

**TRENDS IN TECH PREP IMPLEMENTATION AND
STUDENT PARTICIPATION
FOR THE STATE OF ILLINOIS FOR FY05**

**Catherine Kirby
Rongchun Zhu
Debra D. Bragg**

**Office of Community College Research and Leadership
University of Illinois at Urbana-Champaign
CRC Room 129, MC-672
51 Gerty Drive
Champaign, IL 61820
217/244-9390
<http://occr.ed.uiuc.edu>**

April 2006

The Office of Community College Research and Leadership is directed by Debra D. Bragg, professor of Educational Organization and Leadership at the University of Illinois. The assistant director of OCCRL is Catherine Kirby.

Funding for this report was awarded by the Illinois Community College Board and 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 Illinois Community College Board or the University of Illinois.

The Office of Community College Research and Leadership (OCCRL) was established in 1989 at the University of Illinois at Urbana-Champaign. Sponsors of research and development projects of OCCRL include the Illinois Community College Board (ICCB), the Illinois State Board of Education (ISBE), the U.S. Department of Education, the National Council on Student Development (NCSD), and the Lumina Foundation for Education. OCCRL's mission is to provide research, leadership, and service to community college educators and assist in improving community college education policy and practice, particularly in the Illinois community college system. Several current initiatives focus on enhancing student transition from high schools to community colleges, including studies of academic pathways, dual credit, and Tech Prep. In addition, OCCRL publishes a biannual electronic newsletter devoted to timely and critical topics of interest to community college administrators and faculty.

We appreciate receiving feedback on the quality and utility of reports and materials produced by OCCRL staff. If you have comments or suggestions for this or other OCCRL products, we would appreciate hearing from you. Please direct your comments to:

Office of Community College Research and Leadership
51 Gerty Drive, Room 129
Children's Research Center
Champaign, IL 61820
PH: 217-244-9390

This year's report is posted on the OCCRL website homepage, under "Highlights," and at http://occr.ed.uiuc.edu/Projects/tech_prep/evaluation.asp. Along with annual reports and summaries for previous years, local consortium directors can gain a statewide perspective on Tech Prep implementation. By distributing these reports via the web, local educators can monitor student participation and program activities within their own consortium over time, and they can compare their consortium results with aggregate results for the entire state.

Additional copies of this report, "Trends in Tech Prep Implementation and Student Participation for the State of Illinois for FY04," can be ordered by contacting OCCRL at occr@uiuc.edu

Suggested Citation:

Kirby, C., Zhu, R., & Bragg, D. (2006). *Trends in Tech Prep implementation and student participation for the State of Illinois for FY05*. Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign.

ACKNOWLEDGEMENTS

This report is possible because of the work of many people associated with Tech Prep in Illinois. We thank the consortium directors and coordinators and their assistants as well as educational administrators and faculty throughout the state for their persistent dedication to advancing Tech Prep education in Illinois and for their deliberate attempts to accurately report data that are often difficult to track and verify. We are also grateful to the Illinois Community College Board for entrusting us with the important task of compiling and summarizing the data that represent Tech Prep implementation in Illinois. Finally, a special appreciation to Linda Iliff for her continued dedication to helping us report our work in an insightful and professional manner.

EXECUTIVE SUMMARY

This document presents findings for Tech Prep consortia in Illinois for fiscal year 2004-05 (FY05). Throughout this report, comparisons of FY05 results are made to earlier years. Major results depict information provided by all 40 consortia in areas such as student participation, program implementation, and staff involvement including professional development.

The development of programs such as Tech Prep involves incremental changes within complex and interrelated educational systems. Likewise, the outcomes of such programs do not always show dramatic changes in relatively short periods of time nor are data collection methods always sensitive enough to measure incremental or small gains, some which eventually lead to large local impact. As Tech Prep is a program that spans the secondary and postsecondary levels and relies on local systems to integrate and articulate curriculum that spans the two levels, the effectiveness of data collection efforts depends on both local and state efforts to measure progress.

Results of the Tech Prep Final Report forms for FY05 show numerous areas of Tech Prep implementation have reached stability based on six- and seven-year trend results.

Listed below are aspects of Tech Prep reported in FY05 that showed stability or modest change over the previous two or more years:

- Work-based learning programs in postsecondary institutions increased by an average of three programs per consortium between FY04 and FY05, from 16 to 19. The trend over six years demonstrates steady, modest growth.
- Tech Prep programs at postsecondary institutions decreased by an average of 3 programs per consortium between FY04 and FY05, from 21 to 18.
- There was a slight decrease in the median number of business partners per consortium involved in curriculum development/revision from FY04 to FY05, from 72 to 68, after an upward trend since FY99.

Areas where change, both positive and negative, was noted over the previous two or more years include:

- In FY05, all six Tech Prep components were reported by the majority of consortium directors as falling under the “mature” and “advanced” levels of implementation.
- The number of secondary students enrolled in Tech Prep programs who also earned college credits, including dual credit, in high school decreased slightly from 75.4% in FY04 to 69% in FY05; however, this percentage has grown considerably over the six years data were collected, rising from 47% in FY00 to 69% in FY05.
- The percentage of students enrolled in at least one remedial course in their first year at the postsecondary level increased an estimated 5.6% from FY04 to FY05, from 36.6% to 42.2%. The FY05 figure is identical to results of a national study of first-year community college students published by the National Center on Education Statistics (NCES, 2004).
- The percentage of students that continued in a Tech Prep program of study their second year at the postsecondary level increased about 9% from 55.5% in FY04 to 64.7% in FY05.
- The percentage of consortia that reported secondary institutions replace parts of the existing curriculum with applied academic courses increased by nearly 10 percentage points from FY03 to FY05, starting at 78% and ending at nearly 88%.
- The percentage of consortia that reported postsecondary institutions coordinate academic and vocational courses by sequencing and reinforcing related content dropped over 12%, from 67.5% in FY03 to 55% in FY05.
- From FY04 to FY05, the median number of business partners per consortium providing WBL opportunities for Tech Prep participants increased dramatically, from 123 to 168.

TABLE OF CONTENTS

| | |
|---|-----|
| Acknowledgements | iii |
| Executive Summary | v |
| Introduction | 1 |
| Organization of the Report | 1 |
| Methods | 2 |
| Funding | 3 |
| School and Student Involvement | 4 |
| Secondary School Involvement..... | 4 |
| Secondary Student Participation..... | 5 |
| Student Participation in Tech Prep in Chicago..... | 6 |
| First Year Postsecondary Student Participation | 7 |
| Tech Prep Program Implementation | 8 |
| Implementation Ratings on the Six Components | 8 |
| Remediation of First-year Students | 9 |
| College Credits in High School..... | 9 |
| Postsecondary Retention | 10 |
| Postsecondary Articulated Program and Course Sequences | 10 |
| Work-Based Learning (WBL)..... | 10 |
| Curriculum Reform | 11 |
| Business Partner Involvement | 17 |
| Staff Involvement in Tech Prep | 18 |
| Secondary and Postsecondary Attendance | 18 |
| Consortium Partner Attendance | 19 |
| Staff Attendance by Type of Professional Development Activity | 20 |
| Barriers to Tech Prep Implementation | 21 |
| Major Accomplishments | 23 |
| Technical Assistance Needs | 24 |
| References and Related OCCRL Reports | 25 |
| Appendix | 26 |

List of Tables

| | | |
|---------|---|----|
| Table 1 | Consortium Ratings for the Implementation of Six Tech Prep Components | 8 |
| Table 2 | Total Percentage of Consortia Identifying Barriers as “Major” or “Very Major” from FY01 to FY05 | 22 |
| Table 3 | Frequencies and percentage of high schools that implemented the elements of curriculum reform in 40 consortia (In Appendix)..... | 26 |

List of Figures

| | | |
|-----------|---|----|
| Figure 1 | Total funding received by consortia from various funding sources for the state of Illinois..... | 3 |
| Figure 2 | Mean and median number of Tech Prep programs offered from FY00 to FY05, excluding the Chicago consortia | 4 |
| Figure 3 | Consortium median number of Tech Prep students and graduates, excluding the Chicago consortia | 5 |
| Figure 4 | Chicago consortium number of Tech Prep students and Tech Prep graduates..... | 6 |
| Figure 5 | Consortium mean and median number of first-year postsecondary students enrolled in Tech Prep programs..... | 7 |
| Figure 6 | Consortium mean percentage estimate of Tech Prep students in postsecondary programs between FY00 and FY05..... | 9 |
| Figure 7 | Mean numbers of Tech Prep postsecondary articulated course sequences and Work-Based Learning (WBL) programs offered from FY00 to FY05 | 10 |
| Figure 8 | Percentage of consortia supplementing existing vocational technical courses with academic content | 12 |
| Figure 9 | Percentage of consortia supplementing existing academic courses with vocational-technical content | 13 |
| Figure 10 | Percentage of consortia adding applied curriculum to the existing curriculum | 13 |
| Figure 11 | Percentage of consortia replacing parts of the existing curriculum with applied academic courses | 14 |
| Figure 12 | Percentage of consortia coordinating academic and vocational-technical courses by sequencing and reinforcing related content..... | 14 |
| Figure 13 | Percentage of consortia providing interdisciplinary courses combining vocational-technical content and academic content..... | 15 |
| Figure 14 | Percentage of consortia organizing academic and vocational-technical courses around occupational/career clusters | 15 |
| Figure 15 | Percentage of consortia providing "academies" combining courses from vocational-technical areas and math, science, communication, and other academic areas | 16 |
| Figure 16 | Consortium median number of business partners involved in Tech Prep activities..... | 17 |
| Figure 17 | Consortium median attendance in professional development activities by job type..... | 18 |
| Figure 18 | Consortium percentage of total attendance in professional development activities by institution type..... | 19 |
| Figure 19 | Median number of staff involved in professional activity by type from FY00 to FY05..... | 20 |

INTRODUCTION

At the end of each fiscal year, Tech Prep consortium directors in Illinois complete and submit the *Tech Prep Final Report* form to the Illinois Community College Board (ICCB). The report describes Tech Prep implementation on the local level, including student participation at the secondary and postsecondary levels, accomplishments, barriers, technical assistance needs, and other status and outcomes of consortium activities throughout the year. Subsequently, state staff members review the individual consortium reports to document implementation and develop plans to support local efforts across the state.

Since 1999 the Office of Community College Research and Leadership (OCCRL) at the University of Illinois at Urbana-Champaign (UIUC) has compiled results of the individual consortium forms into a summary trend report that provides a comprehensive description of Tech Prep implementation within the entire state. By compiling information on an annual basis and comparing the current year to previous years, patterns and trends can be observed over time, providing valuable information for state officials to enhance statewide Tech Prep efforts. This publication provides six, and in some cases seven, years of data on Tech Prep in Illinois.

ORGANIZATION OF THE REPORT

This report presents findings for 40 Tech Prep consortia in Illinois for 2004-05 (FY05). Most results show a mean or median for all 40 consortia, although some selected results are presented separately for Chicago. Results are presented in this format because between FY03 and FY04 the Tech Prep grants in Chicago were merged and City Colleges of Chicago (CCC) became the grant administrator, but before that time the CCC consortium and Chicago Public Schools (CPS) consortium were separate. Thus, we present results for the CCC consortium separately so data for secondary and postsecondary involvement for FY05 are consistent with past trend reports.

Results are reported according to the following major headings:

- Funding
- School and student involvement
- Tech Prep program implementation
- Staff involvement in Tech Prep
- Barriers
- Major accomplishments
- Technical assistance needs

METHODS

Results included in this trend report represent totals, means, and medians for all 40 consortia, with a few exceptions. In some cases, measures are aggregated for less than the 40 consortia because of problems with inaccuracies and missing data. Where data reported in the Final Report Form were missing or suspected to be inaccurate, OCCRL staff attempted to contact local consortium leaders to obtain confirmation of or revisions to the data. Through efforts to double check, OCCRL was able to enhance the accuracy of some secondary program numbers and postsecondary enrollment data. Where we were not able to confirm the accuracy of data and where careful examination of past data revealed large fluctuations in data reporting, data were either omitted from the analyses, estimates were computed using previous fiscal year data to create an average, or numbers were substituted with the regional or geographical average using the estimate that was judged to be most logical based on previous years and usually also most conservative. This estimation procedure was applied to the following measures: number of secondary programs, first-year postsecondary student enrollment, number of students in remedial/developmental courses, number of students earning articulated or dual credits, and second-year postsecondary enrollments (retention). Throughout this document we indicate when estimates were used to compute results.

After reviewing and reporting data from consortium directors for six, and in some cases seven years, data quality issues continue to be problematic; however, during FY06 local and state Tech Prep officials were involved in a strategic planning initiative designed to address these concerns and determine efforts that would improve the data reporting system, including the Tech Prep Evaluation Process (TPES) for future years. One outcome of the strategic planning process identified three strategic issues where resources can be applied to improve student outcomes and overall data quality. During FY06 and FY07, local and state Tech Prep leaders will concentrate their efforts in those areas. Specifically, they include 1) tracking Tech Prep students from the secondary to postsecondary level while adhering to student confidentiality requirements, which includes the process of clarifying and applying consistent Tech Prep definitions; 2) improving curriculum integration; and 3) reducing the need for remediation of Tech Prep students.

State and local staff are keenly interested in the reauthorization of the federal Perkins legislation so that future efforts of planning and determining outcomes measures are closely aligned with the federal legislation of not only Perkins, but also all school reform initiatives. Once Perkins is reauthorized and after strategic issue interventions are implemented, the Tech Prep Evaluation System (TPES) and the *Tech Prep Final Report* form will be revised. The goal of the final product will be to enable consortium directors to accurately measure and report results of both small and large-scale Tech Prep implementation efforts.

FUNDING

Beginning in FY04, local consortium directors reported the amount of grant funds received to implement Tech Prep programs. Directors indicated the dollar amounts received from: federal Tech Prep funds, state Tech Prep funds, other federal and state funds, local education funds, private-sector business and industry funds, and funds received from other sources. In FY05, all 40 Illinois consortia reported receiving a total of \$10,806,012, an increase of \$975,246 from the total funds reported in FY04. Consortium directors reported two major funding categories: “federal” and “other federal and state sources.” In FY05, the category of “other federal and state sources” surpassed the “federal” category by over \$600,000, followed by the category of “state funds” which accounted for nearly \$1.4 million. These results suggest federal and state funds continue to play a very dominant role in supporting implementation of Tech Prep programs throughout the state of Illinois. Together, the categories of federal funds, state funds, and other federal and state funds account for 90% of all funds for Tech Prep in Illinois, a decrease of only 1% from FY04.

The following amounts represent the total dollars reported in each category for all consortia in Illinois. In the category of “Other,” consortia received a total of \$195,356, an increase of over \$153,000 from \$41,981 reported in this category in FY04. The amount received from “Private sector business and industry” declined by \$15,210 from that reported in FY04, however “local education funds” increased by \$18,381. Also, Illinois issued \$801,101 in the form of Tech Prep support grants to all community colleges in FY05, an increase of \$104,491 from this category in FY04. For the first time, in FY05 the support grant objectives were targeted at improvement activities in two areas: (a) postsecondary assessment and testing of secondary CTE/Tech Prep students and (b) identification and reporting of postsecondary Tech Prep students. It is not clear if these dollars, distributed directly to Illinois’ 39 community colleges, were included in the amounts reported by consortium directors in any category on the *Final Report* form.

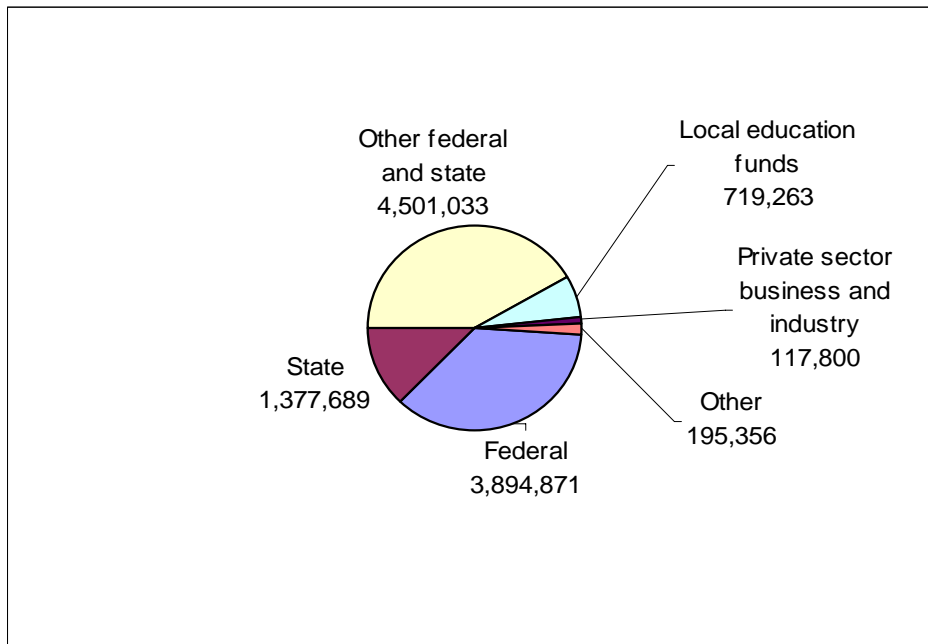


Figure 1. Total funding received by consortia from various funding sources for the state of Illinois.

SCHOOL AND STUDENT INVOLVEMENT

This section contains results pertaining to three areas of involvement: secondary school involvement, secondary student participation (including Chicago), and postsecondary student participation.

SECONDARY SCHOOL INVOLVEMENT

Of the 39 consortia reporting the number of Tech Prep programs at the secondary level in FY05, directors in 33 consortia¹ reported a total of 494 Tech Prep programs were offered in secondary schools, with a mean and median of 15 programs per consortium. While the FY05 data appear to represent a decrease in secondary Tech Prep program numbers, we believe that the change is not because of an actual drop in programs but due to a more accurate representation of the mean and median number of programs offered in each consortium across the state and is a result of efforts to clarify the corresponding question on the *Final Report* form. Specifically, many consortia had previously counted each program at all schools in the consortium and reported the total amount when the requested program number was intended to measure the total number of types of programs offered within a consortium – an unduplicated number. Through concerted efforts to clarify this confusion, six consortia directors were able to provide more accurate program numbers and thus, the results reported in FY05 are more trustworthy than previous years.

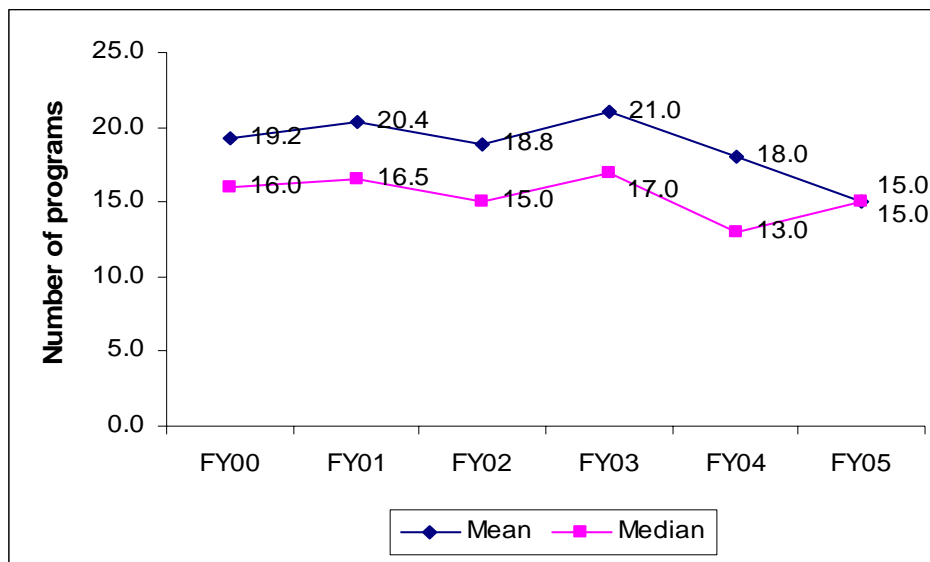


Figure 2. Mean and median numbers of Tech Prep programs offered from FY00 to FY05, excluding the Chicago consortium ($N = 494$ in 33 consortia in FY05).

Based on information learned about the misinterpretation of this question, data from previous years were recalculated for this report, using more accurate numbers submitted by consortia directors. Figure 2 shows a stable trend with slight fluctuations in the mean and median numbers of Tech Prep programs offered by Illinois consortia from FY00 to FY05. Except for the mean number in FY05, the mean and median trends are identical from FY00 to FY05, and were based on at least 78% of the consortia. The result in Figure 2 means that a Tech Prep student may choose among an average of 15 Tech Prep programs of study in most secondary schools in Illinois.

¹ We were not able to reach six consortia to verify data in this area; therefore, secondary program data from those consortia were not included in this report.

SECONDARY STUDENT PARTICIPATION

Each year, local consortia report the number of secondary students participating in Tech Prep programs. Of the 39 consortia reporting student participation in Tech Prep, the total number of secondary students taking Tech Prep-related courses reached a reported 87,166 in FY05. Over the six years this statistic has been reported, there has been fluctuation from year to year in reported enrollments by some consortia. When student enrollment figures reported by local consortia were out of range, OCCRL attempted to contact consortia directors and adjust the enrollment figure accordingly; when that was not possible, the Office replaced the outlier with an average of other consortia of similar size and characteristics, always using the most conservative number. Through conversations with consortium directors during FY05, we learned that many consortia have struggled with identification of Tech Prep students, partially a result of confusion about the definition of Tech Prep students and also from problems with data sharing between the secondary and postsecondary levels. Even with the corrections, however, the total number and the median of student enrollment fluctuated somewhat over time suggesting this statistic should be interpreted with caution. Statewide efforts are currently underway to reduce confusion over definitions and improve data sharing so that student enrollment can be measured more reliably on the local consortium and the state levels in the future.

Among 39 consortia, the largest enrollment number is 8,891, located in a “small urban”² consortium; the smallest number is 149, located in a “rural” consortium. Combined with the 7,075 secondary students in Chicago (see next section), the total secondary student enrollment in Tech Prep programs is 94,241. As a percentage of total secondary enrollments, Tech Prep students in FY05 accounted for 15% of all secondary students³, an increase from 10% reported in FY02 and FY03 and 11% in FY04.

In FY05, consortium directors reported a total of 25,154 Tech Prep graduates, excluding those involved in the Chicago consortium. Figure 3 also shows the trend in the median number of Tech Prep graduates per consortium from FY00 to FY05, with over 1,200 students and about 360 graduates reported per consortium in FY05. Among 39 consortia, the largest number of graduates per consortium is 3,007, located in a “small urban” consortium, and the smallest number of graduates is 57, located in a “rural” consortium.

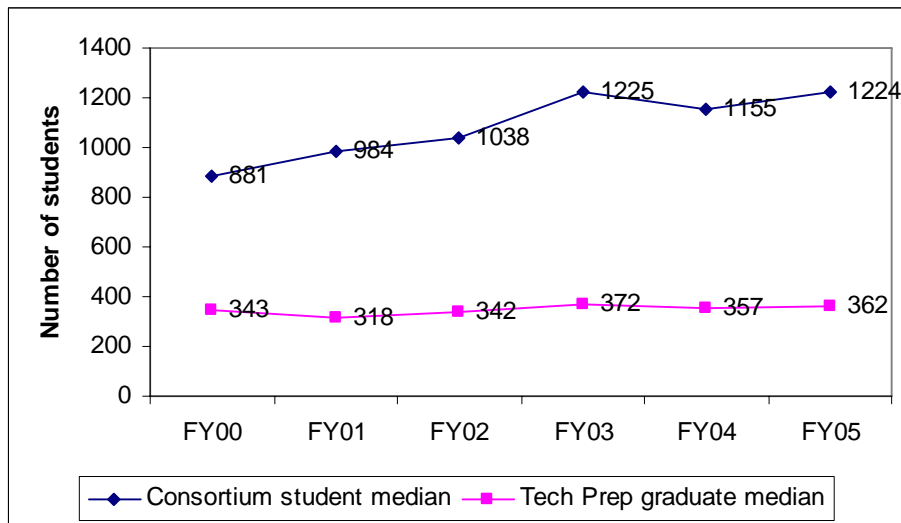


Figure 3. Consortium median number of Tech Prep students and graduates, excluding the Chicago consortia (N=87,166 students and 25,154 graduates in 39 consortia in FY05).

² The ICCB categorizes consortia into subgroups labeled “rural,” “suburban,” “small urban,” and “Chicago” depending on location.

³ According to personal communication with an ISBE official on February 8, 2006, the total number of students enrolled in public secondary schools in 2004-2005 was 610,347 (excluding students from the Department of Corrections and regional programs).

STUDENT PARTICIPATION IN TECH PREP IN CHICAGO

Due to its size and distinct funding pattern wherein the secondary and postsecondary levels were funded separately, results for Chicago were reported separately from the rest of the state. Figure 4 shows the student enrollment trend for the City Colleges of Chicago (CCC) consortium as reported from FY00 to FY05. The number of reported Tech Prep students in this consortium appears to have increased from the previous three fiscal years to 7,075 in FY05. Currently, the Chicago consortium is undergoing change in the way Tech Prep students are identified and thus, the number of students reported in FY05 is probably a more accurate number than that reported in the past. Specifically, the spike in enrollment reported in FY01 stems from a different data reporting approach⁴. Figure 4 also demonstrates an increase in the reported number of Tech Prep graduates in the Chicago consortium from the past three fiscal years to the present FY05 year, increasing from 642 in FY04 to 2,703 in FY05.

To summarize results for Chicago, both the high school student and graduate numbers reported for FY05 show a large increase from the previous three years, however more accurate reporting in FY05 suggests the previous years' data may not be reliable and should be interpreted with caution.

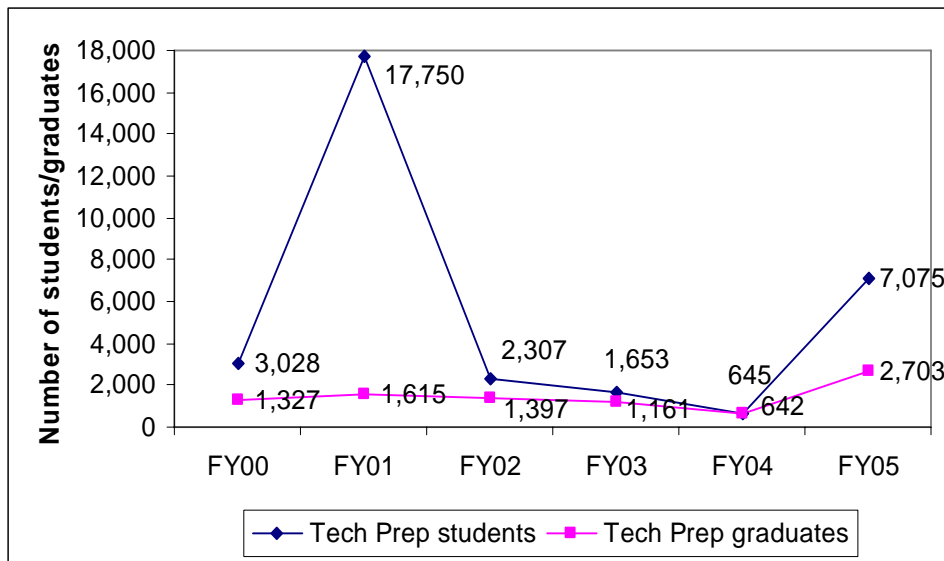


Figure 4. Chicago consortium number of Tech Prep students and Tech Prep graduates.

⁴ In FY01, the reported number represented the total number of all the junior and senior students in 10 designated Tech Prep high schools. After FY01, that reporting approach was changed to align with state definitions of Tech Prep students.

FIRST-YEAR POSTSECONDARY STUDENT PARTICIPATION

In FY05, an estimated⁵ total of 2,556 students were reported by all Illinois consortia to have enrolled in a Tech Prep program at the postsecondary level after finishing a sequence of secondary Tech Prep courses during the preceding year. The state total, mean, and median of first-year postsecondary enrollment decreased sharply between FY00 and FY01, and then stabilized during the period between FY02 and FY05. Specifically, the mean ranged from 56 to 70 in FY04, showing an average of 66 students in postsecondary Tech Prep programs in FY05. The median showed a similar pattern, increasing from 56 in FY02 to 63 in FY03, then dropping to 59 in FY04 and FY05. The result shows a consortium median of about 60 Tech Prep students are identified as being enrolled in a Tech Prep program of study at the postsecondary level following their graduation from secondary school.

There is a widespread belief among Tech Prep leaders throughout the state that these statistics underestimate the actual number of secondary Tech Prep students who matriculate into postsecondary Tech Prep programs. Through efforts to confirm the accuracy of this statistic, OCCRL staff contacted directors whose postsecondary enrollment figures were suspect; as a result, two consortia were able to provide more accurate estimates. Conversations with consortium leaders revealed the belief that this undercount is attributed to two major data collection issues regarding (a) difficulties in tracking students from the secondary to postsecondary levels, and (b) problems with identification of students enrolled in a Tech Prep program of study at the postsecondary level.

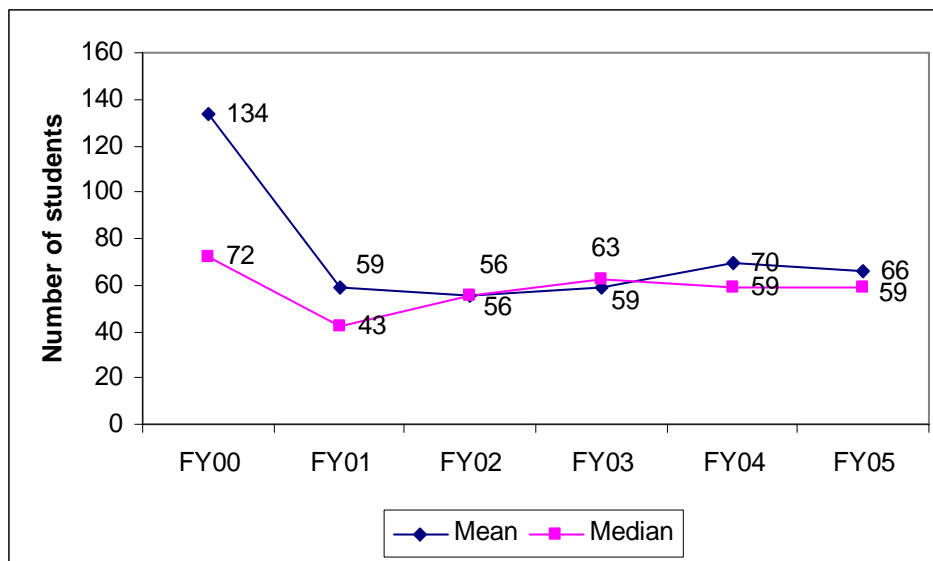


Figure 5. Consortium mean and median number of first-year postsecondary students enrolled in Tech Prep programs ($N = 2,556$ for 39 consortia in FY05).

⁵ Due to fluctuations in data reporting, 18 consortia enrollment numbers were estimated based on previous enrollment numbers, or using the average enrollment number for their regional or geographical location. For the other 21 consortia, we used the figures originally reported by the corresponding consortium.

TECH PREP PROGRAM IMPLEMENTATION

Local Tech Prep program implementation is characterized in this report by a number of core elements, including consortium self-assessment of overall implementation of the six Tech Prep components, postsecondary remediation and retention rates, courses offered in high school for college credit (dual credit) or credits in escrow, articulated program and course sequences, work-based learning, curriculum reform, and business partner involvement.

IMPLEMENTATION RATINGS ON THE SIX COMPONENTS

Beginning in FY04, local consortium directors were asked to rate their consortium's level of implementation of six components of Illinois Tech Prep, using a scale of 1 ("Not Evident or Underway") to 5 ("Advanced Implementation"). Table 1 shows nearly all consortia rated themselves between the "Progress in Implementation" (3) and the "Advanced Implementation" (5) levels on all components in FY05. None of the consortia rated any components at the level of 1, indicating that the component was "Not Evident or Underway;" this level of implementation has been dropped from the scale on the *FY06 Final Report form*. Two consortia reported they were at the "Planning or Development" stage on the inservice training component, and one consortium reported to be at the "Planning or Development" stage on three components: consortium level articulation, inservice training, and preparatory services. The mean ratings by all 40 consortia of the six components fall between 3 and 4, signifying "Mature" or "Advanced," with the highest mean (3.9) attributed to equal access for special populations and the lowest mean at 3.5 for inservice training.

Table 1

Consortium Ratings for the Implementation of Six Tech Prep Components (40 consortia)

| Component | Mean | Std Dev | Planning or Development | Progress in Implementation | Mature | Advanced |
|--------------------------------------|------|---------|-------------------------|----------------------------|--------|----------|
| Consortium level articulation | 3.8 | 0.73 | 2.5% | 30.0% | 50.0% | 15.0% |
| Tech Prep program sequences | 3.7 | 0.61 | 0 | 38.5% | 53.9% | 7.7% |
| Inservice training | 3.5 | 0.68 | 7.5% | 37.5% | 52.5% | 2.5% |
| Equal access for special populations | 3.9 | 0.70 | 0% | 27.5% | 50.0% | 22.5% |
| Linkages and program innovation | 3.7 | 0.56 | 0% | 35.0% | 60.0% | 5.0% |
| Preparatory services | 3.7 | 0.68 | 2.5% | 35.0% | 52.5% | 10.0% |

Note. The table omits category 1, "Not Evident or Underway" because none of the consortia rated any component at this lowest level.

REMEDIATION OF FIRST-YEAR STUDENTS

Figure 6 shows consortium directors' estimates⁶ of the percentage of FY04 graduates who were taking at least one remedial mathematics, reading, or writing course the following year (FY05) at the community college. This information was obtained from the Tech Prep Final Report form and also from targeted phone calls to consortium leaders where the accuracy of information provided on the *FY05 Final Report* form was in question.

The mean percentage of first-year community college Tech Prep students enrolled in at least one remedial course was 42% in FY05. Although this percentage represents an increase from the 36.6% estimated in FY04, it is the same rate as that found by the National Center for Education Statistics (NCES, 2004) in a national study of first-year community college students. Also, it is interesting to note that this estimated percentage is well below the remediation rate reported by Adelman (2005) in a national study of community college students; this U.S. Department of Education study found that an estimated 61.1% of all students in a large community college student cohort enrolled in at least one remedial course at the community college.

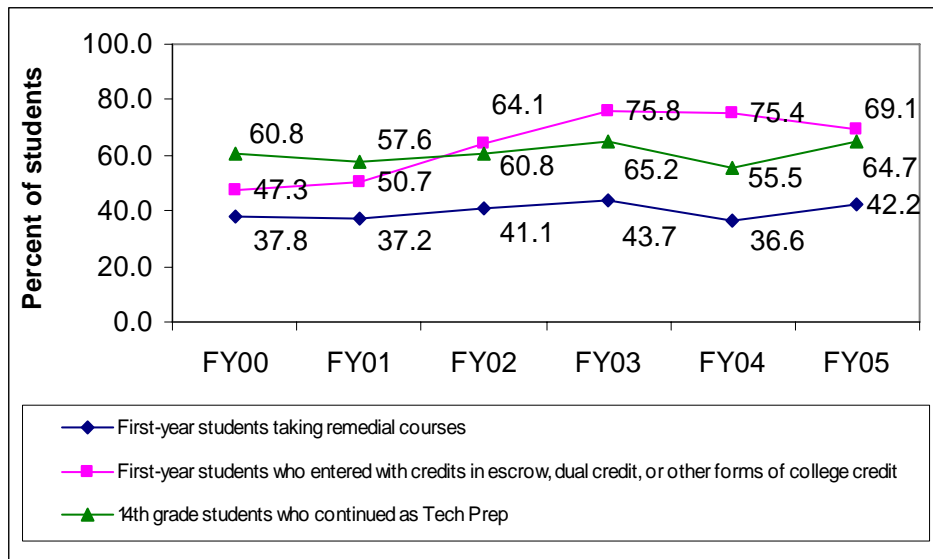


Figure 6. Consortium mean percentage estimate of Tech Prep students in postsecondary programs between FY00 and FY05.

COLLEGE CREDITS IN HIGH SCHOOL

Referring again to Figure 6, the mean percentage estimate of local consortia having Tech Prep students with credits in escrow, dual credit, or other college credit options increased dramatically from 47% in FY00 to 69% in FY05. These results confirm growth in participation of high school students in Tech Prep-related, college level courses receiving articulated or dual credits; this finding is consistent with results of other reports on dual credit for the state of Illinois [see, for example, Makela (2005) and Barnett, Gardner, and Bragg (2004)].

⁶ These results need to be interpreted cautiously for two reasons: 1) they are consortium directors' *estimates* of first year postsecondary students taking remedial courses; and 2) this statistic was not reported by 18 consortia due to difficulties in obtaining postsecondary information.

POSTSECONDARY RETENTION

Figure 6 also shows that between FY00 and FY05 the percentage of students who continued a Tech Prep program of study from the 13th to the 14th grade remained stable, with an increase in FY05. Retention rates ranged from about 55% in FY04 to nearly 65% in FY05. The average percentage for the six years shows about 61% of Tech Prep 13th grade students continued to the 14th grade in Tech Prep programs of study. Based on revised data provided by consortium directors who were called because of unusually high or low figures initially reported and based on conversations with a sample of consortia leaders across the state regarding retention, this figure is possibly an underestimate of the actual rate of retention, due to data tracking and reporting issues (referenced earlier in this report). The revised FY05 retention rate of 65% is substantially less than that reported by Adelman (2005) of a large, nationally representative cohort of US community college students under 21 who enrolled in higher education for the first time in a community college. Adelman found 74% of all community college students were retained between the 13th the 14th grade, and 0.4% earned certificates after the 13th grade. Adelman also reported that, “There is no difference between the transfer and occupational degree groups in the rate of attainment of associate degrees from community colleges” (2005, p. 96).

ARTICULATED PROGRAM AND COURSE SEQUENCES

Directors of 35 consortia provided totals and percentages of Tech Prep programs offered within their consortia. For this calculation, directors were asked to count each articulated course sequence as a Tech Prep program. The total, mean, and median number of Tech Prep programs dropped slightly from FY03 to FY05. As presented in Figure 7, there was a mean of 18 articulated sequences per consortium, and a median of 17, based on a total of 612 total articulated sequences reported by consortium directors statewide in FY05. This represents a decline from the mean of 21 and a median of 20 reported by 37 consortia in FY04.

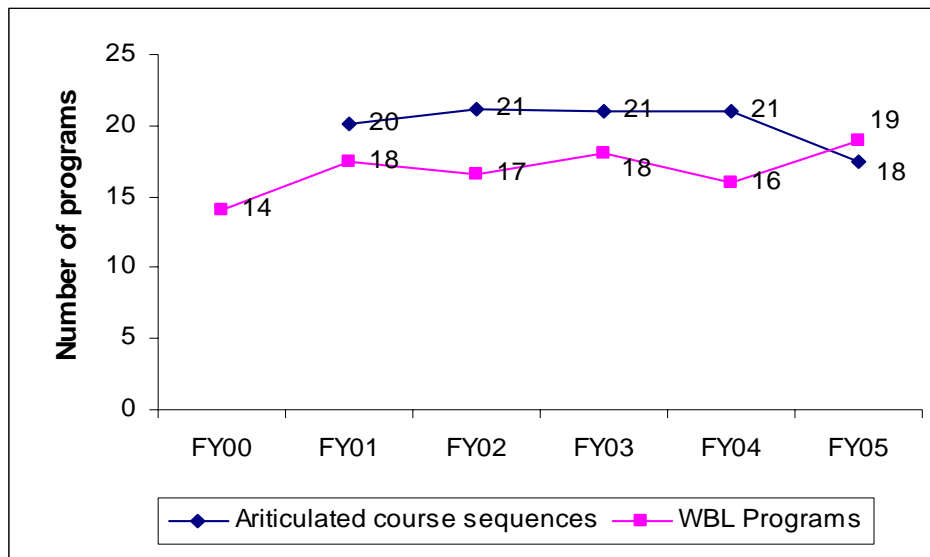


Figure 7. Mean numbers of Tech Prep postsecondary articulated course sequences and Work-Based Learning (WBL) programs offered from FY00 to FY05 (N = 612 in 35 consortia for articulated course sequences and 702 in 37 consortia for WBL programs in FY05).

WORK-BASED LEARNING (WBL)

Thirty-seven consortia provided information regarding WBL programs offered in conjunction with postsecondary programs in FY05. Referring again to Figure 7, the trend shows steady, modest growth over the past three years. A total of 702 Tech Prep programs of study throughout the entire state included WBL opportunities in FY05; an average of 19 programs was offered per consortium. This represents an increase in WBL opportunities from a total of 691 programs offered throughout the state in FY03, with a mean of 18 programs; and 571 programs in the state in FY04, with a mean of 16 programs.

CURRICULUM REFORM

Beginning in FY99, consortium directors were asked to indicate the presence or absence of eight curriculum reform efforts within schools in the consortium and the number of secondary and postsecondary institutions that were actively implementing each of them. The results in Figures 10 to 17 represent the number of consortia reporting the presence of the corresponding curriculum reform category, not the specific number of schools within a consortium. Based on this approach, consortia in the state reported more secondary involvement in all eight curriculum reform categories than postsecondary involvement.

Table 3 containing frequencies and percentages of high schools that implemented the elements of curriculum reform in 40 consortia can be found in the Appendix. It shows that statewide, the following three curriculum reform efforts were reported to be present in the largest number of high schools:

- supplementing existing vocational-technical courses with academic content,
- supplementing existing academic courses with vocational content, and
- adding applied curriculum to the existing curriculum.

The following three curriculum reform efforts were identified as present in the fewest number of high schools:

- providing “career academies” combining courses from vocational-technical areas and academic areas,
- coordinating academic and vocational-technical courses by sequencing and reinforcing related content, and
- providing interdisciplinary courses combining vocational-technical and academic content.

Figures 8 through 15 show the percentage of consortia reporting implementation of each of the eight curriculum reform efforts at some or all secondary schools and at the postsecondary level. Each figure addresses one of the following reforms:

- supplementing existing vocational-technical courses with academic content,
- supplementing existing academic courses with vocational-technical content,
- adding applied curriculum to the existing curriculum,
- replacing parts of existing curriculum with applied academic courses,
- coordinating academic and vocational-technical courses by sequencing and reinforcing related content,
- providing interdisciplinary courses combining vocational-technical and academic content,
- organizing academic and vocational/technical courses around occupational/career clusters, and
- providing “career academies” combining courses from vocational-technical areas and academic areas.

In summary, at the secondary level, the following curriculum reform efforts increased dramatically over the seven year period between FY99 and FY05:

- supplementing existing academic courses with vocational-technical content, 19% increase (Figure 9),
- replacing parts of the existing curriculum with applied academics courses, 19% increase (Figure 11), and
- providing interdisciplinary courses combining vocational-technical content and academic content, 22% increase (Figure 13).

At the postsecondary level, results show a stable trend in all the categories of curriculum reform activity over the same seven-year period. Two curriculum reforms were reported to show 5% or 7.5% increase from FY04 to FY05:

- providing interdisciplinary courses combining vocational-technical and academic content (7.5%, Figure 13), and
- organizing academic and vocational/technical courses around occupational/career clusters (5%, Figure 14).

Figure 8 shows the percentage of all Tech Prep consortia in the state that supplement existing vocational technical courses with academic content. Both the secondary and postsecondary levels demonstrated a high level of implementation of this reform from the very beginning data were collected, and they continued to show growth in the first five years data were collected (FY99 through FY03). From FY03 to FY05, all 40 consortia reported secondary schools supplemented existing vocational-technical education with academic content. In both FY04 and FY05, 90% of consortia reported postsecondary implementation of this reform.

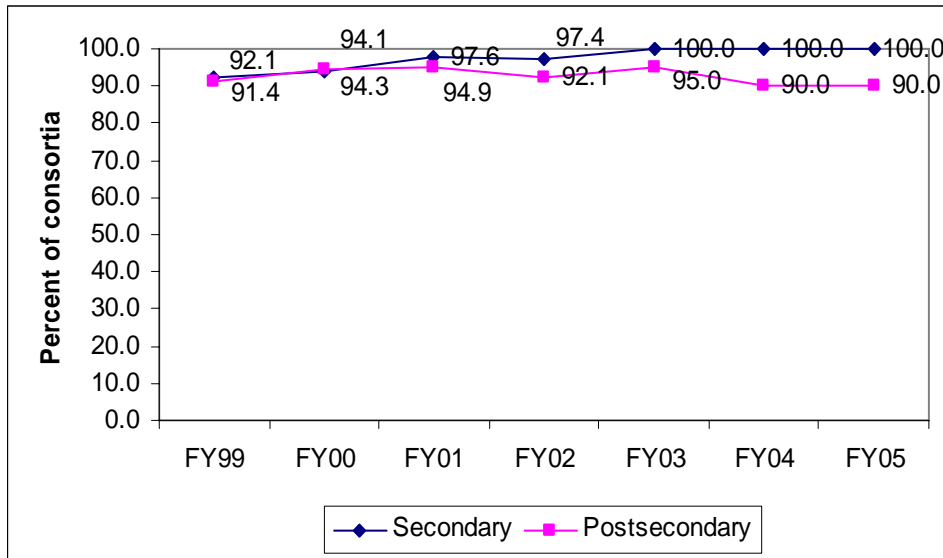


Figure 8. Percentage of consortia supplementing existing vocational technical courses with academic content.

Figure 9 shows the percentage of consortia that supplement existing academic courses with vocational-technical content. Both secondary and postsecondary levels demonstrated an increase between FY99 and FY01, followed by a relatively stable pattern between FY01 and FY05. Overall, nearly 98% of consortia report their secondary schools were implementing this reform, and nearly 78% of consortia report that their postsecondary institutions were implementing this reform in FY05.

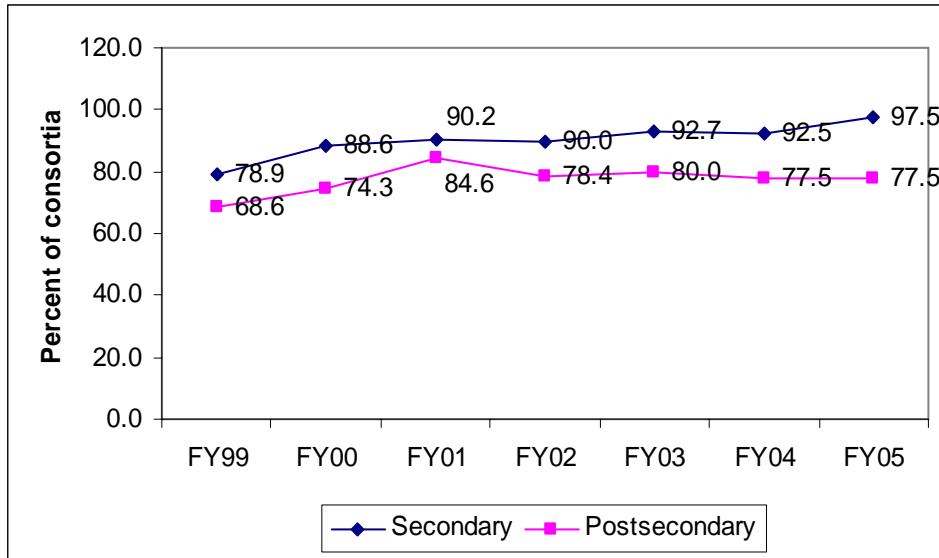


Figure 9. Percentage of consortia supplementing existing academic courses with vocational-technical content.

Figure 10 shows the percentage of consortia that add applied curriculum to the existing curriculum. There was a small decrease in this reform activity from FY99 to FY00 at both secondary and postsecondary levels, followed by a fairly large increase (12 percentage points) between FY00 and FY01 at the secondary level and rather stable implementation on both levels from FY02 through FY05. In FY05 almost 93% of consortia reported this reform was present at the secondary level and nearly 83% of consortia report this reform was present at the postsecondary level.

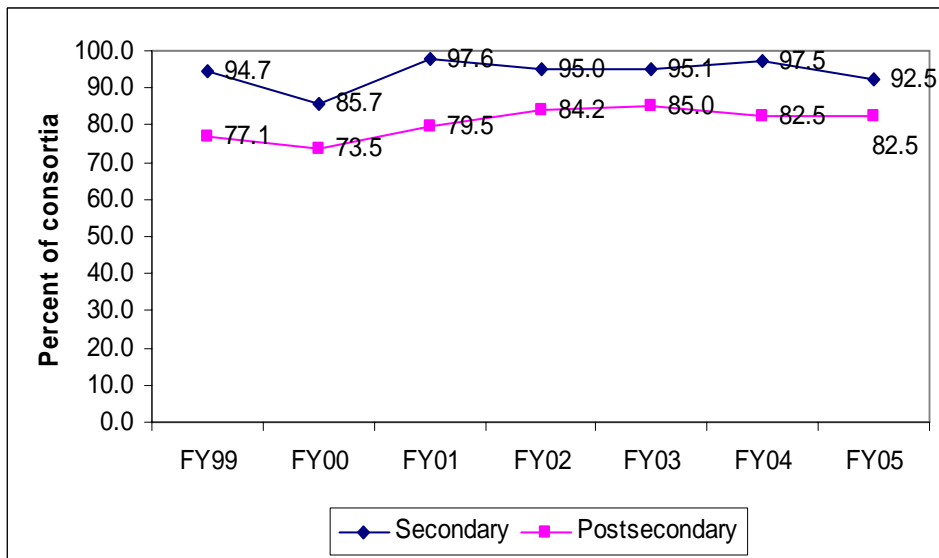


Figure 10. Percentage of consortia adding applied curriculum to the existing curriculum.

Figure 11 indicates the percentage of consortia that replace parts of the existing curriculum with applied academic courses. At the secondary level, there was a substantial increase in this reform between FY03 and FY04 and a slight decline in FY05, resulting in nearly 88% of consortia involved at the secondary level. At the postsecondary level, consortia reported a consistently upward trend from FY99 to FY05, showing 65% of consortia having postsecondary involvement in FY05.

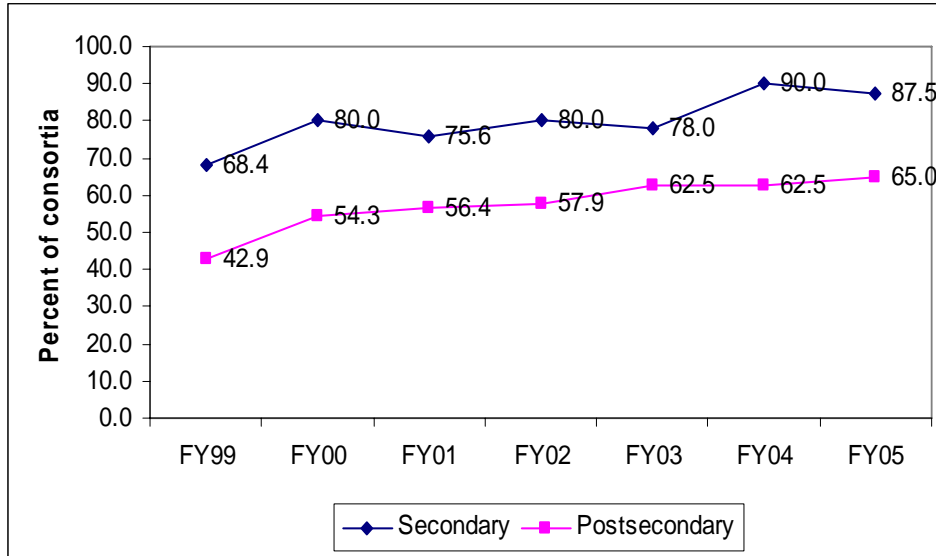


Figure 11. Percentage of consortia replacing parts of the existing curriculum with applied academic courses.

Figure 12 indicates the percentage of consortia that coordinate academic and vocational-technical courses by sequencing and reinforcing related content. The pattern at the secondary level demonstrates an early, steady increase between FY99 and FY03; little change from FY02 and FY04; and a small increase between FY04 and FY05, ending with 90% of consortia reporting secondary schools were involved in this reform in FY05. The trend in the percentage of consortia reporting postsecondary level implementation of this reform demonstrates a dramatic increase from FY99 to FY00, followed by a steady increase to FY03, followed by a decrease in FY04 and a continued decline in FY05.

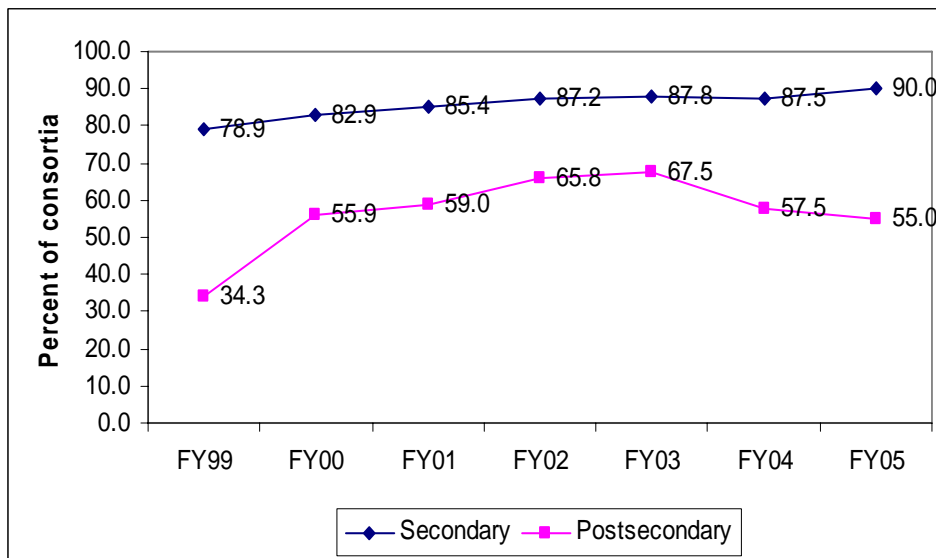


Figure 12. Percentage of consortia coordinating academic and vocational-technical courses by sequencing and reinforcing related content.

Figure 13 indicates the percentage of consortia that provide interdisciplinary courses combining vocational-technical content and academic content. The trend at the secondary level showed steady growth from FY99 to FY01 before dropping slightly in FY02-FY03, followed by an increase to 90% in FY04 and FY05. The trend in consortia reporting postsecondary involvement in this reform shows a dramatic increase from 34% in FY99 to 60% in FY00, followed by gradual increases to 75% in FY03, after which it decreased to 67% in FY04 before rebounding to 75% again in FY05.

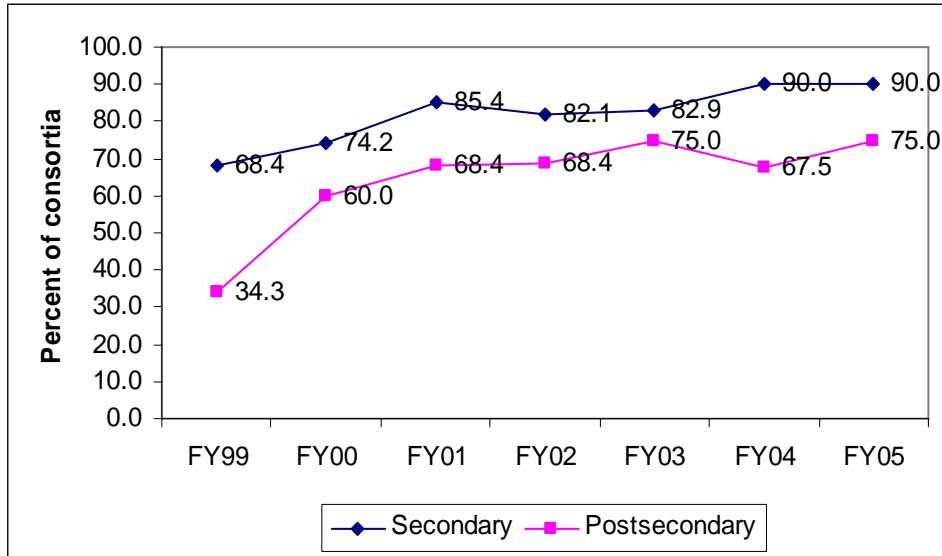


Figure 13. Percentage of consortia providing interdisciplinary courses combining vocational-technical content and academic content.

Figure 14 indicates the percentage of consortia that organize academic and vocational-technical courses around occupational/career clusters. The pattern of consortia reporting this reform at the secondary level shows a gradual increase from 84% in FY99 to nearly 93% in FY04 before demonstrating a slight decline to 90% in FY05. The pattern of consortia reporting postsecondary level involvement demonstrates a slight fluctuation between FY99 and FY05, but always over 74.5% of all consortia reporting some postsecondary involvement, and reaching 85% in FY05.

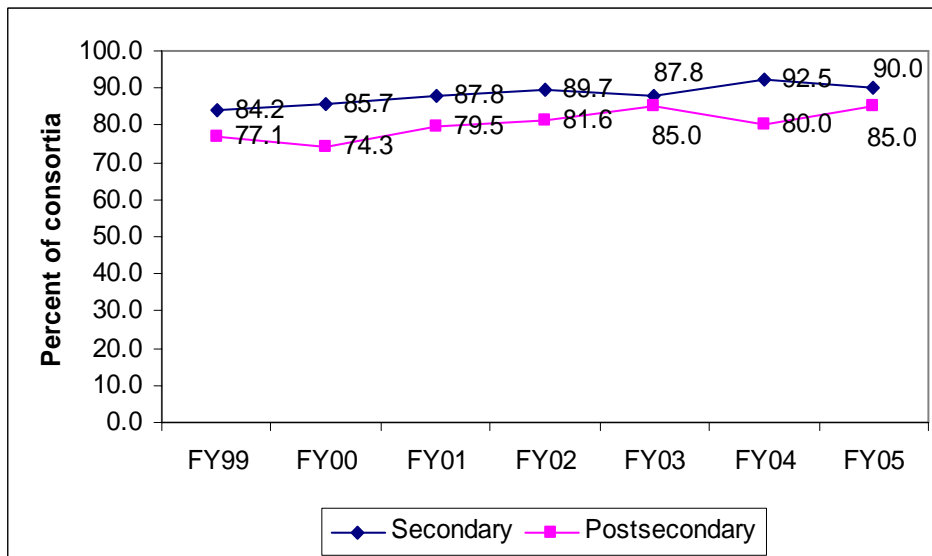


Figure 14. Percentage of consortia organizing academic and vocational-technical courses around occupational/career clusters.

Figure 15 indicates the percentage of consortia that provide "academies" combining courses from vocational-technical areas with math, science, communication, and other academic areas. The percentage of consortia reporting this activity at the secondary level fluctuated throughout the seven years data were collected. During the first four years, consortia involvement ranged from about 61% to 66%; since FY03, the percentages have consistently remained higher, increasing from about 73% in FY03 to almost 78% in FY05. The activity was less evident at the postsecondary level where involvement fluctuated little and averaged 37.5% over the seven year period.

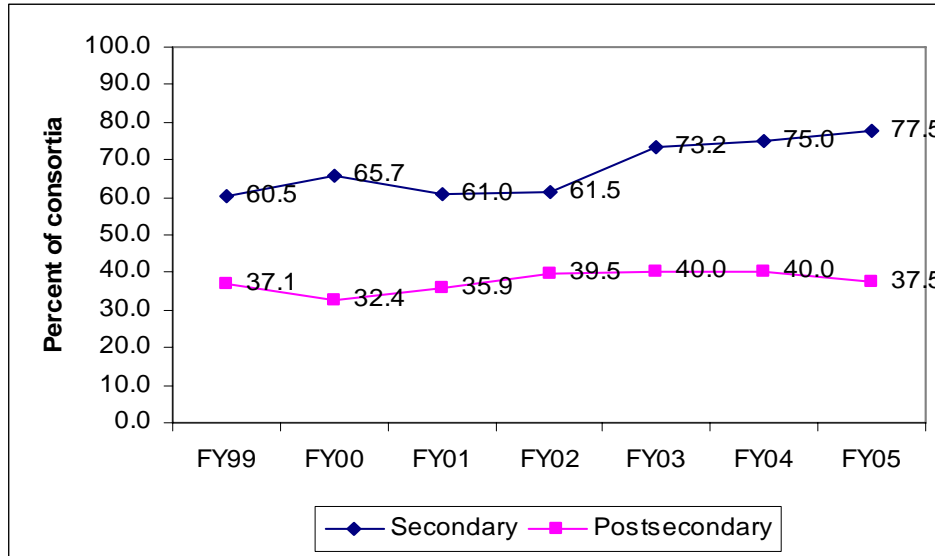


Figure 15. Percentage of consortia providing "academies" combining courses from vocational-technical areas and math, science, communication, and other academic areas.

BUSINESS PARTNER INVOLVEMENT

Each consortium was asked to provide a conservative estimate of the number of business and organized labor partners (also referred to as employers) involved in Tech Prep activities for FY05. The type of involvement included participating in curriculum development/revision, providing WBL opportunities for students, and providing professional development placements for teachers and counselors. Figure 16 shows the consortium median for four types of business and labor involvement.

Results show a slight decrease in the median number of business partners per consortium involved in curriculum development/revision from FY04 to FY05, after an upward trend since FY99. Between FY99 and FY04, the median number of organized labor partner activities per consortium showed a consistent trend, with an average of 4 labor partners involved in various Tech Prep activities per consortium over the seven years data were collected.

Beginning in FY04 consortium directors were also asked to report the numbers of business partners that provided WBL opportunities for students. From FY04 to FY05, the median number of business partners per consortium providing WBL opportunities for students increased from 123 to 168 with total numbers 10,948 in FY05, reported by 39 consortia. Another new question in FY04 asked directors to report the number of business partners that provided professional development placements for teachers and counselors. The median number per consortium reported in FY04 was 8 and increased to 10 in FY05, reported by 36 consortia. The state total of businesses providing professional development placements for teachers and counselors increased from 580 reported by 39 consortia in FY04 to 684 reported by 36 consortia in FY05.

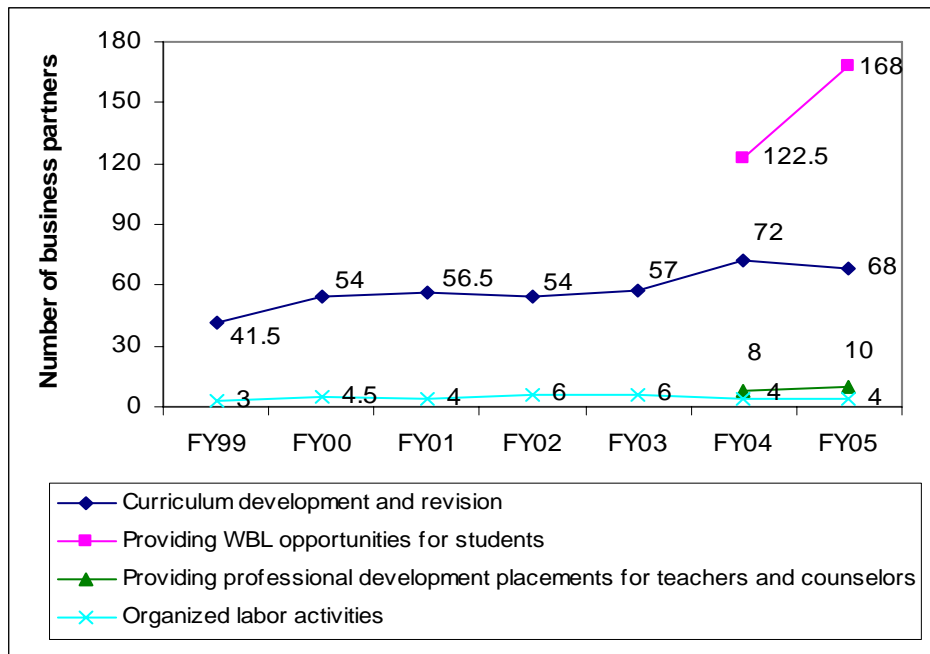


Figure 16. Consortium median number of business partners involved in Tech Prep activities (39 consortia reporting in FY05)

STAFF INVOLVEMENT IN TECH PREP

SECONDARY AND POSTSECONDARY ATTENDANCE

Consortium leaders were asked to provide information on the types of professional development activities supported by the consortium. The six categories of professional development activities are:

- One time conference, workshop, or inservice
- Series of related inservices or workshop
- On-going team/committee meetings
- Employer-sponsored site visits, workshops, or internships
- Formal graduate study
- Other

For each type of activity, coordinators were asked to indicate the number of persons attending from each of the following categories: administrator, faculty, counselor, and business/industry representative. Respondents were also asked to indicate the number of persons attending from the secondary and postsecondary levels according to these six categories. Figure 17 shows the median number of high school and college faculty and administrators per consortium for the 7-year period of FY99 to FY05. One group, high school faculty, consistently accounts for the highest levels of attendance of all the groups. For the faculty group, there was an initial increase of median attendance, from 108 on FY99 to the peak attendance of 206 in FY01, followed by a decrease from FY02 to FY03 before increasing to 182 in FY04 and further to 209 in FY05. The other three groups (high school administrators, college administrators, and college faculty) showed relatively modest attendance in professional development over the entire time period of FY99 to FY05.

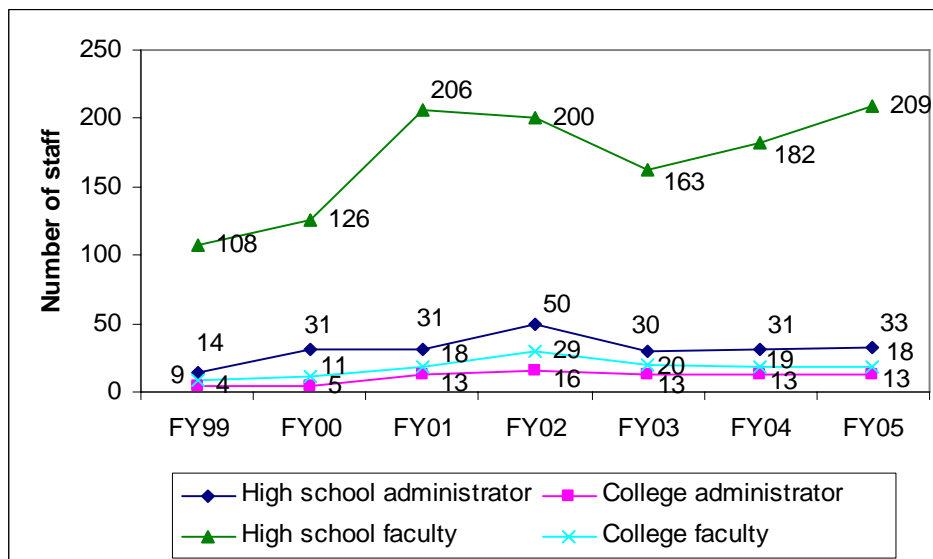


Figure 17. Consortium median attendance in professional development activities by job type (37 consortia reporting in FY05).

CONSORTIUM PARTNER ATTENDANCE

Figure 18 shows the consortium percentage of total attendance in professional development by secondary, postsecondary, and business personnel from FY99 to FY05. High school personnel attendance accounted for about 75% of total attendance in FY05, far surpassing the attendance of either postsecondary or business personnel groups. The level of attendance of all three groups was consistent over the seven years annual report data were collected.

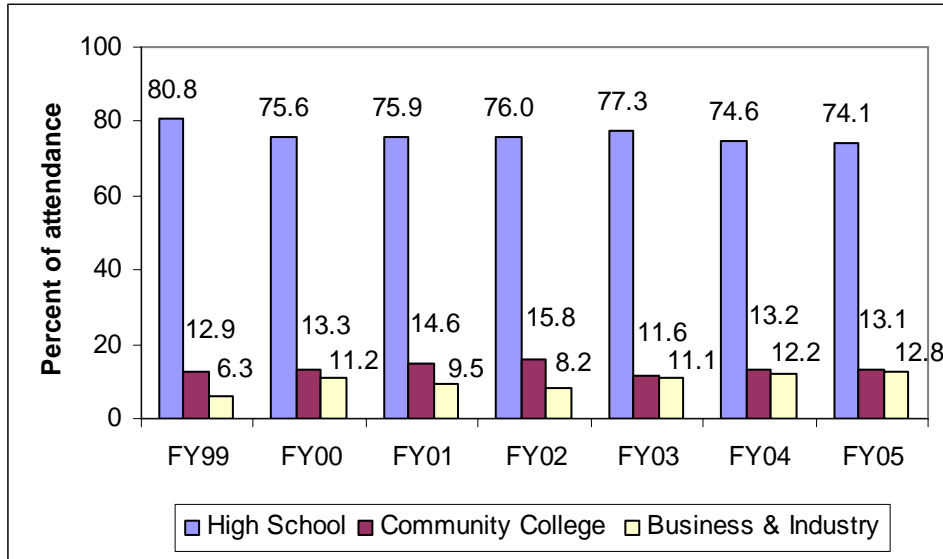


Figure 18. Consortium percentage of total attendance in professional development activities by institution type (37 consortia reporting in FY05).

STAFF ATTENDANCE BY TYPE OF PROFESSIONAL DEVELOPMENT ACTIVITY

Local consortia reported the number of staff who attended different types of professional development, including a one-time conference, workshop, or inservice activity; a series of related inservice events or workshops; on-going, interdisciplinary team/committee meetings; employer-sponsored site visits; formal graduate study; and other professional development activities.

Results on staff attendance by type of professional development activity are shown in Figure 19. Two types of professional development, one-time conference and on-going team meetings, drew the highest number of staff attendees over the past six years, and both showed the greatest increase from FY04 to FY05. Specifically, the one-time conference, workshop, or inservice increased slightly from 101 in FY04 to 115 staff attendees in FY05, and on-going team/committee meetings grew dramatically from 59 in FY04 to 94 staff attendees in FY05. The other four types of activities show lower levels of staff attendance than the one-time conference and on-going team meetings, but they do show some fluctuations across the six years data were collected.

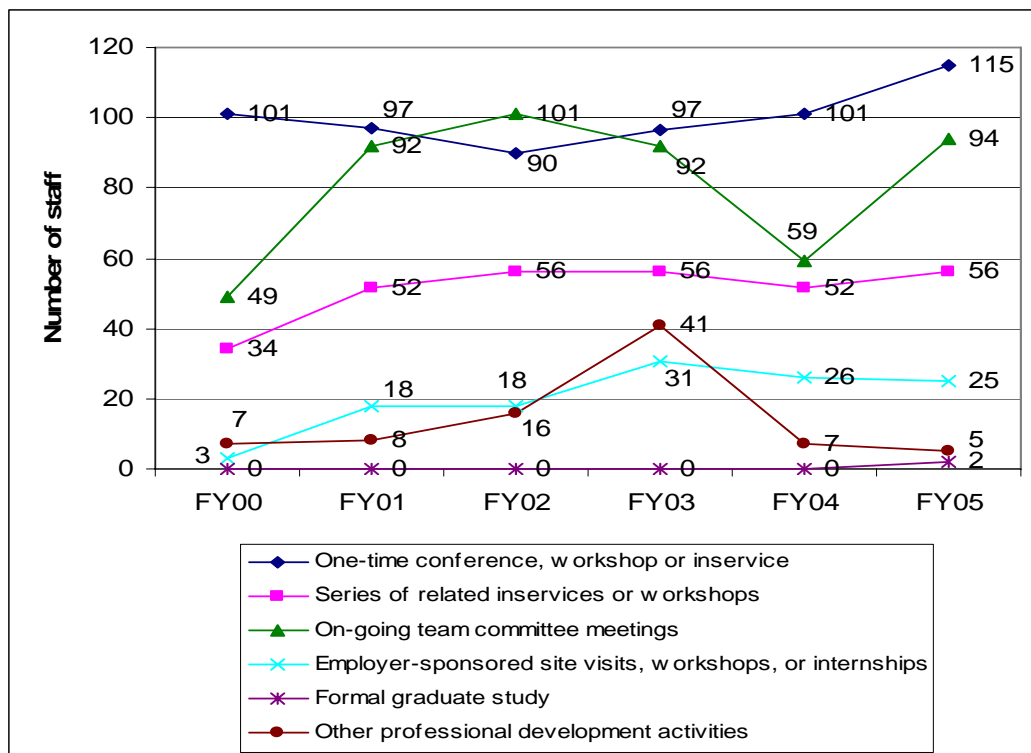


Figure 19. Median number of staff involved in professional activity by type from FY00 to FY05 (37 consortia reporting in FY05).

It is noteworthy that of the 37 consortia that reported data on professional development in FY05, 17 (46%) reported no staff were involved in “employer-sponsored site visits, workshops, or internships associated with Tech Prep other than AIP & VIP,” and 18 (49%) indicated no staff involvement in “other professional development activities associated with Tech Prep.” Moreover, the category of “formal graduate study” showed almost no activity over the 6-year period.

BARRIERS TO TECH PREP IMPLEMENTATION

Local consortium directors were 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). The percentage displayed in Table 2 represent the number of consortia that identified each barrier as “major” or “very major” from FY01 to FY05. Barriers 21-27 were not included after FY04, and barriers 3, 10, and 11 were added in FY04 to represent challenges that may have emerged recently, based on evaluative data collected during site visits to local consortia in the past two years.

In FY05, seven barriers were identified by at least 20% of consortium directors as having major or very major impact on implementation efforts. They include:

- Lack of qualified certified instructors to fill technical teaching jobs in high schools (28%)
- Stereotype about Tech Prep as appropriate for less academically and socially proficient students (28%)
- Lack of understanding of the Tech Prep concept by local educators (23%)
- Lack of acceptance that Tech Prep programs are rigorous academic programs (23%)
- Lack of financial resources for Tech Prep (23%)
- Lack of consistency in identifying Tech Prep students (23%)
- Lack of parental support for Tech Prep (20%)

Five barriers whose impact was reported by consortium leaders to decrease at least 10% from FY01 to FY05 were also identified. They are:

- Lack of substitute teachers to fill in for regular teachers during professional development activities (41% to 18%)
- Little time designated for joint planning by academic and vocational or secondary and postsecondary faculty (46% to 18%)
- Difficulties incorporating curriculum changes into existing programs (20% to 10%)
- Too much paperwork associated with the administration of Tech Prep (41% to 8%).
- Lack of evaluation mechanisms to inform implementation (15% to 5%).

Table 2**Total Percentage of Consortia Identifying Barriers as “Major” or “Very Major” from FY01 to FY05 (40 consortia reporting in FY05)**

| | Barriers | FY01 | FY02 | FY03 | FY04 | FY05 |
|----|---|------|------|------|------|------------|
| 1 | Lack of qualified certified instructors to fill technical teaching jobs in high schools (38/41/41/40/40) | 17% | 17% | 17% | 25% | 28% |
| 2 | Stereotype about Tech Prep as appropriate for less academically and socially proficient students (39/40) | — | — | — | 24% | 28% |
| 3 | Lack of understanding of the Tech Prep concept by local educators (40/39) | — | — | — | 18% | 23% |
| 4 | Lack of acceptance that Tech Prep programs are rigorous academic programs (38/41/41/40/40) | 20% | 17% | 17% | 18% | 23% |
| 5 | Lack of financial resources for Tech Prep (38/41/41/40/40) | 24% | 22% | 20% | 23% | 23% |
| 6 | Lack of consistency in identifying Tech Prep students (38/41/41/40/40) | 22% | 17% | 12% | 26% | 23% |
| 7 | Lack of parental support for Tech Prep (38/41/41/40/40) | 22% | 15% | 20% | 18% | 20% |
| 8 | Lack of substitute teachers to fill in for regular teachers during professional development activities (38/41/41/39/40) | 41% | 29% | 29% | 21% | 18% |
| 9 | Little time designated for joint planning by academic and vocational or secondary and postsecondary faculty (38/41/41/40/40) | 46% | 39% | 32% | 21% | 18% |
| 10 | Lack of passion from personnel other than Tech Prep team members (40/40) | — | — | — | 15% | 18% |
| 11 | Failure of four-year colleges and universities to accept articulated credits, applied academics or other Tech Prep courses (n=38/41/40/40/40) | 15% | 12% | 18% | 13% | 15% |
| 12 | Lack of time dedicated to implement Tech Prep (38/41/41/40/40) | 12% | 17% | 12% | 13% | 15% |
| 13 | Unclear definitions associated with Tech Prep (38/41/41/40/40) | 17% | 10% | 10% | 18% | 13% |
| 14 | Frequent turnover of high school and/or community college personnel associated with Tech Prep (38/41/41/40/40) | 12% | 12% | 12% | 11% | 10% |
| 15 | Lack of interest in Tech Prep among some high schools in the region (38/41/41/40/40) | 12% | 10% | 10% | 13% | 10% |
| 16 | Difficulties incorporating curriculum changes into existing programs (38/41/41/40/40) | 20% | 17% | 10% | 8% | 10% |
| 17 | Lack of authority of local personnel to make changes needed to implement Tech Prep (38/41/41/40/40) | 17% | 12% | 10% | 10% | 10% |
| 18 | Lack of commitment to Tech Prep except for selected teachers and administrators (38/41/41/40/40) | 12% | 10% | 5% | 5% | 8% |
| 19 | Too much paperwork associated with the administration of Tech Prep (38/41/41/40/40) | 41% | 29% | 29% | 5% | 8% |
| 20 | Lack of evaluation mechanisms to inform implementation (38/40/41/39/39) | 15% | 17% | 15% | 6% | 5% |
| 21 | Lack of commitment from community colleges to create articulation agreements (38/41/41) | 5% | 5% | 7% | — | — |
| 22 | Reluctance of business and industry to create work-based learning opportunities for students under 18 (38/41/41) | 5% | 7% | 7% | — | — |
| 23 | Conflict, overlap or gaps between Tech Prep and Education-To-Careers (ETC) (38/41/40) | 12% | 2% | 5% | — | — |
| 24 | Poor access to business/industry worksites for work-based learning (38/41/41) | 5% | 0% | 5% | — | — |
| 25 | Lack of local leadership support for Tech Prep (37/41/41) | 5% | 5% | 2% | — | — |
| 26 | Lack of participation by business and industry representatives on committees (38/40/41) | 3% | 2% | 2% | — | — |
| 27 | Too few students to fill work-based learning slots offered by local businesses (38/41/41) | 2% | 0% | 0% | — | — |

Note. Barriers listed above are in descending order according to the total percentage of “major” and “very major” ratings in FY05.

The numbers following each barrier show the number of consortia reporting barriers between FY01 and FY05.

In FY04, three items were added, and seven were dropped because of consistently low ratings in FY01–FY03.

MAJOR ACCOMPLISHMENTS

Each year, consortia were given the opportunity to share what they believed were their major accomplishments. Consortium directors report a plethora of accomplishments to show for their Tech Prep efforts. Results of this category are difficult to quantify as some directors report all activities as “accomplishments” and others summarize all activities and only submit a few deemed special. Major accomplishments identified by consortium directors in FY05 most often fell under the categories of

- professional development for educators,
- student career development, including career exploration,
- reviewing and updating articulation agreements and Dual Credit programs,
- curriculum development,
- marketing for students and parents,
- collaboration between secondary and post-secondary institutions, and
- partnerships with business and industry and the community.

Professional development and student career development were the most often cited categories of major accomplishments. Professional development activities included training for high school teachers and counselors, and attendance at local, regional, and state meetings. Student career development activities were popular and diversified including career fairs, mock job interviews, job shadowing, work-based learning, internships, workplace ethics curricula and workshops, and invited lectures on various topics. Also mentioned was the use of software including like Key Train and Career Cruising.

There was growth in the development of articulated program sequences from secondary to postsecondary institutions; this growth was possibly related to the growing phenomenon of dual credit. Consortium directors also cited accomplishments in the categories of curriculum development and articulation. Tech Prep faculty and leaders continued to redesign educational materials to include integrated academics, an integral ingredient of Tech Prep education. Also mentioned was increased Tech Prep marketing efforts, including surveying students to understand their experience, upgrading websites, and producing and updating print materials that promote Tech Prep programs of study.

TECHNICAL ASSISTANCE NEEDS

The *Tech Prep Final Report* form asked consortia to “please identify any technical assistance needs you feel would improve the effectiveness of your Tech Prep program.” Again, some directors reported many needs while others reported none. Seven needs were cited most frequently. They are listed below, followed in parentheses by the number of times the need was identified.

- Assistance with development of better marketing plans, activities, materials, and supplies to inspire state universities, policymakers, and high school and community college staff members, as well as motivate students and parents and diminish related stereotype (10).
- Help with identifying and tracking Tech Prep students. Specifically, consortia expressed a need for a statewide identification and tracking system. Related to this, consortia staff wanted clearer definitions related to Tech Prep students, which would ease tracking as well as provide training for consortium personnel on proper identification and tracking practices (7).
- More funding for Tech Prep activities (4).
- Career exploration/guidance/consulting. Students need those valuable opportunities to be exposed to real job world (4).
- Professional development training or workshops for teachers and staff (4).
- More opportunities to learn from peers. Several consortium directors stated they would like to see the state identify “best practices” and distribute information about “model” Tech Prep programs via workshops or electronically (3).

REFERENCES AND RELATED OCCRL REPORTS

- Adelman, C. (2005). *Moving into town – and moving on: The community college in the lives of traditional-age students*. Washington, DC. U.S. Department of Education. Executive summary available at www.ed.gov/rschstat/research/pubs/comcollege/index.htm.
- Barnett, E., Gardner, D., & Bragg, D. (2004). *Dual credit in Illinois: Making it work*. Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign.
- Bragg, D., Deng, C-P., & Kim, J-H. (2002). *The status of Tech Prep consortia In Illinois: Summary results for the FY '01 final Tech Prep reports*. Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign.
- Bragg, D., Deng, C-P., & Kim, J-H. (2003). *The status of Tech Prep consortia In Illinois: Summary results for the FY '02 final Tech Prep reports*. Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign.
- Bragg, D., Kim, J-H., & Kirby, C. (2004). *Trends in Tech Prep Implementation and Student Participation for the State of Illinois for FY03*. Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign.
- Hood, L., Bragg, D., & Barnett, E. (2002). *The status of Illinois' Tech Prep consortia: Summary results for the FY '00 final Tech Prep reports*. Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign.
- Kirby, C., Zhu, R., Hood, L., & Bragg, D. (2005). *Trends in Tech Prep Implementation and Student Participation for the State of Illinois for FY04*. Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign.
- Makela, J. P. (2005, August). *Current practices and policies on dual credit admissions in Illinois' 4-year colleges and universities*. Champaign, IL. Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign.
- National Center for Education Statistics (2004). *Crosscutting statistics: The condition of education 2004* 6, 1 & 2 retrieved January 23rd 2006 from http://nces.ed.gov/programs/quarterly/vol_6/1_2/7_1.asp.

APPENDIX

Table 3.
Frequencies and percentage of high schools that implemented the elements of curriculum reform in 40 consortia

| Constm ID | School count | Figure 10 | | Figure 11 | | Figure 12 | | Figure 13 | | Figure 14 | | Figure 15 | | Figure 16 | | Figure 17 | |
|-----------|--------------|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|
| 1 | 14 | 14 | 100% | 7 | 50% | 4 | 29% | 4 | 29% | 1 | 7% | 4 | 29% | 4 | 29% | 0 | 0% |
| 2 | 24 | 24 | 100% | 18 | 75% | 7 | 29% | 3 | 13% | 2 | 8% | 5 | 21% | 2 | 8% | 1 | 4% |
| 3 | 18 | 18 | 100% | 18 | 100% | 18 | 100% | 18 | 100% | 18 | 100% | 13 | 72% | 18 | 100% | 1 | 6% |
| 4 | 8 | 8 | 100% | 6 | 75% | 6 | 75% | 6 | 75% | 2 | 25% | 6 | 75% | 8 | 100% | 2 | 25% |
| 5 | 12 | 12 | 100% | 8 | 67% | 7 | 58% | 4 | 33% | 5 | 42% | 2 | 17% | 7 | 58% | 3 | 25% |
| 6 | 15 | 15 | 100% | 15 | 100% | 15 | 100% | 15 | 100% | 15 | 100% | 15 | 100% | 15 | 100% | 15 | 100% |
| 7 | 12 | 12 | 100% | 11 | 92% | 10 | 83% | 4 | 33% | 6 | 50% | 4 | 33% | 9 | 75% | 3 | 25% |
| 8 | 26 | 26 | 100% | 26 | 100% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 26 | 100% | 26 | 100% |
| 9 | 7 | 7 | 100% | 6 | 86% | 5 | 71% | 4 | 57% | 2 | 29% | 5 | 71% | 0 | 0% | 2 | 29% |
| 10 | 9 | 9 | 100% | 9 | 100% | 9 | 100% | 9 | 100% | 9 | 100% | 4 | 44% | 9 | 100% | 3 | 33% |
| 11 | 13 | 8 | 62% | 4 | 31% | 9 | 69% | 9 | 69% | 13 | 100% | 2 | 15% | 4 | 31% | 1 | 8% |
| 12 | 12 | 12 | 100% | 0 | 0% | 3 | 25% | 0 | 0% | 5 | 42% | 7 | 58% | 3 | 25% | 2 | 17% |
| 13 | 11 | 11 | 100% | 11 | 100% | 11 | 100% | 11 | 100% | 2 | 18% | 11 | 100% | 11 | 100% | 1 | 9% |
| 14 | 19 | 19 | 100% | 18 | 95% | 15 | 79% | 8 | 42% | 13 | 68% | 9 | 47% | 9 | 47% | 3 | 16% |
| 15 | 7 | 7 | 100% | 7 | 100% | 7 | 100% | 7 | 100% | 4 | 57% | 1 | 14% | 7 | 100% | 0 | 0% |
| 16 | 19 | 19 | 100% | 19 | 100% | 19 | 100% | 19 | 100% | 19 | 100% | 19 | 100% | 19 | 100% | 19 | 100% |
| 17 | 28 | 25 | 89% | 28 | 100% | 17 | 61% | 10 | 36% | 11 | 39% | 12 | 43% | 12 | 43% | 7 | 25% |
| 18 | 13 | 13 | 100% | 12 | 92% | 10 | 77% | 6 | 46% | 9 | 69% | 5 | 38% | 5 | 38% | 2 | 15% |
| 19 | 15 | 15 | 100% | 4 | 27% | 15 | 100% | 15 | 100% | 15 | 100% | 4 | 27% | 15 | 100% | 0 | 0% |
| 20 | 12 | 12 | 100% | 10 | 83% | 8 | 67% | 8 | 67% | 6 | 50% | 7 | 58% | 8 | 67% | 2 | 17% |
| 21 | 13 | 13 | 100% | 13 | 100% | 11 | 85% | 11 | 85% | 9 | 69% | 12 | 92% | 12 | 92% | 3 | 23% |
| 22 | 22 | 22 | 100% | 19 | 86% | 15 | 68% | 11 | 50% | 11 | 50% | 9 | 41% | 17 | 77% | 8 | 36% |
| 23 | 6 | 6 | 100% | 1 | 17% | 2 | 33% | 2 | 33% | 1 | 17% | 0 | 0% | 0 | 0% | 0 | 0% |
| 24 | 10 | 9 | 90% | 3 | 30% | 9 | 90% | 5 | 50% | 10 | 100% | 5 | 50% | 10 | 100% | 2 | 20% |
| 25 | 15 | 15 | 100% | 10 | 67% | 8 | 53% | 8 | 53% | 10 | 67% | 6 | 40% | 11 | 73% | 3 | 20% |
| 26 | 41 | 20 | 49% | 20 | 49% | 20 | 49% | 41 | 100% | 20 | 49% | 41 | 100% | 41 | 100% | 3 | 7% |
| 27 | 2 | 2 | 100% | 2 | 100% | 2 | 100% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| 28 | 13 | 13 | 100% | 1 | 8% | 13 | 100% | 13 | 100% | 6 | 46% | 4 | 31% | 6 | 46% | 1 | 8% |
| 29 | 17 | 17 | 100% | 17 | 100% | 12 | 71% | 10 | 59% | 6 | 35% | 3 | 18% | 4 | 24% | 0 | 0% |
| 30 | 11 | 11 | 100% | 11 | 100% | 10 | 91% | 6 | 55% | 5 | 45% | 4 | 36% | 11 | 100% | 0 | 0% |
| 31 | 12 | 9 | 75% | 2 | 17% | 10 | 83% | 10 | 83% | 1 | 8% | 12 | 100% | 12 | 100% | 2 | 17% |
| 32 | 14 | 14 | 100% | 12 | 86% | 13 | 93% | 7 | 50% | 5 | 36% | 7 | 50% | 8 | 57% | 2 | 14% |
| 33 | 9 | 9 | 100% | 9 | 100% | 9 | 100% | 9 | 100% | 9 | 100% | 9 | 100% | 9 | 100% | 9 | 100% |
| 34 | 9 | 9 | 100% | 6 | 67% | 9 | 100% | 4 | 44% | 0 | 0% | 2 | 22% | 9 | 100% | 0 | 0% |
| 35 | 16 | 16 | 100% | 16 | 100% | 16 | 100% | 11 | 69% | 14 | 88% | 16 | 100% | 11 | 69% | 2 | 13% |
| 36 | 7 | 7 | 100% | 6 | 86% | 4 | 57% | 3 | 43% | 4 | 57% | 4 | 57% | 5 | 71% | 2 | 29% |
| 37 | 5 | 5 | 100% | 5 | 100% | 0 | 0% | 0 | 0% | 1 | 20% | 3 | 60% | 0 | 0% | 0 | 0% |
| 38 | 12 | 12 | 100% | 9 | 75% | 6 | 50% | 3 | 25% | 7 | 58% | 7 | 58% | 1 | 8% | 1 | 8% |
| 39 | 3 | 3 | 100% | 3 | 100% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 33% | 1 | 33% |
| 40 | 2 | 2 | 100% | 2 | 100% | 2 | 100% | 2 | 100% | 2 | 100% | 2 | 100% | 2 | 100% | 2 | 100% |
| Mean | | | 97% | | 76% | | 71% | | 57% | | 51% | | 50% | | 64% | | 25% |
| Median | | | 100% | | 89% | | 78% | | 54% | | 49% | | 46% | | 72% | | 16% |

Note: Figure 10 reform is supplementing existing vocational technical courses with academic content
 Figure 11 reform is supplementing existing academic courses with vocational-technical content
 Figure 12 reform is adding applied curriculum to the existing curriculum
 Figure 13 reform is replacing parts of the existing curriculum with applied academic courses
 Figure 14 reform is coordinating academic and vocational-technical courses by sequencing and reinforcing related content,
 Figure 15 reform is providing interdisciplinary courses combining vocational-technical content and academic content
 Figure 16 reform is organizing academic and vocational-technical courses around occupational/career clusters