ALLIANCE FOR EXCELLENT EDUCATION

Testimony of Bob Wise, President of the Alliance for Excellent Education and Former Governor of West Virginia, Before the North Carolina Digital Learning Environments in Public Schools Legislative Research Committee Thursday, October 4, 2012

Thank you, Senator Soucek and Representative Horn, and members of the North Carolina Digital Learning Environments in Public Schools Legislative Research Committee. It is my great pleasure to have received this invitation from the Research Committee to discuss how digital learning and the effective use of technology can help drive better learning for all students in North Carolina—regardless of their geography or socioeconomic status—as you study available digital learning models used nationally and to examine cost-effective ways to offer enriched educational opportunities to students through the use of digital tools.

As president of the Alliance for Excellent Education—a Washington, DC-based national policy and advocacy organization that works to improve national, federal, and state policy to ensure that all students can achieve at high academic levels and graduate from high school ready for college and a career—I've been working on issues of improving high school graduation rates, improving adolescent literacy, and supported efforts that led to the Common Core state standards. But about four years ago, I realized that even with the motivated teachers, even with the excellent leaders we have, we just aren't going to be able to get there from here. We cannot reach our goals of ensuring that all students are career and college ready without updating how we think about education. We've made a lot of progress. But we

need what the military calls a force multiplier – technology – to accelerate that progress. But, as educators in North Carolina can surely attest, digital hardware by itself does not bring about change, but by combining teachers and technology with proper leadership, vision, and planning, schoolhouses become robust and effective learning environments where we truly change how we educate our students. I want to take a moment and commend the leadership you have here in North Carolina for the tremendous progress you've made. Governor Beverly Purdue has lead much of this work, creating the E-Learning Commission when she was Lieutenant Governor, and supporting the development of the North Carolina Research and Education Network. I also want to point out that you have a fantastic resource in the William and Ida Friday Institute at North Carolina State University and its director, Glenn Kleiman. If every state had an institution like the Friday Institute, the work we are engaged in would be much, much easier. The Friday Institute has truly led the way preparing teachers and leaders to transform the learning process in the 21st century. Now the time has come to continue this progress by spreading these practices and encouraging all school districts and all schools to put into place plans for high-quality digital learning.

Some definitions: "Digital learning" is any instructional practice that effectively uses technology to strengthen a student's learning experience. It emphasizes high-quality instruction and provides access to challenging content, instant feedback from assessments and data systems, opportunities for learning anytime and anywhere, and individualized instruction to ensure all students reach their full potential to succeed in college and a career. Sometimes you'll hear talk of "blended learning," which combines online learning with a brick-and-mortar environment; e-learning; mobile learning; and maybe other terms. At the end of the

day, the important thing is the systemic use of effective and reliable technology applications that support teachers in improving learning outcomes.

Like most states, North Carolina is facing several key challenges in the next two to three years. One, implementing career and college ready standards – the Common Core – for all students, along with the new assessments that are expected to be available by 2014. This will require a major curriculum upgrade. Two, budget constraints brought about by declining local, state, and federal revenues and tight budgets. Three, developing the workforce to be prepared for the jobs that are going to require more advanced skills than in the past. All this, while price points for technology are dropping as the capacity of that technology continues to improve. It is going to require innovative thinking to make the education dollar more productive and effective, while factoring in investing in what works and maximizing return on investment.

North Carolina is being challenged to do more with less, but the state is not alone in this trend in education. Nationally, the economic need to graduate more students with higher standards is not being met. Twenty-five percent of a typical class of ninth graders will not graduate from high school.[1] Based on research from ACT, of those who do make it through high school, only twenty-five percent of them will be prepared to succeed in college. Even more troubling, students of color have a graduation rate of just over 50 percent.[2] These students are not only the nation's children; they are its future workforce. For their sake, as well as the nation's economic future, we cannot afford to fail them. The decisions you make about how to best utilize digital learning environments will directly affect North Carolinians' economic futures – both individually and as a state.

We know that educational attainment has a direct impact on future earnings and on employment opportunities. Nationwide, a high school dropout is more than twice as likely to be unemployed than someone with an associate's degree, and if that high school dropout can find a job, he or she is going to be earning maybe 60 percent of what that person with the associate's degree is making … and less than half of what a college graduate is earning.[3] If two-thirds of our economy is based on consumer spending, do we want our graduates earning nine dollars an hour, or twenty to twenty-five dollars an hour? The economic future of North Carolina depends directly on the skills of its workforce.

According to research compiled by Anthony Carnevale from Georgetown University, the percentage of jobs requiring some college education or more was 28 percent in 1973. Today, that number is 60 percent and is expected to increase. Meanwhile, the number of jobs available to high school dropouts has declined tremendously.

Educational attainment also has a direct benefit to the nation and the state of North Carolina. The Alliance, with support from State Farm, has developed an economic model showing the return on investment of improving education. If North Carolina's high school graduation rate were to increase to 90 percent, the state would reap huge economic benefits, including as much as $258 million in increased annual earnings, $478 million in increased home sales, $24 million in car sales, and 1700 new jobs. All told, there would likely be $65 million more in state and local tax revenues—and these numbers only represent the likely benefits from increasing the high school graduation rate for the Class of 2011.[4] Imagine the profound impact that increasing the graduation rate every year would have on the

people of North Carolina and the entire nation. The message is clear: the best economic stimulus is a high school diploma.

It is also important to remember that even with that piece of paper, the skills our students will need to be successful are continually shifting. A recent report from the National Research Council emphasizes the importance of critical thinking, problem solving, flexibility, innovation, communication, and collaboration for the future of our nation.[5] One way to help meet this challenge is by more effectively utilizing partnerships that engage students in areas of interest and then help develop their skills. Across the nation, we're seeing great examples of digital learning environments in libraries, museums, and other after-school programs, like the ones right here in North Carolina at the Museum of Life and Science in Raleigh-Durham, where high school students have opportunities to learn about nanoscience, or in Forsyth County schools where students can participate in afterschool robotics programs. We need to make these kinds of partnerships available to every student.

Another challenge is the need for highly qualified teachers. While I'm pleased to note that North Carolina has made great investments in Nationally Board Certified Teachers, still, 16 percent of North Carolina teachers have less than three years of experience, compared to 13 percent nationwide. To effectively offer enriched learning opportunities through digital environments requires preservice training, ongoing education, and professional development of teachers to ensure they are prepared to teach in a student-centered, collaborative, digital age. As I've traveled across the country, I've seen schools where professional development is embedded throughout the school day, and where teachers have more time to collaborate and work together. Right here in North Carolina, the Center for Teaching Quality is

doing work to build a 21st century teaching profession. When teachers get that kind of support and training, they are more likely to stay in the profession, because they are able to reach every student and teach the way they've always wanted to teach.

Now, my organization, the Alliance for Excellent Education, is developing a suggested process for every state and district to develop a strategy for infusing digital learning into every classroom. The first step is goal-setting. Second, you have to evaluate the challenges to getting there. Then, you have to look at what I call the three Ts. First, the role of teachers. Teachers are still the most important element in a child's education, but the role shifts. Teachers must become educational designers, and able to design learning experiences for their students that are personalized, student-centered, and that meet the students' individual needs. Second, you have to look at time. You have students in the building for a certain number of hours in a day. How can you make the most of that instructional time? But even more, how can school capitalize on the hours students are not in the building through expanding learning time, or providing more ways for them to engage in learning 24/7? And finally, it means, wherever possible, shifting away from the tyranny of the 180-day, credit-based system we currently have. Do you show up at the car dealership and ask to see the car that took 180 days to build? Seat time was a reform when it was instituted nearly one hundred years ago. But we are in a different world now, and we have the tools and the resources to ensure that students only advance when they've learned the material, not when the curriculum guide says it's time to move on. Providing a more personalized learning system, tailored to each student will help provide that more skilled workforce. But to do that, we have to look at every aspect of time. One state to study for examples is New Hampshire who is the first state to eliminate seat-time as the standard basis of measurement and transition to a competency based system.[6] Other states, such

as Michigan, have implemented waiver programs that allow seat-time to be suspended and enable policymakers to get data on the effect of transitioning to a competency-based system might have on the whole state, which is a great first step.[7] In Florida, online course providers are paid based on successful completion of courses.

The third T, finally, is technology. Only when you've examined how to address teaching and time can you look at the tools available to reach your goals. Many instructional innovations are already happening in public schools across the country, and many of them are right here in North Carolina. As you may know, Mooresville Graded School District implemented a digital conversion initiative beginning in 2007. While involving a significant shift from print to digital content material and the deployment of an internet-accessible device for every student and teacher, Mooresville's focus centered on changes in teaching and learning.

Mooresville's teachers and administrators participate in extensive, ongoing, and job-embedded professional development using a distributed leadership model. They learn how to maximize the potential of the technology to personalize learning, including utilizing digital content and resources in which students can become creators of knowledge and products, as well as implementing digital assessments that provide timely feedback to ensure the availability of data for planning and decision-making. Not only is the shift in instructional strategies and learning evident in the schools and classrooms in Mooresville, but the district has moved from the bottom quarter in achievement to now ranking third out of 115 school districts in North Carolina. The graduation rate has increased 25 percentage points in five years and is now the third-highest cohort rate in North Carolina.

Mooresville has accomplished this with one of the lowest per-pupil expenditures in the state, ranking ninety-ninth out of the 115 districts.[8]

Another example of a district that has seen success is the Floydada Independent School District in rural Texas. In Floydada, located in the western part of the state, more than 86 percent of its students come from low socioeconomic circumstances. The nearest community college is more than seventy miles away.

In 2004, Floydada began to implement the Technology Immersion Pilot, a 1:1 initiative in which middle school students and their teachers received laptops to facilitate learning. In the following years, Floydada expanded the effort to include high school and elementary school students. They have found that job-embedded, ongoing, and sustainable professional learning is at the core of the transformation of teaching and learning. Teachers and administrators report that this is not just about the technology; it is about a true change in instructional strategies, access to digital content and courses, and use of data and assessment to better understand the needs of students. Instruction often includes project-based learning and collaboration, as well as students as producers of knowledge and products. Middle school discipline referrals have been cut in half since the program's implementation, and Floydada's high school and middle school students have achieved double-digit gains in all core subject areas.

Floydada has also been able to apply funds to support students in taking online college courses. In School Year 2010–11, seniors accumulated 450 college credits—a savings of $65,000 for the students and their parents. In many cases, taking college courses in high school allows students to see themselves as successful college students—a significant achievement, since more than half of the

adults in Floydada do not have a high school degree. Technology has completely changed the teaching and learning experiences for students in Floydada to ensure that they graduate prepared for college and a career.[9]

Another example is in a large district outside of Houston, Texas. More than ten years ago, Klein Independent School District began to look at how the district could best integrate technology into the curriculum. The district undertook a planning process that included teachers, parents, and other community stakeholders. The district is working to implement one-to-one laptops across the district; has implemented learning management systems along with systems to integrate student data; and is working tirelessly to provide teachers with the necessary professional development. For example, at Krimmel Middle School, teachers engage in ongoing, embedded professional develop similar to the lesson study model. Every teacher in the school participates by observing another teacher's lesson and engaging in guided reflection. This provides teachers with opportunities to see technology in use as well as increases cross-grade and cross-curricular collaboration.

Klein ISD has seen achievement gaps close and outcomes in both achievement and college-ready rates increase. At Klein Forest High School, the percentage of students who were college ready increased from 25 percent to 43 percent in seven years. Achievement on state assessments increased by about 20 percentage points for African American, Hispanic, and economically disadvantaged students in both math and English language arts.[10]

School districts like these need to be celebrated, and we need to learn from them and spread that information. That is why the Alliance is partnering with more than

30 national organizations and at the latest count 42 states including North Carolina to host the second annual Digital Learning Day. For our inaugural Town Hall Meeting earlier this year, more than 18,000 teachers representing almost 2 million students participated in the first ever celebration of innovative teaching and learning. We were pleased to highlight Mooresville as one of four examples of promising practices in innovation that we highlighted during a national town hall that drew over 40,000 viewers and news coverage in over 40 media markets.

Part of what made the innovations in Texas and North Carolina work was access to broadband. But that access is still missing for too many of our schools. In my home state of West Virginia, our geography makes laying cable a daunting prospect, but the state leaders are continuously working on it and collect data about the quality of school internet access monthly. North Carolina, again, has led the way with its efforts to connect all 115 school districts as well as community colleges and many four-year institutions to a broadband network. But once connected, what is flowing through the pipes? Work still needs to be done to ensure that all schools and classrooms have access to the broadband they will need to implement online assessments in 2014, to ensure that rural schools have the same high-quality access as the cities and towns, and to, where it's needed, increase the availability of wi-fi so more students can take advantage of the digital opportunities available to them.

We stand at a crossroads and the next twenty-four months is a critical time to not only keep the wheels of progress turning, but to accelerate the rate of improvement through the effective use of technology. Now, back in 2010, I was pleased to work with Florida Governor Jeb Bush in a bipartisan effort that resulted in "The Ten Elements of High Quality Digital Learning." These recommendations were a great first step. The Alliance has also produced model legislation, entitled "Each Child

Learns," that provides suggested language and policies to support personalized, next-generation learning for all students. And, we're supporting school districts nationwide in this effort, in partnership with the Friday Institute, to provide leaders with the tools, resources, and advice they need to make sense of all these challenges and accelerate progress. This is the time for those of us, including me, who are experiencing firsthand an emerging and ever-changing world of technology to ensure the nation's education system is agile and flexible enough to offer its youth the high-quality education they deserve.

In North Carolina you have an opportunity to rethink what education should look like in this digital age. Moving to a student-centered, competency-based personalized learning system requires more than just technology—laying a netbook on a textbook is not going to get it done. You need great teachers who have had the learning opportunities and support needed to be true educational designers. You need to look at ways to expand learning opportunities and supporting multiple pathways to knowledge, particularly through hands-on, real-world activities for students that help develop the skills they need. And to assess these skills is going to require next generation assessments. And finally you will also have to support the digital literacy of not just students but parents as well. The Common Sense Media organization has a great curriculum that is being used in Maine. You can also be looking at ways to shift to competency-based learning, continuing to support efforts to get broadband into every school, supporting partnerships that make digital learning opportunities available to more students.

This committee must be just the beginning of a collaborative comprehensive planning discussion on how to make a successful transition to a modern education system. North Carolina has already made great strides by allowing a smarter

funding model for purchasing instructional materials, and by investing in one of the best online public schools in the nation, the North Carolina Virtual Public School. Now you can work on spreading the best teaching practices to reach every student in the state. By making the best digital learning environments available to every student, you can accelerate the state's progress towards ensuring all students graduate career and college ready, able to fully participate in the workforce of the 21st century.

Thank you again the opportunity to share my thoughts with you on these important topics. I look forward to answering your questions.

Endnotes

[1] U.S. Department of Education, National Center for Education Statistics, *Trends in High School Dropout and Completion Rates in the United States: 1972–2009* (NCES 2012–006) (Washington, DC: U.S. Government Printing Office, 2011).

[2] Alliance for Excellent Education, "Education and the Economy: Boosting the Nation's Economy by Improving High School Graduation Rates Among Students of Color and Native Students" (Washington, DC: Author, 2011).

[3] Bureau of Labor Statistics, Current Population Survey, "Education Pays" (Washington, DC: U.S. Department of Labor, March 2012).

[4] Unpublished data from Economic Modeling Specialists, Inc., analyzed by the Alliance for Excellent Education.

[5] National Research Council, Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century. Committee on Defining Deeper Learning and 21st Century Skills, James W. Pellegrino and Margaret L. Hilton, Editors. Board on Testing and Assessment and Board on Science Education, Division of Behavioral and Social Sciences and Education. (Washington, DC: National Academies Press, 2012).

[6]Learn more about the State of New Hampshire at http://www.education.nh.gov/innovations/hs_redesign/index.htm.

[7]Alliance for Excellent Education, "Digital Learning and Technology: Federal Policy Recommendations to Seize the Opportunity—and Promising Practices That Inspire Them" (Washington, DC: Author, 2011).

[8] T. Schwartzbeck and M. A. Wolf, *The Digital Learning Imperative: How Technology and Teaching Meet Today's Education Challenges* (Washington, DC: Alliance for Excellent Education, January 2012).

[9] Learn more about Floydada at http://powerontexas.com/.

[10] Learn more about Klein ISD at http://powerontexas.com/ and www.digitallearningday.org.