Despite the growth in adults participating in education and training during the 1990s, a large segment of the adult population does not engage in formal education beyond high school. National studies find more than half of working adults do not participate in postsecondary education and training of any kind (Lingenfelter & Voorhis, 2003). The financial well being of the individual and his or her dependents as well as the well being of the economy depend on a workforce that possesses knowledge and skills beyond high school (Bosworth et al., 2007). Increasingly employment that provides family-sustaining wages requires postsecondary education and training of one, two or more year’s duration. Adults who lack fundamental literacy and workplace skills are at much higher risk of living in poverty than individuals who participate in postsecondary education and training (Levy & Murnane, 2005). The national adult literacy surveys show getting and retaining employment is a particularly serious challenge for low-skilled adults (Kutner et al., 2007). Low pay and unstable jobs contribute to a cycle of poverty that is very hard to break (Hart-Landsberg and Reder, 1993).

In a widely cited study, Prince and Jenkins (2005) used student record data from the Washington State Community College and Technical Education System to report that low-skilled adults experience serious barriers to college participation and degree completion. Only 13% of non-native English speaking, low-skilled adults who start English Language Learning (ELL) programs persist to earn college credits; less than 30% of adult basic education (ABE) students make the transition to college-level courses. Referred to as the “tipping point” study, Prince and Jenkins found that adult learners who attend at least one year of college (equivalent to at least 30 credit hours) and earn a postsecondary professional-technical education (PTE) credential over as much as a five-year period experience a substantive boost in employment and earnings outcomes. Taking basic skills courses concurrently with college courses produces significant improvements in average rates of employment and quarterly earnings. Despite the potential benefits, these types of programs are relatively rare.

Increasingly, community colleges are exploring an array of programs and services that may address the needs of low-skilled adults (Grubb, Badway, & Bell, 2003), including non-credit ABE, GED, ELL, developmental (or remedial) education, and credit-bearing college-level instruction. Relatively short-term programs designed to help adults gain needed foundational skills and knowledge and transition into college, often called “Bridge programs” are increasing in number throughout the nation (Bosworth et al., 2007). These programs often integrate GED or developmental education with workforce training and PTE, drawing on funding from the Workforce Investment Act (WIA) and the Carl D. Perkins IV legislation. Alssid et al. (2002), Jenkins (2006), Henle, Jenkin, and Smith (2005) and others have called for “career pathways” that offer curriculum that extends beyond bridge programs, recognizing the importance of an entry point but calling for a sequential and sustained educational experience that leads to postsecondary credentials. The idea of career pathways that link adult education to college, particularly community and technical colleges, are receiving increased attention nationally (see, for example, Bragg et al., 2007; Jenkins & Spence, 2006). Fully implemented, career pathways offer a means of enhancing the economic and personal circumstances of low-skilled (low-income, low-literacy) adults, they suggest that improving the financial well-being of low-skilled adults would have important payoffs for the economy as well.

Despite these promising results, there is no disputing that low-skilled adults experience obstacles that impede their participation in and completion of formal education (Duke & Strawn, 2008). Economic, cultural, social or other factors often mitigate completion of high school, let alone continuation to college. Moreover, some postsecondary institutional and curricular policies and procedures marginalize low-skilled adults and magnify their hardships. Academic preparation is especially problematic, resulting in large proportions of incoming adults needing to participate in multiple remedial courses for which many never advance beyond the most rudimentary levels (Bailey, Jeong, & Cho, 2008).
completion of postsecondary programs is also exacerbated by inadequate student services to address the wide ranging challenges low-skilled adults experience in life (Matus-Grossman, Gooden, Wavelet, Diaz, & Seuersad, 2002). The presence of a professional who guides and supports adult learners has been shown by numerous studies to contribute favorably to the retention and success of vulnerable student populations, including low-skilled adults (Strawn, 2007).

Beyond the challenges of college attendance, employer skepticism about low-skilled adults’ ability to fulfill employment obligations creates hurdles at the hiring stage and limits opportunities for training in the workplace. Heck (2005) projects more than 63% of all U.S. job openings will require at least some postsecondary certification or associate, baccalaureate, or graduate degrees by 2014. The current economic crisis looms as a further complicating factor. The magnitude of the population currently in need of adult literacy coupled with the growing demand for increased literacy and the uncertainty of the economy presents a challenge to educators and policy makers alike (Mazzeo, Roberts, Spence, & Strawn, 2006). Attempting to find a solution to this problem, private and not-for-profit foundations, governmental agencies, and local institutions are working together to pilot new programs and determine their success in helping low-skilled adults to transition to college and ultimately secure family-sustaining wage employment.

BREAKING THROUGH

The Breaking Through (BT) initiative promotes an expanded and enhanced role for community colleges in providing access to college for low-skilled adults. BT is uniquely important in its systematic integration of adult education, developmental/remedial education, professional-technical education (PTE), and career planning and preparation in community colleges geographically distributed throughout the United States. Through the creation of a variety of models, BT envisions new, sequential curriculum and instruction to assist low-skilled adults to progress through adult basic education (ABE) and/or remedial/developmental education to college credit PTE course work that leads to family wage-sustaining careers.

The BT initiative originated with six leadership colleges and ten learning colleges funded by the Charles Stuart Mott Foundation and administered by Jobs for the Future (JFF) in association with the National Council for Workforce Education (NCWE). Leadership colleges receive funds to implement BT programs whereas learning colleges receive funds to support participation in professional development sessions that emphasize promising practices and program implementation strategies. Efforts to share knowledge and encourage communication among personnel associated with leadership colleges and learning colleges is referred to as “peer learning”.

Originally, six community colleges were designated as leadership colleges and awarded funding from the Charles Stewart Mott Foundation for program implementation extending from 2006 through 2008. A community college in North Carolina was added to the ranks of the leadership colleges soon after the program began, drawing on funding from the Glaxo-Smith Kline Foundation. In addition, ten learning colleges operated during the initial year, and that number has more than doubled. Again, the Glaxo-Smith Kline Foundation has been a generous contributor to supporting numerous community colleges in North Carolina to participate as learning colleges.

THE EVALUATION

The evaluation of BT focused on the implementation of programs and practices, as well as student participation and outcomes. Identifying the ways the low-skilled adult target audience was impacted by BT programs was an important concern to funders as well as local program developers and their community colleges. The evaluation design, including one-on-one and small group interviews, site visits, surveys, and review of documents and reports yielded an extensive amount of information to assess the BT initiative (Bragg & Barnett, 2007).
The preponderance of the evaluation focused on the initial six community colleges designated as leadership colleges: Central New Mexico Community College (CNM), Community College of Denver (CCD), Cuyahoga Community College (Tri-C), Portland Community College (PCC), Owensboro Community and Technical College (OCTC), and Southeast Arkansas College (SEARK). A limited amount of data was collection from the original ten community colleges that were designated learning colleges. A brief description of the programs offered by these colleges appears below.

THE LEADERSHIP COLLEGES

Central New Mexico Community College (CNM)

Goal: Create and demonstrate the success of a pathway for low-skilled students (<8th grade) into an apprenticeship or a certificate/degree program in the construction trades through a sequence of remedial/developmental education courses including contextualized pre-apprenticeship instruction.

Primary Target Population: Below 8th grade

Program Design: The Construction Apprenticeship program, located at CNM in Albuquerque, NM, provides accelerated, contextualized ABE and remedial education and multiple supports so students can pursue certificates and degrees in the construction trades. It is managed by a specialized student services professional called an “achievement coach”. This BT pathway program has evolved to include two linked introductory courses for which students earn college credit. The first of these is a 3-week intensive course that combines hands-on carpentry skills with contextualized math. The second is a 7-week intensive course in which students learn contextualized math and reading as well as job readiness skills. The CNM BT team, with membership from three college departments, meets regularly to advance the program and discuss student progress.

Implementation: The BT pathway is designed to help low-skilled adults accelerate the pace with which they acquire the knowledge and skills needed to qualify for entry into construction apprenticeship programs in carpentry, electrical technology, plumbing, and welding. This effort started during a period in which the construction industry was booming and demand was high for apprentices. Because the industry has since experienced a slow-down, opportunities have diminished. The program is responding by guiding students into either apprenticeship or associate degree options. The achievement coach forms a strong bond with participants, and the they attribute much of their success to her. Students have access to many other resources because student support is a college-wide priority. In addition, the college employs full-time tutors in career-specific and general purpose learning labs, including WorkKeys labs. The faculty and administrators also lend extensive support.

Community College of Denver (CCD)

Goal: Demonstrate that programs can be created for developmental education students that both accelerate their progress through the remediation sequence and result in higher retention rates as well as advancement into degree-level programming. In addition, CCD strives to develop, implement, and test a developmental bridge program to prepare GED completers for college-level work.

Primary Target Population: Developmental education students

Program Design: The BT program titled “FastStart” is headquartered at the CCD, which is located in downtown Denver with branch campuses in the larger metropolitan area. This program supports the preparation of students who test too low to enter PTE degree programs directly on entering college. Progression through the developmental education sequence is accelerated by having students take two courses in the time students normally take one. Taking math as an example, the FastStart students progressed through the lowest and moderate level of developmental education during one semester rather than two. This acceleration approach limits the redundancy that occurs in each course and allows students immersion in the subject to propel them farther and faster through the curriculum than would normally occur. Students also take a college success course that is paired with the accelerated developmental education courses. A spin off of FastStart is an intensive 8-week summer program for students who recently completed the GED and who aspire to enter college called College Connection. This program was the inspiration for a federal grant to replicate the model in community colleges throughout the state of Colorado. Professional development of the instructional staff is an important aspect of these programs.

Implementation: In addition to the intensive curriculum sequence, contextualized instruction, tutoring, and case management are integrated into the FastStart program. Active learning strategies are encouraged, and classroom instruction is supplemented with computer-based instruction. Acceleration has been accomplished through the elimination of duplicative content and the use of talented adjunct instructors who are committed to the concept and adept at motivating underprepared students. In addition, support structures are refined to meet students’ needs by recognizing that underprepared students are especially challenged and will likely fail if not given adequate attention and support in all aspects of their educational, career and personal lives.

Cuyahoga Community College (Tri-C)

Goal: Increase the number of low-skilled students who enter certificate or degree programs in clinical and allied health care by creating a sequence of contextualized courses with support services that start with pre-State Tested Nursing Assistant (STNA) and STNA training and placement.

Primary Target Population: Below 8th grade

Program Design: The STNA program is located at Tri-C in Cleveland, Ohio. This program provides a pre-PTE bridge to college, specifically into the STNA Plus program, that focuses on improving academics while introducing low-skilled adult learners to core concepts in health care, optimally leading them to the nursing pathway. Students in pre-STNA continue in the program until
they achieve 8th grade levels on the TABE test, and then transition to the next available STNA Plus program. These students are often referred by community agencies including WIA and TANF, from whom they receive supplementary support. Students are also supported by program staff members who encourage them to pursue further education while working as STNAs. An active leadership team guides the program’s direction and also looks for ways to help individual students to progress.

Implementation: The program is designed to help students attain the math and English skills needed to enter and succeed in STNA programs. Students who attain 8th grade skill levels can move into the STNA Plus program and emerge with a credential that enables them to work in readily-available jobs in home health care, and to take the state test that will allow them to seek employment opportunities in long term care facilities and local hospitals.

Owensboro Community Technical College (OCTC)

Goals: Increase the number of low-skilled incumbent workers and unemployed adults who enter and succeed in degree-level programs in industrial maintenance, business management, and health care through provision contextualized remedial instruction and the provision of support services.

Primary Target Population: Incumbent workers and unemployed adults

Program Design: OCTC in Owensboro, Kentucky offers an accelerated workforce development program model that integrates adult education, PTE and customized and contract training. The program seeks to integrate low-skilled adults into employer-sponsored training programs by emphasizing workforce development linked to accelerated, modularized basic skills curriculum, along with highly personalized support service activities that encourage student engagement. Leaders of the BT project and a “student engagement counselor” take a keen interest in adult learners, getting to know them and taking an active role in supporting their success. Three pathways are offered in manufacturing, health care/nursing, and business management/supervision. Local leaders attribute BT with helping OCTC acquire funding from the Robert Wood Johnson Foundation/Jobs to Careers to support implementation of the health care pathway. The BT pathway program is also cited for making curricular changes that go beyond BT students, offering an accelerated approach to developmental education for the general OCTC student population.

Implementation: The goal is to prepare adults for professional career pathway options in manufacturing, business, and health care. Each of these pathways is designed to assist the target population of low literacy adults to be successful in the workplace by integrating students into various training initiatives. Whether currently employed or not, students are supported in bringing their academic skills up to college level and integrating academics with college-level technical training. This curriculum is offered at the Center for Community and Economic Development and in the workplace.

Portland Community College (PCC)

Goal: Demonstrate that the retention and transition rates of development education students into PTE degree programs can be improved through the provision of wrap around support services, access-supported developmental education and college success courses; and a smooth hand-off into degree programming.

Primary Target Population: Developmental education students

Program Design: The Moving On Toward Tomorrow (MOTT) program is offered by PCC in Portland, Oregon. This program offers intensive and intrusive advising, with a focus on helping low-skilled students to progress from remedial education into certificate or degree programs in PTE. The MOTT program places developmental education students into cohort classes and offers a half-time advisor, mandatory advising, and tutoring and support services. This comprehensive approach is characterized by local leaders as “wrap around” services. MOTT students participate in a series of three linked courses, taught by a MOTT advisor or other instructor. In addition, they receive regular support and guidance from advisors who check in with them, helping them to overcome barriers to college persistence and aiding in developing career/education plans. A collaboration between PCC and the Seattle Jobs Initiative has resulted in the BT Advisor Training Package that has focused on improving BT advisor skills to support students. This package has been the focus of several professional development sessions at BT peer learning meetings involving other leadership and learning colleges, as well as other community colleges throughout the nation.

Implementation: The MOTT program has been well aligned with the college’s increasing focus on measures to promote student success. Both advisors and counselors are available to all students, and specialized resource people (associated with specific grant programs such as Perkins, TRIO/ROOTS, and the MOTT program) provide intensive support to specific groups of students. The BT grant is seen by the college as an opportunity to pilot intensive, intrusive advising for students who clearly needed extra support, with a focus on helping them to progress from developmental education into degree and certificate PTE programs.

Southeast Arkansas College (SEARK)

Goal: Create and demonstrate the success of a pathway for low-skilled adults (<8th grade) to enter and complete LPN training and pass the licensing exam, through creating a sequence of contextualized, accelerated remedial programs.

Primary Target Population: Below 8th grade

Program Design: SEARK’s Licensed Practical Nursing (LPN) program is offered by a community college (formerly technical college) in Pine Bluff, Arkansas. Starting as a pilot, the program was approved by the Arkansas State Board of Nursing in November 2006. The program offers contextualized, accelerated developmental education curriculum that is integrated with the allied
health curriculum. Many BT program participants are single parent females who work in entry-level jobs (e.g., certified nursing assistant) in the health care industry. A major hospital serving the region surrounding Pine Bluff, along with several long term care facilities, clinics and other health care providers, are active partners in the creation and delivery of the LPN program, offering space for classrooms and employing students throughout the program. This BT program is unique among the leadership colleges because of the role played by a community-based organization called the Southern Good Faith Fund. Southern Good Faith has played a critical role in advocating for the program, advising on program design (curriculum, internships, employer partnerships), and providing resources so that students can participate, including financial resources. LPNs are prepared to give direct and primary nursing care under the immediate supervision of the clinical instructor, staff RN, and/or physicians in the cooperating clinical facilities. Upon completion, the students are eligible to apply to take the National Council Licensure Examination for Practical Nurses (NCLEX-PN) for licensure as a practical nurse.

Implementation: From the start the SEARK project focused on developing a contextualized, accelerated developmental education curriculum in the allied health field. Key elements include contextualization focused on the core allied health course work. An important goal is to ensure that the competency-based curriculum is academically and technically rigorous, that it accommodates adult students’ working schedules, and that it enrolls students with a demonstrated interest and aptitude for the technical field. Course work is co-developed, co-taught, and co-assessed by technical and academic instructional personnel.

THE LEARNING COLLEGES

The BT learning colleges are focused on learning (via peer learning) about promising practices for low-skilled adults, with some sites advancing in implementation at a similar pace as the leadership colleges and others showing less rapid advancement. Brief highlights of the programs developed by the original ten learning colleges follow.

Cerritos College, Norwalk, California: Non-credit bilingual education program for Spanish speaking adults incorporates many BT strategies, including free classes for adults in six professional-technical areas: automotive mechanics, welding, machining, plastics, pharmacy tech, and health. The program prepares students to enter non-credit and credit PTE programs leading to certificates and degrees.

Community College of Southern Nevada, Las Vegas, Nevada: Students who are unprepared to enter the CNA program participate in a pre-college class in reading, writing, and medical terminology. The class provides 12-24 hours of instruction for 7 weeks. Tutoring is also provided, much of it in English as a Second Language (ESL).

Houston Community College, Houston, Texas: Two career fields -- energy (at the Northeast campus) and health care (at the Coleman campus) -- are attempting to apply core BT practices.

LaGuardia Community College, Long Island, New York: Several bridge-type programs are offered, including programs for students entering college, for students upgrading language skills before beginning college and for students seeking to complete GEDs. In addition, the college has created a contextualized health education program in collaboration with the college’s health care division and two community-based organizations (CBOs).

Mott Community College, Flint, Michigan: A partnership with health care providers and CBOs offers programs in nursing and allied health, along with training in “soft” skills. The program connects ABE/developmental education and PTE programs to help students find the right service no matter where they enter the college.

Northampton Community College, Bethlehem, Pennsylvania: A career-lattice approach links ABE with PTE programs in allied life sciences, targeting medical assistants and home health care workers. A Vocational English as Second Language (VESL) course and vocational ABE program, and a non-credit college prep class strengthen linkages between existing ABE, GED, and ESL courses and the college’s PTE programs.

North Shore Community College, Danvers, Massachusetts: A career ladder associated with a Child Development Associate (CDA) is targeted to primarily ESL, Spanish language students to help them progress in content knowledge while receiving help with English skills by offering the initial child development course in Spanish.

Piedmont Community College, Charlottesville, Virginia: A number of practices are aligned with BT including a learning community in health care and efforts to improve student skills in math and writing. Work is also underway to begin offering a CNA certificate and GED prep at a local high school.

Tallahassee Community College, Tallahassee, Florida: The Division of Economic and Workforce Development has partnered with the local workforce investment board (WIB), and the National Center for Construction Education and Research to create a program that brings low-skilled adults into the construction industry. The Florida Rebuilds program offers low-skilled adults the chance to enroll in career pathways leading from ABE into construction tracks.

York County Community College, Wells, Maine: The college offers a partnership with the Portland Naval Shipyard and a joint apprenticeship/associate degree program in which apprenticeship courses are blended with general education requirements.

LESSONS LEARNED

Results of the two-year evaluation of BT are provided in four areas, with recommendations to support enhanced program implementation in the future.

Development of Pathways - Results show the BT initiative demonstrates considerable success in enhancing access to college for low-skilled adults. Being designated a “leadership college” car-
ries weight within the parent community college, and BT funds provide the needed fuel to start-up new programs and enhance existing ones. The mix of knowledge-building, information sharing, and social networking among leadership college and learning college professionals has created an enthusiastic environment for programs for low-skilled adults to take root and grow. Three models, the developmental bridge model (CCD and PCC), the pre-PTE bridge model (Tri-C), and the career pathway model (CNM, OCTC, and SEARK) are evident in the six leadership colleges. The developmental bridge model focuses on assisting students to acquire foundational (basic academic) skills and identifying PTE programs of study, the pre-PTE bridge model focuses on entry-level technical skills to assist students to enter the workforce and enroll eventually in college-level PTE course work, and the career pathway model integrates developmental and PTE content and extends the learning experience from the developmental level to a certificate and/or associate degree and employment.

Student Participation and Student Outcomes - The number of students participating in local BT programs from their inception in 2006 to summer 2008 totaled 1363. The largest programs are located at CCD and PCC where the developmental bridge model is employed. The next largest enrollment is evident at OCTC where the career pathway model is employed in three PTE fields (health, manufacturing, and business), including an online program in business that enrolls a substantial number of incumbent workers from the Owensboro area. The remaining three BT programs use the pre-PTE bridge or career pathway models and enroll a more modest number of students, having enrolled 1 to 4 cohort groups with 7 to 45 students in each cohort.

Results confirm that students enrolled in the BT leadership college programs display characteristics indicative of low-skilled adult learners (low-income, low academic proficiency, minority, limited English, etc.). Most students had received a high school diploma or GED prior to entering the BT program but they tested far below college-level in math, reading and writing. Thus, all students, regardless of site, needed substantial developmental course work prior to entering college-level gatekeeper courses in academic or PTE subjects. Compared to success rates of 10%-30% reported in prior studies of the retention of low-skilled adults, the BT programs exhibited a very high level of success, with large percentages of students passing one or more developmental courses and matriculating to college-level instruction. The majority of students who placed into developmental education at CCD, CNM, OCTC, and SEARK became college ready in reading and math; progressed into gatekeeper courses; and passed at least one college course. At three colleges implementing the career pathway model (CNM, Tri-C, and SEARK), and one college using the pre-PTE bridge model (Tri-C), substantial proportions of students completed their BT programs and/or earned certificates, with a few students earning degrees. In the two sites implementing the developmental bridge model, about two-thirds of CCD students completed the FastStart program by advancing two levels (or more), and about one-third of PCC’s students finished the MOTT program. The pre-PTE bridge in certified nursing at Tri-C and the career pathway programs in LPN at SEARK and manufacturing at OCTC were especially successful at completing students and supporting their employment in BT-related occupations.

High Leverage Strategies - The initial four “high leverage” strategies (integrated institutional structures and services, accelerating the pace of learning, labor market payoffs, and comprehensive supports) are well known by BT practitioners and at the forefront of their efforts to implement programs for low-skilled adults. We observed these strategies operating in all six leadership colleges, with some colleges relying on some strategies more than others, depending on the model they were deploying. Three high leverage strategies emerged during the implementation process: contextualization of curriculum and instruction, professional development, and evaluation. The evaluation results also support the importance of giving community colleges adequate time for implementation of programs serving low-skilled adults; noteworthy change was observed by the evaluators (during site visits) and by the practitioners themselves (using self-assessment).

Peer Learning provides the fuel to support an active dialogue among professionals associated with the leadership colleges and learning colleges engaged in BT, with semi-annual meetings playing a vital role in creating and sharing vocabulary and concepts. The semi-annual meetings are especially important to assisting learning colleges to design new programs and try-out unfamiliar practices, especially for learning college practitioners. Leadership colleges seek additional professional development as well. Two areas of particular interest are institutionalization of programs and practices for low-skilled adults and sustainability. With the seeds of BT planted, it is the right time to move peer learning to the next level by formalizing the peer learning processes and using Web based, online technologies. “Online peer learning” groups could give individuals the opportunity to communicate on an ongoing basis to solve common problems and implement high leverage strategies, such as acceleration, contextualization, professional development, and evaluation. Peer coaching is another idea that deserves consideration as BT’s network expands and more community colleges seek to learn about programs for low-skilled adults.

Next Steps - Now that outcome measures have been established and baseline performance has begun to be documented, the leadership colleges should continue to collect student outcomes data in conjunction with an on-going evaluation. Knowing what works is especially important as BT moves ahead and engages more community colleges across the county in the next phase of the project.
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