

EXEMPLARY WORKSITE LEARNING PROGRAMS

Real-World
Connections for
Students and Teachers



*Leading Change in
Education*

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FOREWORD

Harmon Industries, Inc., officially started on its Tech Prep/Partnership “mission” in 1994. Our intent was to work with schools to build a competitive workforce by becoming a laboratory for students. Over the last five years, we have worked with over 6000 students and educators. These encounters have lasted anywhere from five minutes to five years.

My role in all of this has been to “make it happen.” As an experienced teacher, I knew that the principles were sound, but the challenge was whether or not we could truly make educators and employers comfortable with working together. As I read the EWSLA applications for 1999, I was thrilled to see how far we, businesses and school, had come over the years in meeting this objective.

Bjorn Olsson, President of Harmon Industries spoke at the Employer to Employer Conference in Dallas, Texas, last year, and he shared the fact that at one time a company expected to hire people and spend one to two years teaching them the trade. He emphasized that our economy no longer offers us that luxury. New hires are replacing recent retirees or entering technical fields that did not exist previously. They are walking into companies that require them to contribute on the first day. This can happen only if students are given workplace experiences. Students greatly benefit from the opportunity to gain the latest skill using the most current technology found in the workplace. We can help these students to fulfill our needs if we allow them to work beside us as they gain this experience.

Workplace experiences have given students a greater respect for their education and the contribution they will make to this world in the future. The students have learned technical skills on state-of-art equipment from talented employees. They have also learned problem-solving skills and people skills as

they interact within a diverse work setting. Our employees have grown professionally and personally along with the students. Many of them have received courage from the students and returned to school for additional training.

We opened the door to become a laboratory. The employees opened their hearts as well. They share their love of the industry with students who really want to learn. Students are more confident, and more respectful of their skill, our industry, adults, and the world as a whole.

What began as an experiment is evolving into “good business.” Whether training our current workforce or preparing our future workforce, the most effective way for us to do it is to do it together.

Neva Allen
Partnership Coordinator
Harmon Industries, Inc.
1999 NTPN Advisory Board Member

INTRODUCTION

This is the third report published by the National Tech Prep Network providing information on successful programs in which students learn by participating in hands-on classroom activities and by taking part in worksite experiences. The three featured programs are Exemplary Worksite Learning Award (EWSLA)¹ winners. The EWSLA was established by CORD and NTPN in 1994 to encourage Tech Prep/School-to-Work consortia to integrate meaningful worksite experiences into their curricula. Recipients of this award must meet criteria determined by a national committee of academic and business representatives in four major areas: 1) program overview, encompassing curriculum-based activities, assessment methods, and documentation of time spent at the worksite by students; 2) professional development and experiences; 3) business involvement; and 4) results, including measurable student improvement rates such as grades and retention as well as measurable benefits to business partners and the community.

The three EWSLA winning programs from 1997 and 1998 featured in this report are Miami Valley Tech Prep Consortium (Ohio), Central Midlands Tech Prep Consortium (South Carolina), and Capital Area Training Foundation (Texas). These are only three of the six awards given during 1997 and 1998. An earlier report, entitled *Building the Workforce of the Future*, highlighted the other three programs.

Following is a brief description of each winning program. After this introduction are the three narratives each written by a

¹ In 1997, Caterpillar Inc. began to provide funding for the EWSLA, including the cash awards, plaques, and administration of the awards.

program's consortium about how the winning program was developed and how it came to be an award-winning program. The appendix contains a section with questions to ask before beginning a worksite learning program, a glossary of terms, and a list of URLs for web sites that provide additional information on starting a worksite program as well as the web-site addresses of EWSLA recipients from 1995 through 1998.

- ❖ Advanced Micro Devices (AMD)—the fourth largest employer in Austin, Texas—partnered with the Capital Area Tech Prep/School-to-Work Consortium and Austin Community College in 1995 to provide opportunities for local high school students interested in pursuing high-tech careers. The program, Accelerated Careers in Electronics (ACE), is an electronics career pathway that allows students to take college-level courses while in high school. Sophomores, juniors, and seniors can enroll in the program and earn up to sixteen hours of tuition-free, college-level credit in escrow at Austin Community College. ACE students have the opportunity to apply for paid internships at AMD. ACE increases students' awareness of high-tech career paths and gives them a jump start on their postsecondary education. The program provides an essential connection between the classroom and the world of work.
- ❖ Central Midlands Tech Prep Consortium's Teachers in the Workplace program approaches integrating meaningful worksite opportunities into its curricula by sending the teachers, administrators, and counselors directly to the world of work. For the past six years, elementary, middle, and high school teachers and secondary and postsecondary counselors have competed for worksite positions that will give them firsthand knowledge of the world of work. Ninety-six teachers had been trained at thirty-six worksites at the time this program was reviewed for the EWSLA. Each of these ninety-six teachers completed 120 hours of internship. The logic behind training the teachers in the real world is in the fact that teachers who have been cloistered in an educational setting all their lives cannot be expected to

understand fully the changing workplace and the impact of global economy unless they experience it themselves. Bringing them to these experiences will reach more students directly and has in turn had a profound and positive effect in the partnerships between education and business in Central Midlands.

- ❖ The Miami Valley Tech Prep Consortium submitted an application for the EWSLA for its Tech Prep Automotive Mentorship Program. This program was developed in response to the automotive industry's shortage of technicians. The main goals of the program include preparing students to become successful technicians, increasing the number of employees entering the field, and increasing the level of education of employees entering the field. Partners include high school career centers, Sinclair Community College, and the Dayton Area Auto Dealers Association and its new car dealerships. Eligible students are placed with mentors during spring of their junior year. They complete academic requirements during half-days, and work for pay under the guidance of mentors during the other half.



ACCELERATED CAREERS IN ELECTRONICS

Introduction

When semiconductor manufacturer Advanced Micro Devices (AMD) could not find enough qualified applicants in the local market to fill entry-level technician jobs, it had two options: (1) continue to send company recruiters out to scour the national markets and relocate more than 70 percent of its technicians to Austin, Texas, or (2) come up with an educational continuum to expand the local pool of potential employees.

Faced with intense competition for technicians locally and nationally, AMD company officials decided in 1995 to launch a collaborative, long-term effort to “grow its own” workforce.

AMD partnered with the Capital Area Training Foundation (CATF), an industry-led consortium dedicated to creating pathways between industry and education, two local school districts, and Austin Community College (ACC) to develop the nationally acclaimed Accelerated Careers in Electronics (ACE) high school pathway.

Faced with intense competition for technicians, AMD decided to “grow its own” workforce.

ACE combines an electronics Tech Prep curriculum with opportunities for paid summer internships and college scholarships. The program is designed to:

- ❖ Increase awareness of and prepare students for careers in the high-tech industry
- ❖ Provide relevance by connecting the classroom to the cleanroom
- ❖ Provide students with a jump start toward high-tech careers
- ❖ Partially meet AMD's need for skilled wafer-fab technicians

Building the Solution

AMD already had strong “Partners in Education” relationships with two area high schools located near its manufacturing facility in southeast Austin. Principals from Johnston High School in Austin ISD and Del Valle High School in Del Valle ISD supported the effort's concept and designated representatives from their schools to serve on the ACE steering committee. Others on the development team included representatives of CATF, ACC, and several departments within AMD (manufacturing, employment, learning and development, and community affairs). Meetings with all stakeholders occurred weekly in the initial planning stages and then monthly after the program was established.

High school students are introduced to the ACE curriculum through *Principles of Technology I* and *II*. This applied approach to teaching physics was developed by CORD. Worksite visits further expose students to potential career opportunities and encourage them to pursue the course of study.

Articulation agreements with the local school districts, ACC, and other community colleges were developed by the Capital Area Tech Prep Consortium. The articulated courses are industrial electronics I (DC/AC circuitry) and industrial electronics II (digital logic and basic semiconductor devices). These courses articulate directly to ACC's semiconductor manufacturing technology (SMT) program, previously developed by AMD and other semiconductor companies in conjunction with SEMATECH (a national consortium of semiconductor companies). The SMT degree program offers the

option of a one-year (thirty-six-hour) certificate or a two-year (seventy-two-hour) associate of applied science degree. This curriculum has now been standardized nationwide for the electronics industry through SEMATECH's efforts.

Students completing both articulated courses can earn sixteen college credits in escrow. ACC has now negotiated articulation agreements with four-year colleges, thus allowing students to apply their high school and community college work toward bachelor degrees in electronics.

Principles of Technology instructors participate in professional development through the Texas Education Agency. ACC instructors teach the industrial electronics courses, and students are bused to ACC facilities near their high schools for these courses. AMD offers several summer sabbaticals each year to educators, with priority given to ACE instructors and high school counselors. In addition, the ACE steering committee continually looks for ways to promote team teaching—specifically between math and *Principles of Technology* instructors—and the committee is introducing CORD's new math modeling curriculum into the ACE high schools.

Initial funding for ACE was provided through grants from AMD's Corporate Contributions Fund (\$40,000) and from CATF (\$20,000) through the National School-to-Work Opportunities Grant. These two grants funded *Principles of Technology* labs in the high schools, an industrial electronics instructor, textbooks,

and transportation for students to take the college-level courses at an ACC campus. The two school districts provided *Principles of Technology* instructors and space for the on-site labs. ACC donated class space and labs for the college-level electronics courses.

The ACE steering committee looks for ways to promote team teaching—specifically between math and *PT* instructors.

Another \$62,500 was spent by AMD from 1996 to 1998 to expand the program. However, the largest monetary investment has been in the salaries of student interns. AMD has paid \$285,000 in student salaries and more than \$50,000 in scholarships for students who continue the course of study.

The Program

Students who enroll in the ACE pathway are eligible to apply for paid summer internships with AMD. In the first year, AMD offered thirty-two summer internships to students who were enrolled in ACE for the following fall semester. In subsequent summers, AMD has provided twenty-four paid internships to students and faculty members involved in ACE and/or SMT. CATF has recruited other high-tech companies to provide internships to ACE students. AMD offers scholarships to high school graduates continuing in the ACC semiconductor manufacturing technology degree program.

Each high school is responsible for recruiting students into the pathway. The two schools have different requirements. Del Valle requires an eighty or above GPA in math and science and successful completion of the math portion of the Texas Assessment of Academic Skills (TAAS).

Johnston High School opens enrollment to all interested students. *Principles of Technology* is used by both schools to recruit students. Another important recruitment tool is the availability of summer internships with high-tech employers. AMD sponsors a student and parent information night on site to share information about the ACE program and the opportunities for careers in the industry. AMD has also hosted a mixer for students enrolled in the ACE program. ACE students receive special recognition in the form

AMD has provided twenty-four paid internships to students and faculty members in ACE and/or SMT.

of T-shirts and certificates, and graduating seniors receive special green cords to be worn at their high school graduations. In the 1997-1998 school year, the participating campuses formed ACE clubs to offer further support and opportunities to students.

Students in the ACE program are given first priority for summer internship positions with AMD. AMD job applications are distributed in the schools through the campus ACE representatives and campus faculties. Students are responsible for completing the applications and returning them to AMD. They must proceed through the standard AMD application process, which includes an interview, a physical exam, drug testing, and a background check.

Students selected for internships attend two half-day sessions of work-readiness training conducted by CATF and AMD. All interns are placed in “technically relevant” positions. These include job assignments such as product engineering, computer programming, quality assurance, environmental testing, control instrumentation, web-site construction, video production, and testing of semiconductor chips. Like all other AMD employees, the students’ first day on the job involves a new-employee orientation session. Student interns are paired with AMD mentors. Together, the

All interns are placed in “technically relevant” positions involving work-related assignments.

student and mentor develop a summer work plan, which they periodically review together. During the summer, student interns meet occasionally for luncheon sessions, allowing them to bond and share experiences. At the end of the summer, students and mentors complete evaluations of their experiences; the evaluations are used to improve the program. CATF holds a recognition event for all interns and their employers at the end of the summer.

Maintaining an Exemplary Program

Ongoing communication among all partners is crucial to maintaining an exemplary program. The monthly ACE meetings offer a venue for planning and problem solving. AMD also pays half the salary of an Austin ISD career specialist to assist in program implementation.

Marketing of the ACE program has presented a challenge in the following areas:

- ❖ Students are asked to enroll in electives that include rigorous, college-level work with heavy focus on mathematics.
- ❖ Many are intimidated by “high tech” and perceive the field to be one for science and math “brains” or “nerds.”
- ❖ Students and parents are concerned about the well-publicized layoffs and job freezes that occur periodically within the industry.
- ❖ Students perceive a lack of prestige of two-year degrees versus four-year degrees.
- ❖ Many students and parents lack career awareness about the industry and its high-wage jobs.

Ongoing communication among all partners is crucial to maintaining an exemplary program.

To counter these perceptions, the steering committee has used a variety of marketing approaches, including:

- ❖ Inviting industry speakers into the classroom
- ❖ Holding a “semiconductor awareness week” where classes tour a local high-tech company and are treated to lunch and a discussion of the industry and its future

- ❖ Providing job-shadowing opportunities where students meet one-on-one or in small groups with industry professionals
- ❖ Production of an ACE program brochure directed to students
- ❖ Distribution of a “career fair in a box” to all electronics and *Principles of Technology* teachers. This resource includes brochures, posters, videos, CDs, industry publications, and a list of industry speakers willing to visit classrooms.
- ❖ Distribution of ACC’s marketing materials about the semiconductor manufacturing technology program
- ❖ Featuring the ACE pathway at career fairs and youth summits hosted by local ISDs
- ❖ Making presentations at Tech Prep conferences and to community groups
- ❖ Hosting a special semiconductor manufacturing technology program orientation at ACC for high school students and their parents

Funding for these marketing strategies is provided by industry, CATF, ACC, and the local ISDs.

Students leaving campus to participate in industry tours or to take classes on other campuses do so in compliance with district regulations and are covered by their schools’ insurance, while those employed by AMD as summer interns are covered during their employment by company policies. AMD does not place student interns in hazardous occupations as defined by child labor laws. For instance, students do not work on the manufacturing lines but are placed in related areas, such as testing, that offer technically relevant learning opportunities.

Conclusion

Tech Prep is the foundation on which the ACE program was built. The articulation agreements in electronics provided the basic building blocks for the program. ACE adds industry

involvement, internships, and scholarships to the Tech Prep course sequence.

Since its implementation in 1995, approximately twenty students have “graduated” from the ACE program by completing all four courses in the sequence. Of these, half have enrolled in the SMT program and another five are pursuing engineering degrees. Although the numbers are low, those students involved in the program to date have gained tremendous benefits.

As students see others from their high schools graduate and succeed, they begin to see that they, too, can have futures in the high-tech industry. Students gain a glimpse of the industry through internships, guest speakers, tours, and job shadowing—all of which add relevancy by connecting the classroom to the “cleanroom.” They find out firsthand about careers in the industry and the education and skills required for various positions. Students who participate in internships meet professional role models and have an opportunity to contribute as valued members of corporate teams. Perhaps the greatest benefit of the program to students is a sense of purpose that puts into perspective the importance of academic achievement.

As students see others from their high schools succeed, they see that they, too, can have futures in the high-tech industry.

Following the first year of the program, AMD conducted a formal, third-party assessment of ACE. Students, teachers, parents, and mentors were asked about their perceptions of the program. The following quotes exemplify the sentiments of several stakeholder groups:

The ACE program gave me the chance to be something other than just in trouble.

Del Valle High School student

I learned that, if you work hard, you can succeed. Dreams don't seem so far away now.

Johnston High School student

ACE students hold their heads higher than most of their classmates. It really builds their self-esteem.

High school counselor

Teachers and other educators are learning more about the industry as well. They are discovering how math and science are applied in a high-tech world. They have opportunities to work with industry representatives as professional peers, jointly creating and implementing strategies to help their students progress in an ever-changing labor market.

Parents are excited about the possibility of their children earning free college credit and gaining education and experiences that are immediately marketable. Parents also appreciate the recognition their children receive for the extra effort they make through the ACE program.

AMD's management team views ACE as a long-term workforce-development effort that links directly to postsecondary education. The shortest cycle time in which to develop a potential employee beginning in high school is four years. As the program is just now reaching that mark, more time will be required to determine whether these efforts result in AMD's ability to hire skilled technicians (the ultimate measure of success). As testament to the company's commitment to the program, AMD agreed to continue hiring interns in the summer of 1996 at a time of declining corporate profits, hiring freezes, and layoffs.

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Short-term benefits for the company include enhanced relationships with local school districts and a more positive image within the local community. Likewise, employees who serve as mentors feel that they are making a real difference in students' lives. A number of the students have done multiple internships with the company, and two young women who started on the ACE path as juniors received their associate degrees in spring 1999.

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Other employers benefit from the program as well. Increased awareness of the industry benefits all local high-tech employers and ultimately increases the available labor pool.

Awards and Recognition

The ACE program has gained a national reputation as an exemplary school-to-career model. Specific awards and recognition include:

- ❖ National Tech Prep Exemplary Worksite Learning Award, 1997
- ❖ State Tech Prep Exemplary Partnership Award, 1997
- ❖ Testimony before the U.S. Senate Labor and Human Resources Subcommittee on Workforce Development, 1997
- ❖ Partners in Education Exemplary Partnership Award, 1998
- ❖ CitySearch.com Community Collaboration Award, 1998
- ❖ Governor's Conference on Science, Technology, and Mathematics Education Exemplary Partnership Award, 1998
- ❖ Texas Career and Technology Council Outstanding Business/Labor Involvement Award, 1998

Outlook

While the number of students coming out of the ACE pathway is still small, the future of ACE is bright. The program has already expanded to two more Austin ISD high schools and will eventually include all twenty-three high schools in the Austin region. A comprehensive plan to regionalize the effort, dubbed ACE 2000, has been developed by CATF. The plan has included installation of hands-on science and technology labs at thirty-seven middle schools in Travis, Williamson, and Hays Counties. When fully implemented, the program can yield one thousand to twelve hundred area high school graduates per year with electronics coursework and some experience in semiconductors and electronics.

CATF is working with AMD and SEMATECH to increase the number of corporate sponsors for the program. Recently, Motorola, Applied Materials, and Tokyo Electron have joined AMD and SEMATECH in providing financial support for the expansion of ACE. CATF is also pursuing federal, state, and private grants to support the expansion effort. These companies and organizations realize that an expanded pool of qualified applicants benefits everyone in the Austin region (especially the students).



TEACHERS IN THE WORKPLACE

Introduction

Most teachers leave college and immediately return to the classroom as teachers. Their knowledge of the workplace is limited; therefore, their confidence and authority in relating the demands of the world of work to their students are restricted.

In the summer of 1994, business leaders in Lexington County in South Carolina decided to provide opportunities for teachers in all curricula to become current on the skills, knowledge, and environment of the competitive, global twenty-first-century workplace. Five teachers began internship at Pirelli Cable of North America. The ideas, promotions, and endorsements for the program were provided by a grassroots community organization called Planning for the Future. The program's goals were to expose classroom teachers to all aspects of business through "hands-on assignments" and to immerse the teachers in the day-to-day operations of the business as participants and not as observers. An added benefit for the teachers was the opportunity to earn three hours of graduate credit through the University of South Carolina with Central Midlands Tech Prep Consortium funding the tuition.

To achieve “buy-in” from educators, school representatives were placed on the planning committees at the program’s inception. The educators could spot potential problems or areas of concern before internship began. Public relations and marketing specialists were also on the initial planning committee to handle publicity in the community.

Building the Solution

In 1994, a task force of twelve business leaders and educators was formed to work out the details of the internship program.

The task force set one primary goal: to foster partnerships among educational institutions, private business, and the communities in Lexington County. Their initial strategy was to develop a program that would allow academically oriented teachers to spend three weeks working in local industries and businesses so that they might have a better understanding of the realities students will face when entering the workforce. Among the eight items on the action plan that the task force developed:

- ❖ Target industries and businesses that are willing to participate in the program
- ❖ Commit to predetermined time requirements for each participant
- ❖ Seek department of education recertification for all participating teachers
- ❖ Develop a follow-up evaluation for the program that gives feedback to the task force and to the industries and businesses in which the teachers work.

Goals were to expose teachers to all aspects of business through “hands-on assignments” and immerse them in day-to-day business operations.

By 1996, the task force had expanded to forty members, and it now consists of representatives from the Central Midlands Tech Prep Consortium, the nine school districts, the local technical college, and former and potential business partners. The task force meets each year to solicit help from representatives of the school districts in identifying teachers to participate in Teachers in the Workplace. Business partners on the task force are asked to commit their businesses to be training sites and to identify other businesses that can offer workplace sites. Training is held each year in early May for worksite mentors. This two-hour workshop covers the legalities, expectations, and goals of the program.

The workshop is modeled after a self-esteem *Make Me Feel Important* model developed and used by the University of Wisconsin. This model gives the trainers the basis for the process of teaching adults new skills. One exercise that workshop participants take part in is listing the steps for a task that is done every day. Business participants in one workshop took the task of making a pot of coffee. Each person wrote out the steps, trying not to forget any steps because someone else would complete the task based on these instructions. Then the tasks were carried out and demonstrated. When the exercise was complete, trainees held up a very old coffee percolator and asked the worksite mentors if this was a tool they used in making the coffee. All laughed in response and said no. The object was to remind the worksite mentors that something they do every day may also be something the teachers do every day, but the teachers may be using an old technique or method. Worksite mentors are encouraged to use effective job instruction as a substitute for trial and error learning.

This effective training follows a pattern of motivate, explain, demonstrate, try, and evaluate. This process is encouraged for the effective training of the teachers. The workshop also covers the issues of match, orientation for that first day on the job, and required forms. Business partners and teachers who have been through the program are also important representatives at the training because they can confirm the new

mentors' expectations and give perspective to what the real experience will be like.

The purpose of the program is to allow educators to experience firsthand the skills required in the modern, technological workplace so that they can better prepare students for tomorrow's workforce. Other than this main purpose, the program works to identify changes in the workplace and related implications for education; increase understanding of the various occupations within a company and the related skills and education required for entry and/or advancement; and, finally, to allow educators to learn about area business and industry, the products or services they provide, and their impact on the community. For each teacher interning, the participating business pays \$7 per hour for 120 hours (\$840) to the teacher's school district or college. The school district or college then is responsible for deducting fixed charges before the teacher receives the pay. Central Midlands Tech Prep Consortium pays the University of South Carolina for the three-hour graduate course. The funding for this course is handled like all other institutes sponsored by the consortium.

The purpose is to allow educators to experience firsthand the skills required so they can better prepare students for tomorrow's workforce.

Curriculum Development

A requirement for successful completion of the Teachers in the Workplace course is the development of a curriculum project that shows application of what was learned during the work experience. The project must include student objectives, teaching strategies, materials, evaluations or assessments, and implementation of the SCANS competencies.

One curriculum project, "A Curriculum Resource Packet for Science," created by Paul McEwan from Dutch Fork High

School, is exemplary of the projects that teachers create. McEwan's resource packet is based on his experience at Allied Fibers/Signal Company. His curriculum project gives an introduction to Allied Fibers and teacher background information for three major areas of study related to work at Allied Fibers. This background relates what McEwan learned during his work experience. He presents facts such as descriptions of chemical processes that take place and what they do in the production process at Allied, and he explains Allied's environmental control procedures. Following the teacher background section, McEwan provides four activities for use in the classroom. Each activity has an introduction, instructions, and a list of supplies; it even notes supplies that could be provided by the business partner. In the abstract following the classroom curriculum, McEwan states that his experience at Allied helped him realize that several of the things important to running a business are factors that have direct implications for what is done in high school classrooms. The overall experience gave him "a wealth of practical knowledge and real-life examples to share with his students in the coming years."

Teachers are also required to read and report on an assigned text. In 1997-1998, the text was *Who Are You Calling Stupid?* by Dan Hull.

Each teacher participant and business representative signs a legal contract that gives details of the expectations from all parties, and articulation agreements are on file between the nine school districts in Central Midlands and the technical college that serves the districts. Terms of the articulation agreements are adhered to in all relationships among the secondary and postsecondary schools in the consortium.

The Program

Teachers in the Workplace began in three school districts with five teachers and one business. Since its inception, 146 teachers and 48 businesses have participated in the program. The program is supported by two instructors, one permanent faculty

member from the University of South Carolina, and one teacher on contract to the university. The three members of the consortium staff all work with the initiative.

All teachers are required to complete applications, submit current resumes, and write 250-word essays on why they would benefit from the experience. The essays must include the reasons for wanting to participate in the internship program, the expected gains from the experience, how effectiveness as a teacher will be enhanced, and any types of prior industry or nonschool-related work experiences. Program administrators' primary criterion in teacher selection is the essay.

In one essay, an English teacher expressed what she thought to be most valuable: "I can continue to grow and learn instead of being stuck in an ivory tower that is totally removed from the real world. Students pick up on this very quickly. Keeping in touch is therefore critical for all teachers, but especially so for Tech Prep teachers who want to have a lasting and positive impact on their students."

Another teacher's essay included these statements: "I would like to know more about what our 'local' companies are doing and what they need most out of our students. I would also like industry to know more about how we are required to operate in education. A mutual understanding of the two working together is what I hope to accomplish with Teachers in the Workplace."

Teachers are recruited for this program by former participants and the school-to-work coordinators in their districts or colleges. A new feature of the program beginning in 1998 is extension of the program to year-round. Teachers who work with the Department of Juvenile Justice and those with Midlands Technical College do not have

"I can continue to grow and learn instead of being stuck in an ivory tower that is completely removed from the real world." (English teacher)

summer breaks; therefore, their participation in a summer program was not possible before this change.

It would be difficult to describe a typical day of a Teachers in the Workplace participant because each business uses its own approach for “teacher immersion” in the worksite. However, in the May session the program trainers encourage business partners to follow an orientation checklist that helps teachers overcome the first-day jitters. Teachers are told where to park, when to have breaks, what type of dress is appropriate, and so on.

Assessment is handled from several different angles. The business partner evaluates the teacher, the teacher evaluates the business site, and the college’s course instructor assesses the teacher’s progress. At the end of the course, teachers are asked to complete two evaluations, one of the teacher institute part of the program and one regarding the college faculty members. In 1998, an assessment of the knowledge, attitude, and experiences of the teachers was added. This survey was to be conducted again in December to assess the attitudes of teachers after they had worked with their students for a few months.

Maintaining an Exemplary Program

The focus team that meets in February serves as the marketing group for the program. The team includes businesspeople, school-to-work coordinators, and Teachers in the Workplace graduates. The program has grown by word-of-mouth and by having former participants sell the program. Other than in-house publications, little advertising is done for this initiative.

The 1997 Teachers in the Workplace video has become a valuable marketing tool. All school districts have shown the twelve-minute video at faculty meetings to help in the promotion of the program, and all business partners have copies. They share this visual with other businesses that express interest in participation. All marketing efforts are funded by the consortium.

Conclusion

Pirelli Cable of North America is recognized as being the first business partner for the Teachers in the Workplace program. In 1997, Pirelli was named as the recipient of the South Carolina Governor's Job Creator Award for the Central Midlands area. In 1998, FN Manufacturing of Columbia, South Carolina, another business partner, also received this award.

The Central Midlands Tech Prep Consortium's hope is to continually expand the program to include as many teachers and businesses as possible. Other consortia across the state are beginning Teachers in the Workplace programs, and the consortium has provided all sixteen of them with copies of its video, application, syllabus, and required forms and evaluations. The program is striving to attract administrators and more counselors to the worksite.

An intangible benefit of this program is the mutual respect and camaraderie that are established between educators and their business partners. Many of the earlier participants continue to invite their business partners into the classroom on a regular basis. Business partners also host industry tours for students and teachers.

An intangible benefit is the mutual respect and camaraderie established between educators and their business partners.

As teacher Gigi Dawson told a *Lexington County Chronicle* reporter in 1996, "Our students don't have an accurate view of the world of work. I plan to alter the way I teach so my students will be better prepared for life after school." Dawson participated in Teachers in the Workplace to learn exactly what her students will experience when they enter the workforce.



AUTOMOTIVE TECHNICIAN MENTORSHIP

Introduction

The Miami Valley Tech Prep Consortium’s Tech Prep Automotive Technician Mentorship Program was developed in response to the industry’s critical shortage of highly trained automotive technicians. Advances in automotive engineering and technology require today’s technicians to combine hand skills with much higher-level head skills to repair and maintain automobiles and to be able to continue to learn and assimilate information that changes at least annually with new models. In an industry where the profit center is less in the sale of automobiles and more in their maintenance and repair, the ability of the automotive technician is pivotal to the dealership’s success.

Because workforce labor market statistics indicated a critical need for new technicians, the Tech Prep program, along with the worksite mentorship training program, was able to speed the introduction of qualified high school students to the automotive technician career. One distinctive feature of this mentorship program is the fact that it has become institutionalized by both school and industry because it meets needs of all stakeholders. Recruitment of high school students and the training of worksite mentors occurred simultaneously.

Using the resources of the Tech Prep consortium wisely, the mentorship program is able to get more result from the same effort expended previously. Students will be better trained to become successful automotive technicians. Employers can augment the training and education of high school students through improved worksite delivery of training. Vocational instructors receive additional training and equipment to upgrade their skills. To meet the increased demand for qualified technicians, auto dealers “grow their own” service technicians.

This program was in place in the Miami Valley Tech Prep Consortium in 1994. In 1996, General Motors approached the Miami Valley Career Technology Center (MVCTC) to be a partner in the GMYES program.

The Tech Prep Automotive Mentorship program was a forerunner to the GMYES program. The consortium’s mentorship philosophy of “growing your own” automotive technicians was implemented locally at about the same time that GM CEO John Smith was giving the charge to the General Motors dealerships to create a

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nationwide training program for future technicians. As a result, the MVCTC was adopted into the GMYES program on the spot! This partner’s commitment to the students has been to provide paid worksite experience to give students tremendous opportunity and experience. The mentorship program now has students who are in their second year of community college still working at the mentorship locations they started in as juniors in high school. “Growing you own” has matured into “harvesting your own.”

The main goals of the program are to prepare students to become successful automotive technicians and to increase the number and the level of education of employees entering the field. Two processes are facilitated by the project: (1) selection

and coordination of Tech Prep automotive technician students in paid worksite learning and (2) selection and training of industry technician mentors. Partners include high school career centers, Sinclair Community College, and the Dayton Area Auto Dealers Association (DAADA) and its new car dealerships.

The project provides for a trained technician mentor within each DAADA member dealership (38 total) and subsequent match of a screened Tech Prep automotive technician student as early as the summer preceding the twelfth grade. The placement is for a minimum of two years and may be continued during the community college years of the Tech Prep program. Student progress is monitored and evaluated cooperatively by the school and the industry mentor according to the student's work plan and the program guidelines.

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Building the Solution

At the time of the proposed solutions, the stakeholders had already enjoyed an evolving relationship. The joint vocational schools had automotive technician programs and they had a relationship with the local community college to help transfer those high school graduates who wished to advance to associate degree programs in auto technology. The community college also offered Automotive Service Education Program (ASEP) and Chrysler Apprentice Program (CAP) training for General Motors and Ford technicians for their certification and advancement. ASEP certifies those who complete as Automotive Service Excellence (ASE) certified—a nationally recognized certification program. CAP is similar to ASE, but it

pertains to Chrysler products. The automotive program at Sinclair Community College works to certify its graduates for GM, Ford, Chrysler, and various imported dealerships. DAADA had been working with both the community college and the vocational schools to recruit graduates for employment in the dealerships. The solution of creating a Tech-Prep-level program and adding automotive mentorship worksite training was both a natural evolution of the relationship among the shareholders and a new vision solution to the problem of not having enough good technicians in the labor pool.

For the first three years of the program, a workforce development grant was awarded through the state of Ohio. The grant funded mentoring instruction curriculum materials, facilitation of a Friday-evening-all-day-Saturday workshop, and a \$600 stipend for each participant. The stipend was to defray the perceived cost to the automotive technicians who would be working with the students. However, as the program developed and the technicians observed the value of having another “trained” pair of hands working alongside them, they found that they were actually getting more work done and generating more income for themselves. The students also receive an entry-level wage for their time on the job. By the time grant monies ran out there were trained mentors in every dealership involved in the DAADA and the value of the program was established.

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Currently, the mentor training is funded through contributions of the DAADA and the Automotive YES program. The Automotive YES program has been developed on a parallel track by General Motors during the same time frame. The

mentor training workshops are still conducted, and the stipend has been lowered to \$400. The success in placement of students in the mentorship sites has been tremendous, and the fact that the students can stay in the mentorship sites for three years has created a high demand for trained mentors. The success of the student-mentor relationship as a productive opportunity has created a high demand by technicians to be trained.

The joint vocational schools already had advisory groups for their auto technology programs, some of whom were members of DAADA and were faculty members at the local community college. With Tech Prep started in electronic engineering technology and industrial engineering technology the previous year, it was natural to use the existing groups to develop a Tech Prep technical competency profile (TCP) for automotive technology using the existing groups as advisors. The strength of current support allowed the introduction of the worksite mentorship component because it accelerated the introduction of high school students to the auto technologist career.

Initially the business partners had a say in developing the TCPs that guide the curriculum for grades 10 through 14. They created a curriculum that provides enhanced training for the student along with training, evaluation, guidance and supervision components both at school and at the worksite. A TCP was first developed using the TCP process, bringing together secondary and postsecondary institutions and the business partners. The TCP called for worksite learning and mentorships to be a part of the curriculum. A mentorship training program was developed as a state model to train automotive technicians and technical instructors to be mentors to high school and postsecondary students.

Faculty members from both the vocational high school and the community college studied the completed TCP and decided which competencies could be taught at which level and how credit could be awarded. Because an agreement existed between the vocational school and the community college, it was much easier to make decisions and for each to understand the other's curriculum.

Sinclair Community College and the Miami Valley Career Technology Center understand the need for collaboration between secondary and postsecondary institutions and strong linkages with employers. Since both also were aware of the fact that many students graduating from high school are unprepared for employment and have no commitment to continuing their education, articulation agreements were a natural action.

Through a grant from the Ohio Department of Education, the mentorship workshop to train the dealership technicians was developed. The grant was part of the federal School-to-Work Opportunities Act of 1994. James W. Piper of the University of Toledo developed a handbook for mentor training, and he was hired to conduct the first mentorship training session. This grant was renewed for two years, and currently the costs are underwritten by the Tech Prep consortium.

All vocational instructors and dealership technicians participated in the mentorship training seminars. Vocational instructors received technical training updates periodically. Through DAADA, dealerships have actively participated in the mentorship training for their industry technicians and cooperated with the participating vocational schools to place and train the high school students. The mentors in the dealerships continue support to place and train the high school students.

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The Program

In Ohio all students in the eighth grade begin individual career plans (ICP). They take career assessments and investigate careers and form in their minds career choices that guide their course selections as they enter high school. As sophomores, they are provided an opportunity to visit MVCTC. MVCTC offers Tech Prep awareness days, during which students visit MVCTC and Sinclair Community College to see how the automotive Tech Prep program will prepare them for careers. High school counselors have received in-service training regarding the student abilities and interests that would be characteristic of the most successful candidates. The recruiting is primarily the task of the home high school counselor in identifying the students and having them participate in the awareness day. This is true of all the vocational programs at MVCTC as well as the Tech Prep program.

Students in the automotive technician mentor project complete one year of vocational training during the junior year of high school. Instructors decide whether the students are ready for the mentorship program and help those selected find summer employment in dealerships with trained mentors. (This summer work can be full or part time.) Beginning in the fall, these students attend school half-days to complete academic graduation requirements. They are at the worksites gaining occupational competencies the second half of the school day. Both summer work and school day work are paid experiences.

Students complete the application for the automotive technician mentor program (including letters of recommendation from the automotive Tech Prep or vocational instructor and the school guidance counselor) and the parental/guardian consent form. These applications are sent to each participating dealership.

The secondary school is asked to be involved in this selection process. Secondary instructors are asked to recommend prospective students based on an established list of criteria. Instructors are also valuable to the recommendation to the

dealership. Instructors work with students and dealerships throughout the placement process of application and interview. If a student is removed from the dealership due to unsatisfactory performance or overall dissatisfaction, the instructor must recommend another student to the dealership.

The dealership must be a part of this process of selection as well. The dealership owner and technician mentor should both be part of the employment interview. If there is disagreement between the secondary instructor and the dealership regarding student performance or placement, a representative from DAADA will step in and assist in resolving the disagreement.

The high school instructors visit the job sites and work with the mentors in evaluating the students' progress based on specific competencies spelled out in the mentorship manual and students' daily logs created for the program. Secondary and postsecondary instructors have primary responsibility for managing the overall instructional program and introducing the academic, occupational, and employability skill content of the Automotive Tech Prep Competency Profile. The secondary and postsecondary instructors in cooperation with the worksite mentor prepare student worksite plans outlining content and/or areas of emphasis for each grading period. Secondary and postsecondary instructors keep the worksite mentor informed of changes or anticipated changes in the schedule or content being introduced in the school setting.

A mentorship manual was created for the dealership mentors to follow. The students keep daily work logs to record the types of jobs they learn to do and eventually perform on their own. The goal is to provide the students a multitude of job tasks to experience and learn as they become ready for careers. High school instructors make occasional job visits and decide

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with the mentors what the students' progress has been. Students are evaluated and given grades for the summer experiences and the school year experience.

Student evaluation should be ongoing, both formal and informal, and cooperative, including self-evaluation by the student as well as evaluation by the instructor and the mentor. All methods used should objectively assess student progress in relation to the prescribed outcomes of the automotive technician TCP or, in the case of a vocational automotive students, the Automotive Technician Occupational Competency Analysis Profile (OCAP). OCAPs are the pupil performance objectives in the vocational curriculum. As students complete the two-year program at the high school level, they can show mastery in their educational outcomes. Each vocational program has a list of objectives students are to master. Upon graduation, the students are given printouts describing the OCAPs they have mastered. The lists are kept in students' career portfolios to show potential employers and college admissions counselors what skills they have attained.

One student commented in a recent article how this program allows him to leave school and go to a job that is all hands on and he learns more than he probably would in a school lab.

He learns how to diagnose more difficult problems and work with the people of his choice so he gets to do different things each day. He boasts that he has replaced an entire engine in a vehicle and has also had the opportunity to work on diesel engines.

This student's mentor says that his performance and willingness to learn far exceed initial expectations of a high school student. Being involved in the automotive mentorship program helps the full-service new

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car dealership build its own technicians from high school age up to full-fledged technicians.

Maintaining an Exemplary Program

Business partners have encouraged other business involvement; what started in 1994 as a small pilot project in the Miami Valley with a few dealerships now stands at 100 percent participation in the mentorship by members of the DAADA.

The MVCTC and Sinclair have a very strong relationship, and through the Tech Prep consortium MVCTC was able to purchase radio and print ads during the recruiting window. Brochures, posters, and a recruiting video were developed by the consortium. These are used in a limited direct mail campaign to potential students. Parents are welcome to participate in the awareness day experience.

Conclusion

One hundred automotive technicians from 40 new car dealerships have been through the 16-hour training program to serve as mentors. Over the past four years, 110 Tech Prep automotive students have been placed in mentorship programs with trained mentors from 38 dealerships that provide paid worksite learning. Cooperating technician mentors report high levels of satisfaction with the students. Service

managers report that their cooperating technician mentors are more productive than in the past. Industry personnel participating in the mentor training aspect of the project report that they are generally better communicators and have improved

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employer-employee relations as a result of the program. Secondary instructors report students participating in the program show higher levels of motivation, higher levels of academic achievement, and better attitudes than those not participating.

Students successfully completing the program have 100 percent job placement. Program-wide, students who complete a Tech Prep curriculum pass the college placements exam (COMPASS) at an 80 percent rate while typical high school applicants pass at a 20 percent rate.

Evidence shows that the “grow your own” idea works. Students in the mentorship program become “adopted” by dealerships in return for their academic and technical skills. This benefits the dealerships by providing a good supply of well-trained, loyal technicians. The community gains well-trained, employed citizens ready to assume productive roles in society.

The “grow your own” idea works. Students become “adopted” by dealerships in return for their academic and technical skills.

The first participants in the mentorship program have now become role models who offer encouragement to other young people interested in this field.

An automotive tech professor from Sinclair Community College said we now have Tech Prep graduates from the community college portion of the program. He reports that these students are noticeably farther along in their careers than if they hadn’t participated in the mentorship program.

One MVCTC senior made the decision to enter the program his junior year after a talk with his guidance counselor. The student described his reasoning in this way:

I always liked working on cars and I wanted to open my own shop in West Milton some day. My counselor explained how the automotive Tech Prep program at MVCTC had a lot of hands-on training and that it also

offered scholarships to Sinclair Community College. I figured I'd be sitting at my home school doing nothing since I probably could have graduated last year by just coming in late or leaving early taking only government and English. It was an easy decision to enroll in the Tech Prep program with a chance for a scholarship and a chance to work in the mentorship all through my senior year.

The program at the community college has been cited as "best in the nation," and construction is complete on a new campus building to house the increasing numbers of students seeking associate degrees.

With its success and the pairing with AYES, MVCTC will be able to attract and retain a great number of students.

APPENDIX

What to Ask Yourself First

The concepts included in this section are provided to prompt you to think about what is most important when beginning a new program. Take time to consider what makes a program strong and why students would be interested in participating. Think about how students can gain experience from completing the program. Consider whether you have included components that are beneficial to everyone involved—students, teachers, and employers.

Basic areas such as funding, legal issues, and staffing must be investigated before the development phase of a new program can begin. The concepts and questions included here highlight the importance of addressing those issues and, in so doing, provide steps toward the implementation of a new program.

Consider the problem that a new program should address.

What is the need for starting a new program? Has business expressed the need for a more qualified workforce? Do students need to be challenged beyond merely observing or working at a job site? What student population would be included?

Everyone? Are businesses available that would support a new program? Is your faculty prepared and, if so, willing to help? As a school representative, are you prepared to present Tech Prep and School-to-Work concepts to business representatives?

Funding is an issue that must be considered prior to any planning activities.

How will your school obtain funding for the start-up and maintenance costs of a new program? Consider whether local businesses would contribute to the program. Be prepared to explain how they can benefit from being part of the program. (Remind them, for instance, that the students they are willing to train today will be qualified to serve them well as employees in the future.) Are on-campus facilities available and ready to be used? If not, consider how this will affect the start of a new program. What new equipment must be purchased? Will staff training be needed? Is local and/or state funding available? Is there a staff member who is familiar with locating funding opportunities and writing grant proposals for those funds?

Consider what staff will be needed to help brainstorm, develop curricula, and inform students.

In considering the most appropriate staff to recruit, determine how your new program will be structured and the demands it will make on the teachers involved. The teachers selected must be willing to work long hours to develop curricula and to meet with other teachers for planning. The staff must also be flexible, creative, and willing to try new teaching methodologies and to teach with new learning tools.

Consider whether the teachers have any other work experience that might contribute to course development and teaching strategies. Do these teachers have business contacts from whom they might receive outside training?

Will business representatives come into the classroom to teach? If so, consider how these outside teachers might be selected. What requirements (e.g., state certification) will they have to meet to be able to spend time in the classroom?

Counselors play a key role in the success of a new program as well. They must be informed about all aspects of the program so students are informed and get the opportunity to enroll. A sound marketing plan depends on counselors being well

supplied with up-to-date information on the program. By word of mouth, they can help students take an interest in new program opportunities.

The organization of an advisory committee is strongly recommended to help in decision making; it can be beneficial during the organization and development phases.

The people who make up the advisory committee should represent varied backgrounds; diversity on the committee contributes to balance in decision making. Thus, it is a good idea to appoint a heterogeneous group made up of business representatives, teachers, administrators, counselors, students, and parents. Does your school already have an advisory committee with members from the community whose services could be used? Consider the criteria that will be used to select members from the community to sit on this committee. Also consider the goals and philosophies of the program; make sure these ideas are made clear to each member. In selecting your committee, consider how much time members will be able to devote to their responsibilities. Also, think about what their responsibilities will be. How much authority will members be given? How often will the group meet?

After working through structural issues, consider whether enrollment in the new program will be open to all students or limited to students who meet certain requirements.

Think about generally recognized characteristics of a good student, such as having good attendance, earning good grades, and being on track for high school graduation. Now, consider whether these criteria will be used to determine whether or not a student is accepted into your program. Do these characteristics fit the student population you work with? What are the needs and abilities of a typical student in your school? This is an area in which the advisory committee can provide advice concerning what they consider important characteristics. In developing

student acceptance and performance criteria, the advisory committee helps counselors select students for and introduce students to the program. How early will students begin applying for places in the program (i.e., end of school year for the next school year, midyear for the next year)? Think of ways to recruit students into the program. How will you pique a student's interest about the program? Through counselors? Teachers? Flyers around school?

One of the most important steps in program development is determining which curriculum to use: Will existing materials be used or will new ones be developed?

An ideal time to discuss curriculum issues is when considering which staff members to involve. The staff will play an important part in selecting an existing curriculum or writing new materials. Think about whether the new staff members will be motivated to take on an endeavor like writing a curriculum that meets the needs of the new program. In deciding curriculum issues, consider how best to serve the students in the program. How will students react to a hands-on, project-based instructional approach? Will they become more motivated through the interaction of in-class demonstrations and group learning? Having considered that, think about what curriculum will meet students' needs. When organizing a new program, some educators pull concepts from various sources. For example, in the past, educators have written lesson plans using concepts from existing materials (e.g., concepts from a physical science course already in use) and incorporated those ideas into new materials (e.g., *CORD's Applications in Biology/ Chemistry*). Whatever the approach taken by your school, make sure you allow enough time for the teachers to develop lesson plans.

Consider legal and liability issues and how they must be addressed prior to the start of a new program, especially if the program is an apprenticeship and/or involves worksite learning activities.

Any time a student for whom the school is responsible is taken out of the classroom and placed in a workplace, many legal and liability issues must be addressed. Who is responsible for the student at the worksite? If a student is injured at the worksite, who is liable? What kind of equipment will the student be working with or around, and how does that affect liability issues? Consult legal representatives and members of the advisory committee on issues such as students driving to the worksite or being bused during school hours. What age-related restrictions are placed on what a student can experience while at the worksite? What liabilities does a business face by allowing students to observe or work in its facility? States differ in what they will and will not allow a student to do at the worksite. For more information on work restrictions, visit the U. S. Department of Labor's web site (<http://www.dol.gov>).

Glossary

This glossary provides definitions of key terms used in this report. Please note that the definitions may not match exactly the terminology as it is used in your consortium or partnership. This section also lists URLs for web sites that provide additional information on starting a program.

Applied academics

The presentation of subject matter in a way that integrates a particular academic discipline (such as mathematics, science, or English) with workforce applications (hands-on laboratories dealing with practical equipment and devices).

Articulation

A process of linking two or more educational systems in a community to help students make a smooth transition from one level to another without experiencing delays, duplication of courses, or loss of credit.

Types of articulation:

2+2—Two years of high school plus two years of postsecondary education

4+2—Four years of high school and the first two years of postsecondary education

4+2+2—Four years of high school, the first two years of postsecondary education at a two-year college, and two years at a four-year college or university

Consortium

A stakeholder group of education agencies and organizations brought together for the development of applied curricula.

Contextual learning

The instructional approach, underlying Tech Prep, that states that learning occurs best when students (learners) process new information or knowledge in such a way that it makes sense to them in their own frame of reference. This approach to learning and teaching assumes that the mind naturally seeks meaning in context—that is, the person’s environment—and that it does so through searching for relationships that make sense and appear useful.

Cooperative education

An approach that involves a student’s working for a single employer, usually for pay, under a defined agreement with the school. It can relate closely to the occupational aspects of the student’s educational program. The work experience often lasts for months in a schedule that alternates worksite and school-based learning.

Dual system

Workforce training (youth apprenticeship), commonly found in German school systems, in which classroom instruction is combined with hands-on vocational training.

Internship

A flexible type of worksite learning that can involve varying arrangements with an employer. Its main goal is to give students and/or teachers practical experience in a specific field. An internship may be paid or unpaid, and can often last six or more weeks.

Job shadowing

A practice that enables a student to explore a job or career area in detail for the purpose of helping the student choose a career and course of study. Job shadowing should occur in the eighth or ninth grade and can last as little as two hours or as long as two weeks at one workplace. A job shadowing experience consists of one or more students following and closely observing a worker as he or she goes about tasks at the worksite.

School-to-Work

School-to-Work Opportunities Act programs must include integrated school-based and work-based learning that integrates academic and occupational learning and links between secondary and postsecondary education; the opportunity for participating students to complete a career major; the provision of a strong experience in and understanding of all aspects of the industry a student is preparing to enter; and equal access for students to a full range of program components and related activities, such as recruitment, enrollment, and placement activities.

Tech Prep

A sequence of study beginning in high school and continuing through at least two years of postsecondary occupational education. The program parallels the college prep course of

study and presents an alternative to the “minimum requirement diploma.” A Tech Prep curriculum is built on a foundation of applied academics, prepares students for high-skill technical occupations, and allows either direct entry into the workplace after high school graduation or continuation of study that leads to an associate degree from a two-year college.

Youth apprenticeship

A relatively formal worksite learning program in which employers agree to help develop students’ skills in technical areas and in related mathematics, science, communication, and problem solving. The students “learn by doing” in the workplace with the help of mentors. Qualified students receive recognized occupational credentials when they complete their programs.

Web Sites

This section lists URLs for web sites that provide additional information on starting a program.

Helpful Information for Worksite Programs

U.S. Department of Education

<http://www.ed.gov>

U.S. Department of Labor

<http://dol.gov>

Funding Information

<http://www.ed.gov/funding.html>

Goals 2000

<http://inet.ed.gov/G2K/>

Laws and Liabilities

<http://www.state.sd.us/state/executive/dol/dlm/kidswork.htm>

Secretary’s Commission on Achieving Necessary Skills (SCANS)

<http://pueblo.pc.maricopa.edu/MariMUSE/SCANS/SCANS.html>

School to Work

<http://www.stw.ed.gov>

<http://www.ohio-stw.com/>

Tech Prep

<http://www.cord.org>

<http://vocserve.berkeley.edu/summaries/714sum.html>

Related Sites

National Skill Standards

<http://www.nssb.org>

EWSLA Recipients on the Web

Capital Area Training Foundation

<http://catf.esc13.tenet.edu>

Central Midlands Tech Prep Consortium

<http://gcc.gcbn.com/cmtpc/index.html>

Miami Valley Career Technology Center

www.mvctc.com

Northwest Suburban Education to Careers Partnership

www.ed2careers.com

Oakland County Tech Prep Consortium

www.oakland.k12.mi.us

Western Wisconsin School-to-Work

<http://www.western.tec.wi.us/curstw/>

Inland-Desert Tech Prep Consortium

www.rialto.k12.ca.us/rhs/intern.htm