

21ST CENTURY GRADUATES

*A Closer Look at the
North Carolina Graduation Project*

Findings from the North Carolina
Business Committee for Education 2006 Partner Survey



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The North Carolina Business Committee for Education (NCBCE) is a non-profit, non-partisan consortium of businesses from across the state. Established in 1983, NCBCE acts as an advocate and catalyst for systemic change and continuous improvement in public education. The Business Committee's current work focuses on ensuring that North Carolina schools are preparing students to succeed in the global economy of the 21st century.

NCBCE members have provided input on the skills, knowledge and attributes which are essential for today's high school graduates. The Graduation Project was developed with support and feedback from business members of NCBCE.

Housed in the Office of the Governor, NCBCE is a public-private partnership committed to supporting the preparation of North Carolina students for employment and lifelong learning.

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Preparing Students for a Different World

Like many states, North Carolina faces an urgent educational challenge: Too few North Carolina students graduate from high school—and too few of those who graduate are prepared for college and employment in a 21st century, global society.

No matter what their future plans, all students need to be far better educated in their high school years. Entry-level workers and college students need comparable skills and knowledge, according to a recent study from ACT.¹

The North Carolina Business Committee for Education (NCBCE) 2006 Partner Survey reinforced this finding. The survey identified skills and qualities important for North Carolina students to succeed in 21st century workplaces. The top five are:

- Applying basic mathematical concepts and skills
- Working effectively as a member of a team
- Using and integrating information and communication technology
- Conducting oneself appropriately in line with social responsibility and sound ethics
- Reading and comprehending materials of varying complexity.²

As other countries increase their efforts to compete in an international market, Americans no longer can assume they will lead the world in producing highly qualified, innovative and creative workers. Likewise, if North Carolina is to remain economically competitive, business representatives, policymakers, parents and students must recognize the imperative of preparing students for the future. What will it take to prepare all North Carolina students for college, work and citizenship? What systems are already in place? What are 21st century skills and how should students demonstrate them? This paper explores challenges and opportunities related to 21st century learning and high school graduation requirements, with specific attention to the North Carolina Graduation Project.

If North Carolina is to remain economically competitive, business representatives, policymakers, parents and students must recognize the imperative of preparing students for the future.

We are competing with people in other parts of the world that are better educated than before and willing to work a lot harder than we are for a lot less. And that will continue.

— *John Allison, chairman and chief executive officer of BB&T, in an interview with The News and Observer, June 2006*

The Challenges: Mounting Evidence of Inadequate Preparation

Historically, Americans trusted their schools: A high school diploma represented adequate preparation for future workplace success and participation in a democratic society. Today, however, there is growing concern and consensus that high schools must do more. Indeed, while the world has changed, American high schools largely have not. Recent studies indicate that American students are falling behind in international comparisons of critical thinking, problem-solving skills and workforce preparedness. Consider the following indicators:

Recent studies indicate that American students are falling behind in international comparisons of critical thinking, problem-solving skills and workforce preparedness.

- In 2005, the National Center for Educational Statistics reported that 15-year-old students in the United States ranked 24th out of 40 countries in applying mathematical concepts to real-world situations.³
- The proportion of earned degrees in science and engineering fields were lower in the United States than in 16 or more countries in Asia and Europe.⁴
- A majority of high school graduates reported that they felt unprepared for college and the workplace.⁵
- Nationally, about a third of high school graduates who go to college require remedial courses.⁶
- In a 2005 survey of manufacturers, 84 percent of employers indicated that schools are not preparing students adequately for the workplace.⁷

The cost and implications of unprepared students are enormous for individual families and the nation. U.S. colleges and universities spend an estimated \$1 billion to \$2 billion each year to provide remedial education for college students. Additionally, lost productivity costs related to basic skill deficits are estimated at \$16 billion annually.⁸

By traditional standards, North Carolina schools have made good academic progress at the elementary and middle school levels. During the past decade, overall achievement on state accountability measures increased and achievement gaps among student groups continued to narrow.⁹ Yet, much work remains to be done. A 2005 Harvard study on graduation rates in the five southern states of Florida, Georgia, Louisiana, Mississippi and North Carolina estimated that fewer than 70 percent of all students who entered ninth grade graduated on time with regular diplomas. The rates were even lower for Black, Latino and Native American students.¹⁰

The Opportunity: Making High Schools More Rigorous and Relevant

Research has long indicated that rigorous coursework in high school better prepares students for college and future employment. Fortunately, recent high school redesign initiatives have embraced the goals of academic rigor, relevance and relationships for all students. In March 2006, the Partnership for 21st Century Skills released *Results that Matter: 21st Century Skills and High School Reform*. This report called for high schools to redefine academic rigor beyond traditional “metrics” to integrate core subjects, 21st century content, learning and thinking skills, ICT literacy and life skills—with 21st century assessments to measure all of these results that matter. These elements are not “soft skills,” but necessary requirements for future success in college, work and society.¹¹

School districts are struggling to meet the requirements of high-stakes testing while preparing students for work and life in an international environment. No one disagrees that information, typically measured by paper-and-pencil tests, is important. However, business leaders contend that the basics of yesterday are not sufficient for tomorrow. State assessments must measure 21st century skills that are aligned with the expectations of colleges and the workplace. Schools can enhance current accountability systems by balancing standardized tests with classroom-based assessments that include multiple indicators of student learning. Using broader measures of student proficiency, schools can respond to concerns about declining graduation rates, less rigorous curricula, lack of diagnostic information to guide instruction and student learning, and invalid judgments about student proficiency. Additionally, state assessment systems that provide teachers with opportunities to share student work, discuss grading standards and collaborate to improve instruction are more likely to impact positively on teaching and learning practices, and, ultimately, student achievement.¹²

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We need to create and/or support programs that result in an increased number of students completing high school and prepare them for entrance into our excellent community college and university systems.

— *Christy Shaffer, CEO of Inspire, in an interview with The News and Observer, June 2006*

North Carolina Graduation Project

North Carolina leaders have embraced the challenge of preparing students for a 21st century global society. New high school exit requirements will apply for the first time to entering ninth-graders in the 2006–07 school year. In addition to passing five end-of-course tests, students will be required to complete a graduation project. North Carolina’s model currently includes the following components:

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- **Research Paper:** An eight- to 10-page paper, which requires students to develop and demonstrate proficiency in conducting research and writing about a chosen, in-depth topic.
- **Portfolio:** A folder containing reflective writings or logs and other documentation demonstrating the research process and progress.
- **Product:** A tangible product related to the field of study or research topic, which students select, design and develop.
- **Presentation:** A formal oral presentation encapsulating the graduation project, from the topic selection to project completion and self-growth. Judges will include school staff and community members who may interact with the student following the presentation.¹³

This model provides students with the opportunity to demonstrate learning in a culminating performance that requires 21st century skills, such as critical thinking, problem solving, creativity, communication, technology skills and self-directed learning. Students will be evaluated on their performance in such elements as presentation, design, problem solving, academic content, work ethic and time management.

North Carolina's Action Agenda

North Carolina business and community leaders know that a quality public education system is necessary for economic growth and success in the 21st century and are working collaboratively to strengthen the state's high school diploma. The North Carolina graduation project represents the "first best chance" for high school students to demonstrate competency in skills and knowledge that are in demand across the nation and around the world.

Teachers and principals will need permission to take risks, experiment and grow in this process. They will need the support of business and community leaders to mentor students, serve on advisory committees and provide resources. With this support, North Carolina teachers and students will have a tremendous opportunity to engage in learning that is rigorous, relevant and engaging—and that provides solid preparation in the higher-level thinking and learning skills that are valued in higher education, workplaces and communities today.

What Is 21st Century Learning?

- 1. Core subjects.** The No Child Left Behind Act of 2001, which reauthorizes the Elementary and Secondary Education Act of 1965, identifies the core subjects as English, reading or language arts; mathematics; science; foreign languages; civics; government; economics; arts; history; and geography.
- 2. 21st century content.** Several significant, emerging content areas are critical to success in communities and workplaces. These content areas typically are not emphasized in schools today:
 - Global awareness
 - Financial, economic, business and entrepreneurial literacy
 - Civic literacy
 - Health and wellness awareness
- 3. Learning and thinking skills.** As much as students need to learn academic content, they also need to know how to keep learning—and make effective and innovative use of what they know—throughout their lives. Learning and thinking skills are comprised of:
 - Critical-thinking and problem-solving skills
 - Communication skills
 - Creativity and innovation skills
 - Collaboration skills
 - Information and media literacy skills
 - Contextual learning skills
- 4. ICT literacy.** Information and communications technology (ICT) literacy is the ability to use technology to develop 21st century content knowledge and skills, in the context of learning core subjects. Students must be able to use technology to learn content and skills—so that they know how to learn, think critically, solve problems, use information, communicate, innovate and collaborate.
- 5. Life skills.** Good teachers have always incorporated life skills into their pedagogy. The challenge today is to incorporate these essential skills into schools deliberately, strategically and broadly. Life skills include:
 - Leadership
 - Ethics
 - Accountability
 - Adaptability
 - Personal productivity
 - Personal responsibility
 - People skills
 - Self-direction
 - Social responsibility
- 6. 21st century assessments.** Authentic 21st century assessments are the essential foundation of a 21st century education. Assessments must measure all five results that matter—core subjects; 21st century content; learning and thinking skills; ICT literacy; and life skills. To be effective, sustainable and affordable, assessments must use modern technologies to increase efficiency and timeliness. Standardized tests alone can measure only a few of the important skills and knowledge students should learn. A balance of assessments, including high-quality standardized testing along with effective classroom assessments, offers students a powerful way to master the content and skills central to success.

—From the Partnership for 21st Century Skills

Notes

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