

*****DRAFT*****

The GPS Approach to a Career-Ready North Carolina: *How our state must ‘recalculate’ before it is too late*

The gap between the increasing number of jobs produced by 21st century industries and the number of workers qualified and trained to fill these positions in this state has reached an alarming level, especially as North Carolina’s current unemployment rate still hovers near 11 percent. This high rate of unemployment, even in this weak economy, is particularly surprising given that thousands of jobs in a spectrum of occupations, such as accountants and auditors, paralegals, computer support specialists, nurses and cosmetologists and others, continue to open every year. (http://www.ncesc1.com/lmi/occupational/Statewide_Long-Term_Projections.pdf)

K-12 education plays a crucial role in our state’s ability to attract business, support growing industries and fill the jobs they produce now and in the future. High school education is particularly important as research shows that two-thirds of all the jobs in our state currently require more than a General Education Diploma. According to the U.S. Department of Labor, 90 percent of the fastest growing jobs will require some postsecondary education or training, but not necessarily a bachelor’s degree. (The Skills Imperative-U.S. Chamber of Commerce, <http://www.uschamber.com/NR/rdonlyres/eciaj45n6o5jxdngkikp6zgphwy4gqbkt3vyv7q4eu5xlc pms7escmdu5koxwfyvrgdpxukqamx35lclqfydbuob2g/CTEPaperFINAL.pdf>)

There is no question that there are many different career opportunities available to North Carolinians who have the right knowledge, talent and skills. Yet, pushing every student to earn a four-year college degree is not the silver bullet solution to developing a workforce that meets widely-varying industry needs in the global economy. That is why government, education and economic development leaders currently struggle with the task of changing education to best prepare all students for college or successful careers while also meeting North Carolina’s workforce development needs.

In response to a request from Governor Beverly Perdue, the North Carolina State Superintendent’s Career-Ready Commission has developed a set of six policy goals and corresponding action statements to guide government, education and business leaders in their efforts to prepare all students for college and successful careers. To assist with this effort, the Commission relied on the simple principles of the Global Positioning System (GPS) to shape these goals and actions.

A GPS is a small computer with a glowing screen that uses an expansive collection of electronic road maps and other data to help millions of motorists find their way to a desired destination. Much like a driver can enter a specific location into a GPS system and select his or her desired route, students should be able to set their own goals and map out a personalized course to their future. Just as every driver from Raleigh would not take the same roads to the beach or the mountains, every student cannot and should not take the same route to college or his or her future career. A “one-size-fits-all” approach to education will not work in the 21st century.

Much like drivers who take a wrong turn and use a GPS system to “recalculate” a new route to the same destination, students should also be able to change their educational course and still reach success in the future. In North Carolina, our ultimate destination is to have the best-trained, most-skilled workforce in the nation. Because our economy has changed so dramatically in the past few decades, we also must “recalculate” our route to make we sure achieve our goal. To do this, state and local leaders should consider three courses of action:

1. Changing and Shifting the Educational Culture;

2. Connecting K-12 Classrooms to College, Careers and the Business Community; and

3. Collaborating for Workforce and Economic Development.

CHANGING AND SHIFTING THE EDUCATIONAL CULTURE

Tony Wagoner, co-director of the Change Leadership Group at the Harvard Graduate School of Education, identifies seven core competencies, or survival skills, imperative to a student’s preparation for a good career, college and citizenship. These skills are critical thinking and problem-solving, collaboration across networks and leading by influence, agility and adaptability, initiative and entrepreneurship, effective oral and written communication, accessing and analyzing information, and curiosity and imagination.

Research as well as reflection on any personal and professional experience proves that these skills are imperative to developing citizens who will make valuable contributions in the classroom, workplace and society. The problem, according to Wagoner, is that our current system of education is not arming students with these all-important traits because we are not yet sure how to teach these skills. Preparing students in these core competencies requires new accountability structures, different ways of teaching and testing, and new ways of working together.

The task of shifting the entire culture of education is daunting and demands bold visions and courageous action. The good news is that North Carolina does not have to start from scratch. There are existing programs and ideas currently gaining ground across the nation and in our own state that can foster the “survival skills” such as critical thinking, agility, collaboration, innovation, curiosity and imagination in young people. When looking at some existing programs, the Career-Ready Commission’s recommendations call for reinvention, re-focusing and increased marketing and promotion.

Career and Technical Education – “The best kept secret in North Carolina”

The mission of Career and Technical Education (CTE) in North Carolina is to empower students for effective participation in the international economy and to help them become world-class citizens and workers. CTE programs contribute to the broad educational achievement of students while helping them learn to work independently and as part of a team, think creatively, solve problems, and utilize technology in the thinking and problem-solving process.

During the 2007-08 school year, 308,772 high school students (73 percent of all high school students in the state) enrolled in CTE courses to prepare for high-wage, high-skill occupations and further education. For the same year, the four-year graduation rate among CTE completers was 85.6 percent. The statewide four-year graduation rate among all North Carolina students for that year was 70.3 percent.

Through CTE, students earned more than 10,000 high school credits for community college or university courses in 2007-08 (an increase from 729 credits earned in 2001-02.) Among the 30,955 students who took at least four credits in a CTE pathway, 55.2 percent were employed full- or part-time after graduation and 76.7 percent pursued further education.

Some might conclude from this data that students who take CTE courses gain a more personalized, defined and direct education pathway to their future. Yet, too few North Carolinians are aware or understand CTE. That is why CTE must be reinvented and re-branded. Career and Technical Education must be presented in a way that more students, parents, educators and members of the business community in our state will understand that these courses are “not just shop” but an existing and extremely valuable workforce and economic development tool.

- **POLICY GOAL: Make Career and Technical Education a widely-accepted, valuable part of the overall high school experience in North Carolina and utilize it as a change agent in education and an important workforce and economic development tool.**
 - **Require local school systems to offer CTE Concentrations as part of the state's graduation requirements (Concentration: 4 credits in a CTE Pathway at least one of which is at the completer level).**
 - **Implement the North Carolina Career and Technical Education Strategic Plan. (See appendices.)**
 - **Implement the corresponding plan to market CTE to students, parents, educators and members of the business community with a focus on quality, high expectations, innovation, dignity of all occupations and lifelong learning. (See appendices.)**

Entrepreneurship – We can grow our own!

Research shows that 70 percent of economic growth can be attributed to entrepreneurship as four billion new businesses are created every year, generating 60 to 80 percent of the net new jobs annually. That is why it is unfortunate that North Carolina is ranked 39th among all 50 states for entrepreneurial activity and produced only 230 new entrepreneurs for every 100,000 people in the state in 2008 (Economic Investment Strategies, Elaine Rideout).

This evidence shows that we must work within our K-12 education system to change current attitudes about business ownership. The average age of a new business owner is 50 years, because instead of making a business move when they have a good idea for a new service or product, many will wait until they have collected enough investment and experience. Young

people should learn that entrepreneurship is not always a frightening and risky experience, as it can also turn out to be a rewarding career choice.

While it may not be common for many 18-year-olds to graduate high school prepared to start their own business, fostering entrepreneurial values among young people will still pay off for our economy. Research shows more than 70 percent of American high school students have some interest in owning their own business and students in entrepreneurship programs show improved school performance and more ambitious goals for life after school. Educators also have found that entrepreneurship training encourages students to employ sophisticated math and science concepts in real-life situations, making them more valuable members of the workforce.

The value of business ownership is already being taught to students in many high schools across the state. Currently, about 200 North Carolina high schools offer the Small Business Entrepreneurship Course through CTE (for which course enrollment has increased by 40 percent since 2003), as well as other small business-centered classes focused on foods, apparel development and early childhood education. In some cases, high school students are able to earn college credit for these courses.

Community colleges offer six, three-credit courses specializing in entrepreneurship in addition to their many course offerings in traditional business marketing and retail. In addition, each community college also hosts a Small Business Center to form a network of 58 centers across the state.

With so many effective programs and tools already in place, promoting the value of entrepreneurship and teaching more students about careers in business may be as simple as better utilizing the resources North Carolina already has in place.

- **POLICY GOAL: Make the state's high schools innovation 'hot spots' for developing student interest in entrepreneurship and accelerating students' career interests.**
 - **Increase the number of high schools offering and promoting entrepreneurship and other business development courses to students.**
 - **Utilize the 58 Small Business Centers hosted at community colleges so more secondary and postsecondary students are aware of these valuable resources.**
 - **Provide professional development to educators to help them infuse the value of creativity and innovation in all grades and courses.**

Changing School Culture as We Know It

While our efforts to promote and better utilize CTE and entrepreneurship programs are important, we must do more to truly shift the education culture. To personalize education for every student, leaders must be willing to think bigger. Many argue that such large-scale changes could be dangerous and making these shifts would be too expensive. The Career-Ready Commission looked at the small and big pictures and believes a combination of small and large changes is going to be the most effective way to make sure every North Carolina high school student graduates career-ready.

Throughout the course of its meetings, Commission members heard presentations about school cultures and structures that are producing great results in other countries. Members read the statistics on when, where and how the United States and North Carolina are falling behind on the scale of global competitiveness. Commission members also recognize that, when our state fails to produce the workforce to attract global industries and the economy suffers, excuses about ideas that were too ambitious, expensive or presented too many conflicts with current policy will be meaningless.

Bob Compton, executive producer of the “Two Million Minutes” documentary about Science, Technology, Engineering and Math (STEM) education said, “When U.S. athletes train for the Olympics, we train for the global level of competition. We have got to treat academics the same way or our kids are going to get crushed.”

There is much to learn from other countries, as they are our competitors in the race to attract jobs and investment to our state and our country. While most schools in the United States remain boxed into traditional school schedules and calendar years, grade classifications and classroom environments, other countries have taken a different approach to traditional education and as a result, they have jumped ahead in their ability to prepare students to compete in a global economy.

For example, while North Carolina students are currently required to attend school for 180 days, the average number of days of instruction in other industrial nations is between 200 and 210 per year. In countries like Germany and Japan, the school year exceeds 230 days per year. That means that by the 8th grade, a North Carolina student has attended school for 400 days less than his or her counterpart in Germany or Japan. By the 10th grade, the gap will reach 500 days of instruction – the daily equivalent of 1.66 years of instruction in North Carolina. (Creating Internationally Competitive Schools, The Public School Forum)

As a result, educators in the U.S. are required to teach a year’s worth of education in the shortest school year of the industrial world. Many teachers believe students can retain more information from grade to grade with an extended school year. According to 2008-09 AT&T North Carolina Teacher of the Year Cindi Rigsbee, “The thought that learning only happens between 8 a.m. and 3 p.m. and that students need to be gone two to three months in the summer is a barrier. We are losing time with our kids and losing ground in making sure they learn what they need to. The traditional calendar also costs us valuable time at the beginning of the year because we have to devote lessons to catching them up to what they have lost during the summer.”

With so much technology available in our culture today, extending the school year does not have to lead to more classroom time. A bricks-and-mortar school may be a gathering place for students, but with all the virtual classrooms we have today, learning can happen anywhere at anytime. More than 15,000 North Carolina students are currently taking courses through the North Carolina Virtual Public School and administrators expect enrollment to top 20,000 this spring. E-learning is proving to be a win-win situation for schools and students.

The importance of online courses was highlighted in the Oct. 14, 2009 news story, “Virtual course growth very real,” from the *News & Observer*:

“Online instruction has become even more important this year, because tight school budgets have led to disappearing high school courses. In some districts, online courses have helped blunt the impact of budget cuts, allowing students to take classes their districts can no longer afford. The program can give children in Burgaw and Indian Trail some of the same opportunities as students in the big-city districts of Raleigh and Charlotte-Mecklenburg.”

School funding is another part of traditional education culture that may be stagnating how well North Carolina prepares all students for the future. Currently, schools receive most of their funding from the county and state on a per-pupil basis regardless of how their students are performing or how many students are graduating.

The state’s universities operate under a similar formula, but recently there has been talk of changing this funding method and instead aligning funding to the number of students who actually graduate from each institution. High schools are not the only schools struggling with a dropout problem. At the community college level, only 18 percent of students who enter as freshmen receive an Associate’s Degree from the college in three years. And at the university level, the percentage of students who graduate with a four-year degree in six years starts at around 93 percent in private, high-profile universities in metropolitan areas but dips as low as 37 to 19 percent for smaller institutions in rural areas.

For a potential solution to the issue, see the following excerpt from the Sept. 19, 2009 news story “UNC System may link fund to grad rates,” published in the *Charlotte Observer*.

“Each year, public universities get taxpayer money for each student they enroll—the state’s investment in the young minds of tomorrow. But many students drop out. Now, UNC system leaders want to link that public money to academic performance so campuses have more incentive to make sure students graduate. The idea is this: Rather than automatically receiving funding for every new student enrolled, campuses must first meet retention and graduation goals. If they don’t meet those goals, they can’t enroll more students....”They got a lot of kudos for really growing the enrollment,” he said. “But a significant number of students dropped out, flunked out after one year, with a lot of debt. They got a bad deal, and the state got a bad deal.” The details of the new UNC system plan must still be worked out.”

High School Innovation

There are also promising practices, particularly in the area of high school innovation, that are occurring in North Carolina and are worth examining, duplicating and including in our statewide strategy to personalize education and prepare every student for future success in jobs and higher education.

Our country’s low graduation rate is now considered a national crisis. For 2008-09, North Carolina overall had a statewide graduation rate of 71.7 percent while some high schools in the state had graduation rates as low as 54 percent. Most of the students dropping out are not being

engaged enough to want to stay in school and earn their diplomas. If this trend continues, North Carolina is in danger of ending up with an uneducated, unskilled workforce that will cost us valuable jobs and economic investment in the future.

In response to this crisis, education leaders have come up with different ways to change high school to make it more rigorous and relevant so more students stay in school and graduate. These new schools provide examples of how we can change the culture of high school to raise graduation rates and student achievement.

It seems that school culture is only changing in the silos of the successful new models of high schools across the state. Education leaders in every county should understand that the last drop of educational juice has been squeezed from the traditional model of high school. The culture and structure of every high school in the state must change if we are to prepare students for jobs in today's economy.

The North Carolina New Schools Project schools provide many examples of schools that are creating student success by changing the traditional structure. There are currently about 70 'Early College' high schools located on the campuses of community colleges and universities across the state. Students at these schools have the chance to graduate high school with two years of college credit. There are also 40 large high schools that have been re-designed by the New Schools Project into smaller, more academically-rigorous schools focused on economic development themes such as biotechnology, leadership and public service and health and life sciences. Almost 40 of these schools had a dropout rate of 0 percent in 2008 while nearly half of the schools lost no more than two students. In addition, 62 percent of New Schools Project schools outperformed their comparison high schools on the North Carolina's ABC's Accountability model.

Other successful high schools include the more than 133 Career Academies (with more than 15,088 students enrolled) that are open across the state and offer students a sequence of courses designed around a career theme. Each of these schools is labor-market driven, integrates academic and technical concepts, and collaborates with related business and industry. Some have themes based on the national 16 Career Clusters established by the U.S. Department of Education and others and include focuses such as health and medical, business and finance, information technology and engineering. The Highland School of Technology is a Career Academy located in Gaston County. This school, which experienced a 100 percent graduation rate last year, allows students to focus on one of eight different career paths to keep students on track with their plans for the future.

Graduation and student achievement data prove these new models of high schools are working to keep students in school, excited about learning and focused on academic success. These examples should serve as proof that it is time to release high school innovation from the many current silos it can be seen operating successfully in today and transform it into a trend that will sweep across every community in every county of North Carolina.

- **POLICY GOAL: Transform the culture of education in North Carolina so every school produces both academically-skilled and career-ready students prepared to meet global standards.**

- **Re-vamp traditional time structures of public schools to reflect research findings from innovative practices in other states and countries (i.e. school calendars, summer school, combination of virtual and face-to-face learning, 5-year programs, etc.).**
- **Examine a new system for funding to reward the schools that are succeeding and give local school districts flexibility to spend money on innovation and research-based school improvement efforts.**
- **Identify best practices of innovation in high school re-design and bring them to scale.**
- **Create a systemic shift in secondary and postsecondary education sectors to make early and middle college (5-year) programs, Learn and Earn, Learn and Earn Online, dual enrollment/Huskins, etc., available to all high school students.**
- **Recognize Science, Technology, Engineering and Math education (STEM) as critical to the economic growth in our state by establishing STEM initiatives in each of the seven economic development regions.**
- **Consider SREB’s “10 Key Principles for New State School Accountability” as career-ready measures.**

CONNECTING K-12 CLASSROOMS to CAREERS AND THE BUSINESS COMMUNITY

The following recommendations intensify the focus on college and careers in K-12 classrooms to make students’ transitions from high school to colleges and careers smooth and seamless. To ensure this happens, the relationships among our business community, educators and government leaders must also be strengthened and better utilized.

Career Planning

“Other countries have an earlier and more intense focus on career counseling.” (John Dornan, Workforce Development: An International Perspective, May 2009.)

Students and parents need guidance and advice about how academic decisions made in high school lead to postsecondary education and careers, but few get the advice they need for their career and education. Students need guidance about multiple pathways they can take to reach their future goals but their school counselors are often serving too many students, so the quality of advice students receive can suffer.

Many school counselors do not know about the workforce needs in their community and lack knowledge on emerging jobs (mainly because their unmanageable case loads limit their opportunities to learn). Many schools assess counselors by the number of students that enter four-year colleges and universities, which can pressure counselors into recommending that pathway, regardless of a student’s interest or other options available. Also, with the increased focus on testing and accountability, many counselors are finding that their time is being diverted to test administration. Teachers and other adults in the school often do not take advantage of naturally occurring opportunities to make connections between instruction and career awareness and guidance (Supporting High Quality Career and Technical Education through Federal and

State Policy, American Youth Policy Forum, 2008). Without formal help to chart a preferred course through high school, students are often overwhelmed by the many choices, which can result in poor decisions and planning ("Retooling Career and Technical Education," National Governors Association; June 2007).

- **POLICY GOAL: Provide high school students resources they need to make both wise academic and career choices to achieve their future goals.**
 - **Require every high school student to have a career plan (personalized graduation plan) in which they declare a concentration of four credits in a career cluster or concentration area.**
 - **Define “Career-Ready” by including the skills that employers demand in essential standards, assessments and the ABCs accountability model. Require validation of high school diplomas through the Career Readiness Certificate, industry-recognized certifications and/or the Community College Placement Test, in addition to AP exams, the SAT or ACT.**
 - **Train EVERY high school teacher and school counselor to provide career development assistance to students and provide this professional development as a part of the licensure process or continuing credits.**

Business Engagement and Support

The U.S. labor market will continue to need workers who can combine technical capabilities with essential 21st century skills. It is critical that the United States meet this need by raising high school graduation rates and increasing the percentage of adults who pursue postsecondary education and training leading to a degree, a credential, a certificate of mastery, or some other indication of mastery of critical knowledge, skills, and abilities.

It also is paramount that local communities ensure that what is being taught at the high school level, at community colleges, and throughout postsecondary institutions is aligned with the workforce needs of local businesses. To produce the workforce of the future, our country’s education system needs to be closely linked with its primary consumer—the business community—and must be able to adapt with the evolving economy (The Skills Imperative, Institute for a Competitive Workforce, an Affiliate of the U.S. Chamber of Commerce, 2008).

- **POLICY GOAL: Build a multi-level network connecting businesses, students, parents and educators in a unified effort to prepare students to meet global achievement standards.**
 - Local level:**
 - **Encourage local school superintendents and school boards to create and maintain Career-Ready Advisory Councils or Roundtables.**
 - Regional level:**
 - **Create and maintain business-education advocacy groups that are aligned to the seven economic development regions to address Career-Ready issues on a regional level.**
 - State level:**

- **Use the Lieutenant Governor’s JOBS Commission and/or reformulate the Governor’s Management Council to engage CEOs and key business leaders to address education issues.**
- **Work with the NC Chamber and the North Carolina Business Committee for Education to increase business experience and knowledge among educators.**

COLLABORATING FOR WORKFORCE AND ECONOMIC DEVELOPMENT

Workforce and Economic Development – Governance

The theme for North Carolina’s current strategy could be described with the question: “Who is on first?”

Some would say we already have a statewide economic development strategy. Others say our strategy is regional. Some would insist the strategies are focused at the county level while others argue that these strategies are convoluted, at best. Still some make the case that our state has no economic development strategy at all.

As it turns out, everyone could be right. North Carolina currently has eight State Board of Education districts, seven economic development regions and 24 workforce development boards, yet there are few opportunities where representatives from each of the districts, regions and boards meet to address education issues in the context of economic development strategies.

As a result, North Carolina faces a challenge to unite education and economic development efforts and encourage more public dialogue about the relationship of education to economic development. We must advance the integration of education, workforce development, and economic development to ensure that the educational system produces career-ready graduates, and that these graduates can find jobs in North Carolina.

- **POLICY GOAL: Bring state and local leaders in education and economic development together to determine how to best support and grow North Carolina’s economy.**
 - **Expand the Education Cabinet to include the Secretary of Commerce, representatives from the seven economic development regions and the Lieutenant Governor and task the Cabinet with developing a statewide plan for aligning workforce education and economic development.**
 - **Support the implementation of a longitudinal student record data system to identify and track students through every level of education and into the labor market (CEDARS) and share these research findings with education and business leaders as well as economic developers.**
 - **Use the 16 career clusters identified by the U.S. Department of Education as an organizing foundation to link education to the economic development vision plans.**