Moving North Carolina Forward: High Standards *and* High Graduation Rates

A Framework for Next-Generation Assessment and Accountability Indicators

Prepared by
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For the North Carolina State Board of Education and
Blue Ribbon Commission on Testing and Accountability

July 2007

EXECUTIVE SUMMARY

In the United States today, all young people need much more than a high school diploma in order to find jobs that will support themselves and their families. They need to graduate ready to succeed in postsecondary education and with career-ready skills, which in the 21st century economy increasingly requires the same high school preparation.

To create an education pipeline capable of moving all students through graduation to an advanced level of skills and credentials and connecting young adults to well-paying jobs, two challenges deserve the special and immediate attention of state leaders:

- Substantially increasing the percentage of students, and particularly low-income, African American and Hispanic young people, who graduate from high school in four years; and
- Substantially increasing the percentage of high school graduates who are fully prepared to succeed in work and postsecondary education.

These twin challenges constitute an urgent "dual agenda" of high standards and high graduation rates for all students. North Carolina has responded to these challenges by setting high expectations for all students and designing new school options to transform learning. Recently, the State Board asked Achieve, Inc. and Jobs for the Future (JFF), two national education policy organizations focused on raising graduation rates and graduation standards for all students, to provide a set of recommendations to the Blue Ribbon Commission describing how high school assessments and accountability indicators could better support a dual agenda.

Achieve and JFF recommend that the high school accountability system recognize and reward schools that help all students:

FRAMEWORK OF NEXT-GENERATION HIGH SCHOOL ACCOUNTABILITY INDICATORS

1) **Stay in school and graduate on time**
   - 4-year cohort graduation rate
   - 5-year cohort graduation rate
   - Percentage of "on-track" 9th-graders who earn enough credits to be promoted to 10th grade

2) **Successfully complete the North Carolina Future-Ready Core Course of Study**
   - Percentage of students who earn the Future-Ready Core Course of Study diploma
   - Percentage of students who perform at the proficient level or higher on the end-of-course exams in the English, mathematics, science and social studies courses in the Future-Ready Core Course of Study
   - Percentage of students who successfully complete the fourth year of mathematics that is aligned with entrance in community colleges and state four-year colleges and universities

3) **Earn career-ready industry-recognized credentials and/or college credit**
   - Percentage of recent graduates who earn industry-recognized credentials that prepare youth for meaningful careers
   - Percentage of graduates who earn a minimum number of college credits before graduation (through AP, IB, Early College, Learn and Earn, dual enrollment, etc.)
   - Percentage of recent graduates who earn an AA degree within one year of high school graduation

4) **Succeed in postsecondary education and careers**
   - Percentage of recent graduates who need postsecondary remediation
   - Percentage of recent graduates who persist in postsecondary education
   - Percentage of recent graduates who attain career-ready certificates, AA and BA degrees
   - Percentage of recent graduates who enter the military or find meaningful, family-supporting employment within three years of graduation

These accountability indicators and recommendations cannot be implemented well without additional attention to strengthening North Carolina's high school assessments; reporting of graduation rate and new course-taking; deciding what courses, credentials and college credits should count; and upgrading local and state data and information systems.

Our recommendations are drawn from dozens of conversations with educators, parents, students and state policymakers in Asheville, Greenville and Raleigh, analyses of promising practices in North Carolina and other leading states (including California, Indiana, Georgia, Louisiana, New York, Tennessee, Texas and Virginia), and what is working well in North Carolina already.

RECOMMENDATIONS

Recommendation One: Round out the end-of-course assessment system with upper-level tests for core subjects in the Future-Ready Core Course of Study.

Recommendation Two: Strengthen the quality of the end-of-course tests to assess a broader range of skills more deeply and provide leadership for improved diagnostic testing at the local level.

Recommendation Three: Make every end-of-course exam count for students, but consider multiple kinds of stakes.

Recommendation Four: Make graduation rates and readiness for college and careers central to high school accountability.

Recommendation Five: Reward schools for helping students earn "career-ready" industry-recognized credentials and college credit.

Recommendation Six: Invest in data systems to make all of this possible.

North Carolina also must decide how to weight the accountability indicators—giving special attention to increasing graduation rates and completion of the Future-Ready Core—and then update and streamline the three layers of school performance that determine school ratings, bonuses, incentives, supports and interventions. Though that level of analysis is outside the scope of this project, we look forward to advising and assisting the State Board and Blue Ribbon Commission as desired.

North Carolina faces a unique moment of opportunity to set its sights on the twin goals of significantly raising high school graduation rates, especially among the state's low-income students, and on college- and career-ready graduation for all students. This dual focus—a way to address the achievement gap and the graduation gap—is a powerful and persuasive platform for high school reform in North Carolina.

INTRODUCTION

NORTH CAROLINA'S ROAD TO HIGH SCHOOL REFORM

North Carolina has been a leader in standards-based reform for more than a decade. The Accountability, Basics and Local Control (ABCs) accountability system took effect during the 1996-97 school year under the leadership of former Governor James B. Hunt, Jr. Much of the framework for this system resulted from a Blue Ribbon task force of the State Board of Education, chaired by Sam Houston, who is now chairing the Blue Ribbon Commission on Testing and Accountability. The ABCs instituted a comprehensive system of testing in grades 3-8 and high school and school ratings that determine school wide financial bonuses for schools that meet growth targets and trigger supports and interventions for low-performing schools.

The Department of Public Instruction (DPI) recently released the state's first four-year cohort graduation data, revealing that 68.1 percent of freshmen who entered high school in 2002 graduated four years later. Barely more than one out of every two (55.3%) low-income students graduated on time. The North Carolina Community College System reported recently that 49.2 percent of recent high school graduates require at least one developmental course—at a cost of more than $27 million a year.

North Carolina is now addressing these data by instituting policies and practices to increase the number of young people who graduate and increase student preparation for postsecondary education and meaningful careers. Under the leadership of Governor Michael Easley, North Carolina has stepped forward as a frontrunner in high school reform. Governor Easley has worked with the North Carolina Department of Public Instruction to develop and expand the *Learn and Earn* high school initiative, allowing students to earn both a high school diploma and an associate's degree (or two years of college credit) with just one additional year of schooling. In partnership with The New Schools Project and with the support of the State of North Carolina and the Bill and Melinda Gates Foundation, the number of small high schools opening across the state has steadily increased. The state has also committed to increased funding, as well as staffing support and curriculum resources, to help turn around low-performing schools.

The state joined the American Diploma Project in May 2005 to align high school standards with those of postsecondary education and work, institute a default college- and career-ready diploma, and hold high schools and colleges accountable for student success. The creation of the Center for 21st Century Skills illustrates the state's commitment to preparing all students to meet the demands of the 21st century. Legislative leaders are focused on dropout prevention and recovery and how to support low-performing students and schools. And the State Board recently established the Blue Ribbon Commission on Testing and Accountability to examine the state's far-reaching testing and accountability program.

CURRENT HIGH SCHOOL DIPLOMA, TESTING AND ACCOUNTABILITY REQUIREMENTS

Students can graduate from North Carolina high schools by completing one of four programs of study, each with different course requirements:

- College/university preparatory option for University of North Carolina (UNC) system or other four-year college
- College/technical preparatory option for two- or four-year college
- Career preparatory option for students going directly to work

- Occupational course of study for severely learning disabled students

In addition to these four diploma options, students beginning with the Class of 2011 must pass five end-of-course (EOC) exams – Algebra I, Biology, English I, Civics & Economics, and U.S. History – and complete a Graduation Project.

The State Board of Education recently adopted the new "Future-Ready Core Course of Study" as the major diploma option for virtually all students (except those that qualify for the occupational course of study), beginning with the Class of 2013. Students will be placed in the Future-Ready Core as a default option; at the request of a parent and with counseling provided by the school, a student will be able to opt out of the third and fourth courses in the math sequence that includes Algebra II and a fourth year of math.

High school testing results are reported as the percentage of EOC tests scored at Level III (proficient) or above and aggregated at the school level and averaged across the ten subjects that are tested. This includes tests in subject areas that are not required for graduation and may have small numbers of test-takers that do relatively well (e.g. physics).

Before the No Child Left Behind Act of 2002 required all public schools to make Adequate Yearly Progress (AYP), the ABCs were based on two components, which have subsequently been revised. The *growth component* for high schools is currently based on the average academic growth of students calculated as individual students' growth from year to year. In addition, the high school dropout rate and the percentage of students who take the college/university preparatory course of study also are factors in this component, but they are given relatively little weight. The growth component is the sole determinant of the school wide financial bonuses. The *performance composite* indicator is currently based on the absolute performance of all students in a school. It is defined as the percentage of test scores in a school at or above proficiency.

Federal AYP became a third component of school ratings. To meet AYP, schools need to meet annual targets based on proficiency and participation rates in Algebra I and a combination of the English I EOC assessments and the Grade 10 Writing Assessment, with results disaggregated by up to ten subgroups. For the graduation component of AYP, every North Carolina subgroup, school and district has to have a four-year cohort graduation rate of at least 80 percent, or an increase of at least 0.1% percentage points from the previous year's graduation rates.

ABOUT THIS PROJECT

In recognition of the state's leadership on these issues, North Carolina was selected to participate in a new initiative—*Moving Forward: High Standards and High Graduation Rates*. This initiative is sponsored by Achieve, Inc. and Jobs for the Future (JFF) and funded by the Carnegie Corporation of New York. It has involved policy leaders in Indiana, Massachusetts and North Carolina to raise awareness of the need for states to pursue a dual agenda of high standards and high graduation rates as a centerpiece of the next phase of high school reform.

The State Board of Education asked Achieve and JFF to provide a set of recommendations to the Blue Ribbon Commission on how high school assessments and accountability indicators could better support a dual agenda. In particular, our recommendations—drawn from scores of conversations with educators, parents, students and state policymakers—offer guidance and a

suggested framework for the next generation of high school assessment measures and accountability indicators.

A joint senior team from Achieve and Jobs for the Future conducted this policy analysis between March and June 2007. The team interviewed 16 senior policymakers and education leaders in the North Carolina Governor's office, the General Assembly, the Department of Public Instruction and State Board of Education, among others. The team also convened nine focus groups in Asheville, Greenville and Greensboro with students, parents, educators, and administrators representing Asheville City Schools, Buncombe County Schools, Guilford County Schools, Haywood County Schools, Henderson County Schools, McDowell County Schools, Pitt County Schools, Polk County Schools and Transylvania County Schools. Conversations focused on strategies for improving career and college readiness and high school graduation rates, access to challenging courses and supports for struggling students, and perceptions of the current set of accountability indicators, as well as reactions to other indicators. In addition, the team reviewed state laws, regulations, policy briefs and reports and promising practices in assessment and accountability emerging around the country.

SUMMARY OF FINDINGS

We interviewed students, parents, educators, lawmakers and other policymakers on a range of topics, including:

- Beliefs about the economy and skill levels needed for success in good jobs
- Quality of state assessment system and its effects on learning and teaching in schools
- Kinds of measures and indicators that the accountability system could include to paint a more robust picture of student achievement
- High school dropout and graduation rates and causes
- High school redesign, including access to challenging coursework, quality teaching and student supports to meet higher standards

Overall, the messages we heard reaffirm the Blue Ribbon Commission's charge to take a fresh look at all elements of the state's testing and accountability system. Nearly all individuals with whom we spoke believe that the ABCs system started off reasonably—it was pioneering among all states—but that it has become convoluted with layer after layer of new policies, new safeguards, new accountability requirements. One person used the metaphor of a Christmas tree that is overloaded with ornaments and is jiggling on its way to falling over.

THE NEW ECONOMY AND EXPECTATIONS FOR GRADUATES

We heard substantial support at the state level for the need to increase innovation and redesign the public education system for a global society and economy. Most are persuaded that meaningful careers require higher levels of knowledge and skills than before and that North Carolina graduates should be ready for family-supporting jobs and postsecondary education.

The high school students with whom we met seem to agree. Many told us that high school is too easy and not engaging, especially for students "in the middle" of the achievement spectrum, and that this is true even in redesigned high schools and academies. Students asked to be pushed harder, guided more to take the right classes, kept appraised frequently of their performance in class and supported deeply when struggling.

Among local educators, we heard persistent beliefs at the local level that students can graduate with low-level skills or training and still survive in the job market. And there also appeared to be a fairly common belief that requiring all students to take a college-ready course of study will inevitably lead to higher numbers of dropouts.

STANDARDS AND ASSESSMENT

We heard a variety of reviews of the state standards and testing system. Nearly every individual with whom we spoke—at the local and state level—expressed concern with the way the ten-year-old system of high school EOC assessments is playing out. Some North Carolinians, particularly at the state level, told us about the strengths of the EOC tests. For example, they said that the testing system is reliable and stable; that it ensures consistency across schools; and that it represents the North Carolina Course of Study curriculum standards reasonably well. On the other hand, we also heard from local and state leaders who said the tests narrow the curriculum; are measuring only a sliver of the Course of Study; are not aligned with teaching and good

instructional practice; and are not relevant enough to measure the reasoning, application and problem solving skills needed in the new economy.

In particular, we heard often from high school students and teachers about the disconnects among what is taught and what is tested in English, mathematics, science, history, civics and economics. To students, the tests seem more like "twenty questions" than deep measures of learning. Most wanted the tests to emphasize reasoning and problem solving. Students also emphasized that the EOCs are not as relevant to their future plans. The message that students get: What matters is performance on the SATs, not the EOCs.

We heard from many that one of the barriers to increasing the relevance and depth of the tests is the requirement that the test results be returned to schools nearly immediately so that the exams can count toward course grades.

Nearly all believe that the state assessment system should be expanded to include:

- Better multiple choice questions targeting the most important content and skills
- Open-ended response items on the EOCs that measure problem solving and reasoning
- More performance-based assessments that measure "21st century skills," even if these are locally-administered rather than state-administered
- Diagnostic assessments and tools whose primary purpose is to improve student learning and help teachers target instruction, rather than report results publicly for accountability

Some interviewees acknowledged that the Standard Course of Study needs another hard look to ensure that it is rigorous, focused and relevant. The State Board has asked the Department of Public Instruction (DPI) to review the math curriculum for grades 6-12. In addition, now that the State Board has adopted the North Carolina Future-Ready Core Course of Study—and because DPI, higher education leaders and employers are working to align high school exit standards with the requirements to enter and succeed in first-year postsecondary education courses and training opportunities—DPI may need to review the course descriptions and syllabi for all courses in the Future-Ready Core to ensure the standards are rigorous, relevant and aligned with postsecondary expectations and meaningful careers.

CAPACITY AND STUDENT SUPPORTS

While there was general acknowledgement about the value of a more rigorous course of study for students, interviewees repeated voiced concerns about the lack of capacity at the local level (for examples, interviewees reported that classes too large, there is little time for teachers to plan and address problems together, professional development opportunities are limited, and there are not enough counselors or specialists) to ensure that all students, and especially those that enter high school behind in skills, can attain the higher standard. And we heard concerns about the lack of direction, guidance and support from the state on these issues.

Clearly, setting the standards is the first step of many that counties and the state will need to take. Students will need support and additional help meeting the new standards in the Future-Ready Core and revamped end-of-course tests. Attention to capacity-building, including improving the quality of instruction, alignment of local curriculum with the Future-Ready Core, and supports for struggling students, should be a priority of North Carolina policymakers.

GRADUATION RATES

District and school administrators and teachers pointed to a range of initiatives designed to reduce dropping out and keep more students in-school and on track to high school graduation. These include such initiatives as 9th grade academies, career-themed academies, credit recovery programs and building in more student advising and guidance. Yet, despite these efforts and despite the recent release of the four-year cohort rate showing that only about 2/3 of 9th-graders finish high school in four years, the full impact of these low graduation rates has not yet hit home. When asked whether the these data have resulted in new challenges or pressures to increase graduation outcomes and decrease dropping out, focus group participants and policymakers seemed relatively unconcerned. They did not report any pressure to change these results from parents, the media or the broader community. We did hear support for recognizing schools that are helping students stay on track to graduation and graduate within four years and even five years.

DATA AND ACCOUNTABILITY

As one observer put it, the ABCs were "the best and the worst thing to happen in North Carolina's education reform." One the one hand, the ABCs were the "best thing" because of the program's emphasis on growth from each school's baseline; even schools at the bottom could show progress, gain confidence and receive the popular school bonuses. On the other hand, the ABCs were "the worst thing" because school performance targets on which the bonuses are based are only related to each school's minimum growth. There is no "basement floor" for acceptable performance and "no real penalties for bad schools." And though dropouts are considered in the calculation of the growth component for the ABCs, this important indicator of school health and student success is given little weight. Schools are not typically penalized for not getting students to the finish line.

On the student accountability side of the equation, we heard much concern about the relationship of EOC exams to enrollment in certain courses, the quality of coursework and instruction and whether a student passes the course. These concerns include:

- "Creaming" of which students are allowed to enroll in certain courses;
- Teaching to the test and narrowing the curriculum because the EOC format is entirely multiple choice;
- Failing the test doesn't mean that students fail the course. Many students are failing the exam but still passing the course, and vice versa.

We also heard concern about the new graduation requirements beginning with the Class of 2011, in which students will need to pass the EOCs in Algebra I, Biology, English I, Civics & Economics, and US History. Some are concerned about the additional pressures on students to meet increased standards. We heard equal concern that these courses are only in the fundamental subject areas and not the advanced subjects, such as upper-level writing, data, statistics, geometry and advanced algebra, which are valued in postsecondary education and living-wage jobs.

We heard extensive support for the Graduation Project requirement that is in place for students in the Class of 2011. Most at the local and state level believe this project has the potential to emphasize 21st century-type skills and bring more relevance to student learning. Yet most are

equally concerned that the Graduation Project – which requires a Paper, Presentation, Portfolio and Product – lacks state funding support and has only been implemented voluntarily to date in 100 of more than 380 high schools. Clearly, school districts and the state face significant capacity challenges to implement the Graduation Project well.

It also became clear in our discussions that the state does not have sufficient data and information system capacity to support a high-quality next-generation assessment and accountability system. Of ten essential elements for data systems identified by the national Data Quality Campaign, North Carolina has only five in place. We learned that there is no unique student identifier that enables the smooth calculation of who dropped out, who transferred and who graduated within four or five years of entering 9th grade. Another missing critical element is the ability to match student records from early learning through K-12 through higher education and the workforce.

FRAMEWORK OF NEXT-GENERATION HIGH SCHOOL ACCOUNTABILITY INDICATORS

North Carolina citizens told us that assessment measures and accountability indicators should:

- Reflect the learning outcomes desired for young people to leave high school prepared for success in postsecondary education and living-wage jobs.
- Count and account for the graduation outcomes of all students who enter 9th grade.
- Be describable as a handful of broad categories that are easily communicated to and understood by the public and by educators.
- Measure a complete set of essential future-ready knowledge and skills.
- Provide a more complete picture of school performance in grades 9-12.
- Strike a balance between rewarding performance (test scores) and encouraging participation (course-taking), so that struggling or marginal students are not steered away from challenging courses.
- Provide formative achievement data that enables schools to manage for instructional improvement and increase graduation rates.
- Encourage all students, and especially low-income and disadvantaged students, to enroll and succeed in the North Carolina Future-Ready Core.

The framework we propose responds to the concerns we heard. In many respects, it is quite different from the high school assessment and accountability system currently in place in North Carolina and most other states.

Whereas the current focus of North Carolina's accountability system is primarily on test scores, this framework will shift the focus to *what students do,* including graduating from high school, successfully completing the Future-Ready Core Course of Study, earning college credits and/or industry-recognized credentials while in high school, and succeeding after completing high school in the workplace or in postsecondary education and training. However, test scores are not ignored in this framework. Testing is expanded and improved, and test results are factored in as a key element in determining whether a student has *successfully* completed the Future-Ready Core.

Whereas North Carolina's current system pays limited attention to high school graduation rates, this framework calls for the state to pay substantial attention to graduation rates and to hold schools accountable for ensuring that all students, including students who are "off-track" to graduate on time, earn their high school diploma. Further, we recommend that the state take steps to improve its data system, and help school districts develop "early warning indicators" of students at greatest risk of dropping out, so that schools can target interventions effectively and in a timely manner so that more students graduate.

Whereas North Carolina's high school assessment and accountability system relies exclusively on multiple choice tests, this framework calls for including constructed response items and performance tasks administered throughout the year.

Finally, the framework we propose is designed to hold high schools accountable for graduating more students and graduating them ready for careers and college without compromising on one

or the other of the twin goals. North Carolina should take this framework as the basis for upcoming conversations around school ratings, financial incentives and interventions.

Therefore, Achieve and JFF recommend that the high school accountability system should recognize and reward schools that help all students:

1) Stay in school and graduate on time

Indicators

- 4-year cohort graduation rate
- 5-year cohort graduation rate
- Percentage of "on-track" 9th-graders who earn enough credits to be promoted to 10th grade

Additional Incentives and Considerations: All data should be disaggregated by income, ethnicity, gender and special student populations. And in addition to a small number of "on-track" indicators that the state would calculate, report and use to recognize schools making progress, there are other "early warning" indicators that schools and districts should use to trigger interventions and keep students from dropping out. A growing body of research indicates that these early indicators include failing math and/or English courses, attending school 80 percent or less of the time and/or receiving a poor final behavior mark. These early warning indicators can be tracked beginning in 6th grade through high school, but they need not and indeed should not be included in school accountability determinations.

2) Successfully Complete the North Carolina Future-Ready Core Course of Study

Indicators

- Percentage of students who earn the Future-Ready Core Course of Study diploma
- Percentage of students who perform at the proficient level or higher on the end-of-course exams in the English, mathematics, science and social studies courses in the Future-Ready Core Course of Study
- Percentage of students who successfully complete the fourth year of mathematics that is aligned with entrance in community colleges and state four-year colleges and universities

Additional Incentives and Considerations: All data should be disaggregated by income, ethnicity, gender and special student populations.

3) Earn career-ready industry-recognized credentials and/or college credit

Indicators

- Percentage of recent graduates who earn industry-recognized credentials that prepare youth for meaningful careers
- Percentage of graduates who earn a minimum number of college credits before graduation (through AP, IB, Early College, Learn and Earn, dual enrollment, etc.)
- Percentage of graduates who earn an AA degree within one year of high school graduation

Additional Incentives and Considerations: All data should be disaggregated by income, ethnicity, gender and special student populations. The State Board should review the career and

technical education courses of study and their relationship to rigorous industry-recognized credentials. While it may be tempting to widen this indicator to reward all industry-recognized credentials, not all credentials truly help students graduate "career-ready." Industry credentials that are recognized for this indicator should offer high school graduates entry-level positions with career advancement opportunities and family-sustaining wages. To determine the minimum college credits for school accountability, the State Board also should examine data on the effects of earning college credits while in high school on college entrance and completion.

4) Succeed in postsecondary education and careers

Indicators

- Percentage of recent graduates who score well enough on college placement exams to enter credit-bearing courses in college without the need for postsecondary remediation
- Percentage of recent graduates who persist in postsecondary education
- Percentage of recent graduates who attain career-ready certificates, AA and BA degrees
- Percentage of recent graduates who enter the military or find meaningful, family-supporting employment within three years of graduation

Additional Incentives and Considerations: All data should be disaggregated by income, ethnicity, gender and special student populations. While it's outside the purview of our analysis, at the same time that high school accountability indicators are being strengthened to include measures of college success, so too must postsecondary education accountability indicators be strengthened. Success in credit-bearing courses, persistence and on-time graduation rates are indicators that could be the focus of postsecondary accountability for two- and four-year colleges, as well as high school accountability.

RECOMMENDATIONS FOR POLICYMAKERS

The accountability indicators described above cannot be implemented well without additional attention to strengthening North Carolina's high school assessments; reporting of graduation rate and new course-taking; deciding which courses, credentials and college credits should count; and upgrading local and state data and information systems.

RECOMMENDATION ONE: ROUND OUT THE END-OF-COURSE ASSESSMENT SYSTEM WITH UPPER-LEVEL TESTS FOR CORE SUBJECTS IN THE FUTURE-READY CORE COURSE OF STUDY.

Course grades alone will not be adequate to determine whether a student has successfully completed the core because grades lack consistent meaning across the state. We therefore recommend that the system of end-of-course exams be expanded to address all core subjects required in the Future-Ready Core. EOCs are particularly needed in the later grades because upper-level courses are more likely to be inconsistently implemented or otherwise watered down than are lower-level courses, especially as the enrollment in upper-level courses expands to include many more students than before.

North Carolina currently gives EOC exams in 10 subject areas: English I; Algebra I, Geometry, Algebra II; Physical Science, Biology, Chemistry, Physics; and Civics & Economics and U.S. History. In the newly-adopted Future-Ready Core Course of Study, students in the Class of 2014 will be required to earn 10 units in English, science and social studies courses and four units in mathematics. In mathematics, students and schools can choose a traditional sequence of Algebra I, Geometry and Algebra II plus a fourth course, or they can choose an integrated sequence of Integrated Mathematics I, Integrated Mathematics II and Integrated Mathematics III plus a fourth course. By our calculation, at least seven new exams might be needed to assess English in grades 10-12, World History and the integrated math sequence; some adjustment in science also may be warranted.

As the state implements the Future-Ready Core Course of Study, it will be important to ensure that the EOC exams are implemented in such a way that they do not constrict innovation at the school level. Young people who are behind academically and off track to graduation often need innovative curricular and instructional approaches that engage them, even while helping to build their basic skills. New ways of organizing the schedule and curriculum can play a critical role in reengaging faculty, too. The state also should consider "modularizing" the EOC tests to accommodate different curriculum approaches (such as project-based learning and integrated mathematics) and different models of schooling (such as Learn and Earn schools).

RECOMMENDATION TWO: STRENGTHEN THE QUALITY OF THE END-OF-COURSE TESTS TO ASSESS A BROADER RANGE OF SKILLS MORE DEEPLY AND PROVIDE LEADERSHIP FOR IMPROVED DIAGNOSTIC TESTING AT THE LOCAL LEVEL.

While a system of EOC exams should continue to provide the foundation of the state's high school assessment system, a richer system of measurement is needed to better measure high priority knowledge and skills in the Future-Ready Core Course of Study and to support continuous instructional improvement. We recommend that North Carolina policymakers revamp and expand measures to support rigorous and relevant instruction throughout the school year and

de-emphasize the idea of testing as only an end-of-year event. More specifically, we recommend both improvements to the EOC exams that are used for student and school accountability and support for the development and use of formative assessments whose purpose is improving instruction but not accountability.

There are several approaches the state can take to improve the quality of the EOCs.

Improve multiple choice items on EOC exams. Good multiple choice tests can measure rigorous content and analytic skills such as reasoning and problem solving; they needn't be limited to testing a student's ability to recall discrete bits of information. The state should create more cognitively challenging multiple choice items that tap higher-level content and a variety of skills.

Include constructed response items on EOC exams. The state also can increase the range of testing formats on the EOC exams. Open-ended/constructed response items have been included in the North Carolina testing system in the past and should be restored. Short answer and longer performance tasks can assess a broader range of performances.

We know that the need to return EOC results almost immediately to schools and controversies about the previously-used constructed response items had been significant reasons for emphasizing multiple choice items on the EOCs. Achieve's experience co-leading with nine states the development of a common Algebra II end-of-course assessment for use in spring 2008 suggests that an EOC can include a broader range of high-quality items and formats and that it can be possible to turn around the results within two to three weeks. Online assessments are another route for fast return of results without sacrificing quality. Even if turnaround time is extended, the delay may be worthwhile if the tests are of better quality.

Add performance assessments throughout the school year. Even with these improvements, the state may need new kinds of tasks to measure advanced problem solving, reasoning, communications and research skills (the "21st century" skills that are valued in the real world by employers and postsecondary faculty) that cannot be administered effectively or efficiently in a large-scale format. The state could develop or stimulate the development of performance tasks that could be administered at the local level throughout the school year. Such performance-based measures could count toward the course grade, the EOC score and school performance ratings, for example —even if the tasks are given throughout the year/course, rather than at the end of the year. The results need to count for schools as well as students to signal the importance of deepening the curriculum. States such as Kentucky and Rhode Island have experience with the development, administration and scoring of performance tasks that can inform North Carolina conversations.

These improvements cannot be made overnight, but they are all feasible. Improvements in multiple choice items can come more quickly than the addition of performance tasks throughout the school year. If open-ended items are added to the existing multiple choice tests, the scoring procedures and reporting timelines will need to be adjusted somewhat, and these changes may need to be phased in over time.

Support the use of formative assessments for instructional improvement. The state needs to provide leadership on formative assessments that are given only to inform local instruction. We heard nearly universal support for more "formative assessment" or "classroom-based assessment" in our interviews. As more students enroll in more challenging classes, high school teachers and school systems will need a richer set of tools to evaluate student skills and progress throughout the school year. Currently, the state does not have a role in helping local districts identify, select and use such assessments, let alone in paying for their development and use. Because this is a new area of work for North Carolina and other states while many districts have already put these assessments in place, it makes sense for state leaders to start by gathering research on promising practices in formative assessments and data on what assessments are already being used by school systems in North Carolina.

Bringing more clarity to the discussion in North Carolina about the purposes and uses of formative assessments and performance assessments, as opposed to the purposes of the end-of-grade and end-of-course assessments, is essential. It will be important to clarify the different purposes and types of "formative" assessments. In our interviews we noted a lack of common understanding of terms, purposes and uses of local assessments, including performance, classroom-based, formative, benchmark, interim and diagnostic assessments. Benchmark and interim assessments are the terms commonly used to denote classroom-based assessments that are administered and reported to the school district every four-to-six weeks to predict how well students will perform on the end-of-year state assessment or sometimes to evaluate instructional effectiveness. Formative classroom-based assessments whose purpose is primarily to inform instruction are more diagnostic in nature and need to be used daily or every few days in order to maximize their utility. These can be teacher-created or externally-created, but the primary users of the assessments are classroom teachers, rather than district or state officials.

A note about the costs of assessments. The above recommendations to expand and strengthen high school assessments will increase the total cost of assessments to the state. Proposing to spend more money on testing is never popular and we anticipate this will be a source of concern if not opposition to these recommendations.

It is important to put the costs of testing into context and in particular to consider these costs in comparison to all expenditures on public education. The state testing budget is approximately $20 million per year, *which is less than a fraction of one percent of the total state expenditure on K-12 education of $7.3 billion.* End-of-course exams cost between $5.72 and $36.51 per pupil per test, depending on the subject tests and the number of students who take each test, compared with per pupil expenditures of more than $7,500 per student. Expenditures on testing represent a very small part of overall education expenditures, yet testing plays a very large role in the state's strategy for improving teaching and learning. In addition, the state and districts can work together to achieve savings in local and state assessment costs by reducing unnecessary testing, including district assessments that may not be tied to state standards. Improved testing, in the form of rigorous end-of-course assessments, high quality performance assessments and classroom-based assessments embedded in the instructional program, can greatly enhance instruction, and help the state ensure that graduates really are prepared for the rigors they will face after high school.

To address all of these concerns—as well as significant capacity concerns at the state level—we believe that North Carolina needs a thoughtful strategy, built on a local-regional-state partnership model and including pilot projects, to develop or stimulate the development of performance assessments and formative assessments given during the year. Such a partnership model would also be useful to develop early warning data systems described below that would be used in middle and high schools, but not included in school accountability.

RECOMMENDATION THREE: MAKE EVERY END-OF-COURSE EXAM COUNT FOR STUDENTS IN SOME MANNER, BUT THE MANNER SHOULD VARY DEPENDING ON THE COURSE.

End-of-course exams – including performance assessments – aligned with the course of study for each course are essential to ensure that completing the Future Ready Core is meaningful. These tests promote consistent content and rigor in courses throughout the state and ensure that students are held to consistent standards statewide.

Test results for all EOC exams should be reported for each school, district and statewide annually, disaggregated by subgroup. These data will enable state and local educators to identify schools, subjects and courses where improvements are needed. Making the data widely available will inform the public about the performance of each school and district and create professional and community-based incentives for improvement.

To be meaningful, performance on every test must count for students as well, but tests in different courses can and should count in different ways.

End-of-course exams in North Carolina currently count in two ways. When a student takes a course, s/he also must take a corresponding EOC exam if one exists for that course. The student's score on the EOC counts for "25% or more" of course grades. Students in the Class of 2011 must complete a Graduation Project and pass five EOCs—English I, Algebra I, Biology, U.S. History and Civics—all courses typically taken in 8^{th}, 9^{th} or 10^{th} grade.

As the state expands end-of-course testing, we recommend establishing three mechanisms for making the tests count for students, to be applied to different courses and tests.

Tests students must pass to graduate. Consistent with current policy, we recommend that students be required to pass exams in lower-level courses in order to earn a high school diploma. Attaching the highest stakes to the lower-level courses makes sense, as this is where the capacity of the system to deliver effective results is the greatest.

Tests that count toward the course grade. A "medium stakes" policy of counting EOC test results as 25% of course grades has the advantages of providing an incentive for most students to study hard and take the test seriously, while not blocking a student from graduating solely on the basis of his/her test score. This approach is particularly well suited for upper-level courses (e.g., chemistry, physics, upper level English and history courses), where many schools will need time to develop the capacity to teach those courses well to significantly more students.

This approach also helps ensure a focus on upper-level, career- and college-preparatory courses and exams, not just 9th and 10th grade courses, without putting student stakes ahead of system capacity. For now, the highest stakes for students should be on tests in the lower-level courses. The state should revisit this as the capacity of the system to deliver increases**.**

We heard over and over that the "medium stakes" policy of counting EOC results in course grades leads to numerous scenarios in which students pass the test but fail the course, or fail the test and still pass the course. The state could improve upon the current situation by defining the "25% or more" policy more thoroughly; by upping how much the test counts as a percentage of course grades; or by getting more involved in defining the 75% of course grades that are locally determined. In any case, it seems to us that this medium stakes dilemma probably cannot be erased entirely and that the state will want to continue to place medium stakes, as opposed to high stakes, on some tests.

Test scores that are used by postsecondary institutions. Tests in selected upper level courses can and should be used to help open the doors to postsecondary education. End-of-course exams in Algebra II and English III, courses typically taken in the 11th grade, should be both aligned with the relevant course of study and provide information that postsecondary institutions can use to determine if a student is ready to take credit-bearing rather than remedial courses.

Students who do well on the exam can find out while they are still in high school that they are ready to do college-level work. As important, students who do not score well will find out in time to make up any skill deficiencies while they are still in high school, with the added benefit of reducing remediation rates in state postsecondary institutions. The California State University (CSU) system has pioneered this approach, developing the test in partnership with the California Department of Education, and encouraging regional campuses to partner with local high schools to develop senior year courses that can help students fill in the most significant skill gaps.

In order to create end-of-course exams that serve this purpose, the K-12 and postsecondary systems will need to complete the process of developing "Academic Standards for College and Work," work underway through participation in Achieve's Alignment Institute. These standards will then need to be "back-mapped" into course descriptions, which will form the basis of content specifications for the tests. At that point there are several ways to create EOC tests that can provide information for placement purposes. One, the approach used by the CSU system, is to review existing EOC tests to determine their alignment to new standards, and augment the existing EOC tests with additional questions if necessary. A second approach would be to develop new tests. A third would be to participate in the ADP Algebra II exam, a 9-state effort to create a common EOC exam that can be used for placement purposes.

None of these approaches need to compete with the UNC Early Mathematics Placement Test, which is gaining traction in the state as an early signal to high school students of their readiness to participate in credit-bearing math courses. Students can benefit from having multiple opportunities to determine their preparation for postsecondary education.

In determining which courses have medium stakes and which have higher stakes, North Carolina could factor in student interest. While *all* students will have to pass *some* tests (e.g., Algebra I,

English I or III, some science course), students should be able to select the courses/tests in other core subjects that they will have to pass. Students with a passion for history can focus on U.S. or World History, while young adults with strong Science, Technology, Engineering and Mathematics (STEM) or CTE interests should be able to focus on other math or science exams, which is what Virginia allows. There also should be a role for the Graduation Project here, too, in which students select the focus of their graduation project so that they are working deeply on a topic about which they care a lot. This also provides flexibility for different models of schooling and curriculum approaches.

Regardless of the level of stakes placed on a course, students and schools should be able to "opt-up" in rigor. States like New York and Virginia have thoughtful policies that allow students to substitute measures such as Advanced Placement (AP) tests, International Baccalaureate results, tests in college-level courses, certain rigorous industry credentials, or other measures with equivalent or higher rigor, for state EOC tests in courses in the Future-Ready Core.

Our expectation is that the state and school districts will invest in capacity-building, including supports for struggling students, voluntary curriculum materials and resources and professional development. Over time, capacity to achieve the standards in the upper-level subject areas will catch up to expectations. At that point, the state can reconsider which stakes apply to which standards.

RECOMMENDATION FOUR: MAKE GRADUATION RATES AND READINESS FOR COLLEGE AND CAREERS CENTRAL TO HIGH SCHOOL ACCOUNTABILITY.

Including measures of both attainment and readiness sends a clear message to districts and schools that they are expected not only to ensure that graduates are prepared to succeed in college and work but also to graduate more students. Prioritizing both the cohort graduation rate and the number of students who successfully complete the Future-Ready Core with significant weight in the accountability system will give the state a powerful lever to encourage districts to pay attention to the progress and course-taking of *all* students. And it would reward schools for getting more students into the Future-Ready Core, including struggling or marginal students who might otherwise be pushed out of this option.

The framework outlined provides an expanded set of indicators the state could use to incentivize progress and ultimately achieve both of those goals. The details of how to weight these indicators still need to be determined; however, that process should give greater attention to successfully completing the Future-Ready Core.

To determine what it means to "successfully complete the Future-Ready Core" we recommend including three indicators. The first indicator we recommend using is the percentage of students who earn the Future-Ready Core Course of Study diploma. The second indicator is the percentage of students who perform at the proficient level or higher on the end-of-course exams in the English, mathematics, science and social studies courses in the Future-Ready Core. The third indicator is the percentage of students who successfully complete the recommended fourth year of mathematics that is aligned with entrance in community colleges and state four-year colleges and universities. This indicator would help protect access to these advanced mathematics courses for students who know they want to attend postsecondary education, but

who may not be considered "college material" by their schools and might be pushed into other options. In each case results should be disaggregated by ethnicity, income, gender and special populations. This is especially important with respect to third indicator, as it will provide important information about the extent of disparities in taking advanced mathematics.

North Carolina recently joined other leading states in calculating and reporting four-year cohort graduation rates for students overall and by various subgroups in order to draw attention to this critical leak in the state's education pipeline. The cohort graduation rate is a way to protect struggling students who might have trouble meeting standards from being pushed out. The next step is to accord this measure substantial weight, along with the college and work readiness indicators, in the overall accountability index to be established. Given the state's data limitations, over time, the state should establish a higher bar for improving local graduation rates to give districts and schools appropriate incentives so that the push for college and work readiness is accompanied by an equal commitment to ensuring that all students entering in the 9th grade cohort achieve the standards and graduate.

RECOMMENDATION FIVE: REWARD SCHOOLS FOR HELPING STUDENTS EARN "CAREER-READY" INDUSTRY-RECOGNIZED CREDENTIALS AND COLLEGE CREDIT.

High schools should be pushed not only to help students take the right courses, but to help students earn credentials and credits that accelerate success after high school. Industry-recognized credentials can open doors to high-paying jobs. Earning a minimum number of college credits while still in high school helps students know what it takes to be successful in college courses; increases not only their confidence but their college-going and completion rates as well; helps streamline student time to degree; and stimulates more rigor in high school courses. This particular indicator also supports the state's Learn and Earn schools and high school redesign efforts.

To determine the minimum college credits that would be required for schools to get credit for this indicator, the Blue Ribbon Commission should examine data on the effects of earning college credits while in high school on college entrance and completion to get a better handle on how many credits should be incentivized.

The State Board also should review the career and technical education courses of study and their relationship to rigorous industry-recognized credentials. While it may be tempting to widen this indicator to reward all industry-recognized credentials, not all credentials truly help students graduate "career-ready." Industry credentials that are recognized for this indicator should offer high school graduates entry-level positions with career advancement opportunities and family-supporting wages.

RECOMMENDATION SIX: INVEST IN DATA SYSTEMS TO MAKE ALL OF THIS POSSIBLE.

Last, but definitely not least, North Carolina does not have sufficient data and information system capacity to implement several of the recommendations in our framework. Of ten essential elements for statewide data systems identified by the national Data Quality Campaign, North Carolina has only five in place. First and foremost, the state lacks a unique student identifier to enable the smooth calculation of who dropped out, who transferred and who graduated within four or five years of entering 9th grade. Another missing critical element is the ability to match

student records from early learning through K-12 through higher education and the workforce. Matching student records or linking databases can be done effectively and efficiently, while still protecting student privacy. As the state begins to invest time, energy and dollars into revamping the state accountability indicators, it must take the step to develop the unique student identifier and link state data systems. We know that the state recently was awarded a federal data systems grant, which is an important step, and urge that additional state dollars be allocated to get this job done.

North Carolina also should help local communities identify and develop "early warning data systems" that help predict which students are unlikely to graduate unless appropriate interventions and supports are triggered and delivered. These systems should draw on recent groundbreaking research on leading indicators of dropping out. This research has shown that dropouts follow identifiable patterns of performance and behavior—patterns that states, districts, and schools can analyze and address. In studies of Boston, Chicago, Indianapolis and Philadelphia public schools, researchers have found that school-based factors such as low attendance, behavior reports and poor grades in English and math courses as early as 6th grade have value in predicting who later will drop out. Recent studies of data from the Chicago public schools, conducted by Elaine Allensworth and colleagues at the Consortium on Chicago School Research at the University of Chicago, showed that an "on-track" indicator that signals when 9th graders are falling seriously off the track to earning a diploma is 85 percent predictive of future dropping out.[1] This new knowledge base makes it more possible than ever before for schools districts to target investments to the most promising and effective practices and policies.

As part of the Moving Forward initiative, Robert Balfanz of Johns Hopkins University is analyzing data from rural communities in North Carolina to determine how the predictors of dropping out in the urban communities studied to date apply in other situations. The results of this research study can inform the development of the statewide data system and local/regional early warning systems in North Carolina.

ADDITIONAL CONSIDERATIONS FOR POLICYMAKERS

Once the new measures and indicators are adopted, North Carolina's current system of school ratings with its three layers – growth component, performance composite and adequate yearly progress – needs to be streamlined into a single coherent system that includes performance targets for each public school used to determine interventions and rewards.

On the question of how to combine the various indicators, the state of Louisiana is an emerging national model. Louisiana has proposed to expand its state high school accountability system in order to reward schools for holding on to struggling students, as well as for ensuring that all students are reaching high levels of academic performance. In Louisiana, the proposed high school ratings would be determined by an index. Schools would get additional points for achieving various goals; for example, a school that keeps a low-performing student in school gets a higher score than a school that lets that student drop out. Additionally, high schools receive points for getting students across the finish line with a high school diploma plus "endorsements" that signify readiness for college and careers.

[1] A student is considered on-track at the end of 9th grade if he or she has earned at least five full year course credits and no more than one F (based on semester marks) in core academic courses.

Louisiana Graduation Index	
Student Result	**Points**
Academic Endorsement	180
TOPS Opportunity Award or Career Technical Endorsement	160
Industry Based Certification OR TOPS Tech and Dual Enrollment OR TOPS Tech and Articulated Credit	140
Regular HS Diploma	120
GED	90
Skills Certificate/Certificate of Achievement	60
Attender	30
Dropout	0

MOVING FORWARD

North Carolina has made great strides over the last ten years to develop a nationally-recognized system of academic standards and assessments. Yet, the work of improving education and economic outcomes for young people is far from complete. Too many high school students continue to struggle in school and leave before graduating; too many dropouts and graduates alike are ill-equipped to pursue the postsecondary training and education that are so critical to success in the future.

North Carolina faces a unique moment of opportunity to mobilize a broad set of constituencies to address these challenges. The State Board of Education and the Blue Ribbon Commission are considering a wide range of improvements to the state's system of standards and assessment. Using these vehicles, the state's leadership has the chance to set its sights on the twin goals of significantly raising high school graduation rates, especially among the state's low-income students, and on college- and career-ready graduation for all students. This dual focus—a way to address the achievement gap and the graduation gap—is a powerful and persuasive platform for high school reform in North Carolina.

ABOUT THIS REPORT

North Carolina was selected to participate in this initiative—*Moving Forward: High Standards and High Graduation Rates*—jointly sponsored by Achieve, Inc. and Jobs for the Future (JFF) and funded by the Carnegie Corporation of New York. This effort is designed to spotlight the importance of pursuing a dual agenda of high standards and high graduation rates. The project aims to demonstrate how states and districts can create a more coherent, intentional and aligned use of standards and support-based high school reform strategies and policies to improve both achievement and graduation rates for struggling and out-of-school students.

North Carolina's participation in the project was fully supported by the governor's office, the state Superintendent of Public Instruction and the State Board of Education. We appreciate the support in particular of Rebecca Garland and Loretta Peace-Bunch of the State Board of Education, who organized the Raleigh interviews, and Mary Williamson in Greenville, Mac Clary in Greensboro and Michael Lodico in Asheville, who coordinated three sets of focus groups and hosted us. And we especially appreciate the participation of students, parents, educators and administrators from Asheville City Schools, Buncombe County Schools, Guilford County Schools, Haywood County Schools, Henderson County Schools, McDowell County Schools, Pitt County Schools, Polk County Schools and Transylvania County Schools.

ABOUT THE PARTNERS

Created by the nation's governors and business leaders in 1996, Achieve, Inc. is a bipartisan, nonprofit organization that helps states raise academic standards and achievement so that all students graduate ready for college, careers and citizenship. Over the past decade, Achieve has helped more than half the states benchmark their academic standards, assessments and accountability systems against the best examples in the United States and around the world. Through the American Diploma Project Network, Achieve helps states ensure that standards keep pace with the increasing demands of the global economy. To date, 29 states have joined this voluntary coalition to close the expectations gap so that all students are prepared for success.

Jobs for the Future (JFF) seeks to accelerate the educational and economic advancement of youth and adults struggling in today's economy. JFF partners with leaders in education, business, government, and communities around the nation to: strengthen opportunities for youth to succeed in postsecondary learning and high-skill careers; increase opportunities for low-income individuals to move into family-supporting careers; and meet the growing economic demand for knowledgeable and skilled workers.

A joint senior team from Achieve and JFF served as staff for the project. From Achieve, this included Michael Cohen, president, Jennifer Vranek, senior associate, and Alissa Peltzman, policy analyst. Adria Steinberg, associate vice president, Cheryl Almeida and Terry Grobe, program directors, and Cassius Johnson, project manager, rounded out the team for JFF.