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Career Technical Education (CTE) inherently emphasizes partnerships with employers and encourages input from business and industry on CTE curriculum and other collaborative opportunities so that students graduate with knowledge and skills that employers demand. Employers increasingly laud the benefits of CTE for both individuals and business and industry. But despite increased interest in CTE, states and local districts are struggling to maintain or expand CTE programs due to limited federal, state, and local funding. Given the current fiscal situation, area CTE centers are an especially viable option for districts wanting to provide students with high quality CTE in a cost-effective way.

Background

Area CTE centers provide a co-located site where CTE is delivered to students from one or more local school districts. Some area CTE centers serve only high school students while others serve both high school students and adults. The centers may be shared-time, offering primarily technical training, or they may be full-time centers that provide students with both academic and technical training. Secondary students attending area CTE centers part time typically receive academic instruction at their home high school.

By definition in the Carl D. Perkins Career and Technical Education Act (Perkins), area CTE centers may be accessible to secondary students, postsecondary students, and adult learners who do not necessarily need to have a high school diploma.¹ In certain situations, such as an area CTE center that is a department of an institute of higher education, CTE must be offered in at least five sectors and lead to employment or a degree.

Area CTE Centers in the States

The most recent data from the National Center on Education Statistics (NCES) shows that 46 percent of U.S. high schools, or approximately 8,200 high schools, are comprehensive high schools that are served by area CTE centers. NCES also approximates that there are about 1,200 area CTE centers in 41 states as of 2002 — which means that there are more area CTE centers than community colleges in the country.² Yet, relatively little information is available about area CTE centers nationally and their impact on CTE students and communities. Given the anecdotal evidence of area CTE centers’ ability to address immediate staffing needs of local business and industry, greater focus and research on these institutions would help advance the centers and their impact on issues such as the skills gap.

The specific role of area CTE centers varies by state; some serve only high school students and some serve high school students and adult learners. Some area CTE centers provide specific skills-training, and others provide a combination of academics and technical skills training. Many states, such as Pennsylvania, offer a mix of shared-time centers and full-time centers. Some, such as New York, offer only shared-time centers; others, such as Massachusetts, offer only full-time

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centers. In some cases, states have chosen to transition all of their part-time area CTE centers into full-time centers that offer comprehensive educational services. Of area CTE centers serving adults, several states reported offering opportunities for degree or credential attainment, or providing opportunities for students to test for industry credentials.³

As with other CTE delivery systems, area CTE centers deliver content through programs of study (POS). POS provide relevant coursework in a sequenced manner that effectively guides students to postsecondary education or rewarding careers.

Area CTE Centers: A Cost-Effective Approach

In 1963, the Vocational Education Act addressed an increased interest in changing the direction of vocational education to more directly meet the needs of people rather than focusing training directly on often outdated occupations. To do so, part of the Act focused on the creation of “area schools,” now called area CTE centers, that would provide more relevant, cost-effective skills training for students in the community.

According to Perkins, area CTE centers today may be eligible to receive funds from local education agencies (LEA) if they have entered into a consortium or cooperative agreement with the affected LEAs. If an area CTE center is part of a consortium or agreement, the state distributes funds directly to the area CTE center. The amount of dollars dedicated to each area CTE center is determined by student enrollment in the centers’ CTE programs.⁴ Like other educational agencies, area CTE centers often receive funds from local tax dollars.

Area CTE centers are particularly cost effective because they may pool together resources from several school districts or regions, along with local, state, and federal support, to support a single training facility for students. High school administrators may be less inclined to send students to area CTE centers because a portion of state aid typically “follows” a student when they attend an area CTE center. However, area CTE centers are naturally a strong place to connect education and skills training with the needs of business and industry and offer a strong return on investment to students and the community. At a time when employers across the nation lament the existence of a skills gap — where students are not graduating with the knowledge and skills needed to successfully fill vacancies for high-skilled jobs — area CTE centers provide an advantage from both the education and business and industry perspectives.

Area CTE centers provide opportunities for students to learn skills and technical training that local high schools often cannot provide. By design, area CTE centers connect students with relevant skills they need to access employment. Likewise, area CTE centers are designed to facilitate connections with local businesses and industries. By further embracing area CTE centers, locals could help limit the impact of the skills gap, providing students with the skills needed to attain jobs and provide employers with the highly-skilled workers they are seeking.

Technology Centers That Work

One effective strategy that has been used to revamp area CTE centers is Technology Centers That Work (TCTW) run by the Southern Regional Education Board (SREB).⁵ TCTW was developed to help area CTE centers identify and deliver education and skills training that lead students to careers in high-demand areas. The initiative provides its members — which include more than 180 centers in 18 states — with technical assistance, professional development, resource documents, and assessment services. TCTW is based on the successful High Schools that Work (HSTW) program, and is intended to help improve area CTE centers. Through their research, SREB has identified several contributing factors to successful area CTE centers including:

- *Establishing a clear mission and culture of improvement*
- *Providing a rigorous academic curriculum*
- *Providing engaging instruction and assignments*
- *Integrating academic and technical content*
- *Having high expectations*
- *Parental support and guidance*
- *Targeted professional development.*

Notably, the TCTW model incorporates academics with technical skill delivery. However, oftentimes, area CTE centers are responsible for delivering technical skills while a student's home high school separately delivers academic courses. An increased emphasis on academics has made difficult the delivery of an integrated curriculum. In addition, students' course options may be limited due to the time required to travel from their home high school to the area CTE center.

State Example: Ohio: Miami Valley Career Technology Center

Miami Valley Career Technology Center (MVCTC) in Clayton, Ohio, provides an apprenticeship program that directly connects students to relevant workplace experiences. The apprenticeship program helps students transition from secondary education into postsecondary education or the workforce. Students entering an apprenticeship commit to a 2-to-4 year program. In order to participate in the program, students must meet a variety of requirements — including 95 percent attendance and “on track to graduate on time” status.

Students at MVCTC also have the option to participate in an internship program. Unlike the apprenticeship program, students in the internship program are not committed to a long-term assignment and do not need to be registered.

MVCTC offers an Advanced Placement option that allows students to gain job experience part time and take academic courses for the remainder of the school day. Students in the program spend half of the school day at MVCTC to complete their academic requirements. During the other half of the day, students work in an approved position at a designated workplace. The student's CTE teacher and employer work together to ensure the student is attaining the necessary skills to be college and career ready. The technical aspect of the student's grade is based on their performance in the apprenticeship. According to MVCTC, students taking part in this program are oftentimes offered full employment upon high school graduation.

State Example: Oklahoma: Francis Tuttle Technology Center

Francis Tuttle Technology Center in Oklahoma City, Oklahoma, also offers programs that directly address the needs of business and industry in the region. The center is often approached by area employers with specific training requests.

Francis Tuttle serves 2,500 students in full-time programs. Health programs have the largest enrollment; all programs have connections to area businesses and industry and serve to directly meet their needs. Students in health fields have opportunities to gain hands-on experience in area hospitals and clinics, and have opportunities to gain college credit because of partnerships with community colleges. Ninety percent of recent graduates had positive placement — whether in the military, employed, or pursuing further education. Of those, 41 percent were employed in a related field, and 39 percent chose to receive further education.

Francis Tuttle also serves area employers by providing education and training specific to certain companies, such as those in the aerospace repair industry. The center works closely with the employer to identify their needs and develop a tailored curriculum. These targeted programs offer intense 12-week training for employees.

All programs have advisory committees that ensure alignment between the program and business and industry. Committee members work closely with instructors to review and develop curriculum materials that have both rigor and relevance. Students are well-trained in techniques that are in-use, and have hands-on experience with technology that is currently deployed in the field.

While committees meet formally twice a year, there is also a continual dialogue between members and instructors. One key area of discussion is that of job placement. Through their relationships with working professionals, instructors are able to keep students informed about job prospects and respond to employers' needs for qualified candidates.

State Example: Oklahoma: Canadian Valley Technology Center

Oklahoma's 29 technology centers are building strong relationships with employers to that lead graduates to employment in high-demand fields and help employers find the highly-skilled employees that they need.

Canadian Valley Technology Center's El Reno campus in El Reno, Oklahoma, has created a wind energy technician program that is providing area wind farms — a burgeoning industry in the state — with qualified employees.

In 2008, staff from Canadian Valley began considering a wind energy technician program to address a demand in the area. The staff wanted to learn more, and attended a wind conference in Oklahoma City where organizers voiced that there was a shortage of qualified wind workers, though not a lack of interest. In fact, after speaking with wind companies, staff determined that around 80 percent of those applying for jobs at wind farms did not have the right skills. For example, prospective wind energy technicians would need experience to ascend and descend wind towers, knowledge of safety and rescue methods, and specific clean-

ing procedures. Each wind farm has proprietary equipment, and employers recognized that some on-the-job training would be necessary. However, there was a particular need for workers who already had experience in climbing and safety. At the time, there were few opportunities in the area for applicants to acquire the necessary skills prior to applying for a wind farm job. Two local community colleges offered courses in wind theory, but there was a need for hands-on training for these workers. Staff at Canadian Valley assembled a communications plan and asked specific questions about the needs of area wind farms.

The challenge of providing students with these skills prior to stepping foot on a wind farm included acquiring a tower for climbing. Working towers are around 300 feet tall and cost several million dollars. To offer the closest possible experience, Canadian Valley purchased an 85 foot tower and a 126 foot tower to teach each student to climb.

Today, Canadian Valley offers a 140-hour course in wind energy technician training over 4 weeks. Students have the opportunity to earn 13 certifications including climber authorization and safety certifications. A partial scholarship is offered to those wanting to participate in the program. Tuition is free for students within the district up to age 24; for those out of this range, the cost is \$1,000. Graduates of the program typically earn \$18 per hour as a starting wage, and have little difficulty securing full-time employment.

Conclusion

Despite budgetary cutbacks, CTE has been central to conversations around addressing the skills gap and preparing highly-skilled individuals. Greater interest in CTE on the part of students, employers, and others has caused states to serve more students with less funding. Area CTE centers are a cost-effective approach that many states are using to provide high-quality CTE to secondary, postsecondary, and adult students. This option allows LEAs and other institutions to collaboratively provide the academic and skills training that students and employers demand. However, questions about whether or not area CTE centers should incorporate both academic and technical instruction and other issues remain on the table. Continued research and information on these institutions will help address these questions and increase focus on these often rigorous, effective institutions.

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- 1 Carl D. Perkins Career and Technical Education Improvement Act of 2006 (Public Law 109-270).
- 2 National Center for Education Statistics. *Career and Technical Education in the United States: 1990 to 2005: Statistical Analysis Report*. July 2008.
- 3 Results from NASDCTEc survey of CTE State Directors, 2012.
- 4 Carl D. Perkins Career and Technical Education Improvement Act of 2006.
- 5 Southern Regional Education Board, *Technology Centers that Work: An Enhanced Design to Get All Students to Standards*. Available at: http://publications.sreb.org/2009/09V19_TCTW_Enhanced_Brochure.pdf