

# CTE Monthly

January 2013

## CTE Quick Facts

### Did you know?

► Middle-skill jobs, jobs that require education and training beyond high school but less than a bachelor degree, are a significant part of the economy. Of the 46.8 million job openings created by 2018, 30 percent will require some college or a two-year associate degree.<sup>i</sup>

► A person with a CTE-related associate degree or credential will earn on average between \$4,000 and \$19,000 more a year than a person with a humanities associate degree.<sup>ii</sup>



## Career Spotlight

When it comes to advancing the global competitiveness of the United States, the science, technology, engineering and mathematics (STEM) field has been a central topic of conversation. Career and technical education (CTE) schools and programs are preparing students for the innovative, highly skilled positions required within this dynamic field.

Careers in STEM fields, which may include engineers, mathematicians, physical scientists and technicians, require a high level of skill and, most often, a high level of education. In fact, by 2018, experts project that 90 percent of STEM jobs will require at least some postsecondary education and training. Also, some workers in this field may be required to obtain industry-based certifications or licenses to attest to their ability to perform certain tasks.<sup>iii</sup>

CTE programs across the nation are preparing students for these challenging careers at both the secondary and postsecondary levels. Significant efforts have been made to increase the number of student pursuing STEM fields, and more students are studying STEM education in postsecondary education. However, many are leaving the STEM field upon job entry. Continued efforts are necessary to help students transition successfully from secondary or postsecondary education into the STEM workforce.<sup>iv</sup>

## Upcoming Events

**February 21, 3pm ET:** Join NASDCTEc for a not-to-be-missed webinar, "CTE Trend Analysis: Governance and Funding Issues from Across the Nation." [Register](#) now!

In early March, CTE advocates from around the country will converge on Capitol Hill for ACTE's [National Policy Seminar](#). Below are a few highlights of the event. To learn more, contact [Catherine Imperatore](#) at ACTE:

**March 5, 10am-12pm ET:** A panel session at the Capitol Visitors Center will address what to expect from the new Congress in 2013.

**March 5 and March 6:** CTE advocates will be on Capitol Hill visiting their state legislators.

Many CTE schools and programs across the nation are providing STEM education to prepare students for careers in this high-demand field. [Biotechnology High School](#) in Freehold, New Jersey, is a prime example. The STEM program at Biotechnology High School provides a rigorous, college preparatory curriculum with a thematic focus on the life sciences. Emphasis is placed on research, laboratory skills, critical thinking, problem solving, technology and teamwork. Students can concentrate in areas such as biomedical, agricultural science, genetics or the environment. Through articulation agreements with postsecondary education and industry, Biotechnology High School is helping to fill the pipeline to New Jersey's Bio/Pharmaceutical sector. In addition, Biotechnology High is the first high school in New Jersey to deliver the International Baccalaureate Diploma program to 100 percent of its junior and senior students.<sup>v</sup>

## Stop Sequestration and Save CTE!

Sequestration remains a looming threat to CTE. Though the American Taxpayer Relief Act has delayed the automatic, across-the-board cuts to discretionary funding until March 1, critical education and workforce training programs, like the Perkins CTE Act, still face a devastating cut if action is not taken soon.

We must work to find a balanced approach to deficit reduction that does not include further cuts to funding for CTE!

<sup>i</sup> Carnevale et al, [Help Wanted: Projections of Jobs and Education Requirements Through 2018](#), Georgetown University Center on Education and the Workforce, 2010.

<sup>ii</sup> Jacobson and Mokher, [Pathways to Boosting the Earnings of Low-Income Students by Increasing Their Educational Attainment](#), Hudson Institute Center for Employment Policy and CNA for the Bill and Melinda Gates Foundation, 2009.

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

<sup>iv</sup> Georgetown University Center on Education and the Workforce, [STEM](#), 2011.

<sup>v</sup> [Biotechnology High School](#) website.

## School Spotlight

### United Technologies Center

[United Technologies Center](#) (UTC) in Bangor, Maine, supports high school and adult students in the largest career and technical education region in the state. Thirty-one local communities have a vested interest in the Center and the support of these communities ensures that UTC remains a premier technical high school. UTC programs include construction technology, computer technology, welding technology, environmental horticulture, health occupations, outdoor power technology and more.<sup>vi</sup>

One particular program of note is the Weatherization Training Center at UTC, which was established by Maine Housing in support of the U.S. Department of Energy's Weatherization Assistance Program to enhance the hands-on training of weatherization field workers, including auditors and weatherization technicians.

In addition, the new Bridge Year Program—a joint venture of UTC, Hermon High School, Eastern Maine Community College and the University of Maine—will enable Hermon High students to earn up to 29.5 college credits at a significant cost savings during their junior and senior years and over the summer.<sup>vii</sup>



*Photo courtesy of United Technologies Center*

### Student Spotlight: Carly Suddreth



*Photo courtesy of Nona Patterson*

Carly Suddreth, a 2008 graduate from Olympic Community of Schools in the [Charlotte-Mecklenburg Schools system](#), North Carolina, was able to turn her rigorous academic and technical education at Olympic into a paid internship and, later, into a full-time job.

Carly was the project manager when the high school's Construction students built their first Habitat for Humanity house (the school is building its fifth house this year). Her performance with the project caught the attention of a multinational engineering and construction firm, KBR, who partners with Olympic. KBR

offered Carly a paid internship and later hired her as a project engineer after she graduated with a degree in construction management from Appalachian State University.

According to Carly, "this type of hands-on project helps students see the importance of STEM education, as well as building a foundation of soft skills. Not only do you get to see firsthand the importance of math, geometry, science and engineering, but you also see the value of communication, critical thinking, problem solving and working in teams. All academic disciplines come to life when you have real-world projects involving financing, project planning and organizing a team to build a house for a family."<sup>viii</sup>

### CTE Fills the Leadership Gap; Defining Credentials

In response to questions from policymakers, ACTE has created a document defining the many types of education and work-related credentials available, including degrees, certificates, licenses and industry-recognized certifications. This short guide can come in handy when working with education and workforce development policy. We encourage you to check out ["What Is A Credential?"](#) today!

In addition, ACTE today released an Issue Brief on [CTE's Role in Leadership Development](#) that explores the integral role CTE curricula and programs can play in addressing the leadership skills gap facing employers. When employers are asked to choose which skills are most needed in today's workplace, key employability skills like leadership often rise to the top of the list. Unfortunately, these same skills are cited as deficient among incoming workers.

With this Issue Brief, you can learn more about the importance of CTE initiatives and how they provide opportunities for students to learn, observe and apply leadership in work-related situations in preparation for their future careers.

<sup>vi</sup> [UTC website](#).

<sup>vii</sup> Gagnon, "[Hermon High students get college credits early through Bridge Year Program](#)," BangorDailyNews.com.

<sup>viii</sup> Realon, "[They Keep Moving the Cheese: But Charlotte CTE Students Find Passionate Pathways to Prosperity](#)," *Techniques* (October 2012): 25-28.



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