

CTE Monthly

May 2013

CTE Quick Facts

Did you know?

- ▶ In a Florida study, high school students who took at least one technology course and completed at least one certification exam attended school more often and had higher GPAs than other students.ⁱ
- ▶ In Tennessee, average first-year earnings for the state's community college graduates was more than \$1,300 higher than earnings for graduates of its four-year public schools.ⁱⁱ

Taking 2+ CTE Classes Reduces Dropout, Arizona Study Finds

Taking two or more CTE courses is related to lower dropout rates in two Arizona districts, according to a [report](#) from the Arizona State University Morrison Institute for Public Policy.

To explore how CTE helps meet educational challenges in Arizona, researchers at the Morrison Institute analyzed student records from two Arizona school districts. For Tucson Unified School District, taking three or more CTE classes in the same program area reduced a student's likelihood of dropping out by up to 60 percent. For Mesa Public Schools, taking two CTE classes was correlated with a 79 percent reduced likelihood of dropping out.

In addition, in Mesa Public Schools, the number of days absent was 3 days less for students taking two or more CTE classes.^v

i Grunwald Associates LLC, [Tracing Student Performance in Career and Professional Education: Technology Coursework Related to Better Attendance, Higher GPAs in Florida](#), 2012.

ii Tennessee Higher Education Commission and College Measures, [The Earning Power of Graduates from Tennessee's Colleges and Universities](#), 2012.

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

iv [Norfolk County Agricultural High School website](#).

v Arizona State University Morrison Institute for Public Policy, [On the Rise: 21st Century Career and Technical Education Pathways](#), April 2013.

Career Spotlight



CareerClusters[®]
PATHWAYS TO COLLEGE & CAREER READINESS

Agriculture, Food & Natural Resources

The United States relies on the Agriculture, Food and Natural Resources Career Cluster[®] to ensure the quality and safety of food, care for livestock and pets, and the cultivation and preservation of natural resources. The most recent labor market projections show that more than 4.5 million workers are currently employed in fields related to Agriculture, Food and Natural Resources. As 250,000 jobs are expected to open up in these areas by 2020, this Career Cluster[®] will likely see slow but stable growth over the next decade.ⁱⁱⁱ

Students enrolled in programs of study in Agriculture, Food and Natural Resources may take challenging coursework related to marketing, finance, biology and other areas. Programs of study guide students toward postsecondary education and careers in farming, veterinary practice, zoology, forestry, environmental engineering, landscaping and more.

At [Norfolk County Agricultural High School](#) in Walpole, Massachusetts, career and technical education (CTE) students are pursuing challenging programs of study in Agriculture, Food and Natural Resources. Students at the school are admitted through a rigorous admissions process that considers each applicant's academic and attendance records, discipline and conduct, recommendation from the sending school and a personal interview. Students are required to take and pass rigorous academic and technical courses. They often take advantage of dual enrollment opportunities that are offered during evening hours in addition to their regular courses.

Programs of study for agriculture areas include animal and marine science programs, plant and environmental science programs and a cooperative education program that allows students out-of-school time in work-based programs related to their agricultural areas of focus.

The intensive academic and technical coursework at Norfolk County has proven successful, as 96 percent of students score proficient or higher on state English/Language Arts exams, 77 percent are proficient or higher in mathematics and 88 percent are proficient or higher in science. CTE programs such as Norfolk County's are critical to providing students with the academic and technical skills, and work-based learning, needed for success in postsecondary education and careers.^{iv}

Support the Counseling for Career Choice Act

In February, Senator Begich (D-AK) introduced the Counseling for Career Choice Act (S. 282). The act will help school counselors identify regional workforce trends and be able to access labor market information to guide students toward the educational requirements needed for in-demand careers, such as certifications, licenses, apprenticeships and degrees. The Association for Career and Technical Education (ACTE) and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc) support Senator Begich's bill, and we urge the rest of the Senate to support this legislation to improve students' academic and career decisions to benefit our nation.

School Spotlight

Lake Area Technical Institute

A finalist-with-distinction for the 2013 Aspen Institute Prize for Community College Excellence, [Lake Area Technical Institute](#) (LATI) in Watertown, South Dakota, helps students achieve success through an emphasis on hands-on learning, making the most of industry connections and aligning technical and academic skills and content.

LATI offers technical degrees in 29 programs, including online offerings, in fields such as agribusiness, aviation maintenance technology, computer information systems, diesel technology, energy technology, precision machining and dental assisting, among many others. Technical and academic courses are aligned; for instance, a composition class focuses on writing in the context of teaching paramedics to write field reports while math classes teach calculations that diesel technicians must perform daily.

The graduation rate at LATI is very high, and 98 percent of graduates are employed or are continuing their education, the majority of them in South Dakota.^{vi}



Photo courtesy of [Lake Area Technical Institute](#).

Student Spotlight

Austin Milton first became interested in engineering in middle school, when he participated in a pre-engineering presentation by high school students. Austin enjoyed his experience working on a structure made of straws and toothpicks and was motivated to learn more about engineering and mechanics.



Photo courtesy of [Oklahoma CareerTech](#).

At Tulsa Technology Center (TTC) in Oklahoma, he enrolled in pre-engineering classes, where he gained skills in using Computer Aided Design software, learned about each discipline of engineering, developed study skills and prepared for the expectations of postsecondary education.

Austin's time at TTC has helped him with the challenging curriculum that he faces as a mechanical engineering student at Oklahoma State University. He is an active member of the Oklahoma State Formula SAE Racing Team, which builds race cars from the ground up. After graduation, Austin would like to work for a car manufacturer as an automotive engineer designing suspension systems.^{vii}

Employers Need Skills That CTE Provides

A recent [survey](#) of employers conducted by *The Chronicle of Higher Education* and American Public Media's *Marketplace* found that employers are now ranking college major and GPA lower on their list of priorities, placing experience and campus activities at the top of the list. The study also found that applicants lack skills in written and oral communication, adaptability and managing multiple priorities, and decision making and problem solving. In addition, an internship is the single most valuable thing to have on your resume entering the workforce.^{viii}

Another recent [study](#) of employers by Hart Research Associates for the Association of American Colleges and Universities concurs with many of these findings:

- 93 percent of respondents agreed that "a candidate's demonstrated capacity to think critically, communicate clearly and solve complex problems is more important than their undergraduate major."
- More than 75 percent stated that postsecondary education should place more emphasis on developing skills in critical thinking, complex problem-solving, written and oral communication and applied knowledge in real-world settings.^{ix}

It would appear that students are leaving postsecondary education with a lot of knowledge, but they are not always prepared to apply that knowledge in the workplace. This is where CTE students excel!

vi The Aspen Institute, [Lake Area Technical Institute](#); [Lake Area Technical Institute website](#).

vii OKCareerTech.org, [CareerTech Champions Issue 23](#).

viii The Chronicle of Higher Education and American Public Media's *Marketplace*, [The Role of Higher Education in Career Development: Employer Perceptions](#), December 2012.

ix Hart Research Associates, [It Takes More Than A Major: Employer Priorities for College Learning and Student Success](#), April 10, 2013.



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This newsletter is a collaborative publication of the Association for Career and Technical Education and the National Association of State Directors of Career Technical Education Consortium. It aims to keep Congress informed about CTE events, data, best practices and student success stories.