial match between communities and schools most evident in the location of nearly all low-poverty schools in majority white communities and the location of high-poverty schools in majority minority communities at twice the rate that one would expect given the distribution of the North Carolina population.

Only three (2%) of the state's low-poverty schools are in majority minority communities (defined as the census tract in which the school is located), and only one of these is in a community where 75% or more of the residents are people of color. The other 99% (122) of low-poverty schools are in majority white communities. In contrast, high-poverty schools, probably because there are so many more of them, are located in a wide variety of communities. Of all high-poverty schools, 48% (282) are in majority minority communities and 52% (306) are in majority white communities.

This distribution is far from proportionate. According to data from the American Community Survey, 72% of North Carolina's communities are majority white, and 28% are majority minority (Black, Asian, Hispanic, Pacific Islander, American Indian and Alaska Natives, Other races and two or more races).⁶⁴ If the distribution of high- and low-poverty schools were even across communities of different racial composition, there would be 72% of schools of each type in majority white communities and 28% of each type in majority minority communities.

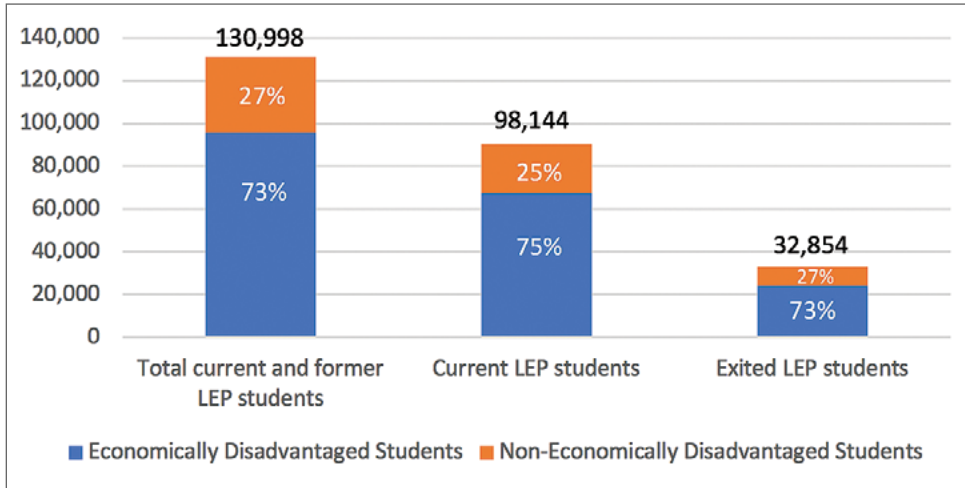
Students With Other Risk Factors Disproportionately Attend High-Poverty Schools

Two groups of students at risk for not receiving a sound basic education in North Carolina are students whose primary language is not English and who are learning English at school and students with disabilities. Both of these groups attend high-poverty schools at disproportionate rates.

High proportions of English learners are economically disadvantaged.

Nearly three-fourths (73%) of North Carolina's 130,998 students who are currently or have previously been identified as English learners (those limited in their English proficiency or LEP) are economically disadvantaged. Such students comprise 13% of all economically disadvantaged students, nearly twice their representation at 9% of all students in the state.

Exhibit 15. Percent of English Learners who are economically disadvantaged

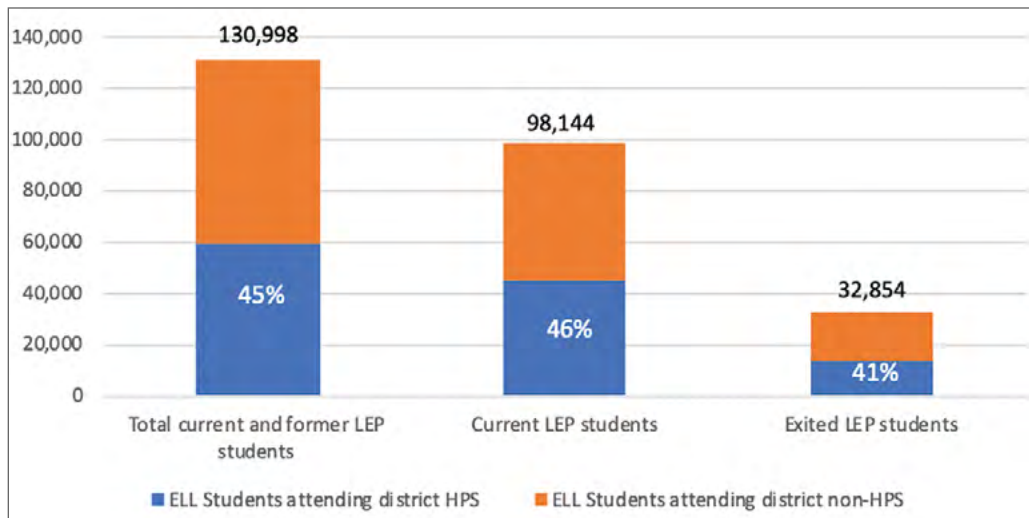


Source: LPI analysis of 2017 DPI data

English learners attend high-poverty schools in disproportionate numbers, particularly those with Spanish as their primary language.

Nearly 45% of North Carolina’s 130,998 students who are currently or have previously been identified as English learners (or LEP) attend high-poverty district schools. Such students comprise 16% of all students attending such schools, nearly twice their representation at 9% of students in district schools statewide. In stark contrast, only 6% of current and former English learners attend low-poverty district schools.

Exhibit 16. English Learners attending high-poverty schools and nonhigh-poverty schools



Source: LPI analysis of 2017 DPI data

These patterns are particularly strong for American Indian, Hispanic/Latino, Black, and multi-racial English learners. For example, 49% of Hispanic English learners attend high-poverty district schools and 3% attend low-poverty district schools. This contrasts with Asian American English learners who are more evenly divided between high- and low-poverty district schools (20% and 27% respectively) and white English learners at 16% and 21% respectively.

Far fewer English learners attend charter schools. However, the patterns are similar. Current and former English learners comprise 3% of all charter school students.

Exhibit 17. Limited English Proficient students attending high- and low-poverty charter schools

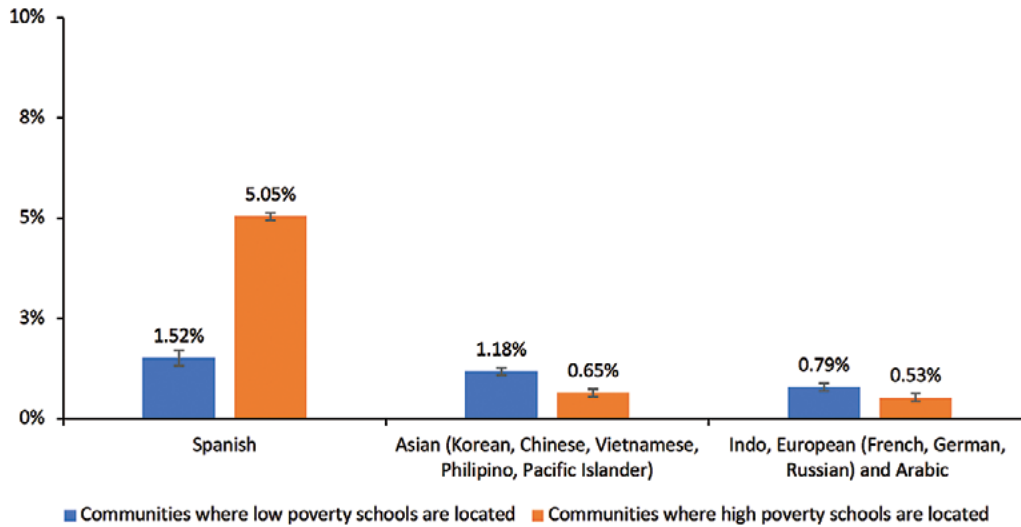
	All charter schools	Attending HP charter schools	Attending LP charter schools
Current LEP students	2,197	50%	26%
Exited LEP students	841	41%	35%
Total current and former LEP students	3,038	47%	29%

Source: LPI analysis of 2017 DPI data

In charters, too, the patterns of racial representation mean that American Indian, Hispanic/Latino, Black, and multi-racial English learners are more likely than Asians and Whites to be in high-poverty schools and less likely to be in low-poverty schools. For example, 59% of Hispanic/Latino English learners attend high-poverty charter schools and 17% attend low-poverty charter schools. This contrasts with Asian American English learners who are quite dramatically underrepresented in high-poverty charters and overrepresented in low-poverty district schools (10% and 71% respectively) and white English learners at <7% and 65% respectively.

Our analyses of the neighborhoods in which high- and low-poverty schools are located shows that children with foreign-born parents live in communities surrounding high- and low-poverty schools at relatively similar rates. However, as the table below shows, school-aged children and adults whose primary language is Spanish and who speak English “less than very well” are more than twice as likely to live in neighborhoods where high-poverty schools are located than in neighborhoods with low-poverty schools. The reverse is the case for similar children and adults whose primary language is Asian (Korean, Chinese, Vietnamese, Filipino, Pacific Islander). Those children are twice as likely to live in neighborhoods with low-poverty schools.

Exhibit 18. Non-English primary language speakers by community poverty level



Source: LPI analysis of 2017 DPI data

Students with disabilities attend high-poverty schools in disproportionate numbers, particularly students of color with disabilities.

Statewide, 179,239 (12%) of North Carolina students are identified as being at educational risk because they have a disability that affects their learning. Of this total, 64% are also identified as economically disadvantaged. As the table below shows, 28% of North Carolina students with disabilities attend high-poverty district schools and comprise 12% of all students, making them slightly overrepresented in such schools. Only 7% attend low-poverty district schools. That means that students with disabilities are slightly underrepresented.

Exhibit 19. NC students with disabilities attending high- and low-poverty district schools

	Students with disabilities (SWD)
All NC schools	179,239 (12% of NC students)
SWD attending HPS	28%
SWD attending LPS	7%

Source: LPI analysis of 2017 DPI data

Students with disabilities who are also American Indian, Hispanic, Black or multiracial attend high-poverty schools at much higher rates than do their peers who are white and Asian, as shown in the table below. The reverse is true at low-poverty schools.

Exhibit 20. NC students by race and disability attending high- and low-poverty district schools

	All NC schools	SWD	% SWD attending HPS	% SWD attending LPS
American Indian	19,001	2,850	74%	15%
Asian American	47,600	2,319	17%	25%
Hispanic	259,572	27,458	74%	5%
Black	378,281	56,491	42%	4%
White	712,117	82,378	16%	10%
Multiracial	60,323	7,580	27%	7%
Pacific Islander	1,943	163	36%	5%

Exhibit 21. NC students by race and disability attending high- and low-poverty charter schools

	All NC schools	SWD	SWD and attending HPS	SWD and attending LPS
American Indian	653	85	41%	25%
Asian American	3,295	144	14%	85%
Hispanic	8,622	691	25%	46%
Black	24,096	2,486	43%	28%
White	51,394	5,172	2%	66%
Multiracial	4,198	427	12%	50%
Pacific Islander	148	<20	*	*

*Percentage omitted to meet data security requirements.

Source: LPI analysis of 2017 DPI data

One caution about these numbers is that they may be artificially low because of the state policy capping at 12% the percentage of students with disabilities that districts can be funded to serve. During site visits, educators at high-poverty schools made clear that far more students than could be served have disabilities that create learning barriers for them. For example, one teacher told us the following:

We have many students who are probably undiagnosed within the school ... that is a component [evaluating these students learning disabilities] that we really need and we probably know that mental health is an epidemic all over this country. It certainly is in North Carolina. This is a huge issue that is not been addressed in schools. And it must be.

These needs are particularly acute for the large number of students with special learning needs. Teachers reported that they are not trained to address the different mental disabilities or specific emotional challenges that students may have, and that there is only one teacher for students with disabilities. Teachers also reported that there was a time when these students were afforded extended testing time for state-mandated testing, but that has been eliminated. They also noted the lack of support for parents of students with disabilities to help them meet their children's needs. As one teacher put it,

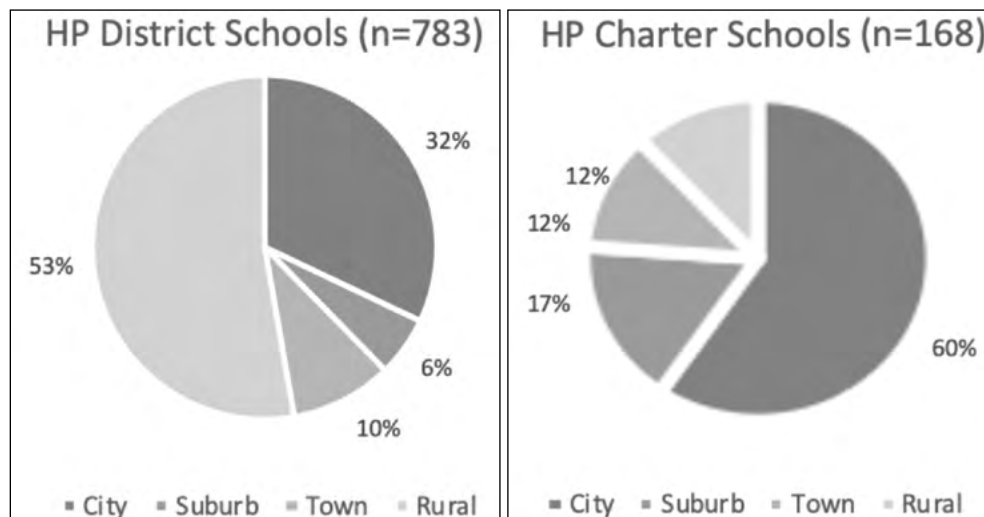
Yes, we know that we have learning disability students, and yes we know that we have students with speech needs, we have specific learning disability students or behavioral disabled students, but I don't think we are trained enough to deal with some of the emotional and mental disabilities that they're coming with and when they're coming saying that they're bipolar, they're schizophrenic.

High-Poverty Schools Are Not All Alike

The data discussed so far in this section have focused on how high- and low-poverty district and charter schools across the state differ — in terms of the students who attend them and the characteristics of the communities in which they are located. As expected, high-poverty schools in both the district and charter sector have large concentrations of economically disadvantaged students and they are located in communities of concentrated economic disadvantage. However, they are also far more likely than other schools to enroll students of color and to be located in communities of color. They are attended disproportionately by English learners, particularly those whose primary language is Spanish. They enroll students of disabilities at higher rates than other schools, and particularly students of color with disabilities. However high-poverty schools are not all alike, and they differ significantly in ways that should be considered when assessing needs and making recommendations for actions that will enable them to provide a sound basic education. These differences include their location in communities of different types, as well as their status as district or charter schools.

This diversity in locale also characterizes North Carolina's high-poverty schools. As the table below shows, of the 807 traditional district high-poverty schools, 53% are in rural communities, 32% in urban centers, and 16% in suburbs or towns.

Exhibit 22. Locale of high-poverty district schools



Source: LPI analysis of 2017 DPI data and NCES locale data

Other key differences among high-poverty schools are the characteristics of the districts in which they are located. High-poverty schools in highly diverse counties differ in their access to county resources and capacity than do high-poverty schools located in high-poverty counties. Many counties also have long histories of racial discrimination which compounds generational poverty. The following account from an African American mother in Robeson county illustrates the still salient impact on high-poverty schools:

Well, both of my kids graduated from a segregated school. They had not integrated the school yet, because my son had graduated in sixty-seven, and my daughter in sixty-nine. As a matter of fact my daughter's class was the last all black class ... and they changed their name from Robeson County Training School to R. B. Dean. When they integrated the schools the white people in Maxton burned down the black school, and they had to rebuild another school.

*Oral history interview with Willa V. Robinson, January 14, 2004.
Southern Oral History Collection (#4007)*

High-poverty schools deserve targeted attention and recommendations in the *Leandro* Action Plan. As the analyses above show, a very large proportion of North Carolina's students defined by the Court as "at risk" attend such schools. The next section turns to examining the relationship between attending a high-poverty school and the opportunity for a sound basic education. However, it should be noted that not all high-poverty schools are alike and that their differences are likely to shape the barriers they encounter and the opportunities available to them as they seek to provide a sound basic education to their students.

Findings: Students Attending High-Poverty Schools Are Less Likely to Receive a Sound Basic Education

Leandro sets a very high bar for a sound basic education that includes specific competencies and student outcomes that demonstrate on proficiency-based state tests. In this chapter, the relationship in North Carolina between concentrated poverty in schools and students' outcomes is described. The research team found, as have many prior studies, that poverty is associated with lower outcomes wherever students go to school. The research team also found that the greater the proportion of economically disadvantaged students at a school, the lower its outcomes. Most significant, however, is that economically disadvantaged students at high-poverty schools have lower outcomes than do economically disadvantaged students at schools that are low-poverty schools.

Leandro's Definition of a Sound Basic Education

The Court defined "a sound basic education" as one that will provide the student with at least:

1. Sufficient ability to read, write, and speak the English language and a sufficient knowledge of fundamental mathematics and physical science to enable the student to function in a complex and rapidly changing society;
2. Sufficient fundamental knowledge of geography, history, and basic economic and political systems to enable the student to make informed choices with regard to issues that affect the student personally or affect the student's community, state, and nation;

3. Sufficient academic and vocational skills to enable the student to successfully engage in post-secondary education or vocational training; and
4. Sufficient academic or vocational skills to enable the student to compete on an equal basis with others in further formal education or gainful employment in contemporary society.

The trial court also ruled that, although test scores are not the “exclusive measure” of a sound basic education, a showing of Level III proficiency is the proper standard for demonstrating compliance with *Leandro*.

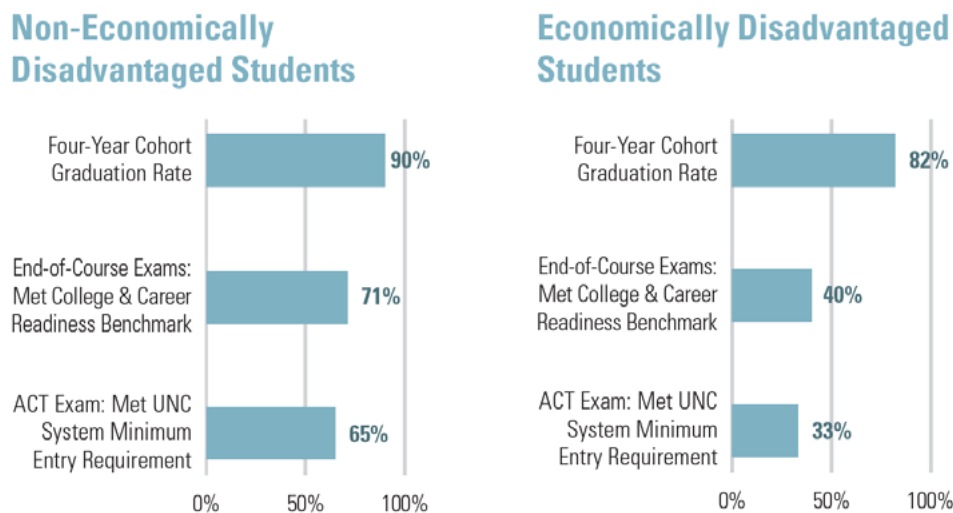
Accordingly, in the analyses the research team used measures of students’ proficiency on the state’s end-of-grade and end-of-course tests as the indicator of whether students are “on track” for obtaining a sound basic education.

Poverty and Students’ Outcomes

Numerous analyses have demonstrated that, across the state, North Carolina’s economically disadvantaged students have poorer schooling outcomes than do their more advantaged peers. In *Leandro*’s terms, they are far less likely to be “on track” to obtain a sound basic education.

The following analyses from the North Carolina Department of Public Instruction (NCDPI) illustrate this pattern, showing that, even though the rates of high school graduation are similar for economically disadvantaged and non-disadvantaged students, huge gaps exist in the test performance of graduating seniors.

Exhibit 23. High school outcomes by students economic status



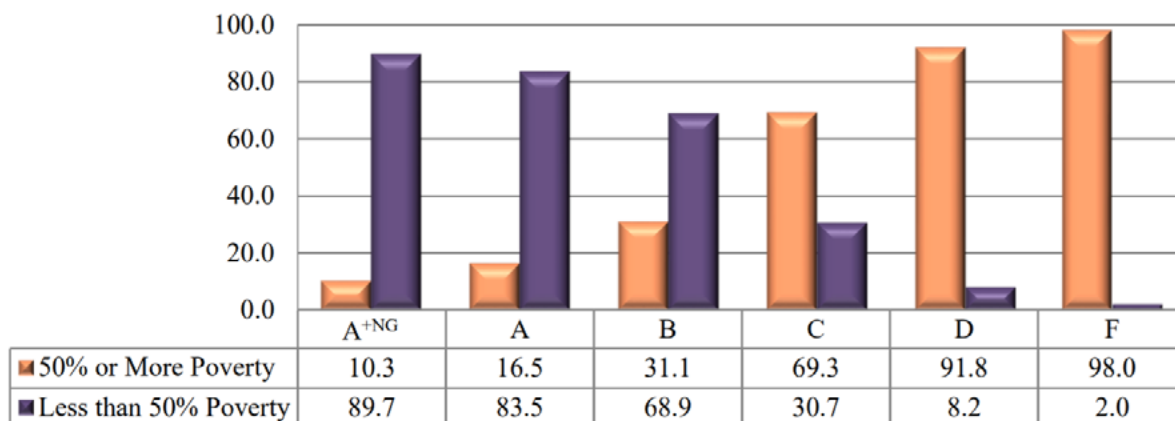
Source: NC DPI Accountability Services Division

These differences speak to Judge Manning’s inclusion in an opportunity for a sound basic education that leads to academic and vocational skills enabling students to compete with others on an equal basis in higher education and employment.⁶⁵

Schools’ Poverty Level and Outcomes

Consistent with the national pattern, North Carolina schools’ poverty level is also strongly associated with student performance. This is most easily observed in the school performance grades that are part of the School Report Cards assigned to schools by NCDPI. As shown in the following exhibit, nearly all of the schools earning “A” grades based on students’ level of performance on state tests and the amount of growth in achievement students have demonstrated are schools where most students are not economically disadvantaged. And, nearly all the schools earning “D” and “F” grades are schools where most students are economically disadvantaged.

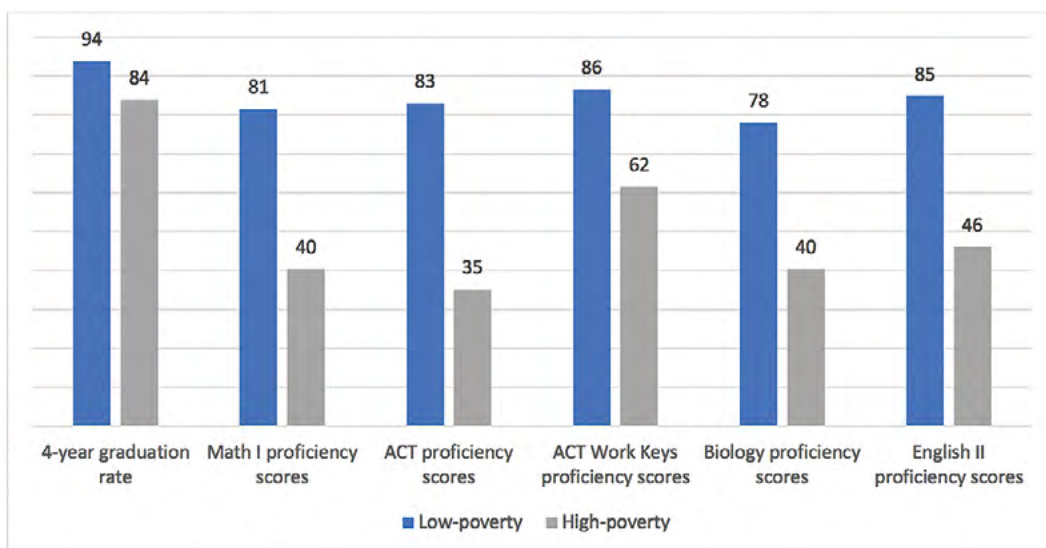
Exhibit 24. Grades by school poverty percentage



Source: DPI, 2016–17 Performance and Growth of North Carolina Public Schools <http://www.ncpublicschools.org/docs/accountability/reporting/2017/documentation/exsumm17.pdf>

The relationship between a school’s poverty level and its test results can be seen in the chart below which shows the percentages of high school students at high- and low-poverty schools who pass the state’s end-of-course exams at a “college and career ready” level and the rates at which students at the two types of schools score well on key college- and career-ready exams. Nearly all low-poverty schools have a majority of students achieving at proficiency levels, compared to relatively few high-poverty schools. Note that these measures include all students at high- and low-poverty schools.

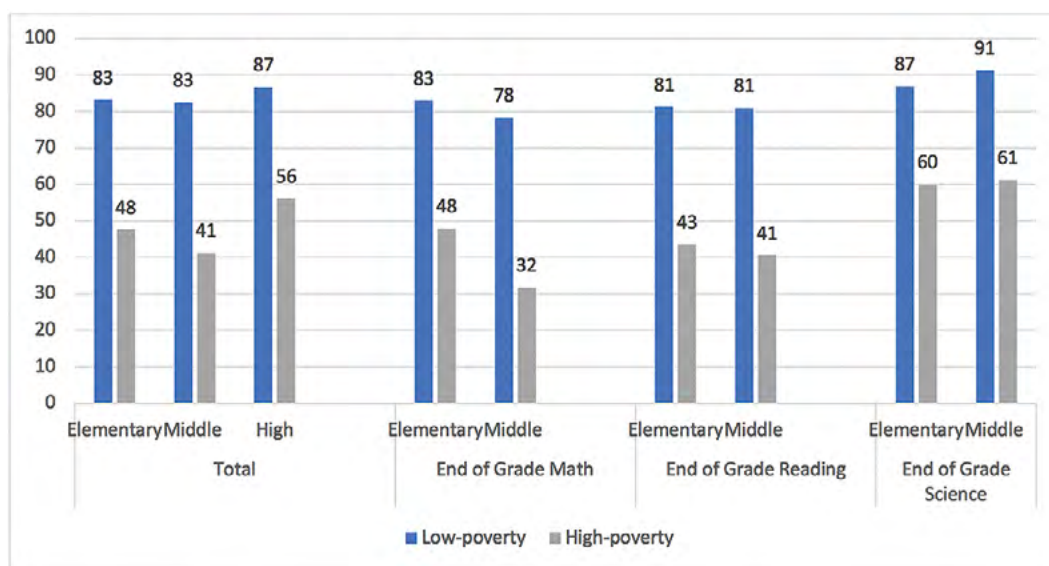
Exhibit 25. Percent students at HPS and LPS passing End-Of-Course Exams at a “College and Career Ready” level



Source: LPI analysis of DPI data

The research team’s analysis of the relationship also shows that this relationship exists at the earliest levels of schooling. High-poverty elementary, middle, and high schools all have much lower percentages of students scoring grade-level proficient on tests in reading, mathematics, and science as depicted in the following chart.

Exhibit 26. Percent scoring Grade-Level Proficient in reading, mathematics, and science



Source: LPI analysis of DPI data

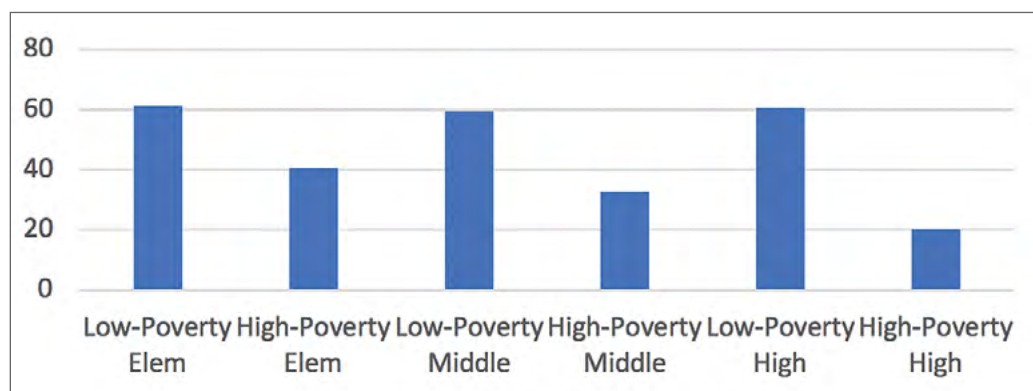
High-Poverty Schools Have an Independent, Negative Relationship to Outcomes

Obviously, part of the differences between high- and low-poverty schools shown above reflect the fact that the low proficiency levels at high-poverty schools reflect the aggregate impact of having large numbers of students whose individual poverty status has a negative impact. However, it also reflects the well-documented negative impact on outcomes of attending schools with concentrations of economically disadvantaged students. More than 50 years ago, James Coleman’s landmark Equality of Educational Opportunity study found that the composition of a school’s student body had a significant impact on the educational outcomes of individual students, independent of their own family backgrounds.⁶⁶ That finding has persisted over time and is found even in the most methodologically sophisticated studies.⁶⁷

A school’s poverty level has an impact on all students, not just economically disadvantaged students.⁶⁸ But the impact of a school’s poverty level is greatest on students who are themselves economically disadvantaged. And, in at least one carefully controlled study, students from low-income families who were randomly assigned to low-poverty schools experienced large, persistent test-score gains compared to similar students assigned to high-poverty schools.⁶⁹

The research team’s analyses of North Carolina also show that that high-poverty schools have a negative association with student performance, over and above the impact of individual students’ socioeconomic status. As shown in the chart below, economically disadvantaged students do far better at low-poverty schools than at high-poverty schools — with the negative association of concentrated poverty growing larger at each subsequent level of schooling.

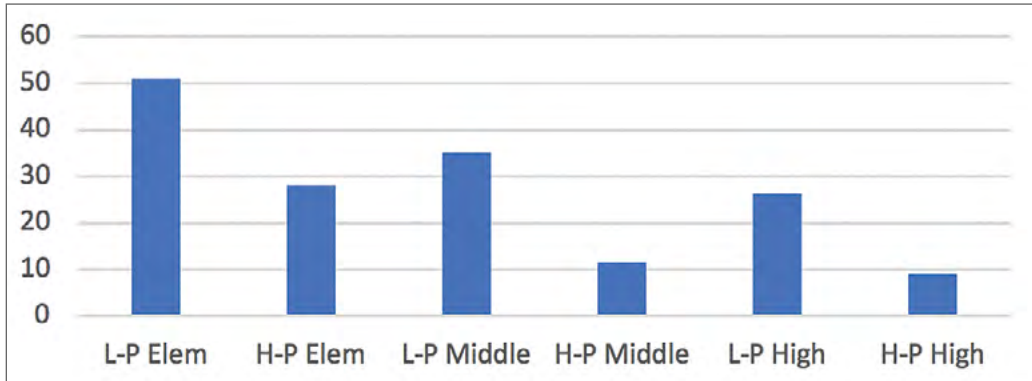
Exhibit 27. Percent proficient economically disadvantaged students



Source: LPI analysis of DPI data

There is a similar pattern for students who are limited in their English proficiency, as depicted in the figure below. At each schooling level, substantial gaps exist, with English learners far more likely to be proficient at low-poverty schools than at high-poverty schools.

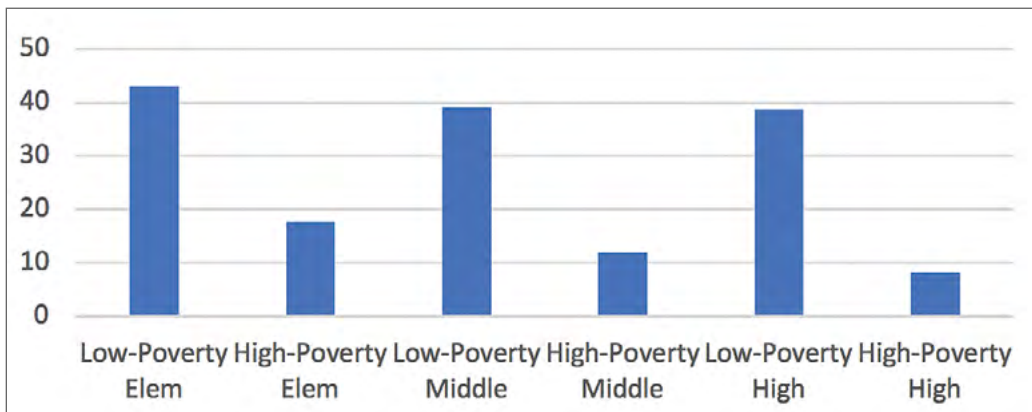
Exhibit 28. Percent proficient English learners



Source: LPI analysis of DPI data

The same patterns hold for students with disabilities.

Exhibit 29. Percent proficient students with disabilities



Source: LPI analysis of DPI data

These data show a strong, negative relationship for at-risk students between attending a high-poverty school and the attainment of a sound basic education.

The next two sections of this report explore the reasons for these outcomes. First, the extent to which access to the *Leandro* tenets has an impact on student achievement and the extent to which students in high- and low-poverty schools have access to them is examined. Following those analyses, the extent to which students who attend high-poverty schools experience adverse out-of-school conditions that inhibit learning and whether schools are able to provide resources and supports to help students do well in school despite these barriers is considered.

Findings: Equal Opportunity to a Sound Basic Education is Compromised at High-Poverty Schools, In Part Because They Provide Less Access to the *Leandro* Tenets

Many high-poverty schools in North Carolina are constrained in the access they provide students to the tenets laid out in the *Leandro* rulings as key to an equal opportunity for a sound basic education. The tenets are defined by the Court as 1) a “competent, certified, well-trained teacher who is teaching the standard course of study by implementing effective educational methods” in every classroom and 2) “a well-trained competent principal with the leadership skills and the ability to hire and retain competent, certified and well-trained teachers who can implement an effective and cost-effective instructional program” in every school, supported by 3) adequate resources to meet all students’ educational needs and provide a sound basic education.

The evidence from prior research and the research team’s new analyses of North Carolina schools support the following conclusions:

- » Access to the tenets has a positive impact on students’ outcomes;
- » Access to the tenets is especially important to the outcomes of economically disadvantaged students;
- » High-poverty schools provide less access to the tenets than low-poverty schools;
- » High-poverty schools that are attended by 75% or more students of color provide less access to the tenets than other high-poverty schools.
- » The disparities among schools’ access to the tenets help explain why high-poverty schools have worse outcomes than low-poverty schools.

The lack of access to the tenets in high-poverty schools undermines students' opportunity for a sound basic education. Further, as discussed in the next section of this report, the impact of these school related deficiencies on students' opportunity for a sound basic education is compounded by disadvantages that students experience outside of school in high-poverty communities.

Measuring the Tenets

In the research team's analyses, access to the tenets provided at schools at different poverty levels are defined and measured as follows:

Teacher Tenet: Access to a faculty comprised of highly qualified, experienced teachers who remain at the school, as measured by school-level NCDPI data on teacher licensure, board certification, years of experience, and turnover rates;

Leader Tenet: Access to stable and positive school leadership as measured by responses on the WestEd principal survey and on the Teacher Working Conditions survey related to school leadership practices;

Resource Tenet: Access to adequate resources to meet all students' educational needs and provide a sound basic education as measured by school-level NCDPI data, Teacher Working Conditions data, and Principal Survey data on facilities and resources, curriculum and instructional practices, and school conditions that prioritize teaching and learning, positive school climate, positive relationships with families and community, and funding.

Since 2004, North Carolina has collected survey data to assess teachers' perceptions of their working conditions by school. The state has administered the survey every two years, with the last one conducted in the spring of 2018.⁷⁰ A number of researchers have drawn on these survey data and have found a number of constructs, as recorded on the survey, that predict teacher retention and effectiveness as well as school performance.⁷¹ In this report the research team surfaced additional, and more specific, findings that point to these conditions as relevant measures of the *Leandro* tenets, and to their relationship with students' outcomes. The research team organized these findings by the nine factors that were derived from the analysis: (1) teacher & school leadership, (2) professional learning and collaboration, (3) community support and parent engagement, (4) teachers' collective efficacy and instruction, (5) reliable instructional resources, (6) time to prepare for effective teaching, (7) consistent school discipline, (8) conducive teaching and learning environment, (9) useful student assessment data.

Analysis of the North Carolina Teacher Working Conditions Study (2016) executed by the New Teacher Center adds to earlier studies of significant links between educators' reports of the conditions in their schools that support teaching and learning and schools' achievement outcomes. As the study reports,

... Survey data have been used to establish a link between staff perceptions of teaching and learning conditions and student achievement (e.g., Ladd, 2009; Johnson, Kraft, and Papay, 2011; Ferguson & Hirsch, 2014). Recent work by Kraft and Papay (2014) found that teachers who work in more supportive environments became more effective at raising student achievement on standardized tests over time than did teachers who worked in less supportive environments,

after controlling for student characteristics, prior test scores, and teacher and school characteristics. They found that teachers in schools that had the most positive teaching conditions (in the 75th percentile as measured by 24 questions in NTC’s TELL Survey) were 38% more effective after a decade than teachers in schools in the 25th percentile. Over two years, teachers were 11% more effective if they worked in schools with positive teaching conditions.⁷²

The lack of critical school resources is particularly damaging in high-poverty communities because it cannot be offset as it can be in advantaged communities where enrichment (e.g., tutors, summer programs, art and music lessons) is available and families can pay for out-of-school time learning support.

With the data available from NCDPI, differences in access to opportunities to learn between high- and low-poverty schools and between high-poverty schools serving different groups of students and in different locales can be considered. Specifically, the differences in access to effective teachers and access to curriculum that allows for student learning are presented.

Access to effective teachers.

- » Percent of new teachers (with 0–3 years of experience)
- » Percent fully certified teachers
- » Percent lateral entry teachers
- » Annual teacher turnover rate
- » Percent teachers with advanced degrees
- » Average number of National Board-Certified teachers

Access to curriculum that allows for advanced learning.

Judge Manning’s decisions included attention to students’ access to advanced curriculum opportunities, as well as to standard academic courses and courses designed specifically for vocational preparation.

Academically gifted courses in core high school subjects required for admission to the university system, including Advanced Placement (AP) courses that prepare students who wish to go to college, are just as much a part of a sound basic education as are courses such as shop, mechanical engineering, and auto mechanics, that prepare students to enter the workforce. Once again, let there be no mistake. Leandro guarantees a sound basic educational opportunity to all children sufficiently substantial to permit those who can, including Chairman Kirk’s “best and brightest,” to go to college. (RS 354)

The following indicators reveal the extent to which students' learning opportunities in standard and challenging subject matter are sufficient to constitute an opportunity for a sound basic education.

- » Percent of students included in programming for academically or intellectually gifted students
- » ACT — Met all four benchmarks (English, math, reading, science).⁷³
- » ACT — Composite Mean (Average score made up of all subtests)
- » ACT — Met all writing benchmarks
- » ACT — Met all science benchmarks
- » ACT — Met all reading benchmarks
- » ACT — Met all math benchmarks
- » ACT — Met all English benchmarks
- » ACT — Met all four plus writing benchmarks
- » Percent of students passing Math III
- » Percent of students enrolled in Advanced Placement (AP) or International Baccalaureate (IB) courses
- » AP Participation rate — Participation in advanced placement courses
- » Percent of AP test takers scoring 3 or higher (A score of 3 or higher on an AP exam may enable students to receive college credit.)

Finding 1: Access to the *Leandro* Tenets Has a Positive Impact on Student Outcomes

Existing data about North Carolina schools permit researchers to conduct new analyses to examine the impact of access to the tenets on student outcomes. In a statistical model that accounts for several school characteristics, teacher characteristics and teaching conditions are associated with student achievement. As detailed below, schools with more experienced teachers, lower teacher turnover rates, and more positive teacher perceptions of the teaching and learning conditions tend to have higher school performance scores, even after controlling for the proportion of economically disadvantaged students in the school and other characteristics.

The impact of high-quality teachers who stay.

Our analysis of North Carolina schools data indicates that teacher characteristics are strongly related to student achievement, as measured by school performance scores. The percent of beginning teachers in a school has a statistically significant and negative relationship with performance scores. Teacher turnover also has a negative relationship with performance scores, though the relationship is not statistically significant once teaching conditions which affect teachers' retention at a school are accounted for — conditions that are far more negative in high-poverty schools. The percent of teachers holding advanced degrees has a positive, though not statistically significant, relationship with performance scores. In other words, schools with more beginning teachers and higher teacher turnover rates tend to have lower school performance scores, holding other conditions, including characteristics of the student population, constant.

The impact of stable and positive school leadership.

Positive perceptions of school teaching conditions have a strong, positive association with school performance scores. The overall measure of teaching conditions includes several interrelated categories of teaching conditions (i.e., school leadership, teacher leadership, instructional practices, use of time in school, school facilities and resources, community support and involvement, how schools manage student conduct, and opportunities for professional development). School leaders have a significant role in influencing each of the teaching conditions in a school. The findings are consistent with growing numbers of studies about principal effectiveness, including how principals matter in creating positive working conditions.⁷⁴ The better all the conditions in a school are, the more likely schools are to have higher performance scores.

Our analysis of school level working conditions also revealed the importance of leadership in improving teacher retention, which, in turn, has a positive effect on school performance. For many teachers, principal leadership matters most in the cultivation of their own leadership. And teacher leadership makes sure teaching expertise spreads, ensuring that those who work most closely with students and families can lead instructional improvement efforts. Data from the focus group interviews consistently reinforced the importance of leadership and its importance in the retention of teachers and for improving schools.

The importance of teacher and school leadership plays out very differently in high- and low-poverty schools. First, high-poverty schools are staffed by less prepared and the least experienced teachers, who often leave before they develop collective efficacy. As a result, principal leadership matters even more in a high-poverty school; yet it is still difficult for the school leader to develop the necessary teacher leadership if new recruits are underprepared and depart soon after they arrive. Second, low-poverty schools often are staffed by better prepared teachers, including those who are National Board Certified, and they are more likely to remain as teachers and develop a strong sense of collective efficacy — meaning that they can together overcome the ill effects of their school being led by a principal who does not support them or does not have the will and skill in cultivating them as leaders. As one teacher from a low-poverty school, where one in 5 teachers are National Board Certified, noted:

We have had so many mandates from central office of late, and a principal whose skillset is surely not communicating with staff. I am 53 years of age, and I am not certain I would find really

greener grass elsewhere if I leave for another district. We can withstand a lot at my school. We have so many excellent teachers at (school) we can weather any kind of bullshit from an administrator.

The impact of resources to provide a sound basic education.

Teachers' perceptions of the quality of the working conditions for teachers at a school also provides useful data about the conditions for student learning, and, particularly the extent to which schools have the resources and supports to meet the educational needs of their students. Accordingly, these conditions are also important indicators of whether students have the resources they need to obtain a sound basic education. For example, in the TWC survey teachers rate their schools on whether they have sufficient time for instruction, appropriate instructional supplies, and whether their school environment is safe, among other questions.

The teaching conditions construct developed for this study's analysis includes teacher perceptions on a range of teaching and learning conditions, including school leadership, teacher leadership, instructional practices, use of time in school, school facilities and resources, community support and involvement, how schools manage student conduct, and opportunities for professional development. In general, these measures are highly correlated; when certain teaching conditions are rated favorably, others are likely to be rated favorably as well. As a result, they have been combined into a single measure of overall teaching and learning conditions. In the research team's statistical model, these conditions have a positive and statistically significant relationship with school performance scores.

This study's analysis found that teachers' working conditions are also related to school performance; however, they are more strongly related to schools exceeding growth rather than just meeting growth. There are not major differences between low- and high-poverty schools in how working conditions predict exceeding the growth expectations as defined by the state's accountability system.

These findings are very consistent with those of the New Teacher Center, which also examined the relationship between teacher working conditions and teacher retention and school performance. However, they found that these relationships, especially in elementary schools, are stronger for high-poverty schools (which they defined as those eligible for the Community Eligibility Provision(CEP)) in the federally subsidized school meal program. For elementary CEP schools, one standard deviation increase in overall teaching conditions composite may translate to gains of 5 percentage points in overall school performance growth (SPG). This finding suggests that improving teaching conditions may help to narrow the gap between CEP and Non-CEP schools. These relationships hold for both reading and math results.⁷⁵

Resources and facilities. The overall teaching conditions construct includes survey items related to school resources and facilities. For example, teachers rated their school on whether the physical environment supports teaching and learning and whether they have sufficient access to digital resources.

Challenging curriculum offerings such as high-level courses — e.g., gifted programs, advanced mathematics, and AP and honors classes. In a model of the relationship between school characteristics and four-year graduation rates, the research team found that greater student participation in AP classes had a positive and statistically

significant association with graduation rates (see Appendix A). In other words, in schools where more students took AP classes, graduation rates were higher, controlling for poverty rates, teacher characteristics, and a variety of other factors.

Safe and positive school climate. A safe and positive school climate enables students feel cared about and safe, and it fosters trusting relationships between adults and students as well as among students. The overall teaching conditions construct includes questions that ask teachers to reflect on the level of collaboration in their schools and the academic expectations they hold for students. It also includes questions on how well students understand the expectations for their conduct, how well those expectations are enforced, and the extent to which the school is a safe environment.

One key element in a school's climate is the approach it takes to managing student misbehavior. Based on this study's statistical model, higher rates of disciplinary measures are associated with worse school performance scores. The number of short-term suspensions per 100 students in a school has a negative and statistically significant relationship with these scores. Higher average daily attendance rates, however, have a positive and statistically significant relationship with school performance scores. Higher attendance rates and lower suspension rates in a school suggest a positive school climate where students are more likely to feel safe and cared about.

The analysis also pointed to the importance in high-poverty schools of consistent school discipline, as well as professional learning and collaboration and teachers' collective efficacy and instruction in predicting both retention and school performance. These conditions have a significant impact in high-poverty schools, especially since many teachers are not well prepared, and often leave their schools before the school faculty, as a whole, can develop both the pedagogical skills in teaching high-need students and relationship trust among themselves to do so effectively and consistently. High-poverty schools have higher rates of reported student discipline problems. When teachers do not have the expertise to work with students who experience trauma, they often exclude such students from instruction when they "act out" because they are angry, hurt, or hungry — which sends physically and/or psychologically a strong negative signal about whether learning is the school's priority. Using short-term suspensions for managing student misbehavior also has a negative impact on the achievement of the students who are suspended.⁷⁶

Positive relationships with parents and community.

In focus group interviews teachers voiced their belief that their students could learn to meet the new standards, but not without additional resources in the form of parent engagement and community support. Parent engagement means there are tools and processes to have meaningful interactions with the school about their children, even when the parent or guardian cannot easily be reached (e.g., working two jobs) or deeply disengaged from their child's education (e.g., often because of the problems they faced when they were public school students). The overall teaching conditions construct includes questions about how well the school engages families in their students' learning. For example, the survey asks whether the schools maintain two-way communication with parents and guardians and encourages them to get involved at the school. It also asks if teachers provide families with useful information to support their students' learning.

Finding 2: High-Poverty Schools Provide Less Access to the Tenets

National studies and prior analyses of North Carolina data reveal significant gaps in resources and opportunities between high- and low-poverty schools.⁷⁷ Children living in predominantly middle class, white neighborhoods are far more likely than other children to have access to high-quality schools. Advantaged counties and cities often have higher local tax bases with which to finance high-quality schools.⁷⁸ As the analyses below demonstrate, North Carolina’s high-poverty schools provide fewer and worse access to the three *Leandro* tenets — well-qualified, effective teachers and leaders and the resources needed to carry out an effective program of instruction and meet students’ needs — than schools with more advantaged students, and that this, at least in part, accounts for the worse outcomes. These disparities are especially pronounced in high-poverty schools serving more students of color.

Disparities in access to high-quality teachers who stay.

The larger middle school hasn’t had a steady 7th grade math teacher for five years; this year they’ve had three 7th grade math teachers; and now the 8th grade math teacher is leaving...

— High-poverty district administrator

This year, one teacher was a TFA — extremely intelligent. She was struggling with classroom management for 7th grade and asked to be moved to elementary. She’s doing great there. She switched right before the winter break. They hired another teacher, not sure where he came from, but he did have some previous history in the classroom, and he attended a local university. . . . He just decided April 17th, he didn’t want to do this anymore. Then we had spring break; he didn’t come back. Two weeks later, they hired the new teacher, Ms. G. I hope we can keep her.

— High-poverty school administrator

With our school, we have a high population of exceptional needs children. I think we teachers, we are trained with a college lateral entry program to teach these students at a differential level, but we are not equipped and we’re not trained, or we have not had the education to deal with some of the disabilities that they come with.

— High-poverty school teacher

We allow teachers to come in and do their internships through the university... and then all of sudden they go right next door to X County, where the supplement is twice what we pay here. We just can’t compete.

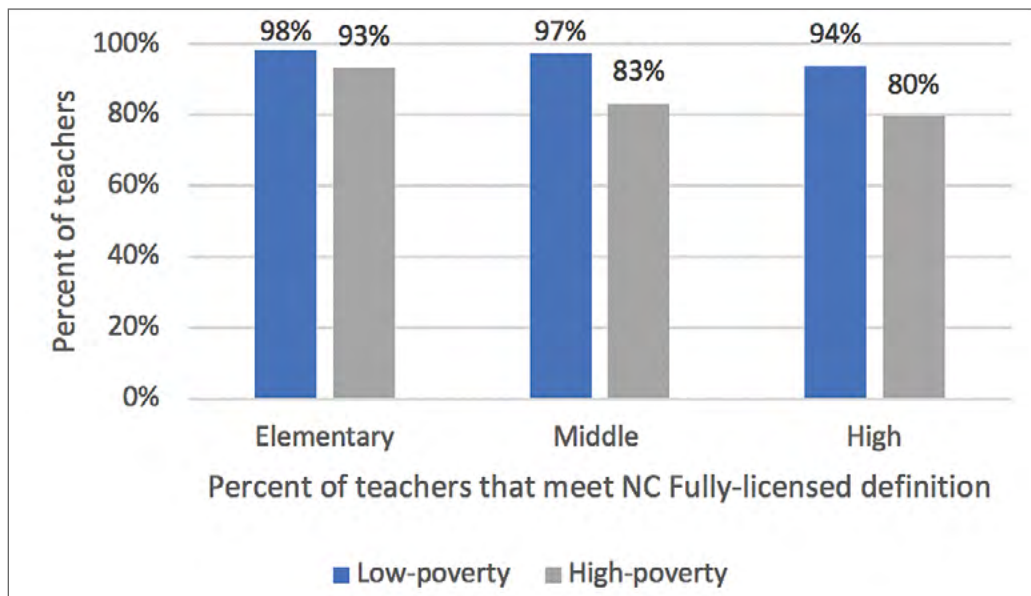
— Central office administrator in a low-wealth district

Before I started teaching, I worked in mental health in the community.... And that drew me to become a teacher. We don't have the resources that we need.... It is harder for me to do what I know how to do.... This is why we lose new teachers.

— High-poverty school teacher

High-poverty schools have fewer fully-licensed teachers than low-poverty schools at every school level, averaging between 80% and 93% fully-licensed teachers. In both high-poverty and low-poverty schools, there are relatively fewer licensed teachers in high schools compared to elementary schools.

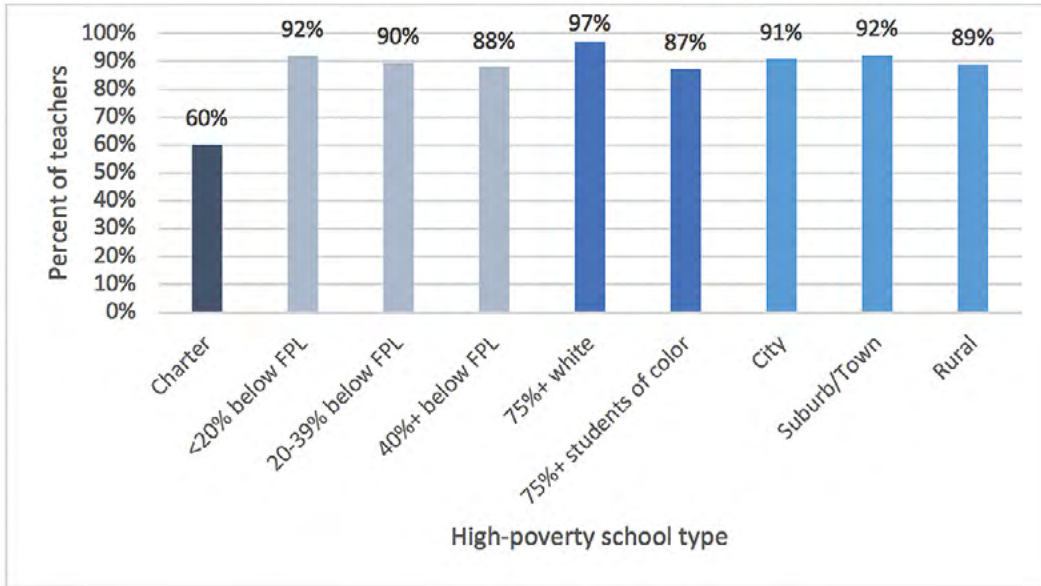
Exhibit 30. Percent of fully-licensed teachers



Source: LPI analysis of DPI data

However, not all high-poverty schools experience the same shortages. At an average of 60% of teachers, high-poverty charter schools have even fewer fully-licensed teachers than high-poverty district schools. High-poverty schools located in communities where 40% or more residents live below the federal poverty line have fewer fully-licensed teachers (88%) than do other high-poverty district schools. The same is true of high-poverty schools with 75% or more students of color, where 87% of teachers are fully licensed. Licensure rates are about the same in cities, suburbs and towns, and rural areas.

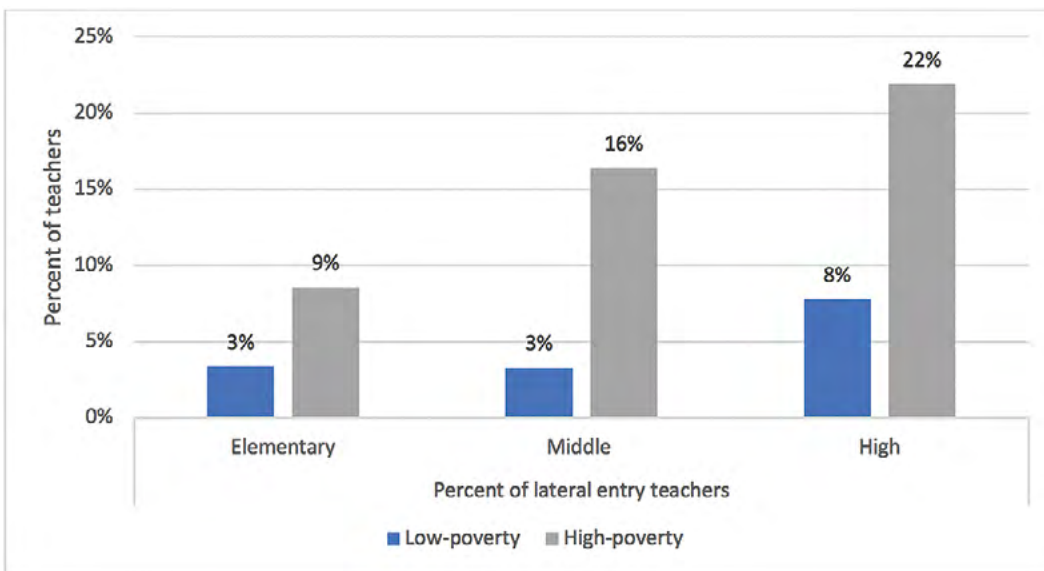
Exhibit 31. Percent of fully licensed teachers, by high-poverty school type



Source: LPI analysis of DPI data

Lateral entry teachers are about three times as common in high-poverty elementary schools as compared to low-poverty elementary schools. They are more than five times as common at the middle school level and nearly three times as common at the high school level. With an average of 22% lateral entry teachers, high-poverty high schools have the highest rates of lateral entry teachers.

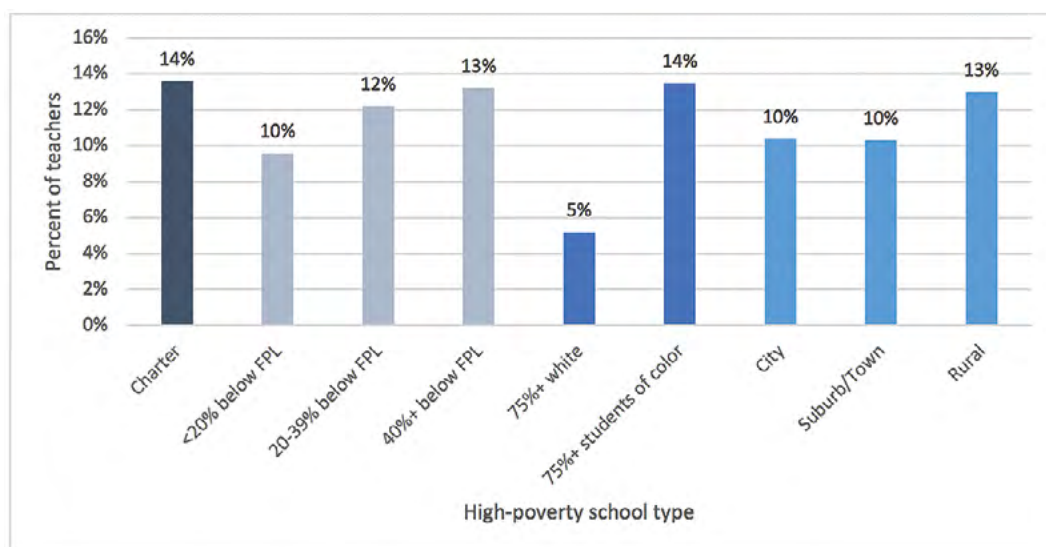
Exhibit 32. Percent lateral entry teachers



Source: LPI analysis of DPI data

Looking across different types of high-poverty schools, lateral entry rates are highest in charter schools, in schools in communities with the most residents living below the federal poverty line, in schools serving 75% or more students of color, and in rural areas. The differences by racial and ethnic composition are particularly notable. Lateral entry teachers are employed in schools serving 75% or more students of color at nearly three times the rate as high-poverty schools with 75% or more white students.

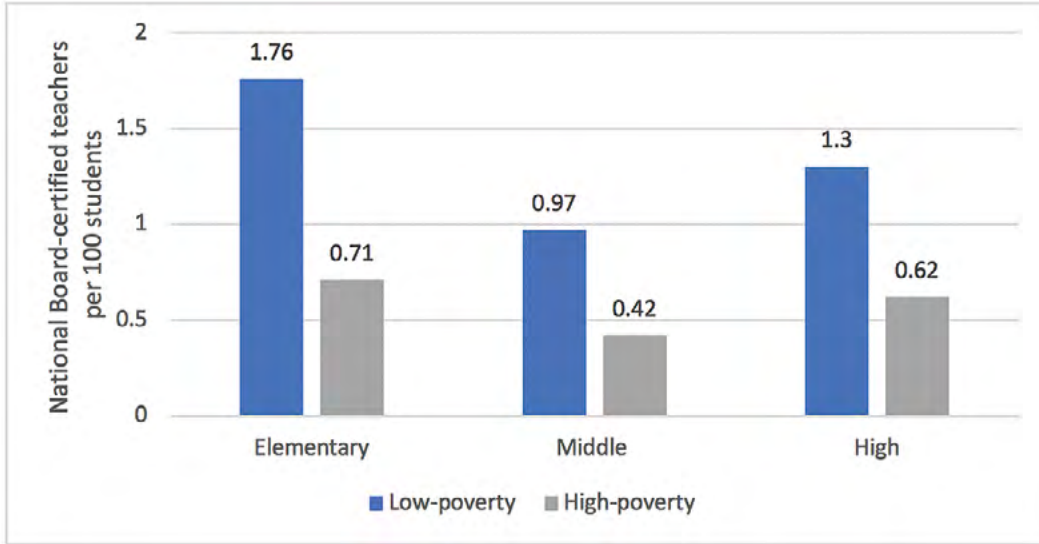
Exhibit 33. Percent lateral entry teachers by high-poverty school type



Source: LPI analysis of DPI data

Low-poverty schools have upwards of twice as many National Board-certified teachers per 100 students as do high-poverty schools. Elementary schools are most likely to have National Board-certified teachers with an average of nearly 2 per 100 students. High-poverty middle schools are the least likely to have these teachers, with an average of 0.42 for every 100 students, or one such teacher for every 240 students.

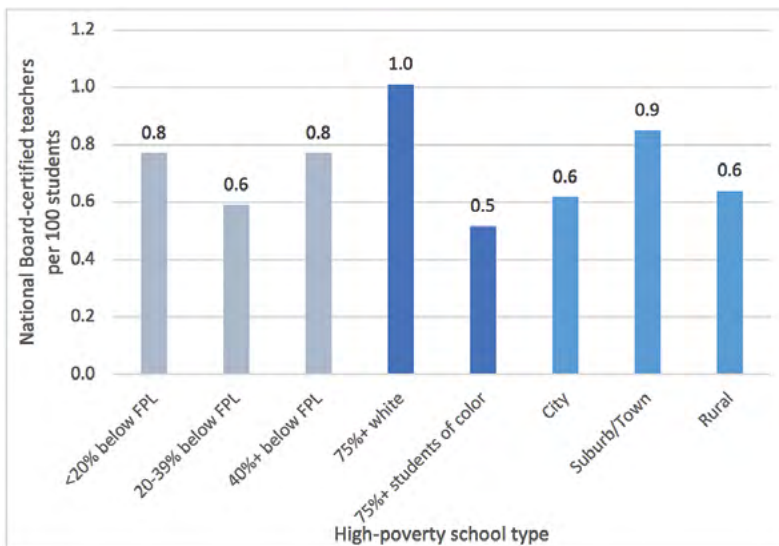
Exhibit 34. National Board-Certified Teachers per 100 students



Source: LPI analysis of DPI data

Among different types of high-poverty schools, National Board-certified teachers are relatively more common in schools with 75% or more white students and in high-poverty schools in suburbs and towns. Schools with 75% or more students of color have the fewest National Board-certified teachers at 0.5 per 100, or one for every 200 students.

Exhibit 35. National Board-Certified Teachers per 100 students by high-poverty school type

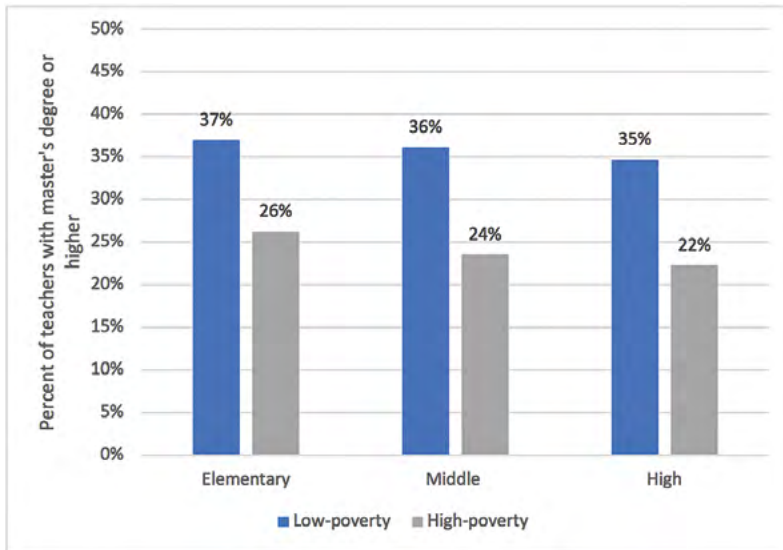


Source: LPI analysis of DPI data

The average percent of teachers with advanced degrees (master's or higher) is higher in low-poverty schools than in high-poverty schools. An average of 35% to 37% of teachers in low-poverty schools have these degrees compared to

22% to 26% of teachers in high-poverty schools. These rates are consistent across high-poverty school type, with slightly more teachers with advanced degrees teaching in high-poverty schools located in cities (28%).

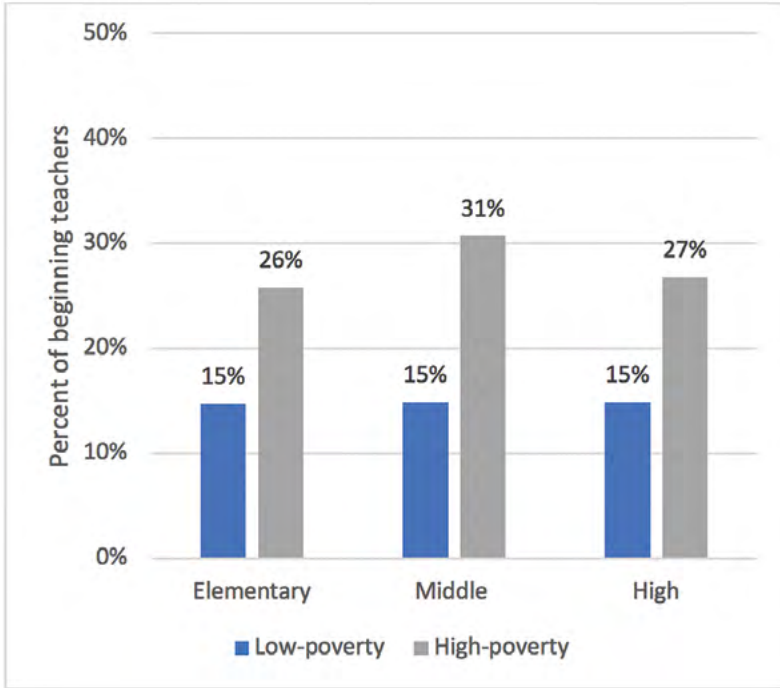
Exhibit 36. Percent teachers with advanced degrees (master's or higher)



Source: LPI analysis of DPI data

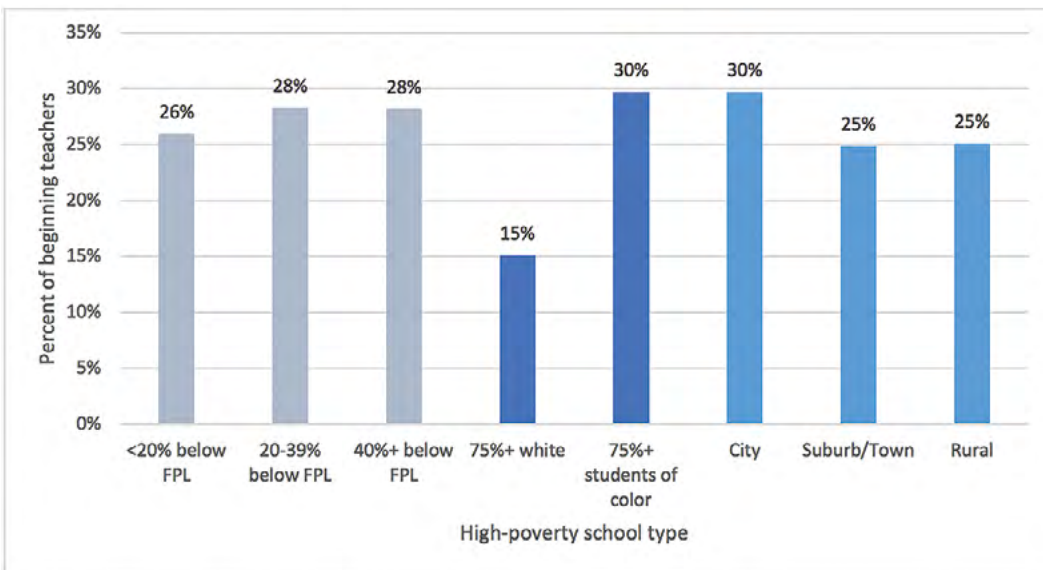
High-poverty schools are about twice as likely to employ beginning teachers with three or fewer years of experience. Most high-poverty school types average about 30% beginning teachers. The exception is high-poverty schools with 75% or more white students. At 15%, these schools have the same average beginning teacher rate as low-poverty schools.

Exhibit 37. Percent beginning teachers



Source: LPI analysis of DPI data

Exhibit 38. Percent beginning teachers by high-poverty school type

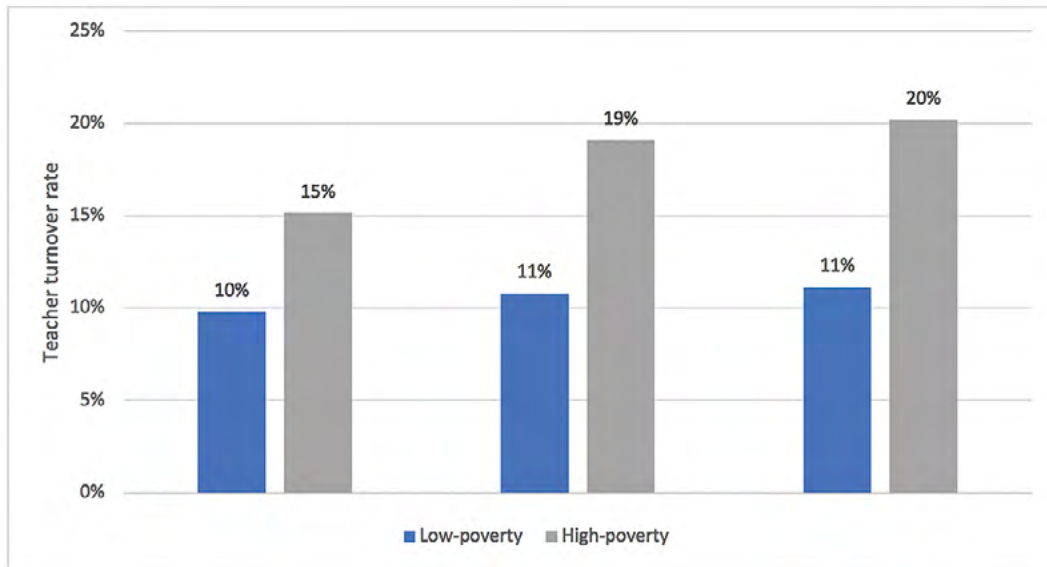


Source: LPI analysis of DPI data sets

Teacher turnover rates are between 1.5 times and twice as high in high-poverty schools compared to low-poverty schools. While turnover rates are fairly consistent between low-poverty elementary, middle, and high schools,

turnover rates in high-poverty middle and high schools are about 30% higher than in high-poverty elementary schools.

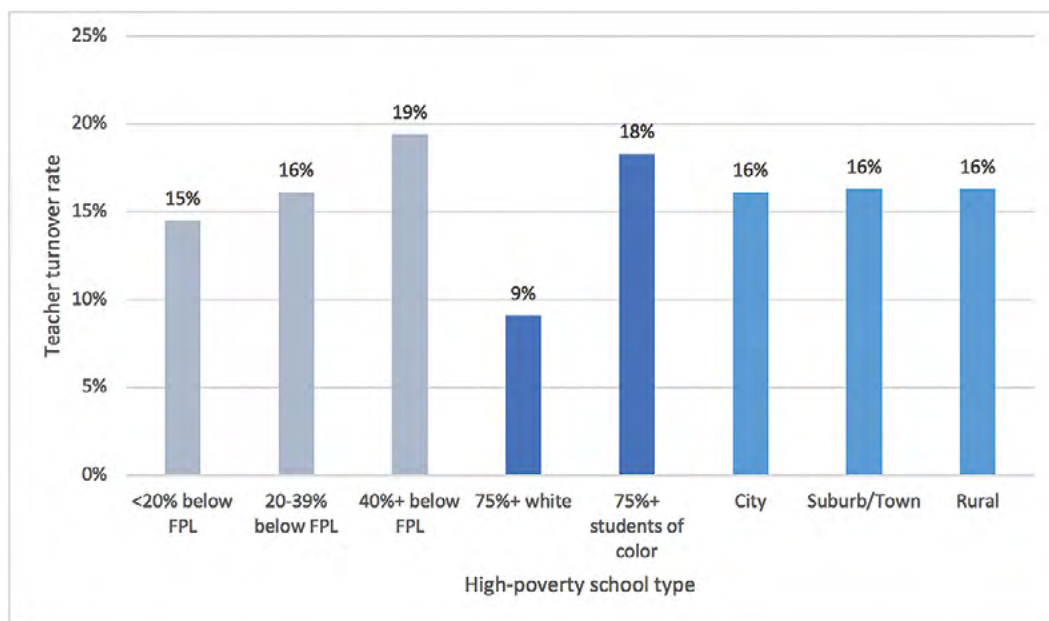
Exhibit 39. Teacher turnover rates



Source: LPI analysis of DPI data

Average teacher turnover is the same in high-poverty schools in cities, suburbs and towns, and in rural areas. It is about 30% higher in high-poverty schools in communities where 40% or more residents live below the federal poverty line compared to high-poverty schools in communities with the least concentrated poverty. Among high-poverty schools, the most significant variation in turnover is by racial and ethnic composition. High-poverty schools with 75% or more students of color have turnover rates twice as high as high-poverty schools with 75% or more white students.

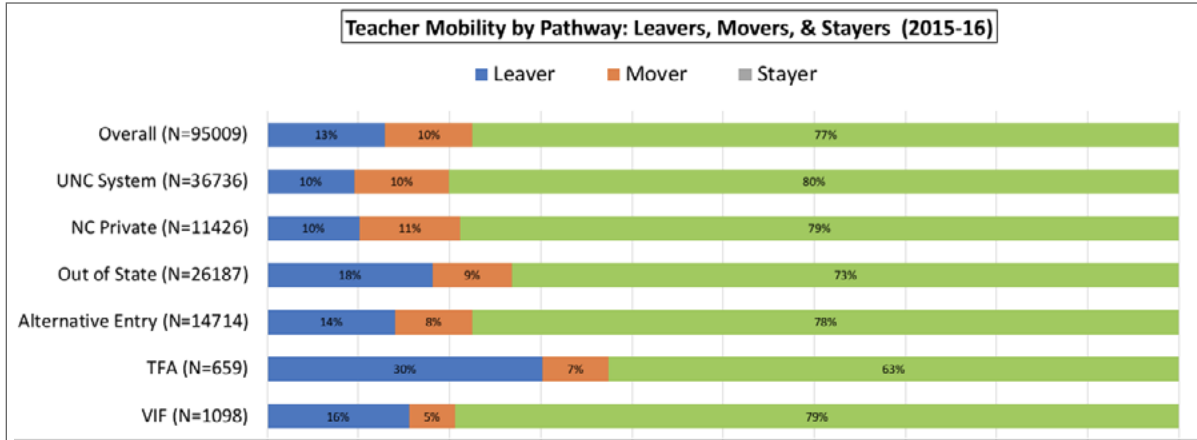
Exhibit 40. Teacher turnover rates by high-poverty school type



Source: LPI analysis of DPI data sets

An additional indicator of students' access to a stable supply of qualified teachers is the extent to which schools can attract teachers who are prepared in programs with a strong track record of graduating teachers who remain in the profession and at the schools where they are hired (stayers). Part of the teacher turnover rate comes from hiring teachers who are disposed to switch schools or districts (movers) or to leave teaching all together (leavers). The following chart shows the differences across programs. Teacher preparation programs with the largest percentage of stayers are the traditional public and private universities, closely followed by teachers being prepared in alternative entry programs. Teach for America (TFA) graduates are far more likely to leave the profession, in part because they only make a short-term commitment upon entry into the program.

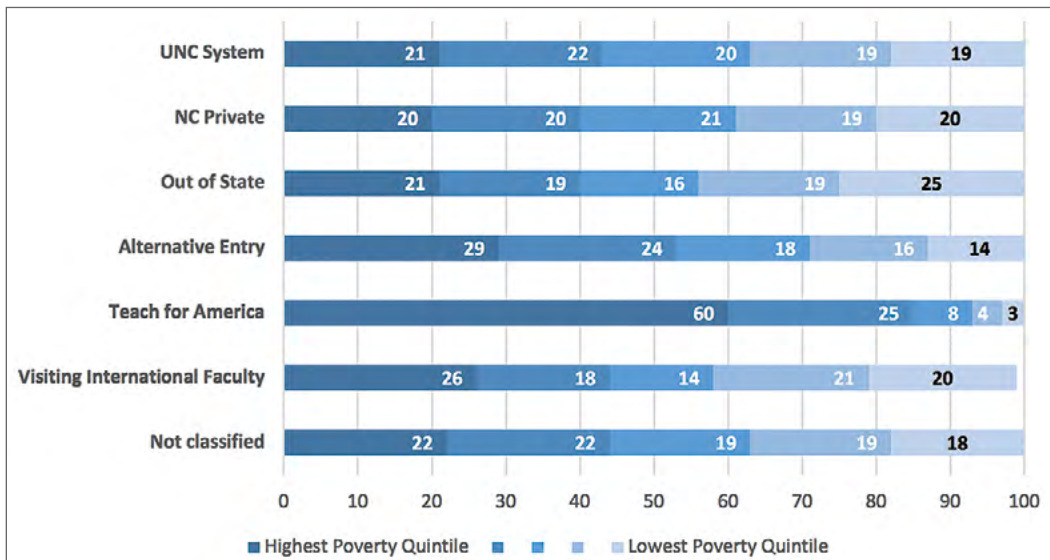
Exhibit 41. Teacher mobility by type of preparation program



Sources: NC Department of Public Instruction; UNC System Office; Educational Policy Initiative at Carolina, UNC>

After their preparation, teachers go on to teach in schools with the highest to the lowest concentrations of poverty. However, there is a relationship between preparation pathway and where new teachers teach. Graduates from the University of North Carolina (UNC) System and from private North Carolina Institutions of Higher Education (those most likely to stay) are equally distributed across schools by poverty level while teachers from alternative entries or TFA are more likely to serve in higher-poverty schools. The figure below displays how new teachers are distributed across schools by school level of poverty. (Schools are divided into 5 groups from high-poverty to low-poverty.)

Exhibit 42. Distribution of new NC teachers by pathway & school poverty quintile (2016–17)



Source: LPI analysis of DPI data

The figure above displays several other important findings:

- » UNC System graduates are fairly equally distributed across schools: 43% teach in the higher-poverty schools while 38% teach in lower-poverty schools.
- » Graduates of North Carolina private IHEs are similarly distributed: 40% in higher-poverty schools while 39% are in lower-poverty schools.
- » Out-of-state teachers are slightly more concentrated in lower-poverty schools: 40% in higher-poverty schools but 44% in lower-poverty schools, creating a bi-modal distribution with only 16% in the middle quintile.
- » Alternative Entry teachers are concentrated in higher-poverty schools: 53% in higher-poverty schools and 30% in lower-poverty schools.
- » TFA is heavily concentrated in high-poverty schools: 60% in higher-poverty schools and only 7% in lower-poverty schools.
- » Visiting International Faculty teachers are also bi-modally distributed: 44% in higher-poverty schools and 41% in lower-poverty schools.

Overall, these findings are consistent with a large body of research that has documented disparities between high- and low-poverty schools in terms of access to highly qualified teachers and principals.⁷⁹ As Ladd summarized in 2012:

Research studies consistently document that high-poverty schools typically have teachers with lower qualifications along many dimensions than schools with more advantaged students. My own work with Duke colleagues clearly demonstrates that pattern for North Carolina schools, with particularly large discrepancies in teacher credentials across high- and low-poverty middle schools, with the same patterns emerging for school principals (Clotfelter et al., 2007). Further, ambitious work by Heather Hill and colleagues show that math teachers in high-poverty schools have lower math knowledge for teaching (based on a measure that is distinct from math content knowledge or degrees) than their counterparts in more advantaged schools (Hill, 2007).⁸⁰

Disparities in access to qualified and experienced school leaders.

With regard to the Leader Tenet, high-poverty schools have significantly less experienced school leadership, as measured by principals' responses to a statewide survey, as shown in the table below. Far more of them are contemplating leaving their posts.

Exhibit 43. Principals' experience and expectations for retention

	Low-Poverty (<25%)	High-Poverty (>=80%)
How many years have you been principal of this school?		
0–3 years	42%	64%
4–10	50%	30%
11+	8%	5%
Do you plan to continue to serve as principal at this school for at least three more years?		
No	6%	14%
Yes	82%	53%
Don't know	12%	33%

Source: Survey Administered by WestEd, 2018

Other responses from principals show that those in high-poverty schools feel less prepared to perform the key elements of their jobs and less satisfied with the support they receive from their districts.

Exhibit 44. Principals' perception of preparation and support

	Low-Poverty (<25%)	High-Poverty (>=80%)
How well prepared do you feel you have been to do the following? (Responding "well" or "very well")		
Build and sustain an educational vision for a school/site	81%	70%
Support teacher learning and development to improve practice	79%	76%
Analyze data to support a plan for school improvement	77%	72%
Effectively engage faculty, parents, and stakeholders in a process of educational change	73%	54%
Redesign school features to produce better outcomes	71%	61%
Support social-emotional and academic learning for students	62%	55%
Indicate your agreement with each of the following statements about your principalship: (Responding "somewhat agree" or "strongly agree")		
I am generally satisfied with being a principal at this school	94%	97%
The stress and disappointments involved in serving as principal of this school aren't really worth it	14%	16%
If I could get a higher paying job, I'd leave education as soon as possible	16%	27%
I plan to remain principal of this school as long as I am able	88%	84%
I think about transferring to another school	14%	29%
I plan to remain a principal until I retire	73%	65%
I will continue being principal until something better comes along	31%	38%
The district I serve uses effective strategies to recruit and attract strong leaders	78%	64%
The district I serve uses effective strategies to retain strong leaders	72%	55%
I definitely plan to leave the principalship as soon as I can	6%	13%
Moving forward, how might the new principal compensation policy most impact you?		
(Percent responding "retire asap," "go to another school," or "leave the principalship")	18%	24%

Source: Survey Administered by WestEd, 2018

Disparities in access to adequate resources.

I would say every school should have the resources that we have. I honestly think if every school has the resources they need, the resources we have, especially kids who need it... There are some kids who need it a whole lot more than our kids. And they should have double what we have.

— Administrator in a low-poverty school in a wealthy community

Inadequate facilities, infrastructure, and transportation.

To replace that floor . . . the other thing is, sometimes there is a problem with our septic system. You come in here and the smell is just so overwhelmingly bad. But, this is what our students are coming to every single day and are they not worthy of more? Are they not worthy of more? Are we not worthy of providing more for our students?

Kids ride school buses 2 hours each way to school (4 hours a day) because they had to close a school on one side of the county. That facility was in disrepair — structure wasn't a sound structure, and there was mold under the tiles. There was no funding to fix it.

— High-poverty school educators

In addition to the items on the working conditions survey showing more negative responses from teachers at high-poverty schools, the interview and observation data made the disparities clear. Basic tools and supplies mattered, especially to lower paid teachers in high-poverty schools, who would spend considerable dollars from their modest salaries on their students' needs. One teacher in a rural high-poverty school said she had spent more than \$1,000 of her own money this past year, plus donations from her parents and friends, so her students would have "basics like pencils, notebooks, food, and posters for her classroom." Another teacher, also from a rural high-poverty community, pointed to food insecurity and the hunger that her students experience that undermine academic progress. She noted, "We spend our money to fill up their backpacks for home; we provide food on the weekends and clothing as well."

In rural and large high-poverty schools long bus rides — that can be almost 2 hours each way for students — took their toll on both district finances and students' capacity to focus on academics when they finally arrived at school for the day.

Less access to challenging curricula

Students in high-poverty schools are less likely to have access to challenging curriculum. In considering access to high-level courses and participation in these courses, the research team found a consistent story, with limited offerings and participation for students in high-poverty schools, but greater opportunities and participation in low-poverty schools.

Less participation in programs for academically or intellectually gifted (AIG) students. Although nearly all North Carolina schools offer programs for AIG students, students in North Carolina's low-poverty schools are less likely to participate in these programs than students in high-poverty schools.

As the figure below shows, about 12% of students statewide have access to these programs. However, these students are concentrated disproportionately in low-poverty schools. Not only are there approximately 1.5 times the number of such students in low- than in high-poverty schools, they represent a significantly higher proportion of students in those schools. Students are provided these programs in low-poverty schools at nearly five times the rate of students in high-poverty schools.

Exhibit 45. Participation in programs for Academically or Intellectually Gifted (AIG) students

	Number of students identified and served by AIG programs
All NC schools	178,270 (12% of all NC students)
AIG students in HPS	19,813 (5% of NC students attending HPS)
AIG students in LPS	34,170 (23% of NC students attending LPS)

Source: LPI analysis of DPI data

The finding that a significant percentage of the student body at low-poverty schools has been identified as academically and intellectually gifted is both encouraging and worrisome, as many schools limit their “gifted programming” to about 3-5% of the student body.⁸¹ To implement gifted programs in this manner requires significant differentiation of curriculum and instruction. At least one teacher shared that teachers need more modeling and support to effectively implement the school’s gifted and talented programming.

A recent study using U.S. Department of Education Office of Civil Rights data also found substantial participation differences across racial groups in North Carolina’s high-poverty schools, with Asian and white students overrepresented and Black and Hispanic/Latinx students underrepresented.⁸² Moreover, staff interviewed at one low-poverty school acknowledged that very few children of color are in gifted programming.

Observations at one low-poverty school revealed how challenging curriculum and instructional programming is working in the classroom. In one class, the teacher encouraged higher-level thinking by asking her students, “How did the author use structure and organization to show connections and distinctions between ideas?” A science teacher asked students to investigate the effects of oil extraction on the ecosystem. And, English students were asked to review the key concepts of character transformation and analysis. The research team also observed a class in which the social studies teacher posed the key question, “How do societies get the things they need?” Teachers reported that they are able to provide some opportunities for children to access higher-level curriculum. One teacher observed:

Well, one of my classes, an AIG cluster group, is for the academically [advanced] and intelligent students. So, I teach them at a more rigorous pace, and we do a lot of challenging assignments.

Describing her efforts at differentiated instruction she goes on to say:

I’m still teaching the same content area that I’m teaching all my students, but we do a little more challenging work, so they are challenged, and they can apply it at a deeper level.

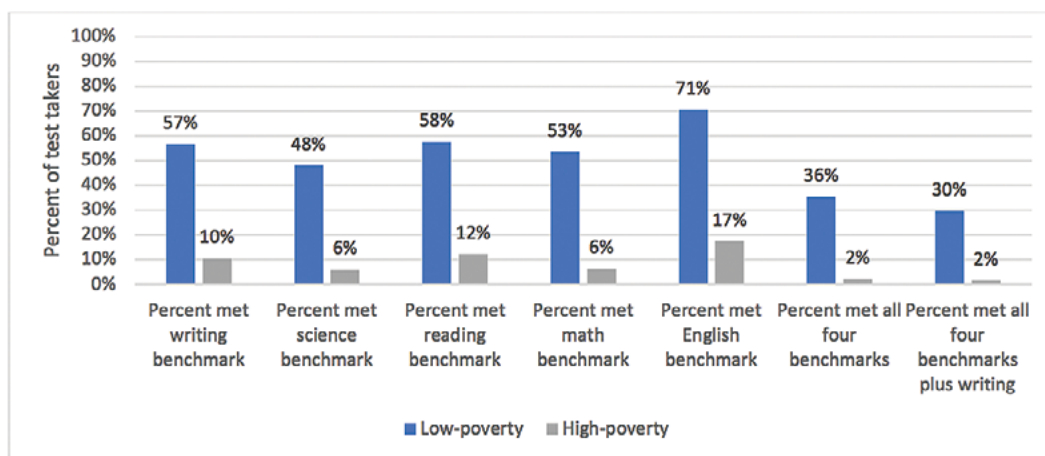
Access to advanced high school curriculum. At the high school level, there are dramatic differences in students’ access to advanced curriculum offerings. At low-poverty schools, 35% of students enroll in at least one AP or International Baccalaureate course. This is more than four times the rate of 8% of students at high-poverty schools.

North Carolina’s Career and College Promise (CCP) offers high school students who maintain a “B” average and meet other eligibility requirements a clear path to success in college or in a career. Through a partnership of the

Department of Public Instruction, the NC Community College System, the University of North Carolina system and many independent colleges and universities, North Carolina is helping eligible high school students to begin earning college credit at a community college campus at no cost to them or their families. The College Transfer Pathways (CTP) enables students to complete at least 30 semester hours of transfer courses including English and mathematics. The Cooperative Innovative High School Programs (CIHSP) are located on college campuses and provide opportunities for students to complete an associate degree program or earn up to two years of college credit within five years. Examples include Early and Middle College High Schools. However, lack of transportation, funding for textbooks and other costs, and unsynchronized school and college schedules all create barriers for many students in high-poverty schools.

Meeting ACT Benchmarks. North Carolina students take ACT benchmarks exams to determine their readiness for college. A much smaller portion of test-taking students in high-poverty schools than low-poverty schools met the ACT benchmarks, across all subject areas. The greatest difference in outcomes (54 percentage points) is on the English benchmark (17% versus 71%). This indicates a huge lack of preparedness for post-secondary education among students in high-poverty schools. Meeting ACT benchmarks represents students’ access to strong instruction and curriculum throughout their educational experiences.

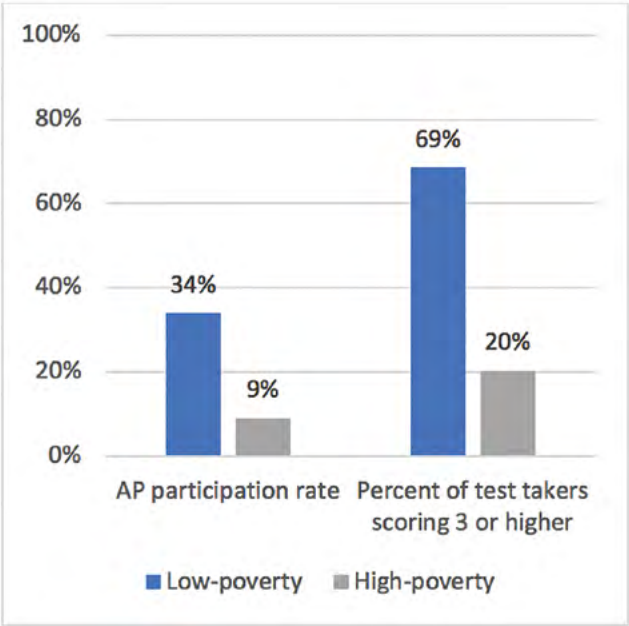
Exhibit 46. Percent test takers meeting ACT benchmarks



Source: LPI analysis of DPI data sets

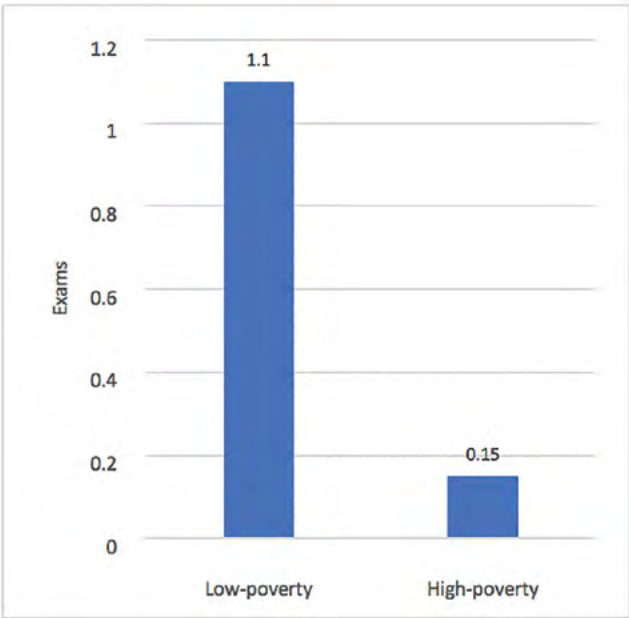
Participation and Outcomes on Advanced Placement Tests. Another measure of access to challenging curriculum is participation and outcomes on AP tests. The participation rate in low-poverty schools is over three times higher than in high-poverty schools (9% versus 34%). Additionally, test scores for those participating from high- and low-poverty schools are very different. A score of 3 or above on the AP exam can be used to get college credit, potentially reducing college costs. Students in high-poverty schools are far less likely to attain a score of 3 or above than students in low-poverty schools (20% versus 69%). Further, on average, students in high-poverty schools take far fewer AP exams than students in low-poverty schools (0.15 per student versus 1.10 per student). These stark differences are likely a result of differential access to advanced curriculum throughout students’ experiences in all grades as well as access to high quality teachers and leaders.

Exhibit 47. Advanced Placement participation rates and test scores



Source: LPI analysis of DPI data

Exhibit 48. Number of Advanced Placement tests taken per number of students enrolled

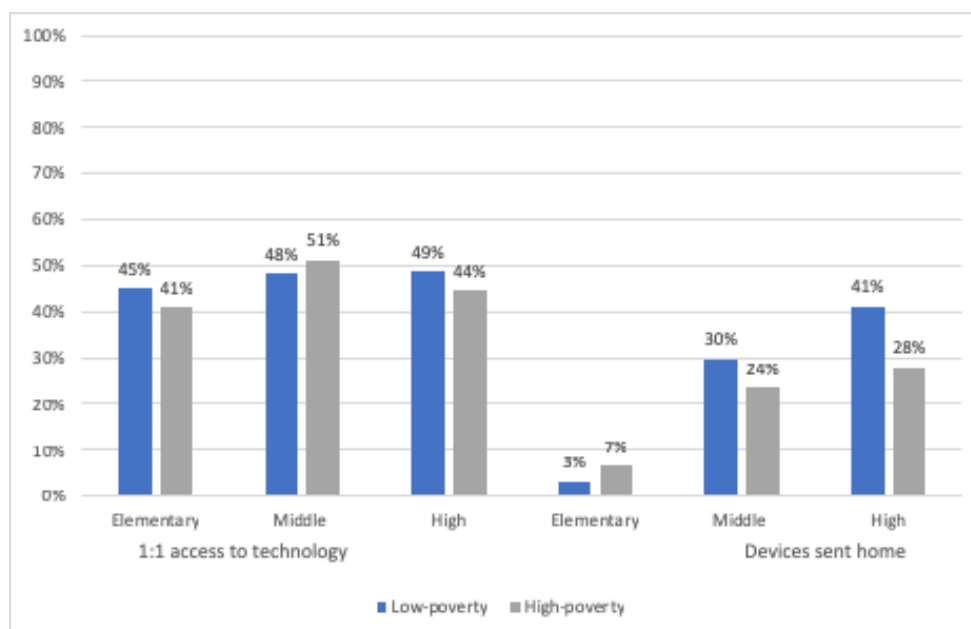


Source: LPI analysis of DPI data sets

Less access to technology and digital resources.

The research team’s analysis also reveals that students in HPS were less likely than those in LPS to have one-on-one access to devices (except at the middle school level) or to be able to take devices home (except at the elementary level).

Exhibit 49. Access to digital technology



Source: LPI analysis of DPI data sets

Less access to safe and positive school climate.

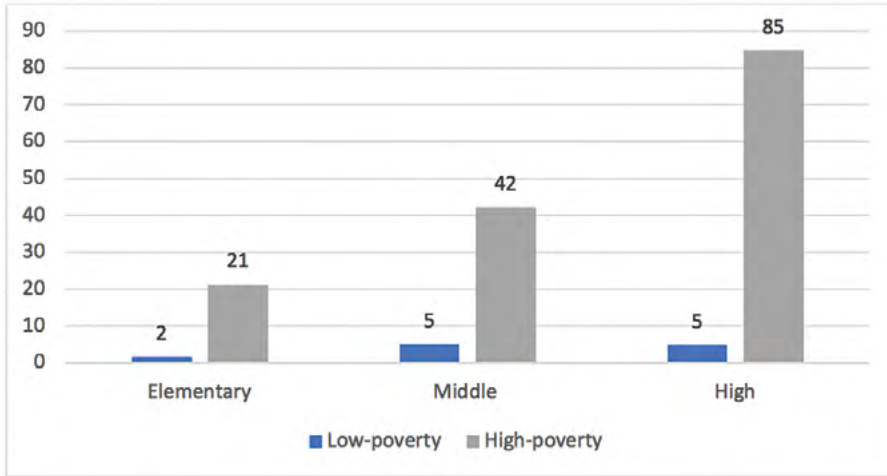
Discipline practices at high-poverty schools can diminish opportunity for instructional time and engagement. As one administrator at a high-poverty school described:

If the kids do something that violates discipline, they make them put on a white t-shirt and sit in the “bad” chair in the back of the room. They are the outcast; they have to go before the “pride” to ask for forgiveness to be accepted back into regular group. This really does something to a kid; it tears them down.

— High-poverty school administrator

School climate greatly influences student outcomes. The research team examined schools’ approach to discipline as a measure of school climate. Suspension rates are considerably higher in high-poverty schools than low-poverty schools — and the difference is starkest in high school. The excessive use of suspensions undermines instructional time and student engagement.

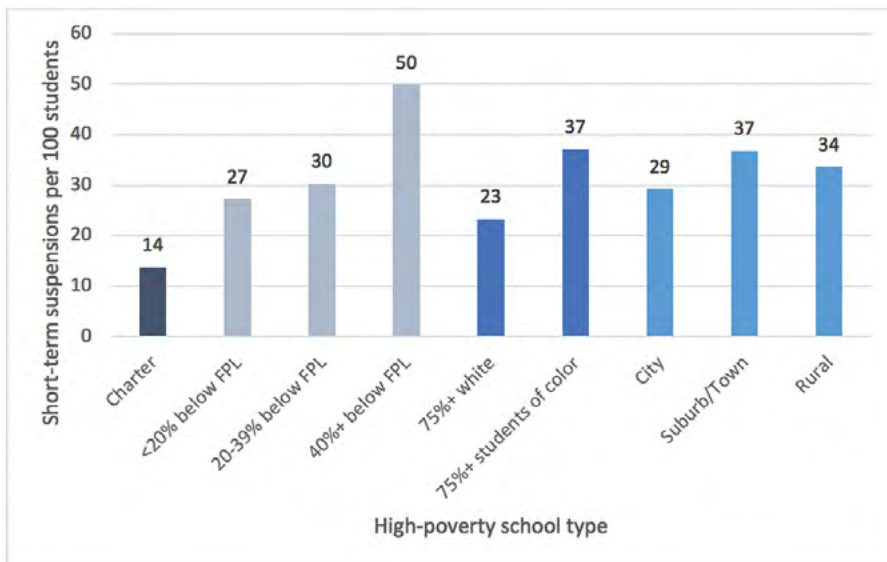
Exhibit 50. Number of short-term suspensions per 100 students



Source: LPI analysis of DPI data sets

To better understand differences in suspension rates, the research team looked at differences among schools by poverty level, concentration of poverty, and urbanicity. Consistent with the differences between high- and low-poverty schools, as poverty increases, so does the suspension rate. Another factor that increases the likelihood of a higher suspension rate is the percentage of students of color. Schools with over 75% students of color have suspension rates that are 14% points higher than those of schools with over 75% White students. Lastly, there are higher suspension rates among suburban (37%) and rural schools (34%) than in schools in cities (29%).

Exhibit 51. Number of short-term suspensions per 100 students, by high-poverty school type

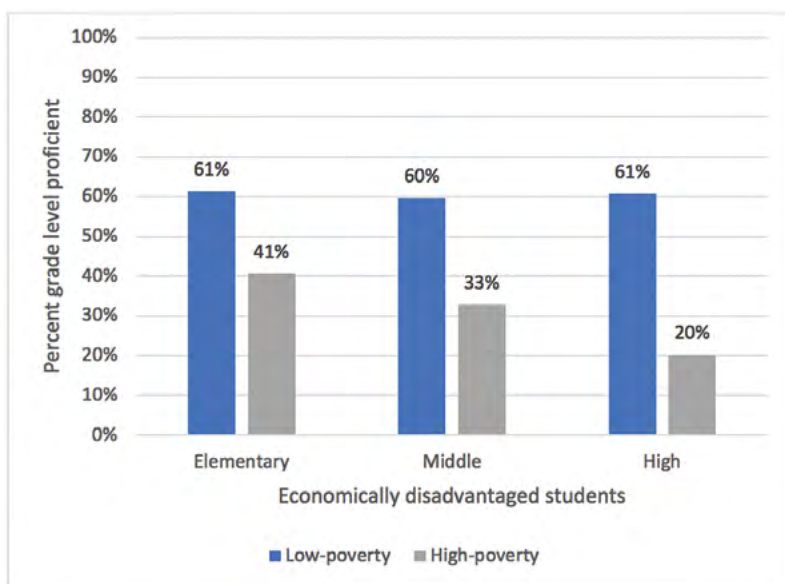


Source: LPI analysis of DPI data sets

Concentrated school poverty mediates the relationships between resources, opportunities and students' outcomes.

Concentration of poverty has a strong, negative association with school performance scores. As the percentage of economically disadvantaged students in a school rises, schools are more likely to have lower performance scores. This is likely a consequence of the limited access to resources students have when attending a school with more concentrated poverty — a situation that is the most pronounced for students attending schools that are predominantly students of color. As discussed in Section IV of this report, when economically disadvantaged students attend low-poverty schools, their grade-level proficiency rates are higher than when they attend high-poverty schools. These differences are increasingly worse at the middle and high school levels where student proficiency rates double or triple, respectively, when students attend a low-poverty school instead of a high-poverty school. These data do not account for relative levels of economic disadvantage, but still suggest that economically disadvantaged students benefit from attending schools with the greater resources and opportunities afforded in low-poverty schools.

Exhibit 52. Grade level proficiency rates for economically disadvantaged students at HPS and LPS



Source: LPI analysis of DPI data sets

Findings: Students' Equal Opportunity for a Sound Basic Education is Compromised Further by the Failure to Address Risks that Stem from Adverse Out-of-School Conditions Associated with Concentrated Poverty

I've never worked (as a social worker) in another part of the state or another area besides western North Carolina, but I feel like the issues that we're facing, that our students are facing, are not really unique, necessarily, to just this area. There's poverty everywhere. There's substance abuse everywhere. There are absent parents everywhere. I think part of what is unique about our area is that it's pretty rural and so, even just access to transportation is such a challenge for our families.

— Social worker, high-poverty rural school

During one of the site visits to a high-poverty school, a teacher reflected that, after working for past nine years, her students today grapple with mental health needs more than when she started. For some of students, she said, school is one of the few stable environments they have. Another teacher, lamenting that kids come to school with all kinds of anxieties, conveyed her frustration about the lack of support to address them, "A teacher isn't necessarily trained or should be trained to deal with all of that." One of the counselors at the same school estimated that approximately one third of the student population has experienced significant adverse childhood experiences. She went on to assert that, "I can tell you that the most desperate need we have in this country right now, as far as an educator, administrator, teacher, or counselor, is mental health services."

These examples are not rare exceptions. For many North Carolina children attending high-poverty schools, their opportunities for accessing a sound basic education are diminished by the fact that they live and go to school in economically depressed areas of the state. This economic decline has contributed to population shifts to the urban population centers — particularly the Triangle and Charlotte — and fueled a population decline of 41% in small towns and rural areas — triggering one news outlet to pronounce the “demise of ‘Small Town USA.’”⁸³ In fact, “[a]s agriculture in rural areas becomes a less prominent career path, job growth is concentrating in higher-skilled positions in metropolitan areas such as the Triangle.” Some of these communities left behind are suffering from what can only be thought of as economic crisis as the economy of the country and state has become more integrated into the global economy and as automation continues replace jobs, like the agricultural jobs, that once were the staples of local communities. And these jobs will demand a different skill set than the jobs of the past that sustained many rural communities, which makes access to a “sound basic education” urgent; “in both urban and rural areas there’s a sense that the jobs of the future will require more education and training than the jobs that traditionally helped provide a comfortable, middle-class lifestyle for North Carolinians.”⁸⁴

The adverse conditions that students in these communities experience outside of school place them further at risk when it comes to well-being and learning, as noted in an earlier section of this paper reviewing prior research on high-poverty schools and communities. Children experiencing parents’ job insecurity, hunger, housing instability or homelessness, and unhealthy environments bring traumatic stress into the classroom. In the words of a leading scholar, “Such stress causes children to be tuned out, preoccupied, impulsive, unable to concentrate, distrustful and nervous. It interferes with their ability to focus, to interact with others, to tackle rigorous academic material and progress in school successfully.”⁸⁵ In addition, students may feel stigmatization and shame associated with some of the challenges that stem from poverty. For example, one student at a school the research team visited reported that his family was “robbed,” when in fact, the family’s property had been repossessed. Students also cope with the emotional stress of a parent’s deployment (for students from military families), potential deportation,⁸⁶ or a parent or family member’s incarceration.

The risk associated with living in communities of concentrated poverty compounds the disadvantages related to attending schools with fewer high-quality learning resources and opportunities, as described in the previous section. Together, they add to the cumulative disadvantages that stand in the way of so many students developing their talents.⁸⁷ The *Leandro* Court recognized this, and ruled that at-risk students need more and different resources and interventions to help counter the harms of the cumulative social and academic disadvantages associated with poverty.

Some North Carolina high-poverty schools and communities provide supports and interventions to students. However, most do not. Few high-poverty schools and communities have adequate resources and capacity to address students’ needs. Moreover, the supports and interventions that do exist are not fully supported and integrated into the public education system. Nearly all are voluntary, funded by philanthropy and charity, or dependent upon an informal “partnership” rather than being part of an established infrastructure and with the resources necessary to sustain them.

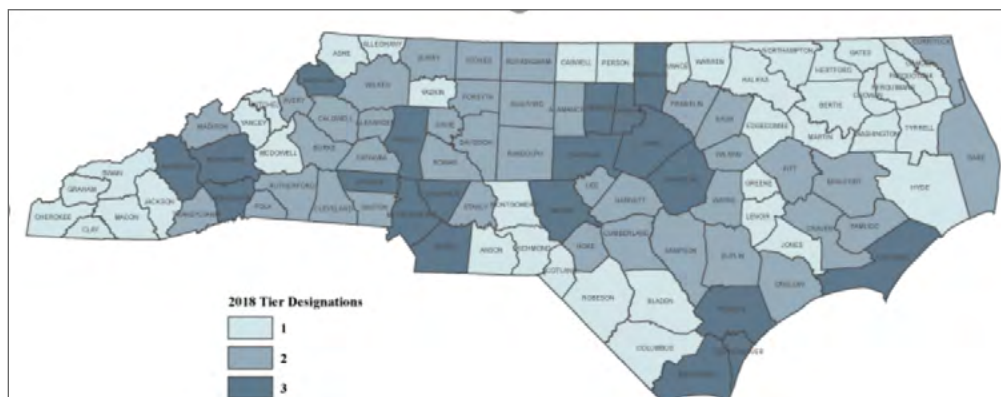
This section will outline in some detail the adverse out-of-school conditions that are associated with poverty. It begins with the economic and social conditions students face in North Carolina’s low-wealth counties; it then

examines how students in high-poverty schools are exposed disproportionately to these adverse conditions, and concludes by drawing attention to the reality that high-poverty schools and communities lack the public resources, infrastructure and supports that can address the negative impact of community conditions.

North Carolina's Low-Wealth Counties Suffer from Economic Distress, Food Insecurity, Threats to Health, and Housing Instability

Concentrated poverty in North Carolina exposes students in high-poverty schools to adverse out-of-school conditions known to create learning barriers.⁸⁸ The following maps, drawn from previously published reports, show that economic insecurity, food insecurity, unhealthy conditions and behaviors and housing instability are concentrated in particular North Carolina counties — counties where many of the state's high-poverty schools are located. The first map displays the concentration of economic disadvantage. Each year, the NC Department of Commerce ranks the state's 100 counties based on economic well-being and assign each a Tier designation. County Tiers are calculated using four factors: average unemployment rate; median household income; percentage growth in population; and adjusted property tax base per capita. The map below depicts the counties by these tiers.

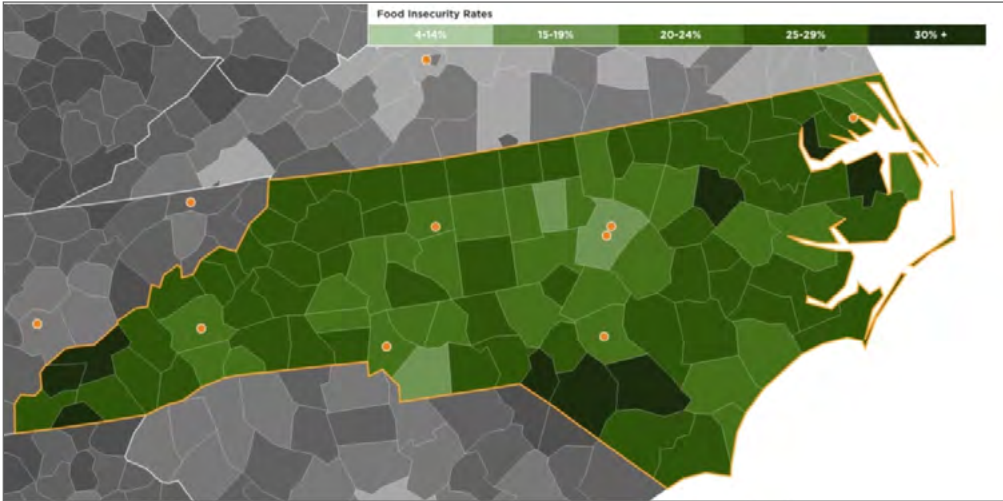
Exhibit 53. County distress rankings (tiers)



The 40 most distressed counties are designated as Tier 1, the next 40 as Tier 2, and the 20 least distressed as Tier 3.

The second map, below, shows the concentration of food insecurity. Statewide the rate of child food insecurity is 26%, but it varies dramatically among counties, with some counties having twice the rates of others.

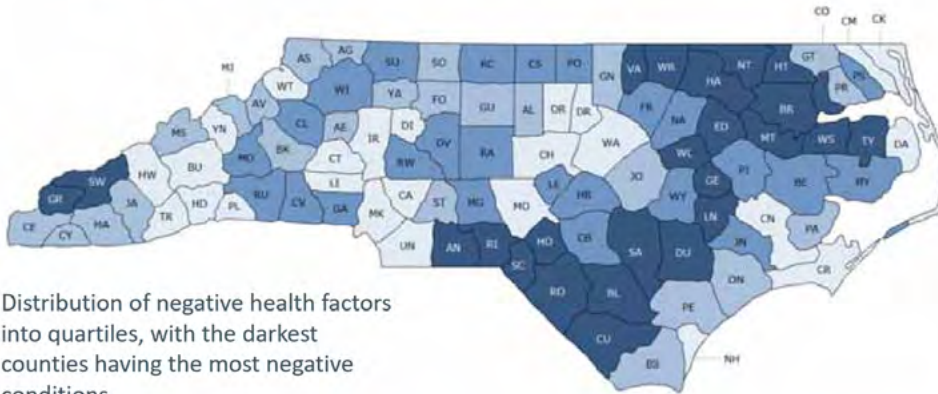
Exhibit 54. Concentration of food insecurity by county



Source: County Health Ranking & Roadmaps; A Robert Wood Johnson Foundation Program

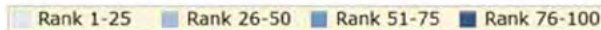
The third map depicts exposure to substance abuse, physical inactivity, limited clinical health care, and adverse environmental conditions.

Exhibit 55. Concentration of negative health factors by county



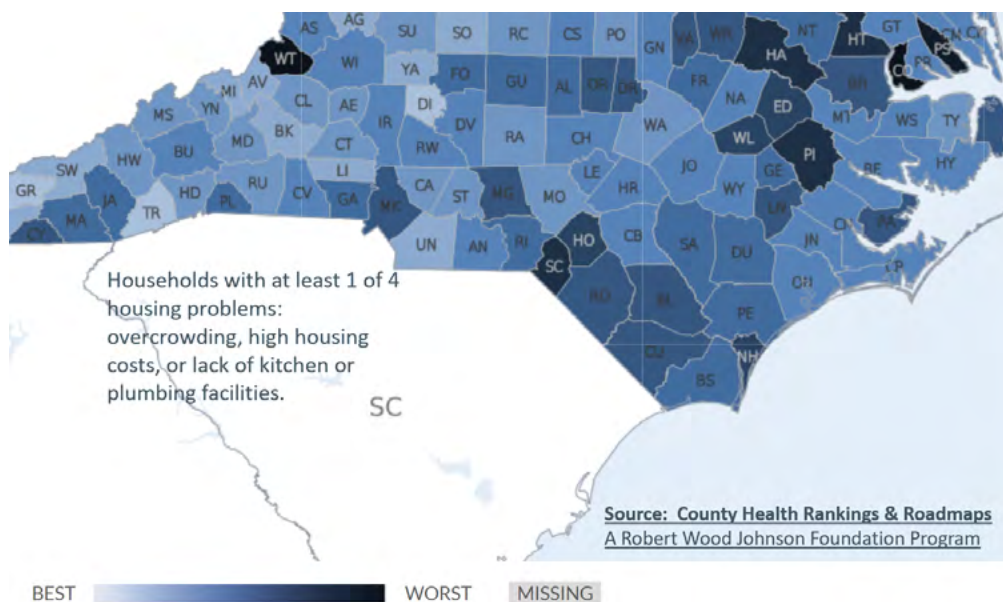
Distribution of negative health factors into quartiles, with the darkest counties having the most negative conditions

University of Wisconsin Population Health Institute. County Health Rankings 2018.



The fourth map, below, shows the variation among counties in housing insecurity.

Exhibit 56. Concentration of housing insecurity by county



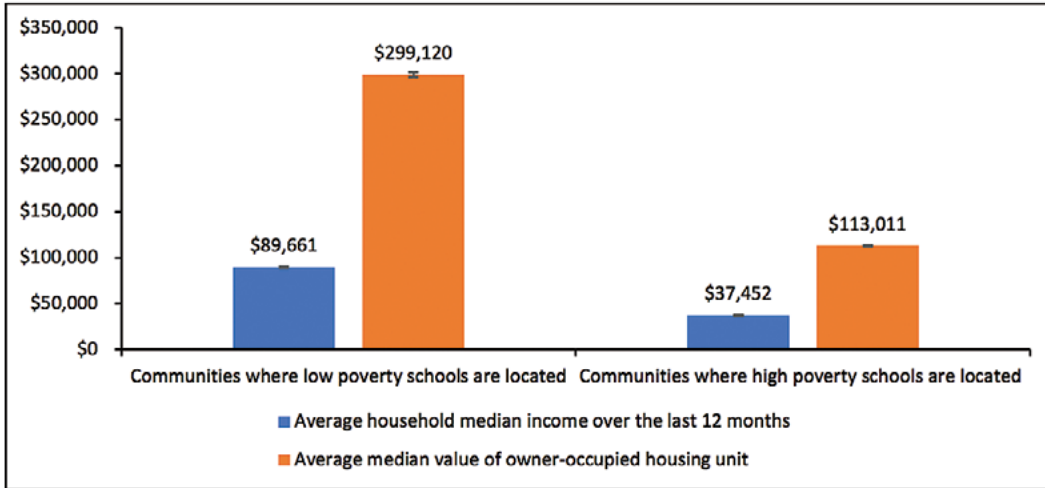
The considerable overlap on these four maps shows that cumulative disadvantage is experienced by children and families in North Carolina's poorest counties.

Students in High-Poverty Schools are Exposed Disproportionately to Adverse Conditions

To provide a more precise description of the communities in which North Carolina's high-poverty schools are located and how they differed from the communities in which the state's low-poverty schools are located, the research team performed new analyses of data from the US Census Bureau's American Community Survey. The research team looked at the census tracts in which the state's high- and low-poverty schools are located, as that allowed us to examine high- and low-poverty schools' contexts in large diverse counties as well as in smaller, more homogenous ones. Doing so, the research team found huge differences in the contexts in which the state's most and least advantaged students go to school. As described below, these analyses show that the overwhelming majority of North Carolina's high-poverty schools are located in the state's most distressed areas and that students attending them are exposed to the adverse conditions described above.

Economic Insecurity. High- and low-poverty schools differ quite dramatically on several indicators of average income, property wealth, and access to full-time paid employment, and the percent of residents living in poverty. The following chart shows that the residents of communities in which low-poverty schools are located earn more than twice the median income and have close to three times the residential property wealth of those in high-poverty school communities.

Exhibit 57. Income and property wealth in low- and high-poverty school communities



Source: LPI analysis of American Community Survey Data

The housing values shown here actually underestimates the differences, since residents of low-poverty school communities own their homes at nearly twice the rate of those in high-poverty school communities — 48% compared to 29%. In other words, nearly half as many people in high-poverty school communities own their own homes, and those homes are worth less than a third of what homes in low-poverty school communities are worth.

Certainly, some of these differences are a result of differences in the extent to which residents of the two types of communities are full-time wage-earners. The following table shows some of these differences. Residents are more likely to participate in the labor force in low-poverty school communities, and those who do, both men and women, are more likely to be working full time.

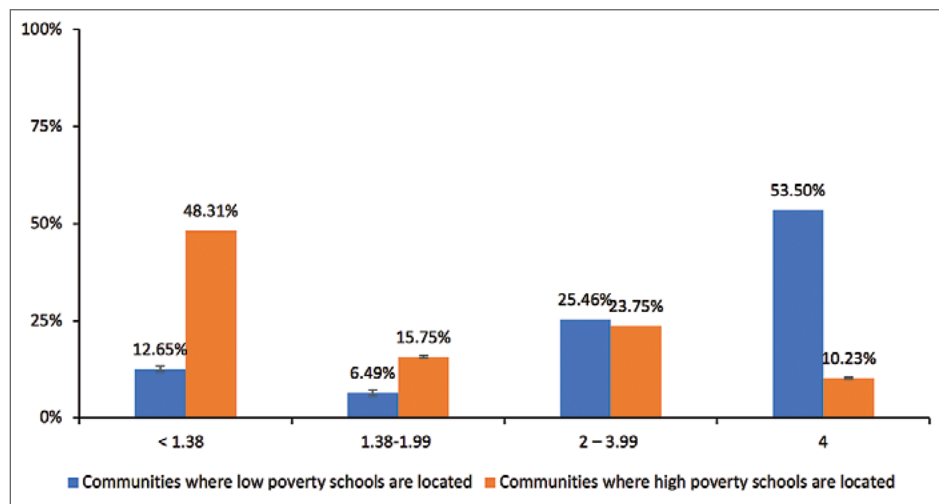
Exhibit 58. Labor force participation of residents in low- and high-poverty school communities

	Low-Poverty School Communities	High-Poverty School Communities
People (16+ years old) in labor force	69%	59%
Male workers who worked full time	57%	42%
Female workers who worked full time	36%	31%

Source: LPI analysis of American Community Survey Data

The result of all of these economic differences is that the percentage of children living in poverty is very different in the two types of communities. The chart below shows that, on average, high-poverty schools are in communities where 64% of children under 18 live in families with incomes below 200% of the federal poverty level. In contrast low-poverty schools are in communities with an average of 19% of children at this poverty level — far below the state average.

Exhibit 59. Percentage children (under 18 years old) by poverty threshold in communities where low and high-poverty schools are located⁸⁹



Source: LPI analysis of American Community Survey Data

As noted earlier, the negative effects of concentrated poverty are found once the poverty rate exceeds 20% and grow rapidly before leveling off around 40%.⁹⁰ The majority of high-poverty schools are located in neighborhoods that experience these effects. The table below shows that 65% of high-poverty schools are in communities where 20% or more residents are at or below the poverty level — the point at which, as noted above, the harms of concentrated poverty are experienced. In contrast, nearly all low-poverty schools (92%) are located in lower-risk communities with less than 20% or more residents living in poverty.

Exhibit 60. Percentage of low- and high-poverty schools in communities at different poverty levels

Community Poverty Level	# Low-Poverty School Communities	% Low-Poverty School Communities	# High-Poverty School Communities	% High-Poverty School Communities
< 20% below poverty	120	92%	202	34%
20–39% below poverty	5	4%	317	54%
>40% below poverty	5	4%	70	12%

Source: LPI analysis of American Community Survey Data and DPI Data

Lower Education Levels. The data also show that the communities in which low-and high-poverty schools are located differ in the level of education of the adults who live there. Well-educated parents and other adults who are close to children provide educational resources that less educated ones generally cannot, as the *Leandro* court recognized by naming children from families where parents have low levels of education as part of those who are “at risk”. The table below shows that adults in high-poverty school communities are four times more likely to not have a high-school diploma than those in low-poverty communities.

Exhibit 61. Education levels of adults in communities where low- and high-poverty schools are located

Highest Level of Education of Adults Over 25 Years Old	Low-Poverty School Communities	High-Poverty School Communities
Less than high school	5%	20%
Bachelor or higher	55%	18%

Source: LPI analysis of American Community Survey Data

Single Parent Households & Grandparent Head of Household. One teacher in a high-poverty school described how students’ lives have significantly changed from the time she attended school: “The dynamics of the family have changed...single parents, families have 2 or 3 jobs...surrogate moms and dads...” She concluded: “Kids are used to being the boss in their homes, they don’t know how to be kids.”

In fact, North Carolina children in communities where high-poverty school communities are located are far less likely than those in low-poverty school communities to live in traditional, two-parent families. As the table below shows, they are two and a half times more likely to live with a single parent and almost four times as likely to live with grandparents.

Exhibit 62. Households with non-traditional family structures in communities where low- and high-poverty schools are located

Head of Household with Children Under 18	Low-Poverty School Communities	High-Poverty School Communities
Single-parent ⁹¹	20%	50%
Grandparents	3%	11%

Source: LPI analysis of American Community Survey Data

Food insecurity.

I know that they’re hungry, they look hungry. You have kids that eat off of other kid’s plates in the cafeteria, so it’s a big issue.

— High-poverty school teacher

Nearly five times as many families in high-poverty school communities compared with low-poverty school communities required food support from the federal food-stamp program.

Exhibit 63. Percentage of families on food stamps in low- and high-poverty school communities

	Low-Poverty School Communities	High-Poverty School Communities
Families on Food Stamps/SNAP in the Last 12 Months ⁹²	5%	24%

Source: LPI analysis of American Community Survey Data

High-Poverty Schools and Communities Lack Public Resources, Infrastructure, and Supports That Can Address the Negative Impact of Community Conditions

I do backpack buddies. We have kids that don't have food on the weekends. So, I keep underwear, I keep socks, pads, t-shirts. Most of this stuff, I'm buying on my own unless someone donates it. But our kids need it.

High-poverty school teacher

As noted in the first section of this paper, both the *Leandro* rulings and prior research make clear that at-risk students need more and different resources and interventions that can help offset the learning barriers that stem from living in communities of concentrated poverty. Effective strategies include high-quality pre-kindergarten programs, whole child approaches to K–12 schooling, additional learning time and opportunities beyond the regular school day. With the right professional support personnel and “wrap around” services, schools can also intervene explicitly to support students who are traumatized by adverse childhood experiences. They can create a system of tiered interventions and supports, establish partnerships with local mental health agencies, train teachers to differentiate for all students’ needs and to use positive behavior interventions and supports as part of their classroom behavior management practices and structures.⁹³ All these structures and supports help counter the harms of the cumulative social and academic disadvantages associated with poverty.

Few of North Carolina’s high-poverty schools and communities have adequate resources and capacity to provide these interventions and supports. Moreover, the supports and interventions that do exist are not fully supported and integrated into the public education system. As noted earlier, nearly all are voluntary, funded by charity, or dependent upon an informal “partnership” rather than being part of an infrastructure and with the resources to ensure sustainability. Some of the specific gaps are detailed below.

Limited high-quality pre-kindergarten programs.

High-quality pre-kindergarten programs have a sustainable positive impact on learning and can close the learning gaps among young children from economically advantaged and disadvantaged backgrounds.⁹⁴ Recognizing this, the decision in *Leandro II* (2004) held that state had to address the educational needs of the youngest at-risk children as part of ensuring “access to a sound basic education” given that these children are prospective enrollees in the state’s public education system.

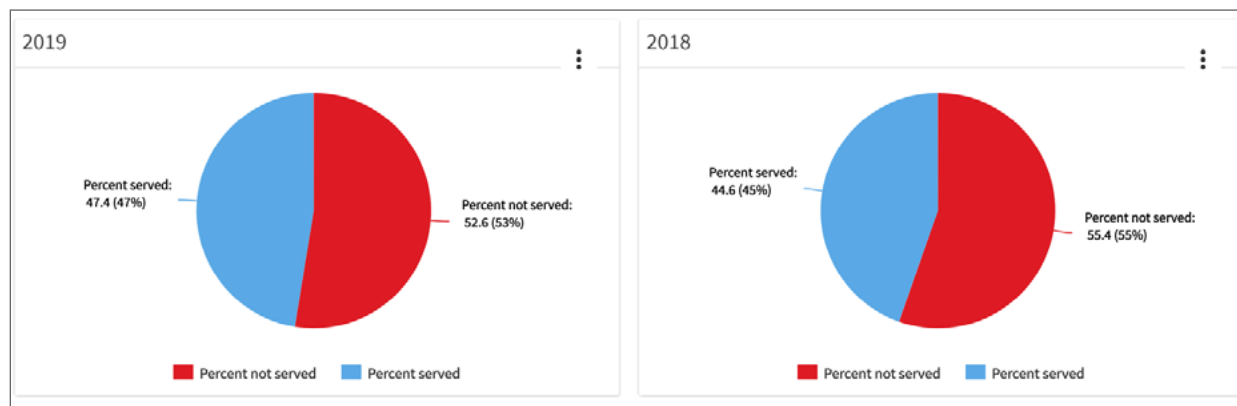
We read Leandro and our state Constitution, as argued by plaintiffs, as according the right at issue to all children of North Carolina, regardless of their respective ages or needs. Whether it be the infant Zoe, the toddler Riley, the preschooler Nathaniel, the “at-risk” middle-schooler Jerome, or the not “at-risk” seventh-grader Louise, the constitutional right articulated in Leandro is vested in them all.⁹⁵

North Carolina is well-positioned to achieve this goal, given that it leads the nation in the quality of its infrastructure and quality standards for pre-kindergarten programs.⁹⁶ The state has two primary delivery systems to coordinate the provision of early childhood programs. The first, “Smart Start” is a 25-year old network of 75 nonprofit agencies that offer “one-stop shop” coordination of services for families and children 0- 5 in all counties. The second is NC Pre-K, a state-supported, 9-month, part-day program, that enrolls economically disadvantaged four-year-olds in public schools, private centers, and Head Start centers. To qualify a child must (a) be from a family whose gross income is at or below 75% of the State Median Income, or (b) in an active duty or certain other military family. Up to 20% of children enrolled may have higher family incomes if they have documented risk factors in specific categories including developmental disability, limited English proficiency, educational need, or chronic health condition. The state also makes available child care subsidies for children under age five in North Carolina whose families live below 200% of the Federal Poverty Level, and federally supported Head Start programs are offered to three- as well as four-year-olds whose families live below 100% of the Federal Poverty Level.

The state’s early childhood quality rating and improvement system (QRIS) that governs licensure and the ongoing research and evaluation by universities have served to raise the quality of both public and private early childhood programs in the state. Rigorous research, for example, has demonstrated that the NC Pre-K program has produced both short- and long-term benefits through grade 8.⁹⁷

However, as described below, the system falls far short of meeting the *Leandro* ruling. Too few of the state’s children have access to those programs, particularly those defined by *Leandro* as “at risk”. Indicators recently published by the North Carolina Department of Health and Human Services document the shortfall in access to the state’s programs by children in low-income families. The first, displayed in the figure below, shows that in 2019 less than half of the eligible children are being served by North Carolina Pre-K. The total of eligible children being served is now 47%, which represents 24% of all North Carolina four-year-olds. Recent estimates are that the unmet need is 33,000 eligible young children.⁹⁸

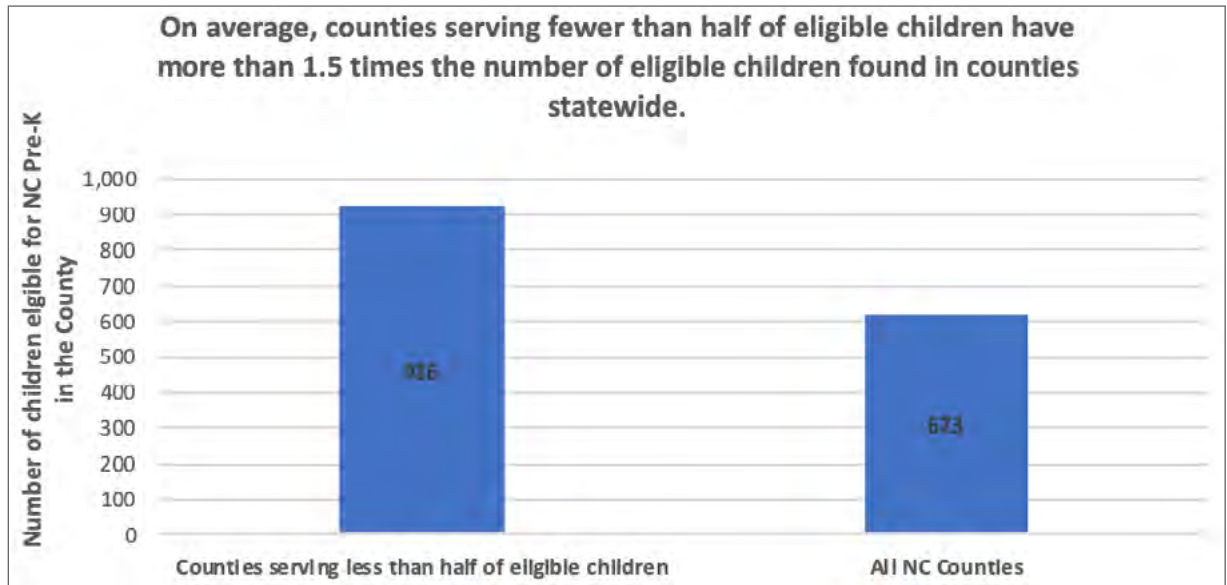
Exhibit 64. Percent of eligible NC pre-K children served by year



Source: North Carolina Department of Health and Human Services NC Early Childhood Action Plan Data Dashboards, online at <https://www.ncdhhs.gov/about/department-initiatives/early-childhood/nc-early-childhood-action-plan-data-dashboards>

The National Institute for Early Education Research (NIEER) recently calculated the number of children eligible for NC Pre-K in statewide and in each county, comparing this figure to the number of children served in NC Pre-K in each locale.⁹⁹ Using conservative estimates, NIEER determined that about three quarters of counties are not reaching 75% of eligible children, with 40 counties serving less than 50% of eligible children.¹⁰⁰ On average, counties in North Carolina are providing NC Pre-K services to 59% of eligible children. But there is wide variability in this figure, with some counties serving more than 95% of the eligible children (Avery, Camden, Chatham, Hertford, Hyde, Pamlico, Pender, Polk, Stokes, and Wilkes) and others serving fewer than a quarter of the eligible children (Mecklenberg, Moore, and Wilson).¹⁰¹ The counties serving fewer than half of eligible children tend to have a larger number of eligible children than the average for North Carolina counties and are also more urban.

Exhibit 65. Number of eligible children in low-serving counties



Source: National Institute for Early Education Research (NIEER), 2018

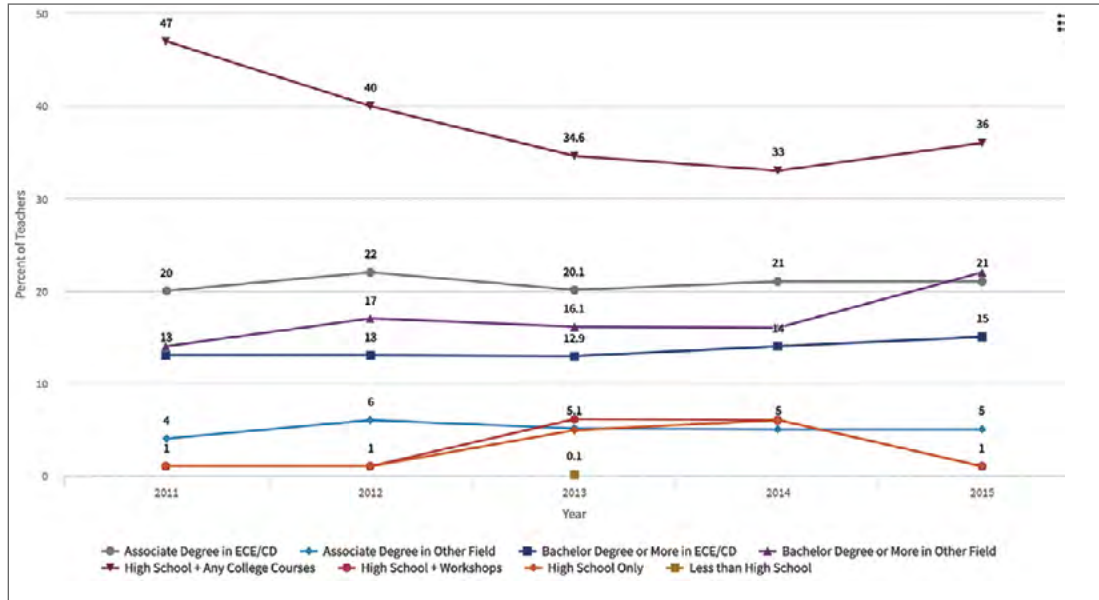
Counties serving less than half of all children eligible for NC Pre-K have rates of child poverty that exceed the average for North Carolina counties. On average, 23% of children in these 40 counties are poor, compared to an average of 22% statewide.¹⁰²

A second indicator of limited access is that only 11% of economically disadvantaged infants and toddlers and only 17% of three- to five-year-olds supported by state subsidies are in high-quality centers (as indicated by being licensed under the QRIS as 4- or 5-star programs).¹⁰³ A third indicator is that Head Start programs in the state also fall far short of serving eligible children, and the percent of eligible three- to five-year-old children enrolled has declined over the past decade.¹⁰⁴

North Carolina also falls short in providing young children with enough well-qualified teachers to staff its existing early childhood programs adequately. The early childhood workforce lacks adequate training, credentials, compensation and benefits that would enable a stable, highly-qualified workforce. While the average base pay in public schools is about \$35,000; the median for early childhood teachers is \$22,800, and usually there are no benefits. The result is that approximately 40% of early childhood teachers are on public assistance, especially Supplemental Nutrition Assistance Program (SNAP).

The figure below shows the low levels of education among early childhood educators serving in teaching positions for which post-secondary preparation in the early childhood field is expected. In 2015, only 36% held bachelor's degrees in any field, and less than half of those (15% of the total teachers) hold degrees in early childhood education.

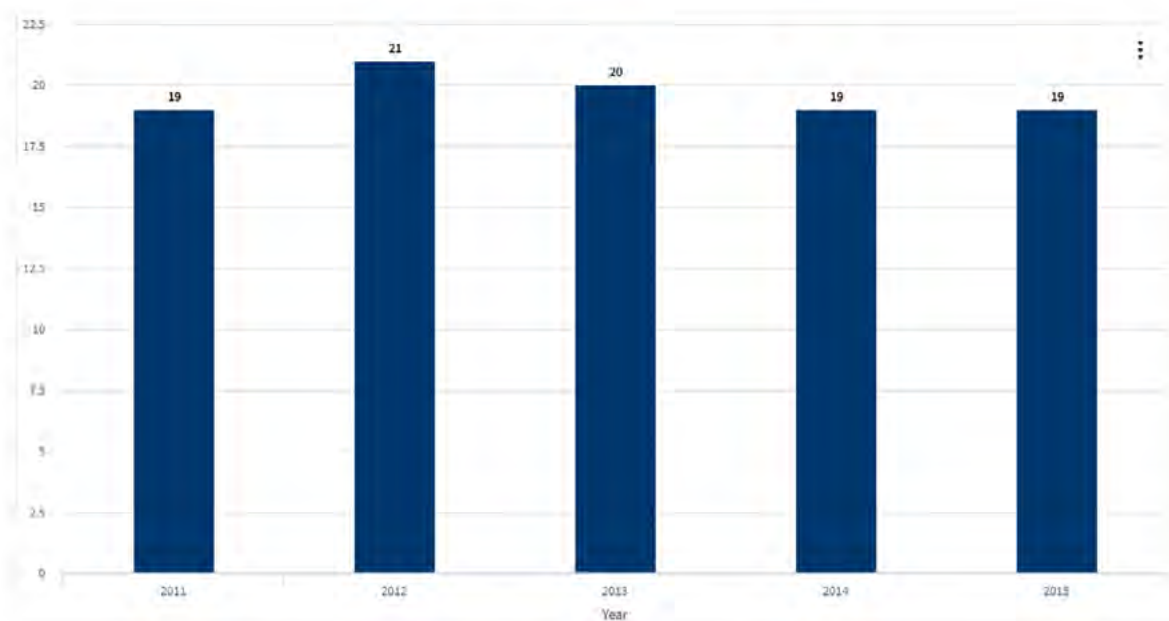
Exhibit 66. Education of early childhood teachers by year



Source: North Carolina Department of Health and Human Services NC Early Childhood Action Plan Data Dashboards, online at <https://www.ncdhhs.gov/about/department-initiatives/early-childhood/nc-early-childhood-action-plan-data-dashboards>

State funding is not designed to completely cover the cost of a North Carolina Pre-K slot. Rather, state funding covers approximately 60% of the slot cost, leaving each county to cover the remaining 40% through parental, county, local, philanthropic, or other funding sources. Moreover, compensation and certification policies (or the lack thereof) have created a Pre-K workforce that lacks the adequate training, credentials, compensation and benefits that would enable a stable, highly-qualified workforce. Although the average base pay in public schools is about \$35,000 the median for Early Childhood teachers is \$22,800, usually without benefits. As a result, 40% of these teachers are on public assistance, especially SNAP. Not surprisingly, given the low compensation and under-preparation, the yearly turnover among early childhood educators is about 20%.¹⁰⁵

Exhibit 67. Percent of full-time early care and education teachers in North Carolina who left their centers during the previous 12 months



Data Source: Division of Child Development and Early Education (DCDEE), NC Department of Health and Human Services (NCDHHS)

*Technical note: Aggregate separation rates were constructed by summing the number of staff reported by center directors as working in their centers and dividing that by the number they reported as having left employment in the previous year.

Source: North Carolina Department of Health and Human Services NCEarly Childhood Action Plan Data Dashboards, online at <https://www.ncdhhs.gov/about/department-initiatives/early-childhood/nc-early-childhood-action-plan-data-dashboards>

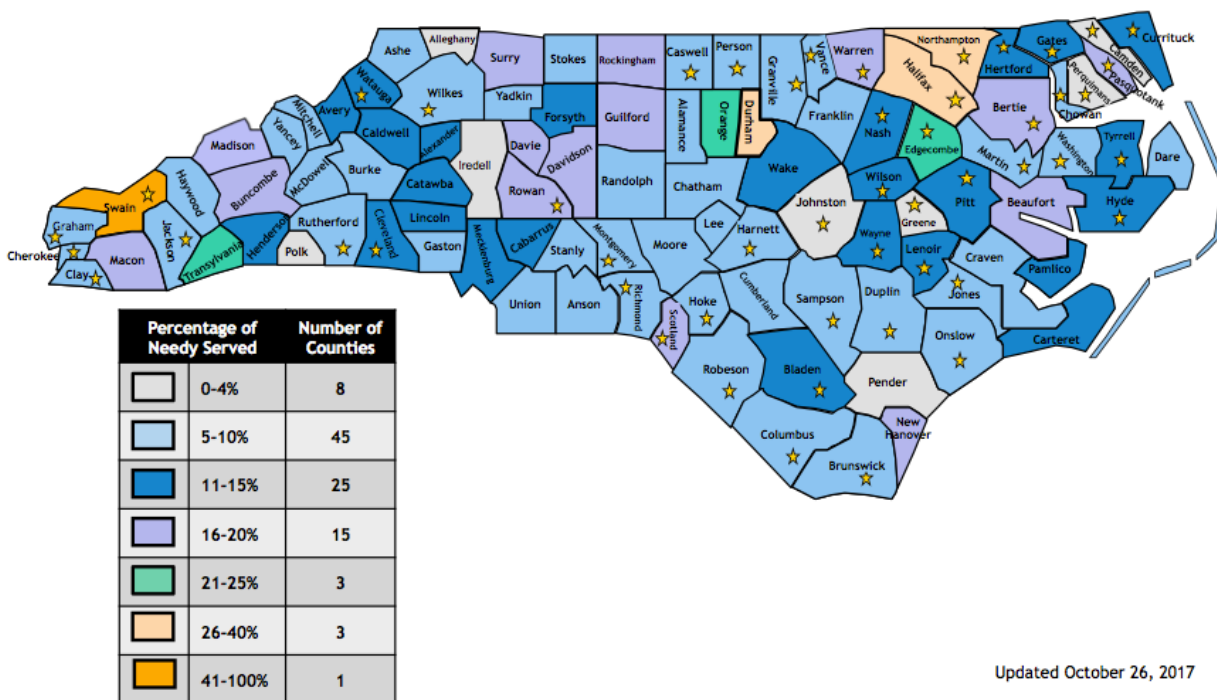
Limited Wrap-Around Services and Limited Implementation of Whole Child Approaches

The state of North Carolina has a few programs currently operating to provide supports and services to students — including at-risk students impacted by concentrated poverty — but these programs are largely disjointed, uncoordinated, and not concentrated in the areas of greatest need.

One concrete example is shown in the map below. The state has summer nutrition programs to provide food for needy children who depend on the subsidized meal programs during the school year. However, the percentage of eligible children being served by the program is quite small in most parts of the state — with only one county serving more than 40% of eligible children; over half of the counties serve 10% or less.

Exhibit 68. 2017 participation in North Carolina summer nutrition programs for children

★ Including 2014 USDA-Designated Strike Force Counties
Based on July 2017 Data



The opioid public health crisis underscores the need for more comprehensive, statewide and system-wide approaches to providing students — particularly those in poverty—as well as their families, with needed comprehensive services and supports so that they can learn and thrive. It emerged was presented revealing that in 2016, 17 million pain killers were prescribed in Buncombe County alone, which amounted to 68 pills for every child and adult. Opioid overdose increased 34%. A teacher in Fayetteville described how “students’ lives have significantly changed from the time she attended school. The dynamics of the family have changed... single parents, families have 2 or 3 jobs...surrogate moms and dads. We observe that these conditions may leave students feeling stigmatized and ashamed from some of the challenges they face.”

As one educator recently shared her observation that students can’t leave the impact of traumatic experiences at the schoolhouse door. High-poverty schools and communities lack public resources, infrastructure and supports that can address the negative impact of community conditions. The research team learned in one school how individual teachers are keeping underwear, socks, and deodorant for children who cannot access these supplies on their own.

Recognizing this reality, the Department of Public Instruction developed a Whole Child, Whole Community, Whole Child (WSC) model that expands on the approach from the Centers for Disease Control and Prevention (CDC) and the Coordinated School Health (CSH) that focused on linking health to learning and child well-being. The elements of this approach include: family engagement, community involvement, health education, physical education, health services, counseling, psychological and social services.

Department of Public Instruction’s Whole Child, Whole School, Whole Community Program is the only state-run program aimed at making schools hubs of supports for students and families experiencing adverse out-of-school conditions that impact on school success. Although this model holds considerable promise, it is being implemented currently in only 11 counties.

Some communities have mounted local efforts that attempt to provide these “whole child” supports. None has support from the state. They are described below as examples of what the state could, but does not currently, support.

The Asheville and Buncombe County’s Middle Grades Network (ABMGN). The ABMGN is partnership between Asheville City Schools, Buncombe County Schools, United Way of Asheville and Buncombe County, the University of North Carolina at Asheville, and representatives of more than 50 health, social service, higher education and youth services community partners who work together towards a shared vision that includes safe and welcoming schools; supports for families; and graduating all students ready for college, career, and community. Community partners include the Boys & Girls Club of Buncombe County, Buncombe County Department of Health and Human Services, the Literacy Council of Buncombe County, West Carolina University, and Warren Wilson College, among others.¹⁰⁶ There are currently four community schools in Asheville and Buncombe County, operating in Asheville Middle School, Erwin Middle School, Owen Middle School, and Enka Middle School.

The community school approach engages parents and students, including through hosting weekly “homework diners” that families and students can attend to receive academic assistance and a meal. Enka’s homework diner serves about 100 people each week, up from 40 served weekly when the diner first started, and has served approximately 1,155 people from 417 households. The “homework diner” idea originated in Albuquerque, New Mexico, in 2012. A pilot of the homework diner program was rolled out in the fall of 2017 at Enka, and was extended to Erwin and Asheville Middle Schools. Although the schools host the diners, the diners welcome all students and families from all grade levels in the Asheville and Buncombe County school districts.

Communities In Schools North Carolina. Established in 1989, Communities in Schools in North Carolina (CISNC) is part of the national Communities In Schools (CIS) network and focuses largely on two of the pillars that LPI identified in effective community schools: integrated student supports and active parent and family engagement. Each community school has a Student Support Specialist who is trained to work with school administrators to assess needs, develop a plan, and build a team to provide supports and interventions to schools and students.¹⁰⁷ The Student Support Specialist also works collaboratively with schools, businesses, and community agencies to deliver supports and interventions to students and families. The approach of CISNC focuses on increasing attendance, improving behavior, enhancing coursework, and engaging more parents and families in student success.¹⁰⁸ Broadening the approach beyond these three areas of concentration could help to better meet the complex needs of at-risk students in the state, including operating in over 300 schools in the state, CISNC has served over 162,813 students across 40 counties. CISNC place student support specialists within schools to connect students to evidence-based services and supports.

Alamance Achieves. Alamance Achieves is a partnership of leaders in education, business, government, foundations, and community and faith organizations from across the County working together align efforts and address

issues to help improve children's outcomes.¹⁰⁹ Partners include the United Way of Alamance County, the Alamance-Burlington School System, Alamance Community College, Impact Alamance, the First Presbyterian Church of Burlington, and companies such as Glen Raven. One in every three children in the county lives in poverty. The partnership uses data to illuminate opportunities to improve educational outcomes.¹¹⁰ The partnership's four key goals include: kindergarten readiness; academic progress; high school graduation (including ensuring that every student graduates prepared for post-secondary learning); and career success. The partnership also seeks to foster civic engagement and community support. But, as noted earlier, such partnerships are not feasible in communities that do not have a local United Way or businesses or foundations to support such partnership efforts.

The Forsyth Promise. A part of the national Strive Together Cradle to Career Network, that seeks to connect a community in need with resources to improve child outcomes, The Forsyth Promise launched in 2008 with the goal of building a cradle-to-career infrastructure and aligning community resources to promote student success.¹¹¹ The program began as the Community Education Collaborative with the goal of increasing high school graduation rates.¹¹² The United Way of Forsyth County provides financial and staffing support that is supplemented by foundations and other local resources. The program includes a data-sharing component in which data is shared from Winston-Salem, Forsyth County Schools, including data on student attendance, performance, and participation in extracurricular enrichment programs to create individualized continuous improvement plans for participant organizations. Through foundation support, the data pilot has been implemented in four school working with nine community organizations.

Limited Additional Learning Time and Opportunities

Boys and Girls Club isn't a thing here. Kids have nothing to do after school. They go on their phones, or they're taking care of their brothers and sisters. School can't provide everything after school; those hours from 3–6 can be the most dangerous.

— Rural high-poverty school teacher

Participation in expanded school days and years, summer programs, and other out-of-school-time activities and programs has been linked to numerous positive outcomes, including academic achievement, engagement, increased physical activity, and reduced engagement in risky behaviors. That means that such families generally do not have access to educational resources outside of the school setting. Children living in predominantly middle class, White neighborhoods benefit more from community-based and private out-of-school learning opportunities — activities that supplement what schools provide. Families and communities of more advantaged students supplement students' learning time and opportunities in ways that contribute to the positive outcomes at low-poverty schools.

Poor students also experience higher levels of summer learning loss. While research shows that all students lose some of what they have learned over the past school year, lower-income students experience a more dramatic learning loss.¹¹³ According to a report released [in June 2011] by the RAND Corporation, the average summer learning loss in math and reading for American students amounts to one month per year. More troubling is that it disproportionately affects economically disadvantaged students: They lose two months of reading skills, while

their higher-income peers — whose parents can send them to enrichment activities and camps, take them on educational vacations and surround them with books during the summer — make slight gains. A study from Johns Hopkins University of students in Baltimore found that about two-thirds of the achievement gap between lower- and higher-income ninth graders could be explained by summer learning loss during the elementary school years. This learning loss is cumulative, summer after summer. It has a tremendous impact on students' success, including high school completion, post-secondary education and work force preparedness.

A 2014 study by Child Trends used data from the National Survey of Children's Health to determine levels of participation in out-of-school time activities for children who are poor (incomes below 200% of the federal poverty line) and not poor. Parents were asked whether their child had participated in any clubs or organizations after school or on weekends in the last 12 months. The gap in participation between economically disadvantaged 12- to 17-year-olds and their non- economically disadvantaged counterparts was 26 percentage points in 2011/12, with 46% and 72% participating. The gap was 30 percentage points for 6- to 12-year-olds, with 33% and 63% participating.¹¹⁴

The most recent data indicate that 15% (234,908) of North Carolina's K–12 children participate in afterschool programs, and that approximately 39% (523,140) of children are not currently enrolled in afterschool programs, but would likely participate if they had access to a quality program in their community. On average, children spend 6.03 hours and 3.59 days per week in an afterschool program. Only half (51%) of afterschool programs in North Carolina are located in a public school building.¹¹⁵

North Carolina's low-income schools have access to the 21st Century Community Learning Center program that is authorized under Title IV, Part B of the Elementary and Secondary Education Act. The program provides before and after-school, weekend, and summer school academic enrichment opportunities for children attending low-performing schools to help them meet local and state academic standards in subjects such as reading, mathematics, and science. In addition, programs may provide activities for youth development, drug and violence prevention, art, music, technology, character education, counseling, and recreation to enhance the program's academic components. The program also supports a component for family literacy and community outreach.

However, only 20 of the state's school districts or charter schools are grantees under this the 21st Century Community Learning Center Program. The remainder are non-profits or other local entities. The majority, but not all, students served are from high-poverty schools (defined as Title 1 schools). However, given the number of students in North Carolina's high-poverty schools (detailed earlier in this report), the number of students served by the program is quite small. The following table, drawn from the most recent evaluation of the program, shows that statewide a total of 13,727 students from these schools participate.

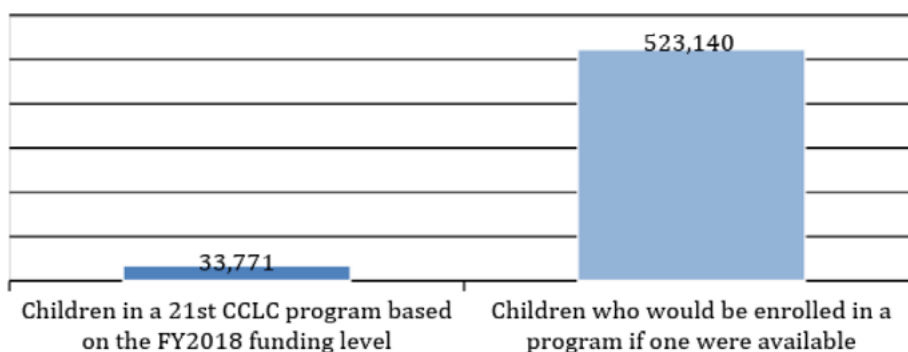
Exhibit 69. 21st CCLC participating students from Title I schools in 2015–16

	Cohort 10	Cohort 11	Both Cohorts
Average # of students from Title I schools served per center	43	52	48
Average % of students from Title I schools served per center	62%	83%	73%
Number of participating Title I students	5,416	8,311	13,727
By School Level			
% Elementary School	96%	98%	97%
% Middle School	40%	58%	49%
% High School	7%	22%	12%
By Ethnicity			
% African American	75%	82%	79%
% White	49%	81%	65%
% Hispanic	72%	88%	81%
% Other	27%	84%	43%

Source: <http://www.ncpublicschools.org/docs/21cclc/evaluation/2015-16/evaluation-full-report.pdf>

Moreover, the gap between the number of students served in these programs and the number whose parents report they would be enrolled if a program were available is huge, as the following figure shows.

Exhibit 70. Estimated number of children in 21st CCLC programs vs. demand for afterschool programs in North Carolina



Source: Afterschool Alliance, *Afterschool by the Numbers in North Carolina*. Available at <http://www.afterschoolalliance.org/documents/NC-afterschool-facts.pdf>

A second program administered by the state is the After-School Quality Improvement Grant (ASQIG). Over three years (2014–15 to 2016–17), the program awarded a total of \$13,692,924 to 21 grantees to provide after-school and summer programs serving at-risk students not performing at grade-level. According to the state evaluation of the program, of the 21 grantees: Five grants were operated solely by school districts; six grants were operated as a partnership between a district and a non-profit with shared decision-making about key aspects of the program; and one grant was implemented as a collaborative effort between a university and a school district; seven grants were operated by non-profits with only fiscal administration handled by the partner district; and two

grants were operated by non-profits with very little or no district involvement.¹¹⁶ Overall, in their fully-funded year, the 21 grantees reported offering a total of 3,651 after-school slots and enrolling 3,361 students.

As the data and findings of this section makes clear, the state has not been able to create a systemic and enduring suite of adequately financed programs capable of mitigating and eliminating the risks to learning that stem from adverse out-of-school conditions that most students attending high-poverty schools encounter at an early age and must endure throughout their educational careers. The question of why this transpires is of particular importance. The next section focuses more specifically on how North Carolina policy, or lack thereof, constrains the ability of high-poverty districts and schools to provide an equal opportunity for a sound basic education. Both the limits on the capacity to respond to the adverse community conditions described here and the limits facing districts and schools in providing access to the *Leandro* tenets are considered.

Findings: Systemic Barriers to a Sound Basic Education in High-Poverty Schools

Many of the problems faced by high-poverty schools documented in earlier sections do not originate and cannot be solved at the level of the school or district alone. The state must play an active role. As previously noted, the limitations faced by high-poverty schools are not incidental or random, they are structural and often influenced or created by state policies. The state courts affirmed this observation in a March 2000 Memorandum of Decision:

The bottom line is simply this. It is undisputed that the at-risk group of children is harder to educate and that the at-risk child requires more resources and attention to succeed. It is undisputed that the at-risk child has the same Constitutional guarantee of an equal opportunity to obtain a sound basic education as the non-at-risk child.¹¹⁷

The Court specifically identified economic disadvantage as placing students at-risk:

Economically disadvantaged children, more so than economically advantaged children, need opportunities and services over and above those provided to the general student population in order to put them in a position to obtain an equal opportunity to receive a sound basic education.¹¹⁸

The task of this section is to identify the systemic barriers that exist and describe how they stand in the way of high-poverty schools providing their students with a sound basic education. This section examines state policies that shape schools' financial resources and the teacher pipeline, the lack in investment in whole child approaches and integrated services, the insufficient supply of school support professionals, policies that have limited access to high-quality prekindergarten programs, and how the current accountability system does not meet the *Leandro* standard for monitoring access to a sound basic education. This section also considers how charter school policies can constrain the development of policies aimed at providing at-risk students with a sound basic education.

Current Funding Policies Reinforce Inequality

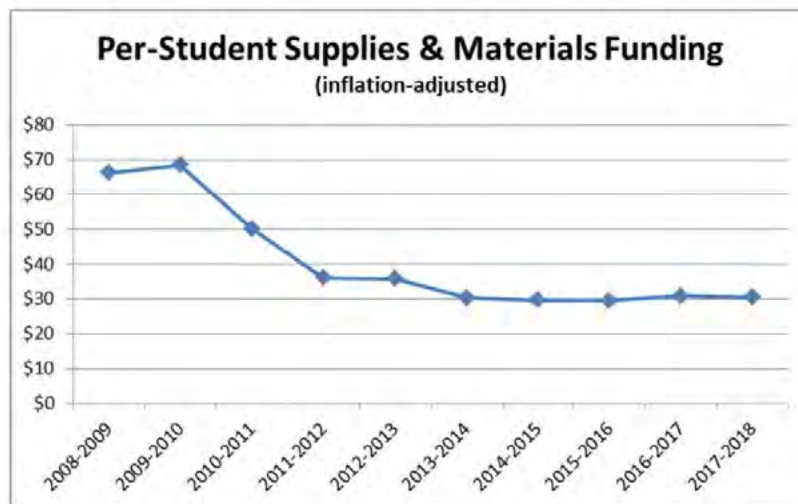
North Carolina's schools have experienced a steady, decade-long decrease in funding levels which has further compromised the ability of high-poverty schools to provide a sound basic education, particularly, but not only, in high-poverty county districts. A 2019 study by the Public School Forum documented the largest gap between the highest spending and lowest spending counties in the state since the Forum began studying this issue in 1987.¹¹⁹ Tragically, the decrease in state funding and growing funding gap has occurred at the same time as child poverty rates and the number of neighborhoods characterized by concentrated poverty are increasing, resulting in more high-poverty schools in every corner of the state. Townsend Middle School with 90% of its students from economically disadvantaged homes in Robeson County has about 30% fewer dollars per pupil than Culbreth Middle School located in the high wealth community of Chapel Hill.

As noted earlier in this report, poverty is growing in North Carolina and is increasingly concentrated. In 2000, 37 North Carolina census tracts had poverty rates of 40% or higher. By 2016, the number of concentrated poverty neighborhoods has risen to 109 including more than 348,000 residents (4% of the total population). The percentage of people living in concentrated poverty neighborhoods more than doubled.

Nearly half (774,483) of North Carolina students are economically disadvantaged, living in families whose income make them eligible for federally subsidized meals at school. Yet, as noted in the 2018 budget highlights, since 1970, the Public School's share of the General Fund has decreased by 14%, resulting in a current budget that falls \$3 billion short of what maintaining the 1970 percentage would have yielded.¹²⁰ The analyses provided in the accompanying report on North Carolina educational funding provides detail about the challenges in the system.

Since the 2008-09 fiscal year, although the total per-pupil expenditure has risen by 2%, adjusting for inflation that means a decrease of more than 8% since 2008-09.¹²¹ Additionally, some allocations critical to teaching and learning have dropped precipitously. For example, per-student funding for supplies and materials — at \$68 per student in 2009-10 — has been cut by more than half to \$31 per student in 2017-18 (shown in the figure below).

Exhibit 71. Per-student supplies and materials funding



The complete loss of funds for teacher professional development and mentoring of beginning teachers and the dramatic reduction in educator support services provided by the Department of Public Instruction hit high-poverty schools particularly hard because they are staffed disproportionately by inexperienced and lateral entry teachers and plagued by high levels of teacher turnover. Interviewees reported that, for example, these cuts eliminated math and English language arts coaches who helped teachers plan and observe instruction on a weekly basis, in addition to school and district “transformation” coaches who coached both central office staff and school leaders.¹²²

High-poverty schools have also been harmed by cuts in allocations for instructional support personnel (counselors, nurses, librarians, etc.), school building administrators (principals and assistant principals), teacher assistants, transportation, low-wealth schools, economically disadvantaged students, central office, limited English proficiency, academically or intellectually gifted, small counties, driver training, and school technology. Although such cuts constrain the quality of schools statewide, many higher wealth communities can supplement state funds with local funding and families in such communities are more able to compensate for diminished services with their private resources. High-poverty schools, and particularly those in high-poverty districts, are far less able to do so.

Efforts to direct more resources to high-poverty schools are insufficient.

North Carolina’s allocation system has several funding mechanisms to direct more resources to poor districts than rich districts. North Carolina provides supplemental funding to systems whose ability to generate local revenue per student is below the state average. Some of the factors used to determine eligibility are county adjusted property tax base, square miles in the county, and per capita income. There are 67 “Low Wealth” counties (77 LEAs) in 2017–18.¹²³ The state also provides an additional allocation for small counties, where fixed costs consume a disproportionate share of spending. However, as described below, neither is sufficient to offset

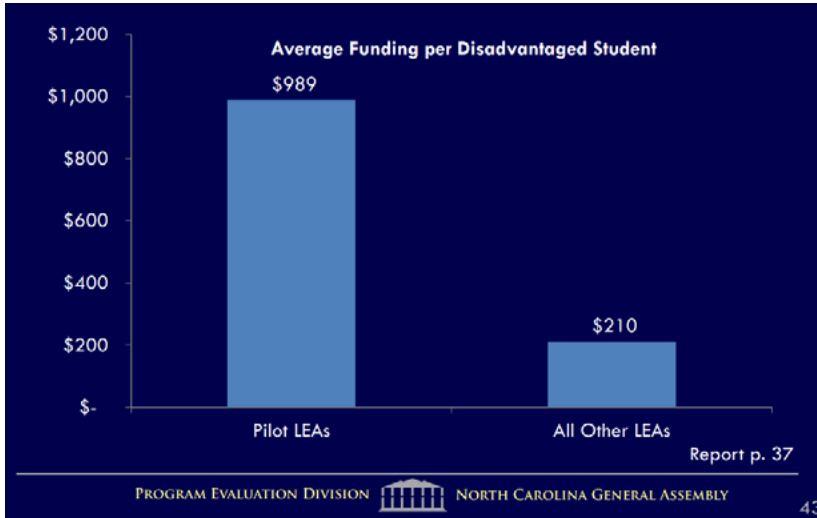
the shortfalls in funding these districts. As one teacher expressed it, “We have an administration here that are very supportive. To see the decisions that are made that keep us from doing our job, funding taken away from public schools, that’s a state-wide thing. That’s something totally, completely out of my control as a classroom teacher. But it creates frustration. We lose good teachers because they can go across the state line and make a lot more money.”

Both the amount and the distribution of additional state allotments for students with additional needs provide insufficient support for districts and schools where poverty is concentrated. For example, additional “at risk” funding provided by the state does not target schools or communities where poverty is concentrated. In fact, North Carolina uses family income as a factor in the school finance formula but does not restrict the use of funds to particular groups of students. The state’s at-risk allocation defines at-risk students as “... a young person who because of a wide range of individual, personal, financial, familial, social, behavioral or academic circumstances may experience school failure or other unwanted outcomes unless interventions occur to reduce the risk factors.” This definition applies to many students, regardless of family income. Moreover, some at-risk funds (\$500K) goes directly to the state Board; other dollars cover the costs of students in treatment programs and pays for a resource officer in each high school.

NC’s system also provides a small amount of additional funding for economically disadvantaged students through the Disadvantaged Supplemental Funding program (1% of appropriated state funds in 2017–18). The state allocation to support districts’ Disadvantaged Student population is determined by three factors: the percent of students living in a single parent family; the percent of population ages 5–17 below the poverty line; and the percent of students who have at least one parent with less than a high school credential. Also considered is a district’s wealth, with additional funding provided through a formula that considers the number of economically disadvantaged students and the district’s ability to generate local revenue. Districts can use the Disadvantaged Student funds for instructional positions, support positions and professional development; for intensive in-school and/or after school remediation; to purchase diagnostic software and progress-monitoring tools; and for teacher bonuses and supplements, up to 35% of the funds. Funding provided through the At-Risk and Disadvantaged Student allotments is not intended to fund discrete programs or to be used independently of other funding sources.

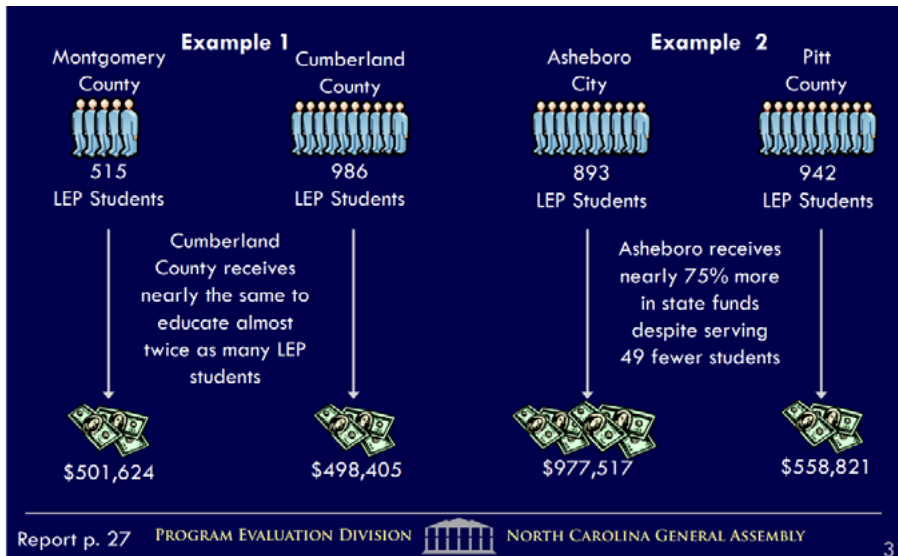
Two features of these supplemental allotments make them insufficient to address inequities due to local conditions and higher-need populations. One is that the amount of funding is very low; second, as concluded by the evaluation conducted by the General Assembly, the funding is not distributed equitably. As the figure below shows, most LEAs receive an average of \$210 per economically disadvantaged student — an amount unlikely to provide much supplemental support. Moreover, the sixteen districts that participated in the 2004-2006 pilot receive funding based on a different formula and have maintained their original level of funding of \$989 per economically disadvantaged student, almost five times as much as non-pilot districts.¹²⁴

Exhibit 72. LEAs held harmless receive nearly five times as much as others



According to the program evaluation conducted by the North Carolina General Assembly, the allotment for Limited English Proficiency (LEP) students, or English learners, contradicts the principles of economies of scale and contains a minimum funding threshold that results in some LEAs serving English learners without funding.¹²⁵

Exhibit 73. The concentration factor results in funding disparities across districts



Source: General Assembly, Program Evaluation Division, (November 2016) *Allotment-Specific and System-Level Issues Adversely Affect North Carolina’s Distribution of K–12 Resources* online at <https://www.ncleg.net/PED/index.html>

Exhibit 74. Minimum funding threshold leaves many LEAs unfunded for English Learners

- LEA/charter school must have at least 20 LEP students, or at least 2.5% of ADM
- In Fiscal Year 2014–15, 6 city and county LEAs and 71 charter schools had LEP students, but did not meet threshold
- 332 LEP students served without funding

Source: General Assembly, Program Evaluation Division, (November 2016) *Allotment-Specific and System-Level Issues Adversely Affect North Carolina's Distribution of K–12 Resources* online at <https://www.ncleg.net/PED/index.html>

Local funding can exacerbate disparities between high- and low-poverty schools

In 1997, the Court ruled in *Leandro* that the Constitutional requirement that the state provides every student an equal opportunity for a sound basic education does not prohibit local districts from supplementing the state's funding with locally raised funds. However, increasingly, the additional funding raised locally by high-wealth counties creates dramatic inequities in the per pupil expenditures that undercut that opportunity and compromise the ability of low wealth communities to provide students with a sound basic education. Teachers are aware of these disparities. As one teacher said, "I'm on a couple of Facebook groups that are North Carolina teachers and the things I hear from some of the smaller districts, they just have nothing. And again, that back to the inequality. My husband and I talk about this all the time... He said, 'There is no reason why just because this district has more taxes, that they should have better schools.' "

In 2016–17 Orange County, the highest spending district in the state spent \$396 more per pupil than the seven lowest-spending counties combined because of the additional funding the district raised locally. It spends more than eleven times more per student than Swain County. The ten highest-spending counties spend 4.3 times more per child (\$3,200 per child) than the ten lowest-spending counties (\$755 per child).¹²⁶

The disparities in local spending have been increasing in recent years, partly as a result of this increased pressure to compensate for inadequate state funds with local funding wherever possible and by the variation in property wealth across the state, which makes the capacity to raise local funds very uneven.¹²⁷ A 2019 analysis by the Public School Forum found the following:

In 2016–17, the state's ten counties that spent the most dollars per student averaged \$3,200 in local spending per student as compared with the ten that spent the least, which averaged \$755 per student. That represents a gap of \$2,445 between the top ten and bottom ten counties in local spending, the largest gap since we began

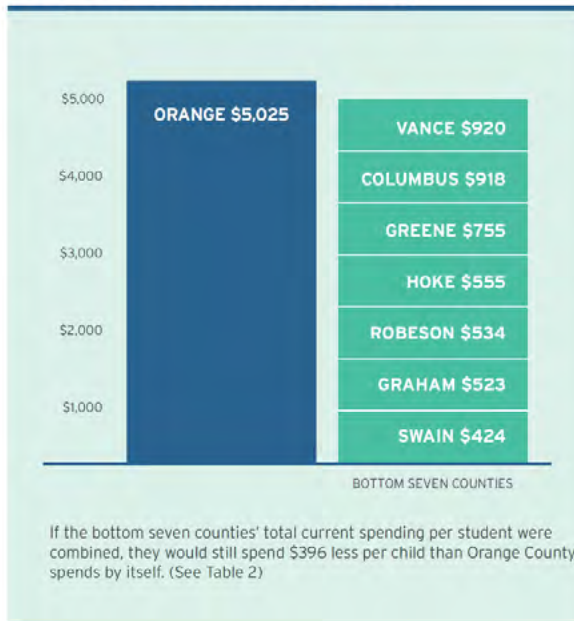
tracking this figure in 1987. Of the state's 100 counties, 59 were below the state average of \$1,652 local dollars per student.¹²⁸

The following figures from the North Carolina Public School Forum's 2019 report illustrates the disparities in both county wealth and county spending on education.

Exhibit 75. Spending disparities

Exhibit 76. Widening spending gap

SPENDING DISPARITIES (2016-17)



WIDENING SPENDING GAP

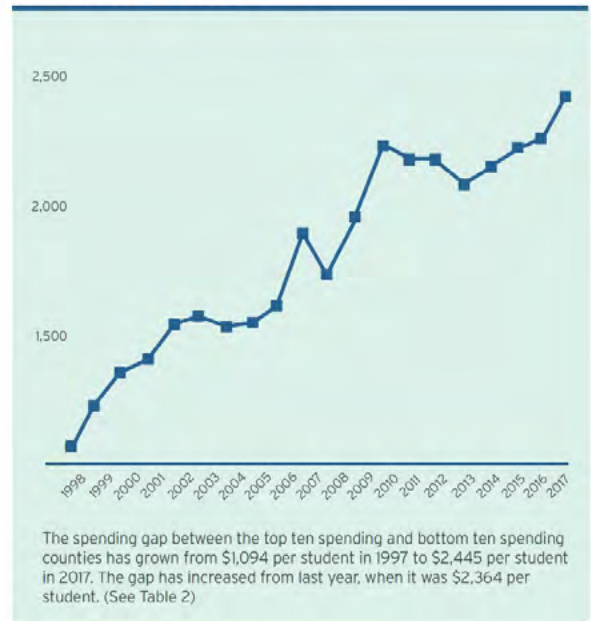
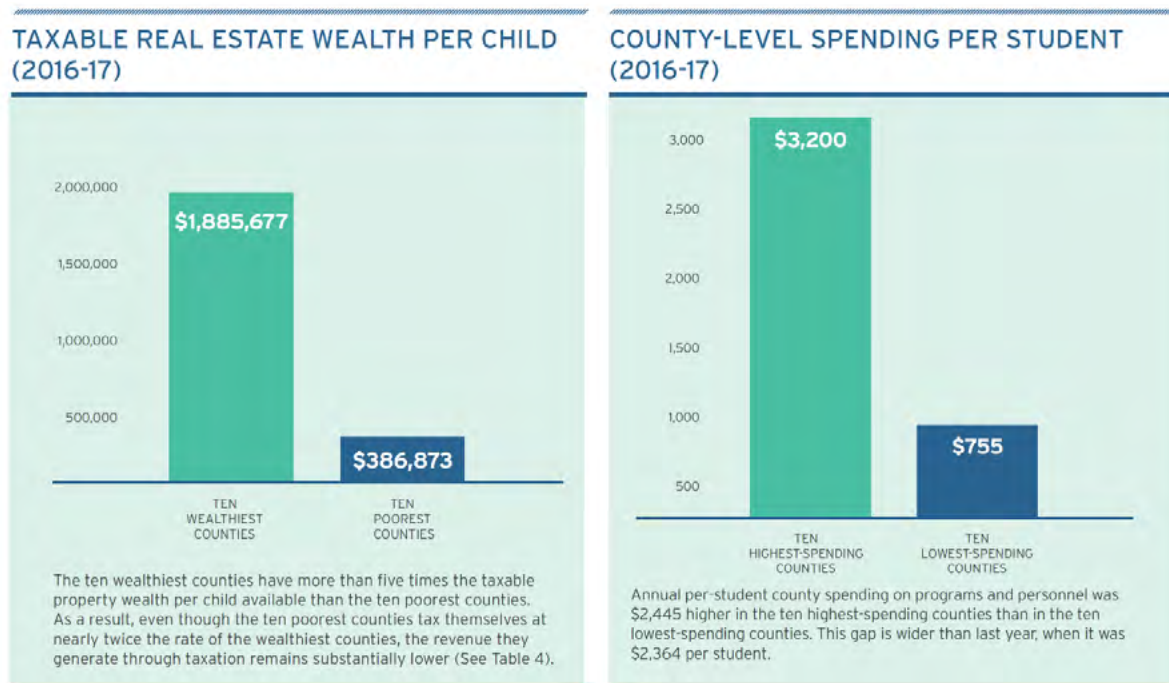


Exhibit 77. Taxable real estate wealth per child (2016–17)

Exhibit 78. County-level spending per student (2016–17)



These differences in the ability of counties to raise funds locally, in combination with the shortfall in state funding described above, have increasingly compromised the opportunities that low-wealth counties are able to provide to students. Because many high-poverty schools are located in low-wealth counties, these inequalities have been felt most deeply by these schools. Although the state seeks to direct more resources to poor districts than rich districts, those additional allocations, described earlier, do not begin to offset the differences. In fact, local wealth allows certain individual districts to supplement their school district’s spending to levels not afforded to most districts.

State funds are intended to cover districts’ instructional costs including personnel and, thereby, support an equal opportunity for a sound basic education, and local funds are expected to provide capital expenses and maintenance. However, given declines in state funding that distinction has eroded. Increasingly, local funds have been used to pay for instructional costs by providing salary supplements and additional funding for basic instructional materials. High wealth communities with local funding are able to provide an array of learning opportunities for students.

In Chapel Hill, one middle school provides a powerful learning platform that extends beyond core academics including three levels of French, Spanish and a Spanish Dual language arts program; two levels of Chinese and Advanced Studies in Mandarin; a full complement of career technology and education courses, along with band, chorus, orchestra, theatre, visual arts and ceramic sculpture. Beyond the core academic programming in the three

low-wealth communities the research team visited were significantly more limited. Two of the schools appeared to offer no language instruction and very limited career technology and arts/music instruction.

One of the most dramatic impacts has been on the ability of low-wealth counties to hire and keep teachers and leaders that comprise the Teacher and Leader Tenets of the *Leandro*-specified conditions for an opportunity to a sound basic education. In terms of dollars spent on teachers, the state position allotment system and the local supplements compound. Many districts use local funds to supplement the salaries of teachers beyond what is provided by the state. These local salary supplements for educators are generally larger in high-wealth districts, which are in a better position to attract and retain highly qualified and experienced teachers.

Additionally, low-wealth districts that have fewer dollars and qualified educators are less able to provide resources that comprise the *Leandro* Resources Tenet. For example, their class offerings often lack the diversity of those found in wealthier ones. A rich array of course offerings beyond math and ELA are required to meet the Court's definition of a sound basic education. The Court definition of a sound basic education includes: (1) sufficient fundamental knowledge of geography, history, and basic economic and political systems and (2) sufficient academic and vocational skills to enable the student to compete on an equal basis with others. Basic classroom supplies such as paper, pencils and textbooks are difficult to come by in low-wealth districts, while their wealthier counterparts are able to tap local funds as they cope with decreased state-level investments. As one of the respondents in a focus group reported:

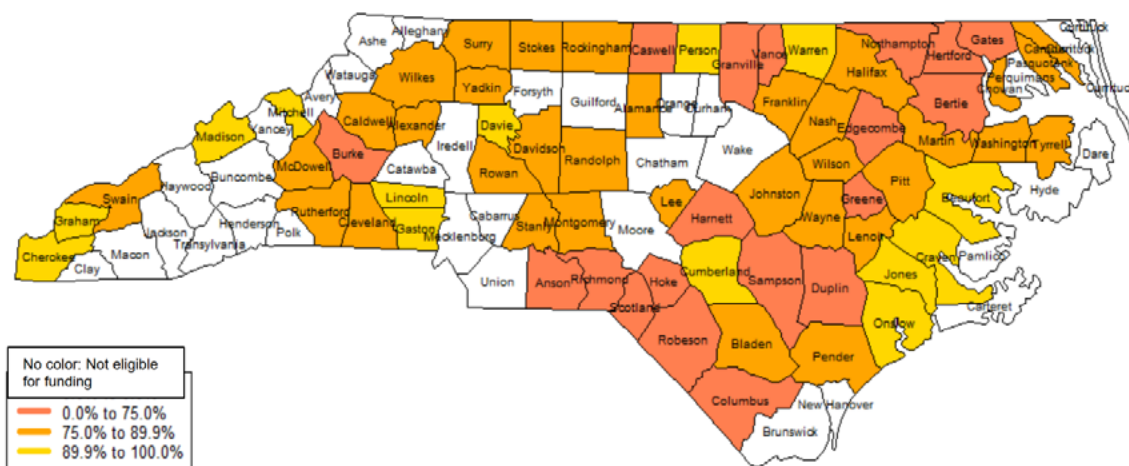
In K-2, there is a mandate that the class size has to be smaller. But the state doesn't fund that [for other grade levels]; locals have to fund that. We don't have the local funding to support that; so they are playing with the budget, so that elementary classes are meeting mandate. But, middle schools will end up with larger sizes.

High-poverty system administrator

The state has very few policies to address the deep inequities in the distribution of qualified, experienced, and skilled teachers. Granted, historically, the state has offered incentives for teachers to teach in high-poverty schools. However, those programs have not been comprehensive enough and or addressed the underlying causes of the disproportionate distribution of the large number of National Board-Certified Teachers in North Carolina.¹²⁹ The new Teaching Fellows program, encourages highly capable young people to teach in HPS, but the current version only supports a modest number of recruits (providing scholarships to approximately 160 teacher candidates each year) and does not offer the level of preparation of its previous iteration. Evaluation research has shown the power of the program in both recruiting, training, and retaining effective teachers. A Public School Forum Report states that the 2011 decision by state lawmakers ended the annual appropriation to the Teaching Fellows and the transferring nearly \$35 million from the Trust Fund depleted the Fund so it was unable to ultimately sustain itself beyond annual appropriations.

All three characteristics of the state's funding system discussed here — its allotment structure, the inadequacy of funding levels, and the ability of high-wealth districts to use local funding to offset inadequate state funds contribute to the failure of high-poverty schools to provide students with an opportunity to a sound basic education.

Exhibit 79. Low wealth supplemental funding, FY 2017–18 counties



Transportation funding is inadequate in poor rural areas.

Many school districts do not receive adequate funding for transportation. The Rural Schools Community Trust and others cite the negative impact long rides have on students, especially young children. They also note that often these young children are on buses with older children which can be a problem. Further, they indicate in cuts into their opportunities to do homework and participate in expanded learning opportunities. On the school funding system, the Center for Rural Affairs indicates that good state educational financing should recognize cost differences that reflect local circumstances and needs, promote resource stability and predictability, and utilize an aid distribution formula that is based on actual cost of doing business and local capacity to pay. North Carolina school leaders observed that the school funding system does not look at individual county needs. They believe there is not enough consideration taken into how far the students need to travel to get to school, which can be up to 25 miles per day. Ten miles in a rural community is not equivalent to ten miles in a city.¹³⁰

Allotment System Brings Fewer Teacher Resources to High-Poverty Schools

Structurally, the use of a resource allocation system rather than a student-based formula to distribute state funding has disadvantaged high-poverty schools and districts in several ways. Probably the most consequential, if not the most visible harm, has been in the allotment of a fixed number of educator positions to districts according to the size of their student population and the guaranteed funding of those positions by the state, regardless of where a teacher falls on the state salary schedule. The position allotment system appears to provide districts with both stability and equal access to teacher resources. As one state-level official put it, regardless of school or district, “you are entitled to one teacher. Find the best one you can. If you get 36 FTE’s for kindergarten teachers, you

can hire all 36 at the highest salary schedule if you can. It gives each district the ability to hire the best teachers they can find.”¹³¹

In reality, however, the system creates huge inequalities, with high-poverty schools receiving considerably fewer teacher resources — in terms of the per-pupil expenditures on teachers at schools. The teacher pay allotment system tends to favor wealthier counties because they typically attract more experienced and more qualified teachers, and, therefore, command a larger share of state resources in the form of teachers’ salaries. As LEA wealth increases, the amount an LEA receives per student through the Classroom Teacher allotment increases.¹³²

Teacher and Leader Policies: Systemic Failures Along the Educator Pipeline

North Carolina’s school funding system, which is underfunded and inequitable, clearly negatively impacts the ability of high-poverty school leaders to recruit and retain high-quality teachers. Both the reliance on local funding to supplement state contributions and the allotment system results in fewer per-pupil expenditures on teachers in high-poverty schools. Interviews with school leaders confirmed the quantitative data documenting failures along the educator pipeline documented in the companion *Leandro* studies focusing on teacher and leader supply and quality. For example, significantly, fewer college students are preparing to teach. Local administrators in low-income Fayetteville have experienced the effect. They estimated that the pool of trained teachers is down 30% over the last several years leaving them to increase recruitment efforts for lateral teachers. Leaders in high-poverty school districts reported that their inability to match higher salaries in neighboring communities and states has made it increasingly difficult to recruit from this smaller pool of candidates and retain those who are hired. These factors, coupled with some schools with poor working conditions, leaves school leaders struggling to build strong and effective instructional programming for students. For example, Robeson County recently lifted its hiring freeze. The district’s website reports:

As of January 23, the district has 52 teacher vacancies. Of that number 31, are being filled by long-term substitute teachers who are appreciated for their dedication and the work they are doing. Schools are also employing a variety of methods to cope day-to-day. Some teachers are taking on more students. Some are giving up their planning time. Some principals are covering classes. And, in some cases, instructional coaches and curriculum supervisors are filling in.

Interviews with local school personnel confirmed concerns around compensation and incentives, which has impacted the supply of teachers and leaders. Others noted that the state altered the way it pays principals incentivizing principals with bonuses based on how well students performed on tests instead of honoring experience. This change led to a wave of early retirements. Concerns were raised about policies eliminating retirement health benefits for new teachers entering in 2021. New teachers entering after 2021 will not have retirement health benefits, which is a disincentive to enter the field. North Carolina Justice Center reported salary enhancements for teachers with master’s and doctoral degrees were eliminated. Public Schools First NC states every year the masters pay and career protections are not restored is a new message to NC teachers that they are not valued.

These policy disincentives are compounded by state and local policies that appear to be hindering the ability of teachers to recalibrate curriculum and instruction to meet the varied needs of children. Parents and staff also expressed concern that the curriculum is not culturally appropriate. These limitations make teaching less engaging and creative and undermine the intent *Leandro's* Teacher Tenet.

When asked if teachers working in collaborative groups teams have the approval to make the instructional changes required to support student growth, a math instructional coach offered these thoughts:

There's a team that meets over the summertime and outside of school. Teachers from different schools meet together, but unfortunately, we have to stick with the pacing that is given by the state for like the math area, ELA, social studies.

The teachers shared that, during their planning sessions, they looked for new ways to alter the curriculum scope and sequence to support student learning, but they often felt constrained to tailor their lesson plans to a standardized curriculum. When asked if they would like to have a little more freedom to tweak the curriculum one teacher offered:

I would love more freedom, not necessarily freedom, but flexibility. The pacing and the common core standard that we now have, along with the textbook resources is so structured, we don't have much room to be as flexible or creative as possible as we want to. We can be creative... but it's within the constraints of that time and when we get a unit, we have so many days and weeks that we have to present this unit.

High-poverty school teacher

The companion *Leandro* studies focusing on teacher and leader supply and quality statewide also detail how specific teacher policies undermine high-poverty schools' efforts to provide students with access to the *Leandro* Teacher and Leader Tenets. Teaching policies in North Carolina do not appear to be tailored to respond to the unique needs of individual communities. Nor do they appear to pay sufficient attention to broader labor market trends and regional teacher markets.

For example, the state's mentoring policy does not adequately support the large numbers of the state's 15,000 new (less than three years) teachers. The impact on high-poverty schools is significant, given the high proportions of underprepared novices teaching in them and the lack of veterans available to support them. In addition, while the state, for over 20 years, has teachers earning National Board Certification; little has been done to ensure they are more equitably distributed and that they are cultivated and used as leaders. The state's current approach to developing teachers as leaders is insufficient to meet the schools' needs for accomplished teachers to support the spread of instructional expertise for 21st century teaching and learning. For example, the Teacher Cadet Program in South Carolina cultivates a grow your own approach to developing new recruits; the teacher residency programs in California prepare them more intensely for 21st century teaching and learning.

Limited Provision of Support Personnel

...our students do deal with a lot. Where I work, our students are gang minded. We have a resource officer, but he's not trained in the restorative justice program....I feel that if we had what we needed, then we could better provide for our students and they would do better.

Urban high-poverty school teacher

While teachers bear most of the responsibility for the instructional program, school support personnel have the expertise and provide much of the services related to students' physical, social, mental, and behavioral health and well-being. Professional associations for school nurses, psychologists, social workers, and counselors set standards that establish the ratio of these professionals to students that enables them to provide their services adequately. Of course, these standards are based on needs in the "average" situation, not on needs in high-poverty schools and communities with the adverse conditions described here.

North Carolina fails to meet these professional standards statewide. The counselor to student ratio was 1:369 in North Carolina schools in 2016-2017, considerably out-of-line with the standard of 1:250 set by the American Counseling Association. Similarly, in 2016-2017, North Carolina schools provided 1 school nurse for every 1,086 students, also out-of-line with the National Association of School Nurses recommendation of a ratio of 1:750 students without special health needs.¹³³ The nationally recommended school social worker ratio is 1:250, and North Carolina's average ratio is 1:1,427.

At a meeting of the Governor's Education Commission in January 2019, a state health nurse consultant explained the difficulties facing high-poverty communities in providing essential personnel in schools. She noted that less-affluent districts struggle to recruit those with higher levels of education and then struggle to retain nurses who are working and going to school at the same time. "A couple of the *Leandro* decision-related counties have this very issue," she said. "They are a revolving door, they have a hard time hiring somebody. They finally hire somebody but then that person doesn't have enough support to make it through the educational process to get certified, so then they have to do something about moving on to somebody else, and it's a constant thing."¹³⁴ The following account is from a teacher at one of the high-poverty schools:

Well, we're having trouble getting a school nurse. We have to share our nurse with four others [schools]...If someone falls down, gets bumped, scraped, I'm the guy who does that, I'm the first responder so I'm here for the games and everything and there have been times where I've been called away to go to other classrooms.(Upon being asked if he was the doctor), "No, but I'm the doctor around here when I need to be. (He said his training as an Eagle Scout provided some skills.) So there needs to be extra money for those kinds of things."

At the same meeting of the Governor's Education Commission, a state consultant for school counseling cited insufficient funding as the main barrier to reducing the counselor-student ratio. She said that she was confident that a pipeline exists to fill positions if they were funded to meet the ratio.

In North Carolina, the physical and mental health challenges faced by students creates significant barriers to student achievement. According to an Advisory Committee report to the State Board of Education:

- » In 2017 nearly 1 in 5 students in NC received school nurse services related to chronic disease.
- » The 2017 Youth Risk Behavior Survey data indicates that 29% of high school students felt so sad or hopeless almost every day for 2 or more weeks in a row so that they stopped doing some usual activities.
- » Between 2007 and 2017, there was a 13% increase in reported signs of depression among students who reported making mostly Ds and Fs.
- » In 2017, 16% of high school students seriously considered attempting suicide.

The report concludes, “These are staggering numbers and are likely to increase without appropriate staff to intervene.” The report goes on to say:

Specialized Instructional Support Personnel (SISP) are a critical part of this model in each school when addressing these non-academic barriers via a team approach, particularly as they relate to the physical and mental health of our students. School counselors, school nurses, school psychologists, and school social workers each have unique and important roles to play in supporting students. Because of the unique nature of each of the SISP, if any are not present as part of an integrated team providing a continuum of services, students may not receive the support that they need to be successful. Each role is equally important and interdependent with the other roles, with the shared goal of supporting the needs of the whole child. SISP collaborate with the entire school staff and community to ensure that students’ academic, physical, social, emotional, and mental health needs are addressed.

Clearly, investments in specialized instructional support staff are essential if the whole child approach to education is to be successfully implemented in North Carolina.

Lack of State Resources and Infrastructure to Support “Whole Child” Approaches

As noted in the previous section of this report, the many challenges students from high-poverty communities bring to school with them are not offset by state policies and support for approaches to schooling that can mitigate those challenges. Combined with the insufficient provision of school support personnel, the lack of state resources and infrastructure for “whole child” approaches, teachers in most high-poverty schools go the extra mile for their students. As one teacher said during an interview:

There’s just a lot of trauma for these children to be dealing with, and again, I have to give kudos to our teachers and our staff for being supportive [to the children]. But when you are dealing with that [children’s reactions to trauma] it’s difficult. I’m not going to minimize how hard. It is

reality, it's what we're dealing with. I definitely care a lot about them and take what they deal with home with me...Sometimes their life situations make it hard in the classroom because they are acting out because they've dealt with traumatic situations...So, it's a servant's job. It's a public servant job, and I don't think I'd do anything else, but it's hard sometimes. It definitely takes its toll.

Dealing with urgent student issues, teachers often work through student problems among themselves. One teacher reported:

So, we have team planning time every Monday, where we can collaborate with our teammates on what we see are some of the struggles academically with students, what are some of the struggles behaviorally with the students. We sit down and we come together to figure out a way...we can work with the child.

The one promising State policy that supports the willingness of teachers to go the extra mile for their students is the Department of Public Instruction's Whole School, Whole Child, Whole Community policy operated out of the Healthy Schools Division. The Department of Public Instruction's Whole School, Whole Community, Whole Child Model is based upon a model developed by the Association for Supervision and Curriculum Development (ASCD) and expands on the eight elements of the Coordinated School Health (CSH) approach from the Centers for Disease Control and Prevention (CDC) and is combined with the Whole Child framework. The focus of the approach is linking health to learning and child well-being. The elements of the approach include: Family engagement; community involvement; health education; physical education and physical activity; nutrition environment and services; health services; counseling, psychological, and social services; social and emotional climate; physical environment; and employee wellness.¹³⁵

Through this program, DPI has developed some online resources to support schools to develop School Health Advisory Councils, offer webinars to interested counties, and some mechanisms for sharing health indicators. But the agency lacks capacity (small staff, few resources) to move toward widespread implementation of the approach in high-poverty schools and communities. In fact, the approach is currently being piloted in only the following counties: Anson County Schools, Bladen County Schools, Chatham County Schools, Halifax County Schools, Hoke County Schools, Iredell-Statesville Schools, Scotland County Schools, Surry County Schools, Thomasville City Schools, Wilkes County Schools, Winston-Salem/Forsyth County Schools. These districts include only 11 of the 78 counties in the state with high-poverty schools.

Another state initiative intended to provide expanded learning time in high-poverty schools has also fallen short. Rather than being established as a new and ongoing part of the state's educational infrastructure, the After-School Quality Improvement Grant (ASQIG) Program (described in the previous section) was funded for a limited amount of time — mostly grants for three years, but some for only two. In the words of the evaluators:

One hope of state funding for the pilot programs was that, once established and working successfully, they would be able to be sustained through other funding sources. However, only three of 21 Program Directors reported they would "definitely" be able to sustain the program after the funding ends.

As noted in the previous section, some local North Carolina communities have already made a sizable investment in community school and wrap-around programs to meet the needs of the whole child and provide expanded learning time. Although none of the local programs described there received any policy or fiscal support from the state, they provide a foundation from which the state could build.

Insufficient Access to High Quality Prekindergarten Programs

As discussed in Section 6, there is a very strong body of evidence that high-quality pre-kindergarten programs have a sustainable positive impact on learning and can close the learning gaps among young children from economically advantaged and disadvantaged backgrounds. The research team also saw that, despite the fact that North Carolina has a number of the best Pre-K programs in the country, the majority of eligible children do not have access to a high-quality program.

Counties serving less than half of all children eligible for NC Pre-K are less likely to be rated as Tier 1 counties by the North Carolina County Distress Rankings, but their rates of child poverty exceed the average for North Carolina counties. Ten of the forty counties are classified as Tier 1 by the North Carolina Department of Commerce, compared to 40% of counties statewide.⁹ Head Start programs in the state also fall far short of serving eligible children, and the percent of eligible three- to five-year-old children enrolled has declined over the past decade.

The overriding, systemic barrier to expanding NC Pre-K is that revenues and other resources available to NC Pre-K providers are too often inadequate to cover the costs of expansion. Exacerbating that fundamental barrier are the rising marginal cost per child and declining sources of additional resources significantly impede effective expansion of NC Pre-K in a way that protects the high quality of the program. Private centers face especially difficult barriers as they lack access to other revenues available to public schools. However, public schools also face significant challenges to expansion, which will only worsen as K-3 class size reduction requirements increase the competition for teachers and facilities.

What is indicative of this lack of resources is the number of counties that declined available funds. In its biennial 2017–19 budget, North Carolina increased funding for the program by \$27.3 million, seeking to enroll 3,525 additional children over the two-year period. Each North Carolina county was given the opportunity to expand its program by being asked how many additional children the county would like to serve. Important and telling reactions occurred:

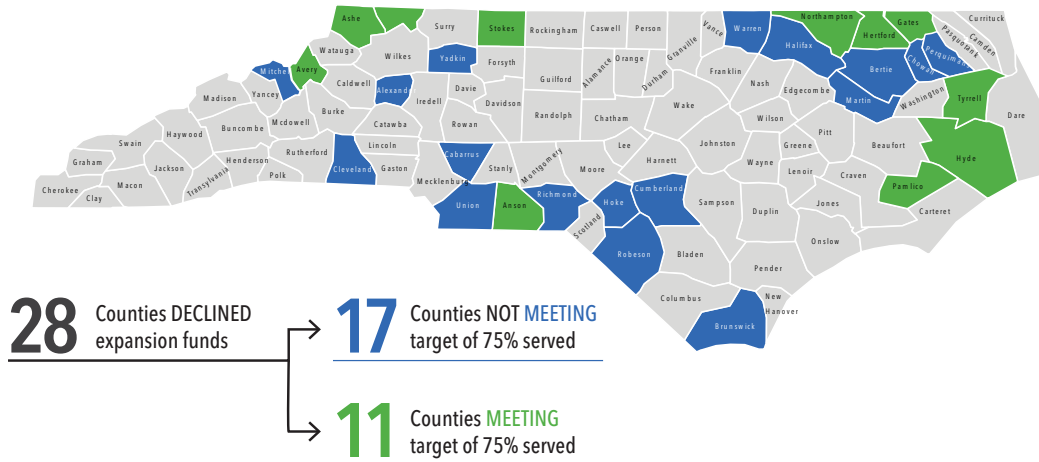
For the newly-funded 1,750 slots in 2017:

- » Over 6,000 slot requests were made from 56 counties.
- » The total number of eligible but unserved children in those 56 counties was over 24,000.

⁹ North Carolina Department of Commerce. (no date). 2018 County Distress Rankings. https://files.nc.gov/nccommerce/documents/files/2018-Development-Tier-Rankings_0.pdf

- » 44 out of 100 counties declined expansion dollars. In those 44 counties over 9,000 children were eligible for NC Pre-K, but unserved.

Exhibit 80. Counties that declined both years (2017–2018 and 2018–2019)



Source: National Institute for Early Education Research (NIEER), 2018

There are multiple reasons for this tragic situation: First, and perhaps the most important reason, is based upon supply and demand for qualified teachers. As NC Pre-K expands, more teachers will need to be recruited and retained. In an industry well-known for low compensation for teachers, recruiting and retention will require that higher compensation be offered to be competitive with North Carolina’s K–12 teacher pay schedule.

Second, the average cost per child rises. One reason for this is that, although providers work diligently to enroll some of the most at-risk children who will benefit from the program, often the children enrolled to a provider’s capacity are those who are easier to recruit and do not require transportation. This results in increasing costs to reach those families who may not be aware of the benefits of the program, have unstable housing arrangements, or would require transportation assistance for their child to attend which raises costs.

Finally, the availability of non-state funding and in-kind contributions to supplement state funds declines as program expansion is undertaken. For example, at some point, all the available dollars from local, county and federal sources will have already been committed; unoccupied or inexpensive facilities adapted to preschool are fully used; and administrative capacity is exhausted. As a result, programs stop serving children at the point where they will lose money by adding another child.

North Carolina's Accountability System Does Meet the Leandro Standard

More than two decades ago, North Carolina studies found that the state accountability program's strategy of sanctioning low-performing schools — most of which serve economically disadvantaged and minority students in communities that have fewer resources — made it even more difficult for these schools to attract and retain qualified teachers¹³⁶, and that the associated recruitment of untrained teachers into these hard-to-staff schools, through the state's lateral entry route, had strong negative effects on student achievement.¹³⁷ Those policies persist.

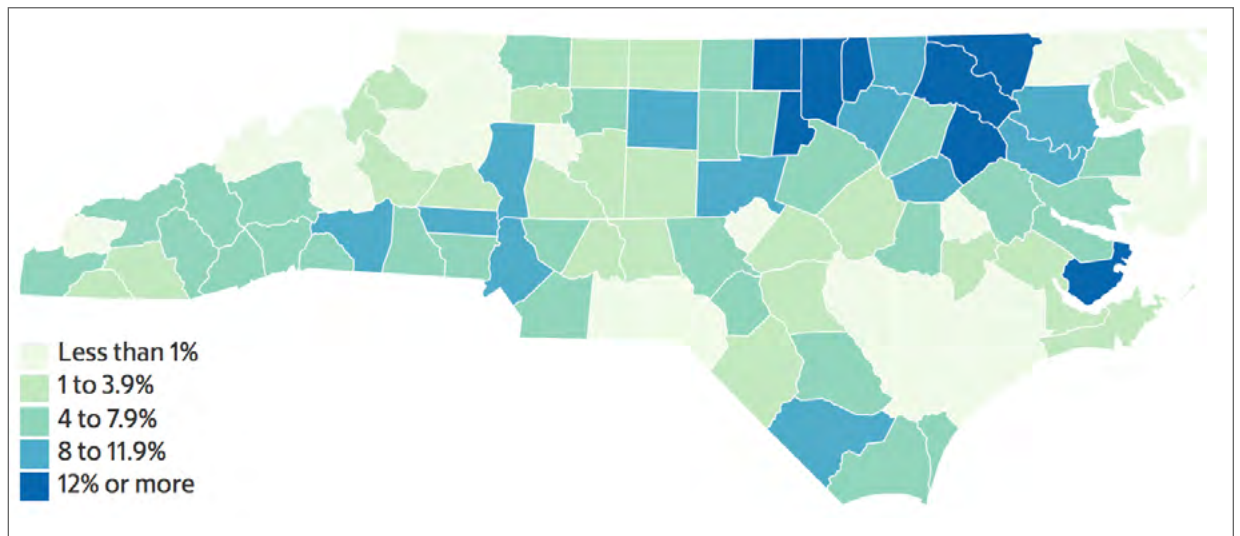
In addition to this problem, North Carolina's ESSA accountability system which focuses on student academic performance in math and English language arts and high school graduation does not sufficiently monitor compliance with the requirements set forth in *Leandro*. An accountability system that is responsive to *Leandro* would have to be more comprehensive and assess student success and growth in additional content areas and in skill domains that would measure students' preparation to both succeed and compete in post-secondary education, occupational and vocational education and in the job market. And second, the accountability system must track how local school districts are providing students with a sound basic education by ensuring that all students have access to the opportunities to learn. To measure student progress, a comprehensive system should include measuring opportunities, measuring student outcomes, and informing effective responses.

Charter School Policies

No study of high-poverty schools in North Carolina can ignore that fact that in recent years a growing number of students are enrolling in charter schools. This research uncovered several aspects of the growth of charter schools that ought to be considered when examining systematic barriers to providing all children in North Carolina with a sound basic education.

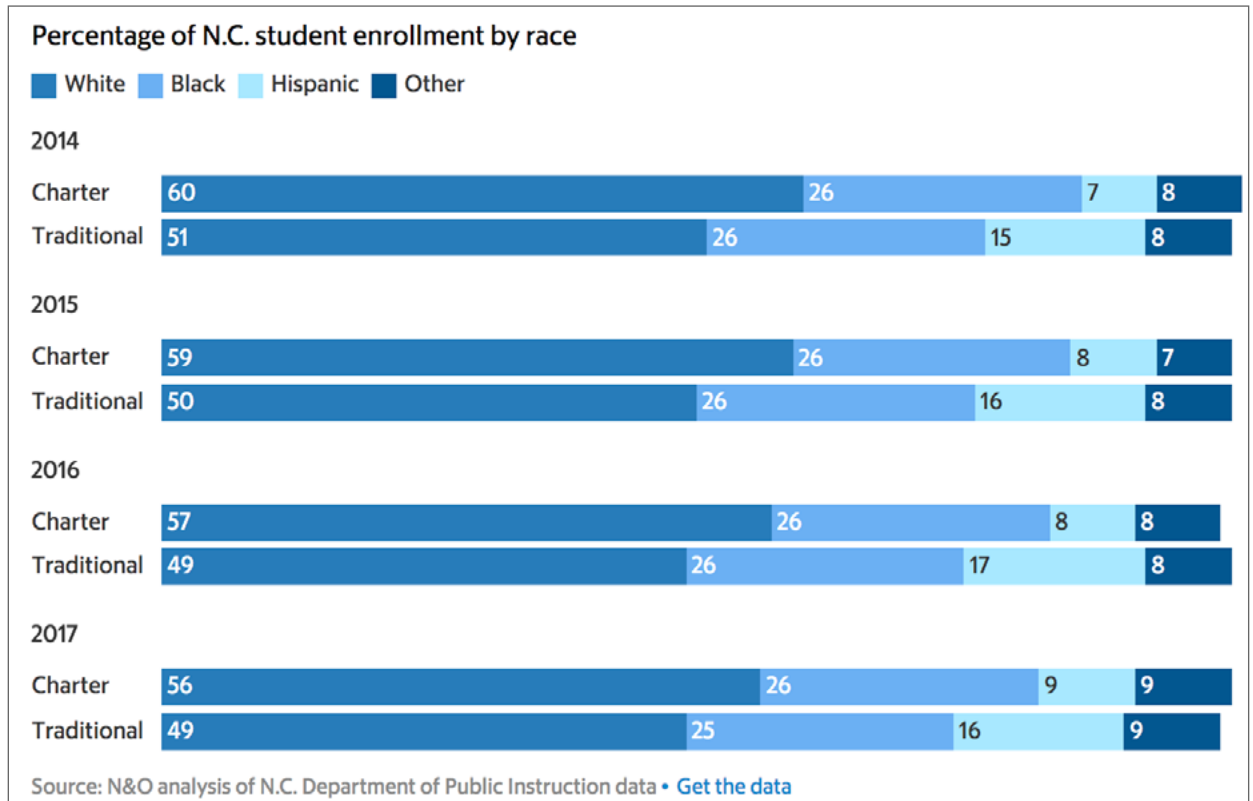
Limited access. Charter schools are not randomly distributed across the state. As the map below indicates they are concentrated in the northeast and north-central parts of the state including Northampton, Halifax, Edgecombe, Vance, Granville, Person, and Durham counties. Pamlico county in the Tidewater region also has a high percent of students enrolled in charter schools. 50% of charter enrollments are female, which is very similar with traditional public schools where 51% of the students are female. Of the total student population in charter schools, 35% are students of color and 30% are from families with low-incomes; this compares to 41% of the students enrolled in district schools who are students of color and 50% who come from low-income families. The median percentage of charter school students requiring Exceptional Children services was 11% in 2016 compared to 13% in district public schools.¹³⁸

Exhibit 81. Percentage of public school students who are enrolled in charter schools, 2016–17



Increasing racial and income segregation. Recent evidence indicates that charter schools in North Carolina are more segregated by race and family income than district public schools. Thirty percent of charters are 80% white.¹³⁹ Below is a recent graph depicting the racial distribution of white, Black, Hispanic and others in North Carolina charter schools and district public schools over the last four years.

Exhibit 82. Racial demographics



Recent data also shows that charters draw a greater proportion of wealthier students than district schools. Information from the federal Title I program shows that 33% of students enrolled in charters in 2016–17 school year were economically disadvantaged, compared to 53% in district schools.¹⁴⁰

What these data tell us is that the expansion of charter schools may not have helped to close the opportunity gap for students of color for student from low-income families, in fact, it may have widened the gap.

Little benefit on academic performance. North Carolina has letter grade performance system for evaluating the academic success of public schools from A+ to F. As can be seen on the figure below, when comparing charter schools to traditional public schools in 2016–2017, charters have a higher percent of schools in the A+ category but they also have a higher percent in the F category. Charters have a lower percent of schools in the C category than traditional public schools and a slightly higher percent in the B category. These numbers and percents include the two virtual schools.¹⁴¹

Exhibit 83. School grades by district or charter status

Overall Grade	District Schools Number	District Schools Percent	Charter Schools Number	Charter Schools Percent
A+	76	3.3	11	6.7
A	89	3.8	5	3.1
B	651	28.1	55	33.7
C	979	42.3	51	31.3
D	435	18.8	28	17.2
F	85	3.7	13	8.0
Total	2,315		163	

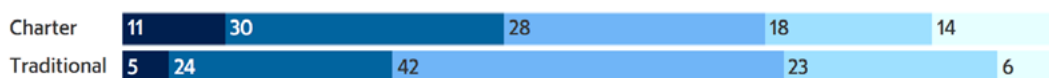
In addition to these data, the graph below makes it clear that the pattern of student achievement in traditional public schools and charter schools shows no dramatic differences.

Exhibit 84. Student performance grades

A higher percentage of charter schools in N.C. receive high and low grades. In 2017, 10% of charters received an A/A+, whereas traditional public schools' rate was 7%. But 8% of charters received an F grade, compared to 4% for traditional schools.

■ A ■ B ■ C ■ D ■ F

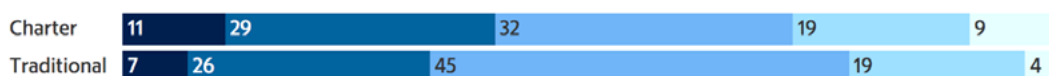
2014



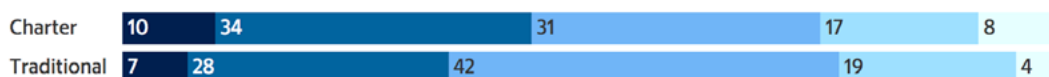
2015



2016



2017



Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Fall Enrollment Survey" (IPEDS-EF:96-99); IPEDS Spring 2001 through Spring 2011, Enrollment component; and Enrollment in Degree-Granting Institutions Model, 1980-2010.

The potential harms of charter schools to North Carolina public education. The above data indicate that policies that favor charter schools may be contributing the problems addressed in the *Leandro* ruling. In addition,

charter schools have a direct fiscal impact on North Carolina public schools. In 1996–97, the total of state funds allotted to charters was \$16.5 million, in 2016–17 that number had risen to \$513.5 million. In the spring of 2018, Ladd and Singleton published “The Fiscal Externalities of Charter Schools: Evidence from North Carolina.” They examined the short-run fiscal impacts of charter schools on a sample of six North Carolina districts: Durham County and five non-urban districts that experienced significant charter entry since 2011. Their results point to negative fiscal externalities in all six school districts. The authors estimated that for rural districts the net fiscal impact cost per charter school student to a district was around \$4,000 and \$3,600 for Durham county.¹⁴²

These fiscal impacts are felt at the grassroots level. For instance, charter schools keep their per-student state allotments even when one or more of their students transfers to a traditional public school after less than a month after the opening of school. Charter school teachers need not be certified in order to teach. And most significantly, charter schools do not diminish districts and schools fixed infrastructure costs — e.g. buildings and transportation.

It is unclear how the North Carolina charter school story will play out in the coming years. But there is a genuine question on the policy table as to the wisdom of rethinking school choice issues, including charters, school vouchers and perhaps home schooling.

As the evidence presented above makes clear, there is much work to be done if high-poverty schools are to be adequately supported in their mission to provide their students with a sound basic education. Consequentially, the reconsideration of state policies and the development of new policies must be designed to address these structural barriers with evidence-based policies. This is keeping with the North Carolina constitution:

[T]he State’s denial of responsibility fails as a matter of law. It is now, and always has been, the ultimate responsibility of the State to provide the equal opportunity to a sound basic education to all children [Article I, Section 125, Article IX, Section 2(1), North Carolina Constitution.

The final section of this report suggests a suite of evidence-based recommendations based on “best practices” that have been shown to systematically provide high-poverty schools and economically disadvantaged students the tools they need for success.

Conclusions and Recommendations

Leandro provides the state of North Carolina the opportunity to break new ground in the national struggle to provide all students with the education they need to be successful in the economically competitive 21st century and to fully participate in public life and democracy. As the Court noted in *Leandro II*:

*The world economy and technological advances of the twenty-first century mandate the necessity that the State step forward, boldly and decisively, to see that all children, without regard to their socioeconomic circumstances, have an educational opportunity and experience that not only meet the constitutional mandates set forth in *Leandro*, but that fulfill the dreams and aspirations of the founders of our state and our nation. Assuring that our children are afforded the chance to become contributing, constructive members of society is paramount.*¹⁴³

The analyses in this report provide clear answers to the research questions posed. In short, the following was found:

- » Hundreds of thousands of NC children — disproportionately at-risk students — attend hundreds of high-poverty schools.
- » High-poverty schools fail to provide a sound basic education to most children.
- » The *Leandro* tenets matter for student success, and high-poverty schools provide less access to them.
- » High-poverty schools are not resourced to offset the impact of the many adverse out-of-school factors that limit students' opportunity for a sound basic education.
- » High-poverty schools are insufficiently supported and often constrained by state and local policy.
- » The harms from attending high-poverty schools are alterable.

In sum, this study documented the adverse within-school and out-of-school conditions facing the students who attend high-poverty schools and the challenges the schools themselves face in trying to meet the needs of the children they serve. The research team found that most high-poverty schools are out of compliance with the *Leandro* ruling, in that they are not currently providing an opportunity for the state's most at-risk students to obtain a sound basic education. At the outset of this report, four major themes were identified that emerged from

the findings and that provide a narrative into which they fit. Together these themes illustrate the complexity of the challenges and provide the context into which solutions will need to fit.

The within-school and out-of-school barriers that at-risk North Carolina students face in most high-poverty schools are identifiable and together make academic success difficult to achieve. Many of these barriers are the result of a lack of human and material resources. These disadvantages are not random or incidental. They are predictably cumulative and endure into adulthood. The learning potential and other assets that the children of North Carolina bring to school, including at-risk children, are not fully developed by the schools they attend. Many well-meaning professionals working in high-poverty schools struggle to overcome barriers to learning that have been created through policies (or lack thereof) that perpetuate or repeat the failure to provide the educational resources, support, and opportunities students require to have their educational needs met.

These barriers are experienced most profoundly by economically disadvantaged students of color attending high-poverty schools. High-poverty schools with student bodies that are predominantly minority are further than other schools — even other high-poverty schools — to provide an opportunity for a sound basic education. For example, they have less access to the *Leandro* tenets. Students at these schools also face barriers to learning that have deep historical roots. Judge Manning disaggregated the student achievement data by race and was aware of considerable risks faced by students from minority groups, but carefully avoided race becoming the focus distinct from its interaction with poverty and community conditions. He wrote:

In counties in the Northeast such as Halifax, Bertie, Northampton, Washington and Hyde, the majority of the students in the public school systems are poor and black. The scores of those children directly reflect the poverty level of the community in which they reside. Again, it is not race which causes the child to be at-risk, but the poverty, low parental education and job skills, if any, and the illegitimacy which results in there being no stable family environment for the children to grow up in. RS 310–311.

However, because predominantly minority high-poverty schools consistently provide the least access to an opportunity for a sound basic education, they warrant special consideration in the framing of recommendations for action. This is not to argue for a race-based approach, but rather to acknowledge the racial compensation of schools as an indicator of where intensive actions are needed most.

There is a pressing need to find long term solutions to the educational challenges students in high-poverty schools and communities face. Overcoming a single or double obstacle to learning often requires determination and support, overcoming multiple obstacles requires more than a quick fix or a reform-of-the-day, it requires addressing the structural, fiscal, and historical barriers that define the social ecology in which most high-poverty schools operate. In addition, location matters. Effective solutions require addressing the resource and capacity challenges in urban, suburban, rural and remote areas as they seek to offer adequate support to students from impoverished and low-income families.

These challenges, fortunately, are by no means insurmountable. In fact, effective and efficient solutions are well within reach. What is called for is a coordinated and adequately funded suite of policies that address the core

issues facing high-poverty schools and the communities they serve. There is little room for error and no time for avoidable delays.

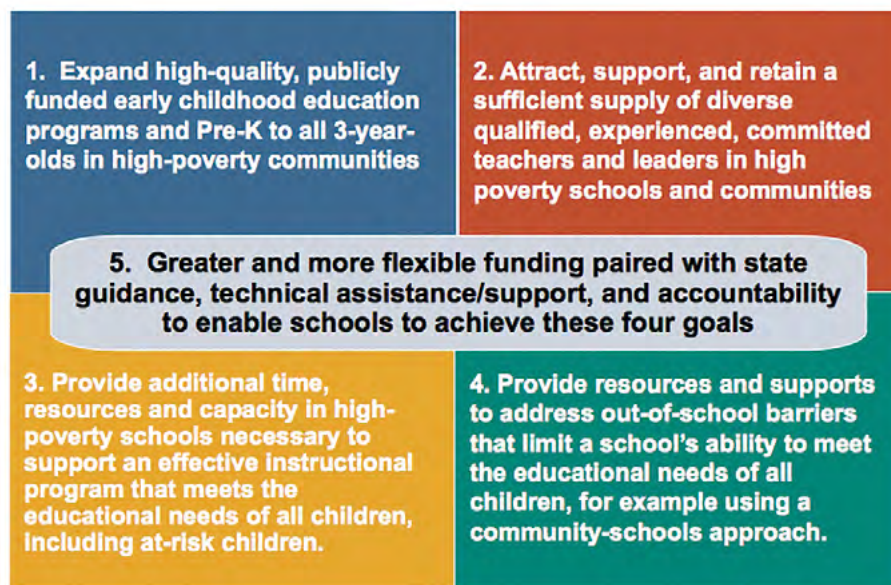
Recommendations

Although there is no single way to improve all the high-poverty schools in North Carolina, there exist reforms and improvements that have been shown through practice and research to be very effective, efficient and provide abundant social and economic returns to the communities that implement them with fidelity and persistence. This section moves from describing the problem to recommending concrete actions that can address the challenges in ways that recognize their context and complexity and enact the evidence-based solutions that we've described. The focus is on actions that can build on community and school improvement initiatives that already exist in North Carolina.

Concrete policy recommendations span in four policy domains: Expanding high quality, publicly funded early childhood education programs; attracting, supporting and retaining a sufficient supply of high-quality teachers and leaders; providing additional time and resources to support an effective instructional program; and increased investment in a whole-child approach to schooling, using strategies such as community schools. These recommendations are based on evidence-based best practices that have been shown to have the capacity to lift high-poverty schools and to propel them on a path of continuous improvement. In each domain, the recommendations are meant to ensure that state policies provide enough resources and support to high-poverty schools and communities seeking to implement these practices

These policy domains and their relationship to the *Leandro* ruling are represented in the figure below. The text that follows summarizes what actions are necessary to meet the requirements of the *Leandro* ruling and suggest a set of policy changes to facilitate these actions.

Exhibit 85. Actions to provide an equal opportunity for a sound basic education in high-poverty schools



LEARNING POLICY INSTITUTE

Recommendation 1: Expand the existing high-quality early childhood system so that it makes publicly funded, voluntary, high-quality Pre-K/ECE programs universally accessible for 4-year-olds in high-poverty communities.

North Carolina's system of early education has been identified by the National Institute of Early Education Research as leading the nation in the quality of its early education infrastructure and quality standards for Pre-K programs. However, the system falls short of *Leandro's* charge because tens of thousands of children who could benefit from the program are not being served. To achieve this goal the state's "Smart Start" and NC Pre-K would need to significantly expand their reach to communities that are not reaching eligible children. The following recommendations are meant to help expand access to high-quality programs to 4-year-olds in high-poverty communities over the next 6–10 years as part of these children's opportunity for a sound basic education. In the longer term, once the state has met its enrollment target for eligible 4-year olds, the state should make publicly-funded, high-quality programs accessible to all 3-year olds in high-poverty communities.

Develop and use an early childhood data system that will allow targeting of need and monitoring of access within as well as between counties.

The first step in expanding high-quality early childhood education to serve all the at-risk students who need it is to have a clear sense of the scope of the challenge — both in size and location. The state should establish an ongoing process to collect data about the access and quality of NC Pre-K and Smart Start programs for 3- and 4-year-olds within counties as well as at the county level. These data should be used to calculate the size and

location of the unmet need for high-quality Pre-K in high-poverty communities, both in high-poverty counties and in counties that include a mix of neighborhoods. The following assumptions should guide that data collection and the resulting analyses:

- » Define a high-poverty community within counties using Census Tract data to complement the use of the “tiers” developed by NC Dept of Commerce to identify distressed counties.
- » Define high quality early childhood education as maintaining and building upon NC’s strong quality standards for NC Pre-K, including mandatory QRIS participation for all programs and attaining QRIS ratings of 4- and 5-stars.
- » Determine how many 3-and 4-year-old children live in high-poverty communities within counties. Subtract the number of high-quality publicly provided slots that currently exist in public schools and private centers in those communities to determine the unmet need.

These data will enable the following analyses:

- » Determine the workforce requirements to meet this goal and calculating the gap between number of fully qualified teachers/assistants in the current workforce and this goal, using the high-quality adult/child ratio as a standard.
- » Determine the facilities requirements to meet the unmet need goal and assessing the availability of space at public elementary schools in high-poverty communities and the availability of other existing high-quality spaces in other centers in high-poverty communities.
- » Determine the transportation requirements to meet the goal.
- » Determine the gap between the cost of meeting this goal and available funding from multiple public sources to meet the additional costs.

With these data in hand the state will be able to set a 5-year goal of participation in voluntary, publicly provided, high-quality Pre-K by 80% of 4-year-olds and 50% of 3-year olds living in high-poverty communities and understand where to focus its resources in order to attain that goal.

Adopt policies that provide the resources, workforce capacity, and infrastructure to meet the unmet need for high-quality early childhood programs in high-poverty communities. Clearly, solving quality and access issues in a comprehensive early childhood must be sequenced if they are to be successfully resolved. Below is a reasonable sequence of action steps proposed by the National Institute of Early Education Research in its recent study of the issues that can incentivize counties and providers to enroll at least 80% of 4-year-olds and 50% of 3-year-olds children in high-poverty communities — in NK Pre-K and four- and five-star programs recognized by Smart Start.

Short-term actions to strengthen the current system:

- » Increase reimbursement rates to account for rising costs.

- » Offer financial incentives for four- and five-star centers that do not currently participate to serve children through the NC Pre-K program, allowing them to meet its higher quality standards. Permit such programs to supplement their child care subsidy dollars by braiding services or funding to meet NC Pre-K standards so that NC Pre-K funding can supplement but not supplant child care dollars. The average reimbursement rate for a five-star center is \$6,790 for 10 months, which is nearly \$2,000 less than the current average cost of NC Pre-K in private centers. This structure modification will require developing approaches to shared funding that maximize use of child care funds without imposing a requirement of parent copays for the NC Pre-K hours.
- » Increase the amount of funding that can be used by NC Pre-K contractors to cover administrative costs to 8%. This is an increase from about \$212.50 to \$425 per child, on average.
- » Permit Pre-K providers to blend child care subsidy funds and NC Pre-K funds better utilize child care subsidy funds and NC Pre-K funds to serve the same child at private centers and public schools that provide NC Pre-K. This would allow them to serve children at NC Pre-K standards, while also providing those children with full workday, work year coverage.
- » Establish a coordinating mechanism between 0-5 services in DHHS and DPI that ensures uniform high-quality curriculum and workforce standards and pay parity between early childhood programs and public-school Pre-K. In order for programs to effectively deliver high-quality, comprehensive, full-workday, full-year early education programming to vulnerable young children and families, this group should support providers to blend and braid funds from two or more funding streams, such as Early Head, Head Start, the Child Care and Development Fund also called Child Care assistance or Child Care subsidy), P-K, and infant-toddler (0–3) programs.¹⁴⁴

Longer term actions to build capacity to expand the system as needed:

- » Increase state funding for Smart Start and NC Pre-K to ensure access, quality, stability and sustainability, and to ensure parity in educator quality and compensation. This funding should be subject to “concentration of poverty” weighting, as described below for K–12 to account for the additional costs of high-quality early childhood education in high-poverty communities.
- » Address specific financial barriers to expansion, including startup costs. As described in the NIEER report:

One way some states address the higher costs of expansion is to provide additional funding for startup of a new pre-K site. These funds tend to be in the form of one-time grants that cover capital costs and other upfront costs for startup or funding for quality enhancements needed to meet program requirements. These mechanisms could help NC Pre-K address its expansion problem. For example, Wisconsin each year offers up to \$3 million in startup grants for new pre-K classrooms. Alabama offers two kinds of supplemental startup grants. The first is “New Classroom Grants” or “Plus Grants”; these are one-year grants for startup costs, including materials, equipment, and furnishings. The second is “Pre-K Excellence Grants” to aid programs in meeting Alabama’s quality standards, for example, financing teacher education and

development. These grants are awarded on a three-year cycle. Once expanded, funding would need to be maintained at adequate levels to ensure the quality of the programs and the ability to serve the eligible children enrolled.¹⁴⁵

- » Support Smart Start to work with the community colleges and other programs to bring all current teachers/assistants up to standard for high-quality, including through coaching, professional development and preparation/licensure.
- » Recruit and prepare new teachers/assistants to fill additional slots required by expansion in high-poverty communities — service scholarships/loan forgiveness; residency programs; grow-your own programs for para-professionals; teaching career academies for high school students. These programs can parallel the recommendations for increasing the supply of well-prepared teachers for the K–12 schools.
- » Provide compensation and effective retention incentives that increase the attractiveness of choosing to teach and stay in high-poverty communities.
- » Provide ongoing professional learning.
- » Build and upgrade facilities to ensure enough high-quality spaces, either in public schools or community centers. Assessing the number of facilities required will be possible with the data system recommended above.
- » Provide additional funds/capacity for transportation in both public and private programs (perhaps through joint agreements with public school districts).

Long-Term System Change:

- » Consider redefining public education and public-school students to include Pre-K and 4-year olds, enabling Pre-K to be funded through the same mechanisms as K–12, and for Pre-K to share public school infrastructure, including transportation.
- » Build the capacity in DPI to provide high-quality technical support and oversight for programs enrolling 4-year-olds, and ideally establish early learning infrastructure and technical assistance that informs practices Pre-K through grade 3.
- » Augment current funding and infrastructure for 0–3 programs (home visits, childcare subsidies, home-based childcare, and private childcare/Pre-K for 3-year-olds) to maintain a robust array of programs with a high-quality workforce.

Recommendation 2: Attract, prepare, and retain a highly qualified, diverse, and stable K–12 teacher and leader workforce in high-poverty schools.

As noted in the companion reports on educator supply and demand and effectiveness, North Carolina must take short and long-term actions to correct the current imbalance between demand (the number of teachers needed) and supply (the number of individuals available to hire) statewide, as well as in high-poverty schools. Given the reduced number of qualified teachers emerging from North Carolina’s institutions of higher education coupled with low retention rates for those qualified teachers hired in high-poverty schools, the recommendations in those reports will prevent school districts in high-poverty communities from turning to lower-quality alternative teacher preparation programs or substitutes. The following recommendations focus on those that are highest leverage for addressing the particular problems in preparing, recruiting, supporting, and retaining teachers in high-poverty schools.

- » Set and make public an ambitious 5-year goal of reducing the percentage of less-than-fully qualified teachers and leaders in high-poverty schools to less than 5% and the number of teacher leaders with fewer than 3 years of experience to less than 10%.
- » Target recommendations for improving the supply and quality of teachers and school leaders included in the companion reports first at high-poverty schools and communities, including, but not only, incentives for educators to commit to serving in high-poverty schools.
- » Include in teacher preparation and ongoing professional learning a specific focus on effective teaching and learning in high-poverty communities, including a focus on culturally and linguistically responsive teaching, whole child approach, trauma-informed practices, positive/restorative discipline methods, and coordinating supports that mitigate the barriers posed by adverse out-of-school conditions.
- » Target recruitment and “grow-your-own” preparation efforts toward candidates of color in order to diversify the educator workforce at high-poverty schools.
- » Adopt competitive compensation and retention strategies — such as state-provided salary supplements to teachers in high-poverty schools in low-wealth counties — so that staffing at high-poverty schools is not compromised by local salary supplements in other counties/districts or by contributors to attrition.
- » Improving working conditions/school culture by increasing the teacher-student ratio at high-poverty schools.
- » Provide special support, guidance, and technical assistance related to professional learning and working conditions, etc. of high-poverty schools. Toward this end, the RESA’s should be strengthened to provide regional support for a professional learning infrastructure for educators in HPS (especially those in isolated counties) to network with and learn from one another.
- » Modify the state Classroom Teacher allotment to allocate a total dollar amount to each district to cover the cost of teachers based on multiplying the number of teachers that an LEA would receive by the statewide

average of all teacher salaries currently paid out of the teacher allotment, adjusting for any regional cost of living differences. This approach would result in a more equitable distribution because each district would receive the same dollar amount per student for teachers. Converting the position allotment to one that provides dollars based on student counts and restructuring the teacher compensation model are alternative approaches that hold potential to stem the maldistribution of resources currently observed through the Classroom Teacher allotment.¹⁴⁶

Recommendation 3: Provide additional time, resources and capacity in high-poverty schools to support an effective instructional program that meets the educational needs of all students in high-poverty schools, including at-risk students, and that provides them an equal opportunity for a sound basic education.

Concentrated poverty, rural geography and racial and economic segregation in North Carolina produce and exacerbate disparities in opportunities the opportunities that schools provide. This requires additional support, focused attention, and adequately targeted strategies in high-poverty schools. Most important, deep investments should be made in challenging curriculum, culturally responsive teaching, accommodations for English learners, expanded instructional time, and reduced class size. If implemented these recommendations could reduce systemic and local barriers and increase access to the *Leandro* tenets in high-poverty schools.

- » If the current state allotment system for funding is maintained, add “concentration of poverty” weights to the states’ funding mechanisms (allocations, including teacher positions, and other categorical programs) that account for the additional costs of providing an equal opportunity for a sound basic education in high-poverty schools. Those weights should provide enough additional funds to support all the school-and district-based actions identified in this report as necessary for high-poverty schools. If the state moves to a funding formula, that formula should include both student weights and concentration weights. Those weights should be sufficiently large to provide enough additional funds to support the specific needs listed below. Funding policies should also be structured to provide districts and schools with considerable flexibility in use of funds to achieve the goal of equal opportunity for a sound basic education in high-poverty schools.
- » Ensure adequate infrastructure to support students’ access — i.e., facilities in good repair (including at statewide fund for disaster recovery), technology (hardware, software, bandwidth), and transportation.
- » Provide equitable access to college readiness in all high-poverty high schools — including advanced coursework and instructional materials, including making such courses culturally and linguistically responsive to diverse student populations (for example, by including ethnic studies courses), dual enrollment and other college-credit-earning opportunities.
- » Expand access to college pathways programs described in section V of this report by providing transportation, funding for textbooks and other costs, and synchronizing school and community college schedules — all of which currently create barriers for many students in high-poverty schools.

- » Provide equitable access to career readiness in all high-poverty high schools — including rigorous, high-quality career pathways that integrate career and technical education with rigorous academic courses, dual enrollment and other college-credit-earning opportunities, and apprenticeships.
- » Expand instructional time in elementary and middle schools by lengthening the school days and year with the additional time devoted to personalized academic supports, enrichment activities linked to the standard curriculum, and access to culturally responsive arts, music, athletics, and electives supported by community partnerships. One model here is New Mexico’s K-5+ program that adds five weeks of instruction in high-poverty elementary schools prior to the beginning of the school year by teachers who will continue with students during the “regular” school year.
- » Maximize learning time for students in high-poverty schools with long bus rides by creating mobile learning environments with technology and teaching assistants that provide learning supports and opportunities.
- » Reduce class size to 15-to-1 or achieve the comparable teacher/student ratio, in ways consistent with research that has demonstrated impact on student success. Although evidence is strongest at the early grades, studies have also shown benefits to older students, particularly those who are economically disadvantaged.¹⁴⁷
- » Support positive behavioral interventions and supports (PBIS) and restorative practices to establish a positive discipline climate and greater student engagement.
- » Change state funding for English learners to eliminate the minimum funding threshold and cap and provide a graduated per-headcount amount for students that observes economies of scale and supports the use of evidence-based dual-language programs/strategies to meet the needs of economically disadvantaged English learners
- » Remove the cap that limits the state support for students with disabilities to 12% at high-poverty schools. Providing state support and technical assistance for evidence-based programs that support students with disabilities in ways that also accommodate their needs from being economically disadvantaged and from non-dominant cultural and/or linguistic groups.
- » Revise charter school policies to eliminate fiscal pressures on high-poverty schools and decrease the likelihood of increased racial and economic segregation.
- » Include in the state accountability system, indicators of growth on multiple indicators, including access to the *Leandro* tenets. Use those data to target school intervention strategies and resources that increase stability and morale in high-poverty schools and increase their effectiveness in ameliorating specific constraints in high-poverty communities. Schools might be held accountable, for example, for providing a safe and supportive school environment and a climate that promotes respect among children and teachers; for tracking the individual developmental needs of all the children they serve and for implementing strategies to address those needs; and for delivering the curriculum in a coherent manner that engages students as partners in the learning process and appropriately pushes them all to the limits of their abilities.¹⁴⁸

Recommendation 4: Provide resources, opportunities, and supports to address out-of-school barriers to learning, using a community-schools or other evidence-based approach, that constrain schools' ability to meet the educational needs of all students in high-poverty schools, including at-risk students, and provide an equal opportunity for a sound basic education.

North Carolina is well positioned to build on the considerable local interest in whole child approaches and integrating social supports into high-poverty schools by providing state funding, technical assistance, and a support infrastructure for high-quality community schools in high-poverty communities, including:

- » Provide funds and state-level or regional technical assistance (perhaps in partnership with an external nonprofit provider) to support high-poverty schools to transition to a community schools approach. The state's current Whole School, Whole Community, Whole Child Model (part of the Healthy Schools initiative in the DPI) could serve as a model for this.
- » Provide districts considerable support and flexibility to propose plans to the state that meet their specific needs and include: 1) wrap-around services meeting health, social, other child and family needs; 2) expanded learning time and opportunities, such as longer school days and/or years; after-school and summer programming; 3) family and community engagement; and 4) collaborative practices and leadership.
- » Provide a full-time community schools director/coordinator at each high-poverty school to assess local needs and assets and to integrate social, academic, and health supports (including mental health) into the school.
- » Extend school operating hours (before and after the regular instructional day) to accommodate family work schedules and provide expanded programs for students and families with non-profit community partners.
- » Align and locate services (and funding) for families and children from other public agencies at the school that address adverse out-of-school conditions in high-poverty communities (e.g., health and human services, food distribution services, housing, public safety, immigration services, workforce programs, youth involvement).
- » Establish an inter-agency advisory body to find ways for DPI, HHS, social services, juvenile justice, and other agencies to collaborate both in terms of sharing data and coordinating initiatives to support students and families in high-poverty communities and schools. Such a system would enable departments to better capture and understand important academic and non-academic variables that correlate with student success.¹⁴⁹

Overcoming Cumulative Disadvantage

Research has identified four major resource-linked factors that operate as structural barriers to learning in high-poverty communities and schools. These linked factors include unequal allocation of school resources, which is politically facilitated through the increasing re-segregation of schools, inadequate pipelines of high-quality

teachers for children; high levels of childhood poverty coupled with low levels of social supports for health and welfare such as lack of healthcare and early learning supports; and finally adverse conditions including food insecurity, substandard housing and homelessness, unemployment and a range of traumatic experiences.

These conditions result in far too many children living in poverty or near poverty not being educated adequately to participate in the global economy or become active informed citizens. The four sets of recommendations outlined in this section will not solve all the challenges high-poverty students face, but they will solve many of them. The evidence of this is clear. The *Leandro* ruling leaves little doubt about what needs to be done. As the quote from the Court that was cited earlier in the section made so clear...“We read *Leandro* and our state Constitution, as argued by plaintiffs, as according the right at issue to all children of North Carolina, regardless of their respective ages or needs. Whether it be the infant Zoe, the toddler Riley, the preschooler Nathaniel, the ‘at risk’ middle schooler Jerome, or the not ‘at risk’ seventh grader Louise, the constitutional right articulated in *Leandro* is vested in them all.”

All means all.

Appendix A: Full Results of Regression Analysis of Correlates of 4-year Graduation Rate

4-year graduation rate	(Model 1)	(Model 2)	(Model 3)	(Model 4)
FRPL quartile	-3.448***	-2.832***	-1.220*	-1.083*
	(-10.97)	(-7.01)	(-2.27)	(-2.07)
Average daily membership	-0.00196**	-0.00236***	-0.000599	-0.000283
	(-3.18)	(-4.09)	(-1.46)	(-0.74)
Students of Color		-0.810*	-0.686	-0.630
		(-2.02)	(-1.35)	(-1.25)
City		1.170	0.415	0.296
		(1.30)	(0.38)	(0.28)
Rural		-1.617**	-1.045	-1.141
		(-2.68)	(-1.29)	(-1.45)
Short-term suspensions/ 100 students			-0.0551*	-0.0514*
			(-2.59)	(-2.51)
Average daily attendance			33.23	26.97
			(1.97)	(1.60)
Student-teacher ratio			-0.116	-0.139
			(-1.49)	(-1.70)
Beginning teachers			-2.778	-2.696
			(-0.95)	(-0.95)

4-year graduation rate	(Model 1)	(Model 2)	(Model 3)	(Model 4)
Teacher turnover			-7.063	-4.174
			(-1.50)	(-0.91)
Advanced degree			0.787	-0.653
			(0.27)	(-0.23)
AP participation rate			0.129***	0.137***
			(4.12)	(4.67)
Overall teaching conditions				2.890**
				(3.47)
Intercept	100.0***	101.3***	65.72***	60.34***
	(108.54)	(88.05)	(4.15)	(3.95)
N	493	483	367	367
adj. R ²	0.266	0.296	0.405	0.421

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Endnotes

- 1 The U.S. Department of Education's National Center for Educational Statistics has established the definitions of high- and low-poverty schools used in this analysis.
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- 51 Community eligibility is a powerful tool for high-poverty schools to provide breakfast and lunch at no charge to all students. Community eligibility reduces administrative paperwork for schools so they can focus on providing healthy meals to help students learn and thrive; increases school meal participation by removing stigma; maximizes federal reimbursements; and makes it easier to implement innovative service models like Breakfast in the Classroom.
- 52 The free- and reduced-price lunch (FRPL) program is a federal initiative that provides free or inexpensive lunches to children from low-income families. Students must demonstrate eligibility to participate, and schools receive cash subsidies from the U.S. Department of Agriculture to pay for the food.
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