

IN THIS ARTICLE

*School-to-Work Transition, HRD Legislative
Issues, Industry/Academic Cooperation*



PARTNERS IN TRANSITION

BY MARK GITTLEMAN



THE CHAMBER OF COMMERCE IN LOUISVILLE, KENTUCKY, has a special workforce institute. The institute supports new school-to-work partnerships in five occupational areas and regularly reviews the skills required in 14 industries that are key to the local economy. ● The state of Pennsylvania has helped

160 employers and their partner schools provide comprehensive youth apprenticeships for high-school students pursuing careers in metalworking and health care, fields in which skilled workers are in short supply. ● Over the last few years, more and more

localities and states—like Louisville and Pennsylvania—have generated new kinds of partnerships between schools and employers. The aim of these partnerships is to prepare young people for the world of work. Unfortunately, such programs reach only a tiny fraction of high-school students.

An initiative for school-to-work transition calls for new partnerships between U.S. businesses and education.

Ford Motor Company: School-To-Work Transition Is Job One

By Ian Spaulding, a national-affairs intern at the American Society for Training and Development, 1640 King Street, Box 1443, Alexandria, VA 22313-2043; 703/683-8156.

Ford Motor Company is fast becoming known for its increasing investment in the youth of the United States. In 1990 the company began to address head-on its managers' belief that too many high-school graduates lack the basic and technical skills that Ford will require of its workforce if it is to produce its next generation of motor vehicles.

The U.S. automaker designed and has since invested heavily in a special career-academy program known as the Ford Academy of Manufacturing Sciences. Ford created FAMS to help prepare high-school juniors and seniors to pursue careers in manufacturing, engineering, and the skilled trades. Four years and more than \$1 million later, FAMS has 13 school sites nationwide, has graduated 65 students, and is developing a four-year model program that also includes high-school freshmen and sophomores.

Ford designed FAMS specifically to introduce students to career opportunities in a wide variety of manufacturing environments. In partnership with local schools, FAMS offers students opportunities to learn science, math, and technology and communications skills, all in real-life contexts.

Students who participate in the program take four semesters of accredited FAMS courses in addition to their general studies. High-school juniors and seniors are introduced to manufacturing systems and processes, quantitative literacy, computer technology, and specialized science and math operations.

The program then places students in specialized internships during the summer of their senior year. Corporations other than Ford provide 55 percent of the internships. Advisory groups at each of FAMS's 13 sites develop the internships.

FAMS program manager Larry Bruno says that students enrolled in the program are developing "problem solving, teamwork, communications, and critical-thinking skills that cannot be taught in the classroom alone." The essence of FAMS is to provide graduating high-school students with skills that will serve them well, whether they are college-bound or headed directly to work.

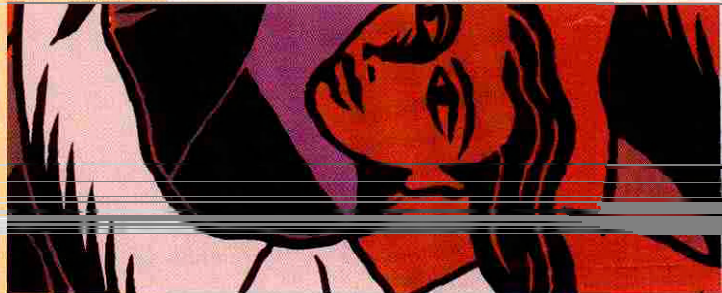
Bruno believes that the recently passed School-To-Work Opportunities Act of 1994 may spark the creation and expansion of programs like FAMS all across the country. "Our experience with the FAMS program," he says, "has shown it to be an effective catalyst for developing a rich partnership between schools and businesses that can enhance the quality of students' education and career choice."

For further information, write to FAMS, Ford Motor Company, the American Road, Dearborn, MI 48121-1899.

education in order to help prepare students to enter the workforce and pursue postsecondary education. Initiatives are primarily targeted to the "forgotten half" of young people—the 50 percent of U.S. teenagers who do not enter four-year colleges after high school.

Successful state and local school-to-work initiatives use a wide range of approaches. The programs include adaptations of the traditional European youth-apprenticeship model as well as retooled vocational-education programs that closely link workplace learning with classroom-based education.

School-to-work programs differ from traditional business/education partnerships. Most of those traditional kinds of partnerships have not addressed curriculum design or pro-



vided the students with work-site experience.

The School-to-Work Opportunities Act identifies three elements that are key to a comprehensive approach that emphasizes work-based learning:

- ▶ integrating academic and occupational education
- ▶ integrating school-based and work-based learning
- ▶ linking secondary and postsecondary education.

The national initiative is designed to help states and local partnerships develop integrated education and training plans that build on those three core concepts.

Many policymakers consider the U.S. system of higher education to be the best in the world. But the United States offers very few pathways to help young people move smoothly from the high school to the workplace.

In the last decade, policymakers, business leaders, and education and

With the signing of the School-to-Work Opportunities Act of 1994, U.S. President Bill Clinton is hoping to help the states transform a scattered assortment of individual program successes into state and local systems of school-to-work opportunities—systems that use workplace learning as a key educational strategy.

In a partnership aimed at making

federal assistance user-friendly, the U.S. departments of labor and education will jointly administer the school-to-work program through one office.

The new school-to-work transition

The term school-to-work typically describes programs that integrate work-based learning with classroom

training advocates have grown increasingly concerned that the U.S. education and training system—or “non-system” as described by some experts—fails to meet the needs of both employers and typical high-school students.

Many companies cannot find enough entry-level workers with the basic skills, advanced technical skills, and work attitudes they demand on the job. At the same time, high-school graduates are experiencing declining earnings, in real terms and in relative terms, compared to people with postsecondary education.

Many U.S. high-school students work part-time while they are still attending school, but very few of the jobs they tend to fill are linked to learning at school or to the development of career options.

In addition, a large number of students wait until relatively late in their high-school careers to decide that they will not attend a college or university. Structured learning experiences at work and new relationships between schools and workplaces can give these students early opportunities to develop their skills and their careers.

“Young people on the shop floor look at things in fresh ways”

Roles and responsibilities

To build effective school-to-work systems, the federal government and its partners will first have to convince firms to invest now in their future workers and to find common ground with schools in their communities.

Employers commonly cite two reasons for participating in school-to-work programs:

- ▶ preparing for existing or projected workforce skill shortages
- ▶ enhanced community relations.

But there are other reasons for employers to be enthusiastic about such programs. Employers stand to

Siemens: European-Style Apprenticeships

At Siemens Stromberg-Carlson, European apprenticeship practices are being adopted in a version well-suited to American enterprise of the 1990s.

Siemens Stromberg-Carlson is the Lake Mary, Florida, location of the Siemens Corporation. A grant from the U.S. Department of Labor helped establish an apprenticeship program at that location. The initiative, begun in 1992, is a modified version of the Siemens apprenticeship model used in Germany. It includes areas of specialization in equipment engineering and telecommunications technology.

The Electronics Technician Apprenticeship Training Program has levels for high-school and community-college students.

Community-college students who participate in the program initially receive about 20 hours per week of hands-on instruction at the company's apprenticeship training center. In the second and third years of the program, the students receive part-time, on-the-job training that gives them the chance to apply their acquired skills and knowledge in a real production environment.

The company selects top high-school students from area schools to participate in its pre-apprenticeship program—the secondary-education version of the company's full apprenticeship program. High-school students learn the fundamentals in their classrooms at school; they receive hands-on training at the apprenticeship training center. After the young people finish high school, Siemens considers them for admission into the full apprenticeship program.

Early results show that the performance levels of students enrolled in the program are at least equal to those of their counterparts in Germany.

In fact, results are so good that other businesses in the Lake Mary area are working with the local school district to develop similar apprenticeship programs within their industries. Siemens has expanded its own initiative beyond Lake Mary—with similar pilot programs in Franklin, Kentucky, and Raleigh, North Carolina. And designers are working on 11 more programs, for other Siemens facilities.

For more information on Siemens' youth apprenticeship programs, write to Siemens Vocational and Technical Training, 1301 Avenue of the Americas, New York, NY 10019.

benefit from having opportunities to influence school curriculum development so that it can meet

industry requirements. School-to-work programs can also be valuable tools for evaluating students in work settings before firms make hiring decisions.

Other benefits may be unanticipated. As Richard Kazis, vice-president of Jobs for the Future, suggests, “Many employers don't initially realize how meaningful it is to have young people on the shop floor who look at things in fresh ways.” In fact, some school-to-work participants have even helped companies realize substantial cost savings through process improvements.

The school-to-work act also has promise for strengthening the education and training opportunities provided for the existing workforce. The development of high-quality work-based learning for students provides a natural point of comparison for employers to reevaluate the education and training opportunities they offer current employees. In some cases, this type of reassessment has led to widespread improvements in workplace training.

School-to-work programs also can help link small- and midsize companies to regional or local providers of technical assistance on other workplace issues.

Consider one example. Most of Pennsylvania's youth-apprenticeship coordinators work through the state's

Resources on School-to-Work Initiatives

▶ *Tools for Developing Worksite Learning for High School Students* was developed by Jobs for the Future, with support from the Manpower Demonstration Research Corporation.

This technical-assistance guide, produced in January 1994, is designed to provide the how-to advice that local education and business leaders need as they work together to define and establish new work-based learning activities. The guide includes samples of actual student work tasks, learning plans, student-employer contracts, and assessment forms to give practitioners ideas they can apply.

The report is available for \$12 from Jobs for the Future, 1815 Massachusetts Avenue, Cambridge, MA 02140; 617/661-3411.

▶ *The School-to-Work Tool Kit: Building a Local Program* provides a diagnostic checklist for program practitioners and state leaders at every stage of the school-to-work development and implementation processes. The tool kit contains more than 150 examples of actual documents—such as training plans, contracts, flyers, and worksheets—used by leading programs around the country.

Information about the tool kit is available from Jobs for the Future, 1815 Massachusetts Avenue, Cambridge, MA 02140; 617/661-3411.

▶ *School Lessons/Work Lessons: Recruiting and Sustaining Employer Involvement in School-to-Work Programs* was produced by the Center for Workforce Development at the Institute for Educational Leadership.

Copies of the report are available for \$12 from the IEL, 1001 Connecticut Avenue NW, Suite 310, Washington, DC 20036; 202/822-8405.

▶ *Home-Grown Lessons: Innovative Programs Linking Work and High School*, was developed by the Manpower Demonstration Research Corporation.

The report, produced in January 1994, includes lessons for school-to-work implementation, based on a study of 16 innovative and diverse programs. Copies of the report are available from the MDRC, 3 Park Avenue, New York, NY 10016; 212/532-3200.

▶ *Opening Career Paths for Youth: What Can Be Done? Who Can Do It?* was developed in 1994 by Cornell University's Youth and Work Program, the American Youth Policy Forum, and Jobs for the Future.

The report costs \$1 from the American Youth Policy Forum, 1001 Connecticut Avenue NW, Suite 719, Washington, DC 20036-5541.

▶ *New Century Workers: Effective School-to-Work Transition Programs* is available for \$18 from the Center for Workforce Preparation, U.S. Chamber of Commerce, 1615 H Street NW, Washington, D.C. 20062; 202/463-5525.

▶ *How School-to-Work Works for Business: A Report on Business Involvement in School-to-Work* was produced by the National Alliance of Business.

The report is available from the National Alliance of Business, 1201 New York Avenue NW, Washington, DC 20005-3917; 202/289-2888.

▶ *School-to-Work: What Does Research Say About It?* is a report produced by the Department of Education's Office of Educational Research and Improvement, 555 New Jersey Avenue NW, Washington, DC 20208; 202/219-1652.

For further information, contact the School-to-Work Opportunities Information Center, Room 3040, 400 Maryland Avenue SW, Washington, DC 20202-3500; 202/260-7278.

Industrial Resource Centers. They help link companies to the broader technical assistance that those centers can provide on other workplace issues, such as training for currently employed workers. Under the Clinton plan, technical-assistance providers like those centers in Pennsylvania are also eligible to be members of local school-to-work partnerships.



To stimulate the development of school-to-work programs, the new law will provide up to \$300 million in the first year. Most of that money will go to the states to support local school-to-work partnerships. States will also use the money to begin building the new partnerships into comprehensive, statewide systems of school-to-work opportunities that are integrated with other employment and training programs.

The new initiative also allows the states to use certain existing vocational-education and Job Training Partnership Act funds for implementing school-to-work programs.

In order to be eligible for funds, local partnerships must include employers, educators, and intermediary organizations, each with distinct responsibilities.

Employers are responsible for creating a program of structured workplace learning that includes workplace mentoring, instruction in general workplace competencies, and broad instruction in different aspects of a particular industry.

Schools are responsible for setting high academic standards, building career awareness, helping students select career majors by the eleventh grade, and linking the educational curriculum in school with learning in the workplace.

Intermediary organizations, such

as local Chambers of Commerce and other community-based organizations, are slated to help with important connecting activities:

- ▶ facilitating the communication between employers and schools
- ▶ helping to match students with employers
- ▶ integrating school-based and work-based learning
- ▶ helping program graduates find jobs
- ▶ collecting information on program outcomes.

Overcoming obstacles

The most critical challenge in implementing the new act will be to find enough employers to provide workplace experiences for the students.

Barriers include corporate skepticism about federal programs

Companies that are downsizing or experiencing slow growth may feel they cannot afford to invest now in future workers. And those that are not providing adequate education and training opportunities for current employees may face resistance from workers or unions if they try to funnel time and money into educational activities for high-school students.

Other barriers to employer participation include general skepticism about dealing with federal programs and schools; high start-up costs; ongoing costs associated with staff time, wages, and insurance; and "poaching" of newly trained students by other firms after the training is completed.

One way that the initiative attempts to court employers is by defraying some of their costs. Local partnerships can use grant funds on a variety of activities that may help employers:

- ▶ designing and administering work-based learning
- ▶ establishing consortia of partici-

pating employers

- ▶ providing training to workplace-based staff on curricula, assessment, and student guidance
- ▶ training workplace-based mentors.

The states will also receive some discretionary money for helping employers with those activities.

The money may not be used to reimburse employers for student or mentor wages. In fact, in order to spur participation by employers, Congress followed a key recommendation of the business community—and chose not to require firms to pay students for their work as program participants.

Federal assistance in collecting and disseminating best practices will help employers understand the benefits of and key issues surrounding program participation and program development. In addition, a national support group of 12 to 15 CEOs—led by Alex J. Trotman of Ford Motor Company—will promote employer participation in the school-to-work transition initiative.

The Clinton administration is also supporting a separate but related effort to develop occupational skill standards that could help employers establish skill competencies, both for students and for current workers.

The role of trainers

Internal training professionals and consultants will play key roles in state and local efforts to build new learning pathways to the workplace. Among the new opportunities for trainers:

- ▶ adapting best practices from training programs for currently employed workers to use in the development of work-based learning for students
- ▶ working with teachers on designing curricula that integrate work-based skill requirements with school-based learning
- ▶ developing skill competencies related to industry skill standards
- ▶ designing training and support systems for employers, workplace mentors, and teachers

- ▶ working directly with young people and their workplace supervisors.

The jury is out on whether the incentives for employer participation will create enough initial workplace learning opportunities to support the state systems that the new act envisions. But with a new kind of help from the federal government, U.S. employers and educators have an opportunity to begin breaking down the walls between school and work for the nation's next generation of workers. ■

School-to-Work Earns an A+

Ninety-five percent of teenagers surveyed nationwide expressed interest in school-to-work programs that would allow them to learn about a variety of careers, both in school and at work.

Bruskin Goldring Research of New Jersey conducted the survey in August 1994 for the U.S. departments of education and labor. The survey's intent was to gauge interest in the Clinton administration's school-to-work initiative among 14- to 18-year-olds. Other results:

- ▶ Sixty percent of respondents hold after-school jobs or have held after-school jobs.
- ▶ Of those who hold or have held after-school jobs, 85 percent said they liked and learned from the experience.
- ▶ Of those who hold or have held after-school jobs, 75 percent said their jobs were unrelated to their academic courses or future professions.

Mark Gittleman is a national-affairs representative at the American Society for Training and Development, 1640 King Street, Box 1443, Alexandria, VA 22313-2043; 703/683-7268.

To purchase reprints of this article, please send your order to ASTD Customer Service, 1640 King Street, Box 1443, Alexandria, VA 22313-2043. Use priority code *BXM*. Single photocopies, at \$6 each, must be prepaid. Bulk orders (50 or more) of custom reprints may be billed. Phone 703/683-8100 for price information.