Selected Outcomes Related to Tech Prep Implementation by Illinois Consortia

2003 – 2007

Office of Community College Research and Leadership
with support from the Illinois Community College Board

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Since 1999, the Office of Community College Research and Leadership (OCCRL), in cooperation with the Illinois State Board of Education (ISBE) and the Illinois Community College Board (ICCB), has compiled an annual summary document to provide a comprehensive description of the status of student and program outcomes related to Tech Prep. We are grateful to both agencies for having entrusted us with this important task. The improvements observed over the nine years data have been reported provide a foundation on which to build the coordinated data system required in Perkins IV that tracks student and program outcomes from the secondary to postsecondary level and beyond.

We are grateful to Ivanete Mendonca Iraldi Maciente, doctoral student and research associate at OCCRL, for her careful work in entering this year’s data. Also, we appreciate the production assistance provided by Linda Iliff; her careful eye and creative talents improve the readability and style of our printed work.

The annual reports and other Perkins-related research conducted by OCCRL staff can be found on the OCCRL Web site at http://occrl.ed.uiuc.edu/Projects/tech_prep/annual_report.asp.

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Since 1999, the Office of Community College Research and Leadership has implemented the Tech Prep Evaluation System (TPES), a systematic, statewide process composed of a local proposal and budget development process linked to outcomes assessment and continuous improvement, the monitoring of Tech Prep enrollments and outcomes, an onsite review and improvement process, a Web site, and annual final programmatic reports. This trend report reflects selected outcomes of Tech Prep in Illinois from 2003 – 2007, during which all Tech Prep consortia provided annual data based on Perkins III requirements and state-determined essential elements of successful programs.

The original data used in this report were derived from information on the Tech Prep Final Programmatic Report, submitted by Illinois consortia each year to the ICCB and forwarded to OCCRL. Unless otherwise noted, outcomes reported in this document reflect data from 39 of the 40 consortia in Illinois and are reported with the consortium level as the unit of analysis. Because of its size and unique consortium arrangement, wherein all high schools associated with Chicago Public Schools and the seven City Colleges of Chicago comprise one consortium, Chicago’s consortium data are not included in most calculations because they would skew the consortium-level means and medians and distort understanding of a typical consortium in the state of Illinois.

Prior to entering the data for this report, some consortia were contacted to discuss how the data were determined. Some of that information is included to help readers understand the outcomes, their complexity, and the importance of obtaining accurate data.
The Carl D. Perkins Vocational and Technical Education Act was originally authorized in 1984. In the 1990 reauthorization, Perkins III, Tech Prep (Title II of the Act) was given significant attention as a promising educational reform designed to improve student transition from education to careers. Consistent with Perkins III, Illinois implemented Tech Prep programs through consortium arrangements involving a community college; multiple secondary schools; business, industry, and labor partners; and sometimes community groups.

The most recent reauthorization occurred in July 2006, renaming the legislation the Carl D. Perkins Career and Technical Education Improvement Act of 2006 (Perkins IV). Perkins IV allows states the option to consolidate all or part of Title II (Tech Prep) funds with the Title I Basic State Grant. Illinois has decided to keep Title II separate from Title I and in FY09 will distribute Title II funds to local Partnerships for College and Career Success (PCCS). The Illinois community college system will continue to be the primary organizing structure of Title II activities.

For more information about Illinois’ planned implementation of Partnerships for College and Career Success (PCCS), visit [http://www.iccb.org](http://www.iccb.org) for a link to a dedicated Web site (accessible Fall 2008).
To reflect the emphases in Perkins IV that call for coordinated state and local efforts and smooth transition for students among education levels, the Illinois Community College Board and the Illinois State Board of Education renamed the local entities charged with carrying out Title II activities, Partnerships for College and Career Success (PCCS). Illinois PCCS must include representation from area secondary schools, EFE Regions, Area Career Centers, community college(s) and relevant business and industry from the Partnership District. Local community college districts will be used to define the Partnership District. If two or more community colleges are collaborating on one grant, the Partnership District will be the combination of districts. Partnership members may also include other postsecondary institutions and labor organizations.

Partnerships will be required to develop and implement rigorous CTE Programs of Study that incorporate secondary and postsecondary elements along with academic and CTE content in a coordinated, nonduplicative progression of courses that align secondary education with postsecondary education, reduce remediation, prepare students to attain a postsecondary degree or certificate, and succeed in their chosen occupation.

Tech Prep High School Programs

The median number of high school Tech Prep programs fluctuated from 15 to 18 between FY03 and FY07.

The median number of Tech Prep programs offered by local consortia over the five-year period of FY03 – FY07 ranged from a high of 18 programs per consortium in FY03 to a low of 15 from FY04 to FY06 before increasing to 17 in 2007. These results are based on at least 93% of the consortia reporting data for all five fiscal years.
High School Enrollment and Graduation

The median number of high school students who participated in Tech Prep programs fluctuated within a range of 1,138 to 1,295 between FY03 to FY07. The median number of graduates ranged from 389 to 470 over the same period.

In FY07, the largest consortium based on high school student enrollment was in a suburban area in the Northern region that reported 16,255 students; the smallest was located in a rural area in the Central region that reported 132 Tech Prep students. The Chicago consortium, that involves most public high schools in the city, reported 5,034 students and 2,596 graduates in FY07. The number of Tech Prep students in the other 39 consortia reached 105,114 in FY07, an increase from the 87,460 reported in FY06. Reported as a median, there were 1,258 Tech Prep students enrolled and 470 graduates per consortium in FY07.
Dual and Articulated Credits

The mean percentage of secondary Tech Prep students who earned articulated and dual credits ranged from 66 to 91 between FY03 and FY07.

There was a decrease in the mean percentage of students earning dual and articulated credit, from 91% to 66% between FY03 and FY05, followed by an increase to 73% in FY06 and to 83% in FY07. In FY07, 93% of all consortia reported students earning credit via dual credit courses, and 85% of all consortia reported students earning credit via articulated credit.

Consortium mean percentage of students entering community college Tech Prep programs who earned articulated and dual credits while enrolled in high school
The mean number of Tech Prep students who matriculated to the community college in a Tech Prep program ranged from 81 to 151 between FY03 and FY07.

The mean number of Tech Prep students per consortium has increased over the five years of this report. Based on conversations with consortium directors, some of the increase can be attributed to improvement in the ways Tech Prep students are identified at some community colleges. Still, it is believed there are more students enrolled in Tech Prep programs of study at community colleges than are currently identified. Two reasons commonly cited for this data gap are: 1) many colleges do not have access to student identification information from the secondary level to match with college enrollment, and 2) students who identify themselves as “college transfer” when completing college enrollment forms are not captured in the postsecondary system as Tech Prep students even when they enroll in Tech Prep programs.
Remediation in College

The mean percentage of first-year college Tech Prep students who took at least one remedial course was relatively stable from FY03 to FY07, ranging from 39 to 42.

The mean percentage of first-year community college students who were enrolled in at least one remedial course remained stable over the five year period, from 42% in FY03 to 41% in FY07 based on at least 78% of consortia reporting for all 5 years. It is important to note that many postsecondary Tech Prep programs do not allow students who need remediation to formally enroll in the programs, so students needing remediation often receive it before enrolling in a postsecondary Tech Prep program. This factor may account for the disparity between the five-year (FY03 – FY07) average rate of 40.6% and the 64.5% remediation rate reported in a national study of first-year community college students. Even so, the lower rate of remediation for postsecondary Tech Prep students is an important finding.

Consortium mean percentage of participation in remediation by first-year Tech Prep college students
The mean enrollment of postsecondary Tech Prep students who are in their second year in a Tech Prep program of study ranged from 60 to 73 between FY03 and FY07.

The mean number of second-year Tech Prep college students showed an increase from 60 in FY03 to 70 in FY04 before stabilizing through FY06, followed by a decline to 63 in FY07. Because of various problems associated with identifying Tech Prep students at the postsecondary level, this number might under-represent actual enrollment. To improve postsecondary student identification, some consortia assign secondary students a college ID number upon enrollment in or successful completion of a Tech Prep dual credit course at the secondary level.
Curriculum Reform: Existence & Growth

Five curriculum reform efforts were identified by the vast majority of consortia as evident in high schools within the consortia in FY07:

1. Supplement existing vocational-technical courses with academic content (100%).
2. Supplement existing academic courses with vocational-technical content (98%).
3. Add applied curriculum (commercially- or locally-developed) to the existing curriculum (98%).
4. Coordinate academic and vocational-technical courses by sequencing and reinforcing related content, often through block scheduling (93%).
5. Organize academic and vocational-technical courses around occupational/career clusters (93%).

Four reforms showed the highest percentage increase at the high school and the community college levels between FY03 and FY07:

1. Provide “academies” combining courses from vocational-technical areas and math, science, communication, and other academic areas.
2. Supplement existing academic courses with vocational-technical content.
3. Coordinate academic and vocational-technical courses by sequencing and reinforcing related content, often through block scheduling.
4. Replace parts of the existing curriculum with applied academic courses.
High school faculty dominated the attendance in professional development activities related to Tech Prep over the five-year period.

High school faculty attendance, consistently the largest population, increased from a median of 163 in FY03 to a high of 209 in FY05 before declining to a five-year low of 160 in FY06 and ending with an increase to 190 in FY07. The median attendance of high school administrators and college faculty and administrators remained fairly stable for all five years.
High school personnel consistently accounted for the largest group that participated in Tech Prep professional development activities between FY03 and FY07.

Participation in professional development by institution type (high school, community college, business and industry) was stable from FY03 to FY07. The overwhelming majority of participants were high school personnel including teachers, counselors, and administrators (listed in descending order by attendance). Community college faculty, counselors, and administrators accounted for an average of 14% of the attendance over the five-year period. Business and industry partners accounted for an average of 12% over the five-year period, increasing from a low of 11% in FY03 to a high of 13% in the last three years (FY05 – FY07).
Barriers that Challenge Implementation

Each year, local consortium directors are asked to indicate the level of impact of 20 barriers on implementation of Tech Prep using a scale of 1 (none) to 6 (very major). In FY07, six barriers were identified by at least 20% of consortium directors as having a major or very major impact on implementation. Each barrier was also identified as major or very major in 2006; those with an asterisk were also identified in 2005.

1. Lack of authority of local personnel to make changes needed to implement Tech Prep (39%, up from 22% in FY06)
2. Diversion of resources to comply with NCLB mandates (31%, up from 27% in FY06)
3. *Lack of consistency in identifying Tech Prep students (31%, up from 22% in FY06)
4. *Stereotype about Tech Prep as appropriate for less academically proficient students (23%, down from 24% in FY06)
5. *Lack of qualified certified instructors to fill technical teaching jobs in high schools (21%, down from 22% in FY06)
6. Little time designated for joint planning by academic and vocational or secondary and postsecondary faculty (21%, down from 22% in FY06)
As Partnerships implement Perkins IV, Title II requirements in FY2009, they will be guided by the following vision, mission, and goals created by the Programs of Study planning team based on statewide input from multiple stakeholders.

**Vision**
Each and every student will have access to rigorous and relevant education and opportunities that prepare them for success in college and careers.

**Mission**
The Partnership for College and Career Success will collaborate to ensure that all students are college and career ready and provided with the academic and technical competencies to transition from secondary to postsecondary education in order to pursue high skill, high demand, or high wage careers. The Partnerships will lead by emphasizing comprehensive career preparation and providing a collaborative environment that engages and retains students in learner-centered instruction.

**Goals**
1. Increase collaboration between secondary and postsecondary systems.
2. Create seamless transition systems from secondary education to postsecondary education.
3. Ensure that individuals who are members of special populations have the opportunity to access and succeed in CTE programs.
4. Develop career pathways that contain multiple entry and exit points to facilitate student success and lifelong learning.
5. Increase curricular alignment and reduce curricular duplication.
6. Reduce the need for remediation.
7. Support the development of integrated and applied curricular content.
8. Increase the opportunities for students to earn college credit while enrolled in high school.
9. Increase the opportunities for students to obtain marketable postsecondary certificates or degrees that support their career goals.
10. Create professional development programs designed to simultaneously engage and support secondary and postsecondary partners.
11. Utilize data for program improvement.
End Notes

1 Illinois’ definition of a Tech Prep program is a program specific core of academic and technical courses taught during the two years of high school preceding graduation at a minimum, and at least two years of community college education in a non-duplicative course of study leading to an associate degree or a two-year certificate in a specific career field or two years of an apprenticeship following high school (http://www.iccb.org/TechPrep/pdf/definitions.pdf).

2 This value appears to be an outlier; however, a telephone call to confirm the reported number resulted in confirmation that this was the Tech Prep enrollment reported to the Illinois Student Information System (ISIS), which is the data system that reports Perkins CTE data to the federal government.

3 This statistic excludes the Chicago consortium. Although Chicago no longer reports the largest enrollment, to remain consistent with previous reports we exclude it in some of the analyses of FY07 data.

4 This percentage and the resultant mean is computed from the population of identified first-year postsecondary students, a population that is difficult to identify and commonly believed to under-represent the actual number of students enrolled in Tech Prep programs; these factors could subsequently misrepresent the percentage of Tech Prep students enrolled in remedial education.

6 This curriculum reform showed the greatest increase compared to last year at the high school level.

7 The incidence of high school involvement in all eight curriculum reform categories exceeded community college involvement for the five years spanning FY03 – FY07, though reform activities increased at both levels.
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Funding for this report was awarded by the ICCB; data analysis was conducted by staff at OCCRL. Conclusions or suggestions based on the data are the result of professional judgment and do not necessarily represent official position or policy of the ICCB or the University of Illinois.

We appreciate receiving feedback on the quality and utility of reports and materials we produce. The complete annual reports for the years 1999 through 2007 can be found online (http://occrl.ed.uiuc.edu/Projects/tech_prep/annual_report.asp). If you have comments or suggestions for this or other OCCRL products, we would appreciate hearing from you. Please direct your comments to:

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