Occupational Skills Training

Edited by Sandra Kerka
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Introduction

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About What Works

What Works is intended to provide WIA youth-serving professionals with evidence-based information to support positive outcomes for youth. Each What Works contains a brief introduction that defines a topic of interest to WIA youth programs and a selection of reprinted resources that describe strategies known to increase the likelihood of youth success in the area.

Occupational Skills Training

The bottom line in the Workforce Investment Act (WIA) is employment, the successful outcome of a continuum of programs and services geared toward preparing youth on many fronts for working life. One of the key 10 elements of WIA youth programs, occupational skills training is defined as “an organized program of study that provides specific vocational skills that lead to proficiency in performing actual tasks and technical functions required by certain occupational fields at entry, intermediate, or advanced levels” (Social Policy Research Associates & Public/Private Ventures, n.d.).

The U.S. Department of Labor’s new strategic vision for the delivery of youth services (Employment and Training Administration, 2004) recognizes that youth who are out of school or who are most at risk of dropping out are an important part of labor supply needed by businesses to fill job vacancies in the knowledge economy. The job skills youth develop in WIA programs must therefore prepare them for industries and occupations that are and will be in demand in this economy. The resources in this document present research-based principles for ensuring that youth are connected to high-quality job training and illustrate effective practices for groups who need targeted support for employment, including court-involved youth and those with disabilities.

Best Practices for Occupational Skills Training

The following elements have been shown to be effective in research and in practice.

Pretraining Preparation

Occupational skills training will be more effective if youth are properly prepared for it. Pretraining preparation tailored to individual needs may range from basic skills instruction and tutoring (Crosby, 2002; Ganzglass, 2006) to English as a second language (ESL) instruction (Ganzglass, 2006) to the development of work readiness skills such as punctuality and interpersonal communication (Luecking, 2004). Tyler (2004) demonstrates how raising basic cognitive skills could have a positive impact on employment outcomes and earnings, because changes in the nature of work now favor higher-skilled workers. Ganzglass (2006) suggests that integrating basic skills or ESL instruction with job skills training will increase engagement in learning and make it more likely that students will complete job training and enter postsecondary education or employment. Kerka (2004) describes the relationship between goal
setting and skill development and recommends strategies for helping youth set work-related goals.

**A Framework Based on Accurate, Current Labor Market Information and Occupational Standards**

Job training should give youth the skills employers want in today’s labor market as well as prepare them to learn new job skills throughout their working life. Effective occupational skills training programs use up-to-date sources of information on the education and skill requirements of jobs, earnings and career paths, and the growth potential of occupations and industries (Brown, 2003). Programs use current labor market information (LMI) in conjunction with academic and occupational skill standards to develop curriculum, instruction, and assessment and set benchmarks for skill attainment (Kerka, 2004). Brown and Kerka list a variety of sources of LMI and standards for program development.

**Strong, Sustained Partnerships with Employers and Community Organizations**

Employer involvement is crucial if youth develop skills that enable them to obtain and keep jobs. Employers can define their skill needs to help structure training and they can offer opportunities for youth to practice their skills in real workplace situations, such as through internships, on-the-job training, and apprenticeship (Crosby, 2002). Strong employer partnerships are also critical for groups who are difficult to place, such as court-involved youth and youth with disabilities (Brunson and Smith, 2001; Hamilton and McKinney, 1999; Luecking, 2004). Luecking presents the stories of 11 employers who worked closely with youth-serving programs to provide work experiences and develop job skills in youth with disabilities. His summary suggests ways to create and sustain partnerships and shows what makes it work for employers. Brunson and Smith (2001) and Hamilton and McKinney (1999) describe collaborations among juvenile courts, correctional facilities, educators, employers, and community organizations that prepared juvenile offenders for careers in the food service and house building industries respectively. Totten, Dodson, and Thomasson (2000) analyze the experiences of 12 partnerships involving community-based organizations and present what works best in creating economic opportunities for at-risk youth.

**Youth Development Philosophy**

Youth-serving programs should ideally have as youth development principles as their foundation, an assets-based approach that minimizes risk factors and maximizes protective factors (Raskin and Aaron, 2005). Examples in the context of job skills training include having high expectations that youth will achieve employment goals (Kerka, 2004), taking a preventive approach to skill development that engages youth before they experience job failure and develop poor job skills or behaviors (Luecking, 2004), and providing youth with economically rewarding alternatives and constructive social participation through social microenterprises (Ranking and Aaron, 2005). Involving youth in higher-level positions such as work crew leaders develops leadership skills and experience needed for work and for life, according to Totton et al. (2000), who also offer suggestions for engaging youth as a resource in job training programs.
**Nontraditional, Innovative Structures**

Youth-centered programs use nontraditional, innovative approaches to create conditions in which students who have not succeeded elsewhere can flourish. Examples include:

- College bridge programs that help youth master the skills needed for immediate employment and entry into postsecondary occupational training programs (Ganzglass, 2006)
- Flexible schedules to help students juggle multiple obligations (Ganzglass, 2006)
- Modularized courses that enable youth to earn credit for completing a module as they build toward course completion and longer-term certificates (Ganzglass, 2006)
- Flexible programming and service delivery to deal with the constantly changing conditions in young people’s lives (Totten et al., 2000)

Raskin and Aaron (2005) provide examples of an innovative model called social microenterprises, small revenue or job-creating projects undertaken by individual social entrepreneurs, nonprofit organizations, or nonprofit-for-profit partnerships. Using a business model instead of a social service model, microenterprises generate income to funds job placement services, life skills mentoring, and other services while offering youth an employment alternative to involvement in gangs or crime.

**Incentives and Supports to Encourage Youth to Attain Skills and Credentials**

A challenge for youth-serving programs is keeping their clients in training programs long enough to develop job skills or earn credentials. Kerka (2004) describes financial, recreational, and other types of incentives that programs have used to retain and reward trainees. Totten et al. (2000) articulate a fundamental principle: focus on the young people and create a comprehensive program to address what is happening in their lives. To give occupational skills training a chance, provide supports such as job coaches to deal with performance or accommodation issues on the job (Luecking, 2004), follow-up support to reinforce job skills and work habits (Kerka, 2004), childcare and transportation assistance (Crosby, 2002), and support for the transition to postsecondary education (Brunson and Smith, 2001). Luecking (2004) advocates early identification of support needs so that youth can focus on and persist in developing occupational skills.

**References**


High-quality career and technical education (CTE) programs prepare students for occupations and careers in demand. CTE program planning involves careful use of up-to-date labor market information (LMI), which is provided by a variety of state, federal, and local agencies and organizations. This Brief reviews why and how the use of LMI can help program planners and policy makers design effective CTE programs.

**Why Use LMI**

Labor market information (also called work force or career information) includes information about labor market conditions, employment trends, earnings in occupations, skill requirements, and education and training resources (Sommers 2000). It offers insights about economic trends that have implications for employment, such as “globalization of trade, changes in workplace and organizational culture, changes in marketing and customer requirements, regulations that affect health and safety, finance, and environmental issues; and increasing levels of technology and telecommunications” (Fretwell, Lewis, and Deij 2001, p. 17). CTE program planners can use such labor market information to ensure that they accomplish the following:

*Develop Occupational Standards that Reflect Changing Socioeconomic Demands*

LMI allows for in-depth analyses of occupations and occupational standards by providing data that reflect the needs of the workplace and the wider economy (Mansfield 2000). It can help educators and policy makers identify occupations that are in high demand, have changing job requirements and needs, employ a large percentage of the work force, and reflect new and emerging fields of work (Fretwell et al. 2001). Information on the labor force can also pinpoint changes in the attitudinal patterns of workers; technological, communication, and work organization patterns; lifestyle patterns; and work patterns, which have implications for standards development. Demographic changes in the worker population, as illustrated in labor market or work force information, may also affect how occupational standards are developed and validated. Changes in the work force, e.g., increasing numbers of older, female, and minority workers, have implications for how educators help their clients prepare for and succeed in the workplace.

*Ensure that CTE Programs Contain Current and Relevant Workplace Information*

Secondary, postsecondary, and adult students need up-to-date, relevant information to make informed decisions about their education, career paths, and future job choices while they are in school and throughout their lives. LMI indicates the numbers of available jobs within given occupations, the speed with which employment in specific occupations is growing and/or is expected to grow, anticipated job openings, education and training requirements, working conditions, earnings, and where jobs are located (Ohio Department of Education 2001).
CTE practitioners and policy makers need similar data to ensure that their programs, curricula, and allocation of resources are appropriately designed and targeted. LMI sources provide international and national economic trends, national enterprise employment data, sector surveys, census and social security data, medium-term employment forecasts, employment service job bank data, employer advisory committees, and occupational employment surveys and long-term forecasting (Fretwell et al. 2001).

**Facilitate Individual Career Decision Making**

Well-organized labor market information provides a basis from which students can assess their potential for work in certain jobs and analyze which training opportunities are best suited for them. Program planners and policy makers must be cognizant of both the “supply side” (workers) and the “demand side” (employers) of the labor market so that programs and services can be coordinated, addressing the needs of the workers and employers in the community by answering the following types of questions (AFL-CIO 2001):

- **Supply side (workers)**
  - What are the demographic characteristics of the work force?
  - Which populations are having trouble finding or keeping jobs that pay enough to support them or their families?
  - What wages are required to live in their community?
  - How are workers geographically distributed across the region?

- **Demand side (employers)**
  - What are the major industries in the area and what is their growth potential?
  - What are the current and projected labor needs of businesses in the area?
  - What are the hiring standards, wage structures, and skill requirements?

**How CTE Program Planners Can Use LMI**

Uses of labor market information must lead to the coordination of services, be cost effective, meet quality requirements, and show evidence of success. Four ways program planners can do this are as follows.

**Link Academic and Occupational Skills Standards to Career Development**

One way for CTE practitioners to achieve such linkage is by using the guidelines and standards developed by the National Career Development Association and the Association of Computer-based Systems of Career Information (Sommers 2000). These resources provide relevant and accurate information that educators can use in developing education linkages with business and industry. The V-TECS system for linking academic content standards to occupational standards provides another valuable resource for CTE program planners. It identifies the “academic skills required for competent workplace performance and provides tools for enhancing the quality of workplace and academic performance” (Losh 2000, p. 9; Snyder 2000).
Use Multiple Sources of Labor Market Information

Resources that present work force information for occupational clusters may be found in New York’s CareerZone system (http://nycareerzone.org/), in curriculum materials such as Oregon’s Certificates of Advanced Mastery (http://www.ode.state.or.us/opte/CAM/index.htm), and through practices that have been identified by America’s Labor Market Information System (http://www.lmi-net.org/Resources/BestPractices/Current.html). Other sources of labor market information include the following (AFL-CIO 2001, p. 3):

- Census Bureau for data on population and business activity
- Bureau of Labor Statistics for information on the labor force, jobs, and wages
- Bureau of Economic Analysis for information on national income, gross domestic product, and industry wealth data
- State and local government agencies that use these federal data to produce custom reports and often conduct their own LMI surveys
- Private data sources, particularly for information on specific firms

Refer Students to High-Quality Information Resources

Educators have traditionally used print-based resources such as the Dictionary of Occupational Titles (DOT) to bring career information to the classroom. The Career Guide to Industries (Bureau of Labor Statistics 2000), for example, offers information on 42 industries that are most represented in the work force. For each industry, information is presented about the nature of the industry, working conditions, employment, occupations in the industry, training requirements, advancement opportunities, earnings, and outlook.

The Occupational Information Network (O*NET), which was developed to replace the DOT, “is a flexible, skills-based system that describes job requirements and worker attributes as well as the content and context of work” (Mariani 2001, p. 26). It provides a comprehensive system of occupational descriptions that answer the need for job information and allows for the efficient gathering and updating of information. The domains of the O*NET model are as follows (Peterson et al. 2001):

1. Worker characteristics (abilities, work styles, occupational values and interests)
2. Worker requirements (required knowledge, skills, and education)
3. Occupational requirements (generalized work activity, work context, and organizational context)
4. Experience requirements (useful for matching people and occupations)
5. Occupational characteristics (labor demand descriptors and project occupational employment, labor supply descriptors, and so forth)
6. Occupation-specific requirements (skills, knowledge, tasks, duties, machines, tools, equipment)

Online labor market information is gaining in popularity due to an “increase in the number of computer-assisted career guidance systems, the widespread availability and use of the Internet.
and a growing number of adults interested in further education and career information” (Imel, Kerka, and Wonacott 2001, p. 2). SkillsScan Online: Have Skills, Will Travel is a web-based program that involves clients in a skills identification process to help them “identify their core strengths, skills sets, and areas needing development…It is a self-directed process that enables clients or employees to assess skills and competencies, explore career options that match their skill sets and plan skill development activities to keep pace with changing work demands” (Beckhusen 2001, p. 19). Some of the limitations of online programs, however, must be considered, depending upon the audience for which LMI is being provided. For example, clients who do not have access to the Internet, who lack computer proficiency, or who are not prepared to make career decisions through self-assessment would not be candidates for these programs.

**Link Career Information with Assessment Tools**

Career information is often linked with assessment tools, such as interest inventories, that help students focus on the information most pertinent to them (Sommers 2000, p. 1). O*NET has a set of self-directed assessment tools to help clients with their career preparation, decision making, and transitions to the workplace (Mariani 2001). However, as is true for users of online LMI, the insights they provide and their successful use depends to a great degree on the user’s proficiency with the tools, his/her readiness for career decision making, and the appropriateness of the instrument (Imel, Kerka, and Wonacott 2001).

CTE program planners and policy makers need LMI to develop and enhance their programs and policies for an ever-changing work population. There are many ways in which this information can be used as an efficient and appropriate strategy for today’s workers. Improvements in work force information databases have been made through the development of the Occupational Information Network. Sommers (2000) identifies the following areas as being critical to the improvement of work force information systems: “strengthening local data; improving data quality, consistency, and timeliness; filling key data gaps; improving analysis and information delivery; and obtaining customer feedback” (p. 2).

**References**


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Skills Matter in the Types of Jobs Young Dropouts Will First Hold


Do basic cognitive skills matter for the least educated? They may not, if computerization of the workplace has “deskilled” the types of jobs in which young dropouts are first employed. This is, therefore, an empirical question that has received little attention and less systematic research. The ideal way to examine this question would be to begin with a pool of school dropouts, randomly assign individuals in this pool different levels of cognitive skills, and then follow them into the labor market to see if those with higher levels of cognitive skills were employed more and earned more than those with lower skill levels. To approximate this situation in a recent research study, I used data on General Educational Development (GED) candidates who attempted the GED exams in Florida between 1995 and 1998, when all were 16 to 18 years of age.

I used the scores of these individuals on the math portion of the GED battery as a measure of their basic cognitive skills. To score well on the GED math exam, you have to know basic math, you have to be able to read the problems, and you have to be able to follow basic instructions. These data are well suited for determining the economic importance of cognitive skills for dropouts for several reasons. First, the GED exams are a high-stakes test for these dropouts and so we think that individuals bring their best effort to the exams. As a result, test scores on the GED exams are likely a better measure of underlying cognitive skills than test scores on standardized tests with no stakes attached. Second, these data contain very recent labor market information on a large sample of dropouts. Following the dropouts for three years after they last tested on the GED, I observed earnings as recently as 1998 and 2001. Third, these data allow me to control at least partially for confounding factors that could limit what we can learn about the returns to skills. For example, if, in a random sample of dropouts, we see a dropout who has a higher test score earning more than a lower-scoring dropout, we do not know how much of the observed earnings premium is a result of higher cognitive skills and how much is a result of unobserved (to the researcher) factors correlated with both higher test scores and greater earnings.

Confounding Factors

Unobserved motivation is an example of such a confounding factor. If we assume that motivation is rewarded in the labor market and that more highly motivated individuals tend to score higher on a standardized test, then failure to control for motivation will lead to overestimates of the causal effect of cognitive skills on earnings. In the data I used for this study, all dropouts indicated a desire to obtain a GED and all had sat through the seven-plus hours of testing. It is thus likely that selection into the data set itself controls for some level of motivation. I used other variables in the data to control for other potential confounding factors as well. Finally, it is likely that earnings information taken from state administrative records, as were used in this study, are a more accurate measure of earnings than self-reported earnings. In summary, while not as good as true experimental data, the data on GED candidates offer several distinct advantages over typical survey data in answering this research question.
Using these data I found that young dropouts do experience a nontrivial economic return on basic cognitive skills in their first jobs in the labor market. Based on earnings in the first three years after taking the GED exams, dropouts who score a standard deviation higher on the GED math exams can expect earnings 6.5 percent higher than those with lower scores. (A standard deviation is a measure of how much spread—variation—there is in the data. We normally think of education interventions that can move test scores by a quarter of a standard deviation as fairly big effects.) This is the best evidence yet that basic cognitive skills, at least as represented by scores on a math exam, do matter in the types of entry-level jobs that young dropouts first hold.

**Implications**

The implication of this finding is that public policies supporting skill-enhancing programs could have a positive impact on the economic outcomes of low-skilled individuals. One way to increase the cognitive skills of dropouts would be to keep them in school longer. However, no dropout prevention programs have, under rigorous evaluation, been proven to be able to do this consistently. The alternative is to focus on programs that could directly affect the cognitive skills of dropouts. The only program that has undergone a rigorous evaluation in this context is the federal Job Corps program. A randomized evaluation of Job Corps found that it increased the math skills of participants by a tenth of a standard deviation (Schochet et al., 2000). Since skill enhancement is only one component of Job Corps, and since the general pool of dropouts is less disadvantaged than the Job Corps-eligible pool, it is reasonable to expect that a program focused on skill-enhancement could increase basic cognitive skills of the random dropout by something more than a tenth of standard deviation.

What if we could find or develop programs that could, on average, increase the basic cognitive skills of dropouts by as much as a quarter of a standard deviation? Based on a set of reasonable assumptions concerning interest rates, inflation rates, and productivity growth in the economy, the returns to skills I measured using Florida GED candidates mean that increasing the cognitive skills of a dropout by a quarter of standard deviation would result in an increased earnings stream over a lifetime worth between $20,000 and $40,000 if paid out in a lump sum today. This calculation does not factor in the personal and societal benefits such as better parenting skills, better health, and increased civic participation that would likely result from increased cognitive skills. Ignoring these other potentially large benefits, a program that could increase the basic cognitive skills of dropouts by a quarter of a standard deviation and that costs less than $20,000 per participant would more than pay for itself from both society’s and the individual’s viewpoint.
Why Do Skills Matter?

In the 1980s and 1990s the college wage premium—what college graduates earn above those with only a high school education—grew at unprecedented rates (Murphy & Welch, 1989). By the end of the 1990s it was more important than ever to enter the labor market armed with a college degree. What caused this explosion in the importance of a college education? Most analysts now agree that changes in the structure of the US economy led to a demand for more highly skilled workers that outstripped the ever-increasing supply of college graduates (Katz & Murphy, 1992). Changes in the goods and services we tended to produce, the design and structure of the workplace, and the tools used on the job were all geared to the abilities of more, rather than less, highly skilled individuals. Economists call this type of transformation “skill-biased technological change,” that is, technological change that favored particular skill groups, in this case those with higher skills.

There is a convincing argument that the driving force behind the declining relative (and absolute) earnings of lower-skilled individuals comes from the same process: a workplace that on average requires higher skills. This interpretation suggests to some that increased public support for programs that would raise the cognitive skill levels of the least educated individuals, particularly school dropouts, would be an effective way to improve their economic outcomes. Policymakers and the public could be surprised, however, and actual benefits of such programs could fall substantially below the expected benefits. This would happen if shifts in the production technology used in low-skilled jobs have “deskilled” those jobs, unlike what has happened for more highly skilled jobs in the economy.

As a simple example, consider how technological advancements have altered the job requirements for a typical entry-level type job: check-out clerk. The adoption of optical recognition technology and computerized cash registers has meant that the ability to know basic math in order to calculate change is no longer required for counter clerks. Technological innovations may mean that the ability to smile while working on your feet all day is more important for many low-skill entry-level jobs than knowledge of basic math. If this is an accurate depiction of the kind of entry-level jobs open to dropouts, then there could be an overemphasis on cognitive skill development as a means of improving the economic conditions of low-educated individuals. My research, however, indicates that this is not the case—in the types of entry-level jobs that first employ young dropouts, basic cognitive skills matter.

In Conclusion

Skills matter more in today’s labor market than they ever have. But the ramifications of this have primarily been seen in terms of relatively highly skilled individuals. As my research shows, basic cognitive skills are also important for the least skilled in the labor market: young dropouts with low levels of education and little to no work experience. The message for students, schools, and adult education programs is clear. Schools should pay attention to skill formation for all their students, including those who seem destined to drop out before earning their diploma. Adult education programs should not sacrifice skill formation at the expense of strategies aimed more toward GED test-taking skills. Students should work hard while they are in school or in GED
preparation programs to acquire the types of basic cognitive skills required for them to function fully in a modern democracy and economy. Individuals drop out of school for all kinds of reasons. It is inescapable that the accumulated set of cognitive skills they possess as they step into the labor market play a major role in determining their economic future.

References


Note
The study described in this article will be published in the Economics of Education Review and will eventually be a NCSALL Research Brief.

About the Author
John Tyler is an Assistant Professor of Education, Economics, and Public Policy at Brown University in Providence, RI, a faculty research associate at the National Bureau of Economic Research, and a NCSALL researcher. His work examines the economic returns to a GED, the importance of cognitive skills in the labor market, and the impact of working while in high school on academic achievement.

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What Should States Do to Implement Effective Education and Training Programs?

There is an important role for education and training as a key part of state efforts to promote employment for TANF recipients. As states structure their programs, they should draw on research findings and insights from effective practices and the most effective program designs. We recommend that states consider the following policy options.

1. Maximize the Use of Pre-Employment Vocational Educational Training to Count toward Any Hours of Required Participation

States should expand the use of pre-employment vocational educational training so that individuals can obtain a substantial amount of skill-building before their time and energies are focused on a new job. In designing vocational educational training programs, states should:

- ensure that skill-building is accessible to a significant number of low-income parents with low levels of basic skills and/or limited English proficiency;
- offer intensive programs that result in a certificate and fit within the 12-month cap; and
- connect programs to further education in year two that can be pursued in hours in excess of 20 and that leads to postsecondary occupational credentials with demonstrated value in the local labor market.

States can take the following actions to build pathways to postsecondary education and credentials that have a significant payoff in the labor market.

Create college “bridge” programs for students with low skills. Bridge programs are community college-based programs designed to help disadvantaged students with low academic skills enter and succeed in college. These programs help students master the academic, problem solving, communication, and critical thinking skills needed for immediate employment and entry into postsecondary occupational training programs that lead to better jobs and earnings gains. Research suggests that students with skills in the seventh- to tenth-grade range are most likely to benefit from such programs. It also finds that extensive collaboration between welfare agencies and community colleges is needed, particularly in the areas of student recruitment and identification of appropriate candidates. It is worth noting however, that more than half of volunteers in the New Visions program entered with math and language skills below the seventh-grade level.
**KENTUCKY.** Kentucky’s “Ready-to-Work” (RTW) is a bridge program developed in partnership by the Kentucky Community and Technical College System (KCTCS) and the Kentucky Cabinet for Health and Family Services (KCHFS). The program serves TANF recipients who are interested in attending community and technical colleges and could benefit from a certificate, diploma, Associate degree, or other short-term training opportunities. The program assists with job skills, life skills, academic success training, counseling, mentoring, service referrals, and securing and retaining employment. The program also provides participants with work-study opportunities relevant to their fields of study in both private and nonprofit settings, which gives workers experience and income, and employers an opportunity to recruit students. Since 2001, 749 RTW participants and 200 former participants have graduated from KCTCS colleges, and 731 participants went on to four-year institutions. In 2004 the semester-to-semester retention rate for RTW participants was between 77 and 90 percent. In the fall semester, the overall GPA for RTW was 2.63 compared to 2.44, the average GPA for the KCTCS colleges. For more information, visit http://www.kctcs.edu/readytowork/facts.html.

**Integrate basic skills and English language instruction with job skills training.** Parents with English language and basic skill deficiencies seldom complete traditional adult basic education (ABE), English as a Second Language (ESL) or GED programs that qualify them for immediate entry into training programs leading to credentials that can bring better jobs and earnings gains. Integrating job skills training with basic skills and English language instruction helps make ESL programs more relevant to students’ needs and increases the likelihood that ESL students will enter and complete workforce training and earn college credits.

**WASHINGTON.** Washington’s Integrated Basic Education and Skills Training (I-BEST) program pairs ABE/ESL instructors and professional technical instructors in the classroom to teach literacy and work skills concurrently. This approach teaches higher-level ESL students college study skills and English within the context of the students’ chosen occupation. A nonexperimental design evaluation found that students gained English skills at the same rate as students in traditional ESL courses, and were five times more likely to earn college credits and 15 times more likely to complete workforce training than traditional ESL students during the same amount of time.  

**2. Help Recipients Combine Education and Work**  
States should consider the following options to help low-income parents combine work and skill-building.

**Use on-the-job training and other incentives to promote employer-based training.** States should consider partnering with employers to provide training that is relevant to labor market requirements at or near the worksite, during work hours, and if possible, with workers paid for at least some of their time in class. Within the TANF program itself, states can use on-the-job training—one of the work activities that counts towards all hours of a TANF recipient’s required hours of participation—to encourage employers to provide further training to their
newly hired TANF recipients. This training has been rarely used in TANF. While there is not yet a TANF definition for on-the-job training, it has been recognized within the workforce system as a promising strategy, one in which government reimburses employers for a portion of the costs associated with providing training and the decreased productivity of the trainee. States can build on current on-the-job training models to encourage employers to structure training plans that clearly identify important skills and competencies, and how they will be taught. These contracts should be targeted to jobs and employers that provide benefits and family-supporting wages that can support a family, offer advancement opportunities, and have a history of retaining participants after the training period.

States can also partner with employers to promote work-based training through linkages with state industry-based training programs and state or local career pathway programs that have experience in providing pre-employment and incumbent worker training customized to employer specifications. Typically, business also contributes resources to these partnerships, and specific wage increases are often linked to completion of training.

**Louisiana. Louisiana’s Incumbent Worker Training Program** provides grants to partnerships of business and training providers for job-specific training for existing employees, primarily at the worksite. The aim is to promote the career and wage advancement of workers and help companies grow. Although the program does not target specific population of workers, it provides extra points in the review of grant applications for employers that have recently hired public assistance recipients or ex-offenders.

**Link postsecondary attendance with the Federal Work Study program.** The Federal Work Study program operates in most community and four-year colleges and provides jobs for low-income students who are eligible for federal financial aid, such as Pell Grants, through Title IV of the Higher Education Act (which includes most postsecondary students who are also receiving TANF). Federal work study jobs pay at least minimum wage and can be either on- or off-campus. The hours of employment are based on student financial need and the hours of attendance.

Work study employment can be used in two ways to help students combine work and education. Students in training programs may be able to use work study to stop the vocational education clock in months during which the student works more than 20 hours per week for all families or 30 hours per week for two-parent families. This is because training may be counted as “vocational educational training” or “job skills training”—the latter does not have a 12-month limit, but can be used only for hours after the first 20. If the individual participates in work study for 20 hours per week in a given month, and the remaining hours can be categorized as job skills training, the month would not need to count against the 12-month vocational educational training clock. Thus, students can lengthen their eligibility for enrollment in vocational education activities alone, enabling them to decrease hours of work during finals or the sickness of a child.

Work study can also be used to provide students with 20 or 30 hours of work experience while they participate in postsecondary job skills training directly related to employment. Depending on where the student is placed, work study may also offer the opportunity for full-time employment once school is completed. Work study jobs are typically easier for students to manage than regular employment because employers schedule hours around class schedules and understand that studies are the main priority for students.
Use block grant funds to augment Federal Work Study funds or fill in the gaps when a student’s Federal Work Study allotment is exhausted or over the summer or school breaks when students can work more hours. Some states have appropriated Workforce Investment Act funds, federal TANF funds, and state funds to provide additional work study opportunities for TANF participants pursuing postsecondary education. These funds may augment Federal Work Study funds or fill in the gaps when a student’s Federal Work Study allotment is exhausted or during the summer or school breaks when students can work more hours. In some cases, states combine work study wages with state dollars to provide a student with 20 or more hours of work per week during the school year and up to full-time employment during breaks. This allows students to work consistently and to continue school past 12 months by meeting their core work requirement through 20 hours of work study employment. In addition, work study earnings are not considered income for purposes of TANF eligibility.

**KENTUCKY.** Under Kentucky’s Ready-to-Work program, TANF participants pursuing postsecondary education combine Federal Work Study awards with $2,500 of state work study funds each year. Over $2 million in state funds have been appropriated to the work study component of this program. Although the allotment of federal work study hours is lower for those not pursuing full-time study, both part-time and full-time students qualify for Kentucky’s TANF work study award, which is contingent upon a minimum grade point average at some campuses. Students enrolled in only one class can qualify for the benefit. Campus-based coordinators help ensure students are drawing down the maximum in work study funds and help place students in jobs related to their field of study. Work study jobs have helped increase the state’s work participation rate and been integral in helping more rural counties with fewer opportunities for regular employment meet their rates.

**Promote greater flexibility in educational programming.** It will be difficult for parents to combine parenting, 20 hours of work, and substantial schooling each week. Juggling multiple obligations is especially difficult if work schedules change from week to week. States should work with education and training providers to increase the availability of classes on evenings and weekends and to provide more flexible class schedules to accommodate students’ changing work schedules.

**CALIFORNIA. Riverside, California, Community College’s New Visions** program offered classes four days a week in three-hour time blocks that were repeated three times daily to accommodate varying work, child care, and transportation needs. Courses were divided into three six-week segments, each providing one unit of credit to reward progress and make it easier for returning dropouts to pick up in the program where they had left off. Lessons and assignments were structured so that students who came into the program at different times could move through the curriculum at their own pace. In addition, existing occupational programs were broken down into mini-programs lasting four to seven months to prepare students for entry-level jobs such as medical transcription and preschool teacher’s aide.
Support the development of intensive modularized courses. Traditional educational programs often take a long time to complete. Students who don’t complete their courses of study leave without credentials that would benefit them in the labor market. By “modularizing” courses—breaking longer programs into shorter, more manageable two to three-week concentrated modules—students can get “credit” for completing a module as they build toward course completion and longer-term certificates over time. This allows parents to complete studies as their schedules allow. Employers may also be more willing to provide release time for training of this duration.

Make available supportive services such as child care, transportation, and personalized career and academic counseling. The provision of supportive services is a critical component of helping families participate in work activities, move from welfare to work, and continue to work after leaving welfare. Because child care subsidies play a key role in helping families maintain employment, it is important to ensure that states do not seek to meet the new TANF requirements by reducing child care help to families who are already working. For some states, this may necessitate committing additional TANF or other state funds to child care, as well as fully matching the newly available child care funds.

While the new TANF requirements may have significant impacts on state child care subsidy programs, it is important to analyze the nature of the potential impact when planning for next steps. In some states, because welfare caseloads have fallen, even a relatively large increase in the number of TANF families needing child care assistance will represent a small part of the state’s child care system. For other states, the impact will be much greater. As an initial step, states should map the projected need created by the changes and match that to the current funding. To do so, states must collect data on how many new families will need to be engaged in work activities in order for the state to meet its participation requirements; project the percentage of these families who will need a child care subsidy in order to participate; determine whether the newly available federal child care funds and corresponding state match will be sufficient to meet the new needs; and explore alternatives for expanding resources if (as will likely be the case in many states) the new funding appears insufficient.

Conclusion

Well-designed education and training services have been shown to contribute to welfare recipients’ transition to work and their subsequent labor market success. With increased work participation rates, states now have the opportunity to substantially increase participation in such activities. In doing so, they can build on a variety of effective models developed by the states over the last ten years. These models target education and training to higher-paid jobs, provide a sufficiently high “dosage” of skill development to pay off in the labor market, and to build pathways to further education and career development. Given the long-term payoff from education and training, states should consider offering longer-term education and training options for TANF recipients, even if these participants will not count toward the participation rates.
Sources


4. Ibid.

5. Low-income students who are eligible for federal financial aid, such as Pell grants, through Title IV of the Higher Education Act are eligible for the Federal Work Study program. This includes most postsecondary students who are also receiving TANF. Federal work study jobs pay at least minimum wage and can be either on- or off-campus. Off-campus jobs are largely limited to private nonprofit organization or a public agency, although private, for-profit employers may be considered if the job relates directly to the student’s area of study. Under Federal Work Study, the hours of employment are based on the amount of financial aid the student is awarded and the hours of attendance. Therefore, the lowest-income students qualify for more hours.

6. State funds can be counted toward TANF maintenance-of-effort requirements.

7. Fein, David and Beecroft, E. op cit.


The skill attainment of younger youth is a Workforce Investment Act (WIA) performance measure that youth-serving programs sometimes struggle to meet. In- or out-of-school youth whose assessments show that they need to improve basic skills, work readiness skills, or occupational skills can set up to three goals per year in these areas as part of their Individual Service Strategy (ISS). A review of research on both WIA-funded and other youth programs offers some guidance on setting appropriate goals and delivering services that will help youth develop the necessary skills.

Setting Goals for Skill Attainment

Goal setting is a powerful motivator of action, and adolescence is a crucial period for formulating goals (Carroll et al., 1997). At-risk youth such as those served by WIA programs have goals and many take part in goal setting as part of their ISS. However, too often they drop out of programs or fail to attain their skill targets. One reason youth might have chosen not to continue showing up for services is a mismatch between their goals and the service provider’s goals (Carroll et al., 1997; Roberts-Gray, Steinfeld, and Bailey, 1999): “If counselors and case managers are interested in helping youth to improve self-image, manage anger, and develop social skills but youth are interested in getting better grades in school, getting a job, or getting a raise in pay, their relationship may be difficult to maintain” (Roberts-Gray, Steinfeld, and Bailey, 1999, p. 25). Developmental support services can’t be effective when students fail to seek help, fail to attend regularly, or fail to benefit because they do not change their behavior (Dembo and Seli, 2004). Why don’t they change? They may believe they can’t change, they don’t want to change, they don’t know what to change, or they don’t know how to change (Dembo and Seli, 2004). Repeated cycles of failure, coupled with difficult life circumstances, can engender feelings of hopelessness. “A key factor in working successfully with young people is the development of a sense of the possible, as well as the faith, courage, and means to pursue it” (Blankstein and Guetzloe, 2000, n.p.).

A theory of hopeful thinking shows the relationship between having hope and achieving goals (Snyder et al., 2002). According to this model, hope is a process through which individuals actively pursue their goals. Hopeful thinking includes goals (anything that an individual desires to get, do, be, experience, or create), pathways thinking (routes or plans for achieving goals), and agency thinking (thoughts about the ability to begin and continue movement on selected pathways toward goals). A comprehensive approach to helping youth set goals requires assessment of three kinds of hope: global (overall evaluation of their ability to construct sufficient pathways and generate the agency thoughts necessary to achieve goals), domain specific (e.g., goals related to academics or work), and goal specific: “For instance, a high school student may have high global hope and high academic domain-specific hope, but perceive that he or she is unable to generate pathways and agency toward the goal of earning an ‘A’ in a mathematics course” (Snyder et al., 2002, p. 300). The choice of a goal is determined by the interaction of the value it has for the individual, his or her interest in pursuing it, and the hope of attaining it.
Youth will be more likely to pursue a goal when the levels of all three of these variables are high (Snyder et al., 2002).

**Setting Goals**

- Start where the youth is and build rapport (Dembo and Seli, 1999).
- Administer values and interest instruments and use results to generate lists of goals that conform to students’ important values and interests (Dembo and Seli, 1999).
- Have youth recall recent goals that were important to them and translate this past activity into a future goal (Corcoran, 1998).
- Establish a “mission statement” and outline Who will help achieve it, Where, When (a timeline with specific dates), How (ideas for achieving the mission), and Why (Peace Corps, 2001).
- Rank goals in order of personal importance and set clear endpoints to show that a goal has been achieved (Peace Corps, 2001).
- Choose approach goals (trying to get or do something) as opposed to avoidance goals (Peace Corps, 2001).

**Determining Pathways**

- Build success by selecting concrete goals that are achievable within a brief time period. Goals should be conceivable, believable, achievable, controllable, measurable, desirable, constructive, and developmental (Claassen, n.d.).
- Use scaling questions. Have students rank themselves on a particular behavior (e.g., school attendance, assignment completion, or positive interaction) on a 1-10 scale. Ask what they would need to do to move up a number on the scale. Scales place the responsibility for change and for the evaluation of progress on the student and imply change in the desired direction, empowering youth to take credit for the changes they make (Corcoran, 1998).
- Break large goals into smaller subgoals. Such subgoals can then be arranged into a workable sequence and pursued one at a time (Snyder et al., 2002).
- Develop multiple routes to goals. If a pathway is not feasible, it should be replaced with other, more realistic strategies (Snyder et al., 2002).

**Building Agency**

Agency or self-efficacy is critical to goal achievement. Walker and Arbetron (2004) found that one of the long-term outcomes of young people’s participation in afterschool programs was increased feelings of competence and the ability to take on new challenges (self-efficacy). Ways to strengthen self-efficacy include—

- Adopting a strengths-based perspective, focusing on youth strengths and resources. Search for strengths that students demonstrate in other areas of their lives, e.g., leadership even if it is in a problem behavior (Corcoran, 1998).
- Make sure that the goals students have chosen are personally important to them (Margolis and McCabe, 2003).
• Ensure that goals provide an appropriate level of challenge: a balance between overly simple and overly difficult goals (Snyder et al., 2002).

• Help youth replace negative self-statements with more adaptive, realistic, and positive thoughts (Snyder et al., 2002).

• Reinforce effort and persistence. Doable subgoals that they can successfully complete with moderate effort make “effort feedback” credible (Margolis and McCabe, 2003).

• Use language that stresses an orientation to a brighter future (Corcoran, 1998).

Features of Effective Skill Development Programs

Not surprisingly, many of the practices that have been shown to contribute to the achievement of basic, employability, and job skill goals are aligned with the principles of positive youth development. The most effective programs blend academic enrichment, job skills, employability skills, work experience, and support components in a youth-focused environment (ACT, 2000; McCormack, 2001).

Effective schools or programs have a consistent mission and focus and make skill development central to their mission (ACT, 2000; McCormack, 2001). Youth-centered values are considered critical to the teaching of foundation skills and workplace competencies (ACT, 2000). Programs demonstrate youth centeredness through nontraditional, innovative structures that create conditions in which students who have not succeeded elsewhere can flourish (ACT, 2000; Jurich and Estes, 2000). These include—

• Community-based locations; example: YouthBuild Rockford (ACT, 2000)

• Year-round schools; examples: Gateway to Higher Education (Jurich and Estes, 2000), Overbrook School for the Blind (Mitchell and Zampitella-Freese, 2003)

• Unorthodox schedules; examples: block schedules at Hoke County High School and Union City School District (Jurich and Estes, 2000); extended-day schedules at Lowell Middlesex Academy Charter School (Mass Insight Education and Research Institute, 2002a)

• Connections with community colleges—example, Middle College Model at Lowell Middlesex Academy Charter School (Mass Insight Education and Research Institute, 2002a), or adult education programs—example, Horizonte Technical and Instruction Center (ACT, 2000)

Effective programs are structured around a framework of skills and competencies that guide the development of explicit learning goals and clear performance standards (ACT, 2000). Used for curriculum, instruction, and assessment, these standards are the benchmarks for attainment of both content goals (academic basic skills, occupational skills) and process goals (work readiness skills) (Packer and Brainard, 2003). There are numerous sources of skill and competency frameworks, for example:

• Basic Skills

Ohio Academic Content Standards: http://www.ode.state.oh.us/academic_content_standards/

Ohio Adult Basic Education (ABE) and English as a second language (ESL) standards and benchmarks: http://literacy.kent.edu/opas/standards.html
• Work Readiness Skills

SCANS (Secretary’s Commission on Achieving Necessary Skills) Competencies: http://wdr.doleta.gov/SCANS/whatwork/

Ohio Standards Plus: http://www.ohiorc.org/career_tech/

Michigan Career and Employability Skills Content Standards: http://mtn.merit.edu/mcf/CES.html

Oregon Career-Related Learning Standards: http://www.ode.state.or.us/tls/general/crls.pdf

• Occupational Skills

Ohio Department of Education Pathways: http://www.ode.state.oh.us/ctae/resources.asp

Ohio Skill Standards: http://www.ode.state.oh.us/ctae/Ind_Std_Accreditation_Apprenticeships/default.asp

National Skill Standards Board Institute Certification Database: http://www.nssb.org/index.cfm

States’ Career Cluster Initiative Skills Center: http://www.careerclusters.org/

These frameworks should be tailored to local circumstances and updated as the workplace changes (Texas Workforce Commission, 2003). Long Beach City College explicitly incorporates SCANS skills as a central focus of many courses, programs, and activities, making SCANS skill development central to all activities (ACT, 2000). The Boston Private Industry Council developed its own list of skills, using the nine school-to-career competencies of the Massachusetts Work-Based Learning Plan (ACT, 2000). North Clackamas School District uses its state’s framework, the Oregon Career-Related Learning Standards (ACT, 2000). Program staff and youth draw upon these frameworks in developing the ISS, specifying which of these skills are to be learned and how that learning is to be assessed (ACT, 2000).

Strong, sustained partnerships and connections with employers and community organizations are critical if programs are to provide the contextual, experiential learning experiences that lead to skill attainment (ACT, 2000). Employers can be involved in defining the skills and competencies and providing high-quality internships and other work experiences (American Youth Policy Forum, 2003). Among the reasons why one school-to-career program failed to achieve skill attainment goals were a lack of high-quality internships and lack of interest on the part of participating school districts in providing academic credit for a workforce experience (O’Shea, 2002). Examples of successful partnerships include the following:

• Lowell Middlesex Academy Charter School, which serves high school dropouts aged 15-21, uses its collaboration with Middlesex Community College to leverage the resources to train teaching and administrative staff, provide additional courses to students, and benefit from college facilities and support services (Mass Insight Education and Research Institute, 2002a).

• Classroom at the Workplace, an innovative collaboration between the Boston Private Industry Council and Boston Public School’s School-to-Career Office, provides public high school students 90 minutes of daily academic instruction with a Boston teacher as part of their summer jobs (ACT, 2000; (Mass Insight Education and Research Institute, 2002b).
For youth to succeed in attaining their skill goals, they must be engaged and retained, and family support helps. One approach is to create a sense of either usefulness or fun or both. McCormack’s evaluation of youth employment programs found that “a sense of fun or value or both was an important entry characteristic. But recreation is not enough—continuity and intensity of service are critical. Ask the young person and, if possible, his or her parents, to make an up-front commitment. The program may, for example, have youth sign a contract, or ask parents to get the youth to attend and to put the program first over household duties” (McCormack, 2001, p. 2).

Incentives can encourage youth to reach for skill attainments and credentials. For example:

- Allow youth and their counselors to decide which goals in their individual service strategy are tied to incentives. As an example, youth can receive a $15 gift certificate for each objective accomplished and up to $45 in gift certificates per year (American Youth Policy Forum, 2003).
- Offer financial incentives and recognition of achievement. Some programs both pay youth for work and offer them a chance to try various positions, including management (McCormack, 2001).
- Recreational incentives proved effective for summer school students, such as bowling passes and pizza coupons, field trips and baseball games, “smart bucks” (which could be redeemed for prizes donated by area merchants) as a reward for attendance, regular participation, and other nonacademic progress (Mass Insight Education and Research Institute, 2003).
- Offer academic credit for work completed in summer school or tie academic performance to part-time jobs. In the Worcester Public Schools’ summer program, students who dropped out of their morning academic classes forfeited their afternoon job (Mass Insight Education and Research Institute, 2003).
- In the I Can Work program, students were allowed to use the proceeds from the youth-run gift shop for service learning projects or initiatives in which they wanted to invest (Wiedemer, Barnett, and Harris, 2002).

On the other hand, incentives did not work well in another program because of weak student interest in for-credit placement, the challenges of aligning placements with career concentrations, and lackluster marketing of for-credit internships (O’Shea, 2002). So incentives should be carefully chosen and designed.

Most studies of effective programs cite the importance of high expectations for youth. However; youth are only one of the partners in the teaching/learning process. Programs need to have high expectations for youth, programs, and staff (Jurich and Estes, 2000). These expectations are reflected in challenging programmatic content; the expectation that all students have the ability to succeed; concrete expectations for behavior and commitment; clear, well-defined education goals; ongoing staff training; and rigorous program evaluation (Jurich and Estes, 2000; Mass Insight Education and Research Institute, 2002a).

The support and personal attention that are provided by small learning communities and contacts with caring adults are elements of positive youth development that are reinforced in the results of successful skill development programs (Jurich and Estes, 2000; Mass Insight Education and Research Institute, 2002b, 2003; McCormack, 2001). These learning environments include one-
on-one instruction (mentoring and tutoring), small group instruction, small classes, small schools, and school-within-a-school arrangements such as career academies. Classroom in the Workplace particularly demonstrated a significant correlation between smaller classes and increased student success (Mass Insight Education and Research Institute, 2002b).

Contextual learning, which provides experiential activities in valued work tasks that are relevant and applicable, has been shown to contribute to skill attainment (Carroll and Stokley, 1999; Jurich and Estes, 2000; Packer and Brainard, 2003). “Learners develop essential workplace skills by performing tasks and projects that are important to them, give them a clear and compelling reason to learn workplace competencies, and provide opportunities to use competencies to perform highly valued tasks and projects of real value” (ACT, 2000, p. D-6).

One form of contextual learning is project-based learning (PBL). PBL, combined with high-quality worksite experiences, is a key instructional strategy identified in studies of best practices for implementing SCANS skills (ACT, 2000; Packer and Brainard, 2003). In the Classroom at the Workplace, project-based learning is used to connect academic skills explicitly with the workplace. “With the teacher as coach, students are held accountable for developing a project that incorporates industry-related knowledge with reading, writing, speaking, and problem solving” (Mass Insight Education and Research Institute, 2002b, n.p.). A structured process for PBL involves a cycle of learning, practicing, doing, and improving, “a time-tested strategy for developing proficiency at performance-based competencies, such as work readiness or occupational skills” (ACT, 2000, p. D-12). The process depicted in Table 1 may be applied to the development of basic skills, work readiness skills, or occupational skills.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Progression of Learning and Doing</th>
</tr>
</thead>
<tbody>
<tr>
<td>From</td>
<td>Toward</td>
</tr>
<tr>
<td>learn</td>
<td>practice</td>
</tr>
<tr>
<td>close supervision</td>
<td>less supervision</td>
</tr>
<tr>
<td>single skill</td>
<td>more skills</td>
</tr>
<tr>
<td>simple tasks</td>
<td>more complex tasks, simple product</td>
</tr>
<tr>
<td>beginner skill level</td>
<td>higher skill level</td>
</tr>
<tr>
<td>learner standards</td>
<td>higher standards</td>
</tr>
<tr>
<td>assess knowledge</td>
<td>assess practice</td>
</tr>
<tr>
<td>apprentice</td>
<td>journeyworker</td>
</tr>
<tr>
<td>do</td>
<td>reflect</td>
</tr>
</tbody>
</table>

Case studies of six successful programs that teach essential workplace skills show how this process is used by teachers who adopt a “coaching” approach using the following strategies (ACT, 2000):

- Explicit goals and high standards
- Focus on effort as well as achievement
• Individualized learning plans
• Skill-building instruction, practice, and rehearsal
• Assessment, feedback, and reflection that drive continuous improvement

Successful coaches use all these interrelated teaching strategies in a flexible, individualized way. Coaches constantly revise teaching and learning to maximize continuous improvement for each individual and for the team: the challenge is to determine how to help individuals and the team move to a higher level, whatever their current level of performance. What distinguishes successful coaches is their effectiveness at assessing current performance in relation to the skills required, using ongoing assessment to set priorities for improvement, and creating learning experiences that move performance in the direction of achievable yet challenging standards. (ACT, 2000, p. D-13)

Frequent measurement of skill attainment using proven assessment tools is another way to strengthen skill development (ACT, 2000). Different types of assessment methods are necessary to capture a student’s capability in basic skills, work readiness skills, and occupational skills. The I Can Work project, for example, uses teacher-made instruments that incorporate Brigance Vocational Assessment scales (pre- and post-tests), a parent questionnaire (teacher-made) to assess transference of skills, and teacher-made instruments to test comprehension and application in content areas (work skills, community-based, math, English and reading, and science) (Wiedemer, Barnett, and Harris, 2002). A number of systematic ways to assess workplace competencies have been developed around frameworks such as WorkKeys® (http://www.workkeys.com; http://www.keytrain.com/) and SCANS (see “Integrating Curriculum for Achieving Necessary Skills”: http://www.literacynet.org/icans/chapter02/index.html). Good programs also track students’ skill development progress regularly using checklists and skill logs (McCormack, 2001); for example, see http://www.ciof.org/toolkits/employment/pathways/jgs.pdf.

Any new skill requires reinforcement and practice to sustain it. The follow-up activities required of WIA programs, such as case management, support groups, mentoring, and job coaching, provide opportunities to extend and reinforce the development of basic and work readiness skills using postprogram work-related experiences (Jurich and Estes, 2000). For example, newly employed Dallas Youth Services Corps participants were sometimes unable to cope with change in the work environment. The corps scheduled follow-up workshops to address this issue and formed job clusters of participants employed in related fields as a support network (Rappaport and Jastrzab, 2003).

**Summary of Features that Support Skill Attainment**

• A consistent mission in which skill development is central
• Youth-centered values
• Nontraditional, innovative structures
• A framework of skills and competencies that guide the development of explicit learning goals and clear performance standards
• Strong, sustained partnerships and connections with employers and community organizations
• Youth engagement and family support
• High expectations for youth, programs, and staff
• Small learning communities and contacts with caring adults
• Incentives to encourage youth to reach for skill attainments and credentials
• Contextual learning, including project-based learning
• Frequent measurement of skill attainment using proven assessment tools
• Postprogram follow-up and support

**Resources for Goal Setting**


**Resources for Skill Attainment**


“SCANS Plans” from the English Language Training Project. Spring Institute for Intercultural Learning, Denver, CO. http://www.spring-institute.org/?AreaID=37&ParentAreaID=20

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Essential Tools. In Their Own Words: Employer Perspectives on Youth with Disabilities in the Workplace


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Summary and Conclusion
**Introduction**

Work experience for youth with disabilities is one of the most critical factors that sets the stage for their postsecondary employment success. Research and practice show that youth benefit from frequent and continuous exposure to real work environments throughout the secondary school years and beyond. These experiences, however, occur only when employers are available, willing, and prepared.

Indeed, employers have operational and economic stakes in the success of programs that connect them with youth with disabilities. Employers must consider both the costs and the benefits associated with having youth with disabilities in their workplaces. Thus, it is essential for educators, transition specialists, workforce development professionals, family members, and youth to understand employers’ needs, circumstances, and perspectives as they establish work experiences.

This publication features the experiences of employers in their own words. Employers write about how they became involved in providing work experiences for youth with disabilities, what made it work, and what they recommend to individuals and organizations representing youth. These perspectives can provide guidance to those with an interest in ensuring that youth with disabilities obtain access to a range of work-based experiences.

**The Authors and Their Assignments**

The authors were recruited from a sample of employers who could speak about efforts to successfully include youth with diverse disabilities in the workplace. Employers were identified through a national search, and nominations were solicited from programs and colleagues who had such contacts.

The employer authors were selected for three reasons. First, they were all satisfied with the experience of having youth with disabilities in their workplaces. Second, they represented a diverse range of industries, geographical locations, sizes, and private- and public-sector entities. Finally, they provided a variety of work-based experiences that included job shadowing, mentoring, volunteering, internships, apprenticeships, and paid employment.

Each author was asked to develop a brief essay based on the answers to these questions:

1. What is the nature of your company’s/organization’s business?
2. How did you get involved in bringing youth with disabilities into your workplace?
3. Who were your partners?
4. What were your challenges?
5. What made it work?
6. What advice from your experience would you give other employers and programs that serve youth with disabilities?

Written in first-person narratives, the essays represent the voices of employers who have direct experience with these issues. The perspectives are uniquely their own.
Despite their diverse representation (See Table 1), the employers share a surprising number of commonalities that tell us much about what is important to them, what it takes to get them involved with youth who have disabilities, and what it takes to keep them involved. While many of these commonalities will be apparent to readers as they ponder the employers’ perspectives, we include a brief summary and conclusion at the end of the publication to highlight their common ideas on how to best make these work experiences successful for both employers and youth.

It is the intention of this publication to help practitioners, advocates, and policy makers in the fields of education and workforce development better understand what employers want and need. In so doing it is hoped that these perspectives will suggest how education and workforce development systems can improve their partnerships with the business community so more employers will see the value these experiences offer. Ultimately, the result will be that more youth will successfully experience learning in the workplace, which is so vital to their eventual adult employment success.

### Table 1
**Variables Represented by Contributing Authors**

<table>
<thead>
<tr>
<th>Company</th>
<th>Industry</th>
<th>Location</th>
<th>Experiences Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cincinnati Children’s Medical Center</td>
<td>Healthcare</td>
<td>Midwest</td>
<td>Career exploration, volunteer experiences, paid work</td>
</tr>
<tr>
<td>American Institute on Cancer Research</td>
<td>Research</td>
<td>Mid-Atlantic</td>
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Publish or Perish: Macworld Magazine by Shelly Ginenthal

When I first met Wynton it was hard for me to imagine him doing any of our company’s clerical tasks. He had almost no work experience. More disconcerting to me, however, was that he had no discernable speech, although later he used a communication board. I didn’t know how we would be able to communicate with him. His mobility was also difficult as he used a wheelchair, and he had trouble controlling his arm movements. I was not sure how those issues would affect his work.

Whenever we brought young workers into our workplace, they were expected to meet several key criteria regardless of their circumstances. First, they had to meet productivity standards—the same as any other employee. Next, they had to perform tasks that added value to the operation. That is, by virtue of their work, other more experienced workers were freed up to perform more demanding and critical tasks. At the very least, they had to be youth who were going to make our work life easier, not harder. Youth with poor social and interpersonal skills, work habits, or attendance were not likely to last long with us.

However, in our fast-paced office where our main business required meeting strict publication deadlines for our San Francisco-based magazine, Macworld, we needed more data entry help. So when I was approached about Wynton by a local transition program called WorkLink, I was leery but open to listening to what the program and Wynton might have to offer.

Why the Pitch Worked

I was aware of programs that served people with disabilities, but had no direct experience with them before I was contacted by WorkLink. If WorkLink had approached me by appealing to my sense of charity or by petitioning me to give people with disabilities a chance, I doubt that I would have listened. However, the WorkLink representative, Sara Murphy, clearly expressed interest in the issues of our business. The initial contact was characterized by questions about our magazine and the human resources needs that it had. It was evident that WorkLink wanted the relationship to work for our operation. In fact, they guaranteed that they would be with us every step of the way if we agreed to employ a young person represented by WorkLink.

Ms. Murphy came to our office and observed how we operated, how we got our work done, and what areas of the operation really needed help. She proposed Wynton, who was interested in information technology, as someone who could help us in our circulation and human resources departments. She was clearly interested in making sure that we obtained “real” work output as a result of our involvement in the program. She was not looking to “make work” for Wynton. In the end, it was Ms. Murphy’s sincerity and genuine interest in our enterprise that convinced us to give it a try, in spite of my initial reservations about Wynton’s circumstances.

Making It Work for Everyone

There were two areas of our operation where we needed considerable assistance. One was our circulation department, where there was a pressing need to update our database on newsstand locations around the country that sold our magazine. An updated database would make marketing and billing more current, productive, and accurate. One of Wynton’s main tasks was to enter the necessary data into the database. Eventually, he helped us update the entire database.
The second area of need existed across departments. We needed someone to put obsolete documents through a shredder. At the time, editors and highly paid support staff often performed this task when their time could be more productively and profitably spent doing higher priority tasks. Wynton was soon performing this task whenever he caught up with data entry. Later, a third area of responsibility was added to Wynton’s position in the human resources department: delivering faxes and other communiqués throughout the building and sending out routine responses to job applicants. Each of these activities made a positive, measurable difference in the work completed within the departments.

WorkLink was key to the success all along the way: key to getting started with the arrangement; key to organizing and helping with Wynton’s training; key to making sure the work got done; key to ensuring the necessary quality was achieved; and, of course, key to helping us learn to communicate and interact with Wynton. Ms. Murphy held a brown-bag lunch training for all department staff on general disability awareness as well as on specific tips about effectively interacting with Wynton.

There was another unpredictable and somewhat intangible benefit to our involvement with WorkLink. After Wynton had been with us for a while, he became a part of our office’s cultural fabric. In addition to his contributions to our operations, we came to understand and value the diversity he brought to our office. He had a distinct positive effect on office morale, just like any other young, energetic, and likeable employee who might join our team.

Problems Identified, Problems Solved

Wynton’s contributions to Macworld’s operation did not come without some early challenges in terms of meeting productivity requirements, communication, interpersonal behavior, and personal hygiene. He had to learn data entry input procedures. Ms. Murphy spent a great deal of time with us and with Wynton as he learned how to correctly enter the data. It was Sara’s persistence and presence that enabled Wynton to eventually learn his duties thoroughly.

When personal hygiene problems initially occurred, WorkLink helped us solve the problem by working with Wynton. When we had trouble with Wynton’s speech, we were taught how to understand and communicate with him. Eventually many of us became quite capable of communicating with Wynton. And finally, when mistakes occurred in data entry, WorkLink made sure the work task was set up to accommodate Wynton’s disability and that training was better targeted to his skill level. With that intensive assistance, Wynton was soon more than pulling his weight.

Employers like Macworld occasionally hire someone who initially has trouble on the job. Often such circumstances result in termination for the employee and a lot of effort on our part making up for lost time. Unlike these kinds of circumstances, our experience with WorkLink made it possible to not only correct early performance errors, but also to continually identify how our work flow and work load could be improved.

Lessons for Other Programs

The success of our experience with Wynton and WorkLink taught us several lessons that other companies might learn from. Among these are the benefits from working with a competent partner like WorkLink to find new sources of labor. Also, there are lessons that I can pass on to
organizations that provide similar services to WorkLink. My chief recommendations to other programs that represent youth with disabilities are:

- Identify and then address real business needs; that is, identify what you can do for the businesses;
- Make sure youth are doing “real” work;
- Guarantee to help work through any issue that the youth’s presence might create; and
- Don’t approach employers with a charitable appeal. In the end what we need are people who can do the job.

Like any other service or business partner, we are more apt to work with people who take the time and interest to learn what we do and how we do it. Approach us by saying, “Here’s what we can do for you.” Nothing works better than someone telling me how they are going to help me, promising a commitment, and then following through on that promise. Knowing that we have helped send someone on the way to being a productive worker is a good feeling. But the feeling only lasts as long as that worker is performing satisfactorily.

*“Winton” is a pseudonym for a young man who worked at our company for several years.*

Shelly Ginenthal, the former Vice President for Human Resources with Macworld magazine, was integrally involved in organizing a work-based internship for a youth with a disability who required significant supports and accommodation at that company.

**Reaching Out to Youth: Microsoft Corporation** by Mylene Padolina

Microsoft strives to enable people and businesses worldwide to realize their full potential by empowering people through great software—any time, any place, and on any device.

**Commitment to Diversity**

We have a corporate commitment to the principle of diversity. In that spirit, we believe that diversity enriches our products, empowers us to provide excellent customer service, enhances the lives of our employees, and connects us to all communities in which we live and work. We consider employees to be our greatest asset. We make every effort to provide flexible programs, resources, and tools to help our employees create their own balance in life. We believe that our continued success is dependent on the diverse skills, experiences, and backgrounds that our employees bring to the table.

An excellent source of disability empowerment and support at Microsoft is the employee resource groups that are initiated and chartered by employees. These self-organized groups support networking, continuing education, career development, mentoring, social activities, and community outreach. Some of the disability-focused employee resource groups include the Attention Deficit Disorder (ADD) group, Visually Impaired Persons in MS (MSVIP), and the Deaf and Hard of Hearing group.

Microsoft’s diversity education program seeks to maximize the performance of every employee and to enhance Microsoft’s ability to attract, develop, and keep the best and brightest talent. This program is designed to reinforce the company’s commitment to diversity while ensuring that employees have the awareness, skills, knowledge, and resources necessary to succeed.
Our employees are responsible for their own career development, so we provide them with all the tools and resources they need to grow professionally. Microsoft’s technical education youth programs, online self-paced training, and management development training all promote learning. We communicate the importance of a respectful work environment in maximizing the performance of every employee and enhancing the company’s ability to attract, develop, and retain the best and brightest talent. The emphasis on understanding, valuing, and leveraging differences is also linked to our ability to compete effectively in an ever-changing marketplace.

One of our main goals at Microsoft is to have a positive impact on the number of under-represented minorities, women, and individuals with disabilities in the technology industry and those hired by the company.

**Microsoft Reaches Out to Youth with Disabilities**

Microsoft has a history of implementing youth outreach programs. Our philosophy is to excite kids about technical careers at a young age. We want to show them that their career choices are not limited and that there are lots of jobs they can do. Our goal is to bridge digital divide issues along with creating a pipeline of future candidates for employment. For 10 years, Microsoft Corporate Diversity Group has been providing work experiences for youth, but we found that we had limited participation from students with disabilities. Microsoft has many successful and productive full-time employees who have disabilities and felt confident that youth with disabilities could participate, benefit, and contribute in a worthwhile manner. We want to help them to feel empowered about their future in order to counteract long-standing lowered expectations.

Beginning in 2000, we began to specifically target youth with disabilities for participation in workforce development opportunities at Microsoft through our involvement in a number of business/education partnerships. These partnerships include:

- Working with local special education teachers to arrange job shadow and career days and to make appropriate matches between students and opportunities;
- Partnering with local and national organizations and the government to help design and market programs, events, and participate in committees; and
- Collaborating with community organizations to conduct disability awareness and sensitivity training for employees.

As the coordinating entity, Microsoft’s Corporate Diversity Group acts as a liaison between the students, community organizations, school groups, and the employee volunteer participants. We continually seek feedback from our partners, employees, and youth participants on how we are doing in the programs and events we offer. We ask participants about likes, dislikes, and ideas for improvement. Our goal is to ensure a meaningful experience for all involved.

**Workforce Exposure at Microsoft**

Youth with disabilities participate in a number of different workforce development opportunities. These include internships, job shadowing, career days, youth service days, corporate campus visits, leadership conferences, and a one-day technology camp. At the camp, youth meet with a panel of employees with disabilities who share their experiences at Microsoft, and they also have the opportunity to preview technology that may be helpful to them in the workplace.
Microsoft makes it possible for both high school and college students with disabilities to participate in a variety of work experiences. High school student internships are intended to excite students’ interest in a technical field and to encourage them to pursue the education necessary to excel in this field. College internships are set up to translate into full-time jobs.

Sixty percent of the positions at Microsoft are highly technical. Youth involved in work experiences at Microsoft are placed in a number of different technical areas, including testing software in the game division, Web site development, and software development. All internships are technical in nature.

**Employee Preparation and Involvement with Students**

Microsoft employees are extremely involved with student workers. We take time to match students’ skills and interests with employees’ skills and interests. We hold introductory meetings for our employees to better prepare them for conducting job shadow experiences, mentoring, and interacting effectively with students with disabilities. Microsoft works with employees to ensure that students will understand the job.

Depending on the type of work opportunity (such as job shadowing, career day, etc.), employees participate in different activities prior to the students’ arrival on the job. Employees who volunteer to provide job shadow experiences complete a form describing themselves and their experience working with youth with disabilities. Microsoft then works with the school or a local program called “DO-IT,” sponsored by the University of Washington, to match employers and students. Employees receive disability etiquette training and support in planning their day with students. DO-IT staff help organize and conduct the training. There are also various media available about working with and accommodating people with disabilities in the workplace, such as online videos that describe disability etiquette.

Before a young person begins a job, the work group where they will be placed is prepared for their arrival. For example, before a student intern who is deaf arrived on the job, his work group took sign language classes. Both the intern and his co-workers were thrilled to be able to communicate effectively with each other. The student’s disability was demystified for his co-workers, and many of the employees continued sign language classes after the student completed his internship.

Microsoft also facilitates dialogues between the interns and their work group. These discussions allow employees to ask the person with a disability any questions, such as how best to communicate job tasks or how they can make the work environment more accessible. For example, for an intern with impaired vision, a trainer, who is blind and from a community partner agency, facilitated an introductory icebreaker session. The training session allowed the intern and work group to identify strategies for a successful work experience.

**We Strive to Make Diversity Our Success**

One of the company’s many goals is to increase diversity. Our business-education partnerships that target youth with disabilities bring us closer to reaching this goal. By bringing youth with disabilities to Microsoft for workforce development opportunities, we hope to spark their interest in our company and understanding of the technology field. This can be a win-win situation for the students and for Microsoft. Collaboration with local, state, and national organizations has helped to make this workforce development initiative a success. Through
concerted efforts in the past three years, we have reached out to more than 500 students with disabilities.

It is difficult, however, to determine the exact number of students with disabilities, both at the high school and college levels, who have actually had employment opportunities at Microsoft. Because we have a voluntary self-identification process, some students may choose not to be identified as having a disability. For a more accurate picture, we need to continue to create a workplace where employees can feel comfortable about disclosing their disability. We anticipate continued expansion of these opportunities, as our business will continue to need more technically skilled workers.

Mylene Padolina is a Senior Diversity Consultant with the Microsoft Corporate Diversity Group of Microsoft Corporation, where she is responsible for disability integration and youth outreach programs. She also assists with new hires, secures appropriate accommodations, and designs and coordinates training events for the corporation.

Boosting the High Tech Workforce: Kennedy Space Center, NASA by Cassandra Black

The John F. Kennedy Space Center (KSC) is the National Aeronautics and Space Administration (NASA) center of excellence for launch and payload processing systems. KSC is in charge of space launch operations and spaceport and range technologies. Part of this responsibility includes the checkout, launch, and landing of the space shuttle and its payloads. KSC is located at the Cape Canaveral Spaceport in Florida.

High Tech Exposure for Students with Disabilities

We have been providing internships since 1985, but became involved in the High School High Tech (HSHT) Program in 1995 to provide internships for high school students with disabilities. The goals of the HSHT program are to motivate students’ interests in high-tech careers and to assist students with disabilities to become independent, productive members of the workforce of the 21st century.

KSC’s HSHT program works in partnership with the Space Coast Center for Independent Living (the local program administrator) and Able Trust (the statewide program administrator in Florida). SCCIL is a community-based student, parent, and employer program designed to encourage students with physical, sensory, or learning disabilities to pursue their interests in science, engineering, and technology. Applicants apply directly to SCCIL, which recruits students from local schools as early as seventh grade. Students are eligible to participate in a six-week internship at KSC when they reach age 16. SCCIL collaborates with NASA to screen applications, help with placement, and assist with transportation, accommodations, etc. SCCIL conducts a variety of skill-building workshops for students, including interviewing skills and computer training. Students also write a final report as a culminating activity of their internship.

As program manager of HSHT, I work with managers and supervisors to provide internships at KSC and to determine the schedule of summer activities such as tours and presentations. I also participate in many of the SCCIL activities for students. I try to have a presence at these activities so that I can get to know the students and their families, become familiar with the students’ skills and interests, and provide information about the KSC HSHT program as well as its skills and technology needs.
The annual cycle for the KSC HSHT program is:

- Fall-Spring: Establish KSC requirements, market the project in the community and receive and evaluate applications;
- Spring: Interviews, workshops, and activities; and
- Summer: Six-week internships at KSC, which include matches with KSC mentors.

**Strategies for a Good Work Experience**

The job match is very important. I work with the SCCIL program manager to identify students’ interests and skills, and then I match students with KSC personnel based on the students’ interests, the circumstances of the particular work sites to which they might be assigned, and the qualities of potential KSC mentors. Students are introduced to their KSC mentors on their first day on the job and are given clear expectations for their internship. For their part, the mentors have been very pleased with their student workers as a result of the careful matching.

By attending student activities at the SCCIL, I have visibility with the students and their parents and become familiar with the students’ interests, skills, and needs. At times we are able to meet the students’ parents at the SCCIL activities. This is the first work experience for many of the students, and the parents have questions and concerns that I try to address. This process is a full-circle community partnership. I try to have an open-door policy for easy access and communication with students, mentors, agency support staff, and parents to share any concerns they might have at any time.

**Our Lessons Learned**

In the past, KSC interns have been primarily college students. The employer mentors were initially concerned about whether high school students and students with disabilities would be able to do the work. I needed to meet with prospective mentors to provide some disability awareness training. I told the mentors that the students might have disabilities, but that they all had individual abilities and interests.

We have found that the students have been very creative in finding solutions to tasks. Identifying student support needs as soon as possible is necessary to make the work experience positive from the start. At times the students want so badly to demonstrate that they can do the job independently that they are reluctant to ask for additional help or support. I now speak with the SCCIL program administrator to identify accommodations and with KSC staff to clarify what is needed before the student comes to NASA.

NASA also has a center-wide Disability Awareness Action Working Group. By representing my program in this group, I become familiar with the center-wide perspective on effective measures to work with people with disabilities.

For an outside agency to successfully support a student work experience, it is important for the agency to do its homework. To create an effective job match, the agency needs to be familiar with both job requirements and the students’ skills, support needs, and interests in specific career fields. The agency should understand the availability and types of jobs in a company and anticipate future company trends. In this way, the agency can be well informed and most supportive in helping both the company and the student to have a positive work experience.
The support services that SSCIL provides include:

- Recruiting, prescreening, and referring students from local high schools
- Helping with the job match process, which is a team effort between the KSC HSHT and SCCIL programs
- Providing job support through site visits as needed
- Providing NASA with center-wide interpreter services for interns and employees who are deaf

**A Success for Everyone**

One student with limited mobility and speech blossomed in the program. Her parents noted that prior to her internship, she was often very quiet and did not participate in activities because her speech was so difficult to understand. In addition, her family had been very concerned and protective about her visiting different places.

She interned in the astronaut crew quarters, which has a strict security protocol, so we had to address the staff’s concerns. We worked out the security issues, and with the help of SSCIL, we were able to address those concerns. Once those issues and her accommodation needs were addressed, she had a successful internship in database management, creating databases and spreadsheets.

The staff was very pleased with her work ethic, and her family was amazed and pleased with her increased independence, self-care skills, and heightened self-esteem. Despite her parents’ concerns, she later participated in a statewide Youth Leadership Forum for Individuals with Disabilities that required her to be away from home. Before her internship, she or her family would not even have considered this type of activity. She became a “star” of the program and served as a peer leader the next year. She is now finishing her second year of community college and will soon be enrolling in a four-year university. She is also planning to be married. This young woman had a positive work experience at KSC, and it also enabled her to excel in other situations. Now she will pursue the higher education necessary for a career in a high-tech field.

A total of 56 students from the program have interned at KSC. Some 95% have enrolled in postsecondary education. It is clear that they have benefited from the experience. NASA’s KSC also benefits from this type of partnership by having quality interns who can do the job, by receiving the support we need to make it work, and by giving our future workforce a boost.

*Cassandra Black is the Program Manager for NASA’s High School High Tech Program at Kennedy Space Center in Florida.*

**Finding Premium Volunteers: Port Discovery** by Leah Burke

Every good museum depends on a cadre of committed and well-trained volunteers. As a nonprofit publicly supported operation that employs a committed but modest staff, Port Discovery is no different. While we call it a “kid-powered” museum because of the museum’s many interactive experiences for children, it might also be called a “volunteer-powered” museum. To maintain the interactive nature of our exhibits and programs, we need a host of volunteers to provide young visitors and program participants with all the assistance they need to get the
What Works

most out of our museum. Port Discovery is in the heart of the Baltimore's Inner Harbor, amid a constant stream of visitors.

Port Discovery has several volunteer programs that pertain to youth and young adults that are housed in several different departments including Exhibits and Programs, Education, Sales and Marketing, Development, Facilities, Retail, and Visitor Services. These include:

• A regular volunteer program for which volunteers commit to a regular weekly or bi-weekly four-hour shift. Regular volunteers can be assigned to any aspect of the museum operation and must be more than 18 years old.
• A service-learning program that offers local students the opportunity to earn service-learning credits while exploring a variety of museum positions. Through these assignments, students age 14 and older are engaged in the learning process through hands-on work with museum staff.
• Internships that offer college students a variety of ways to earn college credits while they gain hands-on experience in program design, program development, and project administration.

All student volunteers participate in a well-defined and rigorous screening, orientation, supervision, and evaluation process. Students who have disabilities participate in the same process as other young people. They may require some accommodations or carefully structured experiences, but the expectations for participation and performance are no different than those for any volunteer.

**Bringing in School Partners**

Volunteers are expected, at a minimum, to work four-hour shifts. They can work as many days as they want, but a minimum of two days a week is desired. Schedules are flexible, but given the demands on students' time, it is important for us to set this expectation so we can count on them. Not all students can commit to this level of participation. Therefore, recruiting for volunteers is constant as we can never have too many. We have recruited throughout the Baltimore school system for our volunteer program. These schools have had both regular and special education programs. Currently, we have 53 high school volunteers, 20 of whom have disabilities.

We have worked closely with the Baltimore Transition Connection (BTC), which prepares students, many of whom require considerable assistance and support because of various disabilities, for the transition from school into the workplace. BTC's staff has been especially responsive to our needs and has been a critical link between what we do and what the students are doing in their educational curricula. With the students, BTC often attends the entire orientation, which can last a whole day, in addition to coaching the students in their volunteer tasks. There are some students who need fairly intensive assistance with such things as feeding and medications, but we are open to whatever supports are needed to facilitate the participation of the volunteers as long as there is someone to help us make them available.

**Meeting the Challenges**

Initially, some staff members expressed discomfort when meeting with students from BTC. We address these concerns and students' needs in internal staff meetings and in briefings by BTC representatives. Employees are encouraged to assist students when necessary and to act as
mentors to incorporate students with disabilities in museum activities and to reinforce museum policies. The museum staff has been uniformly accepting of these students. Since we work with a variety of volunteers, it was fairly easy for employees to get comfortable working with BTC students.

Many young volunteers are inexperienced in proper workplace behavior. Often they are not familiar with such basic expectations as attendance, punctuality, responding to supervision or co-workers, or showing interest in the work. Often interpersonal behavior, such as looking at someone when speaking, has to be taught through role-playing.

In essence, the challenges with BTC students are no different than those presented by other young volunteers. We want them to meet time commitments, follow conduct requirements, adhere to dress codes, and respond to supervision. We count on BTC staff to follow through with the students when problems arise.

Overall, our philosophy is to treat volunteers with disabilities with the same set of expectations as other volunteers. However, sometimes it is easy to forget that they have some limitations in skill and experience. The result is that we may occasionally assign them to an area that requires skills they do not yet possess. When that happens, we will move them to another area or position to find the right match. Again, we count on BTC representatives to help us work through some of these assignment issues.

**Evidence of Success**

As with many of our nondisabled volunteers, students represented by BTC often come to us lacking interpersonal confidence. It is satisfying to see formerly introverted volunteers interacting effectively and appropriately with staff and children using the museum. For example, I observed one volunteer helping several young visitors use an interactive computer monitor. It was evident that the children were enjoying the experience and that the volunteer was feeling very competent in her role as a museum representative. This personal growth will serve the students well as they complete school and enter the workforce. In the meantime, it helps our museum serve the public as it is chartered to do. And of course, this arrangement helps strengthen our commitment to be truly kid-powered.

While we are careful to implement individual accommodations, like extra coaching from BTC staff, we have been insistent that BTC students meet the same expectations as other student volunteers. Some students who do a good job fulfilling their volunteer experiences will have the opportunity to move into paid positions at Port Discovery. In essence, the volunteer program helps students in their employment pursuits and helps us identify future employees.

We are pleased to have a significant percentage of our student volunteers coming from special education programs. We are looking forward to a long partnership with the schools and especially programs like BTC. As long as we get help in making the necessary accommodations and identifying meaningful assignments that work for both students and the museum, we will continue to make these youth a part of our volunteer program. The help of BTC and other school systems representatives makes it work.

*Leah Burke is the Volunteer Coordinator at Port Discovery. Among her primary responsibilities are managing youth who are fulfilling service-learning or intern credits while committing to a rigorous volunteer experience at the museum.*
Investigating Human Resource Options: American Institute for Cancer Research

by John McIlveen

The American Institute for Cancer Research is an independent nonprofit organization dedicated to research and education that expands understanding and awareness of the relationship between diet and cancer. It receives no federal funds, nor has it received large-scale funding from any corporate or industry interest. Consequently, the institute relies on public support for its funding. It employs more than 100 people, including medical researchers, fundraising staff, media specialists, and various support staff.

One of the institute’s major responsibilities to the community is the dissemination of information and research materials regarding cancer prevention. We also handle a large volume of inquiries concerning our research and regularly process donations and fundraising inquiries. The institute’s Fulfillment Center processes up to 600 mailings a day (most are publication inserts). Mail processing is an often tedious but integral part of our operation. Since an ongoing concern is staff turnover in that department, we were eager to listen to representatives from a local special education transition program when they contacted us about hiring students they represented.

When hired in the human resources department, I was given a brochure from a program called Bridges…From School to Work which represented youth with disabilities. It was presented as a potential resource for recruiting, especially for entry-level positions. I was open to considering young people with disabilities because of prior experience in other companies. I also believed that being involved with the program would be a way for the institute to do something positive for the community as we found individuals who could fill our positions. We eventually brought in two high school students represented by Bridges to work in our Fulfillment Center.

Challenges to Making It Work

Many of the challenges to the initial success involved integrating the students into the workplace. Most staff had never worked with individuals with disabilities, and they had to learn how to interact with them and how to provide guidance and instruction. The Bridges staff assisted with this activity in the beginning, but since they did not interact daily with the students, the challenge was often in making the shift from Bridges staff support to co-worker support. Our employees often found themselves having to assist the students in basic tasks, from learning their jobs to navigating around the offices.

In addition, employees often had preconceived notions about what the students could or could not do. These concerns were usually related to perceptions about the students’ ability to keep up with the work so that they would not interrupt the work flow. Because of this initial skepticism, there was a level of acceptance that had to occur among the staff. Consequently, it was a challenge to balance finding appropriate duties that would challenge the students yet not overwhelm them. Ultimately, achieving this balance was what convinced the staff to have the students in our workplace.

Strategies that Made the Relationship Work

The main reason the students are successful in our workplace is the assistance of the Bridges staff. They provide initial information and guidance about particular students as well as initial assistance in getting the students situated. They work with us to assess the job requirements
and the students’ skill level so that a good match can be made, resulting in tasks at which the students can excel.

A strategy we found effective was to bring the students in on a trial basis. Not only did this give the students time to become acclimated to their new jobs, but it also enabled the other employees to accept their presence. In fact, we made sure that the other employees were involved in decision-making related to student assignments and that their views were considered in evaluating the effectiveness of the matches of the students to their tasks.

Finally, because Bridges staff are available to the students and the employer, there is help to mitigate some of the external influences that challenge the students and ultimately affect their work. Bridges staff can make referrals to necessary external services and can act as intermediaries between the students’ families, the schools, and community resources.

Evidence of Success

Two young men in the program began working with us while they were still in high school. They have finished school and now work at the institute. One man has worked at the institute for almost two years. This represents potential longevity in their positions that will benefit the institute. They are evaluated the same as other employees, and they identify and chart their progress and personal goals for job improvement as part of the institute’s evaluation process. These men are helping us learn how to map out their tenure with the organization. They are challenged to do good work, and we are challenged to continually elevate their work assignments.

It is remarkable to see young people find their voice and advocate on their own behalf. For example, it is very gratifying to see them seek out human resources personnel to talk about job issues affecting them. As they mature, it is obvious to us that they will be good employees in any future work environment. Sometimes little things like seeing them in a crisp shirt and tie gives me a good feeling that they are growing as employees and as responsible people.

Expanding the Relationships

Since bringing these men into the institute, I have become active in the Bridges Business Advisory Council and am currently the co-chair. This group exists to provide the program with employer perspectives. Our activities include providing feedback and technical expertise on making contact with businesses, providing mock interviews for students as they prepare for the job search, and promoting the program to other employers. We meet six times a year and participate in a number of other activities between meetings. For example, we have sponsored breakfast recruitment meetings to inform employers about the program and its potential benefits. We have also developed the Youth Experience Series (YES), which offers training sessions designed to give students skills in goal setting, résumé development, and other job success skills. Job shadowing experiences often accompany these sessions.

Ultimately, the members of the Business Advisory Council want to expand the impact of Bridges for both youth and employers. We are working to influence more companies to consider the benefits. It is often difficult to find a good match in hiring. It is important to find someone who has the appropriate skills, to keep them performing at a high level, to increase their skill level over time, and to make sure that burn-out does not occur so they remain productive members.
of the organization. We have been able to reach these goals in the institute’s Fulfillment Center. Involving youth in our workplace through the competent and responsive help of programs like Bridges is a win-win situation.

John McIlveen is the Director of Human Resources and Administration at the American Institute of Cancer Research in Washington, DC. He is also co-chair of the Business Advisory Council of the Washington, DC Bridges… From School to Work program of the Marriott Foundation for People with Disabilities.

Manufacturing & Production Technician Youth Apprentices: Generac Portable Products Corporation by Bob Hurd

Generac Portable Products Corporation, in Jefferson, WI, designs and produces portable generators and pressure washers. Since 1996, Generac has offered its manufacturing facility as a work site and classroom for youth apprentices. The Youth Apprenticeship (YA) program is operated under guidelines established by Wisconsin Governor’s Work-Based Learning Board. Generac partners with the Jefferson County Consortium and the Watertown Unified School District to provide a unique and authentic learning environment for youth at-risk, including students with disabilities. Generac participates in this partnership as a way to build a qualified manufacturing workforce with a reinforced work ethic, to reduce the turnover of entry-level employees, and to attract employees to this rural area.

Using a state- and industry-approved manufacturing production curriculum, Generac has implemented a competency-driven YA program oriented toward manufacturing production and assembly. This one-year program provides opportunities for students with and without disabilities to participate in work-based learning experiences by integrating rigorous technical coursework with applied, hands-on activities related to manufacturing processes. Apprentices are rotated among about half of the plant’s 14 departments. These work station rotations focus on skills such as blueprint reading, interpreting work instructions, using specific and common tools, welding, engineering, research and development, and tool repair. Apprentices spend approximately 30 hours in work and 6 hours in an academic/training program per week. An on-site instructor trained in special needs education provides an integrated English, science, math, and social studies curriculum. Generac pays the apprentices for a 40-hour work week, including workers’ compensation. Apprentices also make visits to other work sites and are exposed to international suppliers who visit the workplace.

Committed to Serving All Youth

Generac hopes to assist all youth in making responsible transitions to the world of work and other adult roles. The Generac YA program serves youth at-risk for dropping out of high school due to academic or behavioral difficulties. While students with disabilities are not singled out for this program, many of the participants have had learning or behavioral disabilities. Generac is made aware of a student’s disability prior to their starting work. Work and classroom accommodations are planned between the YA teacher and the employer prior to student employment. The YA program is managed by a job development firm, Opportunities, Inc., that provides counseling, home and site visits, and support services when necessary.

This YA program supports those students who learn best from “hands-on” and authentic work experiences. These are not students who can sit in a traditional classroom all day and learn. The program is competency-driven and is presented in an understandable context that combines
the learning of specialized and general skills. Apprentices do not attend classes at their local high school during the apprenticeship, but rather, spend their day at the workplace. Academic instruction is provided at the work site by a special education teacher.

Generac takes a preventative approach to skill development, trying to catch the students before they experience job failure or develop poor job skills and behaviors. Adult co-workers and supervisors have high expectations of the apprentices for quality work and appropriate work behavior (i.e., attendance). Consequences for not meeting these expectations are similar to those set up for the adult workers. Apprentices are viewed as part of a team, and the ability to work as an effective team member is emphasized throughout the program. To successfully support youth at the work site, plant workers and work-site mentors must communicate these high expectations by developing interpersonal relationships with young workers and learning to appropriately reward and motivate them in the workplace.

**Lessons Learned**

Over the years, we have learned several lessons about the development of a youth apprenticeship program. First, employers must understand that students at-risk and/or with disabilities want to succeed and can be very good workers. In turn, many of these students are not typical and have personal issues that need to be, at times, addressed by a trained professional. Thus it is helpful to have an on-site special education teacher, who can start slowly, with just a few students, to build on their successes. It is critical to emphasize the real-life expectations aspect of learning and working by treating the students as actual employees. It is also important to remember that we are not trying to change the world; we are trying to change the lives of a few kids a year. Generac has found that keeping the YA program to one year in duration helps to maintain the apprentices’ interest and motivation.

Secondly, it is essential to have a leadership structure in place to facilitate communication between all the stakeholders (employers, school personnel, mentors, co-workers, students, and parents) from the program’s start. It is a good idea to develop a handbook that outlines the company’s and program’s policies (i.e., student labor laws) should questions or concerns arise. This leadership structure can also serve to maintain student enrollment year-to-year. At Generac, in-service trainings are conducted so area teachers can visit the facilities to see how the program works, even for their most challenging students.

For this type of work-based learning program to succeed, employers must be committed long-term to both the students and the provision of resources (i.e., location, salaries, personnel, time). Generac provides the needed resources for program continuation, including use of the facility, student wages and workers’ compensation, and 50% of the classroom instructor’s salary. In particular, Generac has found it helpful to provide part of the classroom instructors’ salary, because it gives us some leverage in defining the program.

**Measuring Success**

Generac measures the success of its YA program in many ways. Students are returned to the community as high school graduates with the skills and experience to get a meaningful job in the manufacturing industry, and to be self-supporting. Apprentices receive a regular diploma, a Certificate of Occupational Proficiency in Manufacturing Production, and advanced credit standing in the University of Wisconsin System.
The apprentices have learned to act responsibly at work and to produce high quality work. Many have proven themselves as capable individuals, having gained a significant amount of confidence and maturity. For example, over time they are willing to initiate conversations with their supervisors about complaints, suggestions, and work in general. The apprentices also have a positive effect on their adult co-workers. Generac employees take pride in the YA program and are glad to advise students.

Since 1996, Generac has graduated 34 apprentices (approximately six per year). Many of these graduates are offered full-time positions at Generac upon completion of the program. Some graduates have become mentors to new apprentices. Several graduates have gone on to postsecondary education in a related field. This community-based program is a creative solution to serving the needs of students with disabilities who are failing to succeed in the traditional school setting.

Bob Hurd is a Business Area Manager responsible for the Generac Manufacturing Youth Apprenticeship Program. The program has been recognized regionally and nationally for its design and effectiveness. Generac’s YA program received a national award from the Council for Exceptional Children and several commendations from the Governor of Wisconsin.

Infrastructure for Success: Kemtah Group, Inc. by Keith Harris

Kemtah was founded in 1989 and is committed to being North America’s premier provider of Information Technology (IT) infrastructure support solutions. The company is headquartered in Albuquerque, NM, with approximately 200 employees nationwide. Kemtah’s IT infrastructure support solutions include:

- Help desk management;
- Desktop support;
- Network and server management; and
- IT infrastructure projects and consulting.

Kemtah’s goal is to work with our clients as innovative, proactive collaborators, focused on reducing cost while being highly responsive to end-users’ unique needs. Our mission is to deliver world class IT infrastructure support solutions to large organizations. We strive to continuously adapt to the needs of our clients, employees, and markets, while building bridges to meaningful employment for people with career barriers.

Kemtah currently conducts business in North America with offices and operations in Sacramento, CA; Denver, CO; Atlanta, GA; Miami, FL; Chicago, IL; Washington DC; and Toronto, Canada.

We deliver our services in two ways: through managed services that provide ongoing operational support for help desk, desktop, and server environments; and through consulting services that address specific, project-based business needs of our clients, including end-user services, technology migrations and deployments, and project/program management. We deliver our solutions across multiple industries.
**Success through People and Diversity**

We have four sons, one who was born with Down syndrome. As the parents of a child with a disability, we have combined our passion for business with our passion to foster and create meaningful employment for persons with career barriers. We believe in the strength of all people. Workforce diversity is critical as our clients, suppliers, and partners are increasingly multicultural and global. Diverse perspectives increase our knowledge and are key to providing better and more creative business solutions. It is core to all areas of our business to foster an inclusive environment to attract, retain, and promote talented people from diverse backgrounds.

We hold as a corporate goal the creation of competitive job opportunities for candidates who possess one to two years’ experience working in a computer-related environment performing tasks such as repair, diagnostics, or troubleshooting. Also, as representatives of Kemtah, employees must have strong customer service skills.

When placement opportunities are identified, technical recruiters specializing in the IT arena can then recruit prospective applicants and recommend them to hiring managers. In addition, Kemtah managers attempt to promote employees who display satisfactory performance, thereby retaining skilled IT professionals from diverse backgrounds, including persons with disabilities. This commitment is demonstrated by the desired outcome that all hiring initiated in a fiscal year should include a minimum of 33% who fall within workforce diversity guidelines, and that at least 5% of those should have a disability. Kemtah has surpassed the original projection by 15%, achieving a 48% success rate.

Over the past three years, Kemtah has hired five youths with disabilities who have served in summer employment positions. Kemtah is optimistic that after graduating from high school, some of these individuals will remain in the IT field and return to work for Kemtah.

In this same time period, Kemtah hired six adults with disabilities who were primarily referred to us by the New Mexico Division of Vocational Rehabilitation (DVR). These staff members work in various locations throughout New Mexico. These staff members enjoyed success in their work endeavors, and the majority of them have also received promotions within their areas of expertise.

**Our Drive to Help People with Disabilities Succeed at Kemtah**

From infancy, Kemtah has observed the essential guiding principle of respect and value for all people. Kemtah recognizes and appreciates the importance of productivity, self-sufficiency, and independence, and views the nearly 70% unemployment rate in the disabled community as a tremendous waste of human potential and resources. This important precept is at the foundation of every operational aspect of the company and is prominent in the disability emphasis of the company’s Workforce Diversity Initiative. It is the company’s view that if the United States is to remain competitive, every organization must embrace diversity, given its inherent competitive advantages. The only way to sustain prominent, meaningful reductions in the disabled jobless rate is to approach it as a sound business practice and not just an altruistic motive.

Although Kemtah has devoted much capital to the expansion of employment options for people with disabilities, it was not until 2001 that the company formally focused on workforce diversity. Our Workforce Diversity Initiative began in August 2001 with the establishment of an executive
level office and the appointment of Jeannie Harris as vice president of workforce diversity. With this office as a driving force, Kemtah developed formal annual operational goals, procedures, and a five-year strategic blueprint to actively promote diversity throughout Kemtah.

**Recruiting Avenues**

Kemtah works directly with the Department of Labor (DOL), the Department of Vocational Rehabilitation (DVR), and business leadership networks on state, regional, and local levels to solicit job seekers who possess the required Kemtah skill sets in geographic locations where Kemtah has or anticipates a presence. Kemtah has enjoyed limited success utilizing electronic job boards that specifically target people with disabilities as well as other diverse candidates. An additional resource is the Governor’s Committees on Disability and Employment Issues, which Kemtah accesses on a state-by-state basis. Recently, Kemtah began exploring the use of Employment Network providers, which were established via the Ticket to Work legislation. These recruiting avenues facilitate access to diverse populations and have the potential to yield a high degree of success in the future.

**Our Lessons Learned**

Rather than relying solely on documentation provided by public agencies such as the DOL, DVR, a school district, or college, Kemtah discovered that it is essential to conduct its own independent skills assessment. In this way, Kemtah can tailor the assessment to the company’s specific needs, as there is a significant difference between compulsory skills to fulfill the requirements of an outside entity and what the IT industry needs and expects.

For example, Kemtah has had great success with its A+ Certification preparation program geared toward high school students.* This is a six- to eight-week course providing students, including those with disabilities, a point of entry into the IT profession. By concentrating on exposure to basic hardware and software components, this course supplies valuable theory as well as hands-on experience in diagnosing and repairing personal computers.

By limiting enrollment in the class to no more than 10 participants, the instructor is in a position to actively engage in a high level of individual attention, which has contributed to the success of this program. It is also important to point out that applicants are put through an extensive qualification and screening mechanism, which helps Kemtah ensure a good match between the students and the program. For instance, Kemtah selects 10 promising individuals from more than 50 applicants for each session. In Kemtah’s experience, about 40% of the participants achieve certification and go on to work in the IT field.

**Students Benefit from Early Exposure to Work**

Involving the private sector early in the transition process can help students gain a realistic view of the workplace and work expectations. This exposure aids in the students’ ability to be successful on the job. Kemtah wants to be involved in the transition preparation process as early as possible, thus providing students the opportunity to engage in a transitional vehicle and develop a more realistic view of their skills and interests. By participating in this progression, students get exposure to the real world of work and are prepared for success at Kemtah.
Upon entering the IT field, students bring a knowledge of IT theory and practical, relevant experience to their chosen fields of study, plus an understanding of Kemtah’s operational philosophy and a strong work ethic.

**Employability Skills Are the Key to Success**

Kemtah believes that there is a need for greater dialog between a student’s educational environment and the student’s future occupational environment. Therefore, schools need to teach students appropriate communication and interpersonal skills as such skills are crucial to success on any job. Skills students need to possess in order to excel in our workplace include:

- Being able to interact effectively with customers, as well as with co-workers;
- Being able to express themselves with clarity in written and oral form;
- Being able to accurately calculate math equations;
- Having a more in-depth understanding of both applications and the advantages a computer can provide; and
- Engaging in critical-thinking activities.

Kemtah can guide any employee to perform a job if the employee already possesses a strong work ethic, maintains a high level of responsibility, and has sound communication skills. Therefore, Kemtah recommends that schools and programs with an emphasis on employment objectives for youth workers who have disabilities place more prominence on these employability skills.

*Editor’s note: A+ Certification is sponsored by the Computer Technology Industry Association to certify the competency of entry-level computer service technicians.*

Keith A. Harris is the founder, Chairman of the Board, and Chief Executive Officer of Kemtah.

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**Quality Products, Quality Employees: Medtronic Physio-Control** by LaDrene Coyne

Our mission at Medtronic Physio-Control is to make tools for lifesaving teams. We develop, manufacture, sell, and service the renowned LIFEPAK® defibrillator/monitors and automated external defibrillators (AEDs). Our products are used to save lives and to build “heart-safe communities.” We are based in Redmond, WA, but our products are sold and serviced throughout the world. It is not a responsibility that we take lightly, and we must recruit and maintain a quality workforce that also takes this responsibility seriously. When we were first approached in the mid-1980s by a program representing job seekers with developmental disabilities, we needed assurances that prospective employees from this program would meet our high expectations.

**The Beginning of a Long Partnership**

In the mid-1980s Medtronic Physio-Control was experiencing rapid growth and the expansion of its manufacturing concerns. Finding good, reliable workers was a significant need. At about the same time, Trillium Employment Services, a local organization that represents job seekers with disabilities, began to pioneer a process called supported employment. Many of the people it represents require coaching and considerable assistance in learning job tasks once they are on the job. Supported employment enables people needing this extensive coaching to succeed in the workplace.
Knowing that Medtronic Physio-Control was a progressive company, Trillium approached our CEO about developing a partnership that would enable us to fill some of our production needs and that would enable Trillium job seekers to enter the workforce for the first time. Some of the individuals had been in work training centers called sheltered workshops, where all of the trainees had disabilities. Some people came from public school special education programs.

Our CEO directed the vice president of manufacturing to examine how a partnership might be implemented. A line supervisor was identified, and a centralized place was established where several Trillium workers could work together in a distinct enclave. Workers focused on narrowly defined tasks and were supervised by Trillium staff. In fact, a contract paid Trillium for this work, and Trillium paid the enclave workers from this contract.

Eventually Medtronic Physio-Control and Trillium realized that the people hired through supported employment could be taught to work in other departments on our production floor. Supervisors and co-workers could also be taught how to directly coach the Trillium workers, minimizing the need for Trillium job coaches. As a result, eventually the workers in the enclave were mainstreamed throughout the plant and converted to direct-hire status.

**Help Needed on the Line**

When the partnership began, I was a line supervisor overseeing a pace line in the board shop. The line hand-stuffed components into PCBs, and there was a need for an additional headcount. This provided an opportunity for moving a qualified person from the enclave line into the pace line area.

This was a new experience for me, but with the Trillium staff working closely with me to organize the work assignments for the individual, I become an advocate. Trillium provided training for the co-workers and myself. We were taught how to introduce new tasks to the individual, how to prompt the person to complete the tasks, and how to deal with occasional production or work behavior issues. The individual learned the job so well that I was eventually called upon to help other teams integrate supported employees into their production lines. I helped organize and conduct training sessions for team members when the workers were first introduced to a new team. Through this process I have developed a strong ongoing relationship with Trillium.

There are eight people with developmental disabilities working in our plant today, earning from $15,189 to $24,500 annually. All receive full benefits including health insurance and four weeks' annual vacation.

**What Makes the Partnership Work?**

The partnership with Trillium has evolved over the years to what I consider a very strong and sophisticated example of the benefits in a truly reciprocal relationship. Trillium has a receptive business to which it can refer potential job seekers, and we have a referral source that knows our company and our job requirements inside out. The evolution and success of the relationship is the result of four key elements:

1. **Designated points of contact:** Our relationship has always featured designated Trillium contacts and a designated internal company contact who work in tandem.
2. Co-worker training: Formal training sessions are provided for co-workers and supervisors when they are first introduced to the prospect of working with an employee engaged in supported employment. The sessions include possible scenarios relating to what to expect and general information about disability awareness, accommodations, and etiquette.

3. Integrating this relationship into regular hiring and training practices: We believe it important that our partnership with Trillium be a part of the company culture rather than a separate or special program. The screening, hiring, and training of each team member are in compliance with company procedures. If specific individual accommodations are necessary, we work with Trillium and our tooling shop.

4. Careful screening: The reason our partnership has worked so well is because of the careful screening process we have developed to match applicants with jobs. Trillium is an integral part of the screening, because they know both the applicants and our operation so well. Occasionally, we have had a new person spend a few hours a day for a week to see if it is a good job match before a hiring decision is made. The lengthy job tenure of most our team members with developmental disabilities is a testament to both the careful screening process and the commitment of Trillium's expertise.

Pioneering Spirit

Nearly 40 years ago, we introduced a medical device that launched an industry—the first commercial DC defibrillator. Since then, our product focus has been on the development of the highest quality medical devices for prediction or urgent treatment of cardiac and respiratory emergencies. Our early involvement with Trillium to include supported employees in our workforce fits with our legacy of “firsts.” We introduce and distribute cutting edge, lifesaving products, and we adopt and incorporate human resource and development practices that keep us on the cutting edge.

Recently, I was assigned to be a loaned executive to chair the Washington State Business Leadership Network (BLN), a network of employers who educate and support businesses to hire, retain, and improve customer service for people with disabilities. This assignment represents a recognition and commitment that our company can offer more to the larger business community about how well this has worked for Medtronic Physio-Control. Over the years I have gained invaluable information about supported employment in the workplace, and I am pleased to apply my knowledge as I work with the Business Leadership Network to help other companies learn about recruiting and managing workers with developmental disabilities.

The mission of my position is to educate and support Medtronic and other businesses to recruit, hire, and retain people with disabilities. The Americans with Disabilities Act represents civil rights for people with disabilities (however, it doesn’t legislate attitudes!). Business representatives talking with peers about positive experiences will change attitudes. I will utilize our experience at Medtronic Physio-Control to assist other businesses and Medtronic to hire people with disabilities.

LaDrene Coyne is a former Senior Production Supervisor at Medtronic Physio-Control, where she has worked for the past 21 years. She is currently a loaned executive, assigned by Medtronic Physio-Control, to the Washington State Business Leadership Network to work to expand her company’s initiatives to hire people with developmental disabilities.
Cincinnati Children’s Hospital Medical Center is dedicated to serving the health care needs of infants, children, and adolescents and to providing research and teaching programs that ensure delivery of the highest quality pediatric care to our community, the nation, and the world.

**High Quality Care Requires High Quality Staff**

In a typical hospital, 70% of the staff members are professionals such as doctors, nurses, therapists, and other personnel who are highly trained and educated. For the most part, the rest are support staff who receive the greater portion of their training on the job. At all levels, however, hospitals need people who are committed and well prepared. Hospitals also need to connect directly with their communities, both as healthcare providers and as employers. Therefore, beginning in the mid-1990s, Cincinnati Children’s Hospital Medical Center began a significant diversity initiative to attract and retain the entire spectrum of the community’s potential workforce. This initiative especially targeted people with disabilities. The reasons were three-fold:

1. We were experiencing a particular problem attracting and keeping good entry-level support staff. We needed to upgrade and expand our recruitment approaches to include the large segment of job seekers who have disabilities, want to work, and, as we learned, who are often represented by a variety of organizations that assist them in job preparation and job search.

2. We needed to bolster the quality and intensiveness of our on-the-job education of new staff so that they were prepared well, performed better, and stayed on the job longer. Some of these employment organizations offered assistance to the hospital in designing ways of improving job training and support for people with disabilities.

3. We had adopted as a guiding principle a 1995 policy of the American College of Healthcare Executives, which states: “Healthcare organizations must lead their communities in increasing employment opportunities for qualified persons with disabilities and advocate on behalf of their employment to other organizations.”

As we quickly learned, hospitals can be very good at providing medical services to people with disabilities who are in their care, but they are not always so good at recognizing the productivity that is possible for people with disabilities when they have the right kinds of opportunity and support. We had to take some baby steps before we were able to develop what is now a well-designed partnership with outside schools and organizations that enabled us to eventually hire more than 100 people with disabilities in a wide range of jobs.

**Search for Assistance Begins**

As the head of the hospital’s Emergency Room in the mid-1990s with hiring and firing authority, I decided to look into this recruitment avenue. Not knowing exactly where to start, I used the phone book to locate such resources. After a few dead ends, I found the Great Oaks Institute of Technology and Career Development, a special needs vocational school, and the Hamilton County Board of MR/DD, a government agency serving people with mental retardation and other developmental disabilities. After many planning meetings, we initiated a training experience where youth and adults with disabilities were taught to stock supplies for the Emergency Room.
The arrangement worked so well that other departments wanted to try a similar approach. We soon identified another area of opportunity—the hospital needed reliable couriers to deliver mail, packages, and materials to labs and locations throughout our nine-building campus. Before long, 13 people were hired as lab couriers. We formalized the relationship with Great Oaks and the Board of MR/DD with a legal contract specifying the roles of all partners, and I soon found myself out of the ER and directing this new effort, now known as Project SEARCH.

**Experience Leads to Adjustments in Our Approach**

The initiative worked so well that we decided to significantly expand it. We put out a call to a number of agencies that serve job seekers with disabilities, resulting eventually in the involvement of six different agencies that provided a total of 13 different job coaches at any given time. Unfortunately, this turned out to be a very unwieldy—and ultimately unworkable—arrangement. We found ourselves dealing with multiple organizations whose staff had little direct knowledge of our needs. We had to train them and the employees with disabilities. We also had no control over who was hired to be a job coach (and if they were late or tardy, we were at their mercy). If they were not of the caliber we desired, we had little influence over improving their selection, training, or development. Overall, this was not a very employer-friendly arrangement.

So we changed the model. Through a contract with Hamilton County Board of MR/DD, we now hire our own job coaches. We have developed our own support program for individuals with disabilities whom we hire. In this way we can make sure that the performance of both the coaches and the employees meets our standards. The job coaches become thoroughly acquainted with the hospital’s needs, and consequently are better able to train and support the people with disabilities we hire. And we can more rapidly and conveniently address any performance or accommodation issues that may arise.

We have made Project SEARCH a single point of entry, so that it is easier for us to make contacts with schools and agencies representing people with disabilities. We coordinate referrals, the application process, all hiring decisions, and manage on-the-job support, such as job coaching, adaptations, accommodations, final task definitions for specific jobs, and travel training. We also maintain employment status through on-site follow-along service and provide opportunities for career advancement. Project SEARCH now provides employment and educational opportunities for more than 75 individuals with disabilities who have a range of disabilities and accommodation needs. They are employed in a range of positions, with almost all of the positions at full-time status.

**Project SEARCH Targets Youth**

Participants in Project SEARCH learn through demonstration, outreach, and education, combined with technical assistance, in several distinct programs. One of these programs is called the High School Transition Program, now in its sixth year of operation. This program offers a one-year transition program for students with disabilities who are in their last year of school. The program is geared toward students whose main goal is employment and who are interested in career exploration in a healthcare setting. It is a major vehicle for preparing and recruiting new hospital employees, although a number of the participants go on to work in other places.

During the first half of the school year, up to 12 students spend the day at Cincinnati Children’s or at Clinton Memorial Hospital and rotate through three to four work site experiences. These
site rotations allow participants to build various skills, including communication, problem solving, and specific job duties as they become ready for competitive work environments. During the second half of the school year, individualized job development and placement occurs based on the student’s experiences, strengths, and skills. Students are given support with accommodations, adaptations, and on-the-job coaching by on-site staff. As the school year ends, linkages are made to appropriate community services in order to ensure a successful transition to work as well as retention and career advancement. Many stay on and become permanent employees of Cincinnati Children’s.

What Makes It Work

In the past, our human resources department was typically approached by many different education and job placement professionals. We had no way of understanding all the organizations and people they represented. It also seemed that the approaches they used were based on sympathy, so that we would consider hiring a person with a disability. It is not a model that works for business. It is too complicated and confusing, too inconvenient, and too out-of-touch with our real human-resource needs. Most often, applications from such sources ended up in the circular file. We have been able to develop a viable alternative that is very effective in meeting our needs. The keys to making it work to our benefit are:

• There is a single point of entry (Project SEARCH). We post jobs and make them known to schools and organizations representing people with disabilities who access one place for job information and through which the various hospital departments can screen applicants.

• Our internal position in the hospital allows us to constantly evaluate job opportunities and determine options, such as job restructuring, that meet our needs and that also offer unique opportunities for job seekers.

• On-site staff, employed by the hospital, facilitate direct coaching and the support necessary for many of our employees with disabilities to perform well.

• A clear cooperative agreement with selected school and disability service partners gives us a direct connection with special educators and rehabilitation professionals for expertise in accommodations and training methodology when we need it. We no longer have to use the phone book to find resources for expertise in disabilities and employment.

• We strongly believe in the policy statement of the American College of Healthcare Executives on increasing employment of people with disabilities. Our approach creates internal advocates for disability employment.

Our project, which has received local and national awards, has now expanded beyond our own hospital complex. In addition to linking our efforts with other healthcare facilities, we are now negotiating with a prominent bank and two retail stores to organize similar opportunities for people with disabilities. Every industry has the need for a well prepared, highly functioning workforce. We want to equip companies in other industries to develop internal structures that will enable them to successfully recruit, hire, and manage employees with disabilities. Our experience with an employer-driven approach clearly illustrates very effective ways to both meet company human-resource needs and to increase the employment options for people with disabilities.

J. Erin Riehle, M.S.N., R.N., is Director of the Division of Disability Services at the Convalescent Hospital for Children, an affiliate of Cincinnati Children’s Medical Center. A long-time healthcare professional and former
Emergency Room administrator, she founded Project SEARCH. Project SEARCH and the Division of Disability Services at Cincinnati Children’s now encompass eight programs, including the High School Transition Program, Adult Employment Program, Healthcare Training Program, Vocational-Education Clinic, Intern Program, Virtual Academy, Incumbent Worker Program, and SEARCH for Fitness. For additional information, go to http://www.cincinnatichildrens.org/ps/.

Keeping Stock of Personnel Needs: Safeway by Grace Louie

Safeway is one of the largest food and drug retailers in North America. At year-end 2000, the company operated 1,688 stores in the western, southwestern, Rocky Mountain, and Mid-Atlantic regions of the United States and in western Canada. In support of its stores, Safeway has an extensive network of distribution, manufacturing, and food processing facilities.

Safeway and Diversity

Safeway has many training and development programs in place that can help our employees establish successful careers in the grocery industry. From new-hire orientation to our Retail Leadership Development program and other programs that provide training from specific job duties to leadership and supervisory skills, we pride ourselves on strengthening our workforce and giving all of our employees the opportunity for advancement. Our strong belief in the value of diversity provides a firm foundation for our long-standing commitment to equal opportunity employment. Safeway does not view equal employment opportunity as “hiring a person with a disability.” We are a very diverse company and an equal opportunity employer. The important thing is: Can you get the job done?

My first exposure to people with disabilities was when I first became a Safeway store manager back in 1993. There was a regular customer who worked with young people with disabilities. Over time, we got to know each other. She put me in touch with an organization that worked with people with disabilities and the relationship began.

The first agency I worked with was The Arc. This gave me the opportunity to locate and interview students who could be successful in the workplace, whom I may not have otherwise encountered. I learned of the Bridges…From School to Work program shortly after this and have been getting a supply of excellent labor because of this organization’s reputation and the caliber of young people who participate.

When I was transferred to another Safeway store in 1999, I was having difficulty hiring qualified and responsible employees. I sought out Bridges as a resource for potential hires. This proved to be a fruitful collaboration. I have also collaborated with The Arc as a resource for referrals. Because of my positive experience hiring youth with disabilities through the support of these agencies, I want to take advantage of this hiring avenue to find qualified referrals for Safeway.

Open Access for Students with Disabilities at Safeway

At the Diamond Heights Safeway, currently 10 youth with disabilities are employed who receive training and full wages. Over the years I have hired 13 youth with disabilities, three of whom continue to be long-standing employees. I do not want these individuals to be treated differently, but I do tend to pay more attention to whether they need support with new tasks. It is important to set these young people up for success and provide supports wherever possible without compromising hiring practices or employment expectations. As a result, as part of the
hiring process, I have allowed agency staff who serve these individuals to sit in on the interview. In addition to entry-level work opportunities, we also provide a wide range of training events:

- Students attend detailed and informative store tours and a safety lecture;
- Students are enrolled with the clerks’ union;
- Students attend customer-service lectures; and
- Students attend in-store orientations.

Generally, disabilities are not discussed as an issue with co-workers. The expectation is that people adjust and learn to work with diverse groups of people. If there is a situation that arises, and an employee is having difficulty adjusting, we will bring in agency support, provide staff with a general sense of the situation without specifics, and ask for staff assistance to help make the student’s transition more successful.

I have designated some front-line staff and supervisors who are aware of some of the special support needs that some students may have. I try to encourage my supervisors to be patient with the student workers. In addition to specific skill training, students learn and establish strong customer relations and effective employee behaviors that are necessary for success as an entry-level worker. I try to recognize each student’s abilities and potential and work with them at their pace. We try to make students feel comfortable and understand the job responsibility and the perks that go along with employment, such as money and benefits. I have found that the students with disabilities I have hired learn responsibility and accountability. Our successful partnership with Bridges works well for everyone involved.

**Support Strategies and Success**

We have a good working relationship with the employer representatives from Bridges and the support staff from The Arc. It is very important for representatives to develop relationships and a level of trust with companies. For example, it is important that employees are prescreened and prepped for job expectations and the hiring process, which includes interviews, orientation, and training. Employees must be capable. Agency staff play an active role in recommending candidates for work. They assist these potential employees with acquiring the knowledge to perform well and maintain employment. The agency contact needs to know what the job entails and provide extra coaching as necessary. This includes assisting with explanations, reinforcement, and follow-through regarding policies and procedures such as attendance, absences, etc.

For safety issues and accountability, it helps to have open lines of communication with counselors and parents. To make the job a success, we need dedication from the employee, the employer representative, and our staff. For example, there is a young man who has worked at the store for the past two years. His Bridges employer representative proactively approached Safeway before he started the job to identify his job tasks and responsibilities. This helped make a match between his interests and our needs. He now works in the bread department, stocking shelves and removing unsold bread. He uses a computerized pricing system. His responsibilities are expanding, and he will eventually be accountable for the bread department “sell-through”—the sales increase and decrease. With patience and perseverance, he, his supervisor, and co-workers have achieved a successful and productive team effort.

We place importance on job retention. When we encounter difficulties with an individual, we try to involve the counselor in order to resolve the issue and to avoid termination. When
employees do not adhere to policies, this requires close contact with agencies and enforcement of normal consequences associated with such actions. We try very hard to work with people without jeopardizing the integrity of the company.

This experience has made me much more open to considering potential employees with disabilities who are not involved in Bridges or The Arc programs. As long as there is a support person available, there is no reason these individuals cannot be successful. A support person does not necessarily need to come from an agency that focuses on job support, but can be a counselor involved in other areas of the person’s life who also assists with job placement issues. It could be a parent or even a “house mother.” The important factor is that the employer have a support network available as a resource for helping the young person succeed on the job.

Most of all, we ask that the agency representative send us people who want to work and want to do a good job with minimal supervision once they are acclimated. We give proactive suggestions, and we appreciate involvement from the employer representative. Having the support agency involved makes our job a lot easier.

Grace Louie has been Store Manager for the Diamond Heights Safeway in San Francisco, CA, since 1999. She has worked for Safeway for the past 24 years. For her initiative to hire, train, and supervise successful work experiences for youth with disabilities, Safeway received the 2001 Employer of the Year Award from the Marriott Foundation Bridges… From School to Work program.

Brokering Achievement: Old Colony Insurance Service, Inc. by S. Brooks May, Jr.

Old Colony Insurance Service, Inc. is one of the leading insurance brokers in the southeast United States with offices in Crestwood and Lexington, KY. In addition, we have an affiliated company, Cromwell Insurance, in Lexington. Old Colony is built on a foundation of integrity and excellent service to its customers.

Old Colony was founded in 1975. We have grown to be one of the largest independent insurance brokers in northern Kentucky and southern Indiana through our products and services. Although the organization was founded on property insurance and casualty and employee benefits, today Old Colony offers a full range of insurance products to its policyholders. Old Colony has 66 employees in its two locations.

Addressing Our Need

We receive a large volume of incoming mail and have had trouble keeping someone long-term in our mail room. The turnover in the mail room required time and money for recruiting and retraining. One day it occurred to me to try hiring someone with a disability for the position. I had a good friend who had Down’s syndrome and a niece with severe mental retardation, and had been around individuals with disabilities for a long time. Hiring someone with a disability would allow us the opportunity to help someone else while at the same time addressing our long-term mail room needs.

Through my church I knew a special education teacher, Octa Kellond. She suggested that Lindsay might be a good match for the mail room position. I knew Lindsay and her family through church as well. We made the connection, and Lindsay started working for us.
Lindsay worked in the mail room in the mornings while she was in high school through a cooperative work arrangement. We did not create a new position for her. She filled an existing, open position in the mail room. She performs the same tasks that the position has always required—primarily opening and distributing mail as well as distributing supplies throughout our Crestwood office.

**Lindsay’s Job**

Lindsay opens, date-stamps, and distributes the mail to individuals in the office. She has learned how to use the computer and goes into our customer database to identify who handles particular customer accounts. She checks, refills, and maintains the paper supply for the copier, printer, and fax machines. She also attends to other supply issues. The staff sends her e-mail requests for supplies, which she retrieves and delivers. She works weekdays from 8:30 a.m. to 12 p.m. When Lindsay arrives at work she immediately goes with a co-worker to the post office to pick up the mail. When she returns with the mail, she opens it with a mechanical letter opener and proceeds from there. She is always looking for something to do. When she is finished with her work and has a few minutes left, she will come around and ask if anyone needs anything.

Because of the volume of incoming mail, it takes her a long time to open all the mail. We allow her as much time as she needs; there is no pressure. We have adjusted our workflow somewhat to accommodate her pace. If we had hired someone else, he or she might be faster. Having worked for us for the past three years, Lindsay is conscientious and dedicated. We do not have the turnover in the mail room as in the past.

**Initial Support Made the Difference**

Lindsay’s job coach, Ms. Kellond, was an instrumental part of making Lindsay’s job a success. She played an indispensable role in training and job acclimation, working with Lindsay and our staff every day to make sure Lindsay knew and understood job expectations. She also helped us learn to communicate and convey tasks effectively.

Ms. Kellond divided the job into steps and made sure Lindsay knew how to do each one. She identified and recorded the flow of tasks and trained Lindsay on each part of the job. Lindsay has handwritten notes on the steps to do her job and refers to her notes when she gets off task. When needed, she is reminded to use her notes and that helps her to refocus on the work at hand. Ms. Kellond worked with her for approximately three or four months. Lindsay is now very self-sufficient and works independently. She has a supervisor who has daily contact with her and checks in to see how everything is going. While Lindsay was still in school, Ms. Kellond provided the initial support. We now address any issues on our own. Lindsay also has an extremely supportive family that we can also contact if necessary.

**How We Made it Work**

Having Lindsay work at Old Colony has been a gradual learning process for all of us. The main lesson that we have learned is that Lindsay, like other employees, has her own interests, skills, and personality. As we have become more acquainted with her, we have learned how to work effectively together.

At times, Lindsay has some difficulty with appropriate social skills and interactions with other people, which can lead to occasional misunderstandings that need clarification. Lindsay is
extremely conscientious and takes what we say literally. We have also learned that we need to be careful about teasing and joking and make it clear that we were teasing before we leave the conversation, so that she is not confused or her feelings do not get hurt. Once when the owner jokingly told her as he was leaving, “Okay, you’re in charge while I’m gone.” She took that to heart and told a few of the staff she was going to tell on them if they did not perform. We address these issues as they arise just as we would with any employee.

We have learned that Lindsay is just like any other young adult, who at times may be focused on the job and at other times is not so focused. We have talked with her about needing to stay on task. When she gets off task she is reminded to refer to her notes and is able to get back on task quickly.

Some of the strategies that have helped us to work effectively with Lindsay include:

- Getting to know her and her likes and dislikes;
- Becoming familiar with what she can do and what she needs help with;
- Having the same expectations for her as for other employees;
- Treating her with the same respect as other employees;
- Providing initial training from her job coach;
- Maintaining daily check-ins from her supervisor; and
- Supporting her use of written job tasks with steps to follow for a reminder when she needs it.

**A Win-Win Situation for All**

Lindsay definitely feels like a part of the office. She is dedicated, very conscientious, and tries hard to do her job well. We enjoy having her as an employee. She has now worked for us for three years.

The staff has been very gracious and accepting of her. Working with Lindsay has been a learning process for all of us. At times we are caught off guard by her response to certain situations, but we adjust, address the situation at hand, and move on. She attends all social functions and employee meetings. If her mother is unable to pick her up after work, a co-worker will drive her home. She brings and eats her lunch daily in the break room with everyone else. Now everyone here understands Lindsay and accepts her for who she is. Having Lindsay as one of our employees has really been a good experience for everyone. Lindsay recently said to the co-worker who goes with her to get the mail that she wanted to “be here forever.” That would work for us.

*S. Brooks May, Jr. is Chief Operating Officer and Chief Financial Officer for Old Colony Insurance Service and Cromwell Insurance Agency. He is responsible for all operating divisions as well as all financial aspects of the businesses. He also oversees the personal lines, operating, and marketing departments for the agencies and currently is serving on The Travelers Insurance Companies Agents Advisory Council for personal lines.*
Summary and Conclusion

The following paragraphs summarize the authors’ main points, which could serve as important lessons for the fields of transition and workforce development, especially in relation to the development of relationships with employers.

Why Employers Host Youth

Several factors motivated this sample of employers to create work-based learning opportunities for youth with disabilities. These factors ranged from chance encounters with school or workforce programs to proactive and sophisticated efforts to recruit and screen youth. Several employers indicated more than one factor that influenced their participation with youth transition and workforce development programs. These include:

• Meeting a perceived community need (NASA, Kemtah, Microsoft);
• Meeting an ongoing industry need (NASA, Microsoft, Generac, Safeway, Cincinnati Children’s);
• Meeting a company-specific need (Generac, MacWorld magazine, Kemtah, Port Discovery, Safeway, Cincinnati Children’s, Old Colony Insurance); and
• Encounters with specific individuals representing youth (MacWorld, American Cancer Research Institute, Safeway, Old Colony Insurance).

What Made It Work for Employers

Some common themes were expressed by the employers:

• It is essential that employers work with competent professionals and organizations to link them with youth, assist with matching the youth to assignments in the company, ensure effective accommodations, and provide follow-up to the youth and the company. Without these intermediary links, their ability to offer work experiences for youth with disabilities would not be possible.
• Whether the employers’ motivation for inviting youth into the workplace was to meet a company, industry, or community need, employers provide work experiences to youth because they benefit in some way.
• Internal champions often arise within companies that make work experiences beneficial for both youth and the company.
• Providing work experiences is often a no-risk way for employers to screen potential new employees.
• Some companies see work experiences for youth with disabilities as one aspect of a larger diversity initiative.
• Disability awareness and training, either formal or informal, for the youth’s co-workers is integral to the success of most work experiences.
• Most employers prefer to follow typical human-resource procedures when bringing youth with disabilities into the workplace, but they are willing and able to make extensive accommodations and adaptations to procedures when they have competent help from disability professionals.
Work experience options can be expanded when employers and youth programs share resources and sometimes costs.

**What It Means for the Field**

The following items are a few recommendations—sometimes implied, sometimes directly stated—that these employers suggest for practitioners.

- To recruit companies for work experiences, market the competent service of the professional or organization representing youth with disabilities and the potential benefits to the company. Avoid charitable appeals based on disability.
- Get to know the industries and companies in your area; careful screening and matching are not possible without this knowledge.
- Seek out and cultivate internal champions who can advance the concept and the value of such work experiences within companies.
- Be ready to provide both formal and informal disability awareness training, tailored to the needs and circumstances of the company.
- Make the processes for establishing work experiences as straightforward and as uncomplicated as possible.
- Organize continued follow-up services for the company; that is, provide service to both the employer and the youth.

In the long run, it is important to continue to seek out and listen to the voices of employers. What they expressed in this collection of essays is that neither disability nor youth necessarily dissuade employers from hosting work experiences. With improved focus on the employer’s needs, there is good reason to expect improved adult employment outcomes for youth with disabilities. Ultimately, if one of the most important activities of transition and youth development programs is to help youth with disabilities enter the workplace, then it is essential for stakeholders to understand and address the circumstances of those who might provide these opportunities.

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Creating Economic Opportunities for Every Young Person:
Lessons from the Hitachi Foundation’s Partnership in Education and Economic Opportunity Initiative


Note: The Hitachi Foundation’s Partnership initiative studied 12 community-based organizations focused on meeting the needs of youth who are underserved by schools in making the connections from school-to work.

Lessons Learned

Three years of action, reflection, sharing, and dialog by staff and participants of these 12 community-based programs has generated a number of insights into the reasons behind their achievements and challenges. It is important to note that these programs are not a few isolated success stories, but rather a good indicator of what is possible.

This report makes a concerted effort not to restate theories and lessons that already exist in the massive amount of research and writing done on the subject of linking education and work experience for youth. Our lessons learned are just that—specific findings from this learning network.

The lessons gleaned from the Partnerships initiative are grouped into two categories. The first group contains lessons derived from reflecting on the kind of programs selected for this initiative: community-based efforts involving multiple partners. The second group contains lessons derived from reflecting on how these programs go about their work: strategies and operations.

Lessons on Partnerships Led by Community Organizations

Lesson: Community-Based Partnerships Serve Youth Better

Effective youth-serving community-based organizations (CBOs) put young people first, and they work by operating in multiple dimensions of their lives: schooling, self-understanding, work experience, family support or lack thereof, and connections to the broader community. To do this well, partners are a must, and CBOs, even when small, are a natural entity to bridge the diverse resources that are needed for youth to succeed at moving from education to career. Strong partnerships allow both personal relationships with the young people and comprehensiveness of services without sacrificing either.

It sounds simple: focus on the young people, create a comprehensive program to address what is happening in their lives, and develop collaborative partnerships to implement and institutionalize your program. The reality is, it is anything but simple. To stay personally involved and committed to the success of each young person is no easy task in light of the demands faced by youth and program staff. And to create an effective program that deals with the broad range of issues that
are barriers to academic and employment success is an extremely difficult task, full of trial and error. The intensity and comprehensiveness of such programs are why collaborative partnerships are so critical—unless the community-based organization managing the program can become a highly functioning mega-organization overnight, it will not be able to achieve its goals without including a variety of strategic partners in its efforts. In many communities, public and private sector organizations, schools, and families involved in education and work skills development have been struggling long and hard—and sometimes with each other—over how to meet their young people’s needs. A community-based organization can provide the neutral ground and safe environment necessary for these multiple partners to develop strong relationships. They provide an opportunity to put aside turfism and agendas to concentrate on mutual goals and develop effective strategies to meet them.

For example, Girls, Inc., partners with a private college to provide a home for the Eureka program’s summer camp, and it links girls to the real world through a vast network of business connections. One to One (Philadelphia) could not possibly reach the scale it has without the deep connections to the business community that the Chamber of Commerce provides. One to One (Detroit) reaches its youth participants by working through the schools, as opposed to trying to reach them one at a time and expending the vast majority of its resources in the process. ASTC’s YouthALIVE! Orlando Science Center program collaborates with the city’s housing authority to locate youth who could benefit from the program. Each of the programs operates within such partnerships, as the “Partners” listing that accompanies each program’s profile shows.

Lesson: Flexibility Counts

CBOs often have a capacity for flexible programming and service delivery and usually have a limited bureaucracy, allowing quicker responses to changing conditions.

Addressing the barriers to a young person’s successful education and development of work skills is like tracking the smallest ripples on the ocean’s surface on a windy day. Like the wind and tide creating a constantly shifting pattern, the many influences in young people’s lives are dynamic and changing by nature. Just like the alertness and attention necessary to track those ripples, flexibility and responsiveness are necessary to deal with or take advantage of the constantly changing conditions in communities and young people’s lives. For example, getting access to young people is an essential part of the job of Chugachmiut’s Youth Coordinator. The person most recently in this job is just out of college and a native Alaskan, easily able to identify with the Native youth. Given the informality of Native culture and the premium placed on trusting relationships, he spent a great deal of time getting to know village leaders and school staff. Through them he was able to reach the youth. At times, he opted for more adventurous, spontaneous approaches to building trust with youth. He determined that some essential messages about what it takes to build a career were not getting through to the program participants.

Within a couple of weeks, he set up and held a five-day Kayak Camp for the youth in Port Graham, a logistical feat made possible by his responsiveness and the flexibility provided by the program’s small size. He later held the same type of camp for the youth in Tititlek. In these forums, he had a captive audience of youth, away from home, where they could speak freely about their hopes and dreams in a supportive environment.
Lesson: Developing Partnerships Is Hard Work, But Worth It

Building relationships and developing trust among partners is a challenge. It requires a significant amount of time and individual effort to be successful. For many organizations that aspire to create strong partnerships, resources are already stretched thin. Strategic, long-term partnering—knitting together a group of partners that have what the organization needs and need what the organization has to offer—provides a significant return on investment for all partners.

Love at first sight might be rare, but trust at first sight is even more so. Just like any personal relationship, building a trusting relationship among partners takes a long time and a great deal of effort and attention. The irony is that the organizations that would benefit greatly from strong partnerships are usually those with little resources to spare to develop those partnerships. Those meager resources, when expended to identify and develop strategic partnerships, can provide an incredible payoff.

If time, money, and results were not important, community-based organizations wouldn’t need partners to begin with. In fact, with all the resources it takes to develop a collaborative partnership, it is in every partner’s interest that the relationship be long term to maximize the return on those resources. And as in any relationship, any partner who is not benefiting is not going to have much reason to stick with it over the long term.

Southend Community Services’ Our Piece of the Pie (OPP) offers one example of using collaborative partnerships to provide comprehensive services. The program draws on Trinity College and other local higher education institutions to supply youth managers—coaches and role models to school-aged youth in OPP programs. OPP also partners with community institutions such as Hartford Hospital, the parks and recreation department, and area businesses as work sites and customers for youth-run businesses.

For example, the program’s youth boat-building business, River Wrights, uses materials donated by area hardware and lumber businesses to handcraft row boats and canoes, which the parks and recreation department purchases for use as rental boats at local public lakes.

Lesson: Being Nontraditional Is a Challenge

Community-based programs encounter challenges with building credibility and securing funding because they are often viewed as “outsider” organizations, separate and isolated from schools and colleges that typically provide school-to-work programs.

Education and workforce preparation have traditionally been the province of the K-12 and postsecondary school systems, and community-based organizations have not traditionally been a partner in their efforts. For start-up and young programs with little or no track record of results, it is a difficult area to break into. Betting on an unknown is not something most funding sources, or local governments, or businesses are likely to do.

Research, solid planning, strategic partnering, and a few small successes can help build credibility and increase funding opportunities. For example, to have any ability to reach a level of scale worth the investment, One to One (Philadelphia) organized BEGIN in partnership with the Greater Philadelphia School District and the Chamber of Commerce. BEGIN staff recruit business mentors for the program, in concert with the Chamber, and the participating high
schools have program coordinators who recruit students; a school district staff person oversees the work of the local high school coordinators. As an outside organization, One to One faces the challenge of how to work with high school coordinators who are unable to meet their recruiting goals. One to One cannot hold the coordinators and teachers accountable—they can only push and prod from the outside, hoping for a change. Meanwhile, to maintain its credibility and increase its opportunities for future funding, the program must still meet its obligations and demonstrate successes.

Lessons on Strategy and Operations

Lesson: Understanding Culture Is Key

A strong working knowledge of the culture in which young people live can be an indispensable asset in attracting and retaining hard-to-reach youth.

Culture affects how we learn, what we value, how we relate to the community around us, and the options and opportunities to which we are exposed. For a program to meet young people’s needs effectively, it must be developed with an understanding of and respect for their cultural background. This context can draw youth to a program and create connections with their heritage, their families, their peers, and their communities that keep them in the program.

For example, the South Bronx Community Coalition’s Multi-Media Education/Leadership Initiative capitalizes on the Hunts Point neighborhood’s history of arts and entertainment. The program is housed at The Point community center alongside multiethnic dance, music, visual arts, voice, and drama programs. Creativity has long been celebrated in this community, and that is part of the draw for young people to the Multi-Media program, where youth learn the employment and technical skills of the videography industry while documenting activities in their neighborhood. Youth commit to at least a year in the program, and during that time usually encounter problems at home or in school that affect their participation. The program director uses his knowledge of the community and its culture to work with the youths on an individual basis to develop their conflict resolution and problem-solving skills.

Lesson: Entrepreneurship Is an Option

Creating pathways to sustainable employment within a community is a particular challenge given the labor market realities of rural or economically depressed communities. For people who are committed to place, entrepreneurship programs can honor a person’s heritage while providing a career path close to home. The skills that are developed are useful everywhere.

In our highly mobile society, rural communities are continuing to lose talented young people to places that offer more and better options for building a career. Inner-city neighborhoods experience the same exodus. As traditional industries decline, people leave. As more people leave, opportunities decline even more. But not all roads to prosperity have to lead away from home. Entrepreneurs—even young ones—can create a business and a living just about anywhere, especially with recent advances in information technologies.

Even when it doesn’t lead to a long-term business, entrepreneurship training imparts a basic understanding of business along with a range of analytic skills that are essential for the workplace, regardless of where a young person ends up. For example, when the school-to-work movement began nationally, it reached into Kentucky only as deep as the urban areas. Rural
What Works communities, especially those in the isolated areas of the Appalachian Mountains, were far behind the movement when Forward in the Fifth (FIF), an education advocacy group in Southeast Kentucky, began to research a school-to-work strategy. FIF selected an entrepreneurship strategy, Educational Designs That Generate Excellence, in part because of the paucity of employers to whom students could connect for workplace experience.

**Lesson: Connect Staff, Volunteers, and Culture**

*Drawing staff and volunteers from the culture and communities served by the program can be a powerful contributor to program success; the staff member(s) and volunteers have a personal understanding of participants’ backgrounds, and the participants gain exposure to a role model for what they, too, can accomplish.*

An intimate understanding of people’s cultural heritage—of the challenges unique to their background, of what they have and have not been exposed to, of their perceptions and experiences—is not easy to come by. Choosing staff and recruiting volunteers from a similar background as the youth served is the simplest way to achieve this critical knowledge, with the added bonus of being proof to a program’s youth that people like them can succeed. They can also act as translators, helping youth understand the larger community and world of work, because being engaged in an experience is one thing, and knowing how to apply it in the greater world is another.

The Puente High School Project, for example, draws both staff and volunteer mentors from the Latino community in California. While open to young people of any race or ethnicity, Puente targets Latino high school students whose native language is not English. The goal of the two-year program is to increase the retention rate and matriculation rate of Latino students through instruction in writing and culturally relevant literature, academic and college counseling, and mentoring by professionals in the community. Puente’s Latino staff are able to develop a program that respects youths’ backgrounds while ensuring they have the skills and experiences necessary to function in a non-Latino business setting. The business mentors’ cultural ties enable them to expose youth to different career opportunities and help them learn to navigate the business world.

**Lesson: Public Service, for Public Benefits**

*Programs with a visible and intentional dimension of community service—public work in the public eye—can help validate the role youth can play in rebuilding community; they can improve the community’s perception of the youth involved and can improve the youths’ perceptions of themselves.*

Underserved youth are often from populations overburdened with negative stereotypes. Be they poor country folk, or black inner-city youth, or native Spanish speakers, they are often seen as a social burden and often perceive themselves as not having much to contribute to their communities. These stereotypes and self-perceptions are not the insurmountable barriers they seem to be. By demonstrating young people’s abilities and talents and investments in their communities publicly and for the public good, several of these programs have provided evidence that has validated the worth of these young people to other community members and to themselves.

For example, Cornerstones Community Partnerships focuses on teaching building preservation and construction skills to young Latino and American Indian youth while assisting them with...
completing their high school education. The young people learn this valuable trade by renovating historic monuments such as community churches. Many of the participants are post-adjudicated or former gang members whom community members would not usually hold in high esteem. However, this public work demonstrates to skeptics that these young people bring value and talent to their communities and that they are not defined solely by their past actions or associations. The young people also reap the self-esteem benefits of accomplishing tangible work appreciated by others.

Lesson: Meaningful Work, Lasting Value

Young people, even very young people, are capable of doing and managing meaningful work—renovating communities, building boats, starting and running businesses—that produces lasting value for themselves and their communities. Young people learn well in context when they are active participants in their learning. Work-based-learning experiences help eliminate the confusion about the relevance of academic learning.

Adults understand the sense of accomplishment, of ability, of self-esteem that comes from completing a meaningful, challenging task successfully. Young people can engage in such productive work experiences, and have the same positive reactions. Such meaningful work provides an experiential learning opportunity—the chance to learn while doing—and also to apply lessons learned in the classroom that may have seemed useless before.

In Impact’s Community Block Builders program, young people whose vocational classes include making models of buildings as opposed to real buildings find themselves confronting the relevance of academics from day one. Using a tape measure requires an understanding of fractions and basic math; the precise use and placement of parts requires geometry; solving structural calculations requires algebra; making decisions based on technical terms, graphic symbols, and charts requires reading comprehension skills. After coming face-to-face with the skills necessary to get the job done, most program participants rise to the challenge of the construction task at hand and become more engaged in the school work necessary to accomplish it.

Lesson: Leverage Experience into Leadership

Engaging youth in higher-level program positions—as business managers, program counselors, or work crew leaders—is a wise strategy to build a cadre of youth leaders from the program’s community and provide them with additional skills and experience.

Creating a natural progression of work for skills development is the same as creating a natural progression of learning for knowledge development. Just as you learn basic math, then algebra, then calculus, young people can first learn basic employment skills, then skills related to their specific endeavor, then how to lead others in and manage the same efforts. With increased responsibility comes increased knowledge and skills, both of which can benefit the young people and the program in the shorter run and the community at large in the long run.

The Eureka program run by Girls, Inc., is one such program. Young women concentrate on developing their academic skills in the first two years during intensive residential summer programs of hands-on math and science work. The second two years of the program focus on work skills development and career exploration through summer internships, and during
this period several of the young women intern as counselors for the younger girls’ academic program. This structure provides role models to the younger girls while giving the older girls an opportunity to develop interpersonal and leadership skills that translate to other work environments and community efforts.

**Lesson: Youth Are a Program Resource**

*Youth participants can be an invaluable resource to program staff, keeping staff in touch with the reality of what youths’ everyday experiences are in their communities, offering valuable, creative input into the structure and substance of their programs, and allowing the staff to adapt their programs and services accordingly.*

CBOs may have the advantage of being smaller, nimble programs that adjust to a changing environment more rapidly than larger, more bureaucratic organizations, but that ability has little value without the knowledge of what is changing. The program’s participants are the ones who are most up to date on what is happening in their lives, and maintaining personal relationships with program participants allows staff to stay informed. And just as any customer can offer ideas on what a business can do to provide better service or a better product, program participants often have insightful, creative suggestions for improving programs and program delivery. The Association of Science-Technology Centers’ YouthALIVE! in the Workplace program places a high premium on feedback from youth participants. For example, at the Orlando Science Center site, youth help interpret exhibits for other young people as a part of their work skills development and training. The youth participants are able to assess visitors’ reactions as their peers and relay feedback to Science Center Staff on “what’s cool” and what’s not, helping the staff to tailor exhibits and presentations to generate the most interest while still being educational.

**Lesson: Organizational Development Is Not Optional**

*Attention to organizational development is as necessary as service delivery if a program is to survive. Staff training, cross-training, strategic planning, developing or adapting a documented curriculum, and funding development are critical — you have to mind the store.*

The best program for developing the ability of young people to move into successful careers will not last long if the organization that runs it falls apart. Organizational maintenance and development are essential for long-term success. Staff burnout, funding problems, and failing to plan for success can cause an organization to founder as quickly as, or possibly even more quickly than, a poorly designed program. In small organizations with limited resources and staff committed to serving youth before all else, organizational development must be a conscientious effort, but the return on investment is worthwhile.

For example, Girls, Inc., and its Eureka program incorporate several strategies for organizational maintenance and development that promote both the organization’s and the program’s long-term success. Girls, Inc.’s, national parent organization promotes staff development through annual meetings that include educational seminars, some of which relate directly to organizational development skills. Girls, Inc., also encourages promoting from within the organization. The Eureka program itself not only has documented processes and curriculum, but it also strives to constantly refine its processes and service delivery. Eureka also has the added benefit of engaging its older participants as counselors to the younger girls, exposing these
young women to the possibility of future work in youth development and thus training its own potential future staff members.

Lesson: Staff for Success

Staff members of effective programs have common characteristics—regardless of their backgrounds—that relate directly to program success:

• they are entrepreneurial and flexible in the ideas they bring to program development and management—their resourcefulness and creativity can result in effective strategies to make a program successful;

• they are knowledgeable about and sensitive to the culture and community where they operate;

• they often bring working familiarity with partners outside the traditional fields of schooling and youth development and can build linkages to these partners.

Our Piece of the Pie is staffed for success and has the benefit of entrepreneurial and skilled management. One of the program directors is an early retirement executive from a Fortune 500 company, bringing private sector strategies and creative problem-solving methods to the organization. The senior program staff’s experience in business and community affairs allows them to build strong partnerships with their community’s businesses and higher education institutions. And OPP’s youth managers provide an understanding of participants’ culture and community because they come from backgrounds identical to the youth with whom they work.

Lesson: Innovative Human Resources

Nontraditional adult staff, mentors, and volunteers from alternative populations, such as college students and senior citizens, can be powerful role models and mentors for youth.

Traditional role models and mentors for youth are often successful, active professionals with multiple demands on their time, a difficult group from which to attract volunteers. However, role models and mentors can come from a variety of populations, from college students to young professionals to senior citizens and retirees. Their life experiences, and willingness to share their time and attention, are the critical factors in a beneficial, productive relationship with a young person.

For example, in the Greater Washington Urban League’s Intergenerational School-to Work program, senior citizens serve as mentors to middle and junior high school students from Southeast Washington, DC. The high-poverty, high-crime neighborhood has few businesses from which to draw potential mentors, and the benefits of establishing role models within the community outweighed the benefits of mentors from outside the community. The participating senior citizens are retired, for the most part, and have more time to spend with the young people than working mentors. Many are grandparents and already have a great deal of experience with youth, and since the mentors are also residents of the community, they have a great deal of insight into the particular challenges these young people face.
Lesson: Alternative Experience Has Value

Program staff who have not come up through the ranks in education or youth development can nevertheless bring a remarkable set of practical skills and passion rooted in life experience that makes them smart and capable of very creative program design.

Managing successful education-to-career programs for youth involves the same core skills as managing any other successful business, organization, or project. The key characteristics of a youth program manager are a passion for helping young people succeed and the commitment to learning what it takes to make that success happen. While staff from outside the traditional youth development infrastructure may not have extensive theoretical knowledge of youth programs or familiarity with the ABCs of past federal programs, they also are not bound by the constraints of traditional practice. This freedom allows for creative thinking and experimentation that often lead to very effective programs.

Lesson: Commitment Is Key

You can have the best program in the world, but it will not matter unless you have a committed group of adults engaged over time.

Tenacity, perseverance, passion for success, compassion, and a personal commitment to young people over the long haul in a core group of adult staff and volunteers are the key factors that quality programming cannot do without. Young people can blossom in any program if they have the benefit of a caring adult committed to their well-being and success, an adult whom they know will be with them every step of the way, fighting for their future. While all of these programs are blessed with such caring and committed staff, Detroit One to One’s staff provides a vivid example of the power of tenacity and perseverance. With a focus and determination that are palpable, the program’s executive director moves this effort toward achieving success for its participants through the turbulence of a school system in upheaval and the shifting priorities of school-to-work funding. In the face of what seem to be insurmountable challenges, passion provides a forceful motivator to find a way to guide the program’s youth toward a path to success. These champions for opportunities for young people are proof that commitment can make all the difference.
Apprenticeship: Career Training, Credentials—and a Paycheck in Your Pocket


I learn new things every day,” says Elizabeth Cummings, who is training as an electrician apprentice. “I get to use my hands and my mind. I’m practically guaranteed a great career in a few years—a job that I know I’ll like and that pays very well.”

In fact, Cummings earns full-time pay while she learns. “It’s better than any scholarship,” she says. Cummings is describing a few of the benefits of apprenticeship. She was looking for a free education in a highly skilled field. Like thousands of others, she found what she wanted in apprenticeship.

Apprenticeships are available for more than 850 occupations. Construction and manufacturing apprenticeships are most common, but apprenticeships are available for all sorts of occupations. Possibilities range from telecommunications, environmental protection, and pastry making to healthcare, childcare, and the arts.

What do all of these programs have in common? They combine structured on-the-job training with classroom instruction. Current programs vary in length from 1 to 6 years. Throughout that time, apprentices work—and learn—as employees. And when they complete a registered program, apprentices receive a nationally recognized certificate from the U.S. Department of Labor—proof of their qualifications. Apprenticeship also can be combined with other kinds of training. Classroom instruction often counts toward licenses, certifications, and college degrees.

But for all its advantages, apprenticeship takes time and effort. So before deciding if apprenticeship is right for you, keep reading to learn more about what apprenticeship is and how to find, choose, and qualify for a program.

Apprenticeship: The Basics

Apprenticeship is career preparation. It mixes learning on the job with learning in class. A child development apprentice, for example, might spend the day as an assistant teacher, helping to supervise children, lead activities, and make arts and crafts materials. That evening, in class, the apprentice might learn safety procedures and theories of child development.

Most formal apprenticeships are registered with the U.S. Department of Labor. This registration means the program meets Government standards of fairness, safety, and training. Graduates of registered programs are called journey workers. They receive certificates of completion from the U.S. Department of Labor or an approved state agency. These certificates are accepted by employers nationwide.
Employee associations, employers, or employer groups manage apprenticeship programs. As program sponsors, they choose apprentices, develop training standards, and pay wages and other expenses.

When apprentices are accepted into registered programs, the sponsors and the apprentices sign an agreement. The agreement explains the specifics of the apprenticeship program: the skills apprentices will learn on the job, the related instruction they will receive, the wages they will earn, and the time the program will take. In signing an agreement, the sponsors promise to train the apprentices and make every effort to keep them employed. The apprentices promise to perform their jobs and complete classes.

**On-the-job training.** Registered apprenticeship training is more formal than most other types of on-the-job training. Apprentices follow a structured plan. They practice every major element of an occupation.

This variety is an advantage in the job market. “I’ll end up more well rounded,” says Richard Marshall, a machinist apprentice in Wytheville, Virginia. “I’ll have more steady work because I can do more things.” And because employers develop the training plans, training keeps up with the needs of the industry.

Apprentices start by learning simple, repetitive tasks and then gradually progress to complex duties. Electrician apprentices, for example, might begin by learning to cut wire and install it in walls. Eventually, they will plan projects; set up, wire, and test entire construction sites; and diagnose and fix electrical problems.

Expert guidance speeds the learning process. In the beginning, apprentices are closely supervised by a journey worker. “You learn all the tricks of the trade,” says Chris Wilcox, a carpenter apprentice in Newark, Connecticut. “They work with you and show you how to do it.” But soon, apprentices gain independence. A journey worker stays nearby to answer questions and demonstrate new skills.

**Related instruction.** In addition to learning by doing, apprentices take classes to learn the basics. A first class might teach the names and uses of the equipment a student will see on a jobsite. Later, students learn techniques, such as drafting, cost estimating, or reading blueprints—any procedure the worker must know to perform the occupation.

Students also learn the theories underlying the work they do. For metal workers, this means learning trigonometry, measurement, and applied physics. For cooks, it includes learning about nutrition and the economics of restaurant management. For science technicians, chemistry or physics is essential.

Apprentices see their academics pay off in the job they do. “At work, I notice the children behaving just the way we studied in class,” says Norma Grey, a child development apprentice in Huntington, West Virginia. Understanding these behaviors helps her work with the children more effectively.

Related instruction comes in a variety of formats. Many apprentices attend a vocational school or community college one or two evenings a week after work. Others go to school full time for
a few weeks each year. Still others take classes over the Internet or through the mail. Wherever and whenever they study, most apprentices need at least 144 hours of instruction per year.

**Earnings.** As employees, apprentices earn wages for the work they do. Unless they are part of a prison rehabilitation program, apprentices must make at least minimum wage to start, but they usually earn more. Beginning apprentices often earn about half of what fully trained workers do. They receive raises periodically—usually, every few months. “Workers are more valuable as they learn more skills, so we pay them more,” explains Tom Gibbs, a former heating and air conditioning apprentice who now hires apprentices for his heating and air conditioning business in Ames, Iowa.

**Time commitment.** Learning a skilled occupation takes time. How much time depends on the occupation. All apprenticeship programs require at least 2,000 hours of work experience. Some take up to 12,000. These hours translate into about 2 to 6 years. Most programs require about 4 years—or 8,000 hours—on the job.

People can reduce the years required by working more hours per week. Or, they can get credit for education and experience they already have. Marshall is benefiting from this flexibility. His experience in a prior job and the classes he’s taken at a community college will shave hundreds of hours from his apprenticeship.

Some employers’ programs focus on skills more than on time at work. In these programs, apprentices still need work experience, but they have to pass skills tests to progress. Skills-based programs take roughly the same amount of time to finish as other programs do.

Many people keep training long after their apprenticeship ends. Reaching journey worker status opens the door to advanced instruction. Cummings, for example, hopes to take master classes in solar energy systems after receiving her certificate of completion.

**Apprenticeable Occupations: 858 and Counting**

Any occupation can be registered as apprenticeable if it meets four criteria:

- It is clearly defined;
- It is customarily learned on the job;
- It requires manual, mechanical, or technical skill; and
- It requires at least 2,000 hours of work experience and, usually, at least 144 hours of related instruction.

Currently, 858 occupations meet these standards. The most common are listed in the box on the next page. But the U.S. Department of Labor adds more occupations as employers propose and register them. Internetworking technician, youth development practitioner, and plastic molds designer are some recent additions. Several computer occupations are under consideration.

The number of apprenticeable occupations may seem overwhelming, but not every occupation is available at a given time. Programs open and close depending on the number of new workers needed in an occupation. Now, 518 occupations have apprentices working in them.
The number of occupations available for apprenticeship varies from one state to another. But in most states, there are hundreds of occupations to choose among. Apprenticeable occupations can be categorized as follows:

**Arts.** Theater arts, including stage technicians and actors, fall into this relatively small group, as do designers and arts and crafts workers.

**Business and administrative support.** Office managers, paralegals, and medical secretaries are some of the occupations in this category.

**Construction.** These are the most commonly available apprenticeships. Most employers of construction workers consider apprenticeships the best training for these jobs. Workers in this group include plumbers, electricians, and terrazzo workers. Many, such as residential carpenters and acoustical carpenters—who install panels and materials that absorb or affect sound—use considerable math skills. Some, such as reinforcing metal workers, need strength and endurance.

**Installation, maintenance, and repair, including telecommunications technicians and power plant operators.** Working as service technicians, engine mechanics, or body repairers, some apprentices learn to fix cars and planes. Apprentices also learn to maintain electronics, musical instruments, and power plant machinery. Also in this group are apprentices who install equipment. Millwrights, who install industrial machinery, are an example. Workers who install and maintain communication and sound equipment—such as communications and telecommunications technicians and line installers—also are included.

**Production.** Production occupations employ the second most commonly available group of apprenticeships. Again, many production employers consider apprenticeship the best way to
learn these jobs. Metal workers in this category include tool and die makers and machinists, who create specialized parts out of metal and other materials. Apprentices in precision assembly occupations include those who construct circuit boards and electrical appliances. Others build prototypes, operate printing machines, and conduct safety inspections.

**Science, drafting, and computing.** Science apprenticeships include chemical, engineering, mapping, or environmental technicians. Drafters, tool and die designers and nondestructive testers are other examples. Computer programmers and internetworking technicians are a few of the computer occupations that are apprenticeable.

**Service.** Many of the most skilled service occupations are apprenticeable. Cooking, for example, is most often learned in an apprenticeship program. Protective service workers, including police patrol officers, correctional officers, and firefighters, commonly receive apprenticeship training. Landscaping and customer service apprenticeships are a few of the other programs available in some States.

### Which Occupation Is Right for You?

When exploring careers, prospective apprentices should think about the kind of work they enjoy and what they do best. Some apprenticeable occupations, such as electrical and metal working occupations, require workers to have strong math and problem-solving skills. Others, including nursing and law enforcement, focus on working with the public. Occupations such as jewelry making and tool design demand concentration and attention to detail. Career counselors can help jobseekers choose and test occupations to see which fit their interests.

Another thing to consider is working conditions. Does the work require stamina, as millwrighting does? Does it require moving from job to job, as construction does? Is it clean, as healthcare occupations are? Or dirty, as automotive repair is?

Earnings are important, too. Several apprenticeable occupations—electrician, carpenter, and elevator repairer, for example—pay some of the highest wages in the economy. Others, such as childcare development specialist, pay less. Table 1 shows the earnings of the top-paying occupations for which many people train as apprentices. It shows median earnings—half of all workers in the occupation make less than this amount and half make more.

Job prospects also vary by occupation. Choosing an occupation with many openings leads to better job prospects and greater ability to move from one location to another. The Bureau of Labor Statistics estimates the number of nationwide job openings in occupations. Table 2 shows which commonly apprenticed occupations are projected to have the most job openings between 2000 and 2010.

### Finding an Open Program

After selecting possible occupations, the next step is to look for openings in apprenticeship programs. Finding open programs can be a challenge, especially in small occupations. To find every opportunity, apprenticeship seekers need to check several sources.

A good place to start is with your State Bureau of Apprenticeship or State office of the U.S. Department of Labor. These agencies list current programs, and some will help people contact
businesses that might want to start new programs. The addresses and phone numbers for the Federal offices are listed at the end of this article.

Next, try career counseling offices. Many apprenticeship sponsors publicize openings at career centers and local high schools, and career counselors usually know about the programs in their community.

Trade unions and professional associations have information, too. These organizations often recruit apprentices once or twice a year, distributing applications at their headquarters. For contact information for these organizations, check the Encyclopedia of Associations or the Occupational Outlook Handbook, available at many libraries and most career centers. The Handbook also is online at www.bls.gov/oco.

Some apprenticeships are advertised in newspapers, on job boards, and with State job services, just like other kinds of jobs. Joining the military is another way to participate in apprenticeships. People who enlist in certain occupations, including cook and engine mechanic, can complete registered apprenticeships during military training. Each branch of the military has its own rules about apprenticeship availability. Local recruiters can provide additional information.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Median annual earnings, 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power distributor and dispatcher</td>
<td>$48,570</td>
</tr>
<tr>
<td>Electrical and electronics repairer, powerhouse, substation, and relay</td>
<td>48,540</td>
</tr>
<tr>
<td>Ship engineer</td>
<td>47,530</td>
</tr>
<tr>
<td>Elevator installer and repairer</td>
<td>47,380</td>
</tr>
<tr>
<td>Power plant operator</td>
<td>46,090</td>
</tr>
<tr>
<td>Electrical power-line installer and repairer</td>
<td>45,780</td>
</tr>
<tr>
<td>Petroleum pump system operator, refinery operator, and gauger</td>
<td>45,180</td>
</tr>
<tr>
<td>Gas plant operator</td>
<td>44,730</td>
</tr>
<tr>
<td>Telecommunications equipment installer and repairer, except line installer</td>
<td>44,030</td>
</tr>
<tr>
<td>Avionics technician</td>
<td>41,300</td>
</tr>
<tr>
<td>Tool and die maker</td>
<td>41,110</td>
</tr>
<tr>
<td>Aircraft structure, surfaces, rigging, and systems assembler</td>
<td>40,850</td>
</tr>
<tr>
<td>Chemical plant and system operator</td>
<td>40,750</td>
</tr>
<tr>
<td>Aircraft mechanic and service technician</td>
<td>40,550</td>
</tr>
<tr>
<td>Stationary engineer and boiler operator</td>
<td>40,420</td>
</tr>
</tbody>
</table>

Table 1: Commonly apprenticed occupations with the highest earnings

1 Includes apprenticeable occupations for which long-term on-the-job training or a postsecondary vocational award is the most common form of training, according to the Bureau of Labor Statistics.
Table 2
Commonly apprenticed occupations expected to have the most job openings¹

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Total job openings for workers new to the occupation,</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cook, restaurant and cafeteria</td>
<td>502,435</td>
</tr>
<tr>
<td>Automotive service technician and mechanic</td>
<td>349,049</td>
</tr>
<tr>
<td>Licensed practical and licensed vocational nurse</td>
<td>321,841</td>
</tr>
<tr>
<td>Carpenter</td>
<td>301,791</td>
</tr>
<tr>
<td>Police and sheriff’s patrol officer</td>
<td>268,745</td>
</tr>
<tr>
<td>Electrician</td>
<td>251,152</td>
</tr>
<tr>
<td>Hairdresser, hairstylist, and cosmetologist</td>
<td>237,720</td>
</tr>
<tr>
<td>Maintenance and repair worker, general</td>
<td>221,172</td>
</tr>
<tr>
<td>Welder, cutter, solderer, and brazer</td>
<td>211,365</td>
</tr>
<tr>
<td>Plumber, pipefitter, and steamfitter</td>
<td>134,007</td>
</tr>
<tr>
<td>Machinist</td>
<td>127,139</td>
</tr>
<tr>
<td>Bus and truck mechanic and diesel engine specialist</td>
<td>113,581</td>
</tr>
<tr>
<td>Emergency medical technician and paramedic</td>
<td>97,499</td>
</tr>
<tr>
<td>Firefighter</td>
<td>89,574</td>
</tr>
<tr>
<td>Computer-controlled machine tool operator, metal and plastic</td>
<td>89,390</td>
</tr>
<tr>
<td>Heating, air-conditioning, and refrigeration mechanic and installer</td>
<td>79,485</td>
</tr>
<tr>
<td>Telecommunications line installer and repairer</td>
<td>76,170</td>
</tr>
<tr>
<td>Automotive body and related repairer</td>
<td>69,430</td>
</tr>
<tr>
<td>Cabinetmaker and bench carpenter</td>
<td>66,263</td>
</tr>
</tbody>
</table>

¹ Includes apprenticeable occupations for which long-term on-the-job training or a postsecondary vocational award is the most common form of training, according to the Bureau of Labor Statistics

If you can’t find an apprenticeship program, consider studying at a vocational school or community college. You might be able to transfer credits to an apprenticeship program later. Or you might find a school that offers many of apprenticeship’s benefits. The box on page 78 discusses some qualities to look for in a school.

Choosing a Program

People might uncover many different apprenticeship programs in the same occupation. To choose which program is best, would-be apprentices need to look closely at each program’s characteristics.

Registration and accreditation. Consider whether a program is registered with the U.S. Department of Labor. Many employers have greater trust in the training offered by registered programs than in the training offered by unregistered ones. Also because only registered
If you can’t find an apprenticeship, try this

Sometimes, apprenticeship openings are unavailable, but there is another way to reap some of apprenticeship’s benefits: vocational schools and community colleges. These schools prepare students for many skilled occupations, and this training often is faster than apprenticeship. To find training most similar to apprenticeship, students can choose a school with the following:

**Recognized credential.** Schools cannot offer journey worker certificates, but they do offer vocational certificates or college degrees. To ensure the value of the certificates a school offers, ask which agencies accredit the school. Then, check that the accrediting agencies are approved by the U.S. Department of Education. And finally, call the accreditor to verify the school’s current status.

The U.S. Department of Education’s College Opportunities Online system simplifies the process of checking accreditation. The system is available online at www.nces.ed.gov/ipeds/cool. Visitors type in the name of a school and receive information about that school, including the organizations that accredit it. Visitors still need to call the accrediting organizations to verify that the schools have been approved. Contact information for these organizations is available online at www.ed.gov/offices/OPE/accreditation/natlagencies.html.

Professional or trade associations also evaluate training programs associated with their occupations. These associations publish lists of approved programs.

** Marketable skills.** To learn up-to-date, marketable skills, look for a school that meets with industry groups or follows written industry standards when designing a curriculum. Investigate the backgrounds of teachers. What certifications or degrees do they have? Do they have work experience?

Also, most schools keep track of the success of their graduates. Ask to see these records. Choose schools whose graduates find work in their field. You could also check the percentage of students who complete the school’s program and the number who default on student loans.

** On-the-job training.** To gain work experience while you learn, look for programs that include formal internships or co-ops. Recent studies by educators suggest that combining a degree with a co-op or long-term internship increases graduates’ earnings, likelihood of being promoted, and likelihood of finding and keeping a job. This is especially true if schools have a formal relationship with an employer.

**Free classroom training.** Schools, unlike most apprenticeships, charge tuition. But you may qualify for financial aid and scholarships to lower the bill. The U.S. Department of Education administers a financial aid program for all types of secondary education, including vocational education. To apply for financial aid, such as grants, loans, and work study, call tollfree, 1 (800) 433-3243. The application also is online at www.fafsa.ed.gov.

Frequently, state governments also offer aid. Uncover these funds by calling your state Department of Education, the financial aid department of a local college, and the Department of Health and Human Services.
programs give graduates journey worker status, graduates of these programs have more job choices. Gary McManus, the field services director for a California fire department sees the advantages of registration. “Our firefighters are more mobile now,” he says. “They can move anywhere, show their journey worker card, and be accepted in a new department.”

In some occupations, the U.S. Department of Labor, with help from industry groups and experts, has established national training guidelines. If a registered program meets these guidelines, employers will know precisely what skills the program’s graduates have. This gives graduates an added advantage in the job market.

Other types of industry accreditation are important for certain occupations. Cooking occupations are one example. The American Culinary Federation accredits training programs for cooks and pastry chefs. Graduates from accredited programs have better job prospects. Finally, in most construction and manufacturing occupations and some others, apprentices can choose between union and nonunion programs. Apprentices in union programs become union members, paying dues, receiving union benefits, and following union rules.

Pay and benefits. Apprentices’ wages vary from one program to another. Earnings depend on geographic location and an employer’s circumstances. In areas with a labor shortage, wages for apprenticeships have increased considerably. “Now, we pay higher wages to start, especially to people who have taken a shop class,” says Gibbs, about the apprentices he hires for his business. “It’s the law of supply and demand.” Employee benefits also vary. Some programs offer new apprentices full health, dental, and retirement benefits immediately; others do not offer benefits at all. A few programs—including all programs in Wisconsin—pay apprentices for the time they spend in class. Some employers also pay testing fees for workers trying to earn additional occupational certificates.

Type of related instruction. Apprentices spend many hours studying. How they study depends on the program they choose. Before selecting a program, consider: Do you want to learn in a classroom with a teacher, or would you prefer correspondence or online classes? Do you want to attend a community college or a trade school? How far from your worksite are you willing to travel?

Timing is another factor. Many programs ask apprentices to attend class after work once or twice a week, which gets tiring. But earnings are steady. Others offer a few weeks of full-time classes periodically throughout the year. In protective service occupations, instruction at service academies can last several months.

Finally, many programs offer classes that count toward college or certificate programs. Some offer dual enrollment in a college, making it easier to earn a degree.

Facilities. Before deciding to join a program, see what life will be like on the job. Tour the worksite for clues about the quality of training and the work environment. Is the equipment modern? Are procedures up to date? Is the worksite comfortable and safe?

Do workers seem willing to demonstrate and teach skills? What would the work schedule and commute from home be like? A tour is an excellent opportunity to ask employees about their jobs. By asking questions, would-be apprentices can learn about the occupation and the program sponsor. As always, it is important to dress neatly and behave professionally when visiting potential employers. Each contact is a kind of interview.
**Costs.** Some apprentices are required to buy tools, manuals, and textbooks. This is especially common for people in construction and manufacturing occupations. Some programs offer discounts to apprentices.

Cummings saved for a few months to buy the tools she would need as an apprentice, but she considers them worth the cost. “In a few weeks, my salary had paid for the tools,” she says. “And I can use them for years.”

**Qualifying**

For all registered apprenticeships, there is a standard application procedure. First, applicants fill out forms. Either they pick up the application at a sponsor’s headquarters or jobsite or they ask to have an application sent to them. Next, applicants take any required tests. Finally, those who meet enough requirements are asked to complete an interview. All qualified applicants are placed on a waiting list, with the most qualified applicant listed first. The requirements of an apprenticeship program are set by the organization or employer sponsoring the program. Applicants are ranked according to their skills, education, and experience.

Apprenticeships in some occupations are highly competitive, with more applicants than openings. In addition to meeting basic requirements, apprenticeship seekers need to show they are more qualified than other applicants are. Applicants for competitive programs may have to wait weeks or months before an opening becomes available. Preapprenticeship programs, described below, can help people improve their chances of getting an apprenticeship.

Having a relative or friend in an occupation used to be an advantage when competing for an apprenticeship. But now the law dictates that all applicants be treated equally and be rated only according to job-related characteristics.

**Requirements.** All apprenticeship programs require applicants to be at least 16 years old. And most programs require applicants to be at least 18—unless they are in a special program that combines high school with apprenticeship. Most apprenticeship programs require applicants to have a high school diploma or a passing score on the high school equivalency exam. Some also ask applicants to complete specific classes related to the occupation. Data communications installer apprentices, for example, usually need at least a C in algebra. Even if specific grades and classes are not required for a program, selecting officials look for applicants with solid high school records. Classes in English, math, and science are important for all applicants. For applicants interested in mechanical, manufacturing, or construction occupations, courses in drafting and industrial arts are an advantage.

Attending a vocational school after high school is another way to gain a competitive edge. In addition to requiring education, sponsors often administer aptitude tests. The most common tests measure reading, math, and problem-solving skills, but tests vary by occupation. The scene artist program in New York City, for example, asks applicants to pass a drawing test.

Work experience also improves an applicant’s chances. Sponsors look for applicants who have had paid jobs or volunteer work. Some companies offer apprenticeships only to people already working for the company in another job.
A doctor’s examination is needed for some apprenticeships that require physical skills—such as above average strength. But all physical requirements must be related to the occupation.

Interview. Applicants who meet basic qualifications advance to the interview stage. They meet with the employer or a few people from the organization sponsoring the program. Applicants answer questions about their work and school experience and their reasons for wanting to apprentice. The interviewers ask about qualifications, but they also try to discover personality traits. Interviewers want to hire people who have determination and commitment to the occupation. Curiosity is also important. “I need people who want to learn,” says Gibbs. “Every year, there’s new technology to master.”

Interviewers might ask questions such as:

- Why do you want this apprenticeship?
- Why do you think you would be good at this job?
- Have you ever worked as part of a team?
- Do you know what the work is like?
- What would you like to be doing in 5 or 10 years?
- How will you come to work if your car breaks down?

Interviewers for registered apprenticeship programs keep records summarizing applicants' answers. These notes help them choose applicants and explain acceptance decisions. Program sponsors say applicants should treat an apprenticeship interview like any job interview: research the occupation, be on time, dress neatly, shake hands, make eye contact, and be ready to give examples of your qualifications and work habits. Increase the chances of success by having a question or two of your own to ask and writing a thank-you note after the interview.

Ranking. When the interviews are complete, sponsors rank applicants from most to least qualified. They assign points to each applicant based on test results; past education, grades, and experience; and interview performance. The person with the most points gets the first opening. If there are more qualified people than openings, people who don’t get into a program are put on a waiting list.

Preapprenticeship programs. Nonprofit organizations, schools, and government agencies try to help people qualify for apprenticeships. They target specific groups, including high schoolers, disadvantaged youths, veterans, and women. Some preapprenticeship programs begin by exposing people to different occupations. Chicago Women in Trades, for example, offers jobsite visits, job shadowing opportunities, and assessment tests. Mentors explain what the application process is like and conduct mock interviews.

Many groups, including Chicago Women in Trades, offer tutoring in reading, math, and mechanical skills. The tutoring, which is designed to help applicants pass qualifying exams, usually lasts between 1 and 8 weeks. The U.S. Department of Housing and Urban Development’s Step-up programs offer similar help to people with low incomes who are interested in apprenticing in construction, maintenance, and, soon, environmental protection occupations. Step-up programs sometimes offer support during the apprenticeship as well, including childcare and transportation assistance.
In another type of program, some military veterans qualify for counseling about apprenticeships and stipends while they train, along with the credit they receive for their military training. One of the fastest growing preapprenticeship initiatives is the school-to-apprenticeship program. School-to-apprenticeship allows high school students to begin their apprenticeships as juniors and seniors. These students take occupational classes in addition to their regular high school curriculum. They concentrate on math and science or other classes important to the occupation they are considering.

Students work part time—often, earning credit for on-the-job training. After graduation, they become full-time apprentices, with the advantage of having already completed many of the requirements. To learn where school-to-apprenticeship is offered, ask high school guidance counselors or call school district administrators.

For more information

Learn more about apprenticeship and preapprenticeship programs by visiting a school or career guidance counselor. Counselors can help you decide on an occupation and find open programs. America’s Workforce Network tollfree help line, 1 (877) US2-JOBS (872-5672), has operators who can find career counselors and apprenticeship programs in a caller’s ZIP code. Trade associations, unions, and other professional organizations have information about apprenticeships specific to their occupation. To find organizations, visit a local public library. The Employment and Training Administration of the U.S. Department of the Labor offers a CD-ROM and several brochures describing apprenticeship. For a copy of these materials, call the Administration at (202) 693-2796, or call the U.S. Department of Labor tollfree at 1 (866) 487-2365. The Administration’s Web site, www.doleta.gov/atels_bat, offers more detailed information, including a database of training providers and explanations of apprenticeship regulations.

State governments are another good source of information. With the help of the U.S. Department of Labor’s state offices, State Apprenticeship Councils oversee registered apprenticeship programs in their area. They help employers and employer groups to start programs, and they tell would-be apprentices about opportunities.

In states without apprenticeship councils, local offices of the U.S. Department of Labor’s Bureau of Apprenticeship and Training do this work alone. Apprenticeship offices for every state are listed at http://www.doleta.gov/Atels_bat/stateoffices.cfm.


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Youth-Serving Social Microenterprise: A Promising Strategy for Youth Gang Violence Prevention

Job training has been identified as a powerful strategy to reduce youth gang violence. This article examines the emerging practice of youth-serving social microenterprises: Asset-based programs that aim to reduce economic disadvantage and give young people the opportunity to learn skills and find employment.

With the world ahead of him, teen is gunned down.
—Headline from the Boston Globe, August 2005

For more than a year, U.S. news media have reported on a possible resurgence of youth gang violence, its diffusion from large cities to rural communities, and its possible connections with international terrorism. Youth gang violence is believed to have contributed significantly to the most recent epidemic of youth violence in the late 1980s and early 1990s. Unfortunately, it is difficult to ascertain the true magnitude of youth gang violence and its contribution to the overall problem of youth violence. Not only is there a lack of consensus amongst experts and across sectors as to what constitutes a gang; existing data systems also lack sufficient detail to allow precise tracking of gang-related violence.

What we do know, however, is deeply disturbing: while homicide rates among 10- to 29-year-olds declined substantially in the last decade (16.4/1000 in 1993 to 9.8/100,000 in 2002), recent evidence suggests that these rates are rising again. And, as in the previous epidemic, gang violence appears to be playing an important part.

Nonetheless, we learned essential lessons from the recent epidemic. Despite our unanswered questions, many promising prevention and intervention strategies exist for reducing youth violence and gang violence. Asset-based programs may help to minimize risk factors, like poverty, and maximize protective factors, like youth participation in conventional activities. Job training is one such activity that has been endorsed by the U.S. Office of Juvenile Justice and Delinquency Prevention within its comprehensive community approach to youth gang violence.

Social Microenterprise: A Tool for Violence Prevention

Related to but distinct from traditional job training programs is an emerging practice called social microenterprise. Social microenterprises are mission-oriented small revenue or job-creating projects undertaken by individual social entrepreneurs, nonprofit organizations, or nonprofit-for-profit partnerships, to serve people of modest means. Youth-serving social microenterprises are asset-based programs that, consistent with Community Youth Development paradigms, aim to reduce economic disadvantage while developing young people’s skills and engaging their creativity, vibrancy, camaraderie, and commitment.
The Neighborhood Economic Development Advocacy Project, a social and economic justice organization in New York City, convened in June 2005 diverse youth-serving organizations that blend social microenterprise with violence prevention and intervention to examine this emerging practice. Meeting participants shared evidence of success such as significantly increased high school graduation rates among program participants; discussed quantitative and qualitative program outcome measures such as reduction of violence, gang desistance, skills learned, and increased community engagement and activism; and identified the position of their respective programs along a continuum of youth-serving social microenterprise program types. A sign of increasing interest in the field was the substantial support the conference received from foundations and major financial institutions. A report on the conference, including best practices and organizational profiles, is forthcoming.

Youth-serving programs using social microenterprise as a tool for violence prevention operate along a continuum of practice. At one end are more traditional social service organizations, for which job skills training and employment are two of many strategies in preventing youth violence (including gang violence). These organizations, which operate within traditional zero-sum nonprofit budgets, are committed to providing as many employment opportunities to young people as possible.

At the other end of the continuum are business models, based on self-driven-sustainability and capital growth through generating income via client contracts and other business activities. The income generated funds job placement services, life skills mentorship, and other tandem services that have been traditionally the domain of social services. The social services model is evaluated with regard to youth development outcomes; the business-driven model is evaluated with regard to both youth development and business development outcomes.

One End of the Continuum: Homeboy Industries

An example of an organization at the traditional social services end of the youth-serving social microenterprise continuum is Homeboy Industries. A self-identified violence prevention organization, Homeboy Industries gives at-risk and gang-involved youth an opportunity to learn skills and find employment. According to Father Gregory Boyle, one of the organization’s founders and leaders, gang members are “eager to accept an alternative to the dangerous and destructive life on the streets.” The California Wellness Foundation has recognized Homeboy Industries’ former incarnation—Jobs For A Future—as a program that works.

Business development is but one strategy through which Homeboy Industries achieves this goal; it also offers free education, training, job placement, mental health and social services counseling, life skills training, and a tattoo removal service that has a waiting list of over a year.
Homeboy Industries was originally established as a program of the youth-serving community organization Proyecto Pastoral to fill an unmet need—legitimate employment—in the Boyle Heights neighborhood of Los Angeles. Despite the many barriers to employment that many members of this community face—such as former gang involvement, criminal records, limited or no English language ability, substance abuse, visible tattoos, and limited education and employment skills—Homeboy Industries welcomes citizens from Boyle Heights and from greater Los Angeles. From its first venture, a bakery, to thriving silk-screening, embroidery, landscaping, maintenance, and merchandising businesses, Homeboy Industries opens itself to even the most “difficult to place” individuals, who develop skills and build resumes in a nonstigmatizing environment.

**A Model for Success.** Homeboy Industries serves a greater number of gang-involved men and women in Los Angeles than does any other organization. In this community, 86,000 to 96,000 young people are members of an estimated 1,000 to 1,300 gangs, and gang-related homicides (which account for half of all homicides) have increased since hitting a 10-year low in 1999. Homeboy Industries places or employs, and regularly monitors and evaluates the progress and success of, about 300 young people per year. Seventy-three percent of clients are 18 to 35 years old, and 60 percent are male. Homeboy Industries measures its success not only by its participants’ employment but also its persistence (since 1988), its increasingly diversified training, and its increasingly diverse clients.

**Homegirls**

Homeboy Industries hopes to soon launch the Homegirl Café, an initiative that reflects, and responds to, the experiences of gang-involved young women—a little-understood group that seems to be expanding and whose unique needs—especially as mothers whose children are at high risk for gang involvement—have been largely ignored.

Homeboy Industries articulates its legacy in terms of a multiplier effect, consistent with other social microenterprise organizations that work with young people: i.e., that increasing a participant’s economic viability and constructive social participation positively impacts that participant’s partners, parents, children, community, and society at large.

**The Other End of the Continuum: Homeboyz Interactive**

Halfway across the country in Milwaukee, Wisconsin, united in the philosophy that “nothing stops a bullet like a job,” Homeboy Industries’ “sibling” organization, Homeboyz Interactive, represents the other end of the youth-serving social microenterprise continuum. Homeboyz Interactive identifies itself as a technology-training program and business that empowers young people to succeed in technology-rich work situations. Operating on a hybrid business and social service model, Homeboyz Interactive evaluates its success using two frames: (1) individual and community level indicators such as job placement and youth violence rates; and (2) business indicators such as revenue generated through grants and work contracts.

Founded in 1996 to “reduce gang violence and provide young people with skills and expertise in Information Technology (IT),” Homeboyz Interactive responds to a community-identified need for exciting, reliable, and economically rewarding alternatives to gang participation in a rapidly
expanding employment sector that local young people might not otherwise access due to disparities in education and technology.

Led by a diverse group of professionals with experience in business, IT, and social service, Homeboyz Interactive is a web development business that trains and employs young people in digital media, software development, and network administration. Homeboyz Interactive utilizes project-based learning, in which students apply newly learned skills to actual client projects. Students are not compensated until they have completed their initial training program, but training is free. With a teacher to student ratio of one to four, staff impart technical and life skills within an environment that is rich in community and mentorship.

In addition to employing students and graduates in its in-house IT business, Homeboyz Interactive gives its graduates job placement and small business incubation support. Homeboyz Interactive students are referred by prior students, clients, community leaders, parole offices, faith-based leaders, and other non-profit organizations, and are invited to join the program following an interview process. Program staff monitor students’ progress in both technical and life skill development, and students must pass competency exams as they narrow their focus and deepen specific skills. Students are predominantly male, range in age from 18 to 28, and comprise many different ethnic backgrounds. Nearly all come from low-income families, one-third are employed in low-wage work, and nearly half have a criminal record. Ninety-six students have completed the program since 2000. Homeboyz Interactive anticipates that “that number will likely increase due to the demand that is being presented by several different sectors of society, including high schools, IT service providers and community centers.” The majority of program graduates now work in IT. Many have returned to secondary or post-secondary school.

**What’s Next?**

Homeboyz Interactive and Homeboy Industries are two examples of youth-serving social microenterprise; a promising youth violence prevention and intervention strategy that is especially relevant if reports of a re-emergence of youth gang violence prove to be true. Organizations like these are uniquely poised—and uniquely willing—to work with the most stigmatized youth, who battle significant barriers to accessing mainstream youth-serving organizations. Research—in particular, mixed-method, participatory research that encourages the participation of the young people who are served as well as other community members—is needed to evaluate youth-serving social microenterprise as a violence prevention strategy. The evaluation process must emerge quickly, as the proportion of “at-risk” young people increases and as education, socioeconomic, and opportunity gaps between the “haves” and “have-nots” continue to broaden.
Authors

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The views in this article are those of the authors. They do not necessarily represent the views of the U.S. Centers for Disease Control and Prevention. CYD Journal © 2006
In 1998, with support from the Office of Juvenile Justice and Delinquency Prevention, Johnson & Wales University’s (JWU’s) North Florida Campus designed and implemented the Culinary Education and Training Program for At-Risk Youth (CETARY), a 9-month, custom-designed culinary arts certificate program. JWU has one of the largest culinary arts divisions in the world. The program provides at-risk youth with specialized, hands-on education and training to help them achieve their goals (educational, work life, etc.) and become productive citizens.

**Program Description**

The CETARY program offers professional training in one of Miami’s high growth industries—food service. The youth referred to the program are 16-18 years of age with at least a ninth-grade academic capability (candidates are tested). Each must have committed a nonviolent crime and either dropped out of high school or be at risk of dropping out. Youth are referred to the program by the 10th and 11th Circuit Courts of Florida, the Florida Department of Juvenile Justice, the Florida Department of Children and Families, the U.S. Department of Agriculture (USDA) Forest Service Job Corps, and the Miami Job Corps Center. The CETARY program is seen as a last chance for many of these youth before facing more restrictive sanctions in the juvenile and criminal justice systems.

Participants in CETARY are trained primarily in the art of food preparation. Students take courses such as cooking fundamentals, continental cuisine, introduction to baking, and principles of dining room services. Students also study for a General Equivalency Degree (GED) and participate in personal and professional development courses. Case management services and student employment counselors are available, and each youth’s progress is closely monitored throughout the program.

Upon completion of the training program, youth are given two options: they can enter the workforce or continue their education. Students interested in entering the workforce can join a placement initiative. This initiative assists youth in finding employment and ensures that the food service industry is aware of the CETARY program and the training it provides. Youth who choose to continue their education receive support from the JWU Admissions Office as they prepare to enter a 2-year associate degree program in culinary arts. If accepted at JWU, youth can apply for advance standing as a result of their CETARY program training. Financial assistance is provided.

**Program Partnerships**

The CETARY program is a collaborative effort of the Judicial Circuit Courts of Florida, Florida Department of Juvenile Justice, Florida Department of Children and Families, USDA Forest Service Job Corps, Miami Job Corps Center, North Miami Elks Lodge #1835, and the Miami-Dade Transit Agency, which provides transportation assistance.
A strong working alliance has also been formed with the Miami-Dade and Broward food service and hospitality industries. This relationship allows youth to periodically study and practice in the public service arena and offers them an opportunity for career placement after completion of the program.

**Program Accomplishments**

The program has recently implemented an evaluation component. However, it has already demonstrated indicia of effectiveness, such as maintaining a 70-percent retention rate. Since the inception of this program, the President of JWU has deemed the CETARY program one of the Florida campus’s top community outreach priorities and, in 1999, the program was highlighted as a model in the University President’s Report. Both the Florida Department of Justice and USDA Forest Service Job Corps recognize the CETARY program as a viable employment option for at-risk and delinquent youth. Other communities have contacted JWU to learn more about the program and consider replication. This program not only serves as an alternative to incarceration for at-risk youth, but gives them an opportunity to learn an employment skill that can improve their chances to become productive members of the community.

**For Further Information**

For additional information about the CETARY program, contact Johnson & Wales University, Student Academic Center, Suite 501, North Florida Campus, North Miami, FL 33181; 305-892-7047; 305-892-7065 (fax); cetary@jwu.edu (e-mail).

To obtain copies of other OJJDP publications, contact Juvenile Justice Clearinghouse, 800-638-8736; 301-519-5600 (fax); puborder@ncjrs.org (e-mail); www.ncjrs.org/puborder (Internet).

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The Office of Juvenile Justice and Delinquency Prevention is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance, the Bureau of Justice Statistics, the National Institute of Justice, and the Office for Victims of Crime.
A successful vocational training program for high-risk youth and juvenile offenders sponsored by the Home Builders Institute (HBI), the educational arm of the National Association of Home Builders (NAHB), is addressing youth crime and unemployment and helping to reduce recidivism. The program provides these youth with social, personal, and vocational skills and employment opportunities to help them achieve economic success and avoid involvement in criminal activity.

The Community Restitution and Apprenticeship Focused Training program, or Project CRAFT, was started in 1994 by HBI in three demonstration sites (Bismarck, ND; Nashville, TN; and Sabillasville, MD) with a grant from the U.S. Department of Labor. The program has been replicated in five sites in Florida (Avon Park, Daytona Beach, Fort Lauderdale, Lantana, and Orlando) with funding from the Florida Department of Juvenile Justice and in Texas with support from the Texas Youth Commission. Several other states have also expressed interest in replicating the project.

**Program Description**

Project CRAFT offers preapprenticeship training and job placement in the home building industry and related occupations for adjudicated youth referred to the program by their State departments of juvenile justice. The program uses a holistic approach that combines career training, support services (employability training, social skills training, case management, etc.), and community service activities sponsored by the construction industry. Project CRAFT can be used as a prevention or intervention program or as an alternative to incarceration. Project CRAFT can be implemented in residential juvenile correctional facilities, or it can operate as a community-based program for youth in aftercare or under day treatment supervision.

HBI’s Project CRAFT model includes 10 components: outreach and recruitment; assessment and screening; individualized development plans; case management services; industry-validated, trades-related training; building industry-related academics; community service; academic preparation and substance abuse treatment; employability and life skills training; and community transition and long-term followup. HBI, juvenile correctional facilities, and other providers coordinate the juveniles’ treatment plans so that they mirror Project CRAFT’s goal of providing hands-on community service training projects that teach industry-related skills and reinforce worker skills and positive attitudes and behaviors.

Students receive preapprenticeship certificate training, an industry-validated curriculum, which includes 840 hours of hands-on training and classroom instruction in the use of tools, safety, work habits, and trades-related mathematics. Training focuses on skill achievement; students must master several skills related to the building industry before they are eligible for graduation and job placement. A student’s performance is evaluated weekly by Project CRAFT journey-level instructors. After graduating from the program, participants are placed in industry-related jobs and receive long-term follow-up services.
Project CRAFT is sponsored by the home building industry and receives support from local Home Builder Associations (HBAs). These relationships provide direct links to home building industry employers and job opportunities. Many local HBA’s provide Project CRAFT with in-kind contributions and employment opportunities for graduates.

Program Partnerships

The program works in partnership with private juvenile and corrections facilities, juvenile judges, juvenile justice system personnel, education agencies, community-based organizations, and other human service agencies. In some instances, juvenile judges and probation officers refer youth directly to Project CRAFT; in other cases, Project CRAFT staff provide vocational training while personnel from other partnering agencies provide case management, substance abuse treatment, or other services that are part of care in a residential facility. Integration of these services and access to community aftercare services have been instrumental in ensuring that youth make a successful transition back into their communities. Project CRAFT personnel work hard to involve communities in the program. Local builders make presentations to program participants about working in the industry and often hire Project CRAFT graduates. The students also become involved in community projects and take field trips into the community.

Project CRAFT has developed successful partnerships with local school districts that allow students to receive education credits for the work they do through Project CRAFT, with mentors who talk to students on topics related to life skills, and with organizations that work with the students and make in-kind donations of equipment and materials.

The program also has developed partnerships and relationships with community-based organizations, community development organizations, housing authorities, developers, housing agencies, Habitat for Humanity, local governments, historical societies, and other organizations. These partnerships help the youth reintegrate into the community and provide the community with skilled workers and volunteers.

Outcomes

The project was independently evaluated over a 4-year period by Resource Development Group, Inc. (RDG), of Bowie, MD. According to an executive summary published by RDG in 1999, evaluators documented the following outcomes:

Project CRAFT has a high rate of job placement for its graduates. By the end of the national program (September 1998), 94 of the 140 graduates in the 3 original demonstration sites had been placed in jobs in the home building industry.

The cumulative recidivism rate for students participating in Project CRAFT at the three national demonstration sites was 26 percent, which is significantly lower than the national rate of 70 percent (as cited in the executive summary). The recidivism rate at the Nashville, TN, site was 15 percent the first year and 5.9 percent the second year.

Project CRAFT also has been successful in providing long-term follow-up for juvenile offenders after release and community placement. This helps ensure the adjustment and stability of these offenders after they return to their communities.
Project CRAFT is demonstrating its effectiveness in working with a range of juvenile and adult corrections systems, including those operated by private organizations under contracts with State and local governments, State and local government-operated facilities, and community corrections systems.

For Further Information

For additional information on the Project CRAFT program, contact Home Builders Institute, National Association of Home Builders, 1090 Vermont Avenue NW, Suite 600, Washington, DC 20005; 202-371-0600 or 800-795-7955; 202-898-7777 (fax); postmaster@hbi.org (e-mail); www.hbi.org

To obtain copies of publications from the Office of Juvenile Justice and Delinquency Prevention, contact Juvenile Justice Clearinghouse, 800-638-8736; 301-519-5212 (fax), puborder@ncjrs.org (e-mail), www.ojjdp.ncjrs.org

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The Office of Juvenile Justice and Delinquency Prevention is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance, the Bureau of Justice Statistics, the National Institute of Justice, and the Office for Victims of Crime.
Principles and Strategies for Occupational Skills Training


Occupational Skill Standards


Best Practices and Resources


Training in Ohio

1. Career Centers and Joint Vocational Schools in Ohio: http://lmi.state.oh.us/jobs/CareerCenters.htm

2. Community Colleges in Ohio: http://www.ohiocc.org/


4. Ohio Workforce Informer (labor market information): http://www.ohioworkforceinformer.org/

5. Success Builds Ohio: http://www.ode.state.oh.us/ctae/ind_std_accreditation_apprenticeships/default.asp

Apprenticeships

1. Apprenticeship in Ohio: http://jfs.ohio.gov/apprenticeship/


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