



College of Education

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Research Highlights of Current Faculty Projects

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Evaluating Student Outcomes in Tech Prep and School-To-Work Initiatives

Technical Preparation (Tech Prep) is an education reform whose federal support began with the Perkins Vocational and Applied Technology Act of 1990. Tech Prep legislation seeks to restructure and integrate academic and vocational curricula to more effectively equip middle-majority high school students (those in the 25-75 percentile rank of their classes) to succeed in linked high school and two-year college programs, preparing them for better-paying, more satisfying careers. Tech Prep consortia are teams of high school districts and postsecondary institutions (usually community colleges), joined in some locales by business, four-year colleges, and trade and labor groups. They support student transition from high school to postsecondary education, spelling out coursework sequences, formalizing college credits during high school, and providing links to workplace activity. In 1998, researcher Debra Bragg, with colleagues of the National Research Center for Career and Technical Education, began a four-year, longitudinal study of eight consortia from more than 1,029 nationwide. Bragg's just-published midpoint report explores the influence of local implementation of Tech Prep initiatives on student transition experiences from secondary to postsecondary education and work. Researchers employed repeated field visits, conducting interviews of key stakeholders, classroom observations, extensive analysis of high school and college academic transcripts/records, and follow-up surveys of both Tech Prep students and a comparison group of nonparticipants. Approximately 4,700 students were involved.

What This Research Can Tell Us:

Focusing initially on average-achieving students, the Tech Prep program scope is expanding; most consortia encourage students at any point on the academic ability continuum to participate. Program support services range from career exploration and guidance to mentoring and internships for students entering the postsecondary level. An array of new technology-based programs attracts students who might not participate in traditional Career and Technical Education (CTE) courses. Newly implemented career clusters, linking course groupings with related jobs, provide new pathways toward college. Key to the Tech Prep approach are articulation agreements—formal institutional arrangements that extend the career pathway to the postsecondary level by allowing high school students to accumulate college credits. The development of articulation agreements has stimulated content and standards dialogue among secondary and postsecondary educators and helped create new sequences of courses. Lack of awareness/confidence or teacher discouragement, however, has deterred many eligible students from applying to receive college credits. Specific program strategies include enhanced implementation activities involving more teachers, greater emphasis on guidance, more integrated instruction, and heightened recruitment.

In most consortia, Tech Prep participants' demographic profiles were similar to those of the general student population. In three of the eight consortia, many participants appeared to be first-generation, college-bound students from a lower socioeconomic status group. Completion of higher-level math courses in high school predicts college readiness. Participants starting high school below Algebra I completed Algebra I, half finishing Algebra II or higher; most who began with Algebra I finished Algebra II, often higher. Tech Prep enrollment averaged 15% of all students in 1996-97; however, all consortia have experienced subsequent increases. At least 65% of participants enrolled in postsecondary education within one and three years after high school, exceeding 75% in five of the eight consortia. In two consortia, four-year college enrollment exceeded 50%. Most Tech Prep participants were employed, often working full-time during postsecondary enrollment. During the remaining years of Bragg's ongoing study, she will examine the effect of Tech Prep on educational outcomes after students' transition to college.

Recommendations for Tech Prep Programs:

- ⇒ High school-level block scheduling offers opportunities for joint planning and integrated instruction.
- ⇒ Scholarship programs facilitate Tech Prep pathway implementation and attract participants.
- ⇒ Simultaneous awarding of high school and college credit may streamline credit transfer and offer an immediate reward to participants choosing to take advantage of it.
- ⇒ Leadership from local and state educational circles and business and community leaders can help maximize limited local resources and boost professional development of teachers and counselors.

To learn more about this research: Bragg, D. D. (2000, December). *Promising outcomes for Tech Prep participants in eight local consortia*. St. Paul, MN: University of Minnesota, National Research Center for Career and Technical Education. Available (forthcoming): <http://www.nccte.com/>.

We invite your response...

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