

# CTE: Education for a Strong Economy

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**F**or nearly a century, career and technical education (CTE) programs across the United States have focused on equipping students with technical and life skills to help them become productive citizens. Now more than ever, CTE programs are needed to help ensure the strength of our workforce, global competitiveness and the economic health of our nation.

## Overview

The federal role in “vocational” education began as a way to prepare students for the newly industrialized workplace. Over the years, the program has evolved to match the needs of the changing economy, focusing on postsecondary as well as secondary education while giving students skills they can use throughout their careers.

In 2006, the language “vocational and technical” was updated to “career and technical” education. This transition was more than just a name change. It represented a fundamental shift in philosophy from CTE being for those who were not going to college to a system that prepares students for both employment and postsecondary education. The integration of academic and technical education programs was strengthened, further emphasizing the goal of ensuring that students who participate in CTE are taught the same rigorous content aligned with challenging academic standards as all other students. With all school programs now adhering to the same academic standards, the separate “track” system that has stigmatized CTE is disappearing.

CTE programs are organized into 16 Career Clusters,<sup>1</sup> or similar occupational groupings, that identify the knowledge and skills students need as they follow a pathway to their goals. Once students choose the pathway they want to follow, the career-specific instruction they receive can lead to a high school diploma, an industry-recognized credential, a certificate or a college degree. The Career Clusters’ framework serves as an instructional and guidance model that provides students with a seamless transition from high school to postsecondary and work opportunities.

Traditional Vocational Education	New Career and Technical Education
<ul style="list-style-type: none"> <li>• For specific students</li> <li>• Limited program areas offered</li> <li>• Separate “track” with a focus on technical education</li> <li>• High school focused</li> <li>• Students trained with focus on specific occupational skill set</li> </ul>	<ul style="list-style-type: none"> <li>• For all students</li> <li>• 16 Career Clusters and 79 pathways offered</li> <li>• Integrated with academics in a rigorous and relevant curriculum</li> <li>• High school and post-secondary partnerships providing pathways to employment and/or associate, bachelor’s and advanced degrees</li> <li>• Progression of foundational, pathway, occupational and 21st century skills</li> </ul>

## The Benefits of CTE

CTE has always evolved in response to economic needs in our communities. Today, CTE is a major part of the solution to myriad national economic and workforce problems, such as high school dropout rates, a weakened economy, global competitiveness and massive layoffs.

**Dropout Prevention:** CTE students are more motivated and interested in their coursework because of its connection to the real world and, as a result, less likely to dropout.<sup>2</sup> In a recent report for the Gates Foundation, the majority of respondents (81%) reported that more learning opportunities which make the classroom relevant

**If the United States truly wants to secure its global leadership in technology innovation, we must, as a nation, commit to a strategy for innovation excellence...I believe this strategy must place top priority on achieving (sic) the fundamental goal of strengthening educational opportunities, so that America's students and workers have the skills they need to succeed in the technology – and information – driven economy of today and tomorrow.**

**Bill Gates, March 2008 U.S. House of Representatives  
Science and Technology Committee Hearing**

to the real world would have helped them to finish high school.<sup>3</sup> Career clusters put education into a relevant context by linking what is learned in school to the knowledge and skills that are needed in the workplace.

**Better Career Prospects:** CTE students participate in programs that lead to employment in high-skill, high-wage, high-demand occupations or professions. A 2004 National Assessment of Vocational Education (NAVE) report showed that students who participated in postsecondary CTE coursework, even without earning credentials, earned a higher yearly salary than high school graduates who do not take postsecondary CTE courses.<sup>4</sup>

**21st Century Occupations:** CTE programs provide the skills training that addresses the needs of high-growth industries, such as healthcare, renewable energy and STEM fields. Healthcare occupations are expected to make up 7 of the 20 fastest growing occupations, according to the U.S. Bureau of Labor Statistics.<sup>5</sup> According to a January 2009 report by the American Solar Energy Society and Management Information Services, Inc., the renewable energy and energy efficiency industry could generate up to \$4.3 trillion in revenue and create more than 37 million jobs (more than 17% of all anticipated U.S. employment) by the year 2030.<sup>6</sup> The Science, Technology, Engineering and Mathematics (STEM) CTE cluster prepares students for careers in engineering and computer science – critical areas for the economic future of our country. Traditional vocational education programs have also become 21st century CTE programs. For students who wish to pursue careers as teachers, some schools offer honors-level, college credit courses through the Teacher Cadet Program.<sup>7</sup> Agriculture is another field

that has diversified its offerings over time. Students can now study aquaculture and plant pathology, while those interested in the business side can pursue sales and management.

**Helping the Unemployed:** CTE gives individuals in transition a way to begin a new career with a chance to reinvent themselves. MSNBC reported in March 2009 that many people who have been laid off during the economic crisis are taking this opportunity to go back to school and get retrained for a new career.<sup>8</sup> CTE programs at the postsecondary level are poised to serve this population.

Policymakers at all levels should embrace CTE programs at the high school and postsecondary levels in order to help students see the relevance of their school work and prepare them for jobs in high-skill, high-wage, high-demand career fields. With appropriate policy supports and funding, these CTE programs can prepare students to leverage the academic and career skills they learn in school to help build and sustain our economy.

## Endnotes

- 1 For more information on the States' Career Clusters Initiative, visit NASDCTEc at [www.careerclusters.org](http://www.careerclusters.org).
- 2 Michael E. Wonacott, "Dropouts and Career and Technical Education, Myths and Realities No. 23," (Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, 2002), [http://eric.ed.gov/ERICDocs/data/ericdocs2sql/content\\_storage\\_01/0000019b/80/1a/b4/fc.pdf](http://eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1a/b4/fc.pdf).
- 3 John M. Bridgeland, John Dilulio, and Karen Burke Morison, "The Silent Epidemic: Perspectives of High School Dropouts," (Washington, DC: Civic Enterprises in association with the Peter D. Hart Research Associates, March 2006), [www.gatesfoundation.org/united-states/documents/TheSilentEpidemic3-06FINAL.pdf](http://www.gatesfoundation.org/united-states/documents/TheSilentEpidemic3-06FINAL.pdf).
- 4 Marsha Silverberg, et al., *National Assessment of Vocational Education: Final Report to Congress*, (Washington, DC: U.S. Department of Education, Policy and Program Studies Service, June 2004).
- 5 U.S. Department of Labor, Bureau of Labor Statistics, "Career Guide to Industries: Healthcare," [www.bls.gov/oco/cg/cgs035.htm](http://www.bls.gov/oco/cg/cgs035.htm).
- 6 Roger H. Bezdek, "Green Collar Jobs in the U.S. and Colorado: Economic Drivers for the 21st Century," (Washington, DC: Management Information Services, for American Solar Energy Society, January 2009), [www.ases.org/images/stories/ASES/pdfs/CO\\_Jobs\\_Rpt\\_Jan2009\\_summary.pdf](http://www.ases.org/images/stories/ASES/pdfs/CO_Jobs_Rpt_Jan2009_summary.pdf).
- 7 For more information, visit the Center for Educator Recruitment, Retention, & Advancement (CERRA) at [www.cerra.org/teacherCadets/](http://www.cerra.org/teacherCadets/).
- 8 Martin Wolk, "Reinventing America: Stories from the Front," MSNBC, March 10, 2009, [www.msnbc.msn.com/id/29496604/](http://www.msnbc.msn.com/id/29496604/).

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