STATE DIRECTORS

National Association of State Directors
of Career Technical Education Consortium

Career Technical Education: A Critical Component of States' Global Economic Strategy

In this dynamic global economy, the connection between education and the workforce could not be more apparent. For the United States to assert its leadership in this complex and ever-changing economy, education must be central to our economic strategy. That means for education programs to truly be effective, we must collaborate with business and industry to align what they teach with what the economy demands. [i]Underscoring the urgency to address this issue, economic forecasts predict that as the U.S. economy fights to recover and excel, disconnect between the types of jobs employees need to fill and the education and technical skills people have to secure those jobs will grow.[ii]

Several international rankings suggest that the United States' status in the global economy is already slipping.

In a recent World Economic Forum report, the United States dropped from the number one to the number two rank in the 2009-2010 Global Competitiveness Index. Taking the top spot from the United States is Switzerland. When looking at the top 10 most competitive nations – European countries have earned 6 of those top 10 rankings.[iii] Further, according to an international student assessment, the United States ranks 25th of 30 industrialized nations in mathematics literacy with an average score of 474, which is below the nations' 498 average.[iv]

It is crucial for the United States to address this issue now. While national leaders have made some progress in connecting education and economic development, there are states that stand out as leaders. Alabama and South Carolina, which are highlighted in this brief, have used their investments in career technical education (CTE) to lure and retain international companies, and prepare students to vie for jobs across the globe. Their forward-thinking approach has helped them partner with leaders of major, burgeoning industries to develop programs that train their students for the jobs of tomorrow, and secure employment and high-wage opportunities for their states' residents.

South Carolina

The notion of global competition has long been simmering in South Carolina, which is now an established corridor for the advanced auto manufacturing industry. As early as the 90s, BMW courted the state as a potential site for a manufacturing plant. But before BMW would commit, the company deployed representatives to local workforce and education training sites and schools to assess whether South Carolina sufficiently prepared students to work for their German

company, said Dr. James Couch, State Director of Office of Career and Technology Education in the South Carolina Department of Education. When BMW did decide to set up shop in South Carolina, the company offered to help boost education and provide engineers to train school teachers. To date, BMW remains in South Carolina and has more than doubled the number of people it employs in the state.

Since, South Carolina has lured a range of auto companies and established a strong network of automobile associations to help update the education systems, specifically CTE programs, as technology in the industry advances. Of recent, CT&T United, a U.S. subsidiary of a South Korean electric car manufacturing company, landed in South Carolina, bringing another internationally-based opportunity into the mix.

State leaders are cognizant of the value CTE has held with sustaining and cultivating such economic growth. In 1998, the Department of Education launched its mission to boost the number of CTE engineering education programs it offered. The state started at zero, but today engineering programs can be found in about 130 high schools, 65 middle schools and 30 elementary schools. The department is in the process of collaborating with industry and postsecondary institutions to develop an advanced manufacturing career cluster pathway that reflects the evolving auto industry and even the aerospace industry.

It is important to note that the state's investments in CTE programs are not limited to engineering. A global economy is also characterized by its diversity and agility. Thus, South Carolina has also geared its CTE programs toward high-tech and bio medical industries, a move that the state's workforce advisory committees have encouraged and policymakers' have supported. Industry partners include CISCO, Oracle and Boeing.

To ensure that students gain a comprehensive CTE experience that prepares them for both college and career, the state's Education Economic Development Act requires all CTE students to have a work-based learning experience that aligns with the Career Clusters program by which they are enrolled. All learning should be relevant and real, and employers have lauded the thorough intent of that law and other state policies.

Alabama

In light of global competition, more states have established comprehensive statewide strategies that include improving education and training programs in schools to lure and retain industries. Alabama, for instance, co-founded The Aerospace Alliance with neighboring Mississippi and Louisiana. The initiative aims to assert the region as a corridor for aerospace companies and boast the states' highly-skilled workforce. That goal places a significant emphasis on CTE and the role such programs play to foster highly-skilled employees, said Sherry Key, Career and Technical Education Director with the Alabama Department of Education.

Alabama's governor has supported strategies that include the collaboration of aerospace engineering companies, and secondary and postsecondary institutions. The linkages allow for programs that offer seamless transitions across systems and for smoother shifts as changes in the

economy occur. Further, Alabama schools participate in international programs such as the NASA Great Moonbuggy Race, a competition in which high school and college students participate, and ties students' classroom experience with the overall notion of global competition.

The concept of global competition is an issue in itself that the CTE department has worked to embed in all of its programs. For instance, an agricultural program includes exploration in the business aspect of exporting peanut products to countries such as Japan, which consumes Alabama's resource.

Global competition is not a buzz phrase; it is a reality that education and workforce leaders must embrace in order to prepare the nation's students to succeed in this dynamic economy. Comprehensive CTE programs can help attract and retain industries that may go abroad if our workforce does not have the skills and knowledge to fill positions. CTE is critical to ensuring that the United States leads in global competitiveness[v]; NASDCTEc is committed to programs aligned to internationally-benchmarked standards and the real-time demands of the economy.

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[i] Executive Office of the President Council of Economic Advisers, *Preparing The Workers of Today For the Jobs of Tomorrow*. 2009.
[ii] Anthony P. Carnevale, Nicole Smith, Jeff Strohl, *Help Wanted: Projections of Jobs and Education Requirements Through 2018*. 2010. http://cew.georgetown.edu/
[iii] Dr. Klaus Schwab and Dr. Xavier Sala-i-Martin, *The Global Competitiveness Report 2009-2010*. http://www.weforum.org/pdf/GCR09/GCR20092010fullreport.pdf
[iv] Organisation for Economic Co-operation and Development [OECD]. 2007. *PISA 2006: Science competencies for tomorrow's world*. Paris: Author.
[v] National Association of State Directors of Career Technical Education, *Reflect, Transform, Lead: A New Vision for Career Technical Education*. 2010. www.careertech.org