Making the Grade:
Preparing Today's Students for Tomorrow's Economy

A Report from the 2011 Issues Summit

State Legislative Leaders Foundation
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James B Hunt, Jr Institute
for Educational Leadership and Policy

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Given these challenging economic times, state leaders understand that there has never been a more important moment to consider how to improve public education. Today's students will be tomorrow's workforce, and a high school diploma is no longer sufficient. For this generation of students, a postsecondary degree or certificate has become an economic necessity to compete for jobs and earn a middle-class wage. Schools today must also adapt to the technology-rich world in which students live, where cell phones, iPods, and computers are ubiquitous. New technologies, including digital learning, hand-held devices, and comprehensive data systems, offer opportunities for schools to personalize learning as a means to increase student achievement.

Earlier this year, legislative leaders, corporate leaders, and experts from across the country gathered in Chapel Hill, North Carolina, to consider these and other major trends that are transforming public education. Sponsored by the State Legislative Leaders Foundation (SLLF) and the James B. Hunt, Jr. Institute for Educational Leadership and Policy, the *2011 Issues Summit - Making the Grade: Preparing Today's Students for Tomorrow's Economy*, focused on key strategies states can employ to ensure that all children receive a high-quality education and graduate prepared for careers and postsecondary work. This report highlights a number of key messages that arose from the discussions.

The following presenters and moderators contributed greatly to this event:

Lucille E. Davy, James B. Hunt, Jr. Institute for Educational Leadership and Policy

Aimee Rogstad Guidera, Data Quality Campaign

Terry Holliday, Kentucky Department of Education

Freeman Hrabowski III, The University of Maryland, Baltimore County

James H. Johnson, Jr., The University of North Carolina at Chapel Hill

James A. Kadamus, Community Training and Assistance Center

Tom Kane, Bill & Melinda Gates Foundation

Mark Milliron, Bill & Melinda Gates Foundation

Gavin Payne, James B. Hunt, Jr. Institute for Educational Leadership and Policy

Nicole Smith, Georgetown University Center on Education and the Workforce

Patrick Smith, Tennessee Department of Education

David Stevenson, Wireless Generation

Tom Vander Ark, Vander Ark/Ratcliff

Richard J. Wenning, Colorado Department of Education

Amy Wilkins, The Education Trust

Julie Young, Florida Virtual School

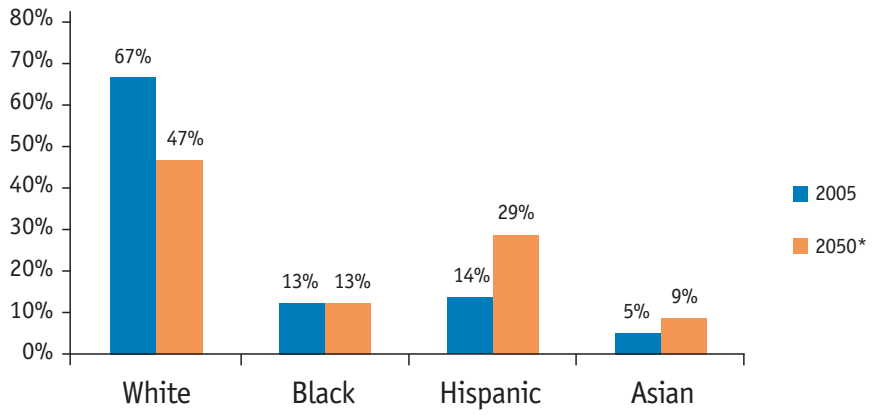
TAKE-AWAY #1

Rapidly changing demographics and population growth are posing new challenges to public schools.

Dr. Jim Johnson, Kenan Distinguished Professor of Strategy and Entrepreneurship at the University of North Carolina at Chapel Hill, began the *Issues Summit* with a look at a number of significant demographic trends taking place across the country. Major changes he identified include:

- **Dramatic population growth in the South and the West:** From 2000 to 2010, the United States' population grew 9.5 percent. The most significant portion of this growth was concentrated in the West and in the South; both of these regions grew by 13.8 percent between 2000 and 2010.[1]

Relative Distribution of U.S. Population by Race/Ethnicity



*Projected
Source: Pew Research Center, 2008.

- **Growing diversity across the country:** More than half (51.4 percent) of the growth experienced in the United States from 2000 to 2009 can be attributed to the growth of the Hispanic population. Dr. Johnson shared that between now and 2050, the white population in the United States will likely drop below 50 percent (see Table 1).[2]
- **Impending retirement of the "Baby Boomer" generation:** The United States' economy will experience a significant transition as the "Baby Boomer" generation enters retirement. Today, adults over 65 are the fastest growing population group. The U.S. Census predicts that by 2020, there will be 72 million adults age 65 and older; by 2050, this group will reach as many as 87 million.

Dr. Johnson also identified the growth of intermarriage, women in the workforce, and children being raised in households headed by one or more grandparents as emerging demographic trends. Together, these changes pose tremendous challenges to public schools. The booming student growth in some areas of the country may strain schools already dealing with limited resources and large class sizes. At the same time, more than half of current teachers are "Baby Boomers," and over the next decade these 1.7 million individuals will likely be exiting the workforce. This will put increased pressure on districts as they work to recruit and retain teachers. Areas with diverse student populations will also need to consider what types of language and support services can improve students' preparedness to succeed in school.

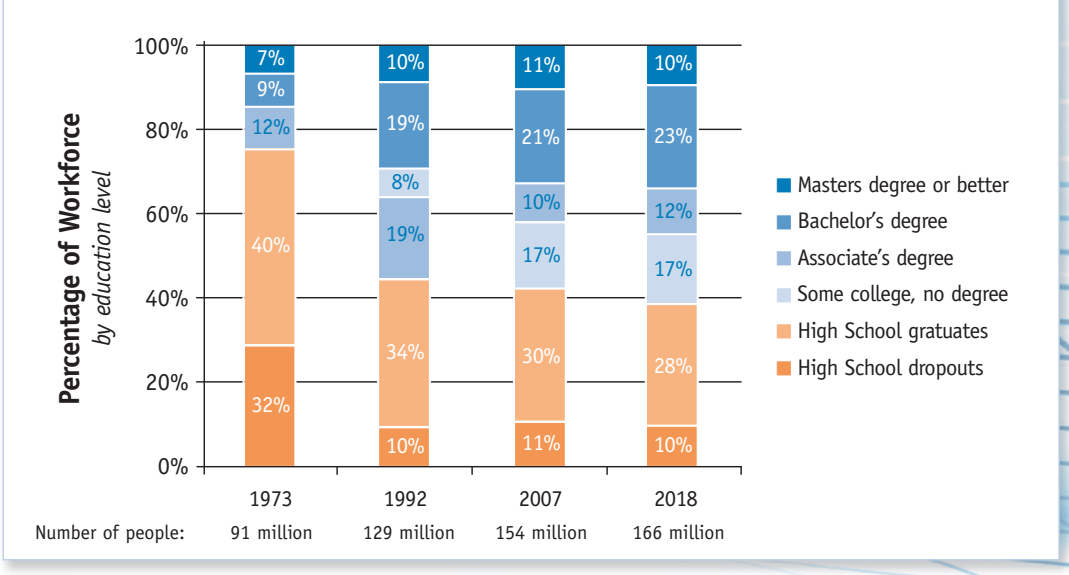
Higher education is more important than ever for economic success.

TAKE-AWAY #2

Today's students must prepare for an economy that is more competitive than the one their parents and grandparents have known — one where postsecondary credentials have become essential for future success. According to a recent report by the Georgetown University Center on Education and the Workforce, **by 2018, approximately 63 percent of all jobs nationwide will require additional training or a credential beyond high school**. Unfortunately, the country is falling short of preparing students for this reality. Twenty years ago, the United States had the highest postsecondary attainment rate in the world for adults ages 25 to 34; today, the United States ranks 12th among developed countries.[3] Dr. Nicole Smith, Senior Research Economist at Georgetown University, explained to *Issues Summit* participants how the new economy demands greater skills and knowledge from students. Major trends she identified include:

- **Growing demand for employees with postsecondary training:** In less than a decade, almost two-thirds of all jobs in the United States will require some type of postsecondary training.[4] Jobs that once required only a high school diploma now require a bachelor's degree. This leaves fewer and fewer opportunities for high school dropouts and those with only a high school diploma. However, this does not mean that all students will need to earn a four-year degree; associate's degrees, vocational certificates, and licensing certificates, as well as bachelor's and master's degrees, are all important towards providing students with the skills they need to build successful careers.

Percentage of Workforce by Education Level, 1973-2018



Source: The Georgetown University Center on Education and the Workforce, 2010.

- **Transition from manufacturing to service industry jobs:** According to Dr. Smith, for every one manufacturing job lost during this recession, two jobs in the service industry were created. The fields that are expected to see the greatest growth through 2015 include healthcare, professional and business services, education, and leisure and hospitality services. **Smith emphasized that the manufacturing jobs that continue to exist will require more skills and knowledge; up to 75 percent of these jobs will require some postsecondary education.**

As challenging as this new economy will be for students, it will also present a creative, dynamic environment where creativity and innovation are welcomed. Dr. Johnson indicated that self-employment and entrepreneurship will continue to play a pivotal role in expanding opportunities for students of all backgrounds. For example, today, approximately 40 percent of all businesses are owned by women. Dr. Freeman Hrabowski, President of the University of Maryland, Baltimore County (UMBC), also suggested that U.S. students can become more globally competitive if schools build on the traditional American strengths of hard work, creativity, and discipline. Students need more opportunities to solve complex problems together while in the classroom and develop their analytical thinking skills, he argued.

More rigorous standards are needed to prepare students to succeed in college and careers.

TAKE-AWAY #3

The development of the Common Core State Standards is one effort that is allowing states to increase the rigor of student expectations. The state-led Common Core State Standards Initiative was guided by the National Governors Association and the Council of Chief State School Officers and includes clear grade-level standards for mathematics and English Language Arts for grades K-12. These Common Core State Standards are statements of the knowledge and skills that students need to master in order to be prepared for college and the workplace.

As Lucille Davy, Senior Advisor at the Hunt Institute explained, these Common Core State Standards are internationally benchmarked and draw from the best standards across other states and countries. Both K-12 and higher education experts participated in the standards development process, and the final set of Common Core State Standards include the knowledge and skills students need to succeed in entry-level workforce training programs and college courses. **The alignment of these Common Core State Standards across grade levels allows the knowledge and skills students acquire to build to an 'end point' of career and college readiness by the time they graduate from high school.** As of June 2011, 44 states plus the District of Columbia have adopted the Common Core State Standards.

Next Step for States

The adoption of the Common Core State Standards is only the first of several steps states must take to increase the rigor of expectations for students. States will also need to develop curriculum that teachers can use to help young people acquire and master the skills laid out in the Standards. Intensive, focused professional development will be essential so that teachers understand how to align classroom instruction with the Standards. A number of organizations are currently developing a range of instructional resources based on the Standards, including academic learning progressions across grade-levels, model lessons, and criteria for reviewing instructional materials.

"At the end of the day, the challenge is how to ensure that every child, no matter where they are, has access to an education that will prepare them for their future."

— Lucille Davy

As states move forward with implementing their new Standards, all stakeholders must be engaged — parents, teachers, administrators, and the broader community. Amy Wilkins, Vice President for Government Affairs and Communications at the Education Trust, explained that it will be especially critical to provide teachers with support and professional development. Teachers will need to understand how these new Standards differ from previous state standards so they can adapt their teaching accordingly. "Adopting the Common Core State Standards was courageous and brave," said Wilkins, "but now the hard work starts."

The state of Kentucky was the first to adopt the Common Core State Standards and one of the first working to implement them. The Kentucky legislature began the process to raise standards with the passage of Senate Bill 1 in 2009, a comprehensive piece of education reform legislation that called for the state to adopt a new assessment and accountability system by 2011-2012. The state department of education worked in partnership with more than 1,300 teachers, principals, and administrators during the 2010-2011 school year to develop curriculum and assessment materials for the implementation of the new standards in the upcoming year. Dr. Terry Holliday, the Commissioner of Education in Kentucky, explained that being involved with the Common Core State Standards Initiative has been a benefit to his state, as the Department of Education had limited resources to overhaul the state's system of standards as required by the new law. He also explained that the state's business community played an important role in creating a sense of urgency about the need to make dramatic changes in education. "It's not about the Common Core State Standards," he said, "it's about the kids."

Strong evaluation systems are key to identifying and supporting effective teachers.

TAKE-AWAY #4

Research indicates that teachers are the most important school-based factor for student achievement, yet it has been difficult to identify the specific characteristics of teachers' practice that make a difference for students. Teacher evaluation systems should ideally provide teachers with feedback on their performance and give administrators the information they need to make personnel decisions. Unfortunately, these systems often use a binary "satisfactory" or "unsatisfactory" rating that doesn't provide detailed information about a teacher's strengths and weaknesses. Research demonstrates that without useful feedback, most teachers' performance plateaus by their third or fourth year on the job.[5]

The Bill & Melinda Gates Foundation recently began a significant research project to identify what components of teachers' practice make them truly effective. At the *Issues Summit*, Tom Kane, Deputy Director for Research and Data at the Bill & Melinda Gates Foundation, discussed the *Measures of Effective Teaching* (MET) study currently underway in seven districts across the United States.* The MET study is using a variety of measures — including student achievement data, student surveys, and videotaped classroom observations — to identify what practices are related to student gains in learning on state tests (often described as a teacher's "value added"). The study's ultimate goal is to provide districts and states with new, reliable systems of teacher feedback and evaluation.[6] Although the full study results will not be released until winter 2011-2012, initial results from the student surveys indicate that student perceptions of their teachers can be strong predictors of which teachers are able to bring about large gains in student learning. Student responses to questions about a teacher's classroom management and the difficulty of class material were found to be especially predictive of a teacher's value-added benefit. These types of student surveys may be one component states and districts use to evaluate the effectiveness of teachers of non-tested grades and subjects.[7]

* Charlotte-Mecklenburg, NC; Dallas, TX; Denver, CO; Hillsborough County, FL; Memphis, TN; New York City, NY; Pittsburgh, PA

TAKE-AWAY #4

A number of states are moving to develop teacher evaluation systems that include student achievement data. The state of Tennessee was an early leader in developing a value-added assessment system that could examine students' academic growth over time. Patrick Smith, who was serving as Acting Commissioner of Education in Tennessee at the time of the *Issues Summit*, shared Tennessee's recent work to build a new teacher evaluation system that places this value-added data at the core. During a special legislative session in 2010, the Tennessee legislature passed a bill to base half of teachers' job evaluations on their students' academic performance. Of this portion, 35 percent will be based on value-added student data, and 15 percent will be based on some other measure of student performance. The other half of the evaluation will be based on classroom observations. Smith emphasized that it takes time to fully develop and hone value-added teacher evaluations. However, Smith said, states should maintain momentum moving forward. "We can't let perfect be the enemy of good," he said.

Issues Summit presenters also discussed how states might develop compensation systems based on teacher performance. Jim Kadamus, Senior Director of Program and Policy at the Community Training and Assistance Center in Boston, MA, suggested that any performance-based compensation program must be part of a comprehensive plan to improve teacher effectiveness. If the planning process focuses solely on pay issues, the pay-for-performance system is unlikely to have the financial and political sustainability it ultimately needs to be successful. Kadamus suggested that districts must evaluate whether they have the capacity and the organizational systems to implement and sustain such a system. In addition, successful performance-based compensation programs must be focused on teacher improvement and include professional development and supports for teachers to improve their practice.

The rapid development of new technologies and digital learning is transforming the teaching and learning experience.

TAKE-AWAY #5

Preparing students for the global economy not only necessitates more rigorous standards, but will also require schools to adapt to the technology-rich world in which they live. As Dr. Mark Milliron, Deputy Director for Higher Education at the Bill & Melinda Gates Foundation explained, the biggest challenge for education systems today is not only to adjust to the "next-generation" learners who have grown up with technology, they must also adapt to multiple generations of learners who have different skills and comfort levels with technology. Today, a number of new technologies are available to students to enhance their learning, including mobile devices, virtual textbooks, and gaming. At the *Issues Summit*, state and national leaders shared their conclusions about the impact of new technologies on education including:

- **Technology is a key piece of the education infrastructure.** In the past, states and school districts may have considered technology as one of many potential investments to enhance learning in the classroom. Dr. Milliron challenged participants to understand that investments in technology — from computers to broadband Internet — need to be considered as part of the infrastructure to support teaching and learning. Tom Vander Ark, a national expert on innovative learning strategies, and Partner at Vander Ark/Ratcliff, challenged state leaders to ask tough questions about whether their states are adequately prepared for the technological shifts already occurring in classrooms. "Every state needs a high-access strategy," he explained.

- **States must prepare for the shift to personal digital learning.** Speakers at the *Issues Summit* emphasized that digital learning will continue to expand across grade levels. Today, one in three students is taking an online or blended course which combines traditional instruction with online learning; by the end of the decade most students are expected to learn in a blended digital environment. Julie Young, the President and CEO of the Florida Virtual School (FLVS), discussed how her school has expanded opportunities for online learning since it was founded in 1997. The FLVS was the first virtual public high school in the country and is known nationally for its high-quality curriculum and instruction. Discussions at the *Issues Summit* centered on the unique structure and funding model of the FLVS. The FLVS operates as an autonomous school within the state of Florida and is able to provide its courses for a lower per-student rate than traditional school districts in part because it does not require any capital funding. In FY 2010-2011, the FLVS received approximately $5,180 per student, compared to a Florida district average of $7,700 per student. Young shared that the FLVS has provided useful alternatives for several challenges facing school districts, from over-crowded classrooms to providing AP courses.[8]

- **Data systems and tools are most beneficial when they can equip teachers, principals, and parents with reliable information to make decisions.** Developing comprehensive data systems can require a significant investment of time and capital, yet the most important aspect of these systems lies in the usability of the data itself. Aimee Guidera, the Executive Director of the Data Quality Campaign, suggested that states must take action to ensure data are not only used for compliance, but also serve to drive continuous improvement. In Colorado, the accuracy and accessibility of the state's Growth Model has transformed state conversations around student achievement. As Richard Wenning of the Colorado Department of Education shared, the Colorado Growth Model includes student test scores over multiple years to analyze whether a student's learning is on pace with peers at a similar initial level of achievement. The Growth Model can then identify for all students whether they have experienced more or less growth than expected. The state has also developed a user-friendly data tool available on its Web site that allows members of the public, policymakers, teachers, and students to analyze whether students and schools are on track to meet or exceed expectations.

Mobile devices have expanded the way teachers can use data in the classroom. The handheld devices provided to schools by Wireless Generation allow student learning data to shape instruction and learning throughout the school year. These devices provide diagnostic information to teachers on items such as how well students are performing on a given concept. This type of real-time information helps a teacher to adapt instruction and target the areas where a student is weakest, explained David Stevenson, Vice President of Business Development and Public Policy for Wireless Generation. New technologies may initially be challenging for teachers to use, but Stevenson suggested that there may be greater buy-in once teachers understand that these tools will ultimately save them time.

"We are swimming in data in the education field. The real power of data is not at the institution level, teacher, or state level. It is at the learning level." — Dr. Mark Milliron

Conclusion

The country has a huge challenge ahead as schools work to prepare students for the demanding careers of the future. Fortunately, states are already hard at work increasing the rigor of expectations for students so that they can fully access — as well as succeed in — postsecondary education. New technologies are also equipping teachers and principals with innovative ways to engage students in the learning process. Above all else, Governor James B. Hunt, Jr. challenged *Issues Summit* participants to remember that the best work state leaders can do to cultivate a talented workforce is to develop young people who can think for a living. As Governor Hunt stated, "We will only get the jobs if we have the brightest, most creative, most productive workers."

"In education, there is no stronger imperative than preparing all students for success in college and work." — James B. Hunt, Jr.

Endnotes

[1] U.S. Census Bureau, Population Division. (February 2011) *Preliminary Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2000 to July 1, 2010.*

[2] Passel, Jeffrey and D'Vera Cohn. (2008) I*mmigration to Play Lead Role in Future U.S. Growth. U.S. Population Projections: 2005-2050*. Pew Research Center.

[3] Organisation for Economic Co-operation and Development. (2009) *Facebook 2009: Economic, Environmental and Social Statistics, Education Outcomes.*

[4] Carnevale, Anthony P., Nicole Smith and Jeff Strohl. (2010) *Help Wanted: Projections of Jobs and Education Requirements Through 2018*. Washington, DC: Georgetown Center on Education and the Workforce.

[5] Donald J. Boyd et al. (2006) "How Changes in Entry Requirements Alter the Teacher Workforce and Affect Student Achievement." *Education Finance and Policy*, Vol. 1, No. 2 [Spring 2006], pages 176-216.

[6] Bill & Melinda Gates Foundation. (December 2010) *Learning about Teaching: Initial Findings from the Measures of Effective Teaching Project, Policy Brief.*

[7] Bill & Melinda Gates Foundation. (December 2010) *Learning about Teaching: Initial Findings from the Measures of Effective Teaching Project, Policy Brief.*

[8] Florida Virtual School. (2011) *Quick Facts.* Available: http://www.flvs.net/areas/aboutus/Pages/QuickFactsaboutFLVS.aspx

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