

Update

ON RESEARCH AND LEADERSHIP

Office of Community College Research and Leadership

University of Illinois at Urbana-Champaign

In this issue

School To Work Opportunities Act Signed by President Clinton

by Debra D. Bragg2

Perspectives on School To Work from Illinois' Interagency Team

by Paula A. Puckett3

Opportunities for Graduate Study in Community College Ed. at UIUC

by William M. Reger IV5

Youth Apprenticeship: Lessons from the U.S. Experience

by Tom Bailey & Donna Merritt 6

Staff

Debra D. Bragg, *Ph.D. Project Director and Assistant Professor, UIUC*

Paula A. Puckett, *Research Assistant, UIUC*

William M. Reger, IV, *Newsletter Production Assistant*

To our readers

This spring issue of *Update* focuses on the new federal School To Work Opportunities (STWO) law. The first article describes features of the STWO bill. The second synthesizes interviews with representatives of five agencies involved in Illinois' STWO initiative. The third article is excerpted from the July 1993 issue of *Centerfocus*, an NCRVE publication. The final article describes a new graduate program for community college educators available at UIUC beginning in the Fall of 1994.

We thank contributors to this issue of *Update*. If you have articles you would like to share about your college's STWO or other innovative programs, please send them to us for consideration. *Update* is published by the Office of Community College Research and Leadership. It reports the latest research of interest to community colleges, particularly in areas of workforce preparation.

Who we are

The Office of Community College Research and Leadership 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.*

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Send comments to:

Dr. Debra D. Bragg
University of Illinois at Urbana-Champaign (UIUC)
344 Education Building
1310 South Sixth Street
Champaign, IL 61820
Office: (217) 333-0807 FAX: (217) 244-5632

School-To-Work Opportunities Act Signed by President Clinton

by Debra D. Bragg

On May 4, 1994 President Clinton signed into law the School to Work Opportunities (STWO) Act. A primary goal of the STWO Act is to establish a national framework to encourage states to plan and implement statewide school-to-work systems that can assist youth to identify and obtain rewarding work after completing school or college.

The Rationale for STWO

The rationale for the STWO legislation is to focus new educational opportunities on youth who graduate from high schools and two-year colleges and are needed to fill middle-skilled jobs in the U.S. To accomplish this goal will require preparing youths to be better decision makers, more cognizant of how their work impacts the quality of the products and services they produce. It will also demand graduates who are more capable of dealing with highly-technical work environments, and who can contribute to the process of improving quality in the workplace.

The goals of STWO systems should be integrated with the objectives of the *Goals 2000: Educate America Act*. Among other purposes, the *Goals 2000 Act* calls for the creation of content and performance standards intended to raise the quality of education for all students.

Grants to begin school-to-work transition programs are being awarded jointly by the U.S. Departments of Education and Labor. Development grants to start statewide school-to-work planning were awarded to the States in early 1994. Grants for implementation are to be announced later this spring.

Although no one model is endorsed by the STWO legislation, one of several promising programs identified in the bill is Tech Prep. Others are career academies (also referred to as partnership academies in Illinois), cooperative education, and youth apprenticeship. Each of these models is seen as a potentially fruitful avenue to strengthening relationships between academic and vocational education; educators and employers (school and work); and secondary and postsecondary education.

Essential Elements of the STWO Legislation

A work-based component, school-based component, and activities that connect school and work (i.e., connecting components) are essential to any school-to-work program funded under this new federal legislation. Successful completion of a program should result in a high school diploma, a certificate or degree from a postsecondary institution, and an occupational skill certificate. The skill certificates are to be portable, industry-recognized credentials that certify competency and mastery of specific occupational skills.

Work-based Learning

The work-based learning component will involve work experience, workplace mentoring, and instruction in general workplace competencies as well as in "all aspects of the industry". Competencies acquired by students are expected to require progressively higher level skills consistent with the demands of the particular occupation. By obtaining this type of instruction, students are expected to be better prepared for advancement in a career.

School-based Learning

The school-based learning component will require career exploration and counseling, instruction in a particular career area, selection of a career major by grade 11, and periodic evaluations linked to the challenging academic standards specified in the *Goals 2000: Educate America Act*. In addition, this school-based component is expected to continue through at least one year of postsecondary education. This requirement is similar to the postsecondary component of the 2+2 Tech Prep core curriculum. However, it falls short of the two-year degree requirement of Tech Prep.

Connecting Activities

Finally, the school-to-work connecting component is expected to ease the transition from in-school to out-of-school learning. The function of connecting activities is to ensure students are well matched with employers' work-based learning opportunities. This function can be carried out with a liaison who serves employers, schools, teachers, parents, students, and any others participating in the school-to-work experiences.

Support services such as career counseling, staff development, technical assistance, and job placement are other examples of connecting activities. In addition, school-to-work programs should conduct follow-up of graduates to determine the extent to which intended outcomes have been met and to encourage programs to continue to involve students in workplace experiences that are consistent with policies and practices of employers.

Perspectives on School-to-Work from Illinois' Interagency Team

by Paula A. Puckett

The federal School-to-Work Opportunities legislation is a joint initiative of the U.S. Departments of Education and Labor to bring together partnerships of employers, educators and others to build a high quality school-to-work system that prepares young people for careers. State leaders are actively carrying out planning and development efforts to support the state's new STWO efforts. This article presents perspectives on Illinois' school-to-work initiative based on interviews with five members of the STWO interagency team.

Five governmental agencies/groups have representatives on Illinois' interagency team. **Dennis Whetstone** has been on assignment to the Governor's office for the last year and a half to spearhead school-to-work efforts. Prior to that he was deputy director for the Department of Commerce and Community Affairs. He has 18 years experience in state government.

Darcy Wilkerson serves as Assistant Director for Occupational Education of the Illinois Community College Board and is primarily responsible for program approval at the state level. She has 11 years of state government experience.

Dick Miguel, Fran Beauman, and Jerry Ohare represent ISBE on the team. Representing ISBE's perspective in this article, **Jerry Ohare** serves as Innovation Coordinator at ISBE. He has spearheaded Tech Prep throughout the state for the past 4 years.

Jane Radunzel is currently Office Chief for the Illinois Department of Commerce and Community Affairs. She has been with the state for 17 years. Prior to that she taught school at the junior high and high school levels. **Sarah Hawker** has been

Assistant Director of Academic Affairs at the Illinois Board of Higher Education for five years. She has ten years of previous experience in labor market research and career information development.

Together, this team developed an application for a \$460,000 planning grant. Their efforts set the stage for Illinois' workforce preparation activities that focus on the following:

- develop and nurture state-level partnerships
- provide more accurate, user-friendly labor market information;
- develop state-wide occupational skills-standards and credentialing;
- provide curricula models to integrate school and work-based learning
- offer career guidance and counseling at all age levels
- provide work-based learning models
- develop local partnerships; and finally
- address unique challenge areas such as Chicago and rural communities.

Paula Puckett: What are the main areas of emphasis for Illinois' STWO planning efforts?

Wilkerson: The interagency team is providing the framework for an education system designed to move students through school to work. Education [should] prepare students for work.

Ohare: We're doing several things to focus on the nine areas identified in our planning grant. These include six regional forums throughout Illinois where we will gather input from educators, organized labor representatives, and area businesses. Everyone will have the opportunity to attend if they want to. Then we have set up subcommittees to

address each one of the areas. Each agency has taken a leadership role in one of the areas, although all of the agencies will be involved in subcommittees related to all nine issues.

At the high school level, we're looking at five career pathways as the primary focus of school-to-work. The pathways are:

- College Prep
- Applied Technologies
- Tech Prep
- Partnership Academies
- Student Apprenticeship System

Each pathway focuses on particular student needs. All will include core academic skills, technical skills and workplace readiness skills, necessary for a person to be job ready.

We see implementation eventually taking place through projects or local partnerships, also through statewide technical assistance and staff development efforts to help staff (secondary and postsecondary) be able to address STWO-type initiatives and through the development of statewide counseling services and benchmarks for local counseling services. We'll also be looking at labor market information to forecast not only current labor market needs, but future labor market needs.

Puckett: How are statewide counseling benchmarks working?

Ohare: What we're planning to do is identify counseling services for various age levels—elementary, junior high and middle schools, secondary, and postsecondary. These services would focus on career development and counseling, not just on academic advisement. We also want to investigate potential

delivery models that are considered ideal at the various age levels; models we could use as a benchmark to assess the quality of the existing services. Once the benchmarks are determined, our intent is to publish information on the benchmarks and encourage the local partnerships to create counseling/career development services that meet the benchmarks. This will give us a standard to go by. We're concerned that career counseling be available to all age levels of the entire population.

We're looking for local partnerships to come up with some creative delivery mechanisms for career counseling. We want to provide ideas yet still provide flexibility for local partnerships to develop according to the needs of their particular areas.

Puckett: What is Illinois' definition of a 'connecting activity'?

Radunzel: The federal legislation requires evidence of connecting activities between school and work-based learning. An example of a connecting activity is a mentor who advocates for youth and follows the youths' progress, both at school and work. The mentor keeps the communication going among instructors and guidance personnel who are involved with a student. If the individual does very well in school but very poorly at work, the other half knows about that and can keep focused on the needs of the student. They consider what needs to happen to make youths' successful in their chosen career paths.

Puckett: How will these programs be linked to the community colleges?

Wilkerson: A mission of community colleges is to provide programs that prepare students for occupations, and for a number of years community colleges have been working with secondary schools to articulate Tech Prep programs. The STWO initiative will build on that linkage from secondary to postsecondary by ensuring that students in any of the five pathways have the opportunity to move

smoothly into community college programs and that their participation in these programs enhances the school-based and work-based learning that has already taken place.

Puckett: What will be the links to higher education?

Hawker: The STWO initiative is about options for students at all levels of education. Options offered at the secondary level include links so that students have choice and flexibility about pursuing postsecondary education, further training, or going directly to work. Decisions to pursue one path should not lock students out of other options later. Community colleges, four year colleges, and universities have developed statewide general education requirements to open more options at the postsecondary level. We want general education classes to be transferable so that students don't waste time and money taking classes that won't transfer.

We're also working on transferability of coursework in majors so students earning an associate degree can transfer more easily to related bachelor's degree programs. We're seeking to help students maximize their credit and build their skills and knowledge on previous work by better aligning coursework from high school through the associate and then bachelor's degree.

The STWO initiative also emphasizes the importance of work-based experience for all students. Higher education is building a Cooperative Work Study Program that helps employers hire community college and university students in work experiences directly related to their academic major and which includes employers in the training and evaluation of the student.

Puckett: Why is the STWO legislation important in Illinois?

Radunzel: It's important because it's an opportunity to make schooling more real for secondary

students, to help them get an understanding of why education is important. It provides them with the opportunity to see that education is not limited to what you read in a book or what you score on pencil and paper tests. It has to do with what you do; how you apply what you know. It has to do with how well you can work together with other people—give directions, take directions. I think it broadens education, and can only help kids. By bringing youths into the workplace, they have an opportunity to slowly move into what the adult world is about and learn about the benefits, such as a paycheck. Its kind of a rite of passage.

When youths get a credential they'll have status, they'll have proof they can take to the adult community which they're getting ready to join, and say, 'I've gone through my initiation, now I can at least start on the path of becoming one of you.'

Whetstone: We recognize that by the year 2000, the great majority of jobs in this state and the country are not going to require a four-year degree. Yet all those good paying jobs that don't require a four-year degree will still require a level of technical and analytical skills that our current secondary and postsecondary vocational education programs simply don't provide.

Couple that with the following fact: less than 25 percent of today's high school students in this state will go on to attain a four-year postsecondary degree. That means that 75 percent don't receive a bachelor's degree. So we may as well admit that the majority of our kids don't go on to college, but yet those same 75 percent of kids are going into the workforce unequipped to be a productive employee. Businesses have to give them the basic kinds of skill sets that the educational process should have, which means that kids—new workers—are taking away from the bottom line in business instead of contributing to it like they should.

If we could overcome these biases, then I think it's going to set the tone for us to convince parents and students that there are other viable pathways to earning a good living.

We look at it as a 3-legged stool. Our first leg is our secondary and postsecondary programs for today's and tomorrow's students. Just as importantly, we have a whole cadre of people in the workforce right now who are not equipped to be successful, and that includes high school dropouts and unemployed persons. It also includes people on public aid, dislocated workers who

have been thrown out of their jobs because of plant closings or layoffs, who are going to have to be retrained with different skill sets to get re-employed with a decent wage. I call this second leg our recovery system or second-chance system.

Our third leg is the existing workforce. We've got employers who are trying to introduce new technology in the workplace in order to remain competitive. To turn out better products at a lower cost, business has got to undertake massive upgrade efforts of the skills of existing workers. If we're going to ask business to participate fully in

teaching the workers of today and tomorrow, we'd better be prepared to offer them an education and training infrastructure they will be able to use at a reasonable cost.

The whole thing we're pointing toward is to address the situation we're in. Illinois business and industry faces a level of challenges today that it never has before. We've got a new international marketplace because of the emerging market-based economy. Illinois has to be ready to compete in it!

Opportunities for Graduate Study in Community College Education at UIUC

by William M. Reger IV

The College of Education at the University of Illinois at Urbana-Champaign will offer an extramural graduate education program for community college educators beginning in the Fall of 1994. The program is coordinated by Dr. Debra D. Bragg, Assistant Professor and Director of the Office of Community College Research and Leadership at UIUC.

The first course will be taught in the fall of 1994, and students can expect to complete eight units needed for a Master's degree or more advanced study toward an advanced certificate or doctoral degree in approximately two years.

These courses will be held at community colleges in central Illinois whose faculty show a high degree of interest in the program. No matter which college acts as the headquarters for the program, individual courses may rotate among several colleges whose faculty participate in the program.

Some of the courses will be taught entirely or in part on the Urbana-

Champaign campus, especially those taught during the summer terms. Some of the courses in the extramural graduate education program will utilize telecommunications and computer-based technologies for instruction as well.

This extramural program will enroll a cohort of approximately 30 individuals interested in pursuing intensive study of community college education. The course work is intended to meet the needs of educational professionals who desire to increase their professional leadership opportunities. The program will examine current innovations such as School to Work, academic and vocational integration, and Total Quality Management (TQM).

Our changing times call for leaders who can share a new vision for community college education. This vision must focus on strengthening the collegiate function, enhancing workforce preparation, integrating content across the curriculum, articulating programs with secondary education as well as

upper-division postsecondary institutions, and using collaborative management strategies in administration and teaching.

To undertake these challenging efforts, we believe there is a need to encourage the development of a new educational leadership in community colleges. Those who complete this graduate education program will be better prepared for faculty and administrative leadership roles.

Individual tuition for the eight-unit program is expected to be approximately \$3,600, accounting for annual tuition increases (a one-unit extramural course is expected to be approximately \$425 in the fall of '94.) If a number of faculty participate in this program from a particular community college, an institutional fee can be negotiated with UIUC.

Deadline for application to the program is June 1, 1994.

For further information contact:
Dr. Debra D. Bragg
PHONE: 217/333-0807
FAX: 217/244-5632

Youth Apprenticeship: Lessons from the U.S. Experience

By Thomas Bailey and Donna Merritt

Editor's Note: This article is excerpted from an article by the same authors and title appearing in NCRVE's Centerfocus in July of 1993.

As an effort to meet the needs of young people who are not college-bound, youth apprenticeship has attracted a great deal of favorable attention. Youth apprenticeship, as the term is used here, is *not* an expansion of the apprenticeship system, currently practiced in the U.S., that serves the labor supply needs of specific occupations. Although there is no fixed definition of youth apprenticeship, a consensus is emerging on four basic components:

- it is designed to be an integral part of the basic education of a broad cross-section of students.
- it integrates academic and vocational instruction.
- a significant part of an apprentice's education takes place on the job and is coordinated with classroom instruction.
- students emerge from their apprenticeships with recognized and accepted credentials.

Except for some recent pilot projects, no youth apprenticeship programs in this country have all four components, but educators have some experience with each component. We therefore assessed the feasibility of each of these components individually, much can be learned from this analysis. Barriers to the implementation of a component very likely will remain when the components are combined.

Interest in apprenticeship as the basis for educational reform arose from the diagnosis of the weaknesses of U.S. education, and from a growing body of research in

the U.S. on the educational advantages of integrating school instruction with nonschool experiences at work. The non college-bound often drift from one unskilled job to another, learning no skills, and working mainly with other nonskilled young people.

This system wastes time, delays maturity, and offers training—when it is offered—that is haphazard and in most cases does not result in any recognized credentials or certification. There are no uniform, nationally accepted certification standards in this country. Our analysis, therefore, is based on four school-to-work programs in the U.S. that share some features with youth apprenticeship—agricultural education, cooperative education, career academies, and tech prep.

[Lessons learned about school-to-work from agricultural education are viewed by these authors as applicable to any vocational service area.]

Four School-to-Work Models in the U.S.

1. *Agricultural Education.*
 - Socialization [of] students into the world of work through auxiliary activities (Gore, 1988).
2. *Cooperative Education.*
 - [Students] get paid and also receive high school credits toward graduation. Most co-op programs provide no workplace credentials for participation.
3. *Career Academies.*
 - Foster[s] long-term relationships between students and teachers. Each academy has a particular vocational, occupational, or industrial theme.
4. *Tech Prep.*
 - The central concept of tech prep is the articulation of

secondary school with community college programs in occupational areas.

Assessment of Youth Apprenticeship Components

If youth apprenticeship is to have realistic chance of widespread acceptance in this country, it must **prepare a broad segment of the population and include college-bound students.** However, increased focus on the college-bound creates the risk of an admissions process that excludes less accomplished students. A central question, then, is whether it is possible to develop a youth apprenticeship system that finds a middle ground between the stigma of a "second-best" track and the restrictiveness of a selective program for the best students.

Among current school-to-work models, *tech prep* programs come closest to breaking the barriers between traditional vocational and academic students. Although tech prep program preserve the distinction between students headed for community college and those bound for four-year degrees, they nonetheless increase the postsecondary education opportunities for a broader group of students.

The logic of a youth apprenticeship system points to an emphasis on broad conceptual, problem-solving skills. But where does this leave the actual preparation for jobs? Is it possible to develop a curriculum that combines both academic and vocational components without sacrificing the quality of either the vocational or the academic component?

The *tech prep* and *academy* models try to combine academic and vocational instruction, using applied course work to provide a conceptual framework. This approach builds

bon the cognitive science finding that students learn more effectively if the barriers and distinctions between in-school learning and out-of-school activities are broken down (Raizen, 1989; Berryman & Bailey, 1992). The academic portion of most tech prep programs is similar to college prep programs; each prepares students for postsecondary instruction, albeit different types of institutions.

Usually, *co-op education* students attend traditional academic and vocational classes with non-co-op students. Integration of co-op students' school and worksite learning varies widely and is often haphazard. Indeed, the benefits of the co-op experience are seen to lie in strengthened work habits and in greater maturity and employability rather than in supporting academic learning.

Because of radical changes in the industry, *agricultural education* courses have more academic content, and students are now required to take physics, engineering and chemistry (Rosenfeld, 1983). Aside from these changes, the integration of course work and practical learning experiences has always been a strong element of agricultural education, with a focus on behavioral and leadership skills. Student organizations such as Future Farmers of America and 4-H are integral parts of the process. As a result, students graduate with solid experience not only in their area of specialization but also in peripheral disciplines.

In apprenticeship, the workplace is supposed to be the learning place, not simply an environment where students gain practical experience and specific job skills. How can the workplace be used as a place of instruction? What will motivate employers to participate? How can the quality of employer instruction be assured? Does workplace learning complement and enhance the learning that takes place in the

classroom? There is growing disillusionment with the quality of learning on the job. The vast majority of U.S. employers remain firmly committed to traditional production processes that depend on low-wage, low-skilled workers. Even if such employers could be convinced to take on young apprentices, the quality of education students would receive in these settings is questionable.

Programs that simply place young people on the job to gain work experience are not effective. The quality of on-the-job training is heavily dependent on who happens to be around to provide the training. In work groups with high turnover, "almost novices" train actual novices, a situation that violates models of good apprenticeship training (Scribner & Sachs, 1990).

Education programs. All four school-to-work programs discussed in this brief fall short in effectively using the work site as a learning environment where students are taught by employers. Few programs require participating employers to teach, settling instead for the presumed benefits of students' exposure to an actual workplace.

The diverse goals of apprenticeship create problems for credentialing. How specific or narrowly defined should the certified skills be? Should graduate apprentices be considered skilled craft workers or given more general certification, something like a diploma from a high-quality secondary school?

Of the programs described in this brief, some *tech prep* efforts have gone the furthest in addressing the need for credentials. In 1990, the American Technical Education Association established national minimum standards for all tech programs (McGrath, 1991). In many states, these standards have been integrated into the tech prep curriculum.

Competency-based curricula have not been as extensively developed in

the *academies*, which rely more on informal contact with participating employers. *Agricultural education* has started to develop assessment and credentialing tools, and competency-based courses have been developed in many places.

The *co-op education* system lacks any specific certification procedures. Co-op programs rely on soft credentials such as letters of recommendation from employers. Further, the establishment of training standards is but a vague goal for most co-op programs.

Despite obstacles, efforts to adopt youth apprenticeship are extremely important. Many of the reforms associated with apprenticeship—efforts to break down the distinctions between learning and working, school and community, academic and vocational, and college-bound and non-college-bound students—can make fundamental contributions to the overall improvement of education.

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