

Growing the Economy by **UP-SKILLING** the American Worker



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BY BRYAN ALBRECHT

Job creation! We hear about it everywhere, especially from Washington, D.C. Job creation is what America needs; however that is not the full story. Job creation is just the beginning of the story to address how America responds to workforce needs today and in the future. It is an invitation to examine our current and future workforce needs in an effort to fill jobs, lessen the skill gap and provide industry-driven credentials to meet labor demands locally, regionally and nationally.

Today's educational institutions must take an innovative approach to combat the current economic challenges by partnering with industry to define industry needs. If lasting change is to occur at the local, regional and national levels, we must look for partners in places we have not looked before—and we must connect the dots between these partners. While not a big surprise to most readers, in order to achieve true lasting success, silos must be dissolved; unprecedented alliances must be formed, nurtured and sustained, and we must strive to invent the wheel only once.

Top labor force issues facing America are the current and impending skill gaps resulting from the approaching mass exodus of baby boomers, the negative stigma associated with manufacturing and technician jobs, and the perception of technical colleges as a viable educational option. We are collectively challenged to meet the training needs of the emerging and incumbent workforce with high-quality, industry-supported credentials that are stackable. These credentials help workers as they navigate their personal career pathway.

The current state of the economy shows an estimated 3.2 million open positions in America, including 515,000 positions in trade, transportation and utilities as of June 2011. The government forecasts the supply and demand for 'mid-level' jobs

annually. For example, a Level 2 job is defined by the federal Bureau of Labor Statistics as those requiring more than a year of postsecondary training or education, but less than a bachelor's degree. This level contains significant gaps. The projected 2013-2018 skill gaps are extremely grim for those in maintenance, repair and installation (at 34 percent) and manufacturing professions (at 37 percent).

Mid-level jobs are not the only positions affected. Today there are nearly 600,000 open jobs in education and health services. The projected skill gap in science and technology is anticipated to be 79 percent in 2013-2018. In spite of challenges in the aviation industry, a recent Boeing press release highlighted future labor requirements to sustain the industry: "...airlines will need an average of 23,000 new commercial jet pilots and 32,500 new technicians per year to maintain and fly an expanded world fleet expected to grow to nearly 40,000 airplanes over the next 20 years, as well as replace the coming wave of retirements."

Credentialing and Stackable Credentials

One of the U.S. Department of Labor's (DOL) proposed solutions to this dilemma is to increase industry-recognized stackable credentials with a clearly defined system of competencies linked to employment opportunities and advancement. The DOL suggests as part of the increasing value of credentials that state and local workforce agencies "work with local and regional employers around identification of in-demand credentials... (which) may involve developing or customizing competency models."

In an effort to increase credential completion rates and movement along a career path, the DOL encourages training providers to "modularize curricula into chunked curriculum" and into "small units, each of which are stackable and

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linked to other modules that culminate in an industry-recognized credential."

Workforce solution initiatives are trickling down from the highest peaks in Washington—with community colleges and collaboration being a key theme in responding to the current economic situation. At a news conference in June 2011, President Obama announced a major expansion of Skills for America's Future, an industry-led initiative aimed at dramatically improving industry partnerships with community colleges and building a nationwide network to maximize workforce development strategies, job training programs and job placements.

As one of the key partners of Skills for America's Future, the Manufacturing Institute announced an effort to help provide 500,000 community college students with industry-recognized credentials that will help them secure jobs in the manufacturing sector. Several other partners of Skills for America's Future and the Manufacturing Institute will also help enhance these efforts through their own initiatives to bolster our nation's manufacturing workforce.

"Last year, we launched Skills for America's Future to bring together companies and community colleges around a simple idea: making it easier for workers to gain new skills will make America more competitive in the global economy," said President Obama. "Today," he continued, "we are announcing a number of partnerships that will help us make this a reality,

PHOTOS COURTESY OF NORTH DAKOTA STATE COLLEGE OF SCIENCE



◀◀ A strong partnership with John Deere has allowed North Dakota State College of Science (NDSCS) to provide its John Deere Tech students the opportunity to work with industry-current equipment.



◀◀ NDSCS Caterpillar Dealer Service Technician students receive up-to-date technical training on Caterpillar equipment through hands-on instruction in state-of-the-art labs made possible through partnerships with Caterpillar and Bulter Machinery.

sustainable training that is industry-recognized, stackable and crosses industry sectors. Targeted fields for immediate curriculum development include advanced propulsion systems, renewable energy, and aviation.

Several NC3 trustees attended the Presidential press conference to demonstrate how addressing this new model of cross-pollination among industry, government and organizations equates to partnerships which net results. Serving as the chair for NC3 aligns Gateway closely with the current and future national network of colleges, organizations and industry leaders.

In February 2011, Francis Tuttle Technology Center hosted an NC3 Transportation Train-the-Trainer event, and the first NC3 Energy Train-the-Trainer was held in partnership with the Midwest Renewable Energy Association in Wisconsin in June 2011. NC3 is building momentum with each subsequent training in each industry sector. The most recent NC3 Transportation Train-the-Trainer event hosted at Gateway in July 2011 provided certifications to more than 50 instructors from around the nation, and Puerto Rico. While primarily targeted at automotive instructors, the transferability of these skills was evidenced by the attendance of representatives from the energy sector, healthcare, manufacturing and oil industries.

NC3 is gaining international attention. In addition to recent visits from instructors from South America interested in the training, assessment and certification model, a grant-funded train-the-trainer was held at the ESTO-Ecole Supérieure de *Technologie Oujda* in Morocco in September. The NC3 growth strategy includes certification to be offered to displaced and incumbent workers, embedded in community college degree programs, and eventually reaching into area high schools in order to prepare students for the technology they will encounter at the two-year college, and in industry.

by opening doors to new jobs for workers, and helping employers find the trained people they need to compete against companies around the world.?’

National Coalition of Certification Centers

Skills for America’s Future is only one example of how collaboration, leading to credentialing, responds to our current economic situation. This plan of action is not limited to manufacturing; it transcends all sectors, rippling into the greater labor pool of America. Gateway Technical College, in Wisconsin, has responded to this call for action by positioning itself in partnerships which are beneficial to all stakeholders. One initiative Gateway has embraced is being an active proponent of the National Coalition of Certification Centers (NC3). NC3 represents a move forward for public/private training part-

nerships and is the next step in technical training in the United States.

What started as a partnership between Snap-on Incorporated and Gateway Technical College, and soon thereafter, Francis Tuttle Technology Center, in Oklahoma, and Shoreline Community College, in Washington, today includes more than 40 advanced technical education centers, community colleges and manufacturer-sponsored training programs across the country. NC3 develops, implements and sustains industry-recognized portable certifications built on national skill standards defined by industry. NC3 connects the dots between industry, America’s technical training needs and education institutions.

Member institutions have built curricula for diverse industries, including transportation, aviation and energy. The goal of NC3 is to develop and implement

Community Colleges' Partnerships With Industry

The common denominator of the members and certification centers that comprise NC3 is progression and innovation in developing relationships with industry in all sectors. An example in the transportation sector is Shoreline's General Service Technician Program for students interested in a career in automotive services. Industry partner Puget Sound Auto Dealers Association is on site, linking students directly to industry partners. This program has placed nearly 90 percent of graduates into jobs in spite of the economy.

The National Center for Aviation Training (NCAT) at Wichita Area Technical College (WATC), in Kansas, offers success stories in aviation. Partnerships with companies like Cessna, Spirit, Bombardier, and Hawker Beechcraft allow WATC to offer its students state-of-the-art training in composites using practical training specific to what they will encounter in the workplace.

Francis Tuttle Technology Center has paved a path in emerging technologies in the energy sector with a Turbine Technician program. In partnering with companies engaged in the wind energy sector, such as PCG Wind, this unique program was developed in an effort to meet the anticipated demand of wind to produce 20 percent of total electricity by 2030 (according to the U.S. Department of Energy). The program has cross-trained national ironworkers, and serves as a center for local employers to train new hires. The training received in electrical, mechanical and hydraulic torque technology is applicable from the oil fields to the top of wind towers, down to the manufacturing floor. Industry's stamp of approval endorses that these credentials meet high standards such as those found in Snap-on's Torque Technology Curricula.

The North Dakota State College of Science (NDS-CS), home to one of the leading diesel technology programs in the coun-

try, has partnered with industry leaders such as John Deere and CAT to offer programming on state-of-the-art equipment. Partnering with industry helps absorb some of the costs of these multi-million-dollar pieces of equipment, while producing the skilled workforce required by these organizations. Working with government, NDS-CS has reinforced its commitment to excellence in programming and expansion of its current facility.

The stories of the progressive nature of the grassroots leadership of NC3 can be told many times over. The common factor is that they each recognize the value of increasing educational efficiencies and effectiveness for their organization by using the coalition as a means to an end. While we cannot do everything individually, together we can work in a deliberate and calculated manner which subsequently increases our reach exponentially.

Turning Concepts into Reality

When discussing the economy, we all have a role to play. Educational institutions are responsible for producing a highly skilled labor pool for local and regional businesses. Businesses sustain local and regional economies which feed into the national economy. It is a cyclical process that includes local and national governments, community-based organizations, educational institutions, and workforce development organizations working together to lessen the skill gap. This enables the United States to sustain its economy and compete at a global level. Collectively we can meet industry expectations and grow our economy through up-skilling the American worker. **T**

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