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TO OUR READERS

This issue of *Update* concentrates on new research and policy initiatives at community colleges in Illinois and around the world. Steven Aragon and Frankie Laanan discuss the UIUC's Community College Leadership focus on executive and instructional leadership in the context of the on-going drive to place student learning at center stage at community colleges. An important aspect of this program is the proposed sequence of online professional development courses. F. King Alexander writes about the emerging global role of American community colleges. As people around the world turn increasingly to higher education, nations find themselves in need of new strategies for accommodating this growing concern. Alexander's report of a recent round table discussion at Oxford University details some of the issues facing community colleges globally. Maxine Russman writes about the Workforce Investment Act and its implications for community colleges in Illinois. She concludes that community colleges will need to increase their commitment to local workforce development systems and policies. Donna Dare offers new findings of the NCRVE Tech Prep evaluation of implementation and student outcomes. She highlights findings from four of the eight consortia studied, which suggest, among other things, that Tech Prep students in most consortia are as likely to continue on to postsecondary education as non-Tech Prep students. The study will continue into the new millenium. Jackie L. Davis examines the "paradox" of developmental education at community colleges, which is that supporting developmental education is part of achieving the community college mission, but these programs do not receive sufficient funding.

See OCCRL's website at **http://hre.ed.uiuc.edu/occrl** for previous issues and other resources.

OCCRL was established in 1989 at the UIUC. *Our mission is to provide research, leadership, and service to community college leaders and assist in improving the quality of vocational-technical education in the Illinois community college system.* The Office is supported by the Illinois State Board of Education, Business, Community and Family Partnerships Center, with funding from the Carl D. Perkins Vocational and Applied Technology Education Act of 1990.

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Community College Teaching and Learning Online

by Steven R. Aragon and Frankie Santos Laanan, UIUC

Many current full-time community college faculty were hired in the 1960s when most community colleges first began, and now a large number of these faculty are retiring in Illinois and across the nation. This trend is resulting in a high faculty turnover rate and the need for community colleges to recruit new faculty to keep pace with changing student populations. In the 1960s most community college teachers were drawn from local secondary schools where teacher-education programs and classroom experience prevailed. Today, community college faculty come from a variety of arenas, often directly from graduate school or business/industry positions, neither of which provide substantial teaching opportunities. For most, the typical preparation has been the attainment of a master's degree in a traditional academic field (Cohen & Brawer, 1996). Even though community colleges have been able to capitalize on the up-to-date knowledge new faculty bring to bear on the college curricula, teaching expertise has not been emphasized among graduate-trained faculty. If faculty cannot communicate their subject matter adequately, however, students may not benefit which, in turn, suggests the value of professional development activities for these new faculty members.

Because community colleges—unlike four-year colleges and universities that emphasize a tripartite mission of teaching, research and service—have focused exclusively on teaching as a predominant goal. Leaders of the community college movement have proclaimed community colleges as "teaching colleges," attempting to avoid the sharp criticism directed at other higher education institutions for maximizing research at the expense of good teaching, particularly for undergraduate students.

The New Paradigm: Learning Colleges

In recent years, questions about the quality of community college teaching, coupled with the quality of student learning, have been raised out of concerns about student retention, academic performance and workplace competence. Such concerns influenced Boggs (1995-96) to place *learning* rather than teaching at center stage: "The new paradigm says that community colleges are learning, not teaching institutions. The mission is student learning. The most important people in the institution are the learners. Everyone else is there to facilitate and support student learning" (p. 2). O'Banion (1997) and others have supported this perspective, shifting debate in the field from what constitutes good teaching to what enhances active learning linked to positive student outcomes.

Advocating the notion of community colleges as "learning colleges," O'Banion (1997) has postulated the following objectives for enhancing student learning:

- Learners should be considered full partners in the learning process;
- Learners should have primary responsibility for choosing a learning option;
- Collaborative learning activities should be more prevalent;
- Teachers should be redefined as learning facilitators;
- Learning outcomes should be documented more fully.

To achieve these objectives, O'Banion recommends that community college faculty incorporate more constructivist, integrated and learner-centered instructional strategies into their teaching, including learning styles, multiple intelligences, and brain-based research. He also advocates that community colleges adopt educational technologies at a much more rapid pace and utilize individual and institutional assessments in a much more sophisticated way.

With the dramatic changes occurring in the community college student population, and current and future developments in instructional theory and technologies, community college faculty need to develop and sustain knowledge and skills in current teaching practices that facilitate successful learning among students. Experienced faculty already employed by community colleges also need to keep pace with recent pedagogical and technological innovations.

Current efforts to provide professional development for faculty are often disjointed and ineffective because of the difficulties of keeping pace with technological developments, complicated further by limited resources and the difficulty of managing part-time faculty. The current needs and trends outlined here call for new leadership and the Community College Learning Program at UIUC hopes to play a larger role in addressing these concerns.

Community College Leadership Specializations at UIUC

The Community College Leadership (CCL) Program in the Department of Human Resource Education (HRE) at UIUC is organized into two areas of specialization: the Community College Executive Leadership Program (CCELP) and the Community College Instructional Leadership Program (CCILP) (see Figure 1).

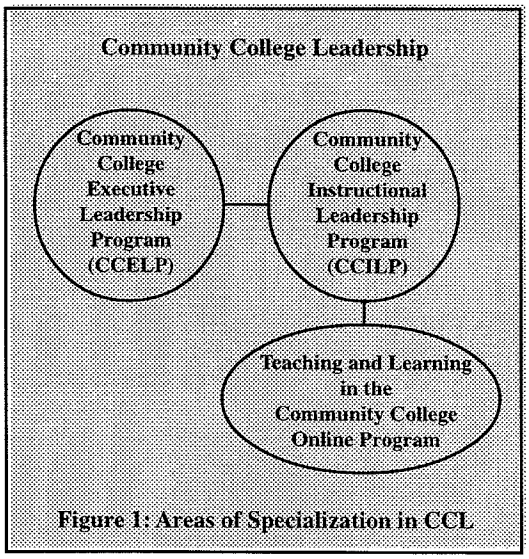

Figure 1: Areas of Specialization in CCL

The CCELP is an executive doctoral program for aspiring community college Presidents, Vice Presidents, Deans and other college personnel. The first cohort of the CCELP began in summer 1998 and is jointly sponsored by the Department of Educational Organization and Leadership and the Department of Human Resource Education. The program results in the degree of Doctor of Education (Ed.D.). For students who wish to commit to full-time study, a research-oriented Doctor of Philosophy (Ph.D.) option is available.

The Community College Instructional Leadership Program (CCILP) is a graduate program (master's and doctoral level) for current and prospective community college administrators and faculty. The primary focus is teaching and learning in the community college. The overall focus of the program is to examine how the curriculum, use of technology, pedagogical techniques and diverse learners impact teaching and learning in the community college, and to prepare practitioners to fulfil current and emerging roles linked to community college teaching and learning. The goals of the CCILP include the following:

- Prepare prospective and experienced community college faculty to be master teachers and skilled administratos who will transform community college teaching and learning;
- Provide an avenue for lifelong learning among community college professionals;
- Link CCILP with other professional development providers within the institution, with other colleges, and with ICCB;
- Familiarize community college faculty (administrators and other college personnel) with measurement and evaluation strategies used in community colleges.

Community College Teaching and Learning Online

A significant aspect of the new graduate curriculum in Community College Leadership is an online sequence of professional development courses to support excellence in community teaching and learning. This program is known as "Teaching and Learning in the Community College" (CCTL Online). The potential of the Worldwide Web to provide professional development opportunities for community college faculty is tremendous. The sequence of online courses is designed to build capacity and excellence in community college instruction by addressing the following goal:

To increase the capability of community college faculty to design and implement quality instruction using innovations such as peer-based collaboration, active learning strategies, and contemporary instructional technologies within the community college system of the state of Illinois and the nation.

This new online curriculum will be launched Fall 2000 by UIUC and will consist of 16 credit hours to be completed during one calendar year. All courses can be applied to a graduate degree in a community college leadership specialization at UIUC once standard admissions requirements are met. The new course sequence will consist of the following online courses:

- Foundations of the Community College (2 credit hours)
- The Diverse Learner (2 credit hours)
- Developing and Delivering Instruction in the Community College (4 credit hours)
- Instructional Technology in the Community College (4 credit hours)
- Linking Outcomes Assessment to Institutional Performance (4 credit hours)

When fully implemented, this sequence of courses will provide faculty with a foundation of instructional theories, skills, and practices to support existing professional development efforts in Illinois community colleges. We expect this to provide a cost-effective professional development model that will be accessible to all faculty in Illinois community colleges, irrespective of field of specialization or location. Students who complete the entire course sequence will receive a professional development certificate from UIUC.

Curriculum Meeting at UIUC

The HRE Department recently held a series of discussions with the presidents, vice presidents, deans, faculty, and students of several Illinois community colleges, including Parkland College, John A. Logan College, Illinois Valley Community College, McHenry County College, Harry S Truman College, Prairie State College, and Danville Area Community College, as well as representatives from the Illinois Community College Faculty Association and Illinois Community College Board. These participants identified professional development of faculty as a critical need facing the community colleges of Illinois, and they expressed their support for the proposed Community College Teaching and Learning Online Program.

On September 30, 1999 the HRE Department hosted the Community College Leadership (CCL) Curriculum Meeting at UIUC, in order to solicit feedback and input from community college leaders regarding two community college initiatives currently being developed: a) online professional development certificate; and b) instructional leadership.

Four principal themes emerged from this meeting. First, college administration, faculty, and staff need to know the importance of excellence in teaching and learning, and how it is defined and measured. A second issue pertained to the need for understanding the historical and philosophical trends of the community college and its place within the K-16 "system." In particular, several participants underscored the importance of understanding the student base and the impact on teaching and learning such an understanding can have. Third, the issue of outcomes assessment pertaining to faculty was raised. Because community colleges are bombarded with accountability mandates, the role of faculty and assessment of student learning has taken center stage. And finally, the online professional development certificate program received attention. In order to attract prospective faculty to participate, it is important to focus on community college supervisors and administrators in academic affairs. ◆

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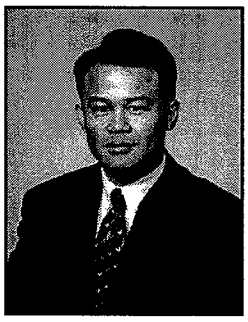

Frankie Santos Laanan is an Assistant Professor in the department of Human Resource Education at UIUC. He specializes in Community College Leadership. His research focuses on teaching and learning, post-secondary education, and college student development.

CCL Students Win Fellowships at UIUC

Congratulations goes to the following Community College Leadership students who were recognized for their academic excellence at a recent College of Education Annual Student Recognition Banquet at UIUC.

- **Jackie L. Davis** received the Community College Leadership Award. Mr. Davis holds a bachelor's degree in Liberal Studies from the SUNY at Albany, a master's degree in Postsecondary Education from the University of Southern California, and a master's degree from the George Peabody College of Vanderbilt University.
- **Penny McConnell** received the Carl W. Knox Award. Ms. McConnell received her bachelor's degree in German Language and Literature and a master's degree in U.S. History from Southern Illinois University.
- **Jung-sup Yoo** received a William Chandler Bagley Fellowship. Mr. Yoo received a bachelor's degree in German Language Education from Seoul National University and a master's degree in Human Resource Education from the University of Illinois at Urbana Champaign.
- **Eboni Zamani** received a William Chandler Bagley Fellowship. Ms. Zamani received a bachelor's degree in Psychology and a master's degree in General Experimental Psychology from Western Illinois University.

International Perspectives on the Emerging Global Role of the American Community College

by F. King Alexander, UIUC

A select group of higher education leaders, including community college presidents, from the United States and England gathered on the campus of Pembroke College at Oxford University to discuss issues facing higher education. The six-day forum focused on effective leadership strategies, government fiscal and accountability policies, and global collaborative opportunities in community college education. Four crucial issues emerged during the deliberations that are worth further discussion: (1) the internationalization of community college education; (2) student tuition and fee policies; (3) assessing institutional performance; and (4) expanding the community college academic mission.

Internationalization of Community College Education

Since the mid-1980s many post-industrialized nations have demanded that higher education systems become more accessible and egalitarian, resulting in increased enrollments throughout the world. A recent UNESCO report states that higher education enrollments have expanded by 61% worldwide since 1980 and continue to increase by 3.2% annually, leading many to question the effectiveness of higher education institutions. One consequence of this international trend is that numerous ministries of education have begun to examine the U.S. community and technical college systems as alternative systemic approaches to providing increased student access and greater industrial collaboration. For U.S. community college leaders, this means that opportunities for international collaboration between institutions will continue to expand.

Student Tuition and Fee Policies

Tuition and fee policies remain at the center of intense debate throughout the world. With the recent implementation of student fees in Great Britain and the cost escalation of college attendance for U.S. students, governments face increasing political and economic pressure to identify appropriate tuition and fee levels. This is particularly true for nations seeking to infuse higher education systems with additional revenues in order to compensate for enrollment increases.

For U.S. community college leaders, however, the issue of rising tuition and fees is more complex. Since the mid-1960s the federal government has encouraged institutions to increase their reliance on student revenues through direct student aid programs designed to provide economic incentives for students who *do not* enroll in lower-cost institutions. After three decades of growth, direct student aid programs have become the fulcrum of federal involvement in undergraduate education constituting over $50 billion in tuition-based assistance to students. For lower-cost institutions like community colleges, however, these programs disadvantage their students when compared to more tuition-reliant colleges and universities. This fact raised serious questions among community college leaders at the Oxford Round Table about the role of the federal government in supporting community college education.

Monitoring Institutional Performance

Monitoring and assessing institutional performance is an issue of international significance. National governments in Great Britain, Canada, and Australia are seeking ways to determine and compare the effectiveness of individual institutions. Provincial governments in Ontario and Alberta have incorporated performance-based requirements into funding formulas for higher education. Over twenty-five states now use performance-based assessments to allocate resources to higher education institutions in the United States. The discussion at Oxford proved useful for many participants struggling to identify appropriate indicators of collegiate success or failure. If government policies in the next decade reflect the policy directives established in the 1990s, then community college leaders need to acquire substantial experience in determining institutional effectiveness and translating this information to policy-makers and students.

Expanding the Community College Mission

Should community colleges offer baccalaureate degrees? Community college leaders from Florida and Arizona argued for expanding the educational missions of community colleges to include specific baccalaureate degrees. However, others argued that the community college mission should not be changed to incorporate academic degrees beyond the associate of arts degree. During the forum, proponents of expanding the community college mission cite the recent British transformation of 50 polytechnic colleges to university status as evidence of the potential changes national higher education systems have undertaken. They believe that this issue may become one of the most important challenges facing community college leaders in the United States during the next decade.

The Oxford Round Table on Community College Leadership identified some of the perpetual and emerging challenges facing community college leaders today. Taken in their most comprehensive context, the various papers reflect a broad-based international dimension to community college development and expansion. The papers also confirm that the universality of higher education will most likely depend on the success or failure of the great community college experiment. ◆

F. King Alexander is an Assistant Professor of Higher Education and Program Coordinator at the University of Illinois at Urbana-Champaign. His research primarily focuses on higher education finance, economics, and public policy.

Workforce Development Reform in Illinois: Implications for Community Colleges

by Maxine Russman, Black Hawk College

In the spring, 1999, edition of the UPDATE newsletter, Maxine Russman reviewed the NCRVE study of ten states leading the nation in implementing state-level workforce development reform. In this article, reform initiatives in the state of Illinois are addressed and, in particularly, how they may impact community colleges.

Over the past three decades, a complex "system" of workforce development has evolved, through federal legislation and much variance among states' responses, to include job training programs, customized training, postsecondary vocational education, and adult education. Because these programs developed in largely unplanned and uncoordinated ways, the boundaries of a workforce development system are unclear. W. Norton Grubb, et al., (1998) studied ten states that began reforms long before the passing of the recent Workforce Investment Act (WIA). The results, described in *Toward Order from Chaos: State Efforts to Reform Workforce Development Systems*, demonstrated a dominant strategy used by many states that follows three different forms: 1) a state agency or office is created; 2) local or regional counterparts are established; or 3) establishing a single point of entry to the state's system.

The Workforce Investment Act (WIA) of 1998 requires all states to develop more coherent workforce development systems. In response to this mandate, the State of Illinois is considering a reorganization of its structure of workforce development. The plan includes identifying a consulting firm to create an overarching workforce development agency, commonly referred to as a "super agency." It is uncertain if this super agency will be independent from or linked to currently existing state agencies such as the Illinois Department of Employment Security (IDES) or the Department of Commerce and Community Affairs (DCCA). The super agency is anticipated to take staff responsibilities for a state workforce development board.

In addition to this super agency, under WIA the Illinois Workforce Investment Board (IWIB), formerly the Human Resource Investment Council, will be advisory to the Governor with responsibilities for planning and oversight. The extent of IWIB's authority over particular programs and allocation of funds is still undetermined. Illinois is adopting a "zipper" strategy (Grubb et al.) by which the state will not take funds from existing state agencies. Instead, agencies are encouraged to collaborate at the state and local levels, and a number of state interagency task force groups have been formed to plan and implement WIA strategies.

Local Workforce Investment Boards (WIBs) are currently in the process of nomination, and will include memberships ranging in number from thirty-eight to fifty-plus members, 51% of which must be comprised of private sector representatives. Educational representatives will include two required community college seats: a community college president and a Perkins postsecondary program representative, and an adult education representative. The WIBs will be responsible for carrying out policy and developing a workforce development "system" at the local level. The ability of local WIBs to achieve "seamlessness" among programs will depend on the responsibilities and authority given to them by state policy in a state dominated by strong state agencies.

Under WIA a higher level of service coordination is encouraged, in addition to providing information and advice. WIA mandates a one-stop delivery system as a single point of entry for the workforce development system. Since 1995, Illinois has established 56 One-Stops throughout the state, providing information and advice, most of which include Employment Security and JTPA staffs. A higher level of "service coordination" will be encouraged under WIA.

What are the implications of the Workforce Investment Act for community colleges?

Community colleges need to have a communication link to state agencies involved in the development of the state structure. Given their key role in job training programs, customized training, postsecondary vocational education, and adult education, community colleges needs to take a lead in creating a vision for a local workforce development system. Internal, cross-functional teams representing these components can provide insights about the community colleges' contributions to economic development in the community for the College president and Perkins representative serving on the WIB.

Community colleges will need to consider their level of commitment as partners in the one-stop delivery system. This may range from making provisions for providing core services, access to intensive and training services, to leveraging funds for the operation of the center. WIA is an opportunity for community colleges to build collaborative relationships among one-stop partners. Very likely, some may be new partners engaged for the first time in workforce and economic development as a community-wide problem-solving collaboration. As the structure of local and state efforts moves toward greater coordination, community colleges will need to determine for themselves appropriate roles in the process. ◆

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Maxine Russman has been involved in workforce development and education for fifteen years. She is currently a program coordinator at Black Hawk College in Moline, Illinois. Maxine is a doctoral student specializing in Community College Leadership at the University of Illinois at Urbana-Champaign.

Illinois Community Colleges Target Technician Shortage

by Gary Morgan, Richland Community College

Skilled trade technicians are in short supply in the United States and Illinois resulting in a serious shortage of qualified employees for today's high-paying, highly challenging careers. Caterpillar Training Institute in Peoria, Caterpillar in Decatur, Firestone, PPG, Zexel, Mueller, ADM, and other Decatur- and Peoria-based companies, have been working with Richland Community College in Decatur and Illinois Central College in Peoria to develop programs that prepare individuals to perform mechanical maintenance operations on high-tech manufacturing equipment; industrial electricians/technicians that work on automated machines; and toolmakers that make the tooling that manufactures the product. These careers are challenging, hands-on careers that require critical thinking, flexibility, and interpersonal and communication skills. With a large percentage of employees eligible for retirement and a technology revolution occurring inside today's plants, Caterpillar and others are actively seeking to fill skilled trades positions. Local companies have had to recruit outside of Illinois in an attempt to find qualified workers.

Caterpillar, Inc., was awarded the 1999 ICCTA (Illinois Community College Trustee Association) Business/Industry Partnership Award on June 18, 1999 in Lincolnshire Illinois.

The curriculum being developed to address this shortage is a 2+2+2 program with two years at the high school level; two years at the community college; and two years of internships on the job. Before students are accepted into the program at the high school level they must complete certain levels of math, science, English, and general education classes during their freshman and sophomore years. The students apply to the program during their sophomore year in high school. The selection process includes tests and interviews that measure behavioral attributes and academic aptitudes. Upon acceptance, students are required to take certain levels of math, English, and general education classes during their junior and senior years of high school. They also take 400 hours of a technical concentration consisting of design and manufacturing processes, quality assurance, automated material handling, fluid power, and electrical systems. The curriculum includes job shadowing and a required internship experience at the high school level.

Students are paid for their internship work, including a percentage of the compensation that is held in escrow for use as a scholarship toward community college tuition. At either Richland or Illinois Central College, students enter a two-year program, with up to 13 articulated credit hours focusing on Industrial Electrical Technology, Industrial Maintenance Technology, or Industrial Toolmaker Technology. Each program consists of industry-related classroom work and a required internship. Before entering the remaining two years of employment at Caterpillar, students must complete an apprentice selection process, which tests for behaviors, knowledge, and competencies.

With Caterpillar's leadership and expertise in the manufacturing industry Richland College and Illinois Central College were able to bring industries together to address a common concern. This partnership has resulted in the development of AAS degrees in Mechanical and Electrical Technology and a fully equipped laboratory.

In today's rapidly changing marketplace, this partnership will allow Caterpillar and others to more accurately predict workforce needs. In the past, four-year apprenticeship programs often created a shortage or surplus of skilled trades employees. A shortage of employees results in decreased productivity and higher costs, which hurts the company; a surplus of skilled trades employees results in layoffs, which hurts employees. The partnership has developed a "just-in-time" approach to addressing workforce needs.

A well-trained workforce is essential to the retention of the existing workforce and attracting new manufacturers to the area. The overall community training cost will be reduced by combining several company training programs into a cost effective public training system. By moving this training from an in-house, on-the-job company training program to the community college, companies will see substantial cost savings. The time it takes to educate and train a journeyman will be reduced from four years to less than two years.

The first graduating class is expected in the Spring of 2000. At this time students will be ready to enter Caterpillar, or positions at other partnering industries. This partnership is truly an example of how industry and the community colleges can work together and combine their strengths to address workforce needs. Neither one has the expertise or understanding to do it alone. It must be done in a partnership. ◆

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Highlights of a National Evaluation of Tech Prep Student Outcomes

by Donna E. Dare, UIUC

In January 1998 under the auspices of the National Center for Research in Vocational Education (NCRVE), Debra Bragg (UIUC) and Carolyn Dornsife (UCB) began a national research study on Tech Prep implementation and student outcomes. A panel of national experts identified six consortia as mature implementers of Tech Prep and these consortia became the initial sites for the national evaluation. The study examined a range of Tech Prep models and approaches in urban, suburban, and rural locations in the United States. Two additional consortia were selected for the study near the end of 1998.

The purpose of the evaluation was to describe local Tech Prep systems, compare the post-high school education and economic outcomes of Tech Prep students and non-Tech Prep students, and provide in-depth understanding of how students transition from high school to college and/or work. In order to describe the nature of students' Tech Prep experiences and to identify their outcomes, the NCRVE research team employed a mixed method approach, including a follow-up survey of Tech Prep and non-Tech Prep students and an analysis of secondary and postsecondary transcripts for students in both groups. Approximately 4,700 students were selected across all eight consortia, with roughly equivalent numbers of Tech Prep and non-Tech Prep students in each. The sample was comprised of students who graduated from high school between 1995 and 1998, with most sites providing data on 1996 and 1997 cohorts, fewer on the 1995 cohort, and only one site (the last site added to the study) on a 1998 cohort. The response rate for the survey was approximately 50% overall, and over 90% of the high school transcripts were acquired. In addition, 1,868 community college transcripts were obtained for students who matriculated to the main community college(s) in each consortium.

Background on Tech Prep

Though Tech Prep was launched well over a decade ago, it was not until passage of the Tech Prep Education Act, as part of the Carl D. Perkins Vocational and Applied Technology Act of 1990, that Tech Prep received national attention. Beginning in 1991 or 1992, federal grants for Tech Prep planning and implementation encouraged the establishment of core secondary and postsecondary curricula, both academic and vocational. Though relatively small in scale, these grants signaled the importance of restructuring academic and vocational curricula, at both the secondary and postsecondary levels around something called Tech Prep.

Despite concerns about how Tech Prep fits with other school reforms and about the goals of the initiative, Tech Prep has proliferated. By the fall of 1995, Tech Prep was offered in well over half of the comprehensive high schools and the vast majority of community colleges in the United States. As Tech Prep implementation progressed, a wider net has been cast for local partners; more high schools, two-year colleges, businesses, and community-based organizations are now engaged. A more diversified approach to financing Tech Prep is also evident, including more state and local funds, although federal funds continue to be the mainstay of local Tech Prep programs. Support for Tech Prep is strong among stakeholders who are integral to its long-term sustainability: state agency personnel, local secondary and two-year college administrators, business/industry representatives, vocational faculty, and students. Finally, local leaders depict Tech Prep as a foundation for newer School-To-Work (STW) partnerships, and there are positive signs of collaboration between Tech Prep and STW. Increasing numbers of business/education partnerships and growth in the use of work-based learning are important signs of how Tech Prep is evolving.

Results of the NCRVE Evaluation

Four of the eight Tech Prep consortia included in the study and their respective approaches to Tech Prep are presented here. In December 1999, a technical report will be published by NCRVE, which will include case studies of all eight sites, along with preliminary student results for each site. In all of our writing, pseudonyms are used to present results for each consortium.

Sunland Tech Prep Consortium covers a large county in a southern state and consists of urban, suburban, and rural high schools and a large community college with four campuses. The primary goals of the Sunland Tech Prep initiative are to create educational opportunities for the neglected majority, provide students with multiple options beyond high school, enhance workforce preparation, and increase relationships with business partners without overtaxing relations. The STW initiative has its own stated goals that compliment Tech Prep of raising academic standards, reducing the dropout rate, improving career opportunities for all students, and achieving a more highly skilled workforce.

This consortium defines a Tech Prep student as any student at grade level by eleventh grade who has completed at least one technical course in an articulated program of study and two courses each of English, science, mathematics at specified levels identified by the state. A Tech Prep course of study consists of an articulated sequence of technical courses taken during the final two years of high school and the two years of postsecondary education (2+2) leading to an Associate of Science degree. However, because Tech Prep students are identified at the ninth grade level and are required to complete certain levels of courses in order to enroll in Tech Prep programs of study at the eleventh grade level, the Tech Prep approach for

Sunland is considered to be a 4+2 (6-year) articulated program (with some 4+2+2 programs available). The sequences within these programs include dual enrollment, time-shortened courses and articulation of technical courses. The Tech Prep initiative can be considered a vocational Tech Prep initiative, but a college prep option is also associated with Tech Prep, with a foreign language requirement and no courses with the prefix "consumer" or "business" being accepted as part of the sequence. The academy model has been used as one means of supporting Tech Prep programs of study since the early years of Tech Prep implementation in this region.

In the Sunland consortium, equal percentages of Tech Prep and non-Tech Prep groups (36% each) attended two-year colleges. Fewer Tech Prep (18%) than non-Tech Prep students (35%) transitioned to a four-year university. In addition, small percentages of both groups (2% Tech Prep and 10% non-Tech Prep) had attended both two- and four-year institutions. In this region, nearly 30% of the Tech Prep group had not enrolled in any postsecondary education, compared to only 15% of the non-Tech Prep group.

Workforce Development Consortium is comprised of one community college and a recently combined school district that includes 14 high schools and a state-of-the art area vocational school. The stated goal of this Tech Prep consortium is to prepare students to live and work in a highly technological society. Serving both a large city in the Southeast and many surrounding rural areas, the Tech Prep consortium has focused on moving students beyond high school to postsecondary education and replacing the general track as a means of supporting regional economic development efforts and increasing academic rigor for all students.

All students are targeted for this Tech Prep initiative, because the local perception is that all students need both the strong academic foundation and the technical skills to be successful in today's world. Thus, all students are encouraged to design their course of study based on the recommended courses for a career path that would lead to a chosen career. The core academic degree requirements are similar to College Prep, except that a Tech Prep course of study requires students to complete four sequenced technical courses as electives. Ten different career pathways are available that connect to a wide spectrum of postsecondary career opportunities.

The site uses advanced standing credit and concurrent enrollment as the primary approaches to articulation. The site also supports a strong youth apprenticeship program that has been replicated by other sites across the country. Currently, there are 11 youth apprenticeship programs incorporated into the College Tech Prep curriculum. Each apprenticeship is based on the same core components of two years of technical coursework in high school followed by a two-year AAS program at a community college (often with a scholarship), combined with paid work experience with a sponsoring business. Each apprenticeship is registered with the state Department of Labor with specific standards and minimum qualifications outlined for a 2+2 program.

An emphasis on college preparation could be a factor in supporting transition to postsecondary education for students in this consortium. Approximately half of the students in both the Tech Prep and non-Tech Prep groups (48% and 55%, respectively) attended a four-year college or university one or two years after high school graduation, with 5% more having attended both a two-year and a four-year institution. Youth apprentices transitioned to four-year institutions at a slightly lower rate (44%) than the other two groups. However, youth apprentices (39%) and Tech Prep participants (31%) were much more likely to attend the local community college then non-Tech Prep students (17%). Slightly higher percentages of non-Tech Prep students (17%) indicated they had not enrolled in any postsecondary education of any kind than youth apprentices and Tech Prep students (13% each).

Southern Tech Prep Partnership includes 17 public school districts with a total of 18 high schools, along with a community college and a regional career center. An upper-division campus of a state university also shares the campus of the community college that is the lead agency for the partnership. Fifteen AAS degree programs are approved as Tech Prep and a number of these are supplemented by bachelors' degrees offered at state universities, including the one on the local community college campus.

The Southern Tech Prep Partnership has as its goal to prepare all youth for rewarding careers in a quality workforce. A Tech Prep student in this consortium (and state) is defined as a student in grades 9-12 who follows an approved Tech Prep high school plan of study leading to postsecondary education and training and is enrolled in courses appropriate to that plan. A postsecondary Tech Prep student is one who declares a major leading to an AAS degree that is state-approved as Tech Prep.

The primary articulation approach for Tech Prep programs is based on the 4+2 model, consisting of a high school core curriculum of grade-level or above academic courses, combined with a coherent sequence of career and technology courses of at least three and one-half credits, in addition to the AAS degree curriculum at the postsecondary level. Tech Prep occupations have been targeted by a regional quality workforce committee for the region, indicating they meet a higher standard of skill level and higher wages.

Some 4+2+2 programs have also been developed for this consortium. Dual credit, with enhanced or advanced skills curriculum, is applied for students in articulated courses, and most agreements are course-to-course articulation of technical courses. It is possible for students to earn up to 15 articulated credit hours within 24 months of study.

In this consortium, more Tech Prep students (43%) than non-Tech Prep students (37%) enrolled in two-year colleges within one to three years after high school graduation. Almost equal percentages of both groups had enrolled in both two- and four-year colleges and universities (16% Tech Prep and 18% non-Tech Prep) or in only four-year universities (17%). Slightly less than 20% of both groups had gone directly to work and not enrolled in any postsecondary education at all.

Pacific Tech Prep Consortium covers a region that is predominantly suburban, with pockets of urban populations scattered across the northern and southern parts of the county. Nineteen high schools feed into three different community colleges, all of which are part of a single community college district. The pri-

mary goal of Tech Prep at this consortium is to move students toward high-skill, high-wage careers using articulated vocational courses associated with 2+2 articulated career pathways identified as part of the state's School to Careers initiative. Dual credit and advanced placement are featured. Career academies are used in several high schools in the consortium; but, for the most part, the initiative emphasizes a vocational Tech Prep approach within a region whose high schools continue to emphasize transition to four-year universities.

Tech Prep students are identified by this site when they have completed an articulated vocational course in high school that is part of a Tech Prep program of study. Thus, the articulation component is the driving feature of this consortium. A Tech Prep course of study includes a sequence of related courses within a specific technical area such as Business and Accounting,; Fashion Merchandising; Hospitality, Automotive Technology, CAD, Electronics, Computer Technology; Early Childhood Education, and Travel.

Students from the Pacific Consortium show a very high rate of enrollment in postsecondary education, as indicated by the fact that only 6% of both the Tech Prep and non-Tech Prep students did not transition to some form of postsecondary education within one to three years of high school graduation. Approximately one-half of the students in both groups went to two-year colleges. Interestingly, the Tech Prep students entered two-year colleges and four-year universities at a slightly higher rate than their non-Tech Prep counterparts.

Future of the Study

Research is currently underway at UIUC to analyze more findings from the national evaluation of Tech Prep implementation and student outcome, which will pave the way for preparation and distribution of a policy brief to be available soon. Through this analysis, we hope to better understand the role Tech Prep plays in the school-to-college and STW transition process, and to use these results to improve future policy and practice in the United States. ◆

Donna Dare is completing her doctoral studies at UIUC. She currently holds the position of Visiting Research Information Specialist in the Department of Human Resources Education. Her research efforts during the past two years have been focused on a national evaluation of Tech Prep conducted under the auspices of NCRVE.

Tech Prep Evaluation for Illinois Pilot Project: Kick-Off Meeting October 4-5, 1999

by William Reger IV

The Tech Prep Evaluation System for Illinois (TPESI) Pilot Project held its kick-off workshop on October 4-5, 1999, in Champaign, Illinois. The pilot project will involve four Tech Prep consortia from around the state: College of DuPage, Rock Valley College, Illinois Central Community College, and Kaskaskia College. The workshop was an opportunity for evaluation teams from three sites identified by that time to meet with UIUC's Tech Prep evaluators to discuss the goals and timelines of the study, and to prepare the necessary materials for local evaluation activities. The evaluation teams were also introduced to their "mentor" site, Danville Area Community College (DACC), a participant in NCRVE's national evaluation study (see related story on pages 8-10). A representative from DACC, Mike Summers, spoke on the value of having evaluation data for Tech Prep, and how such data contributed to DACC's on-going implementation of Tech Prep. Also present were several representatives from the Illinois State Board of Education (ISBE) and the Illinois Community College Board (ICCB).

The TPESI project seeks to answer several penetrating questions about implementation of Tech Prep in Illinois. The project will reveal more about how much progress is being made in Tech Prep implementation: who participates in Tech Prep and how that participation has changed over time; how Tech Prep benefits students and student learning; how Tech Prep benefits educators, employers, and other community groups; and how Tech Prep evaluation can inform and improve future Tech Prep implementation. This project seeks to build on past evaluation successes, taking advantage of existing tools, methods and data sets, and to involve the state, local consortia and higher education. It is expected that the local evaluation teams and their consortia will encourage training, systematic feedback and periodic reviews to ensure that TPESI will become a valuable asset for all Illinois Tech Prep consortia over time. ◆

To learn more:

If you would like to visit the websites of the pilot sites, go to the following addresses.

- College of DuPage: http://www.cod.edu/
- Danville Area Community College: http://jaguar.dacc.cc.il.us/
- Illinois Central College: http://www.icc.cc.il.us/
- Kaskaskia College: http://www.kc.cc.il.us/index.html
- Rock Valley College: http://www.rvc.cc.il.us/
- The Office of Community College Research and Leadership website: http://bragg.edu.uiuc.edu/occrl/

Developmental Education Paradox

by Jackie L. Davis, Olney Central College

The paradox of developmental education in the United States is that, while community college policy affirms its importance for achieving the community college mission, the funding to support developmental education is not always sufficient to support the numbers of students who need such assistance. A recent nationwide study, conducted by The National Center for Public Policy and Higher Education (1999), reveals that, according to college professors, administrators, government officials, and business leaders, the number one problem facing colleges today is that too many new students need remedial education.

The roots of developmental education in America reach back to the early 1800s, but it was the 1947 report from the President's Commission on Higher Education that provided the national mandate for developmental education and placed it squarely within the mission of community colleges. This Commission stated that "[the community college] will attempt to meet the total post-high school needs of its community." At present, developmental education courses and programs, designed to enhance literacy and basic skills, permeate the American community college environment. These programs again received national attention when President Clinton signed the Goals 2000, Educate America Act, and literacy, one of the eight goals of American education, became required by law.

What constitutes developmental education? It is generally defined as those instructional and support activities designed to keep unprepared students in college and help them improve their basic skills so that they can successfully complete a program and achieve their educational goals.

Why are community college students required to take developmental education courses? Most colleges administer some type of placement test to entering students to assess their abilities in reading, writing, and mathematics. Students who do not score above a prescribed level on a particular placement test are then required to enroll in appropriate developmental courses. In 1996, for example, nearly 86 percent of Illinois community college students enrolled in developmental education were more than 20 years old (ICCB, 1997). Although most, if not all, of these students learned reading, writing, and mathematics skills in their secondary education, the passage of time since high school, often exceeding 20 or more years, has probably caused them to forget much of what they had learned previously.

Why should community colleges use their already scarce resources to provide developmental education programs to students who should already have learned these skills in their secondary education? On the surface this appears to be a very simple question, but it is not easily or readily answered. The answer is obvious—there is a real need. Determining how to guide and teach students who are unprepared for traditional college-level studies is the thorniest single problem faced by community colleges (Cohen and Brawer, 1996).

Stanley Ikenberry, former president of the University of Illinois and current president of the American Council on Education, agrees that no one particularly likes remedial (developmental) education, and it would be easier for faculty and colleges if students came to college prepared to pursue their chosen programs. Colleges offer developmental education programs simply because students come unprepared, according to Ikenberry, and community colleges would be advised to fix the deficiency (Ikenberry & Stix, 1998).

If community colleges understand and accept the premise that providing developmental education is central to their mission, why then do these programs continue to receive less funding than baccalaureate-oriented or technical programs? Perhaps one possible solution to this problem lies within federal and state funding policy. For example, current educational policy in Illinois prescribes that community colleges will be reimbursed for developmental education courses at a rate which is considerably lower than that for baccalaureate-oriented or technical courses.

According to The Institute for Higher Education Policy (1998), ". . . it seems quite apparent that society needs more, not less, educated people and should do all that is possible to make this a reality." At this point, one might ask what might be an economic or social outcome if community colleges continue making developmental education a low priority? Perhaps all of higher education, especially education policy-makers, would be well-advised to consider the possible economic and social consequences if developmental education remains a low priority in America. ◆

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