

Farther, Faster

Six Promising Programs Show How Career Pathway Bridges Help Basic Skills Students Earn Credentials That Matter



AUGUST 2011 | JULIE STRAWN

Students forced to complete a long sequence of remedial or English language classes before they can begin their postsecondary program rarely earn college certificates or degrees.¹ This brief highlights six promising programs that show how career pathway bridges help lower-skilled students move farther and faster along college and career paths through dual enrollment in linked basic skills and occupational certificate courses. Because creating such bridges requires collaboration across college silos, they can also transform the way colleges operate.

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Career Pathway Bridges for Basic Skills Students

Career pathways provide a framework for mapping education and job opportunities in an industry or occupational cluster. They offer a series of education and training programs and support services that enable individuals to get jobs in specific industries and advance over time by successfully completing higher levels of education and work.² Career pathways provide a way for colleges to give students more clarity and structure in occupational programs. Research on community college students finds that many are bewildered by the complexity of choices they face in postsecondary education.³ This may be one reason for the rising popularity of for-profit institutions, which often offer transparent packages of courses for specific career goal.

“Career pathway bridges,” a term coined by Wisconsin’s technical colleges, are an extension of the career pathways concept, but are designed specifically to meet the needs of lower-skilled adults and youth. These bridges provide targeted basic skills or English language help to lower-skilled students to enable them to enter and succeed in career pathways. While there are many variations of career pathways bridge models, they share some common elements. Career pathway bridges typically:

- **Combine basic skills and career-technical content**, including general workforce readiness skills, pre-college academic and English language skills, and specific occupational knowledge and skills, supported by comprehensive student services.
- **Contextualize basic skills** and English language content to the knowledge and skills needed in specific occupations.
- **Use new or modified curricula** with identified learning targets for both the academic and occupational content, articulated to the next level in the college and career pathway.
- **Change how classes are delivered**, using such strategies as dual enrollment in linked basic skills and occupational courses; integrated, team-taught basic skills and occupational courses; and, enrolling students in cohorts (also known as learning communities or managed enrollment).

- **Support student success** through comprehensive student services, often including a point of contact who helps students navigate through college advising and financial aid services, connects students to other public benefits, and works with students to problem solve as challenges arise that could derail progress.
- **Connect to local employer and community needs** by engaging key partners in design and implementation of bridges, such as employers, unions, workforce development boards, community-based organizations and foundations.

Career pathway bridges are a relatively new approach to basic skills and career-technical education. Consequently, little independent research has been conducted on their effectiveness, though local programs report promising early results. The most rigorous research to date is a 2010 study by Columbia University on the effectiveness of Washington State’s I-BEST program, which pairs basic skills and career-technical instructors in the same classroom to teach integrated occupational certificate and basic skills content. The study finds that I-BEST students are 56 percent more likely than regular adult basic education and ESL students to earn college credit, 26 percent more likely to earn a certificate or degree, and 19 percent more likely to achieve learning gains on basic skills tests—or more simply, as Washington puts it, I-BEST moves students “farther and faster.”⁴



Figure 1. Minnesota FastTRAC Model
Source: Minnesota State Colleges and Universities, Minnesota Department of Employment and Economic Development, and Minnesota Department of Education

In addition to the I-BEST study, considerable research exists on individual elements of bridge programs, such as dual enrollment, contextualization, enhanced student services, and learning communities.⁵ This research suggests that these can be effective strategies for improving student completion of basic skills coursework and for increasing enrollment in and completion of college-level courses. While the impact of any one of these strategies alone is often modest, the I-BEST experience lends weight to the idea that such strategies may have more impact when combined, as they are in career pathway bridges.

initiative (see Figure 1). At the lower levels of adult basic education and English language instruction, career pathway bridges (sometimes called “pre-bridges”) tend to focus initially on career exploration and planning or on introducing students to broad concepts, vocabulary, and career opportunities in a specific sector. For example, a health care pre-bridge might include medical terminology and visits to health care workplaces to learn about the range of job opportunities in that sector. These types of pre-bridges tend to be delivered solely by basic skills instructors, either within adult basic education (ABE) or developmental education. Higher levels of career pathway bridges are typically more narrowly focused because their goal is to help students prepare for and succeed in specific occupational certificate programs within a career pathway. These bridges are typically jointly planned and delivered by basic skills and career-technical education (CTE) instructors. (For more on adult basic education,

developmental education, bridge programs and other basic skills innovations, see CLASP March 2011 report, *Beyond Basic Skills: State Strategies to Connect Low-Skilled Students to an Employer-Valued Postsecondary Education.*)

Standardized test scores are commonly used to determine which students can be served at what level in career pathway bridge programs. However, other factors can be equally or more important in predicting student success, such as personal motivation, financial stability, social supports, a sense of career direction, and work experience relevant to the occupational program.

Dual Enrollment Career Pathway Bridges: Earning Credits and Credentials Right From the Start

Dual enrollment career pathway bridges enable basic skills students to begin earning a postsecondary occupational credential right away, without having to first complete a sequence of adult basic education, English language, and developmental education services. Like dual enrollment options for high school students, students enrolled in these bridge programs work to master pre-college reading, writing, math or English language skills while also beginning their postsecondary program coursework. Dual enrollment career pathway bridges offer two key advantages over traditional, sequential approaches to remediation:

- **Students can immediately see how their basic skills class work will help them succeed in their postsecondary programs and, ultimately, in their careers.** The basic skills curriculum is contextualized to the occupational content covered in the postsecondary coursework. Often students use the same technical textbooks and technical manuals with the basic skills instructor as they use with the CTE instructor.
- **Students can enter a program of study from the very beginning of their postsecondary experience while still receiving support to improve their basic skills.** New research shows that the sooner students enter a program of study, the more likely it is that they will complete a certificate or degree or transfer to a four-year institution. Specifically, research found that students who entered a program of study in their first or second term were twice as successful in completing a certificate, an associate degree, or transferring as students who did not enter a program of study until their second year.⁶

There are two main types of dual enrollment career pathway bridge models. Under one approach, students dually enroll in closely linked, separately taught, basic skills and occupational certificate courses. In the other approach, basic skills content is integrated directly into an occupational certificate course, which is team taught by basic skills and CTE instructors. To be successful, both approaches require joint planning and ongoing, close coordination between the basic skills and CTE instructors. This allows the basic skills content to be contextualized to the occupational field and concepts to be taught in a sequence and manner that reinforce both basic skills and CTE learning targets. It is important to note that students in these kinds of dual enrollment models must meet the same standards for adult basic education learning outcomes and for CTE education outcomes as other ABE and CTE students.

Whether colleges use the paired course approach or the integrated course approach, they typically enroll students in cohorts and work to connect students to comprehensive services, such as financial aid, academic advising, and other supports. In practice, these two approaches are sometimes combined. For example, in many of the I-BEST programs in Washington State, the integrated I-BEST course is paired with a linked, contextualized basic skills

support course that provides additional help to lower-skilled or limited English proficient students.

Dual enrollment career pathway bridges are usually targeted to students with basic skills at roughly the 6th grade level or higher and ESL students at level three and higher. Some of these bridges require students to have a high school diploma or GED; others do not. Bridges that require a high school credential often do so because employers in a particular industry such as health care require one. Some other industries, such as construction and manufacturing, are more flexible. Even if not required, these models generally support students to earn a high school credential along the way if that is their goal.

Paired Basic Skills/CTE Models

Students dually enroll in closely linked, paired basic skills and occupational certificate courses. Basic skills course content is contextualized to the occupational course material.

- South Texas College, McAllen
- Lake Land College, Mattoon, Illinois
- Portland Community College, Oregon

Integrated Basic Skills/CTE Models

Students enroll in courses that integrate occupational certificate course content with basic skills content. Students sometimes also dually enroll in a basic skills support class whose content is contextualized to the integrated course.

- Lower Columbia College, Longview, Washington
- Western Technical College, La Crosse, Wisconsin
- Saint Paul Public Schools ABE/Hubbs Adult Learning Center, Ramsey County WIB, and St. Paul College, Minnesota

Some examples of these two approaches to career pathway bridges appear below. Many other examples can be found elsewhere, such as in resources from the [Breaking Through](#), [Shifting Gears](#), and [California Basic Skills](#) initiatives or in resources from states with extensive career pathway bridge efforts, such as [Illinois](#), [Minnesota](#), [Washington](#) and [Wisconsin](#). (See the Appendix for more information.)

Paired Basic Skills/CTE Models

South Texas College, McAllen, Texas

South Texas College offers basic skills students the opportunity to earn college credits and occupational certificates through dual enrollment in contextualized English language and math classes, technical Spanish classes (which cover occupational knowledge and vocabulary in the students' native language), and college-level occupational courses. Through this dual language bridge model, basic skills students without a high school diploma or GED can complete three occupational courses in the Green Construction pathways (which include HVAC/Refrigeration, Plumbing, and Electrical). While the initial classes in the "on ramp" portion of these

"I never thought I would come to school. I thought it was too late. I didn't think there was an opportunity for somebody without a GED to get back into college."

- Cassandra Robles, Student, South Texas College

pathways are noncredit, students automatically receive transcribed college credit for them upon enrolling in the next level up in the pathway (see Figure 2). In addition, when credit for the initial courses has been awarded, students without a GED can qualify for federal student aid through the new option of demonstrating "Ability to Benefit" on successful completion

of six credits rather than through passing Ability to Benefit test (see Figure 3).⁷

For students who have a GED or high school diploma, the college has a fourth dual language pathway in health care. Students move through all of these pathways in cohorts and, as they move into higher level courses in each pathway, students also take a college success course. Recruitment for the bridges and support services for students are coordinated by VIDA, a community-based workforce development group. The program also includes a partnership with the local workforce board which, together with VIDA, pays the cost of tuition and fees along with other support services such as childcare, textbooks, and gas vouchers. Though these bridges are relatively new, student retention in the initial cohorts has been very high and the college hopes to expand this bridge model to other occupational programs in the future.

Figure 2. South Texas College Accelerated Electrician Career Pathway (for students with a high school diploma or GED)
Source: South Texas College

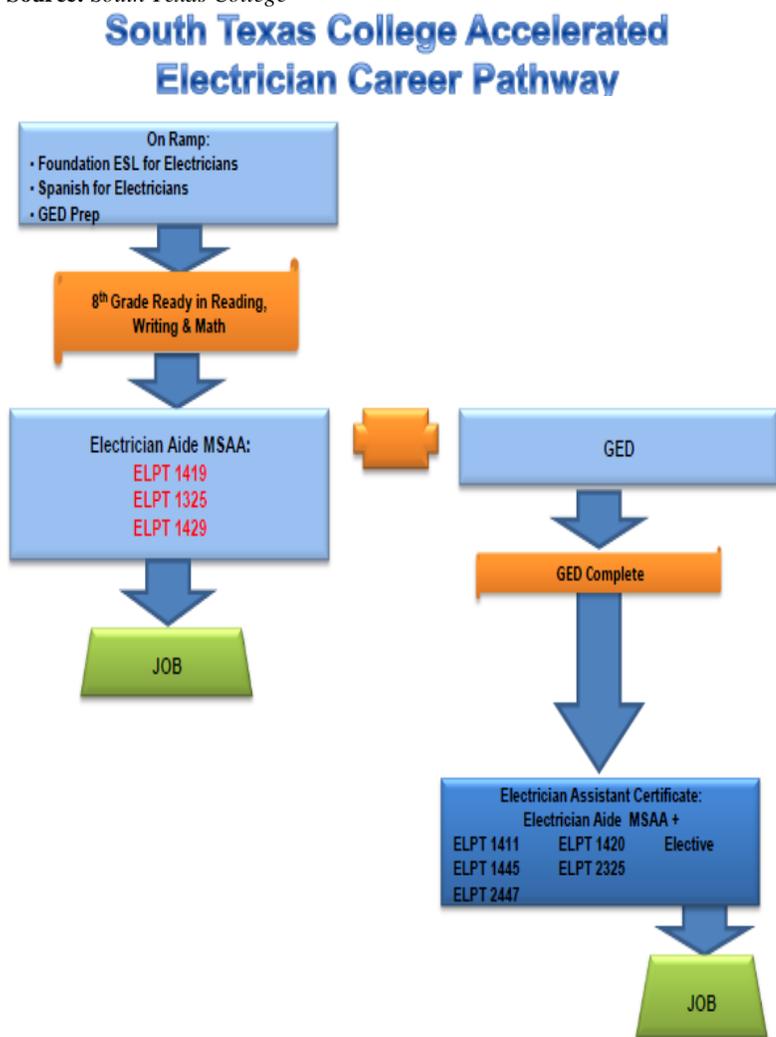
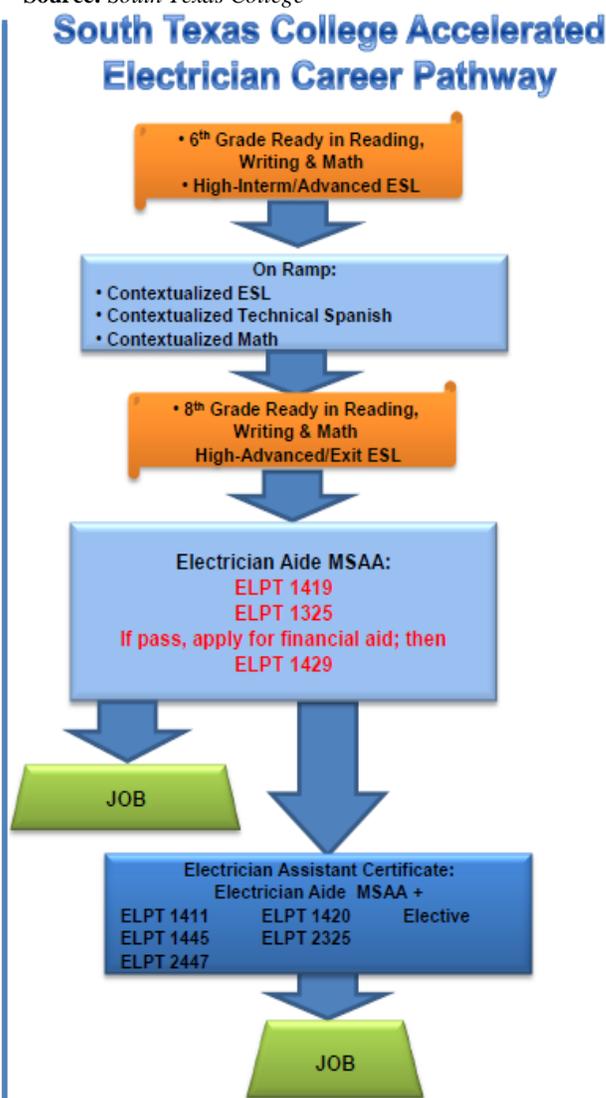


Figure 3. South Texas College Accelerated Electrician Career Pathway (for students without a high school diploma or GED, using Ability to Benefit option)
Source: South Texas College



Lake Land College, Mattoon, Illinois

In the fall of 2010, Lake Land College launched a Transportation Bridge Course which helps students who test into developmental reading and writing succeed in for-credit, transportation certificate programs at the college. Students dual enroll in this bridge course and in one of the transportation CTE programs: Automotive Technology, Automotive Mechanic, or the John Deere Technology program. Most of the students in the bridge to date have enrolled in the John Deere program, which also places students in paid internships with Deere dealerships. To create the bridge, Lake Land kept the learning targets for the regular developmental reading course but contextualized the curriculum to the content taught in the paired CTE courses, often using actual technical materials from the CTE courses like the John Deere manual. The bridge course includes an introduction to the auto technology workplace, technical reading applications, Automotive Service Excellence (ASE) certification reading requirement goals, and the use of work-based scenarios to practice appropriate listening, reading and communication skills. Students in the course also explore various educational options from certificate to AAS degree and beyond and are assigned a Project Mentor, with whom they are required to meet throughout the course to support their success.

The bridge begins with an intensive four full days of contextualized, developmental reading instruction prior to the start of the semester. After the semester begins, this class continues to meet every other week. In addition, the fall 2010 bridge course students voluntarily decided to hold study sessions every day as a group, coming to the college an hour before regular classes begin to do so. Students enter the course with reading and writing skills at the 7th or 8th grade level; the goal is to raise those skills to at least

"The classes are a lot of fun. They're really technical and hands-on, which is how I like to learn."

- Chad Blaney, Student, Transportation Bridge Course, Lake Land College in a student testimonial for the Shifting Gears initiative.

"If I had come into this class and they had made me read stuff I wasn't interested in, I would have dropped out."

-James Schoonover, Student, Transportation Bridge Course, Lake Land College



Students in the Transportation Bridge Course at Lake Land College.

the 10th grade level by the time they finish the course. The entire fall 2010 bridge cohort passed the course with a C or better. Other occupational programs at Lake Land have been so impressed with the transportation bridge that they are asking for their own bridge courses. The college is developing six additional bridges to start in the fall of 2011. Lake Land's bridge efforts are supported by the Illinois [Shifting Gears](#) initiative, which has led to more than 30 adult basic education bridge programs across the state and is currently piloting six developmental education-CTE bridges.

Portland Community College, Oregon

Since 2009, Portland Community College (PCC) in Oregon has offered English language learners the opportunity to earn college credits and an occupational certificate through dual enrollment in contextualized English language classes and college-level career pathways certificate courses. Currently ESL students with a high school diploma (from either the United States or their home country) or GED can earn a Basic Computer Applications certificate

(called CASOL, carrying 13 quarter credits) or an Entry-Level Accounting Clerk certificate (called VELAC, carrying 14 quarter credits). Each certificate is embedded within a full career pathway at the college.

Figure 4. Course Design for the Portland Community College CASOL Program
Source: Portland Community College

• **Course Design: CASOL**

| Pre-requisites: | Bridge Term | Term 1 | Term 2 |
|---|--|---|--|
| CASOL: ESOL Level 5 (placement into or previous enrollment through Level 4) | ESOL Support Class (Credit or non-option available) CASOL: Intro to Keyboarding (CAS 121) | ESOL Support Class (Credit or non-option available) CASOL: Keyboarding (CAS 122); Basic Computer Skills/MS Office (CAS 133) Internship – begin or explore | ESOL Support Class (Credit or non-option available) CASOL: Beginning Excel (CAS 170) and Beginning Word (CAS 216) Internship |

Students attend academic courses in addition to an ESOL Support Course.

Students move through these courses in cohorts over three quarters and, as part of the program, work in internships in their fields. A coordinator acts as a liaison between the different parts of the college involved in these career pathway bridges and supports student success in a variety of ways. Students also receive help with college and career planning. PCC plans to expand these dual enrollment ESL/career pathway certificate options, and is exploring which of its more than 30 existing [career pathways certificates](#) can be best adapted to the model. (Oregon’s statewide [Career Pathways Initiative](#) supports development of local pathways in a variety of ways.⁸) Though it has sometimes proved challenging to retain the same students for all three quarters, about two-thirds of CASOL students typically complete the program while the newer VELAC pathway has so far retained about 80 percent of its students through the first two terms.

• **Course Design: VELAC**

| Pre-requisites: | Term 1 | Term 2 | Term 3 |
|---|---|--|---|
| VELAC: ESOL Level 6 (placement into or previous enrollment through Level 5); Math 20 or test into Math 60 | ESOL Support Class (Credit or non-option available) BA 131 – Computers in Business BA 111 – Intro to Accounting | ESOL Support Class (Credit or non-option available) BA 228 – Computerized Accounting Internship – begin or explore | ESOL Support Class (Credit or non-option available) BA 101 – Intro to Business Internship |

Students attend academic courses in addition to an ESOL Support Course.

“I’m so happy I chose the Career Pathway Program, Office Skills Training. It is a unique opportunity for non-native speakers to realize their educational goals. In this program I earned a certificate. . . Also, I improved my English skills at the same time.”

-Mila Russell, Student, Portland Community College CASOL Program

Integrated Basic Skills/CTE Models

Lower Columbia College, Longview, Washington
 As noted earlier, Washington State’s I-BEST instructional model has a proven track record of helping students increase their basic and English language skills and earn college credits and credentials at much higher rates than similar students in traditional education courses (see page 2). There are currently about 2,900 I-BEST students and more than 140 approved programs statewide. At Lower Columbia College, students can choose from among five I-BEST occupational options and a new I-TRANS (Integrated Transitional Studies or Academic I-BEST) program, which applies the I-BEST model to integration of ABE, Developmental Education and college-level academic classes. An example of the original, occupational I-BEST model is the four-quarter I-BEST Business Technology–Administrative Support program, which includes two stackable certificates carrying 48 college-level, quarter credits. The certificates prepare students for careers as administrative support professionals in a variety of business and medical offices. Students also have the option of taking an additional 11 credits to earn the Medical Reception certificate. All credits for the certificates in Business-Technology-Administrative Support apply to the AAS degree. Students completing the initial two certificates have only an additional 31 credits to earn to complete their two-year degree in Administrative Support or an additional 39 credits to earn their AAS in Medical Administrative Support. Lower Columbia also has I-BEST programs in early childhood education, manufacturing, and health care.

I-BEST

If you need a little extra help to succeed, Lower Columbia College I-BEST is for you!

I-BEST = Twice the support at no extra cost!

I-BEST — Integrated Basic Education and Skills Training — programs have:

- Two instructors in all certificate courses
- Added hours to increase success
- Advising support
- Student teams for added support and time working with others

I-BEST Students:

- Earn a certificate in a high demand career and college credits toward a degree
- Increase reading, writing, math, speaking & listening skills
- Receive hands-on training

Need Financial Help?
 Don't let money discourage you from pursuing your education and pathway to a high demand job.

You may qualify for special funding if you are unemployed and receiving benefits or a dislocated worker. We will help you explore resources such as:

- Low-income Opportunity Grants
- Tuition payment plan
- WorkFirst funds
- Worker Retraining funds
- WIA funds
- VA benefits
- Traditional financial aid

Program Requirements:

- CASAS appraisal test with a minimum reading score
- Ongoing pre and post CASAS testing
- Background check and proof of a negative TB test for the Nursing Assistant and the Early Childhood Education programs.

It's easy to get started. If you're not enrolled in an ABE/ESL class, you need to take a CASAS appraisal. Free CASAS appraisals are given every weekday. Just contact the Transitional Studies office at 360.442.2580 for an appointment.

To learn more about I-BEST:
 Contact Jill Yates, Transitional Studies
 360.442.2584, jyates@lowercolumbia.edu
 Visit our website: lowercolumbia.edu/ibest

LOWER COLUMBIA COLLEGE
 . . . BE YOURSELF
 higher and hire

Figure 5. I-BEST Marketing Materials
 Source: Lower Columbia College

Western Technical College, La Crosse, Wisconsin
 Western Technical College in La Crosse, Wisconsin, offers three technical certificates in Computer Numeric Control (CNC) Machining operation, setup and programming, each carrying six college-level, semester credits (18 credits total) and all embedded within a one-year technical diploma in [CNC/Machine Tool Operation](#), which is part of an applied associate degree program. Basic skills students can earn those first three certificates in the career pathway through integrated bridge courses that combine technical content with pre-college math, reading, and study skills. Some of these classes feature team teaching of the integrated courses, with additional basic skills instruction supplementing it; other classes are paired with a contextualized basic skills support course. According to a case study of the program by the Center on Wisconsin Strategy, though the program was originally designed for the Hmong population, Western has found that other, non-ESL students such as dislocated and incumbent workers can also benefit from the integrated courses.⁹ Retention and completion has been very high in the initial cohorts. The curriculum for this bridge, as well as for two other bridges created through Wisconsin’s statewide career pathways initiative, are publically available.¹⁰ There are now 44 RISE career pathway bridge programs across Wisconsin, with 12 of the state’s 16 technical colleges offering such bridges.



Students at Western Technical College

Western Technical College – La Crosse, Wisconsin
 Thursday, August 13, 2009

**WTC CNC Machinist Bridge
 CNC Operator Certificate**

ABE Math (CNC Pathway) NRS 5 (2 Credits)
 ABE Reading and Study Skills (1 Credit)

integrated and/or paired with--

Manufacturing Math 1 (1 Credit)
 Blueprint Reading (1 Credit)
 Measurement and Inspection (1 Credit)
 Introduction to Machining (1 Credit)
 CNC Production Lathe: Operation (1 Credit)
 CNC Production Mill: Operation (1 Credit)

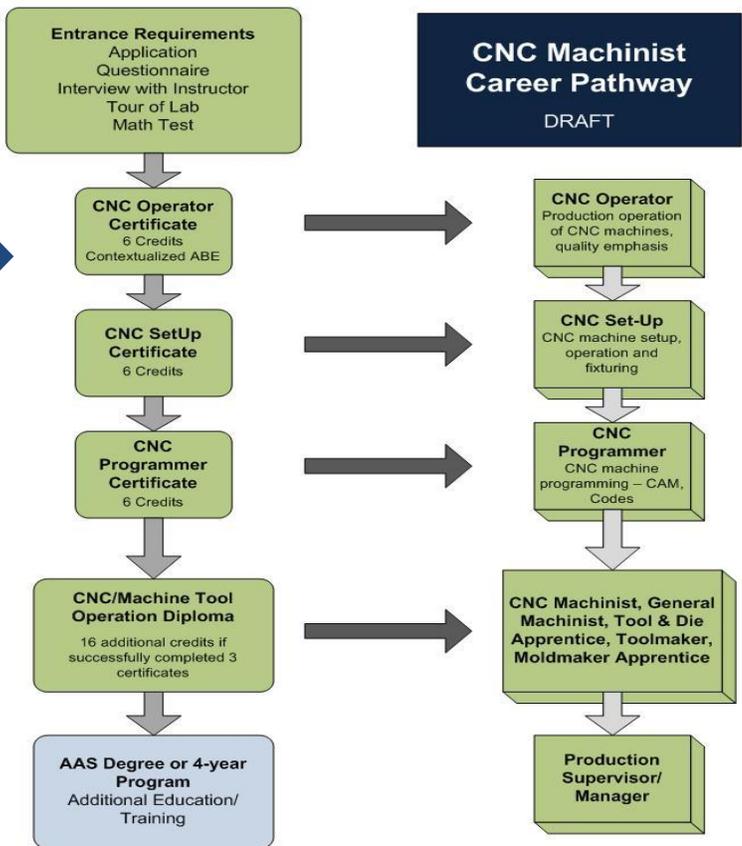


Figure 6. CNC Machinist Career Pathway at Western Technical College

Source: Western Technical College

Ramsey County WIB, Saint Paul Public Schools ABE/Hubbs Center, St. Paul College and Goodwill/Easter Seals, Minnesota

In Ramsey County, the Medical Careers Pathway is offered through a partnership of Ramsey County Workforce Investment Board, healthcare employers (led by HealthPartners), Saint Paul College, Saint Paul Public Schools ABE/Hubbs Center and Goodwill/Easter Seals. Partners also include Saint Paul Public Housing and additional workforce partners. Students in this program earn a for-credit Medical Records Clerk certificate which applies to the Medical Coding certificate. The integrated basic skills and technical content are team-taught by ABE and college CTE faculty, and a pre-program bridge course prepares ABE/ESL students to succeed in the integrated courses. The ABE instructor supports student success with additional reinforcement of technical content and contextualized basic skills in additional class time, beyond that of the integrated course. The bridge also includes computer literacy. The Central Point of Contact, based out of Goodwill/Easter Seals, provides career exploration and intensive student support. Participants are a diverse mix of ABE and ESL students, dislocated workers and incumbent workers. Health care employers are actively involved by providing work experiences and collaborating with the education partners to expand the pathway to meet other workforce shortages they face. Early outcomes are promising: of the 11 ABE students who transitioned from the pre-program bridge to the Medical Terminology integrated course, nine passed with a 3.0 GPA or higher and will continue their career pathway education next semester.

Integrated Instruction Example – Medical Office Career Pathway



Figure 7. FastTRAC Medical Office Career Pathway Program Model

Source: Minnesota State Colleges and Universities, Minnesota Department of Employment and Economic

Career pathway bridges not only change students' lives, they can also transform how community colleges do business.

When career pathway bridges use dual enrollment and link basic skills and CTE curriculum and learning outcomes, they transform the way community colleges operate. This occurs because these bridges:

- **Engage instructors and administrators** from basic skills (both ABE/ESL and developmental education), CTE, and student services in **joint efforts** to continually align bridge curriculum, instruction, and support services behind student success.
- **Bring basic skills students into the mainstream** of colleges in a way that makes them visible and valued as contributors to overall college success.

At minimum, career pathways bridges should create shorter, more relevant paths to credentials that matter in the local economy. Local flexibility to craft the right bridge approach is critical, as are some state parameters, based on the best available research about what works.

At their best, basic skills bridges can transform institutions. But how can a state or college know if its career pathways bridge efforts will lead to wider change? Answering the following four questions can help guide states and institutions to the right choices in bridge policy and practice. Is your career pathways bridge designed to:

- Change students' perceptions of their own possibilities and abilities?
- Change faculty and staff perceptions—from across basic skills, CTE, and student services—of basic skills students, each other, and each of their roles in helping students succeed?
- Build relationships among students, between students and faculty/staff, and among faculty/staff from different parts of college?
- Show in measureable ways how it contributes to the success of each of the partners and the college overall?

“The team-taught CNC operator certificate has not only benefitted students by giving access to training for those who might not have had it before, but it has also benefitted our staff by building new relationships between occupational faculty and basic skills faculty.”

- **Chad Dull, Dean of Instructional Support Services, Western Technical College, in *Building Bridges in Wisconsin: Connecting Working Adults with College Credentials and Career Advancement*, Center on Wisconsin Strategy, 2010**

Appendix

Breaking Through

Breaking Through is a national initiative that promotes and strengthens the efforts of 41 community colleges in 22 states to help low-skilled adults prepare for and succeed in occupational and technical degree programs.

<http://www.jff.org/projects/current/workforce/breaking-through/20>

Shifting Gears

Shifting Gears is a regional initiative of the Joyce Foundation that has helped Midwest states re-engineer adult education, workforce development and postsecondary education policies to support economic growth and expand job opportunities for low-skilled workers in the Midwest. <http://www.shifting-gears.org>

California: The Basic Skills Initiative

The Basic Skills Initiative was a grant funded initiative from the California Community Colleges Chancellor's Office (CCCCO) from 2006 to 2009. The initiative engaged in widespread dissemination of information on effective basic skills practices, professional development to allow colleges to examine their existing basic skills and ESL efforts and determine how to improve them, and grants to colleges to support new approaches.

<http://www.cccbsi.org>

Illinois: Shifting Gears and Accelerating Opportunity

Illinois supports basic skills innovation in adult education and developmental education programs in many ways, including by participating in Shifting Gears and in a new national initiative, Accelerating Opportunity. Illinois Shifting Gears resources can be found www.shifting-gears.org. Illinois Accelerating Opportunity resources can be found at <http://www.iccb.state.il.us/abe.to.credentials.html>.

Minnesota FastTRAC

Minnesota's FastTRAC, part of the Shifting Gears initiative, is working to provide greater opportunities for low-skilled adults to increase their basic and occupational skills and to acquire credentials that lead to family-supporting employment. Resources from FastTRAC are available on the state's website

<http://www.fasttrack.project.mnscu.edu> and on the Shifting Gears website, www.shifting-gears.org.

Integrated Basic Education and Skills Training (I-BEST)

Washington's I-BEST initiative, which pairs basic skills and career-technical instructors in the same classroom to teach integrated occupational certificate and basic skills content, posts many resources for policymakers and practitioners; see http://www.sbctc.ctc.edu/college/e_integratedbasiceducationandskillstraining.aspx and

<http://flightline.highline.edu/ibest/index.php> for more information.

Regional Industry Skills Education (RISE)

Wisconsin's RISE initiative, part of Shifting Gears, works to increase the number of low skill adults who earn postsecondary credentials related to high-demand jobs, primarily by developing career pathways, including basic skills bridge programs, throughout the state's technical college system. Resources on basic skills innovation in RISE can be found at <http://www.cows.org/pdf/rp-buildingbridges.pdf>, <http://risepartnership.org/default.htm>, and on the Shifting Gears website, www.shifting-gears.org

¹ For a review of this research, see: *Beyond Basic Skills*, Center for Law and Social Policy, March 2011, <http://www.clasp.org/admin/site/publications/files/Beyond-Basic-Skills-March-2011.pdf>.

² Davis Jenkins, *Career Pathways: Aligning Public Resources to Support Individual and Regional Economic Advancement in the Knowledge Economy*, Workforce Strategy Center, August 2006, http://www.workforcestrategy.org/images/pdfs/publications/WSC_pathways8.17.06.pdf.

³ Judith Scott-Clayton, *The Shapeless River: Does a Lack of Structure Inhibit Students' Progress at Community Colleges?*, Community College Research Center, Columbia University, January 2011, <http://ccrc.tc.columbia.edu/Publication.asp?UID=839>.

⁴ Matthew Zeidenberg, Sung-Woo Cho, and Davis Jenkins, *Washington State's Integrated Basic Education and Skills Training Program (I-BEST): New Evidence of Effectiveness (CCRC Working Paper No. 20)*, Community College Research Center, 2010, <http://ccrc.tc.columbia.edu/Publication.asp?UID=805>.

⁵ See the body of research on this summarized in *Beyond Basic Skills*. See also W. Charles Wiseley, Ed.D, *Effective Basic Skills Instruction: The Case for Contextualized Developmental Math*, PACE Brief 11-1, Stanford University, January 2011; and the eight papers in the Community College Research Center's Assessment of Evidence series, listed in *Introduction to the CCRC Assessment of Evidence Series*, Thomas Bailey, Shanna Smith Jaggars, and Davis Jenkins, CCRC, Columbia University, January 2011.

⁶ Davis Jenkins, *Get with the Program: Accelerating Community College Students' Entry into and Completion of Programs of Study*, Community College Research Center, Columbia University, April 2011, <http://ccrc.tc.columbia.edu/Publication.asp?UID=885>.

⁷ For more information on how students without a high school diploma or GED can qualify for federal financial aid, see: *New Path to Student Aid for Those with No High School Diploma or GED*, Center for Law and Social Policy, 2011, <http://www.clasp.org/admin/site/publications/files/Ability-to-Benefit-Final.pdf>.

⁸ For more information about Oregon's statewide Career Pathways Initiative, visit: www.pcc.edu/cp.

⁹ <http://www.cows.org/pdf/bp-WTCBridge-casestudy.pdf>.

¹⁰ Curriculum is available through the Curriculum Bank website: <http://www.curriculumbank.org/curriculumbank/index.pl?iid=17645>.