

# Workforce Development Initiatives: Collaborating to Prepare for the Jobs of the Future

A REPORT BY THE NCSL FOUNDATION PARTNERSHIP  
ON JOBS AND INNOVATION





## ACKNOWLEDGEMENTS

*In 2012, the National Conference of State Legislatures (NCSL) formed a new public/private partnership to examine the role of state policymakers in job creation and innovation through the NCSL Foundation. The partnership supports NCSL's ongoing efforts to improve the quality of information available to state policymakers.*

*A key goal of the partnership is to improve the dialogue among state legislators, business representatives and other organizations interested in state policy decisions. The partnership convened a National Jobs Summit to bring state policymakers together with the private sector partners in September, 2013 and is publishing of a series of issue briefs on state policies related to job creation and innovation.*

*This brief is one of three.*

*Other briefs in this series include:*

*The State Role in Rebuilding the Manufacturing Sector*

*Innovations in State Entrepreneurship Policy*

*These works could not have been accomplished without the invaluable assistance and expertise of our partners.*

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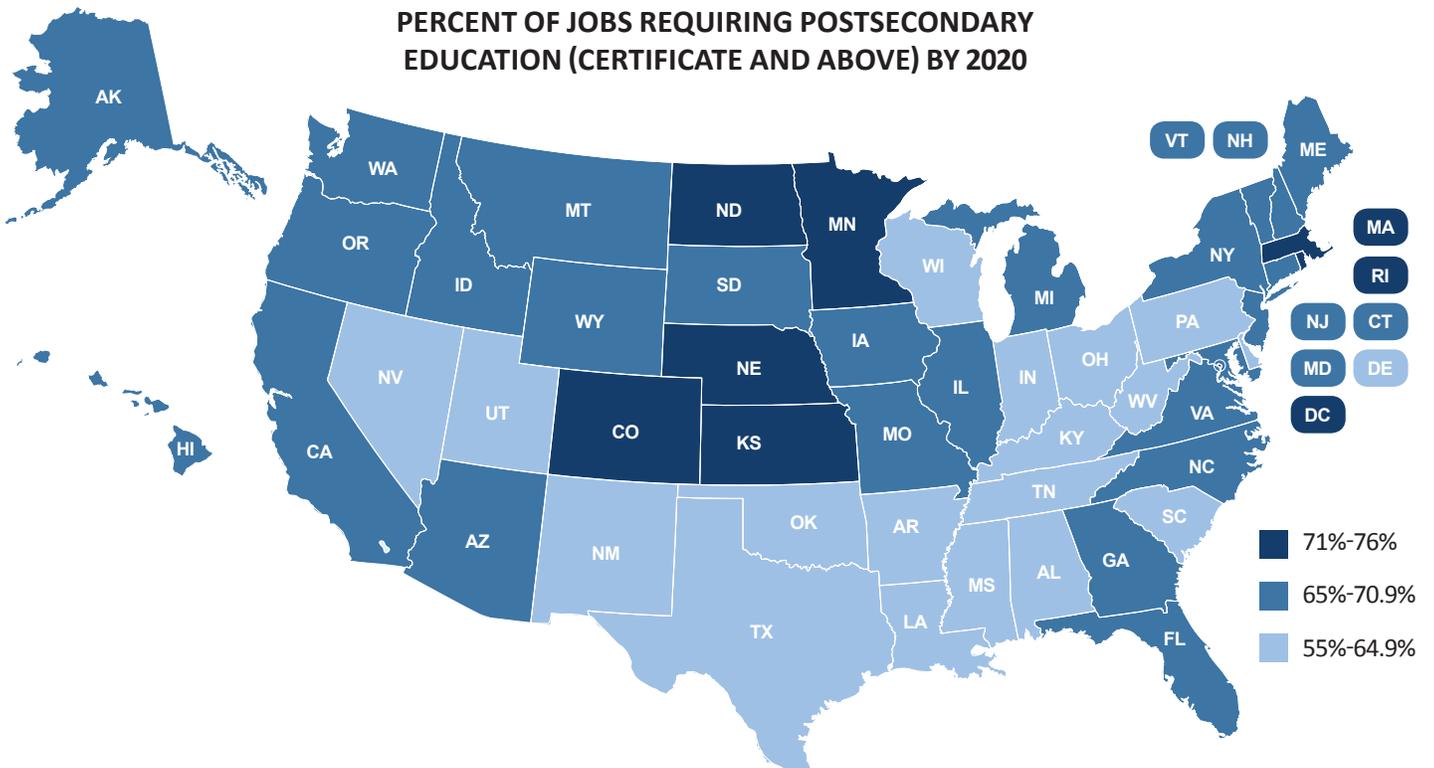
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# Workforce Development Initiatives: Collaborating to Prepare for the Jobs of the Future

**S**low recovery from the Great Recession has underscored the shift from an industrial-based economy to one that is knowledge-based. Often there is a lack of skilled, educated workers to fill an increasing number of available jobs. Yet filling these new jobs would bring an increased return on investment to state economies, as they usually require a high level of skill and therefore pay well, generating higher revenues for states. A person with a college degree earns about twice as much – \$25,000 extra annually – than someone with only a high school diploma. That translates into an extra \$1 million in earnings over a lifetime. Jobs increasingly require some form of postsecondary education and, according to research from the Georgetown Center on Education and the Workforce, by 2020, 65 percent of jobs will require education or training beyond high school.<sup>1</sup> While many of these jobs will require at least a bachelor’s degree (35 percent), an almost equal amount will require only some college, a certificate, or an associate’s degree (30 percent). At the current rate of college completion, however, the nation will fall short of that by 5 million degrees.<sup>2</sup>

Past workforce development initiatives focused on job search and placement need to mirror the shifting economy and focus on longer term improvements to education and training for high-skilled jobs. In fact, according to the McKinsey Global Institute, by 2020 the country could be short as many as 1.5 million people with the necessary middle to high skills to fill jobs, and

**PERCENT OF JOBS REQUIRING POSTSECONDARY EDUCATION (CERTIFICATE AND ABOVE) BY 2020**



have 6 million low skilled, likely unemployed, workers.<sup>3</sup>

This brief highlights various state and industry-led workforce development initiatives. All approach workforce development in different ways and target various populations. They range from aligning K-12 and post-secondary education to workforce needs, to alternative ways of delivering basic skills, to re-training the underemployed and unemployed, to training specific skills for specific industries. All the initiatives, however, are models of collaboration among several state agencies and business partners to develop workers with the skills needed to continue to grow businesses and state economies.

### Re-Envisioning Systems of Education, Basic Skills and Workforce Training

#### *Washington I-BEST*<sup>4</sup>

In 2005, Washington's State Board for Community and Technical Colleges (SBCTC) found that only 4 percent to 6 percent of adult students in basic skills classes ultimately went on to enroll in college-level courses. Additionally, it found a "tipping point" where students who completed one year of college-level courses and earned a degree or certificate markedly increased their earnings within five-years, compared to other adult basic education students. In response to these findings, SBCTC created the Integrated Basic Education and Skills Training (I-BEST) program to increase the rate of students reaching this tipping point and advancing to college-level courses and completing a postsecondary credential.

I-BEST moves students quickly through the basic skills courses by combining them with college-level technical education courses, allowing students to immediately start earning credits toward a credential. Programs are designed with a specific sequence of courses, leading directly to a degree or certificate in high-demand jobs. When developing I-BEST programs, local labor market needs were analyzed along with potential wages for students who complete the programs. Eighty-eight percent of all I-BEST programs are in the fields of health care, education, manufacturing and business currently. There are more than 150 programs throughout Washington's 34 community and technical colleges.

Basic skills instructors and technical education faculty develop and teach I-BEST courses collaboratively and are required to be in class together at least 50 percent of the instructional time. In this way courses combine traditional basic skills with college level concepts, allowing students to apply their learning to the professional/technical education immediately. For example, an I-BEST course in business technology integrates basic skills and professional education by having students create a busi-

ness portfolio. Basic writing skills and word processing skills are integrated to write a proposal, and basic math skills and spreadsheet skills are integrated to develop a budget.

Approximately 3,000 students a year enroll in I-BEST programs, and a large portion are undereducated and from the low-skill workforce. Sixty-two percent are female, 41 percent are students of color, and 21 percent speak English as a second language. Additionally, almost half the students (47 percent) have at least one child.

A cohort of I-BEST students was evaluated over four years to determine progress toward meeting the program's goal of taking students to the "tipping point." Twenty-four percent of students completed one year of college level courses and earned a credential, while 12 percent made no progress. Compared to traditional basic skills students, I-BEST students were three times more likely to earn college credits and nine times more likely to complete a credential. I-BEST students also reported an average of \$2,300 more in earnings annually.

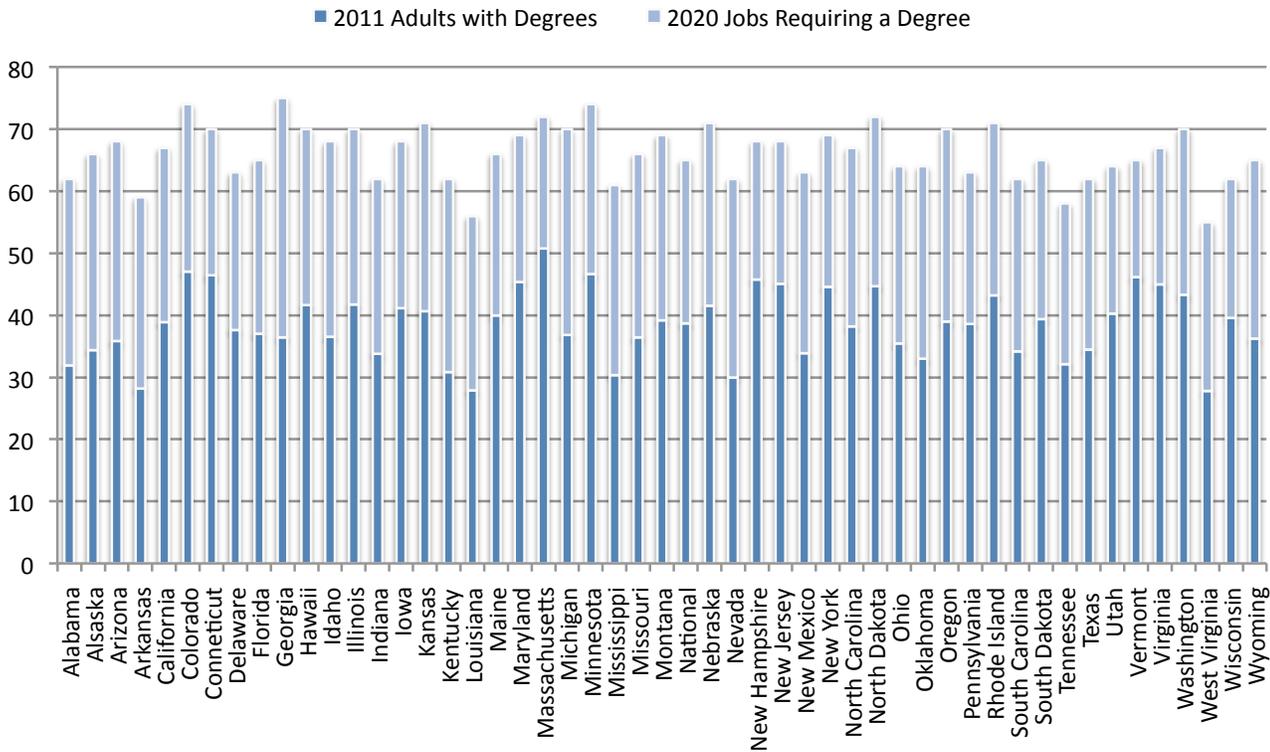
The I-BEST program has become a nationally recognized success for aligning basic skills education with workforce needs. Through support from private foundations, SBCTC has provided technical assistance to several other states looking into developing similar programs.

#### *Michigan No Worker Left Behind*<sup>5</sup>

The major economic downturn in Michigan during the recession left hundreds of thousands of workers unemployed, with many losing long-held, well-paying jobs. Research by the Michigan Commission on Higher Education and Economic Growth concluded that the state's future competitiveness required doubling the number of workers with a postsecondary degree or credential to keep pace with a labor market that now required different skills. In 2007, Governor Jennifer Granholm announced the *No Worker Left Behind* (NWLB) initiative with the goal of reaching 100,000 participants within three years. With the support from federal Workforce Investment Act funds, the program provides low-wage, underemployed and unemployed workers with \$5,000 a year, for up to two years, to pay for tuition, fees and other educational expenses at community colleges or other educational institutions.

A key aspect of NWLB is that the skills and credentials being funded align with business demands. More than 40 Michigan Skills Alliances helped build a strong industry partnership around the state, relaying the needs of employers. The program changed Michigan's workforce development strategy by focusing resources on helping workers obtain new skills and credentials matching workforce need. It helped move the state away from short-term job search and placement services, to-

PERCENT WORKING AGE POPULATION (25-64) WITH ASSOCIATE DEGREE OR HIGHER IN 2011<sup>6</sup> AND PERCENT OF JOBS REQUIRING POSTSECONDARY EDUCATION BY 2020 (CERTIFICATE OR ABOVE)<sup>7</sup>



ward longer-term investment in training and obtaining credentials. In 2009, Michigan’s Department of Energy, Labor and Economic Growth reported that 75 percent of those who had completed the program had retained or obtained a job. And by 2010, the three year mark, the program had enrolled 148,808 participants, outpacing the state’s goals.

**Oregon Career Pathways Initiative<sup>8</sup>**

Launched in 2004 with five colleges, and now expanded to all 17 community colleges in the state, the Oregon Career Pathways Initiative seeks to increase the number of Oregonians with certificates or associate’s degrees and equip them with the skills to fill the middle-skill job demand in the state. The program also aims to ease the transition between high school and community college and encourage further educational attainment, whether through higher degrees or stackable certificates. This is part of the state’s larger 40-40-20 Goal, which states that 40 percent of the workforce will have four-year degrees or higher, 40 percent will have a postsecondary certificate or associate’s degree, and 20 percent will hold a high school diploma or equivalent and be ready to enter the workforce by 2025. The initiative is focused on ensuring

that all Oregonians have access to and complete short-term certificate programs that can lead to either higher levels of degrees or immediate employment in occupations such as healthcare, manufacturing and business.

The Oregon State Board of Education, in 2007, approved Career Pathway Certificates of Completion (CPCC) which are short-term certificates that contain courses linked to competencies that qualify students for an entry-level job. Since then, more than 240 CPCCs have been developed through collaboration between employers and colleges. The programs are flexible and “student-centered,” allowing students to enter the program at several points, depending on their skill level. Between 2008 and 2012, more than 5,000 of these short-term certificates were awarded. More recently, the state-developed Career Pathway Roadmaps website has been launched with more than 350 “roadmaps” or plans for students seeking educational goals and career attainment. These roadmaps include all the courses needed, as well as certificates and associate’s degrees offered at the state’s community colleges, to pursue specific fields.

**Industry Leaders Training Future Workers**



### *Toyota Advanced Manufacturing Technician Program<sup>9</sup>*

With the shift toward a global manufacturing market along with a large group of technically skilled workers retiring, North America Toyota began to evaluate how to recruit new workers and what skills they would need to keep Toyota competitive worldwide. Toyota officials quickly found the problem of having to replace a “retirement bubble” of workers was compounded by the fact that the next generation of workers needed a more comprehensive set of skills than those of the retiring worker.

Toyota identified three main problems: 1) a lack of highly skilled applicants; 2) a lack of basic education skills; and 3) a negative perception of manufacturing. There were not enough sufficiently skilled workers in the pool Toyota could draw from. In fact, the No. 1 unfilled job opening during the Great Recession was for “skilled technicians.” From the numerous applicants Toyota received, only 5 percent were qualified. This was largely because applicants had a single skill – electrician, mechanic, welder or a programmer. What Toyota needed was a next generation, multi-skilled worker who had the knowledge to perform a combination of all these jobs.

Toyota leaders decided that to remain competitive they could not wait for large, systemic change within the education system. They needed to be the catalyst for change. So, they re-imagined their next generation team member into someone with many skills (electrical, mechanics, fabricator); strong math and reading capabilities; aptitude for fast technical learning; a proficiency with digital media; strong problem solving skills; effec-

#### **Low Skill Jobs**

- Require high school diploma or less

#### **Middle Skill Jobs**

- Require some college, certificate or associates degree

#### **High Skills Jobs**

- Require bachelor’s degree and higher

tive verbal and written communications; good interpersonal skills; and the ability to be a team worker.

With this vision of the next generation skilled technician, Toyota then created a path to get these workers trained. The result was the Advanced Manufacturing Technician Program. It combines classroom instruction with on-site training at a local Toyota manufacturing facility, resulting in an associate’s degree in applied science upon completion. Each program is held in a partner community college near a Toyota or other appropriate partner manufacturing facility.

Students receive paid work experience along with an intensive high-tech curriculum, general education skills, and instruction in workplace culture and behavior. The program runs for five semesters, with students in class or work for 40 hours a week, allowing them to complete it within 18 months. Students work two to three days a week, and earn between \$17 and \$19 an hour, or as

much as \$30,000 a year to cover education expenses. The hands-on experience allows students to better immediately integrate their classroom learning.

The remaining days are spent in the classroom where students receive general education and technical classes such as motor mechanics and welding. Technical classes are held in spaces similar to places these students will work in upon completion. The realistic look and feel of a factory keeps Toyota from having to provide “re-training” students, as they have to for those graduating from traditional community college programs.

There are Advanced Manufacturing Technician Programs in Kentucky, West Virginia, Indiana, Mississippi and Texas, and all of them except Kentucky are in the process of recruiting students to begin in the fall of 2013. Kentucky’s program began in 2010, partnering with Bluegrass Community and Technical College, and has graduated three classes to date. Other companies have joined with Toyota to provide manufacturing training, including 3M, Central Wheel Manufacturing and GR Spring.

Students who have completed the program have all passed the Toyota technical written exam. Additionally, average test results have been above passing in all four technical areas, compared to candidates coming into Toyota without the AMT Program. They typically pass only one or two areas. The result thus far has been the

multi-skilled technicians Toyota envisioned.

### *Pennsylvania Industry Partnership*<sup>10</sup>

In 2006, lawmakers in Pennsylvania passed legislation allocating \$20 million in state revenue and \$10 million in state-designated federal Workforce Investment Act resources to develop partnerships of employers from a single regional industry to identify common skill gaps. The partnerships were then charged with developing curricula and credentials needed for designated occupations at local community colleges and WIA-funded training providers. Called “Industry Partnerships,” there are now about 80 with 6,300 businesses receiving funding not only from the state but from employer investments as well. By the end of 2009, nearly 100,000 participants had been trained through the Industry Partnership and participants were experiencing up to a 6.6 percent wage gain after completion of the program.

The partnerships publicize particular clusters of industries with good wages and benefits, or that have the greatest potential for economic growth or challenges to growth or retention. These areas include manufacturing, bio-medical, business and financial services, and healthcare and bio-medical, among other fields. The partnerships develop training and education programs for workers and assist in placing dislocated workers in open jobs with other employers within the partnerships.

## Endnotes

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- 9 *Toyota Advanced Manufacturing Technician Development Program information accessed from correspondence with Dennis Dio Parker, Assistant Manager, North American Production Support Center, College Partner & Advanced Manufacturing Technician Development Programs*
- 10 *Pennsylvania Workforce Development, Industry Partnerships in Pennsylvania, accessed from: <http://www.portal.state.pa.us/portal/server.pt?open=514&objID=575072&mode=2>*