

[CM1][ADL2]

### Workforce Competition in a Global Knowledge Economy

Today's global knowledge economy is driven by innovation and requires a highly educated, highly flexible and adaptive workforce. To ensure South Carolina's competitiveness and to realize a prosperous future for South Carolinians, we must act boldly to set high aspirations and we must act now to improve significantly the education levels of our state's citizens. It is imperative that we greatly increase South Carolina's awareness of the importance of higher education to **an improved economy and quality of life**. Becoming one of the most educated states in the nation will be no easy feat. But we must. Our future economic success and quality of life depend on it.

The strategies outlined in this Action Plan are necessary to reach the overarching aspirational goal of becoming one of the **more** educated states in the nation by 2030. Through higher education, we must seek opportunities to increase innovation and research as well as provide enhanced workforce development and education services if South Carolina is to compete successfully with other states and other countries in today's knowledge economy.

The proportion of jobs requiring only a high school diploma continues to shrink, and South Carolinians with a minimal level of education will continue to see wage levels and job stability decline as employers outsource work to other countries or incorporate technology for the completion of the simplest tasks. The availability of a highly skilled workforce is essential to economic prosperity for a city, state, region and/or nation. Education has always been a critical factor in economic development, and today's changing technological landscape has not only increased the level of education needed for most jobs but also led to a revolution in workforce training. Today, employers minimally expect college-level preparation (certificate or degree) that is based on the ability of an individual to learn continuously as retraining becomes increasingly necessary.

Recognizing the trend toward more knowledge-based jobs, many of the **less-educated states** such as **Texas, Kentucky and Oklahoma** have [ADL3] set in motion aggressive plans to sharply increase educational levels and create an environment that enables its citizens to better compete for higher-paying jobs. Other states are also moving swift and South Carolina must do the same or risk being left behind [ADL4]. [KK5]

South [CM6] Carolina has made great strides over the years in research-based competitiveness through various programs and partnerships among the state's three research universities. However, many states and countries have increased their investment in research and innovation at a more rapid rate – creating a significantly more competitive environment. South Carolina must act now to do more. We must strengthen the state's existing base of activity and funding as well as anticipate new areas of focus if the state is to continue to fully compete, and ultimately to thrive in a knowledge economy.

[ADL7]

If we invest now to realize this Action Plan, a study undertaken by the University of South Carolina's Division of Research at the Moore School of Business shows a striking payoff for South Carolina.

- For each dollar the state spends between 2010 and 2030, \$11.20 is added to the economy (measured by gross state product).
- Further, after reaching that goal in 2030, each dollar spent by the state boost South Carolina's economic activity (measured by gross state product) by \$25.20 [ADL8].

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- The overall effect on South Carolina's economy is considerable – an annual gain for South Carolina after reaching the goal in 2030 of \$6.9 billion in total personal income, \$7.8 billion in gross state product, and 44,154 additional permanent jobs. These jobs will spread across every region of the state [CM9][KK10].

This positive economic impact will have the potential to decrease significantly South Carolina's unemployment rate. In addition to the powerful direct benefits to income and employment, increased education levels provide significant secondary benefits including: lower health care costs and lower social costs such as reduced expenditures for incarceration and welfare.

### Creating a Stronger, More Competitive Workforce in South Carolina

Armed with the knowledge that South Carolina must prepare itself to compete in today's knowledge economy on a local and global level, the Higher Education Study Committee worked closely with numerous constituencies to determine what the collective goals of our higher education system should be and what strategies it would take to attain them.

The Committee finds that a focused, action-oriented statewide higher education plan is a necessary to increase significantly South Carolina's overall competitiveness and provide clear direction for higher education. As the basis of the plan, a six-year timeframe (2009-2015) and four primary goals for higher education were identified [ADL11]:

- Goal 1: Making South Carolina One of the Most Educated States [CM12][ADL13]
- Goal 2: Increasing Research and Innovation in South Carolina [CM14]
- Goal 3: Increasing Workforce Training and Educational Services for South Carolina
- Goal 4: Realizing South Carolina's Potential – Resources and Effectiveness

[CM15][KK16]

This report identifies several objectives for each of these goals and provides specific recommendations on how to achieve each of those objectives, which are highlighted and briefly summarized below.

### Making South Carolina One of the Most Educated States

Although South Carolina exceeds the national level in the number of associate degree holders, it is still well behind leading states. What's [ADL17] more, South Carolina falls well short of the national average and very far behind the national leaders in the proportion of adults (25 and older) who hold graduate/professional and baccalaureate degrees. Nationally, all postsecondary degree holders have higher median incomes and lower unemployment as compared to individuals with only a high school diploma or less, according to the U.S. Bureau of Labor and Statistics.

To help increase the number of adults participating in higher education, while strengthening the K-12 to higher education pipeline, this report outlines several objectives aimed at increasing the education levels of all South Carolinians:

- Objective 1: Increase the number of high school graduates who are well prepared for college [CM18]
- Objective 2: Strengthen the transition from high school to college
- Objective 3: Increase higher education graduation rates

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- Objective 4: Increase adult participation in higher education
- Objective 5: Attract<sup>[CM19]</sup> and retain more graduates<sup>[ADL20]</sup>

Each objective identified in this report is supported by several recommendations designed to accomplish these objectives and the overarching goal of increasing the numbers of citizens who complete secondary education and are prepared for success in postsecondary education and ultimately employment in a knowledge-based economy.

### Increasing Research and Innovation<sup>[ADL21]</sup> in South Carolina

For South Carolina to be nationally and internationally competitive, the state must increase the number of graduates and develop a creative culture that attracts, develops and retains the most talented people. As new markets and competitors are created, science and innovation are increasingly leading the global economy. To fully engage in this new economy, South Carolina must develop an infrastructure that supports the transfer of technology from academia to industry as well as provide a foundation so the best innovators and entrepreneurs can build and grow their enterprises.

While South Carolina has created an environment of research-based competitiveness through the Centers of Economic Excellence Program, the Venture Capital Investment Act, the Light Rail fiber network and others, the high degree of focus among the three research universities will continue to serve as a powerful asset in achieving the following objectives, which are aimed at increasing South Carolina's research and innovation opportunities:

- Objective 1: Create a culture of discovery<sup>[ADL22]</sup>
- Objective 2: Optimize the process of technology transfer
- Objective 3: Enhance research and innovation partnerships among all colleges and universities and among colleges, universities and the private sector
- Objective 4: Recruit and retain the brightest innovators

The recommendations included with each objective in this report are necessary to enable South Carolina to become a leader in innovation and research.

### Increasing Workforce Training and Educational Services for South Carolina

The proportion of jobs requiring only a high school diploma is rapidly declining, with<sup>[ADL23]</sup> the result that South Carolinians with a minimal level of education will continue to see wage levels and job stability decline as employers outsource work to other countries or incorporate technology for the completion of the simplest tasks.

Simply put, the state must make rapid changes to increase the number of educated citizens or we will all face diminished quality of life. In the past, South Carolina has done well in regards to workforce development training for business. However, 85% of new jobs now require some level of postsecondary education<sup>[ADL24]</sup>. That statistic further emphasizes the need for increased education and training for adults as well as recent high school graduates, if South Carolina wants to expand the capacity and abilities of its workforce to replace retiring workers while providing a workforce for new jobs in growing fields.

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Recommendations are aimed at preparing a South Carolina workforce needed for industry sectors that are expected to grow by at least 15% between now and 2016. These<sup>[ADL25]</sup> sectors include: information; health care and social assistance; utilities; administrative support, waste management and remediation services; educational services; real estate, rental and leasing<sup>[CM26]</sup>; and management of companies and enterprises.

To meet the goal of increasing workforce training and educational services, the following objectives are outlined:

- Objective 1: Prepare the workforce for economic development cluster needs
- Objective 2: Communication<sup>[CM27]</sup> the<sup>[ADL28]</sup> importance and value of higher education and the action plan to targeted groups
- Objective 3: Connect adults to education and training opportunities
- Objective 4: Identify or create financial pathways to attain education and training goals
- Objective 5: Strengthen higher education services to enhance workforce development<sup>[ADL29]</sup>
- Objective 6: Strengthen the foundations for a world-class scientific and technical workforce<sup>[ADL30]</sup>

### Realizing South Carolina's Potential – Resources and Effectiveness

South Carolina has a well-established accountability system<sup>[CM31]</sup>, yet the state has not historically provided adequate funding for colleges and universities<sup>[ADL32]</sup>. For example, the percentage of state general fund support for higher education in FY 2009 is only about 10.2% of the state's general funds as opposed to the 14.9% that was received a decade ago. What's more, according to the latest available national data, South Carolina currently ranks 38<sup>th</sup> nationally and 15<sup>th</sup> out of the 16 Southern Regional Education Board states in FY 2007 when it comes to funding higher education<sup>[CM33]</sup>. The state's level of support per full-time equivalent student is \$5,838 compared to the national average of \$6,773. Without adequate support, South Carolina will be unable to encourage the type of innovation and education needed to advance the state's agenda for competitive excellence in a 21<sup>st</sup> century knowledge-based, high tech economy. Over the last ten years, as most states have made higher education a priority, South Carolina has ranked 50<sup>th</sup> in increased support to higher education. Without<sup>[ADL34]</sup> appropriate funding, South Carolina will continue to trail its neighboring states, and efforts to increase the competitiveness of the state will further weaken.

To fully realize our state's potential, this section of the report addresses the following issues:

- Resources for higher education in South Carolina<sup>[ADL35]</sup>
- A strong foundation of effectiveness
- Effective management of resources
- Areas of potential for synergy/savings
- Priorities for the future

### Conclusion

Investing in higher education not only provides key economic and social benefits for all South Carolinians but<sup>[ADL36]</sup> also strengthens the state's global economic competitiveness, improves income and job security for individuals, helps attract and retain knowledge economy leaders, and offers new opportunities for increased workforce development and services in the new economy.

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If we forge ahead and realize the aspirational goal of becoming one of the most educated states by 2030, the payoff for South Carolina described at the outset is worth repeating. The research by the Moore School suggest that for every dollar invested from 2010 and 2030, \$11.20 is added to the economy (measured by gross state product) and after 2030, each dollar spent boosts South Carolina's economic activity by \$25.20. The estimated gains in South Carolina economy after reaching the goal in 2030 are considerable – \$6.9 billion in total personal income, \$7.8 billion in gross state product, and 44,514 additional permanent jobs. The benefit does not stop at the direct benefits to income and employment. The positive impact of increasing the education level of South Carolinians also has the potential to decrease significantly South Carolina's unemployment rate and provide powerful secondary benefits including lowered health care costs [CM37] and lowered social costs such as decreased expenditures for incarceration and welfare. A forthcoming report from the Moore School will provide calculations on these factors as well as by region of the state. [KK38]

As less educated states continue their aggressive plans to increase greatly educational levels, and highly educated states make higher education an even greater priority, South Carolina cannot afford simply to maintain, or even worse, reduce its support for higher education. By taking action now, the opportunity for the return on investment for our state's citizens and economy is far too grate [CM39] to ignore. [CM40][CM41]

The current economic climate presents considerable challenges. However, today's economic downturn does not mean that we must stand still. Instead we will need to focus our attention and energies on those activities we can do now to position South Carolina effectively for better times. We must continue to move ahead despite the enormous challenges we are faced with because standing still will mean that South Carolina will only fall further and further behind neighboring states and competing countries around the world.

The time to act boldly is now. Our state and citizens deserve no less.

### Action Plan Implementation

#### High Priority Recommendations

The Higher Education Study Committee (HESC), through its subcommittees, task forces, and public hearings are

The Higher Education Study Committee (HESC), through its subcommittees, task forces, and public hearings, has developed a comprehensive list of more than 100 recommendations for the advancement of higher education in South Carolina. Although each of these recommendations is the result of a comprehensive process, they not all of equal priority or potential to affect higher education. are not all of equal priority or potential to affect higher education. [KK42]

As the final part of the process of developing the recommendations, the HESC members have independently evaluated the recommendations and prioritized them. The input from the individual committee members has been combined to develop an overarching priority list [ADL43]

For the purpose of setting priorities, the recommendations were divided between those which will require either recurring or one-time costs. The top-ranked recommendations are presented below, with the "no-cost" recommendations first, followed by those involving costs. The recommendations within

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each of these categories will be listed from highest priority down, although it should be noted that all of the recommendations below are seen as high priority by the committee members. Recommendations are identified by the number they have in the Action Plan to ease cross referencing for additional information.

### Implementation will involve no cost to the state<sup>[ADL44]</sup>:

- **2.2. Enact appropriate regulatory relief to enhance innovation and promote research.** This recommendation is designed primarily to reduce lag-time and resultant expense in hiring, implementing research programs, building capital projects, and infrastructure improvement.
- **3.1. Align higher education programs to support statewide and regional clusters.** Statewide and regional clusters refer to the nine statewide clusters currently identified by New Carolina.
- **1.2. Use and promote the *Knowledge and Skills for University Success* standards as a common standard of college readiness<sup>[CM45][ADL46]</sup>.**  
This recommendation encourages a common standard so that high school faculty members, guidance counselors, principals, and students will be able to understand with some precision what constitutes preparation for collegiate-level work.
- **3.21. Increase opportunities for relevant work experience as part of instructional programs.**
- **2.7. Create a state model for formal agreements between institutions of higher education and the state's business and industry<sup>[CM47]</sup> to facilitate shared research and reduce barriers to the commercialization of resulting discoveries and inventions.**  
The recommended model will be designed to copy other states which have been successful in fostering technology transfer and to remove a perceived barrier to such innovation.
- **4.3. To maintain a more accurate picture of higher education funding, state data reporting should clearly distinguish between restricted funds (e.g., funding which is limited to a specific auxiliary activity or by donors or external agencies to a specific purpose) and unrestricted funding (e.g., funding derived primarily from state appropriations for Educational and General [E&G] support and student tuition and fees).<sup>[CM48]</sup>**
- **CHE Cost Reduction Committee described under Goal 4**  
This recommendation is intended to facilitate the sharing of information and best practices and to promote the development of collaborations among our colleges and universities.

The HESC anticipated that the following recommendations will involve cost for each that has not been determined at this time.

### Implementation will involve costs to the state:

- **1.21. Ensure affordability of higher education through increased state funding<sup>[ADL49]</sup>.**  
This recommendation has a triple focus: increased appropriations, a recurring capital bond bill, and increased need-based student aid.
- **3.3. Fund a bond bill to support necessary infrastructure and facilities renovation, maintenance and expansion<sup>[ADL50]</sup>.**  
This bond bill recommendation is a more tightly focused recommendation aimed at improving and expanding facilities and infrastructure for the purpose of meeting economic development needs.

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- **4.4. Fund the Partnership Among South Carolina Academic Libraries (PASCAL) fully because it is a critically important partnership among South Carolina’s academic libraries.** This recommendation seeks protection for the state’s existing but threatened common electronic research library of over 10 million volumes and access to millions of articles from thousands of electronic research publications.
- **1.1. Implement compulsory high school attendance until the age of 18 or high school graduation<sup>[ADL51]</sup>.**

While compulsory high school attendance to the age of 18 would be costly because it would require more teachers, more physical facilities, and funding for the number of students in question, the possible benefits which could result from those students earning higher incomes (such as increased tax revenue and decreased use of social services) makes compulsory attendance until the age of 18 a worthy endeavor.
- **1.6. Develop a marketing campaign to promote college attendance and completion<sup>[ADL52]</sup>.**

This campaign is intended to sell the need to attend college and increase awareness about higher education opportunities.
- **1.35. Create a “New Front Door” that makes the transition to higher education vastly easier for adults.**

This recommendation defines a clear, coherent, standardized statewide pathway for adults to further their education.
- **4.1. Fund higher education at the SREB average or above<sup>[ADL53]</sup>.**

South Carolina ranks 15<sup>th</sup> out of the 16 SREB states in per FTE funding for higher education. This recommendation seeks to increase funding to the SREB average rate per FTE.
- **4.2. Support routine and predictable capital funding of colleges and universities with a portion of funding directed at eliminating accumulated maintenance needs.**

This recommendation also focuses on the need for a recurring bond bill for higher education. In this case, the focus is on capital projects with particular attention paid to “accumulated maintenance needs,” in the past known as “deferred maintenance.”
- **1.4. Create a South Carolina College Access Network (SC CAN) as a statewide network of local community-based college access programs.**

This recommendation is designed to engage communities across the state in creating support network that will encourage and promote a college-going culture.
- **1.20. Expand statewide college application and financial literacy initiatives for high school students to assist in the preparation for college and the transition from high school to postsecondary education.**

This recommendation is designed to assist high school students and their parents in better understanding the process for applying to college and for financial aid so that they can navigate this critical step in realizing a college education with ease.