ISSUE BRIEF

FOR A STRONGER EDUCATION | NORTH CAROLINA

HOLSHOUSER LEGISLATORS RETREAT

THE hunt institute

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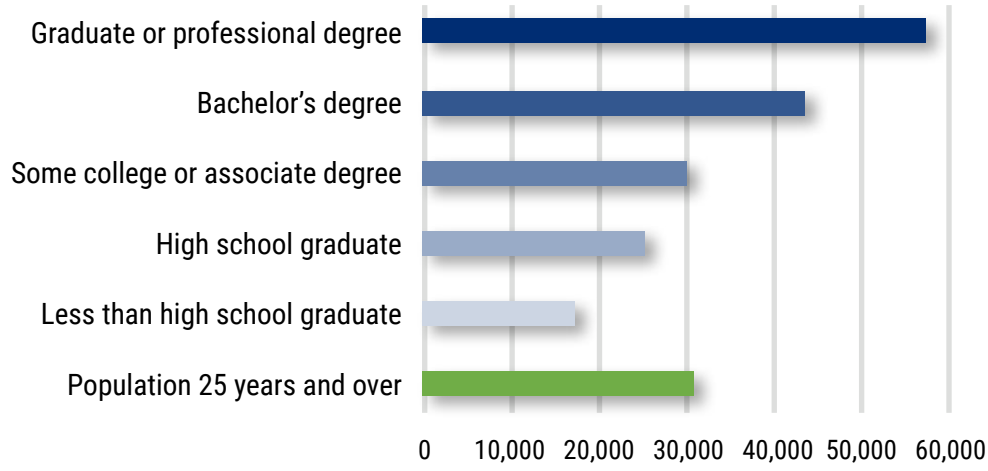
EDUCATION, THE ECONOMY AND THE PATH TO A BRIGHT FUTURE

Figure 1: Median Earnings by Educational Attainment, North Carolina, 2013



Evidence confirms what is likely intuitive to most policymakers: A good education is good for the individual, the economy and our state. Future earnings are likely to increase as educational attainment increases (see Figure 1).[1] Data from the Bureau of Labor Statistics show unemployment rates are much higher for Americans with only a high school diploma than for those with a postsecondary degree.[2] Even health outcomes tend to be better for those with more education.[3] The importance of education is reflected in national opinion as well: A recent PDK Gallup poll indicated nine out of 10 U.S. citizens believe a college education is important.[4]

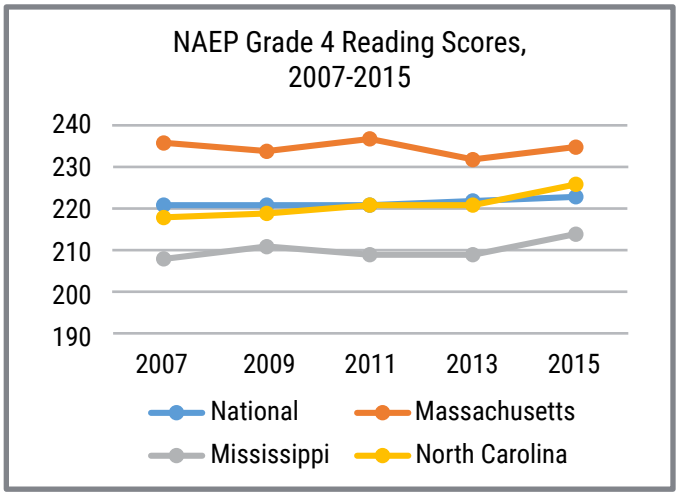
Both educational attainment (degrees, certificates or credentials) and educational achievement (actual knowledge, skills and abilities) will increase in importance over time. The jobs of tomorrow will demand higher levels of education and the ability to think critically and solve novel problems. Analysis of the labor market by the Georgetown Center on Education and the Workforce indicates that, by 2020, 65 percent of all jobs will require postsecondary education or training.[5] Not only is education beneficial to the individual, recent work by economists Eric Hanushek and Ludger Woessmann, published by the Massachusetts Institute of Technology Press, links the cognitive skill of a nation's citizens (what people know and are able to do) and the growth of the country's Gross Domestic Product. **The more citizens know and are able to do, the stronger their country's economy.**

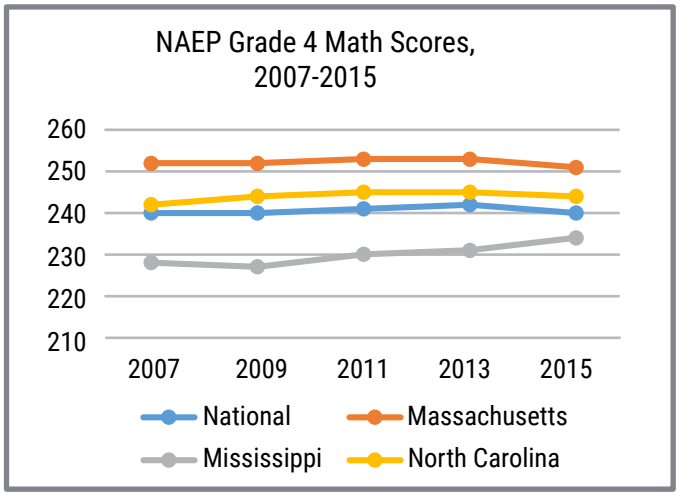
Despite its growing importance, data indicate North Carolina's K-12 educational outcomes are not currently where we need them to be: Fewer than half of students in North Carolina reach the recently-raised college and career ready bar on state assessments, and achievement gaps persist between low-income students and their wealthier peers. Parents, educators and policymakers want the best for all our students; **North Carolina must tend to the unfinished business of ensuring every student graduates ready for life.**

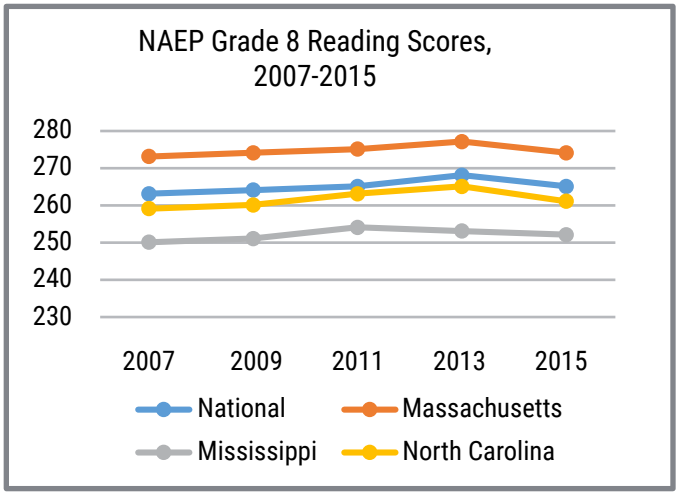
TRENDS

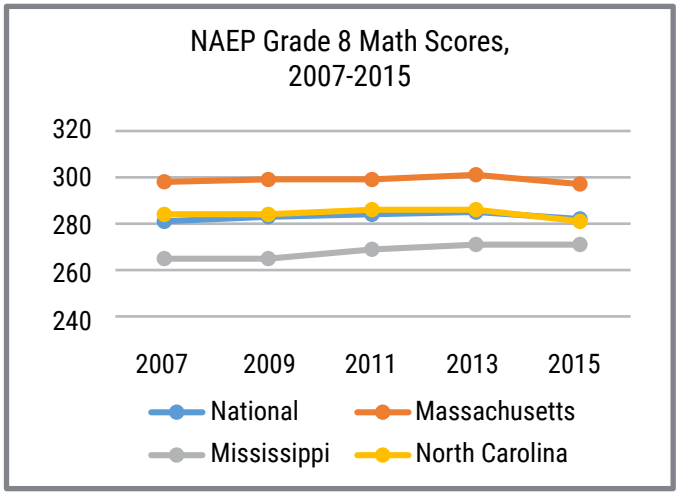
NORTH CAROLINA AT-A-GLANCE

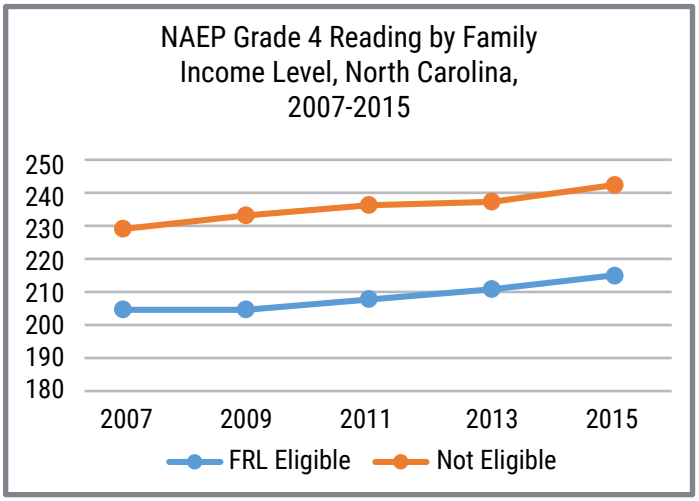
The National Assessment of Educational Progress (NAEP) is the largest nationally representative and continuing assessment of what America's students know and can do in various subject areas. In the charts below, scores from Mississippi and Massachusetts are provided to highlight North Carolina's performance in relation to consistently low-and high-performing states.[6]

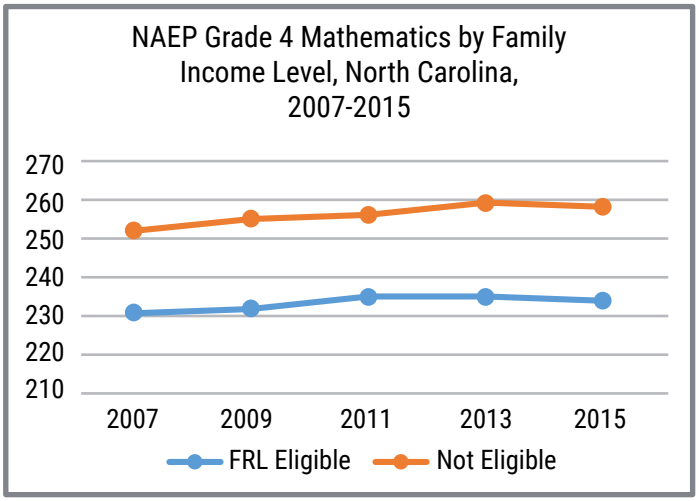




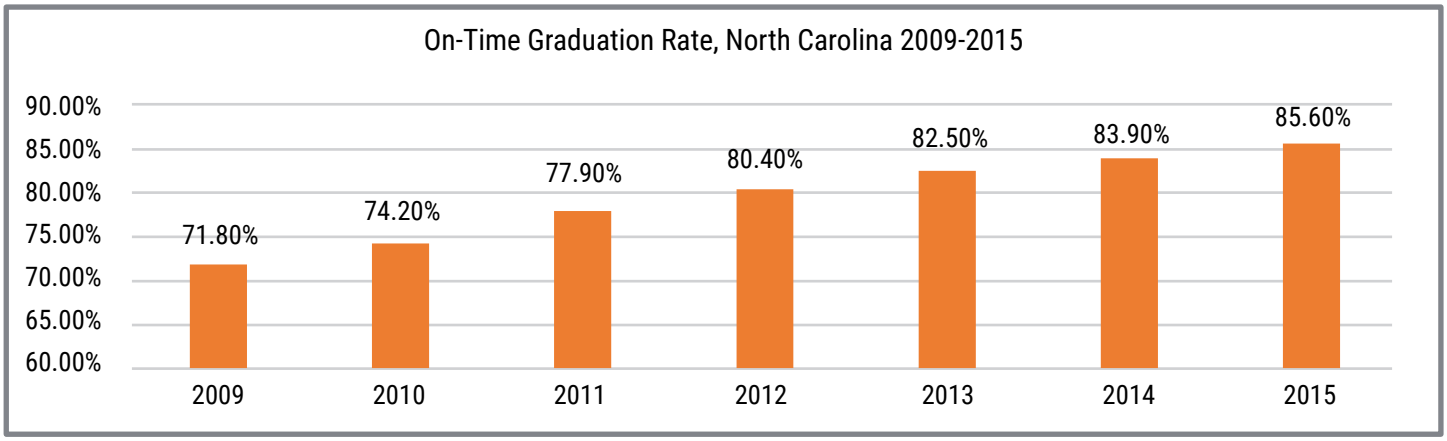


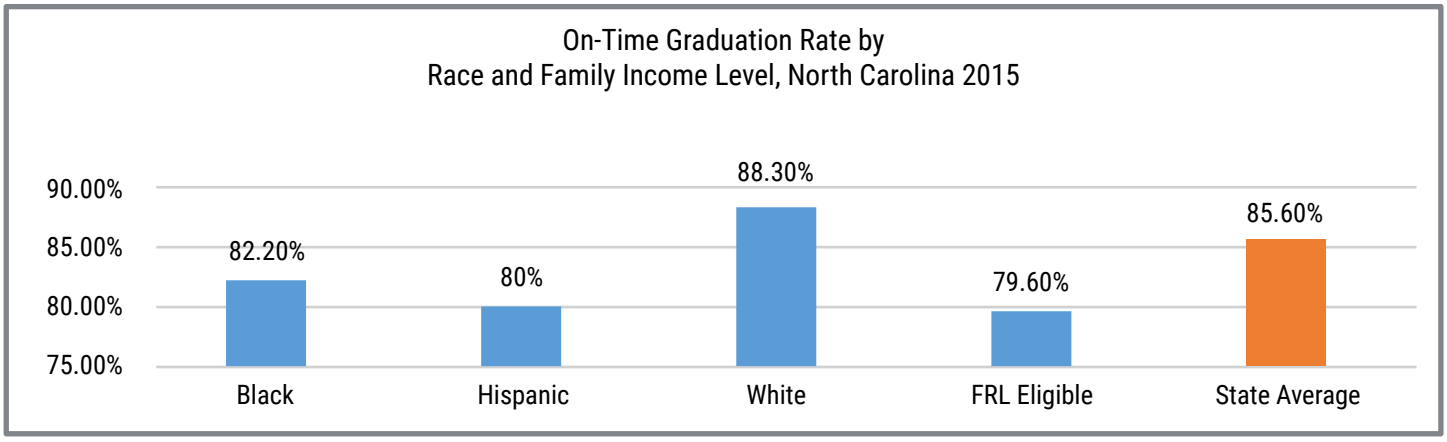






Free and reduced lunch (FRL) is a common way to identify students who are economically disadvantaged, as FRL is only available to families with an income of up to 185% of the Federal Poverty Line.

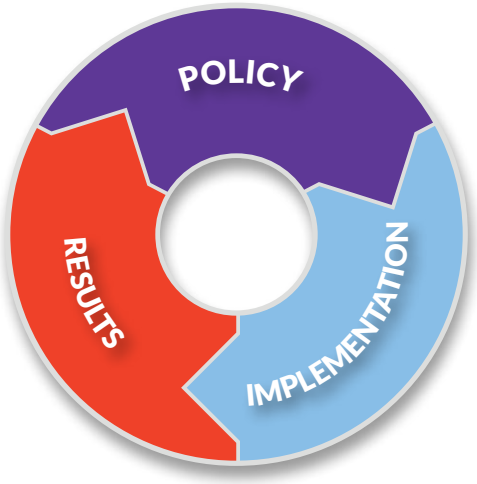




KEYNOTE

EDUCATIONAL POLICY AND IMPLEMENTATION

Improving educational results is vital for North Carolina, but how do policymakers and educators take steps to make this happen? The logic for achieving improved results might be thought of as depicted in the cycle to the right:



Although simple on its face, it is anything but in practice. Achieving results requires both excellent policy and excellent implementation. Well-intended policies can fail because of poor implementation. Likewise, capable educators can struggle under poor policies. **Yet when functioning together, good policy implemented by capable and invested educators and agencies can be our means to achieving great results for students.**

Policy and Implementation Frameworks

Recently, the Education Commission of the States and the Aspen Institute released a checklist for education policymakers that provides a framework for thinking through education policy. Some of the takeaways from this brief include:

- Defining the problem that needs to be solved and its root cause;
- Understanding the history of local, state and federal policies that have attempted to solve this problem (including why the policy solutions haven't worked);
- Conducting an impact analysis considering local education agencies, state education agencies, and funding mechanisms;
- Considering whether those most impacted by the policy – students, parents, teachers, principals and superintendents – agree that the problem needs to be solved; and
- Ensuring an implementation plan that includes a communication plan, stakeholder engagement, assignment of responsibilities and allocation of time, personnel and money.

State Education Policy Checklist

can be found at:

http://www.ecs.org/clearinghouse/01/21/16/12116.pdf

Developed collaboratively by Education Commission of the States, the Aspen Institute Education & Society Program, the Council of Chief State School Officers (CCSSO) and The State Legislative Leaders Foundation.

A report from McKinsey & Company, *How the World's Most Improved School Systems Keep Getting Better*, studied 20 improving education systems from around the world. Their research provides useful insights into educational system improvement:

> *Improving system performance ultimately comes down to improving the learning experience of students in their classrooms. School systems do three types of things to achieve this goal – they change their structure by establishing new institutions or school types, altering school years and levels, or decentralizing system*

responsibilities; they change their resources by adding more education staff to schools or by increasing system funding; and, they change their processes by modifying curriculum and improving the way that teachers instruct and principals lead. All three of these intervention types – structure, resources, and process – are important along the improvement journey. The public debate, however, often centers on structure and resource due to their stakeholder implications. However, we find that the vast majority of interventions made by the improving systems in our sample are 'process' in nature.

This study highlights how attending to implementation – to teacher instruction, curriculum and school leadership (or what McKinsey refer to as "process") – yields substantial benefits. Policymakers need educators to achieve results. For this reason, educators must: 1) understand the policy and what it will look like in practice; 2) understand and believe in the rationale for the policy; and 3) have the ability, time and resources to implement it effectively.

Example: Policy and Implementation in Kentucky

Statewide policy change is often hard with large-scale communication efforts, educator adjustments, political wrangling, and implementation presenting challenges. Kentucky's changes to standards, assessment and accountability – as mandated in *Senate Bill 1* (2009) – and subsequent implementation provide insight into how policy and implementation are both fundamental to achieving results. Nationwide, the adoption of higher standards has proven much less challenging than implementing the standards; notwithstanding its bipartisan pedigree and support from educators, raising standards has run into rough waters when implemented in much of the country. Kentucky, however, has seen continued commitment to reform.

For a more in-depth look at Kentucky, read The Hunt Institute's recent case study:
The Role of Strategic Communications in the Transition to New Academic Standards and Assessments: Case Studies of Tennessee and Kentucky
at www.hunt-institute.org

The state used proactive communication tailored to various audiences to help build widespread support and coordinated communication among the governor, legislators, the chief state school officer, and other prominent stakeholders and messengers. Educator engagement was central to their approach – teacher support being essential because parents rely on teachers when they have questions about what policies mean for their children. Finally, Kentucky developed a few simple messages that helped communicate successfully and avoided over-complicating the goals of the policy – preparing each child for college and career.

Key Considerations: Policy and Implementation

- Clear communication and regular articulation of purpose, including a well-publicized public comment/feedback loop;
- Significant and representative stakeholder involvement, including the ongoing involvement of the those who will execute the policy (teachers, principals, districts, agencies) as well as those who will be affected (educators, students and parents);
- Multiple political champions and the will to stick with it when the going gets tough; and
- Results - clear outcome measures and the ability to track success.

SESSION 1:

THE CRITICAL ROLE OF EARLY CHILDHOOD EDUCATION: RETURN ON INVESTMENT

Early Learning: Education Begins at Birth

Education begins years before children first enter the schoolhouse. In fact, **children are already learning on the day they are born**. The period of rapid brain development that occurs during early childhood is critical for building the foundation of cognitive and character skills necessary for future success in school and life. Early care and education is therefore an important issue for policymakers to examine.

Research has shown that time spent in cognitively stimulating settings — at home and childcare, as well as in preschool — helps to promote children's emotional development, behavioral habits, and learning.[7] Consequently, high-quality early care and education experiences can improve school readiness and serve as a predictor of children's future academic achievement, health and contribution to society. Given what we know about the importance of early childhood development, investing in high-quality early care and education shows promise as an effective way to improve outcomes for children, strengthen the economy, and tackle a broad range of complex social issues.

There are approximately **19,876,883 children aged 0-4** living in the United States (27% of the child population) (Annie E. Casey Foundation, 2015).[8]

Census data predicts that 10 years from now this number will have increased by more than 1,000,000 (United States Census Bureau, 2015).[9]

In considering the obligation to provide a sound basic education for all children, policymakers must take into account the following three points:

- **Education begins at birth**: Research on brain development has shown that the early years are critical for building a sound foundation for future success.
- **High-quality early care and education benefits children and the economy**: Scientists and economists agree that access to high-quality early learning opportunities has a favorable impact on the academic outcomes, social-emotional development, and health of children from lower-income families. Expanding access to high-quality childcare and preschool education can reduce social costs and strengthen the economy.
- **Early education is part of a birth through 3rd-grade continuum**: High-quality early learning systems must be developed that align curricula and services from birth through the third grade.

Education Begins at Birth

The early years of a child's life are essential for laying a strong foundation for future cognitive abilities and character skills. Starting before birth and continuing through adulthood, the brain is constructed from the bottom up, "with simple circuits and skills providing the scaffolding for more advanced circuits and skills over time."[10]

The human brain develops at a quicker rate from conception to age 3 than at any other time in a person's life. A major component of this process is the serve and return interaction between children and their parents and other caregivers.[11] Research has revealed that the amount of time that a parent or caregiver spends speaking directly to an infant or young child can help to improve the child's language proficiency and vocabulary.[12] Similarly, emotionally invested and responsive parenting has been found to positively affect children's emotional competence and self-regulation skills. In essence, interactions between young children and adults help to build and strengthen neural connections in the child's brain that support the development of communication and social skills.

High-Quality Early Care and Education Benefits Children and the Economy

What does research say about the benefits of early care and education? Longitudinal studies on the impact of childcare and preschool education have found that **high-quality programs can have a significant and positive effect on school readiness**.[13] Conversely, limited access to cognitively stimulating environments in early childhood may complicate the transition into elementary school, which subsequently can lead to school adjustment problems. Skills beget skills; therefore, small differences between children entering elementary school can expand into much larger achievement gaps by the later grades.[14]

The benefits associated with having access to preschool programs are very much dependent upon the quality of instruction and related services. Though there are some examples of exemplary preschool programs in public schools and in private settings, research has shown that there are vast discrepancies in quality between programs, with many falling short of the mark.[15]

What do "high-quality" preschool programs look like? High-quality programs develop children's knowledge and skills across the content areas and help facilitate children's social, emotional and physical development. High-quality programs employ teachers with at least a bachelor's degree, provide professional development opportunities for teachers, base instruction on comprehensive early learning standards, and maintain smaller class sizes.

High-quality childcare and early education may also have broad social and economic benefits. The work of Nobel Prize winning University of Chicago economist Dr. James Heckman indicates that high-quality early care and education programs (between birth and age 5) are **often more effective and efficient than later interventions**, such as the welfare system, adult literacy services, or prisoner rehabilitation programs.[16] Based on an examination of longitudinal data from the *Perry HighScope Preschool* study in Michigan, Heckman et al.

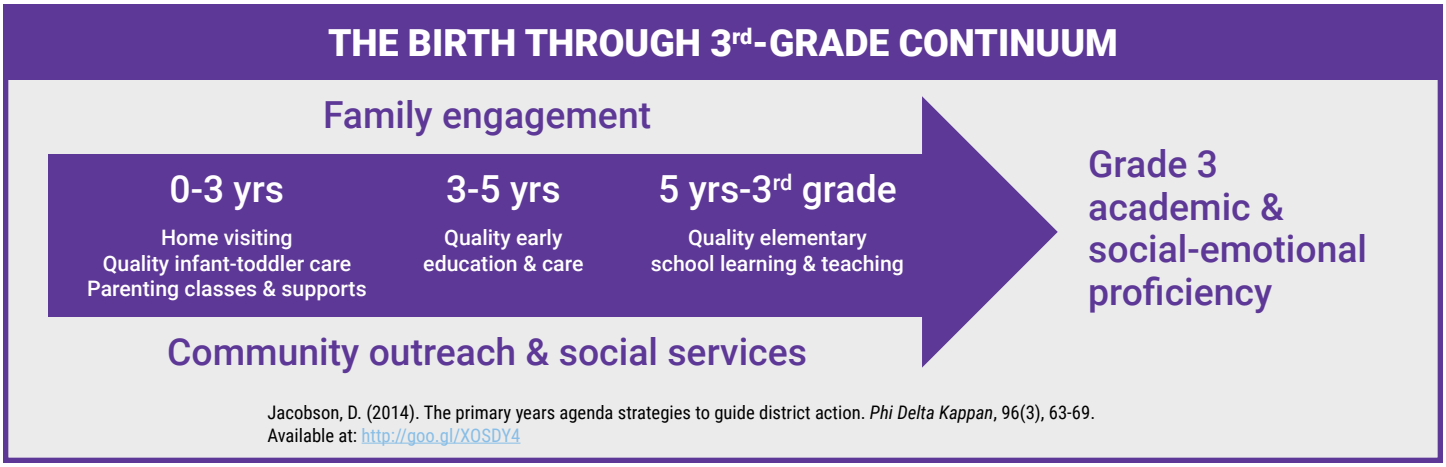
determined that **early education programs return somewhere in the range of $7-10 back to society for every dollar invested**.[17] Additionally, a recent study conducted by researchers at Duke University found that early childhood interventions in North Carolina "significantly reduce the likelihood of special education placement in the 3rd grade, resulting is considerable cost savings to the state."[18]

Early Education is Part of a Birth Through 3rd-Grade Continuum

Approximately 48 percent of the 24 million children under the age of 6 in the United States are currently living in low-income families.[19] Research has found that children living in poverty are less likely to have access to consistent environmental stimulation and learning opportunities than children from higher-earning families.[20] **Access to high-quality early education can therefore be especially beneficial for children from low-income homes.**

The year 2015 marks the **50th anniversary of Head Start**, a federally funded preschool program for children aged 3 and 4 living in poverty. The most recent reauthorization of Head Start was in 2007, when it passed with bipartisan support. In 2015, however, approximately 63 percent of children ages 3 and 4 from low-income families[i] were not attending a preschool program.[21]

There is some research that suggests the academic gains made by children living in poverty while enrolled in early education programs fade away during the early grades.[22] Thus, in order for the positive effects of early learning to be sustained, **it is important that high-quality systems are developed that provide a seamless continuum of services from birth through the 3rd grade**. The "**Birth through 3rd-Grade**" movement seeks to create aligned systems of education and care with comprehensive approaches for addressing children's academic, social and health needs. In a report published in 2015, the Institute of Medicine and the National Research Council laid out "**a blueprint for action based on a unifying foundation that will underlie more consistent and cumulative support for the development and early learning of children birth through age 8**" (p. 1).[23] Essentially, policymakers should consider ways to improve coordination and alignment among stakeholders at multiple levels and across different systems.



Jacobson, D. (2014). The primary years agenda strategies to guide district action. *Phi Delta Kappan*, 96(3), 63-69. Available at: http://goo.gl/XOSDY4

[i] Low income is defined as family income less than 200% of the federal poverty threshold.

Researcher David Hernandez has found that students who can't read on grade level by the end of 3rd grade are four times more likely to leave school without a diploma than their reading proficient peers. [24] At the end of the 2014-15 school year, 13.6 percent of North Carolina 3rd-graders failed to demonstrate that they were reading at grade level. Under the K-3 literacy section of the *Excellent Public School Act*, these students were retained and have had to receive special interventions in order for them to be able to do fourth-grade work. The ongoing development of an early education through 3rd-grade continuum of services can help support the vital goal of the *Excellent Public School Act* to raise the reading proficiency of 3rd grade students.

Recent Early Care and Education Policy Developments

In 2011, the federal government announced the phase 1 recipients of the **Race to the Top Early Learning Challenge (RTT-ELC)** grant program.[25] The focus of RTT-ELC was to support the states in developing an integrated system of high-quality early care and education for infants, toddlers and preschoolers, and increasing access to high-quality programs for children from low-income families. North Carolina was among the nine states that were awarded RTT-ELC grant money. RTT-ELC funded a range of projects in North Carolina, including: professional development opportunities for early childhood professionals, initiatives that increase the number of children receiving health and development screenings, and the creation of a "transformation zone" to improve the early childhood infrastructure of four rural counties in northeast North Carolina.

The *Child Care and Development Block Grant Act of 2014* (CCDBG) reauthorized the 1996 law governing the **Child Care and Development Fund (CCDF)**. Under this law, states have been allocated funds to develop and implement strategies for increasing the supply and quality of childcare for low-income families and children with disabilities.[26] In North Carolina, CCDF monies are combined with Temporary Assistance for Needy Families (TANF) and state funds to finance the Child Care Subsidy Program.

North Carolina's Early Care and Education Initiatives

The majority of North Carolina's investments in early care and education prior to kindergarten are delivered through three separate initiatives: the **Child Care Subsidy Program, Smart Start** and **NC Pre-K**.[27]

The **Child Care Subsidy Program** is designed to have a two-generational impact, increasing access to subsidized high-quality childcare for children from low-income families, while providing support for parents to work and gain economic independence. North Carolina's Child Care Subsidy Program is financed through a combination of state and federal funds.

Established as a public/private partnership by the North Carolina General Assembly (NCGA) during the 1993-94 legislative session and signed into law by Governor Jim Hunt, **Smart Start** is a statewide initiative that seeks to improve early care and education programs for children from birth through age 5. "Smart Start helps working parents pay for child care, improves the quality of child care and provides health and family support services in every North Carolina county."[28] Smart Start is mostly state funded, with local Smart Start partnerships matching 15 percent of state funds with other resources.

NC Pre-K (formerly known as "More at Four") provides high-quality public prekindergarten to enhance the school-readiness of eligible 4-year-olds across the state. The National Institute for Early Education Research (NIEER), a research center at Rutgers University, identifies 10 research-based quality standards benchmarks for state pre-K programs. In the *NIEER State of Preschool Yearbook 2014*, North Carolina was identified as being one of only four states that met all 10 of these standards.[29] NC Pre-K is financed through a combination of state general and lottery funds, along with contingency funds from the federal TANF program. In 2014, approximately 21 percent of North Carolina 4-year-olds were enrolled in state pre-K programs.[30]

NIEER National Quality Standards Checklist: North Carolina's Performance in 2014

	North Carolina Met Benchmark Requirements
• Comprehensive early learning standards	☑
• Lead teacher must have a bachelor's degree, at minimum	☑
• Lead teacher must have specialized training in a pre-K area	☑
• Assistant teacher must have a child development associate degree or equivalent, at minimum	☑
• Teacher must receive 15 hours/year of in-service professional development and training	☑
• Maximum class size (20 children or fewer)	☑
• Staff-child ratio (1:10 or better)	☑
• Screening/referral and support services required for families	☑
• At least one meal must be required daily	☑
• Monitor to ensure adherence to state program standards	☑

Public Policy and Early Education

To summarize, the ways that adults interact with infants and toddlers have been found to influence children's learning and development. Research indicates that increased access to high-quality childcare and preschool programs can improve outcomes for children from low-income families, which may also have potential benefits for society and the economy. Given the vast amount of variance in the quality of available programs, it is essential that policymakers ensure that the necessary resources, supports, and accountability standards are implemented in order to improve the quality of instruction and related services. Finally, early education must be aligned with the traditional K-12 education system so that the benefits of early learning can be sustained over time. Creating systems of education and care from birth through the 3rd grade helps to ensure that a greater number of children are afforded equality of opportunity.

SESSION 2:

LEADING THE WAY: RECRUITMENT, PREPARATION, DEVELOPMENT AND RETENTION OF EFFECTIVE SCHOOL LEADERS

Principals play a critical role in cultivating and maintaining high-performing schools. Research shows that **school leadership is second only to teaching in its impact on children's learning outcomes**.[31] Highly effective principals can positively affect the achievement of every student in their schools. The difference between a highly effective principal and an average one is equal to two-to-seven months of additional learning each school year.[32]

The job, however, is an increasingly complex and difficult one. The role of the principal has evolved in recent years from its traditional managerial position of making sure that the buses run on time, the physical building is operational, supplies are ordered and personnel issues are handled, to a more expansive focus on student learning.[33] These added responsibilities, combined with the pressures of high-stakes testing and accountability, mean that it has become more challenging to recruit and retain talented principals, especially for underperforming schools.

Policies must therefore be designed and implemented to ensure that effective leaders are recruited, prepared, developed and retained in sufficient numbers that allow them to successfully face the challenges of today and safeguard the future of children for tomorrow.

Who is Leading North Carolina's Schools?

- According to North Carolina Department of Public Instruction data, in 1990 only 27% of North Carolina's principals were female. By the year 2000, this percentage had increased to almost half (47%). In 2015, the majority of North Carolina's principals are women (59%).
- During this same time period, despite a significant increase in the percentage of students of color attending the state's schools, the percentage of minority principals has remained almost unaltered. In 1990, 78% of North Carolina principals were white. Today, in 2015, 73% of the state's principals are white.

Source: Public Schools of North Carolina - Statistical Profile
http://apps.schools.nc.gov/pls/apex/f?p=1:1:0

State Archives of North Carolina – North Carolina Digital Collections
http://goo.gl/ezvM9z

What does effective leadership look like?

In 2015, the National Policy Board for Educational Administration (NPBEA) published a set of standards that articulate what effective leadership looks like.[34] The Professional Standards for Educational Leaders 2015 (formerly known as ISLLC standards) have been created to "guide professional practice and how practitioners are prepared, hired, developed, supervised and evaluated" (p. 2). The 2015 Standards are aspirational and student centric, emphasizing the importance of combining academic rigor with student support and care.

What is the impact of an effective principal?

The Wallace Foundation has been studying the impact of effective leadership on teaching and learning for more than 10 years.[35] As stated in the Foundation's 2015 report, *Developing Excellent School Principals to Advance Teaching and Learning: Considerations for State Policy*, quality teaching and learning is a direct result of effective leadership.[36]

Schools that have highly effective principals:

- Perform 5 to 10 percentage points higher than if led by an average principal;
- Have fewer student and teacher absences;
- Have effective teachers stay longer;
- Typically replace ineffective teachers with more effective teachers;
- Have principals who are more likely to stay for at least three years; and
- Have principals who have at least three years of experience at the school.

Effective principals have the most impact in elementary schools and high-poverty, high-minority schools.[37]

School Leadership Policy: Recruit, Prepare, Develop, Retain

Policymakers and district leaders must work together to ensure that each of North Carolina's schools has an effective leader at the helm. In order to achieve this goal, aligned policies must be developed that strengthen the recruitment, preparation, development, and retention of talented and committed principals.

Recruitment

The recruitment of school leaders has primarily been based on a process of self-selection. Those educators who see themselves in a leadership role choose to engage in taking classes and/or securing the appropriate certification to become school leaders. However, fewer educators are opting to enter school administration due to the increasing demands of the job.[38] Policymakers must therefore consider ways to strategically identify and recruit individuals with proven success as a teacher and strong leadership potential so as to develop strong candidate pools.

Preparation

In recent years, principal preparation programs have emerged as a major policy focus. Though the demands and expectations placed on school leaders have changed dramatically, the process of preparing school leaders has not. What, then, makes a high-quality preparation program?

There is no clear consensus on the impact of principal preparation programs, which differ dramatically not only

across states, but within states as well. Research has shown that traditional principal preparation programs in universities and four-year colleges have a mixed record in producing a leadership workforce that can inspire, organize and develop schools where all students experience success. However, **reforms to encourage innovation in principal preparation are promising**.[39]

As part of its *Race to the Top* (RttT) program, North Carolina developed three Regional Leadership Academies (RLA). Each of the three RLAs serves a defined group of districts. Two are partnerships between groups of school districts and nearby universities, while the third is housed within the North Carolina State University system. Each RLA develops its own curriculum and fieldwork requirements to meet the needs of the districts they serve. At the end of the three-year RttT grant period (2011-15), there were 34 principals, 104 assistant principals, and 15 central office staff members who had graduated from one of the RLA programs. Evaluations of RLAs show high-quality implementation consistent with best practice literature on the qualities of excellent principal preparation programs.[40] An important issue for policymakers to consider is how to continue the promising work of the RLAs post RttT.

Another example of an innovative principal preparation program is the Woodrow Wilson Foundation's MBA Fellowship in Education Leadership (WW MBA). Partnering with the University of Indianapolis and the Milwaukee School of Education, the Woodrow Wilson Foundation has developed a new, more rigorous degree program for preparing school leaders. The WW MBA approach "draws on the best available research and practical expertise of business and education to prepare leaders with knowledge, skills, and tools to improve systems, schools, and, ultimately, student achievement" (p. 2).[41]

Features of High-Quality Principal Preparation Programs

- Standards-driven assessment and education objectives;
- Targeted recruitment and selection;
- Strong partnerships among states, districts, and universities to ensure effective recruitment, coursework, field experiences, and on-the-job support for new principals;
- Practically oriented instruction that emphasizes problem-based solving, field projects, budget exercises, hiring practices, and data use;
- Internships and school-based programs to provide practical opportunities; and
- Formalized mentoring and advice from expert principals.

Source: Shelton (2012) Preparing a Pipeline of effective Principals: A Legislative Approach (National Conference of State Legislatures)

Development

The process of acquiring the necessary leadership skills to be an effective school leader does not stop with graduation from a leadership preparation program. **Ongoing, job-embedded professional development is also required.** In order for professional development to be valuable for principals, it must include opportunities to gain a better understanding of policy and implementation issues, organizational routines for pursuing multiple

accountability strategies aimed at improving student achievement, and strategies for dealing with public pressure. The mentoring and induction of new principals is critical. Since the year 2000, more than half of the states have adopted requirements for mentoring novice principals.[42]

Retention

A study by the National Center for Analysis of Longitudinal Data in Education Research found that principals become more effective as they gain experience.[43] Furthermore, research shows it takes approximately five years to put a teaching staff in place as well as fully implement policies and practices that will positively impact the school's performance.[44]

About half of all principals report that they experience great stress caused by long work weeks and the growth of new responsibilities.[45] High levels of stress breed low job satisfaction and high rates of turnover, especially in high-need schools.[46] Research shows that stable leadership at a school has a positive impact on a school's performance. "Unfortunately, our lowest performing schools serving our most disadvantaged students have the least stable leadership. This has led to many of these schools being led by less experienced, less qualified, and less effective principals."[47]

What will it take to make sure that every school in North Carolina has a great leader?

State Policy Levers To Cultivate and Support Effective Principals

Given the critical role of effective school leadership, state and district policymakers must consider strategies for preparing, developing and supporting principals. The Wallace Foundation suggests six policy levers for cultivating and supporting excellent school leaders:

- Setting principal leadership standards;
- Recruiting aspiring principals to the profession;
- Approving and overseeing principal preparation programs;
- Licensing new and veteran principals;
- Supporting principal's growth with professional development; and
- Evaluating principals.[48]

Because state policymakers set rules and guidelines for program content, determine requirements for certification and licensure, and have the power to approve both traditional and alternative programs, the means to improve the quality of North Carolina's school leaders is well within reach.

Redesigning Principal Preparation Programs

In 2015, the University of North Carolina Board of Governors Subcommittee on Teacher and School Leader Quality made several recommendations to strengthen UNC's school leadership preparation programs. These recommendations included redesigning preparation programs where necessary and scaling up best practices

in evidence-based models for school leadership preparation and development.[49]

Strengthening Principal Evaluation

As it is for teachers, evaluation for principals is a critical tool for improving school leadership. When done well, evaluations provide data that can connect leaders to targeted professional development, inform licensure decisions, and hold them accountable for school progress and achievement. Well-designed and implemented evaluation systems are central to improving the workforce.

First published in 2009, the North Carolina Standards for School Executives serves as a framework for guiding and evaluating best practices for the state's principals and assistant principals.[50] The eight standards are listed below:

Standard I: Strategic Leadership
Standard II: Instructional Leadership
Standard III: Cultural Leadership
Standard IV: Human Resource Leadership
Standard V: Managerial Leadership
Standard VI: External Development Leadership
Standard VII: Micro-political Leadership

Few states now use any standards of readiness for initial licensure. According to the George W. Bush Institute, at least 40 states, including North Carolina, require master's degrees, a certain length of teaching experience, and the completion of a state approved program in order to become eligible for initial licensure.[51] Forty states also require some kind of supervised internship where readiness skills could be learned, but in most of those, exact standards for what is required are not specified.

Effective principals are a necessity if we are to increase student achievement in our public schools. The principal, as the arbiter of school-level policy implementation, and chief decision-maker concerning human capital management and instructional leadership, is a key factor in determining the success of school improvement efforts. As state policymakers consider remedies to address the need for effective school principals, it becomes important to rethink and refashion policies that promote the recruitment, preparation, development and retention of effective leaders.

SESSION 3:

DIGITAL LEARNING INNOVATION

Among recent educational reforms – raising standards, modifying assessments, expanding school choice, and rethinking teaching and school leadership (e.g. recruitment, compensation, training, evaluation and retention) – **perhaps none seem so capable of transforming student outcomes as the integration of technology in the classroom**, if only because we see technology transforming so much else in our daily lives.

Compared to the transformation in the business sectors (banking, media, publishing) and in other human pursuits (entertainment, social networking), the educational system has yet to realize a similar technological revolution. While, to be sure, many innovative teachers, schools and districts are leading the way in using devices, connectivity and new media to improve learning, the use of technology as an instructional tool hasn't been brought to scale effectively. So why might this be and how can North Carolina lead in effective digital learning?

Technology and Schooling: Challenges

Implementing technology to transform educational outcomes must first address some important challenges including developing instructional expertise, adopting quality educational products and allocating financial resources for infrastructure and hardware.

Developing Instructional Expertise

Current research has established that classroom teachers are the most important school-based factor affecting student achievement,[52] and school leadership is second only to teaching in its impact on children's learning outcomes.[53] **Technology requires skilled, knowledgeable educators to be effective**. On the *2014 North Carolina Teacher Working Conditions* survey, more than half of responding teachers indicated they need training on integrating technology into instruction to teach students more effectively. The Organisation for Economic Co-operation and Development (OECD) recently released an internationally comparative analysis showing no appreciable improvements in student achievement in countries that have invested significantly in information and communication technology.[54] While many states and countries have created policy and resource measures to make technology available for education, the implementation of that technology – the actual use of it in instruction – is still uneven and its potential unrealized.

> **"In the end, technology can amplify great teaching, but great technology cannot replace poor teaching."**
>
> ~Excerpt from *Students, Computers and Learning: Making the Connection*, PISA, EOCD Publishing (2015)

Adopting Quality Educational Products

The availability, adoption and integration of educational products is a second challenge to leveraging technology in order to achieve improved student outcomes. Education technology in the United States is now a nearly $10 billion market.[55] In a survey of school districts, the Clayton Christen Institute, a leader in personalized and blended learning, found educators had a decidedly critical view of software vendors. Vendors were often perceived as unwilling or unable to integrate their solution with other products, customize systems based on need (particularly in smaller districts), find the right balance between teacher and student control or create intuitive design to minimize product training. Likewise, the *Teachers Know Best* report recently commissioned by the Bill & Melinda Gates Foundation, found only 54 percent of teachers perceive the digital products their students use frequently to be effective. In short, the market is not meeting user demand for great technology-enhanced instructional products.

North Carolina has set a goal of shifting from hardcopy textbooks to digital, interactive curricular resources in the next several years – resources that can be updated on an ongoing basis. As with textbooks, the alignment of these resources to state standards (and therefore state tests) is a fundamental quality issue. Yet recent research has shown large gaps between state standards and curricular resources.[56]

Additionally, according to a report by the Brookings Institute, most states – North Carolina included – do not systematically collect information on what districts and schools are using what instructional and curricular products – digital and otherwise. This compromises the ability of the research community to study digital tools and curricular effectiveness. Districts and schools are left to purchase digital tools blindly, without hard evidence about what actually works for students.

Financial Resources

North Carolina's connectivity initiative has positioned our state to be a leader in educational technology. Broadband is available at every central office in every school system around the state. Many schools, however, are unable to deliver that connectivity to the classroom. According to the state's Digital Learning Plan, this problem will be mitigated over the long term by the $12 million recurring in 2016-17 state budget, which when taken with the $19.9 million already allotted for school connectivity, will supply adequate recurring funding to ensure connectivity to all schools and support ongoing updates on a 5-year life-cycle for internal networks.[57]

Once all classrooms have adequate connectivity, the secondary ongoing outlays include devices (which are increasingly used for both classroom instruction and for the delivery of state assessments), software (including digital textbooks, content and assessment tools), and personnel (professional development and support). These represent significant future costs to the state and districts (see page 11 in the Digital Learning Plan for details).

Technology and Schooling: Potential in North Carolina

Despite current challenges, high-quality technological tools in the hands of well-trained, effective educators have the potential to make a substantial impact on student achievement in North Carolina. North Carolina's Digital Learning Plan lays out the advantages of digital learning (see Figure 2) and an ambitious plan to make North Carolina a leader in digital-age learning. The plan recommendations include measures to meet the challenges described above as well as others. Some of the recommendations include:

- Expanding school connectivity to all schools;
- Establishing statewide procurement processes and establishing a quality review process for digital tools and curricular resources;
- Training, including developing digital learning competencies and guiding teacher preparation programs to incorporate digital-age skills;
- Establishing a statewide cooperative procurement service for networks, devices and digital content; and
- Providing guidance and best practices for privacy, security, copyright and responsible use issues.

Figure 2: Digital-Age Learning Model

Personalized learning and flexible resources optimized for each student.

Advancement based on demonstrated **mastery** of the content and **competency** in applying what has been learned.

Anywhere and anytime learning, inside and outside of schools, 24/7, with most learning blending face-to-face and online activities.

Student-centered instruction, combining large group, small group and individualized learning, with teachers serving as facilitators and coaches.

Digital content providing interactive, flexible and easily updated educational resources.

Assessments integrated into learning activities to provide ongoing information about students' achievement that can be used to improve teaching and learning.

Project-based and community-based learning activities connecting to students' lives outside of school.

SESSION 4:

QUALITY ASSESSMENTS: EFFECTIVE STATE POLICY

Given the importance of the investment in education for our students and state, North Carolina policymakers understandably want clear insight into the **results** of policy and its implementation in public schools. They want answers to questions like: *Are we successfully educating our children? Are they being prepared for their future? How do we know?* State student assessment results help answer these questions. State-level policy conversations about assessments in the past few years have become increasingly common as parents, educators, and policymakers wrestle with what we assess, how much we assess and how we use assessment results.

Assessment: Current Context in North Carolina

In North Carolina, the State Board of Education (SBE) establishes the Standard Course of Study which defines the knowledge and skills students must learn at each grade level. Then, in accordance with both state and federal policy requirements, the state administers End-of-Grade (EOG) and End-of-Course (EOC) assessments to measure student outcomes.

Performance and Growth

Importantly, two distinct determinations are made from the results of EOG or EOC tests: a performance determination and a growth determination. For performance, student results on the tests are categorized into one of five levels (see Figure 3) describing a student's command of the Standard Course of Study in the grade or course. Students scoring at a level 4 are determined to be on track to achieve college and career readiness in the content area. These data are rolled up to describe overall performance in the school or district (percent of students at each level). Performance is a criterion-based determination, meaning that a student's performance is determined against a defined standard, not relative to the performance of other students.

Figure 3:
Student Performance Level Descriptors on North Carolina Assessments

Level 1: Limited Command
Level 2: Partial Command
Level 3: Sufficient Command
Level 4: Solid Command
Level 5: Superior Command

The same tests are used to determine growth; as opposed to performance, which measures a student's learning status at a single point in time (e.g. how well does a 4th-grader know 4th-grade math at the end of the year?), growth is a measure of learning between two or more points in time. North Carolina uses SAS EVAAS™, a value-added model, to determine growth. The EVAAS model estimates how a group of students (those of a teacher or school) grew by comparing their EOG or EOC scores to their EOG and EOC scores from previous years. A student should grow an

Figure 4:
Growth Categories for Teachers and Schools in North Carolina

Exceeded Growth
Met Growth
Did Not Meet Growth

adequate amount based on where they start. Importantly, the EVAAS model determines how well a group of students grew relative to the students of an average teacher or school in that school year; unlike performance, EVAAS is norm-referenced. Every year, there will be some percent of teachers or schools in each of three categories (see Figure 4 on page 21).

Use of Assessments

Assessments are designed for a particular purpose or use, not all purposes or uses. As Harvard University assessment expert Daniel Koretz asserts, "**A single test cannot serve all masters."**[58] Tests may be valid for one purpose and invalid for many others.

Nationally, two divergent views on state summative assessments have emerged. The first sees accountability for student results on state summative assessments as a vital component of improving educational outcomes. They advocate for using student assessments to hold districts, schools and teachers accountable, often driven by the articulated desire to address persistent achievement gaps. The other camp sees state summative assessments as necessarily limited; they believe the current regime of assessments increasingly consumes too much time in schools, dominates what is taught, and — in net — is a negative for students. Author Elizabeth Green recently referred to this as the "accountability" versus "autonomy" dichotomy.[59] Understanding this current divide and thinking about its implications, both practical and perceptual, is vital for instituting policies and practices likely to achieve the goal of improved student outcomes.

Tougher Tests Raise the Bar for Performance

In 2012-13 North Carolina implemented a new Standard Course of Study and new assessments aligned to those standards. The intent of these new assessments is to determine if students are on track to be ready for college and career upon graduation. Between the 2011-12 school year and the 2012-13 school year, the state proficiency rates declined from 67.5 percent proficient to 32 percent proficient in grades 3-8 in reading and math.[60] Importantly, this is an indication of the proficiency standard becoming more rigorous, not students knowing less; it also closed a troubling gap between our state's expectations and those of the National Assessment for Educational Progress (NAEP).

Figure 5

State Tests in North Carolina

End of Grade Assessments
3 – 8 mathematics, 3 – 8 English language arts, and 5 and 8 science

End of Course Assessments
Math I, biology, English II

NC Final Exams
Includes most high school courses (e.g. English, sciences, social studies and math) as well as 4-8 science and social studies. For a full list visit: http://www.ncpublicschools.org/docs/accountability/common-exams/1516ncfe.pdf

The NAEP – often referred to as the nation's report card – is a nationally representative assessment given to measure the nation's educational progress. Many reports over the last decade have pointed out the concerning

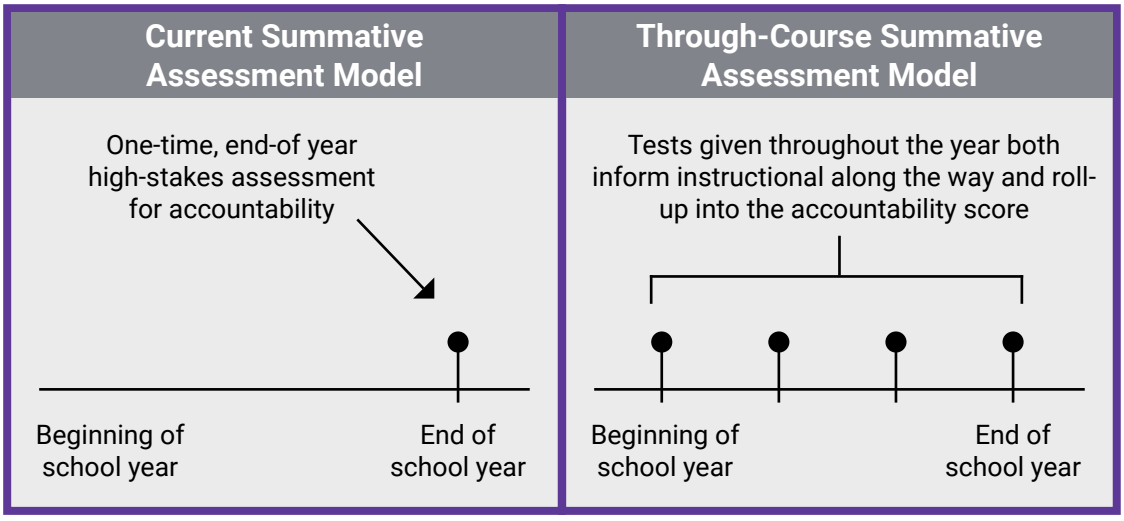
gap between what NAEP deems proficient and what most states deem proficient. Encouragingly, a recent report from the National Center for Education Statistics (the organization that conducts the NAEP), found North Carolina to have one of the smallest gaps between NAEP standards and state test standards.[61] North Carolina is currently setting a high bar with our assessment system although the recent decision in March of 2014 to increase from four achievement levels to five had the net effect of making it somewhat easier to achieve a proficient score (Level 3) on our state assessments.[62]

Figure 6		Use			
		Determining School Performance Grades	Federal Accountability	Educator Evaluations	Student Promotion Decisions
State Assessment	EOCs and EOGs (Performance)	X	X		X (3rd grade only)
	EOCs and EOGs (Growth)	X		X	
	NC Final Exams (Growth only)			X	

North Carolina State Board of Education Summative Assessment Taskforce

In January of 2014, the North Carolina SBE authorized the establishment of a task force to examine state summative assessments for the 2016-17 school year and beyond. Influenced by the ongoing challenge of summative assessments that are a) not long enough to — or designed to — yield fine-grain data about students for instructional purposes, and b) given at the very end of the year when instruction has already happened, the SBE is studying the possibility of administering through-course assessments and is piloting the model this year in a small set of schools.

Figure 7



A through-course assessment model includes 3 or 4 assessments that happen throughout the year (see figure 7), which have the purpose of both informing instruction along the way (teachers would get test results in the fall which could help inform their teaching) as well as holding schools accountable (by being "rolled-up" into one final score for use in School Performance Grades and other higher-stakes purposes).

Throughout the next school year, the state will study this model as well as issue requests for proposals from vendors who might also develop a through-course model. The NCGA has final authorization on any assessment systems adopted by the state.[63] Some key considerations for policymakers include:

- Will the assessment system provide instructionally helpful information for educators?
- What are the additional costs associated with the through-course model?
- Will the suggested pacing guides (the indication of what will be tested on the assessments through the year) cause challenges for districts?
- Will the results maintain a high, college and career ready bar for students?
- How will any new assessment system meet the NCGA requirement that state tests be nationally-normed?[64]

Assessment Around the Country

This fall, many states around the country are releasing the results from new more challenging assessments given in the 2014-15 school year and aligned to college and career ready standards. Many of these states will likely have assessment results that more closely reflect the rigor of the NAEP this year.

The three most widely used assessments of college and career readiness are the ACT Aspire®, the Partnership for Assessment of Readiness for College and Careers (PARCC) and the Smarter Balanced Assessment Consortium, with other states – like North Carolina – purchasing or developing their own state-specific assessments. An important study set for release this winter, led by the Fordham Institute and the Center for Assessment, will compare the alignment and quality of these three most widely-used assessments (watch for a link in the *Holshouser Legislators Retreat* follow-up report to be released to legislators in the new year). Because North Carolina's assessments are homegrown, we cannot compare our results to the results of other states – a disadvantage compared to the three above mentioned assessments: ACT Aspire, PARCC and Smarter Balanced.

Quality Assessment

While much of the recent debate over assessments has focused in how many assessments are given and what they are used for, it is equally important that the assessments are of the highest-quality. A number of different groups have set out frameworks for what makes a high-quality aligned assessment. Some of the most important common criteria include:

- **Align to the Standards**: As much as possible, the assessment should reflect the knowledge and skills contained within the state standards, both in breadth and depth.
- **Assess Higher-Order Thinking**: Rather than assess simple recall or memorization, assessments must test students abilities to analyze, synthesize and apply information in ways that accurately reflect skills required in the real world.
- **Require Students to Write**: Sometimes called constructed response, items that asks to students to explain their thinking and use evidence to support claims rather than select between four choices.
- **Use Technology for Delivery**: The use of video, audio, voice-capture, interactivity and simulations are all possible and may prove integral to developing more aligned assessments. Additionally, practical issues, like obviating the need to print and immediate scoring, are possible.
- **Sit within a Balanced System of Assessments**: In a balanced assessment system, teachers have the tools to check for understanding during the year in order to provide students with regular descriptive feedback and adjust their instruction to meet all students' needs.

Many of these requirements have cost implications – particularly using technology to deliver and requiring students to write. Currently, North Carolina's assessment system is one of the least expensive in the country and includes little writing.

BREAKOUT FOCUS

LEVERAGING TEACHER LEADERS

Most professional paths for teachers leading to increased responsibility, influence and compensation take them out of the classroom into positions like principal, central office staff or instructional coach. Enterprising states, districts and schools are beginning to implement new models that allow excellent teachers to advance in their careers without removing them entirely from the classroom. Central to these models are rethinking school structure, hierarchy and advancement, and ensuring that students are taught by excellent teachers every day.

TIERED LICENSURE SYSTEMS

Many states are using their licensure system to create tiers that recognize performance-based improvement and mastery of teaching practices. Often these systems move a teacher from novice to professional, to master or lead teacher licenses – each with increasing responsibility and compensation. In North Carolina, there are currently two tiers of licenses, Professional I and Professional II (typically received after 3 years), and they are unrelated to compensation.

DENVER PUBLIC SCHOOLS

Denver Public Schools has had a voluntary leadership initiative since 2010-11. Principals nominate teachers who perform leadership duties in addition to teaching full-time. These teacher-leaders are tasked with assisting with the implementation of standards and supporting the evaluation and teacher improvement system. Their responsibilities include designing new lesson units, leading professional development, observing other teachers in the classroom and providing feedback, and mentoring new teachers. Teacher-leaders receive a modest stipend and overtime pay, but principals also have discretion to provide additional supplements.

PUBLIC IMPACT

North Carolina's Public Impact has developed a series of models that include multi-classroom leadership, subject specialization, and blended learning models — all of which seek to expand the influence of excellent teachers. http://publicimpact.com/

In the 2012 MetLife survey, 51% of teachers responded that they were extremely or somewhat interested in taking on new roles and responsibilities.[65]

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