

InFOCUS

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Competency-Based Education in College Settings: **How Students, Institutions, and Workforce Partners Fare**

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Competency-based education (CBE) has ignited a great deal of public interest in recent years because it allows students to learn and progress at a flexible pace and holds promise for filling workforce skills gaps. What makes it different? First and foremost, it measures learning rather than class time. Students move through material independently, usually in preparation for specific jobs, progressing when they demonstrate mastery of required knowledge and skills (called competencies). Students set their own schedule rather than being tied to defined semester or term start dates, or class meeting times, and can move quickly through material they already know, potentially accelerating completion.

Although proponents view these approaches as a potential solution to the need for flexible, career-relevant programs and to employer demand for skilled workers, research on how the programs influence student outcomes has been scant. Many community colleges have begun to invest in competency-based programs, and the federal government has looked to them as a way to get more workers trained and credentialed for labor market success. To shed light on these issues, Mathematica conducted a comprehensive evaluation of online, competency-based information technology (IT) programs offered by a consortium of three community colleges under a grant from the U.S. Department of Labor (DOL) Trade Adjustment Assistance (TAA) Community College and Career Training grant program. Between 2011 and 2014, DOL awarded nearly \$500 million per year to colleges around the country to provide such innovative and career-relevant education and training.

FINDINGS IN BRIEF

- Consortium-wide, 35 percent of participants completed their program; their employment rates started and remained high, and wages for employed participants increased after program enrollment at a higher rate than the national average.
- Participants completed programs quickly, taking, on average, less than two terms to complete their first industry certification preparatory course and approximately four terms to complete certificates and degrees.
- Differences in participants' and nonparticipants' credential completion rates varied by college and may reflect unobservable differences between the groups.
- Curriculum development was more collaborative and consistent than in traditional programs and relied on instructional designers and tools to support standardization.
- Industry partners informed curriculum development, including the competencies needed, and new programs were developed in response to employer input.

POLICY RECOMMENDATIONS

- There is no single “right” way to design or implement competency-based programs, although curriculum development may require an unusually high degree of collaboration and standardization.
- Programs may be at odds with the normal ways of doing business, and colleges should plan to address these challenges proactively.
- Colleges should offer competency-based education along with other options to students, especially since CBE appears best suited for students who are mature and academically well prepared.

The comprehensive, mixed-method evaluation drew upon data from site visits, interviews, and document review to understand program implementation. It assessed participant education and employment outcomes, using administrative data from the colleges and their respective state workforce agencies, and applied a comparison group design to assess CBE program impacts.

ABOUT THE PROGRAMS

In 2012, a consortium led by Sinclair Community College in Dayton, Ohio, received a \$12 million grant for a three-year project focused on competency-based IT instruction for TAA-eligible, veterans, and other adult learners. Sinclair and its co-grantees Broward College in Fort Lauderdale, Florida, and Austin Community College in Austin, Texas, implemented programs that “adapted and adopted” the Western Governors University model of competency-based education in four IT programs: programming in Austin, technical support at Broward, and networking and software development at Sinclair.

Additional documents from the study include:

- Implementation and Outcomes of Competency-Based Education in Three Community Colleges: Findings from the Comprehensive Evaluation of a TAACCCT Grant (Executive Summary)
- Outcomes of Competency-Based Education in Community Colleges: Summative Findings from the Evaluation of a TAACCCT Grant

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A comparison of traditional and CBE models at one college

