

CTE Monthly

November 2014

CTE Quick Facts

Did you know?

- ▶ 89 percent of the general public, and 74 percent of hiring decision-makers, agree that students with relevant work experience make more successful employees.ⁱ
- ▶ In a study of college freshmen, 60 percent who had participated in at least one high school work-based learning activity and 64 percent who had participated in two or more activities had a college GPA above 3.0, compared to 58 percent of the entire cohort.ⁱⁱ

Career Spotlight



CareerClusters®
PATHWAYS TO COLLEGE & CAREER READINESS

Information Technology

The Information Technology Career Cluster® is one of the fastest growing occupational areas within the 16 Career Clusters framework, overlapping with many other segments of the U.S. economy. Employment in this cluster is projected to grow by an impressive 23 percent through 2018.ⁱⁱⁱ Although this is the fourth smallest Career Cluster, with 3.6 million jobs in 2011, technological advancements and a greater need for IT professionals in other economic sectors will likely drive growth in this Career Cluster for some time to come.

As this career area expands, the skill requirements for these occupations continue to increase. For instance, by the year 2018, 93 percent of the occupations in this Career Cluster will require at least some postsecondary education.^{iv} Broken down further, 70 percent of jobs in the IT Career Cluster will require a bachelor's degree or better. As these educational demands continue, a growing number of industry certifications will be used by students to supplement or even supplant postsecondary degrees. In addition, the industry is expected to require approximately 600,000 certificates for hiring purposes by 2018.^v

The Computer Information Technology program at the [Tennessee College of Applied Technology–Shelbyville](#) serves a seven-county area in the middle of the state. The program enables students to learn about computer software and hardware as well as the applications of both in the modern workplace. Six diplomas, eight certificates and up to nine national certifications, including credentials from Microsoft, CompTIA and CWNP, are available to students. The curriculum remains flexible enough to confer multiple degrees and certifications to meet the evolving needs of industry and students.

On average, students spend 30 hours weekly in the classroom, with roughly half of that time spent on experiential learning activities, such as working on live technical work orders or serving the community more broadly by working on real-world technical problems. Students at Shelbyville are offered career counseling on a monthly basis and are kept informed of various career pathways and options available to them throughout their enrollment in the program. With a job placement rate of 87 percent in the most recent academic year, it is clear why this program has been so successful to date.^{vi}

Webinar: Employer Engagement in CTE

From its earliest roots, employer engagement has been a part of CTE. Yet little is known about what is happening consistently and systematically across the country, and what education leaders can do to accelerate effective engagement.

Over the summer, NASDCTEc conducted a survey of the State CTE Directors to better understand how and in what ways employers are engaging in CTE today. To review the results of the survey as outlined in the soon-to-be-released report, *The State of Career Technical Education: Employer Engagement in CTE*, NASDCTEc will host a free [webinar](#) on December 3, 2014 from 2:00-3:00pm ET. The webinar will unpack the survey's results and seek to illustrate the employer engagement landscape, with a particular focus on how to foster and sustain meaningful employer engagement to strengthen the CTE system for all students.

[Register](#) for this event today!

Senators Support Perkins Investment

A coalition of 23 senators, led by Sens. Richard Blumenthal (D-CT) and Tim Kaine (D-VA), recently sent a letter to the Senate Labor, Health and Human Services, and Education Appropriations Subcommittee urging an increase in funding for the Carl D. Perkins CTE Act as part of a full-year appropriations measure. The letter requested \$1.123 billion, a \$5.4 million increase over the current level, to fund the Perkins Basic State Grant.

ACTE and NASDCTEc strongly support this request, and applaud those senators who championed this effort. We now call on Congress to use this lame duck session to pass a Fiscal Year 2015 omnibus appropriations bill that includes this much needed investment in CTE.

i Northeastern University, [Innovation Imperative: Enhancing Higher Education Outcomes](#), 2013.

ii Swail and Kampits, [Work-based Learning and Higher Education: A Research Perspective](#), Educational Policy Institute, 2004.

iii Georgetown Center on Education and the Workforce, NRCCTE and NASDCTEc, [Career Clusters: Forecasting demand for high school through college jobs: 2008-2018](#), 2011.

iv Ibid.

v Ibid.

vi TCAT Shelbyville, Computer Information Technology [website](#).

School Spotlight

Biotechnology Academy at Southern Oklahoma Technology Center

The award-winning [Biotechnology Academy at Southern Oklahoma Technology Center](#) (SOTC) in Ardmore offers a rigorous and relevant curriculum for juniors and seniors in high school. Focusing on medical, agricultural, industrial and environmental disciplines, the academy teaches theory and brings it to life in its 4,000-square-foot laboratory and classroom space, preparing students for bioscience degree programs or for the biotechnology workforce.

First-year students study the fundamentals, learn technical laboratory skills and regularly visit the nearby campus of the Noble Foundation, which conducts plant science research, for tours and hands-on workshops. Second-year students participate in capstone internships, working on projects with researchers at the Noble Foundation and the Oklahoma State University Institute for Agricultural Biosciences. Students have the opportunity to extend these projects into summer internships and earn college credit.

ACT composite and science scores have increased since the academy was founded, and the vast majority of students go on to postsecondary education in STEM-related majors.^{vii}



Photo courtesy of the Biotechnology Academy at SOTC.

Student Spotlight

Breanne Gilligan, a motorsports enthusiast since she was 10 years old, took steps to turn her passion into a career when she enrolled in [Jefferson-Lewis \(J-L\) BOCES'](#) Motorcycle, Marine and Power Sports (MMPS) program at the Charles H. Bohlen, Jr. Technical Center in Watertown, New York. This two-year program focuses on motor theory and recreational power sports and is designed to prepare students for college and careers as technicians, repair specialists, service managers, shop owners and parts department associates. "The chance to learn about high performance technology in a real shop was perfect," Breanne says.



During her two years at J-L BOCES, Breanne was consistently an honor roll student. According to her former MMPS instructor Timothy Hodge, "Breanne's determination to excel and her passion to pursue a future in motorsports made her a leader in the classroom." Outside of the classroom, she assembled, modified, maintained and raced go-karts.

Breanne earned her CTE certificate from J-L BOCES and her high school diploma from Belleville Henderson Central School District in 2014, and is continuing to follow her passion by studying high performance motorsports at the University of Northwestern Ohio.^{viii}

State Progress with Ed and Workforce Data

States are making progress with expanding data about the variety of students pursuing education and training and the range of credentials they are earning, as well with enhancing education and workforce data linkages, as reported in a [publication](#) from the Workforce Data Quality Campaign (WDQC). ACTE and NASDCTEc are partners in this campaign.

In the report, states rate their progress on the WDQC's 13-point blueprint for strong data systems. The 13 indicators are organized under five themes:

- including all students and pathways
- counting industry-recognized credentials
- assessing employment outcomes
- expanding use of labor market information
- ensuring data access and appropriate use

States have particularly excelled at establishing cross-agency councils to oversee statewide data collection and reporting efforts (20 states report this accomplishment). In addition, 37 states have achieved or are in the process of achieving a system for tracking the employment outcomes of students and workforce program participants.^{ix} States are also moving toward greater use of scorecards, dashboards and other performance reports.

However, there is room for improvement, particularly when it comes to states' progress with industry validation of credentials and approaches to measuring a wider variety of credentials.

vii Powers, C., "A Vision of the Future," *Legacy*, Winter 2013; additional information provided by SOTC faculty.

viii Jefferson-Lewis-Hamilton-Herkimer-Oneida BOCES, [CTE Success Stories in Action: Breanne Gilligan](#).

ix Workforce Data Quality Campaign, [Mastering the Blueprint: State Progress on Workforce Data](#), 2014.



Alisha Hyslop
Director of Public Policy
703-683-9331
ahyslop@acteonline.org



Steve Voytek
Government Relations Manager
301-588-9630
svoytek@careertech.org

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