
Advanced Technology Bridge Training



Implementation Guide

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Bridge to Advanced Technological Education and Employment Project

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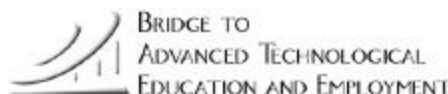


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Acknowledgements

This curriculum was developed by Stephanie Sommers of Sommers Consulting in conjunction with staff and instructors at Instituto del Progreso Latino, a community organization serving Chicago's Pilsen and Little Village neighborhoods.

It is part of a larger project, funded by the National Science Foundation's Advanced Technological Education program, to develop training programs that prepare disadvantaged adults for career-path employment and post-secondary education in advanced technology fields. This Bridge to Advanced Technological Education and Employment project is being carried out through a partnership of universities, community colleges, community-based organizations and industry groups in Chicago and Detroit. The following is a list of the partners and their role in the program.

University of Illinois at Chicago coordinates curriculum development and piloting of programs in Chicago, and provides technical assistance on instructional system design and program planning.

Richard J. Daley College (one of the City Colleges of Chicago) is providing instruction for the pilots in Chicago and developing student and instructor training curricula. It serves as subject matter experts on curriculum development teams to ensure that graduates are prepared for community college technical education.

Instituto del Progreso Latino, (a community-based organization serving the Pilsen/Little Village neighborhoods of Chicago) recruits and provides case management for students involved in curriculum pilots in Chicago. It assists in piloting student curriculum materials at community sites.

Wayne State University coordinates curriculum development and piloting of programs in Detroit. It provides technical assistance on instructional system design and produces multimedia software for ESL students.

Henry Ford Community College collaborates with the university, employer and community partners on development of student and instructor training curricula in Detroit. Its faculty serves as subject matter experts on curriculum development teams to ensure foundation for community college technical education. It pilots student and instructor curriculum materials in conjunction with community partners.

Detroit Hispanic Development Corporation recruits and provides case management for students involved in curriculum pilots in Detroit. It assists in piloting student curriculum materials at community sites and provides job placement assistance to program graduates.

Academy for Educational Development, a consulting firm based in Washington, D.C., is conducting a summative evaluation of project outcomes and impacts.

Overview: Advanced Technology Bridge Training

Technology Learning Skills: Critical to Success for Workers and Employers

With rare exceptions, jobs that pay wages sufficient to support a family and provide opportunities for learning and career advancement require some training beyond high school, even at the entry level.

For their part, employers need a workforce with strong basic skills and the capacity to learn as the technology of their industries changes. This is especially true of employers that invest in new technology and a smart workforce in order to compete based on innovation, quality and customer responsiveness rather than on low cost alone. These technologically advanced firms tend to pay higher wages and support learning and advancement.

Education based on the traditional academic model is failing to provide effective preparation for careers in advanced technology industries. Too many young people graduate from high school without the tools for learning in the technological workplace.

As a result, U.S. employers in manufacturing and other advanced technology industries are having great difficulty finding applicants qualified to fill good-paying skilled positions. Many employers in these same industries find that their current workforce is unable to keep up with advances in technology and business methods.

At the same time, large numbers of American workers are stuck in low-wage, dead-end jobs. Too often, these “working poor” individuals lack strong basic skills and the tools for learning that are required for good-paying, career-path jobs and for post-secondary education, which has increasingly become a gateway to jobs with a future.

The increasing pace of technological change means that, for employers, having a workforce capable of rapid learning has become essential to improving productivity and business performance. For workers, career-long learning, both in the classroom and on the job has become the key to decent pay, job security and advancement. For both workers and employers, then, the need is for a more effective approach to training for employment in a fast-changing, technologically advanced workplace.

Advanced Technology Bridge Training: The Foundation for Career-Long Learning

The “Advanced Technology Bridge” training program model described in this guide represents an effort to develop a more effective approach to providing basic training for employment in advanced technology workplaces. Bridge programs are designed to prepare educationally disadvantaged adults for career-path employment as technicians and for post-secondary technical education in advanced technology fields. They seek to provide the foundation for career-long learning on the job and through formal technical education and training.

Bridge training programs are also intended to enable individuals who are stuck in low-wage jobs to advance to positions that will enable them to support themselves and their families. They serve to “bridge” the widening qualifications gap between low-wage, dead-end jobs and livable-wage jobs with a future. Bridge programs are not appropriate for individuals who have little or no work experience or very limited basic skills. These individuals are better suited for pre-employment programs, which seek to help participants build a work record with steady employment in any job regardless of the pay and prospects for advancement.

Many Bridges to Cross

Rather than a single program, bridge training consists of a series of programs, each preparing for successively higher levels of employment and education.

The need for multiple bridge levels stems from the nature of the supply and demand for skilled labor in advanced technology fields. On the supply side, among the many adults who would seek employment as technicians, there is considerable variation in the level of basic skills and “job readiness” (which is generally also equivalent to readiness for education and training). Individuals with few basic skills and many barriers to employment will need multiple levels of support to move up over time to better paying jobs and to the education and training needed for further advancement.

On the demand side, jobs at different levels of pay and responsibility obviously carry different sets of qualifications. In manufacturing and other advanced technology sectors, the gap in qualifications between low-wage, dead-end jobs (i.e., unskilled jobs) and livable-wage jobs with a future (i.e., skilled jobs) continues to widen. Multiple levels of training and support may be needed to bridge this gap between low-wage and livable-wage jobs.

Figure 1 illustrates the multi-tiered bridge program structure that was developed by the bridge programs on which this guide is based. This framework was developed through

knowledge of the supply and demand for manufacturing technicians acquired in the following ways:

- Research on job entry points and ladders in manufacturing by the University of Illinois at Chicago;
- Review by faculty at Henry Ford Community College (HFCC) in Detroit and Richard J. Daley College in Chicago of the basic competencies needed for community college technical certificate and degree programs, trade and apprenticeship programs, and workplace-based technical training;
- Experience of the corporate training divisions of HFCC and Daley College in providing customized training for numerous manufacturing firms aimed at upgrading the skills and supporting the career advancement of their incumbent technical employees;
- Assessments of the basic skills and other qualifications of educationally-disadvantaged adults who have applied to the Chicago Manufacturing Technology Bridge program and other adult literacy and job training programs for the disadvantaged;
- Review of the entrance requirements and outcomes of other advanced technology bridge programs.

As is illustrated in Figure 1, the bridge program structure includes a sequence of at least three main bridge program levels (as well as some optional courses) leading to entry-level skilled positions and post-secondary technical education. These are:

Basic Skills Remediation "Pre-Bridge" - "Pre-Bridge" programs are designed to prepare participants to move up in semi-skilled jobs and enter Technological Learning Skills Bridge programs. Pre-Bridge programs help participants improve English communication and other basic skills in the context of preparing for entry-level employment or job advancement. They combine instruction in communication, math and other basic skills with job training. They are appropriate for adults with limited English or other basic skills deficiencies.

Technology Learning Skills (TLS) Bridge – TLS Bridge programs are designed to prepare for entry-level skilled positions and for Pre-Technologist Bridge programs. They stress skills that provide a foundation for learning throughout a career in advanced technology. A TLS Bridge for manufacturing would include instruction in: applied mathematics, workplace communication, applied physics, industrial computer applications, blueprint reading, basic machine operation, and workplace success skills. These programs are appropriate for adults testing at the 6th-8th grade

level in math and reading who have at least some stable work history and demonstrated motivation.

Intensive GED Prep – These programs are designed to prepare students to pass the GED in as little time as possible. They use diagnostic assessments to identify each student's weaknesses on the GED and provide intensive tutoring and computer-assisted instruction to help the student master those sections of the test. Heavy emphasis is placed on honing test-taking skills, which are useful not only for the GED but for college placement exams and employer screening tests (given by most manufacturers offering better-paying, entry-level skilled positions). Intensive GED Prep programs are appropriate for adults who lack a high school diploma but have completed a TLS Bridge or are otherwise qualified for entry-level skilled positions.

Pre-Technologist Bridge – These programs are designed to prepare for community college advanced technical certificate/degree programs and for skilled trade apprenticeships and technical training in the workplace. They go into greater depth in the applied technical fundamentals covered initially by the Technological Learning Skills Bridge. They are appropriate for those who are employed in skilled operator positions and whose math and reading skills are at the 9th grade level or higher.

Weekend Technical College, Technology Occupation Seminars - These seminars, which are designed to complement Pre-Technologist Bridge training, are appropriate for individuals who are seeking to become skilled technicians or journeymen and who are qualified for community college technical certificate/degree or skilled trade apprenticeship programs. These seminars expose students to the technology of various technical career paths. Topics for manufacturing technology seminars might include, for example: QS9000 Documentation (quality management), Introduction to Programmable Logic Controllers (electrical/electronic maintenance), Preventative Maintenance (mechanical maintenance), Solid Modeling (drafting and design) and CNC Overview (machining).

Apprenticeship Test Prep Courses – Appropriate for individuals with work experience and at least 8th grade math and reading who are seeking to pass entrance examinations for skilled trade apprenticeship programs. These courses focus on basic skills review and test taking skills and practice.

This guide will focus primarily on the implementation of the Technology Learning Skills Bridge, since that program provides the critical link between low-wage jobs and career-path jobs.

Learning by discovery

To prepare educationally disadvantaged individuals to be effective learners in the advanced technology workplace, Bridge programs emphasize “discovery learning.” Under the discovery approach, instruction is organized around problems and situations that resemble those encountered in advanced technology workplaces in order to expose participants to the learning culture and demands of such environments. Participants learn to approach these situations as they would tasks at work—often working in groups or teams, making use of tools and reference materials, and with a defined product or outcome in mind. This makes learning interesting, motivates participants to learn and shows them that they can learn. For those who have been poorly served by the schools, or for immigrants who must overcome language barriers and limited schooling, this approach engenders the confidence and self-esteem that are critical to success both in securing a good job and pursuing further learning.

Because they are designed to provide the foundation for career-long learning in advanced technology fields, bridge programs stress the fundamentals of applied mathematics, principles of science and technology, workplace communication and problem solving. Instruction in these fundamentals is integrated into the teaching of technical topics whenever possible. Curricula are defined in terms of competencies, with clear standards of what students should be able to do to demonstrate mastery. Mastery of particular competencies is more important than coverage of subject matter. Bridge programs also seek to familiarize students with the basic principles of how businesses operate, and prepare them for the culture and expectations of the workplace. They do this using classroom simulations and field trips, job shadowing, internships and other “structured learning experiences” in actual workplaces.

It should be emphasized that bridge instruction, although responsive to the needs of employers, is not narrow, job-specific training. What distinguishes low-wage jobs from livable-wage jobs is precisely the greater problem solving, decision-making and learning abilities required by the better-paying positions. Bridge programs are designed to enable students to build a broad foundation for learning throughout their careers. In manufacturing-oriented bridge programs, for example, the curriculum invariably stresses basic skills such as shop mathematics, applied physics, workplace communications and problem solving in addition to machining, welding or other specific technical skills. It is left to further training, both on the job and in formal post-secondary technical education, to provide instruction in industry- and company-specific skills.

The role of the instructor in such a learning environment is more as coach than as purveyor of knowledge and skills. This creates a teacher-learner relationship that resembles that between supervisor or team leader and team member in the workplace. Moreover, it respects and capitalizes on the extensive knowledge and experience that adult learners bring to the learning situation. Bridge programs often rely on instructors with industry experience, although adult educators can be effective teachers as well. Either way, bridge programs need to devote considerable resources to training instructors to teach in a way

characteristic of effective bridge program pedagogy. As with any education program, the quality of the instructors is critical to the success of bridge programs. This is especially so given that most bridge students may never have experienced good teaching. Participants who have struggled in other education settings must come to understand the benefits of what they learn, to apply new information and they must become self-directed learners, able to determine what new knowledge they need in order to improve performance.

Building bridges through “community-business partnerships”

Strong connections to employers and jobs – Bridge training is successful if it enables participants to secure good jobs in advanced technology fields. The connection to jobs comes through active involvement of employers in bridge training. Ideally, employers are involved in all aspects of bridge program development, from design, to implementation, to ongoing evaluation and improvement. Employers define the standards for bridge training, give feedback on curricula, help identify instructors with industry experience, donate equipment and offer paid internships to bridge students and full-time jobs to bridge graduates.

The most effective programs seek to build long-term relationships with employers that allow them to respond to labor force needs as they evolve. One strategy that is especially effective in keeping employer ties strong is to provide customized training for incumbent employees of partner companies in addition to training of prospective hires. Many employers that adopt new technologies and management practices will find that their current employees lack basic learning skills and therefore need bridge training.

Strong community ties – Strong community connections are essential for recruiting bridge program participants and for providing the wide range of support services they need to succeed. Community-based organizations (CBOs) are often more effective in recruitment and case management of disadvantaged individuals than are community colleges or other training providers. CBOs provide a comfortable “home base” for bridge program participants. They are also accustomed to referring clients to other organizations and agencies for services they themselves do not offer.

Effective instruction is an essential part of preparing low-skilled individuals for livable-wage jobs in advanced technology fields; but training by itself is not sufficient. Just as necessary to the success of bridge programs are extensive case management and support for program participants. Such services are needed to help participants overcome the barriers they face to employment in skilled jobs. These services include assessment, counseling, and assistance with childcare, transportation, drug treatment and other health services. The most effective bridge programs provide follow-up support and encouragement to program graduates even after they complete training and have been placed in a job. Thus they help to ensure that graduates not only stay on the job but advance up the career ladder.

Community-business partnerships – Few organizations can provide the full range of training and support services needed to make bridge programs work. As a result, bridge programs often operate as partnerships of organizations. Because of their strong ties to employers and jobs, on the one hand, and to the community, on the other hand, effective bridge programs are built on "community-business partnerships." Sometimes intermediary organizations are needed to bring together the various bridge program partners and coordinate their efforts.

The Bridge programs used in the development of this guide were conceived as partnerships between employers, community colleges and community-based organizations, with universities and industry associations playing a supporting role. The following table outlines the roles of each of these organizations under such a partnership arrangement.

Sample Bridge Program Partner Roles

Organization	Roles
Employers	<ul style="list-style-type: none"> • Program review • Hosting of field trips • Paid internships for qualified students • Student practicum examinations • Jobs for graduates
Community colleges	<ul style="list-style-type: none"> • Curriculum development • Instruction • Job placement assistance • Recruitment into college-level technical training • Instructor training
Community-based organizations	<ul style="list-style-type: none"> • Student recruitment and screening • Assessment and counseling • Case management • Referral to social services • Community sites for instruction • Job and college placement assistance • Follow-up support for retention and advancement
Universities	<ul style="list-style-type: none"> • Labor market analysis • Curriculum development • Learning tools development • Program evaluation • Program planning and coordination (intermediary)

<p>Industry Associations</p>	<ul style="list-style-type: none"> • Employer referrals • Program planning and coordination (intermediary) • Program marketing and promotion
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Intermediary organizations are sometimes helpful in organizing and coordinating the activities of the various partners in bridge programs. The intermediary works with businesses to identify where the employment opportunities are and where “bridges” need to be built to create pathways for community residents to the jobs in demand. The key to the intermediary’s success is to create partnerships that meet the needs both of community residents for jobs with a future and of employers for qualified, motivated employees. Organizations that might play this intermediary role include industry associations, labor organizations or universities.

Profiles of Model Bridge Programs

Chicago Manufacturing Technology Bridge Program

Since the mid-1990s, manufacturers in the Chicago area, as in other parts of the country, have experienced growing shortages of applicants qualified to fill good-paying skilled positions. At the same time, while unemployment has reached lows not seen since the early 1970s, “under-employment” of workers stuck in low-wage, dead-end jobs continues to be widespread.

In 1996, staff of the Instituto del Progreso Latino, a community organization serving Chicago’s Pilsen neighborhood, assembled a group of partners to deal with these problems. The result was the Chicago Manufacturing Technology Bridge (Bridge) training program, which was launched in March 1997 with funding from the Chicago Empowerment Zone program.

The Bridge was designed with extensive input from Chicago-area manufacturers to turn out graduates qualified for entry-level skilled positions. A common refrain among the employers involved in developing the Bridge was: “Give us someone who is trainable, and we will train them in the specific technologies and methods of our business.” So the program was designed with a special focus on producing graduates who are “trainable.” “Trainability” is key not just for meeting the requirements of employers, but for achieving the other main goal of the program: preparing educationally disadvantaged adults for career-long learning, both on the job and through formal, post-secondary technical education and training.

The Chicago Manufacturing Technology Bridge program consists of a 16-week day program and a 22-week evening program. Figures 1 and 2 show the curricula for the day and evening programs. To provide the foundation for career-long learning, the program places heavy emphasis on the fundamentals of “technical literacy,” particularly workplace mathematics, applied physics, computer applications and workplace communication. Teaching of the technical literacy fundamentals is integrated wherever possible with instruction in “technical specialty” topics including metrology, blueprint reading and machining. Instruction is done in an “applied” manner, that is, using problems, situations and materials drawn from the contemporary manufacturing workplace. The team that developed the bridge believed that this is the most effective approach to teaching students how to be problem-solvers and to learn as technology changes.

In addition to formal instruction, the program offers intensive case management, counseling and support services, including referrals to social service agencies, in order to help trainees overcome barriers to employment. Trainees also receive extensive preparation in resume writing, interviewing, test taking and other “employment skills,” as well as job placement assistance through the strong relationships the program staff has established with Chicago-area manufacturers. An internship component was developed to

enable students to participate in paid employment in partner companies while they are still in training. The internships have multiple benefits for both trainees and employers.

To enter the Bridge, applicants must score at least an 8.0 on the TABE math and reading test (or be at the advanced intermediate level of ESL for non-native speakers). A high school diploma or GED is not required. Applicants who are unemployed must also have had at least some work history and demonstrate a strong willingness to complete a rigorous, multi-week training program. For non-native speakers who do not meet the ESL requirement, two “pre-bridge” vocational ESL or VESL courses were developed to help students improve their English while enhancing their employment skills.

The Bridge program’s integrated package of instruction, case management, job placement and support has produced impressive results. Between March 1997 and December 1999, over 180 participants graduated from the program. Over 85percent of graduates are working in jobs paying a median wage of \$9.65 per hour plus benefits. This is a significant outcome, given 65percent of Bridge participants were unemployed when they entered the program, and the median wage of those who were employed upon entering the program was only \$7.50 per hour.

Bridge graduates have secured jobs in a wide array of manufacturing industries including metalworking, plastics, electronics and chemicals, as well as some non-manufacturing jobs involving the use of electromechanical technology in transportation (CSX) and construction (multiple firms). Follow-up interviews with companies that have hired graduates of the program reveal very strong satisfaction with the Bridge among employers. Employers are especially enthusiastic about the program’s emphasis on the basics, particularly workplace mathematics, measurement and communication. Several indicated that, because of the strong basic skill set they bring with them, Bridge graduates are able to “leap frog” over many current employees for promotions. Preliminary results of an on-going follow-up study of program graduates show that more than 80 percent of graduates are still employed after six months and that many are already advancing up the career ladder.

Nearly one-third of Bridge graduates have enrolled in associate degree programs in manufacturing and other technical fields at Chicago-area community colleges, paid for in some cases by their employers. This is an important accomplishment because post-secondary technical education beginning at the two-year college or apprenticeship level has become essential for job advancement in manufacturing and other advanced technology fields.

A key to the success of the Chicago MT Bridge program is the partnership through which it operates. The two partners central to the program’s operation are Instituto, the community organization, and Richard J. Daley College, a community college that is one of the City Colleges of Chicago. Instituto recruits, assesses and selects participants and provides case management and support services that are essential to enabling students to complete the program. Instituto serves as a site for instruction in the “technical literacy” topics of workplace math, applied physics, workplace communication, and computers. Daley

College provides instruction in technical topics at its manufacturing technology laboratories. Students who complete the Bridge receive advanced placement credit toward an A.A.S. in Manufacturing Technology from Daley.

Instituto and Daley work together to place students in jobs, starting with a core group of companies that have helped to guide the development of the program. Both also follow up with students after they graduate to encourage and support them to advance in their jobs and pursue further formal education and training. The University of Illinois at Chicago has played a coordinating role, conducting labor market analysis of employer needs, providing technical assistance on program planning design and implementation, and evaluating program outcomes.

Funding from the Bridge has come from grants from the Chicago Empowerment Zone Program and the Illinois Department of Commerce and Community Affairs. The program costs approximately \$5,000 per student based on 100 enrollments per year. This includes the cost of instruction and materials, three full-time staff, and administration.

Other possible formats and settings

A number of employers that have hired graduates of the Chicago Bridge program have indicated that many of their existing employees would benefit from similar training. Indeed, the Bridge curriculum can be customized for particular companies. The Chicago Bridge partners are currently working on customizing the Bridge for a group of small local manufacturers that want to train workers in semi-skilled positions for advancement to entry-level skilled positions. Participating companies will pay for the training, with supplemental funding from Prairie State 2000, a state incumbent worker training program that will cover up to half the cost of training.

The partners in the Chicago program are also seeking ways to continue support of the more general program that is offered to qualified applicants regardless of where they are employed. Other programs outside of Chicago have succeeded in convincing employers to contribute resources for program operation through fees for trainees hired and retained. Companies that advise the Chicago Bridge program have endorsed the idea of charging firms \$3,000 for every Bridge graduate they hire who stays with the company for an agreed-upon period of time. The Bridge partners are in the process of organizing "preferred employers" that will pay a hiring fee in return for getting first pick of graduates from each class. The partners also plan to seek other forms of support for the program from employers, including contributions to a scholarship fund and equipment loans.

Overview of this Guide

How this Guide was Developed

This implementation guide was developed as part of a three-year effort to develop, pilot test and disseminate materials for advanced technology bridge training programs. Teams in Chicago and Detroit are carrying out this three-year project, funded by the National Science Foundation’s Advanced Technological Education program. The partners are as follows:

	Chicago	Detroit
Community Colleges	Richard J. Daley College	Henry Ford Community College
Community Groups	Instituto del Progreso Latino	Detroit Hispanic Development Corp.
Universities	University of Illinois at Chicago Illinois Institute of Technology	Wayne State University
Employer Groups	Chicago Manufacturing Center Adv. Manufacturing Training Alliance	American Society of Employers Hispanic Manufacturing Center

Although the project focuses on training for advanced technological education and employment in manufacturing, the aim is to produce program guides and instructional materials that are applicable to bridge training for other fields as well. In the process, the project partners hope to enrich understanding of the foundation skills needed for career-path employment in technical fields and of instructional methods that are effective in enabling poorly educated individuals to master these skills.

For more information on the Bridge to Advanced Technological Education and Employment project, see our web site at <http://www.uic.edu/cuppa/techbridge/>.

Organization of this Guide

This guide is organized to allow prospective Bridge program developers to think through the steps involved in launching a successful program. In addition to this Overview, the guide has sections on planning a Bridge Training Program, Implementing a Bridge Training Program, and Sustaining Bridge Programs. The "Planning a Bridge Training Program" section outlines requirements for getting started including organizational and facilities requirements and basic program costs. This section also covers the particulars of forming external partnerships and engaging employers in Bridge development.

"Implementing a Bridge Training Program" covers all aspects of internal Bridge program operations. Staffing, program scheduling, recruitment, assessment and selection, methods of instructional support, case management, and job placement are covered in this section so that potential Bridge programs can understand what these functions are, how they interrelate, and how to carry out each of them.

Lastly, "Sustaining Bridge Programs" outlines ways to evaluate program effectiveness, capitalize on funding opportunities, and sustain employer involvement so Bridge programs can maintain solid footing once they are up and running.

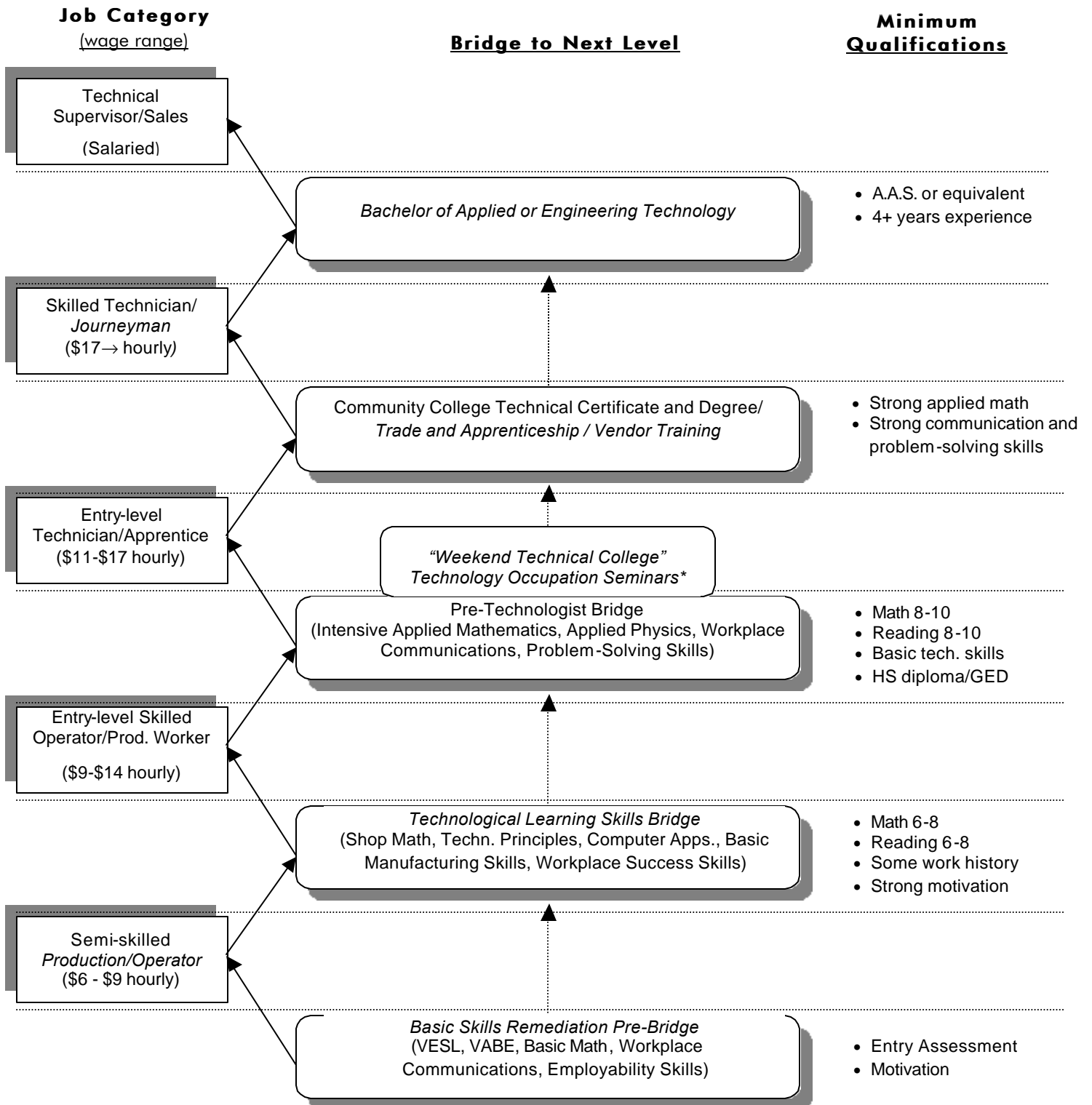
Companion Guides

The partners in the NSF Bridge to Advanced Technological Education and Employment project have produced a number of other guides for groups interested in implementing Bridge programs. These include:

- Advanced Technology Bridge Training Instructional Guide
- Chicago Manufacturing Technology Bridge Curriculum Guide
- Mathematics for Metalworking Workbook
- Vocational English as a Second Language (VESL): Courses A and B
- Intensive GED Prep Course

These are available on the project's web site at <http://www.uic.edu/cuppa/techbridge/>.

Figure 1: Bridges to Advanced Technological Employment in Manufacturing



*Sample seminars include: ISO Documentation (Quality Management); Intro. to PLCs (Electrical/Electronic Maintenance); Preventive Maintenance (Mechanical Maintenance); Solid Modeling (Drafting and Design); CNC overview (Machining)

Planning a Bridge Training Program

Requirements for Getting Started

1. Organizational Requirements

As discussed in the introduction, Bridge programs need to create and maintain an integrated set of partnerships in order to provide services educationally disadvantaged adults need and to create a manufacturing career ladder supported by a hierarchy of quality training. Partnerships between community organizations, community colleges, universities, and employer groups must be established to insure that Bridge programs can recruit students, refer them to needed support services, give them access to computer and machining labs, provide high-quality instruction, and place students in jobs, and/or in subsequent training.

However, because different kinds of sites can set up Bridge programs, the configuration of these partnerships will vary. Thus, a community college that sets up a Bridge program may be able to do most of its recruiting internally and not need to partner with many feeder organizations. Some community organizations may have access to the computer and machining labs they need to run a Bridge and therefore not require a partnership with a community college for these resources. And employers may run Bridge training for their own employees, making external recruitment unnecessary, even though a partnership with an off-site Bridge program at a community college or community organization may be needed to provide employers with instructors, support services, and continued training opportunities.

However, any Bridge program will involve similar basic functions regardless of the type of site initiating it and the partnership relationships created to execute it. All Bridge programs require the following functions:

- Recruitment and case management of participants
- Instruction and instructional support
- Job and college placement and follow-up
- Program management, evaluation, and improvement.

These internal functions must be coordinated so students receive a seamless set of services. Bridge programs must attract students to the program, support them as they move through the program, place them, and follow-up on placements to ensure that graduates continue to develop their careers. To set up these functions and coordinate them, strong management practices embedded in a clearly structured communication and documentation system must be established and made routine. Such practices and

structures support built-in evaluation and improvement processes that will help Bridge programs become and remain effective.

The purpose of this Implementation Guide is to describe these essential functions, provide tips on set up, and outline specific practices for successfully carrying out each of them.

2. Partnership Agreements

Because Bridge programs require multiple partners to function effectively, formal agreements between key partners can help clarify roles and responsibilities. Important elements in partnership agreements include:

- how schedules are to be correlated.
- who is responsible for making routine contacts.
- how interactions between organizations are to be documented.
- what each organization must communicate to students.
- what is the process for referrals and/ or transfers of information.

Some bridge programs have established agreements among employers that help to set standards for Bridge program performance and, in some cases, provide financial support to Bridge programs.

3. Facilities Requirements

Generally, Bridge programs require access to the following facilities in order to deliver the full range of services:

- At least one classroom for each group of 15-25 students.
- A networked computer lab with one computer for each student in a class and is outfitted with Microsoft Office software and Internet access.
- A machining lab that has machine tools, welding equipment, or other equipment that students can use to get hands on exposure to and practice with the particular machines and instruments they will encounter on the job.
- Office space that can accommodate at least one program coordinator, one case manager, one placement coordinator and that would allow for private meetings with students.
- Meeting space for teachers.

A Bridge program based in a community organization without access to a full machining lab, should make arrangements with a community college or a company that has unused equipment in order to ensure students get the hands-on experience they need. Similarly, a

Bridge program without a full computer lab would need to arrange a partnership to that could make these resources available.

Variations in curriculum design may also result in the need for specific equipment and facilities to assist students in learning about target occupations. For example, the Chicago Manufacturing Technology Bridge Program teaches applied physics using a laboratory where students could work on projects together at tabletop stations. These tabletop stations are supplied with electrical, mechanical, thermal, and hydraulic equipment that allow students to learn principles in physics through hands-on activities.

4. Costs

The Bridge program costs listed below are ballpark figures calculated from expenses recorded by the two pilot sites in Chicago and Detroit. These figures are meant to give potential Bridge programs an idea of the kinds of costs they need to incorporate in developing their own budgets. Of course, these numbers will vary depending on funding levels and program configuration vis-à-vis other partners, however the funding categories and methods of calculation should be useful in adapting these figures to specific sites.

Per year personnel costs:

Program Director: Percentage of time overseeing set-up and then program oversight.
Program Coordinator: \$40,000 - \$50,000
Recruitment and Intake Specialist: \$30,000 - \$40,000
Case Manager: \$30,000 - \$40,000
Placement Coordinator: \$30,000 - \$40,000

Total cost for personnel per year: \$130,000 - \$170,000 plus percentage of Director's time.

Per course session costs:

Instructors: 320 hours @ \$25-\$40 per hour = \$8,000 - \$12,800
Assessments: \$600 x 15 students = \$9,000
Student Materials: \$130 x 15 students = \$1,950
Text References: \$7,000 to obtain basic materials (\$800-\$1,000 in replacements in subsequent sessions).
Lab Consumables: \$100 x 15 students = \$1,500.

Total per session costs: \$21,450 without initial text references/ \$27,450 with
to
\$26,250 without initial text references / \$33,250 with.

If a Bridge program were to run three-course sessions each year, with an average of 15 students per session, the total cost per student would be \$4,400 - \$5,550. However, this number could be higher when specific facilities and contractual obligations are factored in.

Engaging Employers in Bridge Development

1. Assessing Employer Needs

To enable participants to secure good employment subsequent to Bridge training, Bridge staff must design the program with employers' needs and requirements in mind. One strategy for obtaining information about employers' hiring needs and standards is to hold focus groups of the persons responsible for hiring and supervising employees in the positions the Bridge program targets. The Appendices include a sample agenda for a two-hour focus group developed by the Chicago pilot team to keep them in touch with employer needs.

Especially in tight labor market environments, employers are generally eager to participate in such focus groups. Reflecting on how they recruit, screen and train employees, and hearing the practices of other companies in the same industry, can help employers see how they might be more effective in recruiting and retaining qualified employees. Focus group sessions provide a wealth of information that is critical to ensuring Bridge programs turn out graduates who have the qualifications to secure jobs with partner companies.

The Chicago Bridge pilot team has found that the focus groups are an effective means not only of gathering information on employer needs and requirements but of engaging employers to serve as on-going advisors to Bridge programs. This is especially the case when companies see that getting actively involved in the development of Bridge programs decreases the time, effort and cost to them of recruiting qualified employees. The section below describes how to make the most of opportunities to learn from employers.

2. Employer Advisors

We highly recommended that a new Bridge program create an Employer Advisory Committee. Engaging employers in the implementation and maintenance of a Bridge program can greatly enhance the Bridge curriculum and make attracting further employer interest easier. New Bridge programs should court employers who already have a strong interest and involvement in employee training because they will bring insight and ideas to the program as it develops. Ideally, these employers will also be willing to promote the program's successes to other employers once the program gets going. In addition, when carefully recruited, an Employer Advisory Committee can:

- Review curriculum and program design.

- Provide guest speakers and sites for field trips.
- Offer internships to student. Refer employees to serve as part-time instructors.
- Provide materials such as blueprints or equipment for use in Bridge instruction.

Members of the Employer Advisory Committee can be recruited through contacts with industry associations, Chambers of Commerce, private industry councils or workforce investment boards, or educational institutions that have established relationships with companies.

Implementing a Bridge Training Program

Overview of Bridge Program Activities

The Bridge Overview diagram identifies the major functions of a Bridge program and shows how they interrelate. In the schematic, the larger arrows follow a student through the various program activities in succession. The smaller arrows that go back and forth between functions show relationships that students have with program service providers. Here is a simple reading of the schematic. Pre-program activities involve recruiting, conducting information sessions, and assessing and selecting students before they start Bridge courses. Additionally, there is a two-week Pre-Bridge option that helps incoming students brush up on basic skills. In this portion, student work primarily with... Then, once students are taking formal Bridge courses, they also are developing relationships with a case manager and a placement coordinator. The case manager will be working with students to help them address any employment barriers, and the placement coordinator will be working with students to prepare for them for pre-employment activities and specific internship placement opportunities. Placement coordinators will then provide follow-up services and support after students are placed in employment and help them pursue further education or training.

The following sections describe the main program functions. Subsequent sections of the guide will provide more detail on each, including tips on effective practices.

Recruitment: Recruitment includes all those activities involved in attracting and getting students into the Bridge Program. Recruitment requires regular contacts with unemployment offices and other government agencies, local churches and community groups, and with companies whose entry-level workers could use further training to be promoted. Bridge programs can also establish “feeder” relationships with other training programs that turn out graduates who are qualified for continuing training in a Bridge program. Staff in charge of recruitment give presentations, disseminate flyers, put ads in local newspapers and on the radio and maintain regular contact with feeder or referral organizations. Recruitment needs to be ongoing. Although recruitment is more intensive immediately prior to program session start times, marketing functions such as publishing articles about successful students, building and maintaining relationships with feeder or referral organizations, and making presentations about the program can and should happen throughout the year.

Information Sessions: Recruitment activities should encourage prospective students to attend an information session. At an information session, program staff must give prospective students an overview of the program – what the program goals are what is expected of students who participate, and how an individual will benefit from participating. Potential students should get the opportunity to see facilities, meet staff, meet former

students, and talk to each other, so they can form early contacts that will help to keep them engaged should they enroll in the program.

Assessment and Selection: Assessment and selection include those activities used to qualify potential students for the Bridge Program. Good assessment requires that the program choose sound tests that accurately measure students' basic skill levels, that students be prepped before they are tested, and that students are given feedback on test results in one-on-one sessions. Individualized post-test meetings should be designed to prepare students who meet the minimum program requirements to enter the program. This includes having them understand and sign agreements that stipulate what will be expected of them during their program participation. Prospective students who do not meet the program requirements should be referred to programs that are more appropriate for their qualifications and that will help them improve their skills to the level where they can enter Bridge training successfully.

The "Pre-Bridge" Option

Wayne State University has developed and piloted a two-week Pre-Bridge option that helps students brush up on their basic skills so that more people from the community served can be adequately prepared for the Bridge. This course has students identify and practice sound learning strategies, engage in confidence building activities, practice good communication skills, study health issues at work, and establish good basic computer skills. The lesson plans for these activities stress writing, basic grammar, and interactive exercises that allow students to get reacclimated to the classroom setting, brush up on basic academic tools, and begin to accumulate some positive classroom experiences while building important relationships with the case manager and placement coordinator. Wayne State has found that this Pre-Bridge helps students with limited prior success in classroom experiences be better prepared for a Bridge in a community college setting.

Case Management: Case management is a Bridge program's central retention strategy. By meeting frequently with students and monitoring their progress, case managers can identify and help students overcome barriers to success in the program and subsequent employment. Case managers need to screen students for barriers when they enter the program, set up a service plan that responds to the results of the screening, and then follow up on that plan in one-on-one conferences. In these conferences, case managers need to discuss the student's progress, identify problems the student may be having, make referrals to service organizations, and monitor to ensure the student is following through. Case managers also need to have good relationships with organizations that offer support services and with Bridge program instructors who can keep them up to date on students' classroom progress.

Instruction: Because Bridge programs deal with disadvantaged students, it is important that instruction be defined as an activity that extends beyond the classroom. Instructors should meet regularly to discuss the progress of each student, recommend tutoring where appropriate, customize curriculum to meet particular students' or groups of students' needs, exchange relevant information with case managers and plan follow-up for students having difficulty, as well as recommend students for particular pre-employment or placement opportunities. Bridge programs must establish a regular system of meetings to cover all these areas, so that students' issues are addressed early and monitored by a number of different people.

Placement Coordination: Placement coordination involves all those activities that help graduates get good jobs along with the follow-up contacts that keeps them employed. Placement coordinators build relationships with both employers and students in order to bring them together in appropriate matches. Placement coordinators need be able to identify, contact, and create relationships with employers to encourage their active involvement in the program. They also need to work with students to match them with on-site pre-employment activities, monitor internships, guide them through the job search process, and follow-up with them once they are placed. Follow-up activities include contact with graduates and their supervisors as well as placement into partner organization training programs in manufacturing.

Staffing

1. Roles and Responsibilities

In setting up an effective Bridge program, it is important to create clear roles and responsibilities for staff so that they are accountable for key functions and have clear roles in a team effort to move students through training to a career path. The following sub-sections present a listing of staff members, their functions and responsibilities, and a set of expectations about how staff members should communicate with one another. This listing should help guide the creation of formal job descriptions to guide the work of existing staff who will participate in the Bridge program or to provide information to applicants for the positions described.

Recruitment and Intake Specialist: The Recruitment and Intake Specialist is responsible for all pre-program activities: recruitment, information sessions, and assessment as described above. These activities should be clearly scheduled throughout the class session so that each session begins with full classrooms of students with appropriate skill levels.

Recruitment activities the Recruitment and Intake Specialist should undertake include:

- Creating and updating recruitment materials,
- Contacting local organizations, churches, and government organizations for prospective students.
- Making presentations to prospective students and feeder organizations.
- Keeping recruitment data so that the program can evaluate the success of various recruitment strategies and plan accordingly.

The Recruitment and Intake Specialist also organizes information sessions for prospective students. These information sessions require that the Specialist:

- Design information session materials.
- Develop a lesson plan for information sessions that will engage prospective students including ample opportunity to speak about their backgrounds and career goals. Current students and program graduates should be in attendance to talk about how the program has helped them meet their goals.
- Conduct information sessions and collect formal applications.

The Recruitment and Intake Specialist is also responsible for assessing incoming students, which means that Specialist must:

- Schedule prospective students for testing.
- Administer and grade tests and record test results.
- Meet with applicants in one-on-one conferences to
 - discuss test scores.
 - explain program expectations to qualifying students and have them sign student agreements.
 - refer those who didn't qualify to those programs that teach the skills they will need to meet the program's requirements in the near future.

The Recruitment and Intake Specialist communicates with other program staff by:

- Reporting test results and enrollment numbers to the program coordinator.
- Checking with instructors after one to two weeks to find out if any students have been inappropriately placed in the program and require referrals to other programs.
- Working with the program coordinator to evaluate recruitment efforts shortly after classes begin and identifying strategies for improving recruitment for the next cycle.

Case Manager: Case Managers must both work with students to solve problems independently and recognize when intervention is necessary because problems threaten to intrude on classroom progress or overall employability. This requires Case Managers to:

- Conduct intake interviews to identify possible barriers to success.
- Construct individual service plans in one-on-one meetings with students.
- Create and maintain relationships with organizations that offer support services.

- Conduct regular one-on-one conferences with students to discuss their progress and identify any need for assistance.
- Maintain a case file for each student.

Case Managers communicate with other staff members by:

- Meeting with instructors and the placement coordinator at regular intervals during the term to review student progress and make coordinated follow-up plans for students having difficulty.
- Meeting with the program coordinator at the end of the term to evaluate student situations and determine training case management may need following Bridge training.

Placement Coordinator: The Placement Coordinator is responsible for recruiting employers to participate in the Bridge programs activities, preparing students for pre-employment activities, placing students in internships, helping students find jobs and pursue further education, and following up on all placements to make sure students meet their employment goals. Specifically, this means that Placement Coordinators must:

- Research appropriate companies to contact.
- Contact employers to solicit their involvement in the program.
- Staff the Employer Advisory Board.
- Meet with students to decide long-term employment goals and review expectations for particular employer assignments.
- Establish manager/supervisor contacts for each internship and placement.
- Make regular follow-up calls to the manager/supervisor and the new employee.
- Respond to manager/supervisor calls and concerns.
- Regularly distribute and collect employer evaluations.
- Document all interactions with employers, student supervisors, and students.
- Help students explore opportunities for further education and training.

The Placement Coordinator will need to communicate with other staff by:

- Meeting with case managers and instructors regularly to discuss student issues and make appropriate matches between students and placement opportunities.
- Meeting with the program coordinator to troubleshoot employer recruitment and placement issues and to adjust recruitment and follow-up plans accordingly.

Program Coordinator: The Program Coordinator must be knowledgeable about all Bridge program functions and able to provide leadership by supporting staff learning, setting clear expectations, and being open to staff feedback. The Program Coordinator works with staff members to create and monitor the various staff plans for each class session, require and maintain accurate records of all aspects of student and staff progress, offer guidance and appropriate coaching to staff, and establish a regular and effective communication system

that produces results. The Program Coordinator must also create and maintain good relationships with all major program partners. More specifically, the Program Coordinator must:

- Work with appropriate staff to create and follow up on:
 - Recruitment plans and contact tracking.
 - Case management assessments, conferences, referrals and follow-up.
 - Placement manager employer contacts, student contacts, and follow-up.
- Conduct instructor observations and provide positive feedback and suggestions both in written form and in one-on-one feedback sessions.
- Meet with personnel regularly to set specific objectives for each class session and follow-up on objectives from prior meetings.
- Create and maintain Bridge partnerships through regular contact and events.
- Raise funds to support the program.

2. Hiring Staff

Effective staff members for a Bridge Program should be knowledgeable and enthusiastic about careers in advanced technology fields and should have experience in meeting the learning and support needs of educationally disadvantaged students. Staff members must have excellent interpersonal skills so they can make lasting connections with students and employers and so they can work together productively as a team. Good organizational skills are also necessary for all positions.

In order to make sure that the right staff is hired to fill the designated Bridge positions, programs should establish a set of interviewing guidelines. These guidelines will help those conducting interviews go through a consistent process and ensure key information is collected. Recommended interviewing guidelines are as follows:

- Key supervisors and co-workers should be present.
- Roles for each interviewer should be made clear ahead of time.
- The job should be presented to the candidate in detail.
- Candidates should have an opportunity to ask questions.
- Clear unambiguous questions concerning the following should be explicit:
 - Candidates' past work experience in the field.
 - Candidates' approach to their work and their clients.
 - How they would handle key situations that will arise in their job.
 - Candidates' work habits.

The best interviewing situations are formal yet comfortable. Interviewers should use open-ended questions that allow candidates to speak freely about their ideas and experiences. The atmosphere should promote an interesting exploratory discussion. Encouragement

and attention to candidate responses will give interviewers the best opportunity for getting a good picture of the person before them.

Finding the Right Instructors

Good instructors are the key to making any Bridge program successful. Unless instructors impart real skills that translate to increased employability in the manufacturing field, the goals of the program cannot be reached. Thus, Bridge programs must recognize and hire innovative instructors with experience teaching the program's target population and with first-hand experience and/or insight into opportunities in the manufacturing field. This presents a challenge because instructors' skills and attitudes often depend on past work settings. Often the right mix of teachers for a Bridge program may be a mix of skilled reading and math instructors along with technical experts from industry. Such a mix will require that instructors have opportunities to demonstrate and teach one another their various skills so that the more academic instructors gain knowledge of the manufacturing field and technical experts learn new teaching approaches and techniques that are sensitive to adults' education needs. Creating team-teaching opportunities where paired instructors with different skills plan and execute a particular curriculum together can be a marvelous tool for developing and integrating different staff strengths.

1. Instructor Duties

Instructors' primary responsibility is to see that students actually learn the skills they will need to be successful on the job. However, instructors must also be able to interact well with each other and other program staff so a clear and continuous stream of student-specific service can be delivered from classroom instruction to employment. The duties listed below cover these requirements. Instructors need to:

- Fit curriculum to meet student needs.
- Conduct ongoing evaluations of the curriculum and document changes.
- Work as a team to innovate new approaches to existing curriculum.
- Keep complete records of student progress.
- Communicate student issues to case managers and placement coordinators on a regular basis.

2. Instructor Qualifications

The central instructor qualification is the ability to connect with students in such a way that they learn new skills. Instructors must have excellent interpersonal skills and the sensitivity and strategies to motivate and support the adult population likely to enroll in Bridge programs. Educationally disadvantaged students can easily feel belittled and marginalized by impersonal treatment that does not regularly emphasize and applaud their

improvements. If instructors are able to successfully connect with the target population, they will likely be able and motivated to learn any content or teaching strategies they need for the Bridge program. However, should an instructor not be able to connect with students easily and productively, other skills the instructor exhibits are less valuable because they will not be shared effectively with students.

With this principle in mind, here are set of more specific qualifications to look for in prospective teachers. A Bridge program instructor needs to have:

- significant experience teaching educationally disadvantaged adults and, at least, knowledge of manufacturing practices and opportunities.
- experience with a variety of hands-on, student-centered teaching methods.
- the ability to create lesson plans based on a curriculum outline and student need.
- the ability to understand the interrelationships between different subject and conduct cross-disciplinary curriculum development..
- the ability to plan and evaluate results as a team and to team-teach when deemed useful.

3. Recruiting Instructors

To find appropriate instructors for a Bridge program, organizations must pursue many avenues. Usually, instructor recruitment means getting in touch with organizations that have who have a lot of contact with training and trainers in both the industrial and adult education fields. Below is a more specific listing:

- Industry training groups or Chambers of Commerce and Industrial Councils that would know of such groups.
- Coordinators of part-time adult education and vocational programs (use this approach to locate part-time instructors).
- Employers with on-site training.
- Appropriate departments in local universities (this approach is especially good for filling part-time positions with university students in these departments who want to work while in school.
- Other instructors: Often the best resource.

If the teaching position is part-time, a Bridge program can ask these organizations for other part-time instructors who are looking for more work. If the teaching position is full time, organizations can be asked for recommendations and to post job descriptions. Ads can also be placed in local newspapers, however the range of responses is likely to be broader than through other the means, making this a something to consider as a secondary hit-or-miss recruitment strategy.

4. Instructor Orientation

Once appropriate instructors have been hired, it is important to integrate them into the Bridge program in a way that clarifies expectations and makes the new hires comfortable with program procedures. To accomplish this, the Program Coordinator must meet with each new hire to go over a set of written expectations and schedules. These expectations should detail the kinds of record keeping and reporting the program requires and the kinds of meetings instructors are expected to attend. Program coordinators should present the following materials to each instructor:

- a schedule of regular meetings.
- applicable due dates for reports.
- information on regular observations, their structure and aims.
- the curriculum he or she will be teaching.

The Program Coordinator should give an overview of the curriculum and its specific objectives and ask the new instructor to read it over before the next one-on-one meeting. New instructors should prepare for this next meeting with responses and questions to the curriculum as written, including its strengths and suggestions for how he or she might be able to improve upon it. These responses will structure the next one-on-one meeting, which should result in clear objectives for course preparation.

Additionally, new instructors should be introduced to other instructors and personnel, so the team may get to know each other. At this introductory meeting the Program Coordinator should explain how all parties are to communicate during each session. New instructors will also need an opportunity to ask questions and to learn in more detail how different departments operate.

Bridge programs may also set up a mentoring system for faculty. This means assigning an experienced instructor to act as the new instructor's point person, to answer questions, to observe in the classroom, and to partner in reviewing lesson plans. Such a system can insure that new faculty learn the program's culture and methods of operation during a longer, more informal, orientation period.

Recruiting Students

Successful recruitment lies in clearly identifying the program's target population and using all available angles for connecting with that population on an ongoing basis. Bridge programs may serve displaced workers, particular immigrant groups, incumbent workers, homemakers, or other low-income groups depending on their locations and missions. Each of these target populations has a different set of needs and patterns. Therefore each population will be attracted to the program through different strategies. For example,

immigrant groups may need to be approached in their native language and through organizations that already offer needed services. Incumbent workers, on the other hand, may be best contacted through companies and with a program that can fit their clearly defined schedules and the company's goals simultaneously. Thus, different student profiles will impact not only the kind of recruiting practices that a program adopts, but also the appropriate case management strategies and post-placement supports that will be required.

Still, all Bridge programs need to have the same entrance requirements for incoming students, regardless of the type of population they serve. These entrance requirements are as follows. Each incoming students must:

- score at least 8th grade TABE scores in reading and math
- have at least some work experience.
- demonstrate motivation to undertake a rigorous training program
- be drug and alcohol free.

These entrance requirements should be highlighted on all promotional materials to ensure the greatest number of eligible applicants is recruited from the outset.

1. Creating a Recruitment Plan

The Program Coordinator must work with the Placement Coordinator to create the initial recruitment plan and basic recruitment and tracking materials. This recruitment plan should detail the population being served, list potential feeder organizations, identify different types of media to be used (such as flyers, presentations, newspaper and radio ads), and list and describe the materials needed to support different recruitment activities. The Program and Placement Coordinators should work together to schedule recruitment activities during the class session. Additionally, the Placement Coordinator must track all recruitment efforts (see "Contact Management" section) so that subsequent planning meetings can evaluate the productivity of these efforts and focus resources on the highest yield strategies.

2. Recruitment Methods: What Works

All materials created for recruitment must highlight those things students will get out of the program, a brief program description, and information about the specific outcome that is sought. For example, if the desired outcome for a recruitment activity is getting prospective students to come to an information session, then those are the dates and times and phone numbers must be central. Program descriptions should not overpower the message of the material, as the information session can cover that. Key information about the program, such as whether it happens during the day or evening, if there is childcare available, and the kinds of wages graduates can expect as a result of this program should be used to attract prospective students' attention enough to come to an information session.

Strategies and materials for making contacts with prospective students may also be influenced by where the recruitment is taking place. Below is a table that shows a variety of potential recruitment contacts, the populations targeted at each, and the kinds of activities that will be needed to recruit people there. A brief discussion of each recruitment contact type follows the grid.

Contact Type	Population Targeted	Recruitment Activities
One Stop Career Centers and Unemployment Offices	Local unemployed / displaced workers.	<ul style="list-style-type: none"> • Creating agency contact. • Passing out flyers in the waiting areas. • Giving presentations at intake. • Calling those who have been tested and are eligible.
Adult Education Programs	Students of basic education or ESL programs.	<ul style="list-style-type: none"> • Creating agency contact. • Putting up flyers in bulletin boards. • Giving presentations to graduating students. • Sending out mailings.
Companies	Incumbent workers.	<ul style="list-style-type: none"> • Creating employer contact. • Giving presentations to selected groups of employees. • Sending out mailings.
Newspapers: Local and Regional	Unemployed / displaced workers.	<ul style="list-style-type: none"> • Writing a want ad or designing an advertisement.
Radio	Depends on the station.	<ul style="list-style-type: none"> • Making media contact. • Writing ad to fit parameters; factor in as much as 6 weeks lead-time.
Flyers	Local residents.	<ul style="list-style-type: none"> • Put up flyers in churches, shops, banks, block clubs, and government offices.

One Stops: Many states have implemented One-stop Career Centers as part of their Workforce Development Systems. One-Stops attempt to consolidate government offices that serve unemployed or dislocated workers and make job opportunities and training available. One-Stops routinely test applicants and often have lists of clients with addresses and test scores. By working with appropriate One-Stop personnel, arrangements can be made to contact those applicants who meet Bridge program qualifications. Additionally, the Recruitment and Intake Specialist can give presentations during One-Stop intake

sessions or handout flyers in the waiting room. These strategies can also be used in Unemployment Offices.

Adult Education Programs: Adult Education Programs refer to those basic education and ESL programs in community organizations and at community colleges whose graduates meet Bridge program qualifications. Contacts in these programs should be able to help the Recruitment and Intake Specialist identify eligible students and invite them to information sessions. Bridge programs that are housed in community colleges should routinely undertake internal recruitment in addition to their external recruitment efforts.

Companies: The Recruitment and Intake Specialist and the Placement Coordinator must work together on this recruitment strategy. The Placement Coordinator should alert the Recruitment and Intake Specialist whenever an employer is interested in having their employees take part in Bridge training. Likewise, the Recruitment and Intake Specialist needs to call on a list of companies that complement the Placement Coordinator's list so that the program as a whole develops a maximum reach. Both staff members may want to learn each other's services and sales pitches so that employers get a comprehensive picture of Bridge program services in one appointment regardless of who makes it.

Newspapers: It is highly recommended that Bridge programs use local newspapers to contact prospective students. Bridge programs should search out local newspapers that aim at reaching the same populations they are targeting. Bi-lingual, and neighborhood, and industry-specific newspapers and magazines are examples of the types of publications worth exploring.

Radio: The principle for effective recruitment on the radio is the same as that with newspapers: find those stations that target the same populations the program is seeking. An over-generalized appeal may have staff responding to many people that the program is unprepared to serve.

Flyers: Flyers are an excellent way to tap community interest. Informal networks exist in every community and getting to know the point people, such as pastors, community organizers and respected business people and teachers, in these networks can be very fruitful. Furthermore, when these community people can be recruited to pass out flyers to their parishioners or regular customers, turnouts can be very high.

3. Information Sessions

Information sessions can take place in presentation form at another organizations or at the Bridge program site. In either case, all information sessions should include easy-to-absorb materials that clearly explain the Bridge program's career ladder opportunities, courses, objectives, and schedules, and all the support services that are available. However, it is important that information sessions not be in lecture form, but instead be governed by an interactive lesson plan that involves potential students in the process of selecting the

program. To become enthusiastic about enrolling, prospective students need to meet people from the program that they can identify with, as well as have the opportunity to relate their own personal backgrounds and goals. Good information sessions introduce students to staff representatives, present and/or former students, and each other. This social aspect of information sessions allows prospective students to become connected to particular people associated with the program, which will, in turn, make it much easier for them to get through the testing hurdles the program requires to become successfully enrolled.

4. Contact Management

In order to create and implement effective recruitment plans, it is necessary for the Recruitment and Intake Specialist to keep careful records of the contacts they make and the results of those contacts. The Recruitment and Intake Specialist needs to create data bases that can store

- records of calls, appointments, and presentations at each organization contacted
- the number of people who show up to information sessions as a result of each effort
- test scores
- the number from each effort who enrolled in the program.

The Recruitment and Intake Specialist may also want to maintain data on which enrolled from each recruitment category and who finished the program to help determine which strategies yield the best results.

The Chicago Pilot analyzed the recruitment efforts at IPL. This analysis found that strategies that seem relatively staff-intensive such as making face-to-face contact at unemployment offices or organization open houses, had higher yields than more general approaches such as radio public service announcements (PSAs). While the PSAs involved less “up-front” time, they often led to large numbers of calls from unqualified candidates, those outside the geographic service boundaries of the program or who did not meet income requirements. Staff spent significant phone time screening unqualified candidates. Flyers placed in high-traffic community locations such as currency exchanges, grocery stores, and laundromats also proved successful.

Screening and Selecting Students

Prospective students must complete three screening processes before a Bridge program can make a considered selection about who should participate in the program. The first is the testing process. As highlighted in the formal entrance requirements mentioned earlier, students must score 8.0 in reading and math on the TABE test to qualify. The TABE has been selected as the test for entry, not because it is the best test available, but because it is

so widely used. Most funders and state educational institutions use the TABE to measure academic ability, so we recommend it for the Bridge in order to provide comparable information across programs and funding streams.. The second screening process the student must go through is the intake interview. This interview should be given by case managers and other staff to determine specific employment barriers and personal goals. Questions about academic and work histories, childcare, transportation, family relationships, housing, and legal situations should be asked. In addition, the program must determine the student's level of motivation and commitment to the program. Thus, the interview should include questions about the prospective student's present work situation, their personal goals, and their ability to attend. This second process, if structured well, should identify students who have personal issues that will interfere with program completion or who don't really fit manufacturing's career path.

The last screening process is the drug test. Clearly, students need to pass this test in order to be admitted into the program because they cannot successfully secure employment, the ultimate goal of the program, if they are unable to pass employers' drug tests.

1. Setting Entrance Standards

While the Bridge program requires certain entrance standards, some programs may add others to ensure they select appropriate applicants are selected. These variables will largely depend on the target population. For example, Bridge programs serving populations who speak English as a Second Language may want to formally test applicant's speaking and writing abilities in addition to the TABE in order to judge academic skill in English. Likewise, Programs serving ex-offenders or youth may have specific behavioral requirements. Each Bridge program needs to consider the population it is serving and its knowledge of what kinds of indicators forecast success and customize a set of entrance standards in addition to those that are given.

2. Counseling and Referrals

Understandably, prospective students are often anxious about testing. It could be that it has been a long time since they were tested and are intimidated by the testing process, and it is certainly anxiety producing for anyone who wants to enter a particular program and may not meet the requirements. The Recruitment and Intake Specialist must be skilled at allaying fears by creating a comfortable environment for the test and by having one-on-one conferences with each test-taker soon after their tests are scored. In these conferences, those students that have qualified for the program need to be informed of what will be expected of them in the program and asked to sign a student contract. For students that do not qualify for the Bridge, it is essential that there be a selection of programs inside or outside the organization that they can enroll in to raise their skills to meet Bridge standards. Such programs could be ESL programs or basic skill programs that graduate students at the 8.0 reading and math level. Agreements made with these other programs beforehand could allow the Recruitment and Intake Specialist to make a referral that would facilitate

easy enrollment and help students understand that they are still on track to achieve their goals.

Detroit has experimented with different student agreements. Some of the issues highlighted in these contracts include: attendance and punctuality, maintenance of assigned textbooks, regular communication with case managers and placement coordinators, signing in everyday, conditions for being dropped from the program. (See sample) Detroit's student agreement is very customized to their particular expectations, however the basic issues of attendance, punctuality, and communication requirements are topics to cover in most student agreements.

A "Pre-Bridge" Orientation Option

As described earlier, the Pre-Bridge option may be used to help students become acclimated to classroom activities, demonstrate their ability to show up and show up on time, and to brush up on basic skills. Program may choose to use this option as a screening device to make sure that only those students with good classroom habits and the ability to participate fully make it into the Bridge. Other Bridge programs may use it to insure that students become comfortable and connected with Bridge personnel before they enter into more rigorous classes. This latter strategy is recommended for populations who have some academic skills but whose social skills need to be addressed before they enter a situation with more pressure to perform.

Retaining Students: Case Management and Support Services

Thorough case management services concentrated on fostering independence are the key to program retention. If case managers stay on top of students' activities and performance while they are in the program and help them address issues that may interfere with their progress, students will feel that what happens to them matters and take more responsibility for their futures. To foster relationships with students, case managers must have a clear system of specific actions to help them keep up with students. Case managers must embrace a set of interpersonal practices that help them engage students and build trust so that students feel free to identify and then work on their employment barriers.

1. Communication with Students

Case managers need a set of tools to help them structure their interactions with students. Tools recommended for the Bridge program and a description of how to use them follows:

Intake Interview: Case managers must sit down with each incoming student and ask a series of questions aimed at uncovering employment barriers. Different populations may have different kinds of barriers. However, transportation, childcare, issues with family relationships including domestic violence, substance abuse, family and personal health, and legal issues are most often the primary categories. The intake interview should ask respectful yet direct questions that give students the opportunity to identify areas of concern. Questions concerning students' work situations, their goals, and their ability to attend the program should also be asked. The purpose of this interview beyond screening students for appropriate selection is to identify those students who have immediate and pressing needs. Once all incoming students' needs have been identified, case managers can appraise the session's complete caseload, and respond with individualized service plans that fit realistic timeframes.

Service Plans: Once the intake interviews are completed, case managers must write individual service plans based on intake results and an appraisal of the session's case load. Those students with more immediate and pressing needs should be scheduled with more regular appointments that allow time for exploring their particular issue or issues, making needed referrals, and following up on those referrals. Students that have fewer or less pressing issues may have fewer assigned appointments with different meeting agendas. The Program Coordinator needs to work with the Case Manager to devise a set of service plan templates that designate both the number of meetings required and anticipated agendas. These service plans should also be designed pragmatically to fit both the kinds of issues students face and the actual time the Case Manager has for appointments during any given session. Service plans should be fairly standard. They should include the number of meetings and a plan for those students with no apparent employment barriers. As Case Managers will need to be keeping up with student progress in the classroom, a service plan with the minimum number of check-in meetings should be established.

Referral List: In anticipation of students' possible employment barriers, Case Managers should create relationships with service organizations that can address each of them. Case Managers must make specific contacts within these organizations so that they can follow up on referrals once they are made. Case Managers with strong relationships to contacts in other organizations can cut through red tape, insure that their clients get better service, and better track students' ability to follow through on plans.

One-on-One Conferences: One-on-one conferences between Case Managers and students need to be structured to be student-directed. Students should be able to describe their employment barriers in detail and be asked to come up with possible solutions. Case Managers should think of themselves as facilitators of students' processes who can ask key questions to spur the development of specific goals, offer support options, and coach students through the follow-through process. Thus, Case Managers don't "help" students as much as give them the tools and support they need for dealing with their own lives.

Still, one-on-one conferences will have consistent themes: barrier exploration, problem solving, goal setting, and monitoring follow-through. Program Coordinators and Case

Managers can work together to design sets of questions and procedures that Case Managers can use in each of these session types. These flexible “lesson plans” will help to insure that the student is the definer of the issues, the problem-solver, and the decision-maker at the same time that the Case Manager is the facilitator/guide who can help students create next steps.

Interpersonal Practices: Case Managers need to become skilled at facilitation that is respectful of interpersonal boundaries and that apportions responsibility appropriately. When students reveal their difficulties, it is essential that the case manager doesn’t jump to fix the problem for the student or to take responsibility for it. Students’ emotional issues can sometimes become overwhelming depending on the intensity of their situations. For this reason, it is highly recommended that Case Managers receive job-specific training, that a set of interpersonal practices be established, and that Program Coordinators and Case Managers meet at regular intervals to troubleshoot difficulties and/or concerns Case Managers are having with specific students.

2. Communication with instructors and placement coordinators on student progress/problems

It is essential that Case Managers keep in close contact with instructors and the Placement Coordinator. Case Managers need instructors to tell them about students’ classroom progress and attendance so they can have this information when they meet with students in one-on-one conferences. This information can be integrated into regularly scheduled appointments and also alert Case Managers to the need to initiate conferences so that classroom performance issues can be addressed. Additionally, Case Managers need to be in regular contact with Placement Coordinators so they can exchange information on students and on placement opportunities to facilitate the matching process.

Support Services: Transportation, Childcare, Violence Prevention, Substance Abuse, Family Health, Legal Issues, and Immigration Issues

Case Managers must establish sets of relationships with service organizations that address the major employment barriers students are likely to face. Below is a list of the major categories of barriers and with some suggestions on how to address these barriers:

Transportation: Many students may need assistance with public transportation funding in order to be successful in the program. Questions about transportation needs should be assessed at intake and a system for making funds easily available should be set up so that this barrier can be addressed immediately.

Childcare: Along with transportation, childcare is a very common barrier to regular program attendance. Good contacts with local childcare providers should be made so

childcare options can be made available at the beginning of each session. And like transportation, questions about childcare issues should be asked and the answers responded to before classes begin.

Domestic Violence (DV): DV has a very strong presence in disadvantaged communities. Yet while unfortunately common, this issue is often very difficult to detect and much more difficult to resolve. While students should be asked about their relationships and violence in their lives directly, a “no” answer should not be viewed as conclusive. As DV is a significant employment barrier over the long-term, case managers must be on the look out at all times for its possibility. Signs of domestic violence include:

- Physical issues: bruises, broken arms, etc.
- Agitated behaviors: tired, worried, disoriented.
- Depressed, disengaged, withdrawn behaviors.
- Extreme difficulty once success is achieved. Abusers typically work against independence in their partner and will create serious barriers as the partner gains ground.

Students typically are very reluctant to change their situations, even when they are able to talk about them. However, progress can be made. To support these students, the program must be able to make referrals to counselors, shelters, and legal services once DV is uncovered and the student is ready for services. Follow-up on this issue should also be extended through the placement process.

Substance Abuse: Even if a Bridge program does drug tests for admittance into the program to be sure that students are initially drug free, this issue is quite likely to arise again anyway. Evidence of substance abuse problems in younger students include erratic confrontational behavior, the tendency to make lots of excuses, the telling of elaborate lies, or drowsiness in public places. Older more long-term users might seem very well adjusted and a “dirty” drug test could be a surprise. As substance abuse disqualifies students from the program, Case Managers must be ready and willing to confront this issue, present program policy, and make needed referrals.

Family Health: Frequently, students themselves don’t have health problems that are employment barriers, but someone in their family does. If the students responsible for the family members’ care are not connected with adequate health resources, they may disappear entirely from the program with little notice. Thus, asking questions about family members’ health during the intake interview is necessary to get the students the referrals they need to deal with the health situations of their family members and, in so doing, to keep them in the classroom.

Mental Health: While less frequent, students may show signs of conditions that overwhelm them. Depression, paranoia, schizophrenia, and other mental health conditions often run

in families and the way to get to this barrier may be through a discussion of family mental health. Signs of the need to attend to this issue include:

- Substance abuse
- Extreme withdrawal; anti-social behavior
- Fixation on certain issues accompanied by a high degree of anxiety
- Irrational behavior, confusion, memory loss.

Attention to this barrier is important because if pinpointed, diagnosed, and treated, students can improve dramatically, stabilize their lives, and continue with their progress.

Legal Issues: Students may have any number of legal issues that could interfere with classroom attendance and require a referral to legal services. If they are offenders they may have mandatory meetings with probation officers or there may be pending cases concerning housing, child support, divorce, or, if DV is being addressed, police orders for stalking. In one-on-one conferences, students and Case Managers should work to schedule and prepare for court cases as well as classroom responsibilities.

Immigrant Issues: Immigrants are likely to have unique issues that require attention. These include: obtaining and maintaining documentation or permission to work, language barriers around technical documents, understanding and knowing how to protect their rights on the job, and planning appropriately for trips back to their native countries (often people want to go back for longer periods of time than employers find acceptable). There may also be other cultural differences that make adjustment to the work environment difficult. Case Managers will need to be able to talk through these issues with students in conjunction with workshops and/or information sessions on those topics that are most critical to groups of students.

Monitoring Student Progress

Case managers must track the results of each of their interactions with students. Databases should be set up to correlate the results of the intake interview, the service plan assigned, and the results of each of the student appointments with attendance, classroom progress, and completion data. Additionally, detailed case notes must be kept to record the decisions made, the goals set, the referrals made, and next steps planned in each session. This kind of record will help the program understand the relationship between different employment barriers and program success as well as the effectiveness of case management practices.

Instructional Support

A detailed structure for delivering instructional support is necessary for Bridge programs to insure that instructors are meeting students' academic needs on a continual basis.

Meetings that address classroom management, curriculum development, and follow-up on classroom observations will help instructors communicate their needs, adjust their lesson plans, and develop their skills in accordance with Bridge program expectations. Program Coordinators need to be very active in the facilitation of these functions to build a positive culture of openness and creativity so they can impact the Bridge's bottom line: student retention and subsequent success on the job.

1. Classroom Management Meetings

Instructors need to discuss classroom difficulties and make plans to address them as they arise. Very often, educationally disadvantaged students have experienced a great deal of failure in classrooms and so they are likely to exhibit a wide array of behavioral responses. Conversely, instructors will have varying abilities and comfort levels with different kinds of behavior and may not always be sure how to respond in ways that settle students down and help them to focus. Should instructor/student tensions in the classroom be left unaddressed, they can easily intensify and affect the learning climate for other students. Thus, regular meetings that identify these issues, brainstorm solutions for particular students or groups of students, and make specific plans for immediate implementation are required. The kinds of plans that should be created for student can include instructor/ student conferences, Program Coordinator/student meetings, case manager/student appointments, and assignments to tutors.

Staff that should attend classroom management meetings include instructors, the Case Manager, and the Program Coordinator. In these meetings, instructors should identify attendance, tardiness, and behaviors issues, case managers are to give background on different students' issues (within the bounds of a clearly defined confidentiality policy), and the Program Coordinator should help to structure specific student plans based on each situation. These plans should be written down and assigned to appropriate staff with specific time frames and follow-up in subsequent meetings.

2. Placement Staffings

At appointed times throughout the session, instructors, case managers, and placement coordinators must meet to match internships and placement opportunities with appropriate students. Students' work readiness must be evaluated before they are placed, their progress in internships and in the classroom must be reviewed and evaluated, and recommendations of students for specific job opportunities must be made. Clear policies regarding matching of students with various kinds of activities should be set by the Program Coordinator to help facilitate the matching process.

3. Curriculum Development Meetings

Instructors and the Program Coordinator need to meet to review curriculum effectiveness. Systems for teachers to document the lesson plans they use will help instructors evaluate how different curriculum and different instructional approaches are working during each session. While there is standard curriculum for each course, instructors may need to modify their lesson plans to fit actual classroom situations. They may also discover that certain approaches to material work particularly well for a particular group. These adjustments should be recorded and any additional materials saved so that the curriculum can become richer and more finely honed to the population being served. Meetings to address curriculum effectiveness, creative alternatives, and necessary adjustments will help the program utilize instructor's creative powers and their insight into effective practices. These meetings will also give the Program Coordinator insight into each instructor's strengths and weaknesses, which can, in turn, suggest areas where coaching and additional training and development may be needed.

4. Observations

One primary way a Program Coordinator can support his instructors is through periodic observations. These observations must be oriented toward positive feedback and helpful ideas and suggestions so that instructors can come to feel that the intrusion of an observer in his or her classroom is ultimately a very useful thing. Typically, instructors don't get a lot of feedback about their work, being isolated from colleagues as they are in the classroom, and are usually grateful for feedback if it includes useful ideas and suggestions within an essentially positive response. Observations that are critical or even slightly disrespectful of the instructor in their working space can be very disruptive. Thus, Program Coordinators must be clear about the boundary issues inherent in observations, communicate their understanding of the instructor's needs and reassure instructors that the experience will be a positive one. These reassurances then must be followed up with actual observations that create trust and strengthen the instructor's relationship with the Program Coordinator.

To achieve these ends, observations should be structured with the use of two simple headings: "Why the Class Worked," and "Ideas and Suggestions." While doing an observation, Program Coordinators must sit at the back of classrooms as unobtrusively as possible and note each time something positive happens in of the class as well as specific instances of question or concern. Observations can include the instructor's:

- demeanor with students in specific instances
- strategies for creating a focused learning atmosphere
- ability to structure class time with different types of activities
- management of interactive activities
- clarity of instruction.

Next, the Program Coordinator needs to write up the meeting notes. Under "Why the Class Worked", list all the things that went on in the class that reflected the instructor's skill at

structuring and implementing lessons and dealing effectively with students. Even if the class was a difficult one and instructors exhibited some real weaknesses, a list of positives aspects is still necessary. Then, the Program Coordinator must review notes on instances of question or concern and create specific ideas or suggestions that the instructor might consider for future classes. These ideas or suggestion should lead instructors to new books, materials, and/or lay out detailed new activities and approaches. In other words, these suggestions must be presented as useable ideas or tools that the instructor can adapt easily into the classroom.

Lastly, the Program Coordinator must meet with the instructor to go over the written observation and to discuss the instructor's thoughts or questions. These feedback sessions give both parties the opportunity to ask questions, clarify their views, and to come up with plans or goals. These feedback sessions are a great way for instructors and program coordinators to come to understandings about expectations, learn new ways of creating lesson plans, and develop best practices for student interaction.

Once Program Coordinators and instructors have become comfortable with the basic observation process, they may want to experiment with two other types of observation can be experimented with -- instructors observing Program Coordinators and instructors observing instructors. In order to implement the former observation type, Program Coordinators should have strong classroom teaching experience. Should this be the case, Program Coordinators can model particular lesson plans or approaches to teaching for the instructors to observe. Instructors can be asked to evaluate the Program Coordinator's teaching using the same observation structure the Program Coordinator uses when they evaluate the instructors. This approach allows Program Coordinators to train instructors to use different teaching styles through demonstration and allows instructors to learn good observation techniques.

The latter type of observation - instructors observing instructors - can be valuable once everyone in the program is comfortable with observations, understands how to do them, and has been instructed to follow the protocols detailed above. The strengths of this type of observation are that instructors can be exposed to and learn from a wider range of teaching techniques and approaches as well as give each other support. Adopting these practices will also contribute to a culture of staff learning, which will affect overall morale, and, usually, the quality of the instruction.

5. Assessment of Student Learning

Aside from traditional forms of assessment of student learning - quizzes and tests, a Bridge program can build in other forms of assessment that emphasize hands-on competencies. Projects completed in the machining lab can be presented and displayed, demonstrations of machining skills can take place before employers involved in the Employer Advisory Committee, and skills learned on internships can be demonstrated before students. Additionally, Bridge programs might want to adopt a portfolio method of assessment. This

method has instructors collect a broad range of materials completed as a result of the session and the portfolio is then evaluated as a whole. With this method, writing skills, finished project, and overall development can be gauged in ways standard-testing methods won't allow.

6. Faculty Training and Development

In addition to the routine on-site training and development activities recommended here, Bridge programs should consider more formal training and development opportunities for their instructors. In order to stay abreast of developments in manufacturing, associations and other groups representing particular industries should be contacted to make presentations. Professionals in the Tech-Prep field may also be called upon to update instructors on teaching techniques, materials, and innovations. Conferences designed for Tech-Prep staff may also prove useful.

Job and College Placement

The Placement Coordinator is the pivotal player in arranging opportunities to help students cross the "bridge" between training and employment. The Placement Coordinator must maintain close contact with students and employers to involve them in pre-employment activities, internships, and placement opportunities. To appropriately match students to jobs, Placement Coordinators must also stay in contact with personnel at the employment site to get a picture of students' progress. To coordinate all these activities, Placement Coordinators need systems to structure employer recruitment, schedule pre-employment activities, and to follow-up on internships and placements. Program and Placement Coordinators should work together to plan and schedule all the activities that will make this "bridge" successful.

1. Pre-Employment Activities

Bridge programs need to involve students in pre-employment activities to give them as much hands-on exposure to the work environments as possible while they are in training. Each Bridge program must decide which pre-employment activities they want to make available and integrate these choices into the program. Instructors, the Program Coordinator, and the Placement Coordinator should make these decisions together so they can determine how to integrate them with the curriculum and when to schedule them. We list and describe possible pre-employment activities below:

Field Trips: Field trips to manufacturers and community colleges can help students get a clearer picture of their post-Bridge options. These trips can be linked to classroom exercises where students prepare interview questions about career ladder opportunities and business practices. Students can also be asked to write reports on these trips based on the

information they learned. Program and/or Placement Coordinators, must make the arrangements with the employer or community college, to arrange transportation, and to structure the activities during the field trip.

Job Shadowing: Job shadowing pairs students with specific workers whom they will follow and observe for a portion of a day. Employees involved in this activity may be asked to give a detailed narrative about the individual job and how the plant functions as a whole. Students may have prepared questions they ask their “hosts” that later become reports back to the class. Placement Coordinators will need to make arrangements with employers, employees, and students to set job shadowing situations up.

Guest Speakers: This classroom option works best when it is integrated into the curriculum. Instructors and Placement Coordinators should work together to identify and recruit employers to come at intervals during the term that make sense in relation to classroom activities.

Role Model Panels: Role Model Panels are made up of small groups of past participants who went through the Bridge Program and who come back to report on their experiences at work. Such Panels can give present students insight into the kinds of changes they can expect, the obstacles they are likely to face, and tips on how to deal with them. Role Model Panels are highly effective because students identify strongly with the Panel members. Again, Placement Coordinators should work with Instructors to place these Panels at strategic intervals within the term. Role Model Panels may also work well as a follow up to field trips and job shadowing, as returning employees can give further insight into the situations they have experienced.

Job Club: Job Clubs are useful if there are a number of students and/or graduates who are looking for work. In Job Clubs, Placement Coordinators teach students/ graduates skills they will need for doing job searches. Often, Club members create goals for the coming week and report back to the Club on the results of their activities. Job Clubs are good opportunities for students to give each other support as they go through this uncertain time. Placement Coordinators can also work with members of this club to hone resumes and interview skills.

Portfolios: Bridge programs may decide to have students compile portfolios of student work and achievement to be used as a powerful interviewing tool. Portfolios are compilations of materials such as blueprints created by the student, final projects, transcripts, and certificates. These select materials are then bound into a formal booklet that students can take with them when they interview. These portfolios may give students confidence in interviews, as they help students present themselves in a structured manner using tangible displays of their accomplishments.

2. Internships

Bridge programs may offer employers and students the opportunity to be involved in an internship program. Employers find internship programs attractive because they can assess potential employees before hiring them. Internships also work well for students because it gives them a trial run at a part-time job situation that won't have harsh consequences if there are difficulties. Additionally, Bridge program personnel can work with students while they are in their internship to turn issues on the job into learning opportunities.

Bridge programs should carefully think through how they want to select students for internships. Internships could be for students who need more work experience before they are placed or they could be the top students who employers are sure to hire. The first strategy asks more of program personnel who would need to be more involved in the internship experience to make it work. However, this strategy may improve the program's overall placement rates and may be worth the extra effort. On the other hand, the program may decide that creating good relationships with employers comes first because it may lead to more placements for more students down the line and so decide to place only their best students. These different internship selection strategies may also be more appropriate at different times in the program's overall development.

Yet, regardless of the policy a Bridge program adopts, the relationship between the program, the employer, and the student needs to be carefully charted in an internship agreement. This internship agreement should reflect all the specifics of the internship program including work expectations and evaluation procedures. A fully detailed internship agreement should incorporate:

- Number of hours and length of time of the internship.
- Attendance/promptness expectations on the job.
- Reminder of attendance/promptness expectations in the classroom continue.
- Consequences for violations of these expectations.
- Communication pattern between the program and the supervising employee.
- Intervals for employer/ supervisor evaluations that are distributed and collected by the Placement Coordinator.
- Conditions for permanent employment opportunities.

3. Employer Recruitment and Job Search Assistance

Placement Coordinators need to create materials and clear methods for communicating the menu of services and opportunities the Bridge program offers employers. The menu of services and opportunities could include:

- Employer Advisory Committee membership.
- Specific pre-employment activities.

- Internship placements.
- Trained entry-level employees.

Flyers, letters, faxes, and presentation materials must integrate all these options into quick, easy-to-read and easy-to-digest information that doesn't overwhelm a prospective Bridge graduate or employer with too much information, or threaten to take up too much of his or her time. Placement Coordinators must think through the best strategy for introducing the program to employers, getting appointments, and presenting all the options so that the employer understands that involvement with the program will be well worth the time. Often, by highlighting the fact that the Bridge program produces skilled employees, Placement Coordinators can capture employers' interest, after which the other services and opportunities may be introduced.

Once Placement Coordinators find placement opportunities, it is important that the program have clear policies about matching placement opportunities with students. Regular meetings with instructors and case managers should take place so that Placement Coordinators are equipped to make the best matches.

4. Communication with Employers (Supervisors) on Intern and Graduate Performance

The Placement Coordinators follow up on students placed in employment is very similar to that for internship agreements. Thus, programs should develop policies about internships and post-program placement in tandem. In the best case scenario, the Placement Coordinator, employer, supervising employee, and the intern or new employee should play a role in the follow-up, and these roles should be communicated to each party clearly before a placement is made. Below is a description of each of the roles in an internship or placement situation:

Supervisor Contact: The supervising employee needs to be in close contact with the Placement Coordinator to report any absences, tardiness, or other performance issues. It is recommended that supervising employees be encouraged to report these incidents within a day of when they occur.

Employer: The employer and/or supervising employee needs to give formal evaluations to new employees at regular intervals. These evaluations should be easy and take very little time to complete. This can be accomplished by designing a form that has check-off sections on attendance, on-time behavior, overall performance, communication skills, and teamwork. However, it is important that employers and/or supervising employees have structured discussions with their intern or new employee regarding these evaluations and allow them to set clear goals to accomplish by the next evaluation.

Interns or New Employees: Interns or new employees are responsible for communicating with the Placement Coordinators about how the placement and their adjustment to it is going. Programs may decide this means the intern or new employee should make regular

phone calls, stop in at the program, meet the Placement Coordinator at the employment, and/or do written evaluations at specified intervals.

Placement Coordinator: The Placement Coordinator needs to coordinate communication with all the players. The person in this position should:

- Sit down with each player to lay out expectations and schedules
- Respond to calls from the supervising employee regarding intern or new employee behavior either with phone calls or site visits
- Distribute and pick up evaluations at the needed times
- Keep in contact with interns or new employees regarding their progress and needs.

Bridge programs should create clear policies to structure, the Placement Coordinator's follow-up activities designating exactly what kinds of interactions between the players needs to happen before, during, and after a placement, how long post-placement activities need to go on, and what aspects of the whole process must be tracked. With a fully articulated placement system, Bridge programs will be able to measure results and, subsequently, work to hone their placement and post-placement efforts to best effect.

Sustaining Bridge Programs

Continuous Improvement and Program Evaluation

In setting up each component of a Bridge Program – recruitment and intake, case management, instruction and instructional support, and placement– it is important to define the tasks required and how each will track student progress. Tracking systems for each component should be easy to use, useful to the person using them, and capture the information the program will need for evaluation. Both internal and external evaluation processes are necessary to ensure the program intentions are being translated into effective program delivery and clear results exist to demonstrate its effectiveness. Internal evaluations will allow personnel to give input and get feedback on program performance and external evaluations will allow the whole program to see itself through outsiders’ eyes. Both sets of efforts are essential to improve program practices as well as continue to pursue funding that will support the program over the long term.

Continuous Improvement: Embedded in this guide are the recommendations for tracking systems and the kinds of meetings necessary to review this information and plan changes. A review of these for each of the program components is summarized in the table below:

Program Component	Information to be Tracked	Planning Meetings
Recruitment and intake	<ul style="list-style-type: none"> • records of calls, appointments, presentations at each organization contacted • number of people who show up to information sessions as a result of each effort • students test scores • number from each effort that enrolled in the program. 	<ul style="list-style-type: none"> • Program and Placement Coordinators need to meet after the beginning of each term to evaluate the efforts of the past term and plan for the next.
Case management	<ul style="list-style-type: none"> • results of the intake interview • service plan assigned • results of each of the student appointments • attendance, classroom progress, and completion data 	<ul style="list-style-type: none"> • Case Managers, Instructors, and Placement Coordinators need to meet regularly to review student progress and action plans. • Program Coordinators and Case Managers need to meet at the end of each

	<ul style="list-style-type: none"> detailed case notes that include goals set, the referrals made, and next steps planned in each session. 	<p>term to evaluate past practices and adjust service plans.</p>
Instruction	<ul style="list-style-type: none"> student progress records that include assignments, test scores, attendance, tardiness adjustments to specific lesson plans with materials for each lesson plan saved in notebooks 	<ul style="list-style-type: none"> Classroom management meetings. Curriculum development meetings. Meetings with Case Managers and Placement Coordinators to go over student progress.
Placement	<ul style="list-style-type: none"> employers contacted by phone, fax, appointment results of contacts students involved in pre-employment activities students involved in internships contacts with supervisors/ employers / students in internships or placements employer evaluations of interns or placements 	<ul style="list-style-type: none"> Program and Placement Coordinators need to meet at regular intervals to review employer prospects and the progress of interns and placement.

In addition to Program Coordinator meetings, each program area should produce a report that is presented to a larger meeting of program representatives. This meeting will allow personnel from each component to see the program as a whole and make recommendations for improvements in areas outside their own. These reports should also be used in regular performance reviews where goals for individual improvement can be charted and revisited.

Program Evaluation: At larger intervals an outside source should be brought in to do a full program evaluation. This evaluation should review all the reports from the different program components, interview program staff to get their insight into program operation, and develop a written report. This report should summarize present systems, highlight outcomes already achieved, indicate areas of weakness, and make recommendations for improvement. Program staff should then review the program evaluation and meet to define and plan needed responses.

Funding Strategies

1. Fee-for-Hire

Bridge programs should consider the possibility of marketing customized on-site Bridge programs to interested employers. Many employers have groups of employees who need Bridge training to move up into more skilled positions within their companies. Selected Bridge program personnel could work with employers to customize and then set up classes at employer sites. Employers should pay for the cost of instructors, materials, and program monitoring.

This arrangement will allow more employees to take advantage of Bridge training, as it is often hard to get incumbent workers to add rigorous training to their schedules unless it is close at hand and tied to clear career ladder opportunities. This arrangement will also allow employers to invest in training for the proven employees needed to fill critical positions.

2. Sustaining Industry Involvement

In order to sustain the viability of Bridge programs over time, it is essential to maintain industry involvement. The more industry is involved in and can promote the program, the easier it will be to attract new industry interest and maintain a smooth flow of internship and placement opportunities. Having and expanding a strong Employer Advisory Council is key to this effort. However, the program should also make other efforts that require less time commitment to attract industry involvement. Regular award dinners for employers and graduates and other similar strategies may help to create long-term partnerships with employers who will then come back to the program to for future hires. Program Coordinators and other high level staff should be involved in these efforts to make sure they achieve a profile.

Appendix

Employer Focus Group

Sample Agenda

Purpose and Introductions (15 min.)

A. Hiring Needs (25 min.)

1. How many new employees have you hired in the past year? For what positions? How many do you expect to hire in the coming year?
2. What qualifications are you looking for in applicants for these positions?
3. Do you have difficulty filling job openings? For what positions? What is the problem?
4. What positions do you think will be most in demand by Chicago-area firms in your industry over the next 2-3 years? How will the qualifications for these jobs differ from those of jobs currently in demand?

B. Recruitment (20 min.)

1. How do you recruit for job openings?
2. Do you use temporary employment firms? For what positions? How well has this worked?
3. From what sources or methods do you have the best luck getting qualified candidates?
4. Do you recruit from the local community? If yes, what has been your experience? If no, why not?

Break (10 min.)

C. Screening and Selection (20 min.)

1. What is the process by which job applications are reviewed?
2. What is your firm's interview procedure?
3. Do you use tests to screen applicants? If yes, what tests and how are they evaluated?
4. Do you do drug testing? Criminal background checks?
5. What are the most common reasons that applicants are rejected?

D. Retention and Training (25 min.)

1. Do you have a turnover problem? For which positions? What are the causes?

2. What does your firm do to retain qualified employees? What methods are most effective?
3. Would you say your company generally promotes within? For which positions?
4. What are the advancement paths for employees in lower-level positions? What are the requirements for advancement? What factors prevent employees from advancing?
5. What training do you provide employees? Who provides the training? Have you been satisfied with this training? Why or why not?
6. What training that you do not currently provide would you like to offer your employees?

Follow-up Plan (5 min.)

BRIDGE PROGRAM OVERVIEW

PRE-PROGRAM ACTIVITIES

PROGRAM DELIVERY

PLACEMENT

