



# BREAKING THROUGH

## THE BREAKING THROUGH PRACTICE GUIDE

SPRING 2010



## Acknowledgments

Information in this *Practice Guide* originated from interviews, peer learning meetings and site visits to colleges across the nation. *Breaking Through* colleges generously shared in-depth program information as well as background information regarding the successes they have had and the challenges they have encountered. The *Practice Guide* could not have been developed without their input and feedback.

Thank you also to Rebecca Arnold, Vickie Choitz, Laura Dowd, Maria Flynn, Rochelle Fontaine, Richard Kazis, Theresa Klebacha, Jean-Pierre LeGuillou, Marc Miller, Gloria Cross Mwase, Rachel Pleasants, Judith Combes Taylor, Bob Watrus, Juanita Zerda, and the National Council for Workforce Education, who all contributed to the creation of the *Practice Guide*.

Grants from the Charles Stewart Mott Foundation and the North Carolina GlaxoSmithKline Foundation supported efforts to promote the implementation of strategies and programs that help low-literacy adults prepare for and succeed in community college occupational and technical degree programs. The Ford Foundation supported *Breaking Through's* state policy efforts, focusing on researching, documenting, and testing state policies that help more low-skilled adults succeed in college and careers. The Bill & Melinda Gates Foundation strengthened the initiative by funding data collection, documentation, and scale-up efforts for successful projects at five *Breaking Through* community colleges, as well as peer learning activities across the initiative.

Jobs for the Future would like to thank all the pioneer colleges who have participated in *Breaking Through*:

**Central New Mexico Community College**

Albuquerque, NM

**LaGuardia Community College**

New York City, NY

**Southeast Arkansas College**

Pine Bluff, AR

**Cerritos College**

Norwalk, CA

**Lake Michigan College**

Benton Harbor, MI

**South Piedmont Community College**

Polkton, NC

**City College of San Francisco**

San Francisco, CA

**Macomb Community College**

Warren, MI

**South Seattle Community College**

Seattle, WA

**Community College of Denver**

Denver, CO

**Mott Community College**

Flint, MI

**St. Clair County Community College**

Port Huron, MI

**Cuyahoga Community College**

Cleveland, OH

**Northampton Community College**

Bethlehem, PA

**St. Philip's Community College**

San Antonio, TX

**Davidson County Community College**

Lexington, NC

**North Shore Community College**

Danvers/Lynn, MA

**Tacoma Community College**

Tacoma, WA

**Durham Technical Community College**

Durham, NC

**Owensboro Community & Technical College**

Owensboro, KY

**Tallahassee Community College**

Tallahassee, FL

**Forsyth Technical Community College**

Winston-Salem, NC

**Pamlico Community College**

Grantsboro, NC

**Washtenaw Community College**

Ann Arbor, MI

**Grand Rapids Community College**

Grand Rapids, MI

**Piedmont Virginia Community College**

Charlottesville, VA

**York County Community College**

Wells, ME

**Henry Ford Community College**

Dearborn, MI

**Pitt Community College**

Winterville, NC

**Houston Community College**

Houston, TX

**Portland Community College**

Portland, OR

# TABLE OF CONTENTS

## INTRODUCTION

Breaking Through High-Leverage Strategies

What Is the *Practice Guide*?

The *Practice Guide* Components

About *Breaking Through*

Lessons Learned

*Breaking Through* Today

Profile: Owensboro Community & Technical College

---

## ACCELERATING THE PACE OF LEARNING

Introduction

Compression: Adapting Accelerated Learning Strategies for Low-Skilled Adults

Customization: Adapting Differentiated Instruction Strategies for Low-Skilled Adults

Contextualization: Developing Contextualized Remedial Instruction for Low-Skilled Adults

Scaling Up Accelerated Learning: Case Study of Community College of Denver

---

## PROVIDING COMPREHENSIVE SUPPORT SERVICES

Introduction

Assessments & Intake

Connecting Students with Academic and Nonacademic Supports

Providing Advisors or Coaches

Training College Staff

Scaling Up Support Services: Case Study of Portland Community College

## LABOR MARKET PAYOFFS

Introduction

Provide Career Exploration Opportunities

Establish Connections with Key Labor Market Actors

Chunk Training to Create Career Pathways

Participate in Regional Efforts to Retain and Recruit Businesses and Industries

Scaling Up Labor Market Payoffs: Case Study of Mott Community College

---

## ALIGNING PROGRAMS FOR LOW-SKILLED ADULTS

Introduction

Align Adult Education Programs with College

Align Noncredit Courses and Programs with Academic Courses and Programs

Align Developmental Education with Technical Education

Scaling Up a Contextualized Developmental Education Strategy: Case Study of Southeast Arkansas College

---

## SUPPLEMENTAL MATERIALS

The *Breaking Through* Colleges: Enrollment and Program Data

Profiles of Colleges in the Practice Guide

Definitions

Types of Credentials

The Community College Advisor Training Toolkit

Mott Community College's Articulation System

# THE *BREAKING THROUGH* PRACTICE GUIDE

TOOLS FOR HELPING LOW-SKILLED ADULTS EARN POSTSECONDARY CERTIFICATES AND DEGREES

THE *BREAKING THROUGH* PRACTICE GUIDE IS DESIGNED FOR PRACTITIONERS WHO WANT TO CONNECT ADULTS WHO HAVE LIMITED READING AND MATH SKILLS WITH POSTSECONDARY CREDENTIALS LEADING TO JOBS PAYING FAMILY-SUPPORTING WAGES. IT COMPILES PRACTICES DEVELOPED AND IMPLEMENTED BY COMMUNITY COLLEGES IN THE NATIONAL *BREAKING THROUGH* INITIATIVE.

The *Practice Guide* has four components, each devoted to one of four “high leverage strategies” that community colleges and other programs can adopt to increase their success with low-skilled younger and older adults.

- > Accelerated learning
- > Comprehensive support services
- > Labor market payoffs
- > Aligning programs for low-skilled adults

These components can be used individually or as a set to put low-skilled adults on the path to family-sustaining incomes.

The *Practice Guide* also includes:

- > The Contextualization Toolkit
- > Supplementary materials, including information about the Advisor Training Toolkit

## ACCELERATED LEARNING

Perhaps the most formidable barrier facing the adults targeted by *Breaking Through* is the combination of a huge academic-skill gap and the lengthy process to close the gap—the “barrier of time.” To accelerate the pace of learning, *Breaking Through* colleges:

- > Compress the material for two courses into the time of one course—an approach sometimes called “accelerated learning.”
- > Customize the content and delivery of remediation to meet individual students’ needs.
- > Contextualize remedial content for the occupation or industry in which the student seeks to advance.

The Contextualization Toolkit, an integral component of the *Breaking Through Practice Guide*, can help community colleges and other educators accelerate learning for low-skilled adults by integrating career subject matter with pre-college skills development.

## COMPREHENSIVE SUPPORT SERVICES

Low-skilled students require significant support to succeed, yet such services are rarely available to them. To provide comprehensive support services, *Breaking Through* colleges:

- > Connect students with an array of academic and nonacademic supports.
- > Provide “coaches” to connect students with support services in the college and the community.
- > Train coaches to work effectively with low-skilled adults.

The Community College Advisor Training Toolkit supplements the Practice Guide with a comprehensive, cost-effective approach to guiding students through the maze of academic, financial, and personal challenges toward college credentials and family-supporting careers.

## LABOR MARKET PAYOFFS

Programs serving low-skilled adults have provided little in terms of short-term economic payoffs that would encourage students to continue, and too often the focus is on low-wage jobs. To provide labor market payoffs, *Breaking Through* colleges:

- > Offer career exploration opportunities that lead to sound career choices.
- > Ensure that programs have and use up-to-date information about local labor markets.
- > “Chunk” training programs into shorter sections that meet employer needs, lead to credentials, and build toward more comprehensive certifications.
- > Participate in regional efforts that target industries offering advancement opportunities for low-skilled adults.

## ALIGNING PROGRAMS FOR LOW-SKILLED ADULTS

The profound disconnection between education and training programs for adults and postsecondary education is a crucial barrier to the educational and economic advancement of people with low skills. To align the program areas that serve low-skilled adults with college programs, *Breaking Through* colleges:

- > Align the content and aspirations of adult education with the prerequisites for postsecondary programs.
- > Link the content of noncredit workforce training with college-level work.
- > Infuse career content into developmental education for students who have strong career goals.

*Breaking Through* is a collaboration between Jobs for the Future, an organization committed to helping community colleges serve low-income students, and the National Council for Workforce Education, an organization of community-college-based workforce-development leaders. The Bill & Melinda Gates Foundation supported development of the *Practice Guide*, based on *Breaking Through* projects at colleges throughout the nation funded by the Charles Stewart Mott Foundation and other foundations.

For information on *Breaking Through*, see [www.breakingthroughcc.org](http://www.breakingthroughcc.org) or contact Jobs for the Future, 617.728.4446, [info@jff.org](mailto:info@jff.org).

# THE BREAKING THROUGH PRACTICE GUIDE

Introduction

# TABLE OF CONTENTS

<b>BREAKING THROUGH HIGH-LEVEL STRATEGIES</b>	<b>1.3</b>
<b>WHAT IS THE PRACTICE GUIDE?</b>	<b>1.4</b>
<b>THE <i>PRACTICE GUIDE</i> COMPONENTS</b>	<b>1.5</b>
Scaling up	1.5
Vignettes	1.6
<b>ABOUT <i>BREAKING THROUGH</i></b>	<b>1.6</b>
How Breaking Through got Started: 2004 research and report	1.6
Demonstration Initiative	1.7
<b>LESSONS LEARNED</b>	<b>1.11</b>
The Importance of Institutional Change	1.11
Programs Need to Leverage the Motivation of Low-Skilled Non-Traditional Students, Both Young and Old	1.12
<b><i>BREAKING THROUGH TODAY</i></b>	<b>1.13</b>
<b>PROFILE: OWENSBORO COMMUNITY &amp; TECHNICAL COLLEGE</b>	<b>1.14</b>
Implementing the Four Strategies	1.14
Background	1.14
Providing Comprehensive Support Services	1.15
Accelerating the Pace of Learning	1.15
Creating Labor Market Payoffs	1.16
Creating Pathways into College	1.16
Outcome Data: Early Cohorts	1.17
<hr/>	
<b>ENDNOTES</b>	<b>1.18</b>
<b>REFERENCES</b>	<b>1.18</b>

# WELCOME TO THE *BREAKING THROUGH* PRACTICE GUIDE

This guide was developed to help practitioners connect adults who have low literacy and math levels with postsecondary education and success. The *Practice Guide* highlights innovations from community colleges that participated in the *Breaking Through* initiative between 2005 and 2009. Since then, the colleges have continued to collaborate in *Breaking Through*, and they have continued exploring, refining, and implementing these innovations.

The goal of *Breaking Through* is to promote the development of practices and policies that connect low-skilled adults (with reading and math skills testing below the eighth-grade level) with postsecondary occupational or technical education. *Breaking Through* is a collaboration between Jobs for the Future, a research and advocacy organization that develops education and labor market models that enable American families to compete in a global economy, and the National Council for Workforce Education, an organization of community-college-based workforce-development leaders. *Breaking Through* originated in research funded by the Charles Stewart Mott Foundation in 2004. The demonstration phase, from 2005 to 2008, was supported by the Mott Foundation and several other funders. The documentation and expansion phase, in 2008 and 2009, was supported by the Mott and Gates foundations. Jobs for the Future created this guide with funding from the Bill & Melinda Gates Foundation.

## Breaking Through High-Leverage Strategies

The initiative and the *Practice Guide* are based on a framework of four “high-leverage” strategies that were set forth in the 2004 report, *Breaking Through: Helping Low-Skilled Adults Enter and Succeed in College and Careers* (Leibowitz & Taylor 2004). The goal of these strategies is to develop career and college pathways for students; by this, we mean programs that prepare students for either more advanced studies or a family-supporting career. The strategies are derived from four institutional barriers identified during the initial research phase, all of which contribute to the lack of success among low-skilled adult students:

- > Most adult remedial programs proceed slowly, despite the urgency many adults feel to move quickly.
  - **Recommended strategy:** Accelerate the pace of learning so that students complete programs faster.
- > Many adults with low literacy skills face multiple barriers to success, yet few precollege programs provide support to overcome those complex and interrelated barriers.
  - **Recommended strategy:** Provide comprehensive supports that help students develop realistic plans and remain enrolled in and attending school, particularly through difficult transition points.
- > There are almost no financial incentives for low-skilled adults to invest the time needed to become eligible for college.

- **Recommended strategy:** Create labor market payoffs by offering students intermediate credentials, jobs, and other quick economic rewards.
- > Education and training programs for adults are so disconnected from each other, even when housed in the same institution, that all but the most determined students are discouraged from completing a pathway to college.
- **Recommended strategy:** Reorganize colleges to create clear pathways into college.

For the convenience of users, we have organized the *Practice Guide* in four sections, one for each strategy; each describes the practices implemented by *Breaking Through* colleges under that strategy. Of course, the four categories are not mutually exclusive, and some practices—for example, contextualization—could fit into more than one chapter. Also, most of the highlighted colleges used multiple high-leverage strategies in their demonstration projects. A key *Breaking Through* message is that colleges should pursue all four strategies in order to achieve maximum impact. A more detailed profile of Owensboro Community & Technical College (see page 1.14), a *Breaking Through* Leadership College, demonstrates how these strategies work together.

## What Is the *Practice Guide*?

The *Practice Guide* is a compendium of evolving practice. In one sense, it enables practitioners around the country to eavesdrop on peer learning activities that *Breaking Through* has sponsored among the initiative's college and other nonprofit partners since 2005. In this way, practitioners outside the *Breaking Through* network can learn what participating programs are doing, and how they do it.

Some innovations documented in this guide may sound familiar; *Breaking Through* practitioners have taken practices from other sectors, traditionally used to serve other populations, and adapted them to focus on low-skilled adults. For example, practices for engaging employers and other “labor market actors” and for focusing on high-demand occupations are standard fare to people with backgrounds in workforce development. But for many in adult basic education and developmental education, both the topics and the details of the practices will be new.

That said, most of the practices detailed in the *Practice Guide* are so new that formal evaluations have yet to be concluded. However, program managers and staff—many of whom have been involved in *Breaking Through* since 2005—report that their students do better when these practices are used. Careful evaluations of the *Breaking Through* strategies and their implementation are under way—and they are especially critical given the new urgency in the field. President Obama has made it clear that the nation must address the issue of adults who lack the academic and technical skills needed to support their families and to help revive the American economy. As he stated when announcing the American Graduation Initiative, the nation must “reform and strengthen community colleges . . . from coast to coast so they get the resources students and schools need—and the results workers and businesses demand.”

As institutions seek better ways to serve more individuals in need of skill development and credentials, the *Breaking Through Practice Guide* can both advance the capacity of adult-serving institutions and promote the further refinement of effective practices.

## The Practice Guide Components

*Accelerating the Pace of Learning* describes three practices: compressing remedial content into shorter terms, so students can move through the material more quickly; customizing material so that students with a variety of skill levels, backgrounds, and interests can move at their best pace; and contextualizing remedial curricula for students in career pathways.

The *Contextualization Toolkit*, a companion to *Accelerating the Pace of Learning*, provides additional information and guidance from colleges that practitioners can use to contextualize their own curricula.

*Providing Comprehensive Support Services* describes three practices that emerged as key to providing effective support services: connecting students with a wide array of supports to meet the complex needs of part-time, low-skilled adult students; providing coaches to help low-skilled adults succeed; and training coaches and staff to work effectively with low-skilled adults. (The *Breaking Through Advisor Training Toolkit*, a companion to *Providing Comprehensive Support Services*, is available through formal train-the-trainer sessions. More information on the training is available in the supplementary materials.)

*Labor Market Payoffs* identifies four areas in which practitioners can implement practices to help low-skilled adults obtain labor market benefits as they advance their skills: enabling low-skilled adults to make sound career choices; establishing connections between colleges and key labor market factors; creating seamless, integrated pathways for low-skilled adults; and influencing regional economic development as a means to expand employment opportunities for low-skilled adults.

*Aligning Programs for Low-Skilled Adults* describes the three different programs that engage low-skilled adults in most community colleges: adult basic education, developmental education, and noncredit workforce training. This component of the guide describes practices that *Breaking Through* colleges have used to guide their students to postsecondary professional/technical certificates and degrees.

### SCALING UP

The demonstration projects profiled in this guide all fit the definition of a “boutique” program. That is, they were too small to accommodate all potentially eligible students; they were not funded through the college’s regular budget; and they implemented practices that, in general, were not used collegewide. For *Breaking Through* to have a significant impact on the millions of low-skilled adults in our country, these projects must be scaled up: they must serve greater numbers, effective practices must be used more widely, and programs must find ways to be sustainable. To show how this scale-up can be achieved, each component of the guide highlights how one college has scaled up its successful approach to the high-leverage strategy.

## VIGNETTES

Developing innovative programs such as those described in the Practice Guide was not a simple process. The vignettes included in each chapter illustrate how programs were created, and offer suggestions for colleges seeking to develop their own *Breaking Through* programs.

## About *Breaking Through*

### HOW *BREAKING THROUGH* GOT STARTED: 2004 RESEARCH AND REPORT

In 2004, the Charles Stewart Mott Foundation made a grant to a partnership of Jobs for the Future and The National Council for Workforce Education (NCWE) to study the situation of low-skilled adults and their access to professional/technical certificates and degrees in community colleges. The focus on America's community colleges is because they are well positioned to connect low-skilled adults to postsecondary certificates and degrees: they are publicly funded, so their costs are significantly lower than nonpublic options; they have a longstanding commitment to workforce preparation; and their mission to serve their communities embraces all members, including low-skilled community members.

The population of "low-skilled adults" was defined as those performing below the eighth-grade level on reading and math tests. For the 35 to 50 million adults that fall into this category, low academic skills represent a serious barrier to finding family-supporting employment and, more importantly, to entering the technical training programs that lead to career advancement. The population that participated in *Breaking Through* includes those who dropped out of high school as well as those who have a high school credential or GED but whose functional skill levels in math and reading are below the eighth-grade level.

There are two aspects to the barrier of low academic skills. First, many technical-training programs set minimum academic requirements for entry; in the case of most Certified Nursing Assistant (CNA) programs, applicants must score at the eighth-grade level in reading and math for admission. "For-credit" workforce programs at community colleges generally require that applicants pass the college's placement test (COMPASS, Accuplacer, etc.), with passing scores set to reflect "college-level" work. Second, most training programs rely on written texts that require fairly sophisticated reading levels, and many require mathematical proficiency (welders have to understand degrees to calculate angles; nurses have to understand fractions and decimals to calculate dosages). Whether students understand the technical materials they are presented with, can pass tests and classes, and can perform well on the job depends on proficiency and academic skill.

*Breaking Through* was designed to help low-skilled adults acquire skills necessary to succeed in postsecondary education and attain credentials that lead to jobs in family-sustaining careers.

As is often the case with low-skilled adults in the U.S., the students enrolled in *Breaking Through* programs and career pathways were low-income and vulnerable to the challenges associated with poverty including substance and domestic abuse, fragile housing situations, and unreliable transportation. Many had felony convictions in their backgrounds.

The report *Breaking Through, Helping Low-Skilled Adults Enter and Succeed in College and Careers*, issued in the fall of 2004, had several key findings.

- > Postsecondary credentials are important for increasing incomes to family-supporting levels, yet very few low-skilled adults ever improve their skills sufficiently to enroll in such programs; even fewer complete them.
- > A review of the research literature showed that the low-skilled adult population was not a focus of interest for most think tanks and research organizations.<sup>1</sup> Very little could be found regarding successful program models and strategies for this population.
- > In general, America's community colleges were not serving their low-skilled adult constituents well. The most detailed evidence comes from Washington State, which found that students who entered college through Adult Education programs (both ABE and ESL), showed college success rates of 1 to 5 percent (Prince & Jenkins 2005).
- > Field research suggested that only a small number of community colleges were committed to serving this population and had developed an array of programs and strategies to serve them, although none had in place a complete pathway from basic skills programs into postsecondary college credit education.
- > Practitioners at colleges where interest was high reported that (a) developing successful programs was challenging, and that (b) they believed they could learn from peers, but none of the national conferences they attended provided forums for this kind of learning exchange.

### DEMONSTRATION INITIATIVE 2005–08

In 2005, the Mott Foundation funded a three-year demonstration grant based on the 2004 report. It provided resources to support demonstration projects at six Leadership Colleges selected through a rigorous national competitive RFP process; twice-yearly peer learning meetings—forums where leading practitioners could learn from each other; and resources to support travel expenses to these meetings for an additional ten Learning Colleges.

In the same year, the North Carolina GlaxoSmithKline provided funds to support a network of North Carolina colleges consisting of one Leadership College and five Learning Colleges, and the Ford Foundation funded research to identify state policies that hindered and/or supported colleges' attempts to work with low-skilled adults. Additional resources from the Annie E. Casey Foundation supported the participation of two more colleges in the peer learning network, and two additional colleges used their own resources to participate. A total of twenty-six colleges ultimately participated in the *Breaking Through* demonstration.

During the demonstration phase, a Learning Network was forged that experimented with and refined innovative practices and models that grew out of the four high-leverage strategies for advancing low-skilled adults into postsecondary credentials and degrees. The twenty-six participating colleges represented a cross-section of community colleges in the United States: geographically diverse (York, Maine to Tacoma, Washington; Cerritos in Southern California and Tallahassee in Florida; with others in the American heartland [in Arkansas, and Kentucky for example]; large to small (from Portland Community College with over 24,000 students, to Pamlico Community College, with under 400 students, as well as many midsize colleges); rural and urban (Davidson County Community College in North Carolina; Cuyahoga Community College in Cleveland, Ohio), and from both thriving and troubled economies (Houston, Texas and Flint, Michigan). A profile of each participating college can be found in the Supplemental Materials section of this Guide.

*Breaking Through* participants who attended the peer learning meetings and implemented pathways for low-skilled adults at their colleges represented a wide range of departments and programs in colleges where low-skilled adults are located. Many colleges, such as Tacoma Community College, Davidson County Community College, and LaGuardia Community College, were represented by their Adult Education departments. Others, such as Mott Community College in Flint, Michigan, and Owensboro Community and Technical College in Kentucky, sent workforce development representatives seeking to connect their low-skilled students to college credentials. In addition, two Leadership Colleges—Portland Community College and the Community College of Denver—focused on improving outcomes of students in developmental education.

Some colleges sent cross-departmental teams: Southeast Arkansas Community College (SEARK), for example, had a team led by the academic vice president and included instructors from developmental education, the nursing department, and a community-based organization. Similarly, the team from North Shore Community College in Massachusetts was led by a departmental dean and included a lead instructor in the targeted content area as well as the ESL departments and a community-based organization.

The cross-departmental buy-in at these colleges was a major asset in creating pathways from the places where low-skilled adults enter to coursework that leads to credential or degree attainment. For most of the *Breaking Through* participants, however, significant effort would be required to forge ties with other essential departments, especially those on the for-credit side of the house.

### Leadership Colleges

The six colleges funded by the Mott Foundation enrolled more than 1,300 students in its demonstration programs between 2006 and 2008. Two of the colleges—Portland Community College (PCC) and the Community College of Denver (CCD)—implemented demonstration projects involving developmental education students and comprised over half the total *Breaking Through* enrollment.

Portland Community College's *Breaking Through* demonstration aimed to develop evidence that more intensive supports increased persistence and transition rates of low-skilled adults through developmental education and into college-credit courses. For both the 2006 and 2007 cohorts, MOTT students had higher fall-to-fall persistence than the comparison groups, and the improved performance by students receiving intensive supports persuaded the college leadership to commit \$500,000 annually for increased supports for students testing into two or more developmental education classes. The linchpin of PCC's model was intensive advising, and its experience in developing this model led to the creation of the *Breaking Through* Advisor Training Toolkit, a professional-development tool for staff working with low-skilled adults.

The Community College of Denver similarly used its *Breaking Through* grant to experiment with developmental education, but with the intent of testing whether accelerated models of remediation (i.e., two terms of content compressed into one) would help developmental education students persist through



**Persistence and Success at Portland Community College:** **80%** of MOTT/*Breaking Through* students persisted to the next term, vs. **63%** for the comparison group; **50%** persisted to the following fall, vs. **38%** for the comparison group. **39%** of MOTT/*Breaking Through* students who tested into the lowest levels of developmental math completed at least one semester of developmental math, vs. **19%** of students in the comparison group.



**For the students testing into the lowest level of developmental math:** **34.2%** of FastStart/*Breaking Through* students completed the entire developmental math sequence, compared to **23.8%** in the comparison group. **16.5%** of FastStart/*Breaking Through* students passed the gatekeeper math course, vs. **9.9%** in the comparison group.

remediation. Recognizing that the accelerated approach could be stressful, CCD also provided intensive support for participating students through case management and learning communities. While the CCD staff had originally hoped to show that developmental education students could benefit from an accelerated model, their outcome data showed even more impressive results: their students outperformed comparison students enrolled in regular developmental education courses. In comparisons with overall course completion for developmental math (using data from Fall 2003), students in the *Breaking Through* program had higher completion rates than the baseline group in both academic year 2007 and AY 2008. Based on these outcomes, CCD is making the accelerated option available to all eligible developmental education students.

The other four colleges funded by the Mott Foundation designed pathways into one or more particular occupations or industries. The program at Central New Mexico Community College was managed through a combined Developmental Education/Adult Education department, and focused on residential construction. Cuyahoga Community (Ohio) College's program originated in its noncredit workforce department and prepared students—many from the city's poorest neighborhoods and with very low skills—for entry-level healthcare occupations, hoping to move them into allied health training programs.

In Kentucky, Owensboro Community & Technical College's program was based in its Community and Economic Development Department, which provides customized training and Adult Education for its region. Its first *Breaking Through* pathway in Industrial Maintenance was designed for workers in surrounding factories who maintained equipment. Its second pathway, created with additional funding from the Robert Wood Johnson Foundation, was designed to train entry-level workers at the region's largest health care provider to become registered nurses. A third pathway geared to supervision/business management is nearing completion. Self-reported data from Owensboro shows high levels of certificate completion for workers in the Industrial Maintenance (IMAC) pathway, and high levels of persistence in the nursing pathway.

Southeast Arkansas Community College (SEARK), located in one of Arkansas's poorest communities, worked with a partner (the Southern Good Faith Fund) to design a "fast track" licensed practical nurse (LPN) pathway. Remediation was offered through developmental education (this allowed the students, nearly all of whom had high school credentials, to use Pell Grants for educational and living expenses). Completers would be eligible for the LPN licensing test, and very well paying jobs, in eighteen months. The very intensive cohort-based program was intentionally kept small, with fifteen students enrolled each of three years, so it could respond flexibly to



**For the students testing into the second-lowest level of developmental math:**

**71.7%** of FastStart/*Breaking Through* students enrolled completed the entire developmental math sequence, compared to **49.6%** in the comparison group. **35%** of FastStart/*Breaking Through* students passed the gatekeeper math course, vs. **23.5 %** in the comparison group.



**As of 2008, 8 cohorts (66 students) have passed through the program at Cuyahoga Community College:**

**79%** have completed the nursing assistant STNA training. Of those who completed the training, **75%** passed the STNA exam. **31%** are now enrolled in college-level coursework, and 96% are currently employed.



**Of the 35 workers who enrolled in the IMAC pathway at Owensboro:**

22 (**63%**) have earned a certificate. 6 (**17%**) went on to earn a degree.



**Of the 73 entry-level health care workers who have enrolled in OCTC@OMHS:**

62 (**85%**) are still in the nursing pathway. 7 students from the first cohort have now completed their Associate's degree in nursing.

the challenges it was sure to encounter. The innovations pioneered by the *Breaking Through* program proved so successful that the college is now extending them into other program areas. SEARK reports higher completion rates of developmental education for Fast Track cohorts. In addition, 100% of the first cohort and 80% of the second cohort has already passed the practice nursing exam, NCLEX-PN.

### Learning Colleges

“Learning Colleges” received no implementation funding from *Breaking Through*, just reimbursement of the costs incurred for sending up to two people to the twice-yearly peer learning meetings (approximately \$6000/college/year). Despite the fact that there was no grant award to these colleges, very few of them missed a meeting. A number of attendees reported that leaders and colleagues at their colleges viewed the *Breaking Through* Learning College designation as prestigious, which helped raise the profile of efforts aimed at low-skilled adults. And in a number of cases, it also helped leverage funds from other sources.

At Davidson County Community College in North Carolina, for example, the participating department—Basic Skills (the North Carolina term for Adult Education) was able to build on a collegewide decision made in 2000 to grow its supply of tuition-paying students by restructuring itself internally. The college identified the underprepared adults in its Basic Skills department as a potential source of new students and elevated the role of the director of the Basic Skills department to ensure collegewide cooperation. DCCC’s very innovative approach to contextualizing its Adult Education curriculum was developed under the auspices of *Breaking Through*; the director reports that 83 percent of students going through the *Breaking Through* program transitioned to college.

At North Shore Community College north of Boston, Massachusetts, a very innovative Early Childhood Development department has created a pathway into two- and four-year degree programs for Hispanic child care workers in Lynn, an aging urban center in Massachusetts. Leveraging the strong support of its president, a former community organizer, the department brought in state grants aimed at strengthening child care in poor communities and collaborated with its ESL department to create an “on ramp” into for-credit programming for low-skill workers with limited English proficiency.

At LaGuardia Community College in Queens, New York, the college’s *Breaking Through* contingent from its large Adult Education department relied on its president’s strong commitment to advancing adults in her community to create two pathways into college—one in business, one in health care—from its GED program. Tacoma Community College in Washington State was a first-round pilot college in the state’s highly regarded I-BEST program and a *Breaking Through* Learning College. Administrators from the college’s Workforce, Basic Skills and Corrections Education Department developed a hybrid program built around I-BEST’s model of integrating technical and basic skills instruction in the same classroom and informed by *Breaking Through*’s four principles.

These examples of entrepreneurship show how some colleges were able to build on a culture of support and innovation both within the college and in the college system. *Breaking Through* explicitly sought out such colleges through its 2005 RFP process, which enabled the initiative to connect with colleges that could build new programs quickly. Colleges have learned that support across the college and from all levels of leadership is essential to making progress in this work. Community colleges are often described as operating in silos



### Out of the 45 students who enrolled in SEARK’s allied health pathway:

42 (93%) completed the fast-tracked developmental education. 36 (86%) of those students went on to enroll in the accelerated allied health program. 25 (69%) of the students who entered the allied health track completed it.

- faculty and staff from different departments rarely work together and may not be aware of each others' programs. *Breaking Through* colleges have found that breaking down the barriers between departments and programs can lead to stronger pathways and increased opportunities for low-skilled adults to advance to credit-level work.

### **Peer Learning**

The purpose of *Breaking Through's* peer learning meetings was to create a forum in which innovative practitioners could share their work, with the theory that this would promote new innovations and reduce the investment of time and material resources in approaches that didn't work. The learning community evolved from these meetings was the result of many practitioners' sense of commitment and willingness to consult each other between meetings and to attend as many national meetings as possible. Practitioners now have a support network they can turn to between peer learning meetings to share ideas or ask for advice. For example, when the *Breaking Through* participants from LaGuardia and Tacoma learned the details of each other's programs at the 2008 peer learning meeting in Austin, they both wished their colleagues could hear the other's presentation on contextualization (LaGuardia) and integrating technical and basic skills instruction (Tacoma). With a small grant from *Breaking Through*, they took advantage of a Washington State investment in a web-based program called Elluminate to enable staff at the two colleges to learn from each other in a series of interactive on-line presentations.

The two toolkits that have been developed through *Breaking Through* both stem from discussions at peer learning meetings. The Advisor Training Toolkit, described in more detail in the Support Services chapter, developed because a number of colleges were finding that the new advisor or success coaches they had hired needed more professional development to be able to work effectively with low-skilled adults. The Contextualization Toolkit was created in response to the frequent requests by colleges for technical assistance around creating contextualized curricula.

## **LESSONS LEARNED**

One of the most powerful lessons of *Breaking Through* is that programs can be developed to put low-skilled adults through remediation and credential programs in reasonable time with reasonable success. Each of the colleges with the most successful demonstration programs put cohorts of students through the same program design in each of three successive years (or twice a year, in some cases) with roughly similar results each year.

There was, however, no single model of success. *Breaking Through* colleges used the four strategies as a framework and created programs that responded to their local needs. As a result, program design varied across colleges. Some colleges were responding to the needs of recently unemployed factory workers; others focused on those seeking to enter health care professions. Some colleges sought to develop programs for English language learners, and others for students in GED programs.

Even with the differences between colleges and programs, there were a number of key lessons that emerged.

### **THE IMPORTANCE OF INSTITUTIONAL CHANGE**

The success of career pathways programs depends on buy-in from faculty and staff across the college; if the head of the Adult Education department intends to increase the rate at which ABE/GED students transition into the college, it will be essential to have supportive partners on the for-credit side of the college. The "silo" structure of most community colleges and the autonomy enjoyed by instructors and departments

can be a major barrier to the development of innovative programs. Strong, well-regarded leaders can affect this dynamic. Leaders—presidents, division heads, and department heads—can signal that they support a particular mission or goal and can reward and enhance the status of people who share the commitment and are effective at executing it. Strong leaders can combat pernicious beliefs about people who have traditionally not been seen as college material by combating prejudices when they are articulated, sharing stories of success, and presenting a vision that counters prevailing beliefs.

For example, the relatively new vice president at Tacoma Community College brought with him a vision of social justice: the enrollment and graduation patterns of the college should reflect the demographics of the city. In 2009, the proportion of students of color graduating from the college was the same as the percentage of residents of color in the community. His emphasis on social justice has impacted the success of the *Breaking Through* program at the college.

At Mott Community College in Flint, Michigan, one major barrier to achieving the goal of connecting its noncredit students to the for-credit side of the college was a belief pervasive among many for-credit administrators and instructors that the noncredit students were simply not college material. In order to connect the noncredit students to the college, high-level leaders had to both present the vision that these students are college material and develop a mechanism for demonstrating their students' abilities. [See the Mott Community College Scaling Up profile in *Labor Market Payoffs*.]

In addition to strong leadership, cross-departmental and external partnerships are key to breaking down silos and creating seamless pathways for low-skilled adults. For instructors in GED-prep classes to match their instructional material to what's needed for success at the postsecondary level, they need input from college departments and instructors to identify content gaps. Developing contextualized curricula for ABE is easier when there is collaboration with instructors from technical programs. The closer the relationship with the "for-credit" staff, the more likely it is that pathways into programs will be established.

*Breaking Through* program staff have found that the way to build internal partnerships is by seeking out the people who agree with you and can be your champions. As these initial relationships begin to show success they will encourage other potential partners to support the initiative.

Equally important are partnerships outside the college. Many public and private entities provide services that the college cannot or does not offer that are potentially valuable to students. Potential partner entities range from the local workforce board, where training funds may be found or maybe accessed, to organizations able to assess students for possible learning disabilities, to community-based organizations who may have resources such as transportation and child care.

## **PROGRAMS NEED TO LEVERAGE THE MOTIVATION OF LOW-SKILLED NON-TRADITIONAL STUDENTS, BOTH YOUNG AND OLD**

Because skill level is only one determinant of success, programs must invest in understanding students' motivation and goals to understand what will lead them to persist in education. Most *Breaking Through* students want to attend college because they seek access to better jobs with potential for advancement. Given this motivation, career pathways are only effective if they seamlessly link students to courses, programs, and good jobs. The guide describes various ways of leveraging this motivation for better jobs - such as contextualizing remedial curriculum for occupations or industry sectors. In addition, if programs are to address students' desires for better jobs, they need to engage with the regional labor market. By becoming knowledgeable about the labor market and connected to local employers, they provide instruction that is relevant and provide critically important connections to economic opportunity.

### **Student Supports Are Critical**

Low-skilled adult students face ongoing life challenges that may include the lack of stable housing, domestic abuse, or childcare needs. These challenges have the ongoing potential of derailing students' persistence in education. We have learned that they will fall off track unless comprehensive supports are available. The guide describes ways *Breaking Through* colleges approached this issue, primarily by providing coaches and training them to be effective with this nontraditional student population, including how to connect them to community-based resources. Certain academic strategies—the cohort model is a prime example—go a long way toward providing support to non-traditional students.

Unfortunately, many people in this target group have learned to cope by dropping out of school, and will continue to do so in the absence of intervention. One important new programmatic structure is to create ways for students to slow down or fall back when life challenges become overwhelming. For example, some students may need to fall back to the next cohort of students in the program. This customized approach to progress keeps students in the educational pipeline while breaking their pattern of dropping out.

### **Other Lessons Learned**

- > Be very clear about the population you plan to target. The intake process is critical and should include assessing students' academic skills, discussing their goals, and identifying barriers. Develop programs that fit with students' characteristics and needs. For example, if there is a high incidence of students with felony convictions, identify industries and occupations that are open to them.
- > Actively plan for ongoing program improvement: Along with student data on outcomes, faculty feedback and engagement provide useful ideas that can be incorporated into program design/implementation.

Faculty and staff need exposure and involvement at the professional development level to understand, mold, and improve instructional practices that cross departmental lines and philosophical perspectives.

## ***Breaking Through Today***

Since the conclusion of the demonstration phase, the Mott Foundation has funded the *Breaking Through* partners to further test the potential of the initiative design in different settings by:

- > Organizing a network of Michigan community colleges that are committed to advancing low-skilled adults: the network convenes participating colleges on a regular basis to share practice innovations and lessons and to identify state policies inhibiting progress at the institutional level.
- > Identifying two colleges with strong demonstration designs and funding efforts to scale up both the numbers of enrolled students and effective practices.
- > Designing and implementing a *Breaking Through* initiative in the Lower Rio Grande Valley.

This work is funded by the Mott Foundation through 2010 and includes one national peer learning event per year.

In 2008, the Bill & Melinda Gates Foundation provided funding for *Breaking Through* to maintain the momentum developed in the demonstration phase, document effective practices from *Breaking Through* colleges, collect and analyze student-outcome data, convene two peer learning meetings, and invest in scaling up *Breaking Through* at five colleges with strong career-pathways designs that increase enrollments and extend effective practices.

# Profile: Owensboro Community & Technical College

## IMPLEMENTING THE FOUR STRATEGIES

Since 2004, Owensboro Community & Technical College in western Kentucky has taken a comprehensive approach to implementing *Breaking Through* practices. The college's Workforce Solutions division has adopted the *Breaking Through* framework, taking an incremental approach to adding components that allow for continuous improvement:

- > **Providing comprehensive support services:** OCTC's Workforce Solutions provides mentors, called success coaches, for its students. The coaches have attended the *Breaking Through* advisor training to strengthen their skills.
- > **Accelerating the pace of learning:** Working in both the Developmental Education and Adult Education arenas, OCTC's Workforce Solutions has compressed and contextualized remedial curricula to accelerate its students' pace of learning, and it has developed strategies for customizing programs for each student's skill level.
- > **Creating Labor Market Payoffs:** OCTC's Workforce Solutions's mission is to develop the skills of adults to meet employer needs, and it is creative at finding ways to ensure that the more vulnerable adults in the region can get into and stay on career pathways.
- > **Creating clear pathways from precollege to college-level programs:** Building from earlier demonstration projects, OCTC Workforce Solutions offers training to hundreds of workers who have lost their jobs in the recession. The training starts with precollege certificates and continues to college-level certifications or degrees in areas where there is or is projected to be labor demand.

## BACKGROUND

Owensboro Community & Technical College's Workforce Solutions division was created in 2002. The division is part of the Kentucky Community and Technical College System's effort to enhance the state's economic competitiveness by strengthening the skills of its workforce. (Related state initiatives include significant funding for companies wishing to invest in employee training through Kentucky WINs and substantial support to implement WorkKeys throughout the KCTCS system. See [www.kctcs.edu/Workforce\\_Solutions.aspx](http://www.kctcs.edu/Workforce_Solutions.aspx).) Initially, the Workforce Solutions team's primary focus was on delivering customized training to local employers, but shortly thereafter it won a bid to deliver its region's Adult Basic Education. This has enabled the division to address academic-skill needs as well as to provide technical skills for both job seekers and people employed in regional businesses.

By 2004, the Workforce Solutions team was deeply involved in providing training in industrial maintenance for the region's large manufacturers: maintenance of 21st-century industrial machinery demands an unprecedented range of sophisticated skills, from electricity to hydraulics, with a particular mix for each machine and employer. The Workforce Solutions team realized that employers were investing in college-level skills for these employees, but never enough to add up to a two-year degree for any individual. Some employees were only a few courses away from a degree, but they worked full time and could not enroll in classes offered during the day in order to complete a degree. With a grant from the Annie E. Casey Foundation, the team took its first big step toward creating pathways into college for low-skilled employees, laid-off workers, and job seekers by investing in an innovative instructional approach, a hybrid learning

model in which, as the *Owensboro Messenger Inquirer* reported, *Students combine interactive, Web-based classes with hands-on, job-specific skills through simulations and in an open lab. And perhaps the best part is students can set their own schedules, learn at their own pace and earn college credits toward a degree. They're called Industry-Based, Modular, Accelerated Credentials, or IMAC, and the most valuable component for the employer and the employee may be the flexible scheduling. The classes are not tied into the traditional academic calendar.*

## PROVIDING COMPREHENSIVE SUPPORT SERVICES

OCTC received a *Breaking Through* demonstration grant in 2005 to support a full-time program coordinator who doubled as a coach and, sometimes, a classroom instructor as well. The Workforce Solutions team had noticed that the college, with its complicated processes and paperwork, intimidated workers from local businesses and industries. When confronted with a bureaucratic snag or undecipherable form to fill out, many did what they had always done around school: give up and disappear. The coach helped students navigate registration, financial aid, and other unfamiliar college functions; kept in regular contact with students; and arranged services to keep them on track when work and family complications threatened to derail them.

The next year, OCTC won a grant to participate in Jobs to Careers, a Robert Wood Johnson Foundation-funded initiative to promote work-based learning in health care and administered by Jobs for the Future. The Workforce Solutions team was convinced that a full-time success coach, who provided case management, would be essential to the success of its effort to train entry-level employees at the region's major hospital to become registered nurses. Indeed, this has turned out to be the case. The success coach is the thread that connects students, hospital supervisors, college instructors, and the Workforce Solutions team. The team appreciates that the coaches function as an early-warning system, which enables them to solve many problems before they grow out of proportion.

The success coach also works closely with students to keep them on track. For example, when one student decided to leave an abusive boyfriend, that meant she had to move in with her mother, an hour's drive away, and lose the child care services of the boyfriend's sister. An intensive nursing program and a full-time job suddenly seemed overwhelming, so she wanted to quit the nursing program. The success coach contacted the student, helped her analyze her situation and investigate options for child care and housing, and arranged to scale back her academic schedule temporarily while she reorganized her life.

## ACCELERATING THE PACE OF LEARNING

Like the Industrial Maintenance students, many nursing students had foundational skill deficiencies and spotty academic records. The Workforce Solutions team developed three distinct but complementary approaches to remediation, each relying on contextualization to help students understand why the academic subjects are essential to their job and career prospects.

- > **Preparatory remediation** is delivered prior to a new term and in short-term blocks for students whose low math or reading skills would otherwise disqualify them from matriculating in a training program scheduled to start in the near term.
- > **"Pull-out" remediation** is provided to students identified by instructors as failing to grasp a particular topic. For example, even though students in the welding class appeared to have mastered the study of angles and degrees—they had passed the college-entrance or developmental education exam in math—many could not apply this knowledge when called upon in a welding setting. A remedial instructor from the Workforce Solutions team developed contextualized materials and works with selected students who are pulled out of the regular class for a short-term series of lessons.

> **Full remedial courses** were developed. The Workforce Solutions team's remedial math for nursing students replaced and compressed one or two semesters of developmental math in the regular college, which lasted far too long and had only mediocre success rates. The team also developed a "Communications for Industrial Maintenance" course for students who could not otherwise qualify for the two-year degree: some of the students refused to take the required general-education course in communications because it sounded like the academic courses they had failed at in the past.

## CREATING LABOR MARKET PAYOFFS

The Workforce Solutions team seeks to promote community and economic development through skill development, a goal that keeps it closely connected to the region's employers. Workforce Solutions uses those connections to promote training and advancement opportunities for the region's workers. In 2009, for example, with support from KCTCS, OCTC convened a forum of employers in health care—a high-growth industry in the region—to identify skill needs and strategies for filling those needs. As another example; OCTC uses the WorkKeys system to profile high-demand jobs and assess job applicants; they can then identify those whose skills meet the profiled level and offer instruction to those falling short to bring them up to the level needed for the job in question.

Workforce Solutions has made innovative use of another KCTCS investment: the creation of a statewide course catalogue that identifies more than 100 occupational and technical training programs and a sequence of certificates that build from precollege to college level. Using this catalogue, OCTC has found ways to enable adults to advance their labor market skills even when life crises force them to "stop out" in the middle of a class. Certainly one big lesson from OCTC is that many adult students are one small crisis away from dropping out of school. The financial and emotional resources needed to respond to an ailing parent, a car that breaks down, or a foreclosed mortgage can make further education unthinkable in the short run. Traditionally, a student who drops a course midway loses the time and much of the money invested, without getting anything in return: the expectation is, come back and start over again when you are ready. However, the KCTCS catalogue identifies the competencies to be taught in courses in each technical area, so OCTC can certify when a student has mastered a subset of the course's competencies and award fractional credit. The fractional credit is recorded in the student's transcript and can be converted to full credit when the student returns to complete the course.

## CREATING PATHWAYS INTO COLLEGE

One major lesson from OCTC's demonstration projects was that the Workforce Solutions team can use the "embedded credentials" ("modularized") framework to create seamless career pathways. Now that thousands of people in the college's region have lost their jobs in the recession, OCTC is scaling up its capacity to offer training that starts with precollege certificates and provides students the ability to continue to college-level certifications or degrees. Participating workers will benefit from all four *Breaking Through* strategies.

Support services kick in right away because the Workforce Solutions team has noticed that many laid-off workers who attended information sessions give up almost immediately after seeing the stack of paperwork needed to determine eligibility. The team follows up by phone with each person who attends these sessions, offering encouragement and help with the paperwork.

Assessments show that many of the dislocated workers seeking training would not normally be eligible for OCTC programs because of low test scores. For example, the entry-level welder's helper certificate requires ninth-grade skills, but many applicants tested as low as the fifth grade in math. Instead of turning these applicants away, the Workforce Solutions team does two things. For those testing in the seventh- and eighth-grade ranges, the team is building contextualized remediation into the technical training. For those with lower scores, they offer intensive contextualized math before the start of the students' certificate training to bring math skills up to the seventh- and eighth-grade range. (The staff had first tried referring such students to the center's self-paced instruction, which uses WorkKey's KeyTrain, but found that they did not benefit and were slipping away.)

OCTC is taking advantage of the KCTCS "embedded credentials" framework to design modularized training programs that are flexible enough to accommodate either a slow economic recovery or a rapid one. Each certificate course is short. If jobs are available when students earn their first certificate, they have credentials that will get them jobs. If the economy remains slow, students can move to the next certificate level and, for students who want to keep advancing, into a degree program.

### OUTCOME DATA: EARLY COHORTS

Thirty-five students, a mix of dislocated and incumbent workers, enrolled in OCTC's first Industrial Maintenance cohort. Twenty-two (63%) have earned credentials or, in the case of some incumbent workers, completed the coursework required by their employers for a promotion. Of the twenty-two, six have earned AAS degrees and eleven have obtained either electrical or mechanical certificates.

Twenty-seven students enrolled in the first cohort of the nursing program for frontline workers at the Owensboro Medical Health System (OMHS@OCTC). They were selected by their supervisors for the program based on their performance in the Medical System. *Breaking Through* staff at OCTC point out that none of them would have qualified for the regular nursing program at the college owing to their GPAs and low COMPASS scores. Three years later, twenty-four are on track and only three have dropped out—one, for example, had to leave the area because her house was in foreclosure. Eight have already passed the NCLEX and are practicing RNs. Five are in the prep course for the NCLEX and hope to be licensed soon. Five others are still in the program, but have dropped back to the cohort behind them. The remaining six are still training to be nurses, but have transferred to a "regular" program.

## Endnotes

<sup>1</sup> One exception is the Center for Law and Social Policy, but its interest was primarily state and federal policy.

## References

Liebowitz, Marty & Judith Combes Taylor. 2004. *Breaking Through: Helping Low-Skilled Adults Enter and Succeed in College and Careers*. Boston, MA: Jobs for the Future.

Prince, David & Davis Jenkins. 2005. *Building Pathways to Success for Low-Skill Adult Students: Lessons on Community College Policy and Practice from a Statewide Longitudinal Tracking Study*. New York, NY: Community College, Teachers College, Columbia University.

# THE BREAKING THROUGH PRACTICE GUIDE

Accelerating the Pace of Learning

# TABLE OF CONTENTS

<b>INTRODUCTION</b>	<b>2.3</b>
<b>COMPRESSION: ADAPTING ACCELERATED LEARNING STRATEGIES FOR LOW-SKILLED ADULTS</b>	<b>2.4</b>
Compression at <i>Breaking Through</i> Colleges	2.6
Vignette: Southeast Arkansas Community College	2.8
<b>CUSTOMIZATION: ADAPTING DIFFERENTIATED INSTRUCTION STRATEGIES FOR LOW-SKILLED ADULTS</b>	<b>2.9</b>
Customizing Learning for Diverse Learners	2.10
Technology as a Tool for Customization	2.12
<b>CONTEXTUALIZATION: DEVELOPING CONTEXTUALIZED REMEDIAL INSTRUCTION FOR LOW-SKILLED ADULTS</b>	<b>2.12</b>
The Contextualization Toolkit	2.13
Contextualization at <i>Breaking Through</i> Colleges	2.14
Vignette: Davidson Community College, North Carolina	2.15
<b>SCALING UP ACCELERATED LEARNING: CASE STUDY OF COMMUNITY COLLEGE OF DENVER</b>	<b>2.17</b>
<hr/>	
<b>REFERENCES</b>	<b>2.20</b>

# ACCELERATING THE PACE OF LEARNING

## Introduction

Perhaps the most formidable barrier facing the adults targeted by *Breaking Through*—those with lower than eighth-grade levels of reading and math—is the long time it takes to close the gap between their current skills level and the level needed for college work. This gap deters many adults, both young and old, from seeking further education, and causes many others to drop out before completion.

In analyzing the factors responsible for lengthy remediation, the 2004 *Breaking Through* report focused first on pedagogical issues: how remediation is provided (Liebowitz & Taylor 2004). Three factors related to instructional method and content appear to contribute to the problem:

First is the fact that almost all adult remediation is provided in sequential courses: a student must take and pass each course before moving on to the next one. For students in need of serious remediation, the number of courses that must be taken sequentially adds up to a long time before the student becomes eligible for credit-level college coursework.

The second factor is how instruction is provided inside the classroom. Usually, adult remediation is taught with a one-size-fits-all approach, and all students receive the same attention from the teacher. But adult students vary widely in a number of dimensions. These include, among others, their career interests, learning styles, and extent of academic preparation (for example, some never received any instruction in fractions, some have forgotten what they learned, and some have mastered the concept). Nevertheless, each student sits through the same lesson taught the same way. For some students, all that time is needed. But for many others, the time is wasted.

The third factor is that adult remediation is often provided in the abstract, without context. For many low-skilled adults, this approach did not work well the first time around, when they were in school, and it is even less compelling—even more forbidding—the second time around. The result is low motivation, low persistence, and often several starts and stops.

Accordingly, the *Breaking Through* report recommended this high-leverage strategy: accelerate the pace of learning. In practice, *Breaking Through* programs have addressed the challenge of reducing the time it takes adults to complete education in three ways:

- > They compress the material for two or more courses into the time span of one course—an approach sometimes called “accelerated learning.” Some *Breaking Through* colleges have had great success with it, but they also have learned the importance of identifying students whose skill levels and life situations enable them to benefit from what is often a very intensive approach.
- > They customize the content and delivery of remediation to meet individual students’ needs. *Breaking Through* colleges have created innovative practices that can be implemented by instructors in single classrooms.
- > They contextualize remedial content for the occupation or industry in which the student seeks to advance. For students seeking career and income advancement, contextualization provides strong motivation and often makes abstract concepts like fractions easier to understand.

The goal of all of these acceleration approaches is to expedite students' completion of precollege skills or training courses so that students can enroll in courses and programs that lead to higher wages and career advancement. Moreover, acceleration aims to motivate students to persist; help students retain focus; maximize efficiencies; and provide content in a meaningful context for students.

## Compression: Adapting Accelerated Learning Strategies for Low-Skilled Adults

Colleges are under pressure to meet the needs of working adults seeking postsecondary degrees—individuals who have less time and money than traditional college students to invest in education. Accelerated learning responds to this pressure: according to the Commission for Accelerated Programs ([www.capnetwork.org](http://www.capnetwork.org)), it reduces “programs in both duration and contact hours as compared to the traditional semester degree program.” For example, a sixteen-week course may be compressed to five weeks, or class time halved from forty hours to twenty.

The term “accelerated learning” emerged in the 1970s as education professionals began developing a better understanding of the unique needs and interests of adult learners. Initially, acceleration strategies targeted K-12 students, with the implementation of Advanced Placement exams and dual enrollment policies. Yet as Raymond Wlodkowski, former director of the Center for the Study of Accelerated Learning at Regis University, writes, accelerated programs are so popular in higher education now that “any postsecondary program targeted for working adults has either started or considered the initiation of an accelerated learning format” (Wlodkowski 2003).

One challenge is how to design and implement compressed courses that speed up student learning without compromising academic rigor, teaching quality, and the retention of concepts that students need to advance to the next education/training level. There is evidence that adults in these programs “learn satisfactorily and in a manner that meets the challenge of conventional college coursework,” writes Wlodkowski. “These adults also consistently report a positive outlook toward their accelerated learning experience” (Wlodkowski 2003). Since the 1960s, research has compared the learning outcomes of compressed versus traditional-length courses, with many findings in favor of compression (Bowling, Ivanitskaya, & Ries 2002). A comprehensive literature review by Patricia Scott and Clifton Conrad (1991) concluded that compressed courses yield short-term and long-term learning outcomes that equal and sometimes surpass those produced by traditional courses. Scott and Conrad also concluded that compressed courses are effective across academic disciplines. Eileen Daniel's (2000) review of time-shortened courses validated these conclusions.

However successful accelerated learning strategies may have been, they were usually limited to “college ready” students. The challenge that *Breaking Through* colleges have taken on is to adapt the accelerated learning strategy for low-skilled adults.

Compressed courses can motivate low-skilled adults because students are able to complete more coursework in a shorter amount of time. When students see progress—advancing their career and academic goals—they are often more likely to be retained and enroll in additional courses. Moreover, students often feel a sense of pride about being enrolled in fast-paced courses, which can help counteract the stigma that may be associated with precollege skills courses. Some students view compressed courses as a kind of “boot camp” requiring focus and discipline.

Support services are crucial for many low-skilled adults facing multiple life and academic challenges. Students in compressed courses may need even greater supports because of the intensity in time, workload, and content. Some supports offered to students in compressed *Breaking Through* courses include learning communities/cohorts to develop a sense of connection to the college and peer support; instructors as “coaches”; employer beneficiaries of the program providing tutoring; student advisors; and case management. Compression without adequate supports may compromise students’ success in these programs. Student support is addressed in detail in “Providing Comprehensive Support Services.”

Compressing courses can lead to efficiencies. For example, compression that combines sequential courses (e.g., combining low- and medium-level math courses) diminishes the need to recap what had been covered in previous courses and eliminates the break or time off between courses, which sometimes leads students to forget content. When compression includes block instruction, instructors can reduce the time associated with administrative tasks at the beginning and end of each class; instructors have more time to develop a rapport with students; and students can focus on school during the concentrated time, instead of succumbing to competing time demands from work or home. Ultimately, because compression requires that more content is covered in a shorter amount of time, it results in dense and intensive instruction that focuses on teaching the most important skills, streamlined content that avoids duplication, a heavier homework load, and an impetus to ensure that instruction is highly effective.

There is a limit to how much compression most low-skilled students can handle at one time. Specifically, CCD suggests that students accelerate either in math or reading, but not both, because that is too demanding. There is evidently a tipping point: some acceleration is motivating for students and they rise to the increased challenge, but too much acceleration can result in students becoming overwhelmed and potentially failing the course. Intake interviews and case management may help to find the right balance of compression for each student. The goal of intake for compressed courses is not a matter of “screening out” students, rather, giving students information so that they can make informed decisions about enrolling, taking an honest look at their challenges, time, support, and motivation.

Community colleges will need to carefully consider the skill-level bar for compressed courses, weighing the interests of inclusion and success/completion. One college found that compression worked with the second level of developmental reading, but not with the lowest level (CCD). By contrast, another college was able to compress with students at a fourth-grade skill level, and saw tremendous gains, with some students able to do algebra by the end of the course (SEARK). Setting the skill bar too high and not compressing this low-level course would have excluded these students from the benefits of compression. When determining the course skill level to compress, community colleges may want to consider the content of the course/program, the cohort of students in terms of needs and motivation, and the level of support services available.

Faculty members sometimes challenge the notion that speeding up instruction is preferable or even possible. This resistance may be even more pronounced when advocating compression for low-level courses. Good data demonstrating the superior gains of students in compressed precollege skills courses can deflate faculty resistance. Data may include measures of time in class, pre- and post-achievement levels, retention and persistence, and success in subsequent courses. Another strategy to obtain faculty support is to include them in peer learning meetings so that they learn more about the approach and programs that have been successful using it.

## COMPRESSION AT *BREAKING THROUGH* COLLEGES

**Central New Mexico Community College's *Breaking Through*** program includes a six-week intensive bridge program incorporating both the development of precollege skills and an introduction to the construction trades. Rolling enrollment dates increase the opportunities to enter the program, a flexibility that is especially important for students who must meet parole conditions or Temporary Assistance for Needy Families (TANF) requirements. Students take one or both of two six-week blocks.

In each six-week block, the bridge program covers the reading and math content that students would have received in the semester-long lower-level developmental courses to which they were assigned based on ACCUPLACER test scores. The six weeks also incorporate a focus on employability skills and college success through two additional courses. Finally, students take several survey courses about various construction trades such as carpentry, electrical systems, heating, and air conditioning. Students appreciate the hands-on component of the program.

The college's Developmental Studies and Applied Technologies faculty collaborate to decide what will be taught in bridge courses and how to implement them. The courses are offered as "special topics," which means the college's curriculum committee does not have to approve them. This provides considerable flexibility in adapting courses to meet student needs. The inclusion of an enrollment-services staff member on the *Breaking Through* team is instrumental in addressing scheduling issues and administrative challenges.

Students receive "institutional credits" (credits that do not count toward a degree) for the basic skills courses, which are precollege level; they receive one elective credit hour for the employability class and each of the two three-week trades courses held within each course block, since these are college-level classes. Thus, students qualify for financial aid, even though they do not earn credits toward a college certificate or degree.

Staff and faculty members are committed to adapting the program to help students succeed. Given the intensive nature of the *Breaking Through* program, "achievement coaches" help students access additional academic or social supports. The shorter time frame and the additional supports help even struggling students finish at least one six-week cycle. In general, students report that the accelerated format enables them to gain more content in less time.

**Community College of Denver's FastStart@CCD** program accelerates learning by compressing two to four levels of developmental math, reading, or English into one semester. The content in the accelerated developmental courses covers the same competencies as the traditionally paced courses, while the increased pace translates into a heavier homework load. Students receive additional support for their academic courses in the form of study groups with their current class peers and instructor. They also receive ongoing personal and academic support from an educational case manager, including referrals to community supports, and from the college's academic-support services, including access to learning labs and assistance from student ambassadors.

The program case manager interviews students interested in FastStart to familiarize them with all learning formats and class offerings and helps them make informed decisions about participation, as the courses are time and workload intensive. Students who find the pace too challenging transfer to a regular-paced



**Tip:** Include employability skills in accelerated courses to help students make the connections between school and work.

developmental class or join a self-paced course. A student who stays with the accelerated course but is unable to finish it during the semester may drop the second course in the sequence, reregister, and pay tuition the following semester. Students are advised about the implications of different formats during the intake interview so they can make informed decisions.

During the intake interview, the case manager also helps students assess whether an accelerated program is the best choice for them, based on their personal goals, as well as their work and family situation: number of hours worked, stable housing, and any other aspects of the students' lives that would impact the ability to succeed in an accelerated format. Front and center in this assessment is whether the student has the motivation to pursue an accelerated path.

**North Shore Community College** is developing a six-week, noncredit, intensive preparatory course, building on a two-week prep course it already offers. The current course acts as a "bridge," linking ESL students (both intermediate and advanced) to the first credit-level class in a program leading to a Child Development Associate (CDA) credential. The bridge course introduces students to the major themes and concepts in the CDA class, reviews vocabulary, and presents class content that builds on knowledge gained in the CDA/ESL track. Faculty from the credit courses help familiarize students in the prep course with what they can expect as they move forward. An ESL lab and a mobile lab use cutting-edge technology and audiovisuals to aid instruction.

The credit-level CDA classes are compressed: the first lasts ten weeks, using four-hour modules. The two higher-level CDA courses are combined into one intensive offering, which reduces duplication, allows for more hands-on instruction, and improves retention. Previously, some students struggled with the advanced CDA course and often dropped out; the more hands-on, integrated course addresses these difficulties and reinforces the early-childhood content. Students receive six credits for the integrated course, which can go toward their Associate's degree.

**The Community College of Denver** also uses compression in its College Connection program, which serves GED recipients who test into developmental English, reading, or math and want to enroll in college courses. The program is offered for eight weeks or one semester on a credit or noncredit basis, with a minimum of 110 contact hours. The developmental education curriculum includes math, integrated reading/English, technology, and a one-credit college-experience course incorporating goal setting and career exploration. There is a focus on honing critical thinking skills and exposing students to a college atmosphere and college material to build their confidence in their ability to succeed in college. Some supports offered in the program include learning communities; study skills development; study groups; and "navigators" who function as advisors and assist with financial aid, registration, and career exploration/planning and are readily accessible to support retention.



**Tip:** Identify which courses can be accelerated yet still allow enough time for students to master content material.



**Tip:** Assess how the student fits with the program; make sure they are ready for an intensive program, and have a fallback option if they are not ready.



**Tip:** Introduce hands-on learning in integrated classrooms; it can be easier, for example, to mix students of varying skill levels in vocational, hands-on ESL than in traditional classroom ESL.

# Southeast Arkansas Community College, Arkansas

## CREATING A COMPRESSED, CONTEXTUALIZED PATHWAY FOR ALLIED HEALTH

When Southeast Arkansas Community College joined *Breaking Through* as a leadership college, program staff knew they needed to address developmental education. At the time, 95 percent of students entering SEARK needed remediation, and many were dropping out or using up their Pell Grant eligibility and funding before advancing to credit-bearing courses. SEARK staff considered asking the college's adult education providers to provide remediation for low-skilled students; after all, adult education courses are free. However, the adult education providers did not want to enroll students who already had high school credentials, which included many of the *Breaking Through* students. Also, that approach would do nothing to preserve students' Pell Grant funds.

- ☑ Determine what type of basic skills education to contextualize and accelerate. At SEARK, starting with developmental education made the most sense. Depending on the relationships across adult education providers, workforce development departments, and the college, it may work better to contextualize adult education courses or add basic skills to workforce education.

SEARK staff chose nursing and allied health as the content for contextualization. The school has had a nursing program for many years, and the region has a strong demand for health care workers. SEARK wanted to accelerate the nursing program just as it had for students in the college's Fast Track Developmental Education program, who advanced beyond remediation quickly.

- ☑ Focus on career fields that are in demand and in which the college has expertise.
- ☑ In redesigning the pathway to career credentials, accelerate not only the technical training but also the on ramps to each step of the pathway.

With the new program, students complete two to three semesters worth of remediation in one term, all contextualized for nursing and allied health. The next year is devoted to an accelerated nursing or allied health program. The traditional nursing pathway took at least three years—three semesters of remediation, two to complete general education requirements, and a year and a half of nursing coursework. Students can complete the new sequence in just three semesters

- ☑ Remind students of the payoffs that come from fast-tracked courses. Support staff can reinforce the importance of persisting through the program.

- ☑ Compress courses in terms of time, not content. At SEARK, the content is the same as the traditionally paced courses. In some cases, the program includes extra content to better prepare students for the workplace.

Program staff demonstrate to students the relevance of what they are learning to their future employment. Instructors draw content from the national NCLEX tests that are part of the requirements for earning nursing credentials. Reading assignments have nursing and health care themes. Employers also play an important role in showing students how their learning will pay off, and in some cases employers referred incumbent employees to the program. Working nurses also visit classrooms to show how skills learned in the contextualized program translate to the workplace.

- ☑ Use "field specialists" to demonstrate how classroom learning applies to the skills needed for work.
- ☑ Engage industry employers to review and refine career pathway maps.

The Community College of Denver’s accelerated ESL program features a learning community and reading, writing, and speaking in one block, offered three hours per day and three days per week. There are intermediate and high levels in the program. Graduates from the program go into compressed reading/writing courses. Using this approach, students complete more courses faster, thereby improving retention because they feel successful.

**Macomb Community College** uses compression in a bridge to career-training classes called the Basic Skills Upgrade Program. The program targets adults, some of whom are displaced workers, with fourth to eighth grade reading/math levels that are too low for workforce training programs. The program contextualizes the courses for life themes and common work skills such as resume writing. The program is ten hours per week of intensive instruction using direct and computerized instruction. Students can continue the computerized instruction outside of class, enabling them to accelerate faster. Upon completion of the program, a counselor works with students helping with the career search and providing referrals to a noncredit certificate trades program, an academic course at the college, or another program in the area.

**Tacoma Community College’s** I-BEST program accelerates the pace of learning by teaching basic skills or ESL and technical content concurrently. The integrated, industry-specific courses are cotaught by an ESL/ABE instructor and a professional/technical instructor. Students are able to build their basic skills and/or English language proficiency while they prepare for a certificate or degree, rather than having to wait to enter their chosen program of study. Students have access to a student support specialist while they are in the I-BEST program; more on Tacoma’s support services can be found in “Providing Comprehensive Support Services.”

**Pamlico Community College** helps students complete remedial math requirements more quickly by combining a pilot developmental course in basic math with an elementary algebra course for those testing below college level in math. Upon completing the new course, students retake the college placement test. All of the students in the small group that participated in the *Breaking Through* pilot placed into college-level math.

## Customization: Adapting Differentiated Instruction Strategies for Low-Skilled Adults

As early as the 1980s educators began exploring ways to apply research suggesting that providing equal educational opportunities does not mean teaching all students in the same way. Concurrently, advances in technology were providing teachers with the means to customize lesson plans for individual students. “Teaching to the norm,” or standardized instruction, was failing to meet the spectrum of developmental needs inherent in diverse classrooms. Tailoring instruction to lesson plans often forced educators to “teach to the middle of the class,” presenting the remaining students with either too much or too little intellectual challenge. At the same time, K-12 practitioners were questioning the traditional “one-size-fits-all” teaching approach as the increasing cultural diversity in classrooms highlighted each student’s unique set of learning needs, abilities, and interests.

Differentiated instruction emerged in K-12 education as an innovative approach to maximizing the learning potential of all students through “student-centered” teaching. Simply stated, differentiated instruction responds to learner variance. Teachers first assess each student’s readiness levels, interests, and preferred modes of learning. Based on these assessments, teachers modify what and how they teach, the tools they use, and the “temperature” of the learning environment. Ideally, differentiated instruction can empower teachers to reach each and every student wherever he or she is in the learning process.

While differentiated instruction has been a hot topic in elementary and secondary education for over 20 years, it is fairly new to adult education. Adult educators are now exploring how customization can benefit learners of all ages and skill levels. Customizing instruction for individual students has proved especially valuable in *Breaking Through* colleges, where adult learners are far more diverse in learning needs than is typical in K-12 classrooms. As noted, remediation needs may also vary significantly, from students who were never exposed to a critical concept to those who have mastered it. Customizing instruction gives colleges a way to address this diversity. While more empirical research is warranted to assess student achievement and teacher effectiveness in programs using customization, *Breaking Through* programs are showing promising results.

## CUSTOMIZING LEARNING FOR DIVERSE LEARNERS

**Davidson County Community College** basic skills instructors have created customized learning plans for their students by taking college-level texts from introductory occupational courses and extracting the parts applying to basic skills competencies (e.g., fractions, paragraph development). Instructors emphasize that students are doing college-level work, which can increase students' motivation and confidence that they will be successful in college. The relevant portions of the texts, kept in a three-ring binder, are organized by basic skills competencies and occupational areas. Instructors receive training in using these resources to pull out readings and assignments for each student based on his or her skill gaps and occupational interest, identified in a survey completed by each student at the beginning of the course. Because the binders are accessible in the classroom, teachers can easily customize instruction. This is particularly important when students in a classroom have varying career interests and skill needs.

Davidson County Community College also uses customization in its Achieving College/Career Entry (ACE) program, which serves college students who test into the lowest levels of developmental education. The program expedites students' completion of remediation by targeting specific skill deficiencies. ACE uses the TABE (Test of Adult Basic Education) to ascertain students' grade-level of functioning, obtain a benchmark, and determine where to focus skill development. Small groups, computerized instruction, and individualized texts are some of the approaches used in the classroom. Students can receive extra assistance from peer tutors, professional writing and math coaches, and a Learning Assistance Center. The program averages three to four months for precollege skill development, and offers students the ability to dually enroll in ACE and developmental education or college-level courses.



**Tip:** Use the requirements of higher-level training courses and occupational competencies to shape the curriculum development of introductory courses.

**Owensboro Community & Technical College** has three modes of delivering customized instruction to adult learners:

- > Delivering preparatory remediation in short-term blocks to students whose low math or reading skills would otherwise prevent them from entering a training program in the upcoming term.
- > Providing “pull-out” remediation to students identified by instructors as failing to grasp a particular topic. A remedial instructor works with the selected students, who are pulled out of regular class for a short-term series of lessons. For example, students in a welding class who are struggling with angles and degrees can get quick lessons on these concepts within the welding context.

- > Early on, the college provided easily accessible Web-based remediation through SkillTrain, its self-paced learning center. Now, through intensive enrollment management strategies, staff can provide assistance to students as needed. Students who have weak computer skills also receive help from students who have strong skills.

Building on its SkillTrain capacity, Owensboro developed a hybrid developmental math course that combines instructor-led workshops with self-paced computerized instruction. Owensboro also uses Web-based courses to provide customized, college-level, technical instruction. All Web-based instruction is accessible through one resource center, which is supported by staff and open during flexible hours. Students can work toward the Industry-based Modularized Accelerated Credential. The IMAC program offers each adult learner the ability to learn at his or her own pace, complete Web-based coursework anytime and anywhere, and demonstrate—and receive credit for—knowledge already attained. In this competency-based model, students spend less time reviewing what they already know. By customizing learning for these students, the college has dramatically improved retention rates.

**LaGuardia Community College**, which sees a wide range of academic skills among students entering its bridge programs, customizes its program and instruction to meet their needs in several ways. For example, in math learning stations, students work independently on exercises while the instructors assist individual students when appropriate. Students engage in self-directed activities at varying degrees of difficulty. When learning how to calculate area and perimeter, for example, students choose among three exercises at different levels of difficulty. They can move up a level if they feel confident, or do a lower-level skill-building exercise if they are struggling. Students complete a “reflection” sheet on different math exercises, identifying their skill gaps. Because students select their own activities, they feel more in control of their education and do not perceive the customization as “tracking.” Students also work together to fill in knowledge gaps and help complete the problems.

Many of the resources used in the classroom are created by the instructors based upon students' career interests. To customize lesson plans appropriately, instructors must be well versed in each student's needs and goals. Also available is a computer-based writing lab where the instructor rotates among students and helps them individually. In addition, extra materials and assignments are always available to allow students to do more advanced work.



**Tip:** Make acceleration strategies student-centered, utilizing a variety of remediation approaches to meet students' diverse needs.



**Tip:** Identify strategies that mitigate a student's fears associated with starting an accelerated program, which has been acknowledged as one barrier to enrollment..

**Pamlico Community College**, because it is small, has utilized a “one-room school” approach in its adult education/basic skills program for more than a decade. With a rich learning environment blending many forms of media, students proceed at their own pace and draw on varied learning techniques, including working with an instructor, using video resources alone or in groups, making presentations, working on computers to do research or take tests, and learning as a group. An important element in the classroom is encouraging students to find their strengths and become teachers to other students who may need help in that particular area.

Another way that Pamlico customizes learning is by offering targeted instruction to students who lack some of the required academic preparation for courses they wish to take. For example, a noncredit on-line occupational math course helped prospective paramedic students brush up on math and cover material usually dealt with in the basic math and elementary algebra classes. The course included live tutoring sessions. All students enrolled in the pilot courses placed into college-level math at its conclusion.

## TECHNOLOGY AS A TOOL FOR CUSTOMIZATION

A number of colleges utilize software and online programs to help them customize instruction for students.

**North Shore Community College** for example offers ALEKS, a computer-based mathematics tutorial program for students struggling with math.

**Cerritos Community College** utilizes Aztec software, which uses visual learning and can be accessed anywhere with an Internet connection. Teachers can easily monitor student progress and identify individual needs. The software works well for multilevel classes and ESL students.

**Central New Mexico Community College** students have access to KeyTrain during class time, which allows self-paced tutorials that are completed independently to address skill weaknesses. The WorkKeys assessment indicates which KeyTrain modules students should address. Students can continue KeyTrain work on their own, outside of class time. In addition, students can access the Math Learning Center to do skill building. A number of *Breaking Through* colleges use the WorkKeys assessment and KeyTrain; for more information, see the appendix.

## Contextualization: Developing Contextualized Remedial Instruction for Low-Skilled Adults

The insight that some students learn abstract concepts better in an applied context is a venerable one. According to the adult learning expert Thomas Sticht (1995; 1997), the military conducted extensive programs in World War II aimed at providing recruits with reading skills of a functional nature. During the 1960s and 1970s, Sticht (1995; 1997) developed content-based literacy programs with specific content for recruits whose skills averaged on the fourth- to sixth-grade levels.

Interest in contextualized approaches to literacy instruction intensified during the 1980s and 1990s, in both secondary and adult education. The Carl Perkins Vocational Education Act of 1984 focused attention on using the content of vocational education to strengthen math and reading skills. Similarly, President Reagan’s

Adult Literacy Initiative of 1983, and subsequent interest from business groups in workers' literacy, laid the foundation for the Workplace Literacy Act of 1991. However, the Workplace Literacy Act was not renewed, and many have wrongly interpreted the Workforce Investment Act's distinctions between literacy and technical training as meaning that federal funds could not be used for contextualized learning. Still, despite challenges in federal policy, interest in contextualization among educators, researchers, and policymakers remains strong.

Sticht (1995; 1997) concluded that content-based approaches to literacy offer "the fastest way to get adults from basic literacy to entry-level competence in reading in some desired domain" such as job training. Contextualization provides an immediate application of learning to adults' career and education goals, which can help students remain motivated to continue their studies. An adult literacy teachers' manual recommends that classroom activities "directly relate" to learners' goals so that students can see the connection between literacy instruction and achieving their goals, increasing the likelihood that they will continue coming to class (McShane 2005).

Contextualization was one highlighted approach in a National Research Center for Career and Technical Education examination of best practices for helping low-skilled adults transition to career pathways (Park, Ernst, & Kim 2007). More recently, based on a careful reading of available research, the Center for Law and Social Policy recommended integrating adult education and postsecondary education and training in order to help low-skilled adults access high-demand occupations with good wages (Strawn 2007).

Anecdotal reports from students indicate their responsiveness to contextualized learning. For example, an applied developmental mathematics student at Central New Mexico Community College's *Breaking Through* program indicated that he learned the exact math skills needed for electrical work. He believed that he would have struggled in this course without the contextualized math course background. Similarly, a student in LaGuardia Community College's GED Bridge to Health Careers program said, "This is good to know because nurses really do that," while taking notes on a patient in a book using the same charting format a nurse would use. This career skill was blended with skill development in note taking, reading comprehension, and summarizing.

### The Contextualization Toolkit

In 2005, many of the colleges applying to participate in *Breaking Through* indicated that they viewed the initiative's unrestricted funds as an opportunity to contextualize their remedial curricula. When asked to identify their primary technical-assistance needs, the colleges most frequently cited assistance in contextualization. Contextualization was a topic at every peer learning meeting of the initiative, and arguably the most fertile area for innovation among *Breaking Through* colleges.

Responding to this strong interest, *Breaking Through* has developed the Contextualization Toolkit, aimed at colleges seeking to develop their own contextualized learning programs. The Toolkit, which is part of the *Breaking Through Practice Guide*, is designed to help community colleges and other educators accelerate learning for low-skilled adults by integrating career subject matter with precollege skills development.

## CONTEXTUALIZATION AT *BREAKING THROUGH COLLEGES*

**Central New Mexico Community College** uses contextualization in its accelerated bridge program focused on the construction trades. Students in the developmental reading course read a construction textbook and practice reading strategies (e.g., summarizing, note taking, outlining, mapping, identifying and paraphrasing main ideas, and learning word parts and vocabulary related to construction). Developmental math faculty draw heavily from a math textbook that is contextualized for the construction trades. Students solve real-life problems in the construction trades, such as calculating the area of a roof using the Pythagorean theorem, determining the volume of a concrete slab for a house, and interpreting scale drawings.

**Community College of Denver** has contextualized the FastStart@CCD developmental education program to career exploration; this helps adult learners identify the career pathways that best match their interests and goals. All daytime students at CCD enroll in a college experience course that is contextualized around career exploration and planning (evening students are not required to take the class concurrently as they tend to be working full time). The developmental reading and English courses also focus content on career exploration, including reflections about students' strengths and interests, informational interviews, interviews with individuals in students' careers of interest, and an "I-Search" paper documenting students' career research.

**Davidson County Community College** has contextualized its basic skills program (adult secondary education, GED, and adult basic education) in the areas of math, reading, and writing, using specific occupations and job areas: certified nursing assistant, pharmacy technology, phlebotomy, medical office worker, truck driver, automotive technician, HVAC, welding, and early childhood education. By completing these programs, community college students get a head start on their college-level career pathways content, while addressing basic skills deficiencies. The college uses contextualization to help motivate students to move into credit-level programs after obtaining their GEDs. Students receive the contextualized curricula if their aptitude and identified career interests correspond to curricula that have been developed. ABE and GED students have varying career interests, so they receive the contextualized curricula on an individual or small group basis. The college is developing contextualized content for several additional occupations and job areas: biotechnology, industrial systems, computer information, technology, business, motorcycle mechanic, and cosmetology.



**Tip:** Develop relationships with local employers to ensure that the program is providing students with the right skills to succeed.

**LaGuardia Community College** has contextualized its GED to College Bridge curricula using health and business/technology content. Each GED Bridge program operates as a single course, and the contextualized curriculum covers the GED subject areas, health or business/technology content, and career-skills training and exploration. Students develop GED-related skills, professional knowledge and competencies, and work-readiness skills. For example, in one activity in the GED Bridge to Business class the students conducted a community-needs survey, analyzed the survey results and other community data, and proposed a business or service based on the data. The skills addressed through this activity included number conversion, research and academic writing, and "entrepreneurship" skills. In another example, the GED Bridge to Health class required that students read an historical fiction novel chronicling the 1850 cholera epidemic. Students practiced critical reading and developed visual literacy skills as they mapped the spread of the epidemic and graphed modern epidemics for comparative purposes.

# Davidson Community College, North Carolina

## DEVELOPING CONTEXTUALIZED CAREER PATHWAY PROGRAMS

Davidson Community College's *Breaking Through* goal was to develop contextualized programs that would connect adult education, GED, and ESL students to credit-level career-pathways programs.

The first step was choosing what career pathways the program would develop.

- ☑ Meet with department chairs and associate deans on the credit side of the college to develop sector-based pathways.
- ☑ Assess local employment data: The local Workforce Investment Board was a good source of data and information.
- ☑ Determine the criteria for selecting a career field: At Davidson, the goal was to focus on career fields with good employment prospects in pathways that lead to certificates, diplomas, and/or college credit.

Once Davidson had identified its career fields, the next step was identifying the specific credentials students could earn. The for-credit side of the college and the Workforce Investment Board were good resources for this process as well.

Davidson started with the following credentials:

- > Health care: CNA level 1, medical office assistant, pharmacy technician
- > Child care: Child care center worker, public school teaching assistant, day care administrator
- > Transportation: Truck driver training, automotive technology

Davidson also recently added programs in heating and air conditioning, motorcycle mechanics, and cosmetology.

With the pathways created, the next step was to contextualize instruction to those career fields. (See the Contextualization Toolkit for detailed information about how Davidson developed its contextualized, customizable coursework.) The final step was to connect with basic skills students and recruit them into the pathway programs.

- ☑ Develop students' understanding of the credentials needed for a well-paying job in today's marketplace: This was especially important for recently unemployed factory workers.

- ☑ Ensure that students are focused on an area that interests them; A student orientation, including career assessments, helped ensure that students were making good choices. Davidson uses the MECA computer software to help students explore career options.
- ☑ Show students how the contextualized coursework related to more advanced technical training: By using materials from college-level texts, students began to see themselves as college ready.

With the pathways in place and the students recruited, Davidson piloted its program. During the pilot phase, Davidson worked on further improving the curriculum and program.

- ☑ Collect data on pilot participants: The data were used to assess effectiveness and improve curricula.
- ☑ Create staff development activities: The staff who taught the pilot classes were a good resource for training other faculty, and their enthusiasm helped spread support.
- ☑ Continue to improve and expand the program even after the pilot ended: Success with the *Breaking Through* project has led to the development of more contextualized courses throughout the college.

Davidson's advice for colleges developing similar programs is simple:

- ☑ Get input from the credit side of the college. Such advice and support is important.
- ☑ Get ongoing feedback and do continuous evaluation.
- ☑ Identify the resources you need to support your work.
- ☑ Let your core staff act as ambassadors to the rest of the college: their enthusiasm and buy-in can help promote your practices among peers.

**North Shore Community College** has contextualized its noncredit ESOL classes to early-childhood education, opening up this pathway to incumbent child care providers for whom English is not their native language. A thirteen-week series of bilingual workshops covering early-childhood content are infused with ESOL instruction and designed for lower-skilled ESOL individuals. A Spanish-speaking achievement coach uses children's storybooks and related literacy materials as tools for teaching child care providers about early-childhood practice. English for Childcare Workers I, a noncredit, contextualized ESOL course, has been offered using various schedules in order to meet the needs of participants (e.g., Saturday mornings and one evening a week for ten, twelve, or thirteen weeks or twice a week for six or eight weeks). The course is designed for students with higher English proficiency levels. They use an ESOL book, read children's books, improve their English, and build professionalism. In the future, the college would like to make the class more intensive so that students develop their English proficiency more rapidly.

**Owensboro Community & Technical College** has contextualized developmental education and general education for two career pathways: health care and industrial maintenance. For the remedial math course in the nursing program, the college's Workforce Solutions Division facilitated discussions that brought together the math teacher for the course, the math division chair who approves course competencies, hospital personnel who understand math competencies required on the job, and the nursing faculty who know the skills necessary for nursing courses. All of this helped develop a framework for the course. For the Industrial Maintenance program's basic communications course, the division worked with faculty from Industrial Maintenance who approved the assignments, ensured that the vocabulary was appropriate, and suggested different ways of teaching the material. The Industrial Maintenance and advanced welding courses, now in development, will have a math curriculum taught along with the technical content.

**Southeast Arkansas Community College** uses contextualization in a, fast-track developmental education bridge program in English, reading, and math for students entering nursing or allied health programs. The program serves lower-skilled adults employed in health care jobs at the regional medical center. As examples of contextualization, faculty incorporate questions from the nursing licensure exam into writing assignments, identify math problems from the television program *House*, and include information from medical textbooks in the curricula. To develop the contextualized curricula, developmental education faculty researched information about nursing and allied health, including anatomy and physiology, and incorporated medical terminology and medical reading into the curriculum for their courses. Students' feedback informs modifications to the curricula. Developmental education instructors were paired with a "field specialist"/ content teacher (e.g., an employer such as a nurse practitioner or a member of the occupational faculty) in the classroom. This helped with curriculum development and delivery of the courses. The "field specialist" demonstrated how the skills apply in the workplace. The developmental education instructors now have a strong base of experience and solid curricula, so the paired instruction will be discontinued for cost considerations. SEARK is currently working on contextualizing and accelerating developmental education for early childhood-education.

**Henry Ford Community College** offers contextualized learning in its JET Plus and Weatherization programs. The JET Plus program serves students below a fifth-grade reading level through "work readiness" offerings, while students at a sixth-seventh grade reading level and beyond can participate in certified nursing assistant training. The CNA training program is forty-two weeks, including eight weeks of preparatory classes, contextualized reading and math classes, contextualized ESL classes, noncredit CNA training, and two college-level classes: Computers and Health Careers and Customer Service. CNA students also receive customized training through KeyTrain, case management, and field experience through health care internships. Important partners in the program include a community-based organization serving the Arab community, called ACCESS, and healthcare employers.

The Weatherization program was created through a partnership among Henry Ford Community College, local community-based organizations, and the City of Detroit Workforce Development Department. Their goal was to provide training in anticipation of federal stimulus funding for “green jobs.” Recently, the program held its first job fair and twelve out of thirty program completers were hired; some of the remaining students had interviews scheduled. The program offers occupational training and contextualized learning for dislocated workers operating at a seventh-eighth grade reading level or higher. Cohorts of students attend classes five days a week, eight hours a day, for ten weeks in topics such as energy efficiency, the anatomy of a house, the construction site and tools, the weatherization process, energy savings in homes, renewable energy, occupational safety and health considerations, and lead-abatement and air quality issues. A developmental education reading instructor, a math instructor, and staff from a community-based training center called WARM collaborated to develop and contextualize the curriculum. The contextualized math curriculum for the training topics has been very effective; as an example, students estimate the economic returns on energy efficiency investments in homes. The community-based organizations who are partners in the program offer recruitment, screening, on-site training, and wraparound services. GTE, a large utility company, is part of the training program’s advisory committee.

## Scaling Up Accelerated Learning: Case Study of Community College of Denver

The Community College of Denver’s *Breaking Through* demonstration tackled one of the major challenges facing community colleges today: decreasing the time students spend in remediation while maintaining or increasing the quality of their learning. CCD tested the hypothesis that an accelerated program—that is, compressing the same amount of instruction into half the time—which is structured as a learning community and situated in a strong network of support for students could improve retention and completion rates for students in developmental education.

The program, FastStart@CCD, offers accelerated, intensive developmental education courses along with case management and an array of other supports for students. The design has succeeded beyond expectations: when FastStart math students are compared with a control group of developmental education students, their outcomes are significantly better in several measures of academic success and retention. These outcome data have persuaded the college to scale up the FastStart program, making accelerated course options and supports available to all eligible developmental education students at the college as well as expanding the number of innovative course offerings to include new pairings of developmental and college-level courses.

At the heart of the design of FastStart@CCD is accelerated learning, a strategy that is commonly used with college-ready adult students, but that has not been adapted or tested for students with multiple deficits in college readiness—CCD’s challenge and goal. CCD’s approach to accelerated learning is to compress two to four levels of developmental education—either math or reading and writing—into one term, pairing it with a first-year college-experience course. As the project has progressed, FastStart has expanded its course pairings to include the highest level of developmental math with college algebra and the highest level of developmental English with college-level speech and communications. Contextualization, using career exploration as the context, is used extensively in the developmental reading and writing course pairings. Resources and activities that help students identify career and education goals are integrated into class activities and assignments, which are coordinated with career-exploration activities in the college-experience course.

FastStart@CCD draws on the theory and practice of learning communities, which views the cohort as the agent of change, both in learning and in the process of becoming a successful member of the college community. The first point of contact for the prospective FastStart student is the case manager, who walks each student through the program, helping students assess whether the intensive coursework required in FastStart is compatible with their individual learning style and with their work and family obligations. Enrolled students maintain contact with their case manager and participate in weekly study groups with faculty, as their schedules permit. Experienced student “ambassadors,” working under the supervision of the case manager, are another part of the team that maintains contact with students, and throughout the program students have access to tutoring, technology labs, and other college and community resources.

Recognizing that they would need evidence of the program’s successes—for college administrators and other potential funders—Elaine Baker, director of *Breaking Through* at CCD and the college’s director of Workforce Initiatives, worked with program coordinator, Lisa Silverstein, to institute a process for collecting and evaluating progress and outcomes data. Comparison groups of students demographically comparable to those in FastStart were constructed, and their progress was compared over a period of 24 months. Data collection and analysis are ongoing, but the findings so far are impressive: FastStart students have done better than the baseline group on several measures of academic performance, including completion of developmental math courses, accumulation of credits in developmental math, and passing college math “gatekeeper” courses. Once it is remembered that the FastStart students must master their course content in half the time of the comparison groups, the FastStart students’ higher rates of success are especially impressive:

#### COURSE COMPLETION BY ACADEMIC YEAR

Developmental Math		
	CCD	FastStart
AY 07	61.3%	68%
AY 08	55.2%	68.2%

Developmental English		
	CCD	FastStart
AY 07	65.2%	83.6%
AY 08	63.9%	70.4%

FastStart staff also anticipated that they would need to address the issue of program cost in order to make the case that their model could be sustained and expanded. In particular, they wanted to know whether the higher investment made “up front” in this innovative program would pay off over time. With support from the Ford Foundation Bridges to Opportunity Project and the Lumina Foundation for Education, a cost-benefit tool was developed; analysis using this tool showed additional program costs associated with FastStart were recouped through increased retention within a few semesters.

Baker says that the scaling-up process is proceeding well, but she emphasizes that it will take several years and require active leadership. The first step, she says, is to demonstrate program quality on a small scale, then use the results to gain support from staff and administrators throughout the college.

“Scaling up has been a slow process of institutionalization,” Baker says. “The key is proving the model, then it grows pretty organically. You have to start out with quality, and then it’s a negotiation within the college and having support of all levels from the faculty to the program chairs to the dean to the vice president of instruction to the college president.”

Given evidence that FastStart's students are performing better than those in their comparison groups and that investment in FastStart pays off very quickly, the college has committed to institutionalizing the program. The goal is to expand access to every eligible developmental education student at CCD.

Two kinds of investment are supporting CCD's progress toward this goal. The college is supporting two FastStart positions, a case manager and a part-time program coordinator. A grant from *Breaking Through* supports ongoing curriculum and resource development and tracking and analysis of student outcomes.

As anywhere, scaling up FastStart@CCD has encountered challenges. Scheduling these compressed courses can be complex, and finding additional classroom space is always a problem. In addition, professional development is needed for new and existing faculty.

Expanding the college's accelerated programs and student supports is having a major impact in terms of improved outcomes, according to Baker. "Success breeds a sense of belonging and a more realistic commitment to forbear the stress of going to college and working," she says. "Most of our folks work 20 hours a week or more, and most have families. They have to see the value [of their efforts]—that I can succeed in this, I can do this, I can get there. The process is seeing yourself as a competent student, someone who can achieve a goal and have a career."

## References

- Bowling, Nathan, Lana Ivanitskaya, & Katie Ries. 2002. "How Effective Are Compressed Courses?" *On Target: Central Michigan University's Faculty Development Newsletter*. Vol. 1, No. 3.
- Commission for Accelerated Programs. *Cap Network: Building Communities for Accelerated Programs in Higher Education*. Retrieved September 30, 2009, from [http://www.capnetwork.org/modules.php?op=modload&name=FAQ&file=index&myfaq=yes&id\\_cat=2#9](http://www.capnetwork.org/modules.php?op=modload&name=FAQ&file=index&myfaq=yes&id_cat=2#9).
- Daniel, Eileen L. 2000. "A Review of Time-shortened Courses across Disciplines." *College Student Journal*. Vol. 34. June.
- Imel, Susan. 1988. *Workplace Literacy Programs*. ERIC Digest No. 70. Columbus, OH: ERIC Clearinghouse on Adult Career and Vocational Education (ERIC Document Reproduction Service No. ED 292974).
- Liebowitz, Marty & Judith Combes Taylor. 2004. *Breaking Through: Helping Low-Skilled Adults Enter and Succeed in College and Careers*. Boston, MA: Jobs for the Future.
- McShane, Susan. 2005. *Applying Research in Reading Instruction for Adults: First Steps for Teachers*. National Center for Family Literacy. Available at: <http://www.nifl.gov/partnershipforreading/publications/applyingresearch.pdf> (Retrieved 6/6/2009).
- Park, Rosemarie, J., Stacy Ernst, & Eunyoung Kim. 2007. *Moving beyond the GED: Low-Skilled Adult Transition to Occupational Pathways at Community Colleges Leading to Family-Supporting Careers*. St. Paul, MN: National Research Center for Career and Technical Education.
- Scott, Patricia A. & Clifton F. Conrad. 1991. "A Critique of Intensive Courses and an Agenda for Research." *Higher Education: Handbook of Theory and Research*. Vol. 8.
- Sticht, Thomas. 1997. "The Theory behind Content-based Instruction." *Focus on Basics: Connecting Research and Practice*. Vol. 1, Issue D.
- Sticht, Thomas. 1995. *The Military Experience and Workplace Literacy: A Review and Synthesis for Policy and Practice*. Technical Report TR94-01. Philadelphia: National Council on Adult Literacy.
- Strawn, Julie. 2007. *Policies to Promote Adult Education and Postsecondary Alignment*. New York, NY: Council for the Advancement of Adult Literacy. Available at: <http://www.nationalcommissiononadulthoodliteracy.org/content/strawnbriefrev101807.pdf.pdf> (Accessed May 31, 2009).
- Wlodkowski, Raymond J. 2003. "Accelerated Learning in Colleges and Universities." *New Directions for Adult and Continuing Education*. Vol. 97. Spring.

# THE BREAKING THROUGH PRACTICE GUIDE

Providing Comprehensive  
Support Services

# TABLE OF CONTENTS

<b>INTRODUCTION</b>	<b>3.3</b>
<b>ASSESSMENTS &amp; INTAKE</b>	<b>3.6</b>
Academic Content	3.6
Academic Learning Styles and Learning Disorders	3.6
Aptitudes and Strengths Assessments	3.6
Assessing Internal and External Factors	3.7
<b>CONNECTING STUDENTS WITH ACADEMIC AND NONACADEMIC SUPPORTS</b>	<b>3.7</b>
Vignette: Tacoma Community College, Washington	3.8
Connecting Students with Existing Services at <i>Breaking Through</i> Colleges	3.9
Partnering with External Organizations	3.9
Providing Essential Support Services In-house	3.10
<b>PROVIDING ADVISORS OR COACHES</b>	<b>3.12</b>
Providing Mentoring and Advising at <i>Breaking Through</i> Colleges	3.13
<b>TRAINING COLLEGE STAFF</b>	<b>3.15</b>
Development of the <i>Breaking Through</i> Advisor Training Program	3.15
Vignette: Forsyth Technical Community College, North Carolina	3.19
<b>SCALING UP SUPPORT SERVICES: CASE STUDY OF PORTLAND COMMUNITY COLLEGE</b>	<b>3.20</b>
<hr/>	
<b>REFERENCES</b>	<b>3.22</b>

# PROVIDING COMPREHENSIVE SUPPORT SERVICES

## Introduction

*Breaking Through* targets adult learners, older and younger, with reading and math skills below the eighth-grade level. Many colleges seek to facilitate the education and training of these adult learners by offering flexible course schedules, including holding classes in the evening and on the weekends. Yet the research conducted by *Breaking Through* in 2004 documented that many life challenges cluster with low literacy: poverty and related issues (e.g., problems with transportation, housing, elder care); negative experiences with formal education; limited knowledge about and experience in the labor market; and high levels of involvement with the criminal justice system (Liebowitz & Taylor 2004). The challenge facing *Breaking Through* students is not simply to find classes offered at convenient times or master technical skills; they often lack the basic literacy skills needed to do college-level studies. Beyond academics, low-income, low-skilled working adults have to overcome multiple institutional and individual barriers to attain educational success. Challenges such as unstable housing, child care needs, domestic violence or other unsafe living situations, and poor mental health can all impede educational progress.

These significant life challenges can deter the students targeted by *Breaking Through* from enrolling in college, and derail them from progressing. Support services to address these challenges are essential for high-need students, yet they are rarely available to students in remedial programs. Even services that are available tend to be passive—that is, students must seek them out. In addition, support staff—and college staff in general—are often ill equipped to respond to the crises faced by these students. The high-leverage strategy proposed by *Breaking Through* is to provide comprehensive support services by:

- > Connecting students with a wide array of academic and nonacademic supports;
- > Providing students with proactive support; and
- > Training coaches and other college staff to work with low-income, low-skilled adults.

Support services are essential in any effort to bring “nontraditional” students into the mainstream of higher education and onto pathways to credential attainment and career advancement. Perhaps the first formal recognition of this came with Title IV of the groundbreaking Higher Education Act of 1965, aimed at encouraging low-income students and minorities to enroll in college. Under this act, efforts to provide additional assistance focused initially on financial aid. Congress later expanded the concept of assistance in its 1968 reauthorization of the act, which established the TRIO program that included tutoring, counseling, remedial instruction, and other student support services.

Since then, the goal of TRIO programs has been to enable students “to progress through the academic pipeline from middle school to post-baccalaureate programs” (U.S. Department of Education 2009). However, these supports have been primarily geared toward “traditional” students—those entering college from the K-12 pipeline—although exceptions have been added over the years (e.g., for veterans returning from military service to postsecondary education) (Association for Equality and Excellence in Education, 2009).

## The Diversity of Community College Students

The demographics of community college enrollments have shifted to include increasing numbers of “nontraditional” students, including older, minority, and employed students. In this context, innovations spurred by *Breaking Through* will become increasingly important in the coming years.

**Age:** Community college students are older than traditional college students.

The average age of community college students is 29.

- 57 percent are 22 or older.
- 16 percent are 40 or older.

**Balancing Work & School:** Community college students work more hours and attend school less than traditional college students.

- 59 percent of students attend part-time.
- 27 percent of full-time students work full-time.
- 50 percent of part-time students work full-time.

**Income:** Community college students have lower incomes than traditional college students.

- 46 percent of independent students have an annual income less than \$25,000.
- 33 percent of the students in the lowest independent income bracket are single parents.

**Students of Color:** Community colleges serve a large percentage of all undergraduate students from racial and ethnic minority backgrounds, including:

- 46 percent of all African-American undergraduates
- 55 percent of all Hispanic undergraduates
- 46 percent of all Asian/Pacific Islander undergraduates
- 55 percent of Native-American undergraduates

Source: American Association of Community Colleges 2009. Income data is from the National Center for Education Statistics (Provasnik & Planty 2008).

Research on student persistence has examined the factors leading to dropping out of college and how support services can reduce dropout rates. Vincent Tinto, a pioneer in the study of the causes of student attrition, demonstrated in the 1970s that nontraditional students, especially minorities, had the highest attrition rates, which he attributed to a lack of engagement between the college and the student, especially

in the crucial first year (Bailey & Alfonso, 2005). Several important innovations grew out of Tinto's work: learning communities or cohorts as a mechanism to engage and support students; increased attention to providing supports in the first year; and the tracking of progress in this area through the annual Community College Survey of Student Engagement, a project of the Community College Leadership Program at the University of Texas at Austin (Choy 2002).

The Array of Services Encompassed by the Term "Student Supports"	
Academic Supports	Tutoring (one-on-one, group tutoring, drop-in centers)
	On-line and computer-based tutorial/skill development programs
	College success courses; study skill courses
	Study groups
	Academic-resource labs, where students can access computers, reference books, on-line resources, career-exploration tools, and more
	Testing and accommodations for learning disabilities
	Academic advising to help with course selection and choosing a major
	Career counseling to help students choose a career field and search for jobs
Nonacademic Supports	Learning communities in which a group of students take classes together and engage in activities together
	Coaching/case management/counseling in which an assigned coach or staff person provides intensive support to help students work through crises and life challenges
	Referral services to outside social service agencies, health services, housing assistance, etc.
	Peer mentoring programs
Material and Financial Resources	Emergency funds for short-term crises (e.g., loss of housing, medical emergencies)
	Subsidies for books, transportation, supplies
	Child care
	Food or clothing

While most research on student persistence has focused on traditional students, and in particular on those at four-year colleges, John Bean and Barbara Metzner argued that for the nontraditional student external barriers—including the many life issues related to poverty—may be more likely to lead to dropping out (Bailey & Alfonso 2005). Recently, various researchers have argued that if community colleges are to improve retention, they must focus on the many barriers to persistence that nontraditional low-income students face (Bailey & Alfonso 2005; Krodell et al. 2009). For these students, limited access to the external support systems that many middle-class students take for granted (supportive relationships, financial stability, and familiarity with the college environment) can easily disrupt their educational progress (Krodell et al. 2009). Comprehensive support services at the community college can give students access to these support systems, which are critical to their academic success (Community College Survey of Student Engagement 2008; Council for Advancement of Adult Literacy 2008).

Essential to the provision of these services are mechanisms by which the colleges assess the various academic, social, or financial barriers that might prevent academic progress for each student. Some colleges utilize written surveys; others utilize program staff or coaches. Most colleges combine the two approaches. For example, at Central New Mexico Community College, the achievement coach works with students to complete a questionnaire that captures detailed information on their educational goals, current supports, and life challenges that might impede these goals.

While an initial comprehensive assessment is important, *Breaking Through* colleges have learned that a student's multiple barriers to education are a moving target. They evolve throughout the semester, sometimes requiring much more attention than anyone could have originally imagined. Thus, paying attention to new needs as they develop and helping students learn to address these barriers are critical components of the supportive services offered by these colleges.



**Tip:** Find or develop quality assessment tools that measure students' academic skills and learning styles as well as individual barriers and attitudes toward education. When possible, interview students in person. This helps them form a relationship with staff right away.

## Assessments & Intake

To direct students to the most appropriate courses, programs, and services, support-services staff need to be able to assess students in four broad areas, whether informally or formally, through a tool or metric. Assessments can be conducted during the enrollment or intake period, but many colleges also conduct ongoing assessments of students.

### ACADEMIC CONTENT

This is the most common type of assessment used by colleges; it is used to determine what courses students are prepared to take. There are a few nationally recognized assessments, such as ACCUPLACER and COMPASS. A number of colleges use these assessments to find out if students need to take developmental education courses before starting for-credit coursework, and if so, at what level they need to start. For students in Adult Education, colleges often use the Test of Adult Base Education (TABE) to assess skill level.

### ACADEMIC LEARNING STYLES AND LEARNING DISORDERS

This type of assessment can help faculty and staff understand what instructional approaches will work best with students. Assessments of learning style help instructors know whether students are visual, auditory, or other types of learners, which can help in customizing content. Low-skilled adults entering community colleges may have undiagnosed learning disabilities; these types of assessments can test for dyslexia or other disabilities that require a different instructional approach or additional support services.

### APTITUDES AND STRENGTHS ASSESSMENTS

Advisors who are helping students choose a career path may use a variety of assessments to gauge students' interests, strengths, and basic aptitudes. These range from general questions about attitudes and preferences (e.g., working alone versus on a team, moving around versus sitting at a desk) to specific questions about job activities (e.g., working with cars, taking patients' blood, entering information in a computer). These assessments can help students choose career training paths that will be good fits for them, which in turn makes it more likely that they will succeed in their career pathway.

## ASSESSING INTERNAL AND EXTERNAL FACTORS

Support staff taking a comprehensive approach to working with adult students may also want to assess the internal and external barriers to students' success. For example, it is helpful to know if students have jobs, children to care for, stable housing, and consistent access to transportation. It is also helpful to know of any internal barriers that students may be struggling with, such as mental illness, abusive relationships, low levels of confidence, or high levels of stress.

## Connecting Students with Academic and Nonacademic Supports

With growing numbers of low-skilled adults entering education and training programs, effective support services are essential if community colleges are to increase student retention and degree completion. Since the 1960s community colleges have expanded the resources available to provide supports to students, including those in developmental education, even though federal funding has been limited and state funding variable or nonexistent. According to researchers at MDRC, "Outside the community colleges themselves, dollars to support improvements in student services are extremely limited and are targeted only to certain subsets of the student population" (Purnell et. al. 2004). Few colleges offer all the supports listed on page 3.5, and many of the supports that are available target specific groups. Because of these limitations, colleges vary dramatically in terms of the supports they offer, and to whom.

Not only is funding scarce, but support services, to the extent that community colleges make them available, are almost always reserved for students in the for-credit side of a college (Liebowitz & Taylor 2004). The services are thus inaccessible to the large population of low-skilled adults who are enrolled in adult education and noncredit workforce programs. In some states, the K-12 systems run ABE programs, which are not connected with any college-based supports. Even when adult education is offered by colleges—either because the community college system administers WIA Title II or because the college itself is a contracted provider of services—students rarely are considered "college students." Therefore, low-skilled adult students (and students in noncredit workforce programs, in general) rarely have access to services for "regular" college students—not just support services but also email accounts, library cards, or college-sponsored events. (Some of these students can use services provided in their own departments.)

Some colleges have found that the support services they offered to developmental education students—generally the only low-skilled group to qualify for on-campus supports—were not designed for students with profound academic deficiencies. As one college reported to *Breaking Through* researchers in 2008, "Administrative and academic counseling supports are designed with a traditional college student in mind." These supports focus on academics, through tutoring and drop-in learning centers. While important, they cannot address the major life challenges many students face.

Many *Breaking Through* colleges have focused on improving the support services offered to students in remedial programs. The strategies, although varied, generally fall into three categories:

- > Connecting students with campus services previously unavailable to nontraditional students;
- > Partnering with external entities for the provision of support services; and
- > Creating essential supports in-house for the *Breaking Through* target population.

# Tacoma Community College, Washington

## INTEGRATING ADULT BASIC EDUCATION INTO THE COLLEGE

Tacoma Community College's *Breaking Through* efforts integrate with Washington State's I-BEST program. In the I-BEST program, instruction is accelerated by placing two instructors, one remedial and one technical, in the same classroom to concurrently teach academic and technical skills. Through TCC's participation in *Breaking Through*, it recognized the importance of providing comprehensive support services. Because of TCC's efforts, basic skills students in the I-BEST program now have access to a wide range of supports, including a support-services specialist who provides intensive, intrusive advising and also serves as a single point of contact for campus-based resources.

Before 2007, however, a number of barriers lessened students' access to support services:

- The basic skills office was hard to find and felt separate from the rest of the campus. Basic skills students did not see themselves as part of the college, and they were unlikely to seek out campus-based support services.
- Support staff at the college assumed that basic skills students did not qualify for support services because they did not pay tuition.
- The assessment center had little connection to the basic skills office. Many students who were referred to basic skills after taking the entrance test never bothered to go to the office; instead, they gave up on enrolling altogether.

During campus remodeling in 2007, TCC staff saw an opportunity to physically integrate the basic skills department with support services. Integration was pitched and adopted quickly as a cost-saving measure: basic skills could share material and labor costs with support services and assessments. Now the basic skills offices are located in the same building as other campus advisors, financial aid services, and other supports.

Basic skills lost three classrooms in this process, but that was beneficial: now students take classes in the same buildings as for-credit students, and they feel much more connected to the college.

Tacoma's approach to providing access to supports hinges on improving the connections between basic skills and the for-credit side of the college:

- Get involved with committees and campus initiatives: At TCC, this level of interaction highlighted what students in basic skills/I-BEST were accomplishing.
- Clarify for support staff on the for-credit side what services could and should be available to noncredit students.

- Build relationships with staff from all campus services: TCC felt that having a support-services specialist or success coach serving in this capacity was ideal. It gives students a single point of contact with the campus resources they may need.
- Help basic skills students understand what services they can access. At TCC, having the basic skills offices in the same building as support offices sends a signal to students that those services are also available for them.

TCC's remodeling improved the connection between basic skills and the rest of the college, and it increased student access to supports, but the support-services specialist is still essential. Intrusive support throughout the program helps keep students on track.

- Start the session with an orientation that covers student expectations and available resources. Hold cohort meetings at least once a semester.
- Advise students before, during, and after the program.
- Keep in touch with faculty; have them alert the program staff to any student issues they notice.
- Have an open-door policy.

Even though colleges and basic skills programs rarely have the chance to do strategic remodeling, the process that Tacoma engaged in can be used to build general support for programs.

- Be part of committees, talk about your program and your students whenever possible, and share evidence of success.
- Show how your initiative will benefit the rest of the college, whether by saving costs or by increasing overall revenue.
- Find out what assumptions are made about serving your students, and dispel any myths.

## CONNECTING STUDENTS WITH EXISTING SERVICES AT *BREAKING THROUGH* COLLEGES

Many *Breaking Through* colleges make on-campus services available to noncredit, ABE, and developmental education students. The colleges seek to ensure that existing resources are available for their students and that students are aware of and connected with those resources.

**Cuyahoga Community College's** *Breaking Through* director works directly with *Breaking Through* students to help them secure resources within or outside the college. Program staff automatically refer students to counseling and student affairs and make sure that these departments know which *Breaking Through* students are utilizing their services. Cuyahoga's counseling department offers a variety of workshops, advertising them online and in print. Students in all programs must attend 20 hours of workshops, and staff have the instructor sign off students on the attendance list.



**Tip:** Stress the importance of the intake process, which includes assessing students, discussing their goals, and finding out what life challenges they face.

**Lake Michigan College** connects students who are TANF recipients in their noncredit career pathways programs with the campus's TRIO programs, which provide tutoring, guidance, and other supports. The Educational Opportunity Center can help students 19 and older who are not currently enrolled in college-level courses to fill out applications, complete financial aid forms, and register for courses at a college of their choice. Instructors and staff in the noncredit programs make referrals. TRIO staff also conduct "lunch and learn" sessions with program participants.

**Portland Community College** program staff ensure that students have regular access to tutoring either by helping them navigate the drop-in tutoring centers or by setting up one-on-one tutoring sessions. PCC has funding available specifically for providing access to tutors who work with students on building academic or study skills, using computers as needed when students require extra help.

## PARTNERING WITH EXTERNAL ORGANIZATIONS

Some colleges have found that strong external partnerships are essential for providing students with necessary academic, social, and material supports. In some cases, community-based organizations provide services that are beyond the capacity of the college, such as bilingual case management and job placement services.

**North Shore Community College** has a longstanding partnership with the North Shore Community Action Program and Operation Bootstrap. These organizations serve many of the cities in the college's service area and often serve as a pipeline to the college. They can advise students on issues such as housing or child care and often have more expertise in these areas than does the college. Teachers and advisors at the college refer students to the agencies. While there is no formal process for evaluating the benefits of the partnerships, students do report back that the services were helpful. North Shore Community Action also partnered with the college to apply for a grant from the Nellie Mae Education Foundation to help students who have received their GED transition to postsecondary training programs through contextualized developmental coursework in health and human services. For this program, which can serve 15 GED graduates each session, the college provides the curriculum and academic support (through ALEKS, a Web-based math program), while NSCAP hires staff and provides advising and support services.

**Southeast Arkansas College** partners with the Southern Good Faith Fund, a local community-based organization, to provide a variety of support services for *Breaking Through* students, with a focus on increasing financial stability. Qualifying students (eligibility for many of these programs is income based) get access to career and financial counseling and can take financial literacy classes, set up Individual Development Accounts (matched savings funds), and get help preparing tax returns. The college and the CBO share responsibility and ownership for student retention and developed well-established roles and responsibilities from the outset of their partnership. Students can access these services on their own, but the college often refers them to the fund. The college follows up with students to find out if the services they accessed were helpful; in most cases they are. The credit counseling helped two SEARK students keep their homes, and the free tax assistance helped many students get their refunds without having to pay the exorbitant lending fees often associated with rapid-refund services.

**Davidson County Community College** has a strong and long-standing partnership with its local Workforce Investment Board. For eligible students, Workforce Investment Act funds pay for books and tuition (which the college bills to the WIB), along with paying for child care and transportation, which are provided directly to the students. The local One-Stop Career Center is also a source of part-time work for many students.

### PROVIDING ESSENTIAL SUPPORT SERVICES IN-HOUSE

Many *Breaking Through* colleges decided that it made sense to create their own services, going beyond providing access to existing programs. In some cases, the college did not currently offer the services; in others, external providers could not give the college's students access to the services they needed. For example, if a learning center were open only during the day or focused on higher-level coursework, a *Breaking Through* program might create a learning center with evening hours and additional supports for program students. In other cases, programs created learning communities—which are typically reserved for first-time, full-time students—specifically for students in remedial programs. In addition, some programs found it essential to develop material supports, such as emergency funds or food pantries, for their noncredit students.

**Community College of Denver** has adopted a learning communities approach for students in its FastStart@CCD accelerated developmental education program. These learning communities integrate academic, social, and career supports through formal and informal learning activities, including experiential learning opportunities. Students are encouraged to learn collaboratively and to help one another. Faculty members are critical in supporting and nurturing this community of students because of the demands of an accelerated program. During the intake interview, a case manager assesses the student's motivation and ability to succeed in this type of learning format. FastStart instructors attend group study times with their students throughout the semester, and the students can receive additional instruction and support from both their instructors and their peers.

**LaGuardia Community College's** GED Bridge Program creates learning communities by using a cohort model in offering GED instruction and postsecondary transitional services and counseling. In the classroom, students learn to collaborate and rely on their peers as they work in small groups and pairs to complete academic assignments and college knowledge activities. Once they see the benefits of collaboration, many students choose to form study groups, a practice they continue to utilize in credit-level courses. Programmatically, a team of academic counselors offers individual postsecondary educational counseling through a range of activities, including in-class seminars, and on topics such as career planning and college knowledge. The college advisor counsels students explicitly about learning communities, and the students

generally choose to enroll in a learning community if it fits their schedules. LaGuardia Community College offers learning communities for students majoring in three academic areas: allied health, liberal arts, and business and technology.

**North Shore Community College** enrolls cohorts of older, working adults in its Child Development Associate certificate program. Many of these students are English language learners who speak the same native language and have similar career goals, which can give them a source of support. The members of a cohort group generally stay together for all their coursework, but the program is flexible enough to accommodate students who need to stop out for a semester or take additional remedial courses. Because students are most often Spanish speakers returning to school after many years, their common challenges provide an immediate bond that facilitates the building of a peer support network. Students who speak the same native language can also provide one another with informal language and literacy support.

**Dorcas Place**, in conjunction with the Community College of Rhode Island, operates a Learning Resource Center for students in its community-based developmental education classes. The center is easily accessible for students who live or work in the neighborhood. In addition, two mobile labs can be moved to any room at Dorcas Place, giving students access to the center's resources even if the regular computer lab is occupied. The portable labs can also be split up and used by different classes simultaneously, allowing for greater flexibility in their use for student support.

**Owensboro Community & Technical College's** Workforce Solutions division (its customized workforce-training unit) offers students one-on-one service, going beyond what the college enrollment center can offer. Because Owensboro's workforce-training programs are articulated to credit-level programs and offer college credit, students are eligible for federal financial aid; to see that students get the financial supports they need, staff help workforce development students complete the applications for federal financial aid or local Workforce Investment Board funding. The college's foundation can also provide emergency funds for transportation, health, and child care needs to assist these students in workforce-training courses. At SkillTrain, Owensboro's adult education center, workforce-training students can access Web-based courses and tutorials (e.g., KeyTrain) that address their specific learning needs.

At **Davidson County Community College**, on-campus tutoring is reserved for credit-level students. However, a VISTA volunteer helped the adult education department organize other VISTA volunteers engaged by the college, many of whom are interested in pursuing education careers, to tutor students in lower-level classes. Volunteers tutor up to 20 hours per week during class instruction time. They focus on content areas where they have some expertise and comfort; however, all volunteer tutors receive training from the Adult Education department on teaching strategies. About 25 to 30 students receive tutoring each semester; those needing tutoring are identified by their teachers and, if the student agrees, are paired for one-on-one instruction.

**Central New Mexico Community College** purchases books for its *Breaking Through* students. Many of these students are on TANF or coming out of incarceration and unable to afford books. Outreach efforts through the Achievement Center, coaches, and student word-of-mouth emphasized this benefit of *Breaking Through* program and facilitated recruitment. While purchasing books is a common practice for students in specific grant-funded programs at CNM, other adult education students also have access to books the school owns. Coenrollment in the Annie E. Casey Foundation-funded Centers for Working Families also allows students to benefit from emergency scholarship dollars (e.g., emergency stipends, food vouchers, transportation subsidies, child care) to be used for unplanned expenses. (For more information about the Center for Working Families, see: [www.aecf.org/MajorInitiatives/FamilyEconomicSuccess/CentersforWorkingFamilies.aspx](http://www.aecf.org/MajorInitiatives/FamilyEconomicSuccess/CentersforWorkingFamilies.aspx).)

## Providing Advisors or Coaches

A number of colleges that applied to participate in *Breaking Through* noted that the strategy of increasing the availability or intensity of support services was necessary but insufficient. Based on their experience with the students whom *Breaking Through* targets, they reported that responsibility for student success had to be assigned to one or more college staff members. As one college reported, “You don’t always know a student has a problem until it is too late. The student wants to drop out and doesn’t realize the options.”

Many participating colleges felt that “intrusive” advising would be essential because of the serious mismatch between the personal skills and experiences of low-skilled adults and the design of the modern college. As Nan Poppe, campus president at Portland Community College, argued in 2004:

*Our college is like a smorgasbord: we offer a huge number of options to students; look how thick our course catalogue is. We assume that our students have clear goals and know how to use the catalogue to find the courses they need and enroll in them in the proper order to reach their goals. In fact, many of our students don’t have clear goals, don’t understand what’s in the catalogue, and don’t know that they should seek help to figure all this out. We need a more intrusive form of advising that doesn’t sit back and wait for students to seek it out.*

Poppe and her colleagues at a number of other *Breaking Through* colleges were responding to a movement in higher education toward the more intrusive, proactive approach to advising (NACADA Clearinghouse 2009). Over time, a variety of titles for this role have emerged at *Breaking Through* colleges: achievement coach, success coach, peer mentor. Regardless of the name, the staff members’ responsibilities draw upon two traditional roles: mentoring and case management.

The idea of a mentor is as old as Homer’s epics: when Odysseus left for the Trojan War, he placed his son Telemachus in the care of Mentor. Modern interest in the concept coalesced in the 1970s, when scholars interested in developing better doctors or business managers proposed purposeful mentoring, sponsored by professional groups such as medical associations or business firms (Barondess 1995). Concurrently, Albert Bandura, in developing his social learning theory, suggested that people learn from modeled behavior, and the emerging field of “youth development” was discovering the importance of positive role models (Abbot 2009; Benard 1995). Researchers and practitioners drew on growing evidence of the benefits of mentoring to see if adult mentors could steer wayward young people toward better lives. The value of mentoring was brought home by evaluations of the Quantum Opportunities Program for at-risk youth in the mid-1990s. They found strong positive outcomes for the program and identified one major contributing factor: the provision of “caring adults for sustained periods of time,” whose role included encouragement, visits, follow-up, and “doing everything they could to keep [young people] in the program” (American Youth Policy Forum 1994; 1997).

Strategies for adapting the mentoring role to adults followed, especially in connection with programs designed to help recipients of public assistance navigate the world of employment. In recent years, adult mentoring programs have been developed for TANF recipients, participants in literacy programs and selected business enterprises, and people leaving prison. (*For more information on how mentoring strategies have been applied to varied types of adult populations, see: Bauldry, et. al. 2009; Braddix 2000; Sherman et. al. 2000; Adult Student Advocacy Program 2009; Mentor 2009.*)

Case management is often seen as an alternative way to creating a structured, supportive relationship. The role of case manager has a long history in the profession of social work, shaped by formal postsecondary education programs and departments. Case managers are represented by a national organization, the National Association of Social Workers, and their work is guided by agreed-upon standard practices and procedures. The core mission of the social worker—“to develop and maintain a therapeutic relationship with a client”—resembles the vision of the caring and dedicated mentor and, as such, provides a model for *Breaking Through* colleges seeking effective approaches to working with students who have multiple challenges to succeed in postsecondary education (Case Management Standards Work Group 1992).

Colleges drew on the ideas of both the mentor and the case manager to shape the role they established for the success coach or *Breaking Through* advisor. While the names and job descriptions have varied from college to college, the overarching goal is the same: to have someone focused on helping students to surmount many barriers. Coaches can assess students’ goals, needs, and challenges, and they can create learning plans that are tailored to students’ unique needs. Coaches are “intrusive”: rather than wait for students to seek them out, they check in with students proactively. In addition, they act as liaisons to employers and to services on and off campus. A number of colleges chose to create advising or coaching positions as part of the *Breaking Through* initiative.



**Tip:** Ensure that advisors are proactive in connecting students with available support services; don’t assume that students will connect on their own.

## PROVIDING MENTORING AND ADVISING AT *BREAKING THROUGH* COLLEGES

At **Central New Mexico Community College**, an achievement coach housed in the School of Adult and General Education gets to know *Breaking Through* students from the outset and supports them in meeting academic and life challenges. Achievement coaches help students address any barriers that may be keeping them from reaching their academic goals; they provide a variety of services, ranging from recruitment and intake to helping students transition into credit-level coursework. They are involved with the recruitment process: they do presentations at TANF sites and the local One-Stop Career Centers, as well as in developmental education classes. They work with students on registration, enrollment, and assessing needs. They ask students to fill out questionnaires about external needs (e.g., transportation, child care, housing) that could hinder their educational progress. The coaches also help students to utilize a printed and online brochure and to access resources in the community. Accessing an achievement coach’s services is voluntary; some students see a coach just once, while others may meet with their coaches every week.

In addition to supporting students while they are in the *Breaking Through* program, achievement coaches help with the transition into higher-level courses. They work with each student to create a plan based on his or her occupational and educational objectives. While students can access other achievement coaches once they are at the college level, they often return to the *Breaking Through* coaches with whom they have developed a relationship. Nonetheless, all achievement coaches receive training to help students obtain the same services no matter whom they contact. For example, coaches help adult education and developmental education students access the financial counseling, community referrals, legal services, and planning for academic success available through the Casey Foundation-funded Center for Working Families, which is fully integrated into CNM’s Achievement Center, a “one-stop shop” of student supports.

At **Owensboro Community & Technical College**, a success coach housed in the Workforce Solutions division works with small learning cohorts of adult education students, dislocated workers, and incumbent workers seeking further training. This full-time staff person provides academic and life coaching assistance, helps students with navigating college functions, mentors students, tracks their program progression, and intervenes when crises emerge. The counselor also identifies and addresses institutional roadblocks that might impede student success.

In Owensboro's nursing program, the success coach helps students solve or mitigate the impact of crises in their lives. One important role is to help students explore and analyze all of their options so that they can persist in school. The coach also understands the hospital, the nursing program, and the goals of *Breaking Through* and can act as a liaison between departments and intervene with supervisors.

In assisting workers dislocated by the recession, Owensboro has realized that these students need help in both coming to terms with being out of work and navigating college bureaucracies. Success coaches guide these students on appropriate career pathways, review funding options, fill out required forms, and help them transition into short-term, credentialed academic programming.

**Portland Community College**, with a focus on expanding student services campuswide, has used *Breaking Through* as an opportunity to pilot "intensive and intrusive" advising. Half-time advisors at each of four campuses work with students to provide supports, such as regularly checking with students to help them overcome barriers to persistence and aiding them in developing career and education plans. Advisors also work closely with students to address specific academic needs, such as math or English as a second language. (*For more on Portland's work in advising, see "Scaling Up" on page 3.20.*)



**Tip:** Take time to find the right person for the achievement/success coach role—someone with training, strong academic qualifications, and good interpersonal skills, as well as knowledge about community and workforce resources and the ability to connect students with those resources as needed.

At **Tacoma Community College**, a full-time student-support specialist is the primary contact and source of support for students in the I-BEST program. This person connects with staff from all of the college's student-service areas, including admissions, financial aid, counseling, advising, and any other departments students might need to access.

The student-support specialist meets with each student at least twice a semester for educational planning and comprehensive advising. Instructors also alert the specialist if they notice any issues with students in class.

**Cuyahoga Community College's** career support specialist plays the role of case manager. Because her work and the college's *Breaking Through* program both focus on health care, the specialist assists with job placement as well. She is connected with many local employers and represents the community college at Workforce Investment Board meetings.

Full-time college employees also act as volunteer mentors for *Breaking Through* students. Each mentor works with up to seven students, connecting with them every two weeks. Mentors have a calendar with check-in points, associated topics, and items they should discuss. For example, during midterm exams, a mentor might talk with students about preparing for the tests and make sure they are not overwhelmed.

A counselor at **South Piedmont Community College** provides a "ready-for-college" seminar on career assessments, financial aid, and other campus resources. The counselor also serves as the liaison that connects students in ABE or human resource development (continuing education) with further education and training.

## Training College Staff

A significant development for *Breaking Through* came early in the demonstration phase as the new *Breaking Through* advisors and coaches, many of whom were hired through their institutions' academic advisor classification, confronted and were often overwhelmed by the variety and depth of their students' life challenges. This led the colleges and the initiative leaders to rethink the role of advisor and to consider a significant investment in preparing advisors for the complex tasks awaiting them.

The advisors and their colleagues identified a range of characteristic challenges their students were encountering, such as:

- > Students could not hand in homework because they had been evicted from their homes and were sleeping in their cars.
- > Students were skipping class to attend parole hearings.
- > Students were not attending class because a child or parent had been diagnosed with a serious illness and there was no one else to take care of them.

The frequency and magnitude of such problems led to two major program-design dilemmas. First, most advisors had no idea how to help with certain situations (e.g., finding emergency housing, locating resources for families in need, or dealing with the criminal justice system). Second, the approaches they improvised—loaning students money, personally searching for emergency shelter, driving them to parole appointments, and more—were leading to stress and burnout for themselves.

### DEVELOPMENT OF THE *BREAKING THROUGH* ADVISOR TRAINING PROGRAM

Portland Community College found the challenge of advisor training particularly acute: the college had designed its entire *Breaking Through* demonstration around the advisor model. The college had hired “MOTT (Moving on Towards Tomorrow) advisors” to support *Breaking Through* students at each of its four campuses. As one program manager commented, “Our advisors know a lot about which courses students have to take to obtain our certificates and degrees—but that wasn’t what our MOTT students needed to know. Our advisors had no idea how to address the issues raised by our MOTT students.”

Program leaders at Portland Community College decided to invest in a solution described at a *Breaking Through* peer learning meeting: training in case management. At the peer learning meeting, Gloria Hatcher-Mays talked about her work with the Seattle Jobs Initiative, where she had developed a “Case Management, Best Practices, and Standards” manual for case managers at community-based organizations. Portland Community College staff recognized that their own colleagues could benefit from the guide in assisting low-income students, and the college used a portion of its *Breaking Through* funding to hire Hatcher-Mays to collaborate with PCC counselor Catherine Sills on adapting the case management guide, producing *The Advisor Training Manual: A Curriculum for Helping Today's Community College Students Succeed*.

Portland Community College played a major role not only in developing but also in testing the revised manual and its encapsulated curriculum that serves as the “textbook.” At the same time, the *Breaking Through* team at Jobs for the Future found that other community colleges felt a similar need to better prepare their success coaches and advisors. *Breaking Through* committed funding to make the manual and training applicable and available to all community colleges. This version was tested through training sessions for *Breaking Through* colleges, and a number of *Breaking Through* colleges now use it.

The resulting *Breaking Through Advisor Training Program* is based on a “train-the-trainer” model. Interested colleges each send one staff member to a customized workshop series, organized by *Breaking Through*. Each workshop focuses on how to meet schools’ and students’ specific needs and how to train advisors most efficiently. The workshops generally target a college’s advising supervisor, department chair, or dean—a person who knows the campus and students well. The leader who attends uses the information, along with an accompanying toolkit, to train college advisors, teachers, and others at home who could benefit. *Breaking Through* also provides post-workshop support. By helping advisors do their jobs better, the training alleviates some of the stress and pressures they face on a daily basis and enables them to help more students succeed.

The training comprises of three seminars, each of which consists of three to five modules. The modular format allows each institution to choose the material that is most applicable to its needs; there is a recommended order for presenting the modules, but facilitators can adapt the material as appropriate to their audiences and time limitations. It is also recommended that facilitators use guest speakers for a number of topics where expert information is beneficial. The final section of the manual contains all the resource materials needed to conduct the training—PowerPoint slides, case studies, role plays, worksheets, and supplemental reading lists. See page 3.17 for an outline of the training modules and sample page.

The training program is designed to benefit anyone working with low-income, low-skilled populations. It builds upon skills that staff already possess, giving them practical information, tools, and resources for working with nontraditional students. They also learn specific strategies, such as helping students identify reasonable goals and designing step-by-step plans to meet them. One of the important lessons in the training is the importance of building students’ abilities to solve their own problems. Rather than allowing their students to become dependent on them, coaches must build students’ resilience and independence.

Participants at *Breaking Through* advisor-training seminars have included a range of community college personnel, from vice presidents to instructors to academic advisors. Some participants attend because they plan to lead training sessions upon returning to their college; others are interested in learning how to work with their own students better. In evaluations, most have said they welcome the clear framework for understanding the needs of low-income, low-skilled adults.

See the *Supplemental Materials* for more information on how to access the Community College Adviser Training Package.



**Tip:** Train support-services staff in strategies for building students’ abilities to solve their own problems. This will help students move from dependency to responsibility.

## Recommended Order for the Training

### SEMINAR A. STUDENT NEEDS AND REFERRALS

#### Module 1: Changing Student Profiles

This module provides an introduction to an institution's changing student demographics and the resulting impact on student retention, the students the institution serves, and the challenges faced by community college staff.

#### Module 2: Defining Advising Roles

This module focuses on the variety of roles played by those who provide advising to students. It addresses the commonalities in their work, leading to the creation of a generic definition of the advising role that is applicable for all job titles and categories.

#### Module 3: Barriers to Student Success

Key topics focus on the various barriers faced by changing student populations. Topics may include homelessness, domestic violence, substance abuse, mental health, and others. One or more field experts serve as guest speakers.

#### Module 4: Poverty and its Effects

This module explores how the culture of poverty affects academic success and provides strategies for use in advising low-income students. A field expert serves as guest speaker.

### SEMINAR B. ADVISOR TOOL KIT

#### Module 1: Cultural Competence

This module explores cultural differences and effective approaches in working with a diverse student population. A field expert serves as guest speaker.

#### Module 2: Effective Communication

This module presents communication styles and practical communication skills that will help in understanding how to develop rapport and work effectively with students.

#### Module 3: Boundaries/Accountability

Participants enhance their understanding of personal boundaries and individual accountability in student advising relationships.

#### Module 4: Motivating Students

This module presents an introduction to the theory of motivational interviewing, as well as tools to motivate students toward a plan of action. A field expert serves as guest speaker.

#### Module 5: Self-Care

Facilitators and participants collaborate on a workshop that focuses on the issues of alleviating job stress and avoiding burnout.

### SEMINAR C: PARTNERSHIPS

#### Module 1: Student Needs Assessment

This module focuses on the elements and tools necessary to conduct a comprehensive student needs assessment. It is designed for staff and faculty who may see a student only once or as part of an ongoing caseload.

#### Module 2: Student Action Plan

This module provides a method for creating a student action plan to facilitate student success. It is designed primarily for faculty and staff who carry an ongoing student caseload.

#### Module 3: Documentation

Participants review the purposes of documenting contacts with students and learn guidelines for writing notes with thoroughness and clarity.

#### Module 4: Financial Literacy for Low-Income Students

This module provides an overview of financial barriers for low-income students who are not receiving federal aid and explores how economic issues affect retention. It includes information about financial resources available locally.

## SESSION BREAKDOWN

### Module 4: Financial Literacy for Low-Income Students 3–4 hours

- 
- |              |  |
|--------------|--|
| <b>Goals</b> | <ul style="list-style-type: none"><li>• Identify and address nonacademic financial barriers to student success</li><li>• Learn about off-campus resources available to meet a variety of student financial needs</li></ul> |
|--------------|--|
- 

- |                         |  |
|-------------------------|--|
| <b>Facilitator Role</b> | <ul style="list-style-type: none"><li>• Brief introduction of topic</li><li>• Introduction of guest speaker*</li><li>• Summarize the module, relating it to previous and future modules</li></ul> <p><i>* Guest speakers will be knowledgeable individuals from the local area. They will provide presentation, activities, and materials. The facilitator might wish to collaborate with the speaker.</i></p> |
|-------------------------|--|
- 

- |   |  |
|---|--|
|  <b>Presentations/</b> | <ul style="list-style-type: none"><li>• <a href="#">Icebreaker</a></li></ul> |
|  <b>Activities</b>     | <ul style="list-style-type: none"><li>• Get from guest speaker</li></ul>     |
- 

- |                  |  |
|------------------|--|
| <b>Materials</b> | <ul style="list-style-type: none"><li>• PowerPoints: To be determined by facilitator; include LCD projector, screen, and laptop if necessary</li><li>• White board, easel Post-it pads, markers, table tents</li></ul> |
|------------------|--|
- 

- |                 |  |
|-----------------|--|
| <b>Handouts</b> | <ul style="list-style-type: none"><li>• Get from expert</li><li>• <a href="#">Module Evaluation Form</a></li><li>• <i>Resources: List of Community Resources for Financial Help, Energy Assistance, Community Clinics, Food Vouchers/Banks, Housing, etc.</i></li><li>• <a href="#">Reading List</a></li></ul> |
|-----------------|--|
- 

- |              |  |
|--------------|--|
| <b>Setup</b> | <ul style="list-style-type: none"><li>• Tables in U format, with front table for facilitator; PowerPoint projection capability</li><li>• Easel sheets and markers at front of room</li><li>• Table tents and markers on participant tables</li></ul> |
|--------------|--|
- 

### Facilitator Wrap-up

- Summarize main points
- Check in with agenda items
- Preview next modules to be presented
- Have participants complete [evaluation forms](#)

# Forsyth Technical Community College, North Carolina

## PROFESSIONAL DEVELOPMENT FOR ALL STAFF

Forsyth Technical Community College's *Breaking Through* goal was to better support continuing education students as they moved from noncredit coursework to for-credit, college-level work. *Breaking Through* students were already part of the college but needed better advising as they transitioned to college.

Forsyth started with a model to create a for-credit curriculum under a Title III grant. However, it needed to take additional steps to make the program effective for students on the college's noncredit side. To improve retention and success rates, program staff realized that it would be essential to transform the way all personnel interact with students.

- ☑ Expand the definition of "advisors": Continuing education staff were not used to seeing themselves as advisors. The college had to build the understanding among staff that students could look to everyone they would encounter as a source of advice.
- ☑ Provide training to all staff on working with low-income, low-skilled, nontraditional students: The *Breaking Through* Advisor Training was a valuable tool in providing professional development to college and continuing education staff. Rather than just train official advisors, Forsyth built all staff members' capacity to advise students.
- ☑ Use data to track success: Forsyth's data system allows it to track students from point of entry, through transitions, to point of exit. The college uses that data to assess the effectiveness of its initiatives, including increased student supports, and to make improvements accordingly.

The increased focus on student advising began in 2007. By 2009, campuswide buy-in and support for the *Breaking Through* initiative had made it likely the effort would be sustained beyond the initial grant.

Forsyth suggests that program developers begin with their end goal in mind. If you know where you want to go, these key steps will help you get there:

- ☑ Gain buy-in on both sides of the college: It is essential for this type of initiative to work. College leadership support is also essential. For example, the support of the vice president was critical when Forsyth asked faculty members to expand their role from teacher to advisor.
- ☑ Develop working groups to help with implementation: College leaders can help identify the right people for these groups. A mix of faculty and staff from the credit and noncredit sides of the college is important.
- ☑ Position key people, knowledgeable about *Breaking Through* and working in various roles, to talk with college colleagues: Conversations take place both formally and informally, on both the credit and noncredit sides, and at varied administrative levels. Be on college committees, and take the time to sell your ideas.
- ☑ Provide professional development, such as advisor training, to staff at all levels, including vice presidents from the for-credit and noncredit sides: This increases awareness of the needs of the target population and creates ongoing support for the initiative.
- ☑ Combine funding sources to achieve common goals: Continuing education staff collaborate with Title III-funded staff on the for-credit side to adapt one another's training ideas.

## Scaling Up Support Services: Case Study of Portland Community College

Portland Community College has invested significant resources in scaling up its *Breaking Through* demonstration project, which provided intensive support services in order to increase the number of developmental education students completing remediation and entering college-level courses. The core of PCC's scale-up is to assign a case manager to meet regularly with each developmental education student and to provide a college-success course for free. The goal is to make supports much more prescriptive and intensive throughout the college, because most students who need them do not seek them out on their own.

PCC designed its *Breaking Through* initiative, known as the MOTT (Moving On Towards Tomorrow) program, for students whose entrance tests showed a need for remedial coursework in both reading and math. For the first time, the college required such students to enroll in developmental education. The college also required remedial students to take the college-success course, in a group with similar students, and to receive ongoing case management to help with personal crises. Tutoring and other academic supports were available as well.

It worked. The 329 students who participated in *Breaking Through* generally persisted in college longer, completed more remedial courses, and earned more college credits than those who did not receive the program's intensive, front-loaded services. For example, 50 percent MOTT of students in 2006 and 2007, who all began the program with deficiencies in both reading and math, continued their enrollment from one fall to the next; the figure was 38 percent for new students in for-credit courses. Over the four terms included in the evaluation, a higher percentage of MOTT students completed one or more developmental courses than other entering noncredit students. MOTT students also had higher GPAs on average compared to non-MOTT noncredit students.

Portland Community College began to scale up *Breaking Through* practices in 2008 by making developmental education mandatory for all new students needing any amount of remediation. The idea is to communicate the importance of basic skills for each individual's future success. Previously, the college had left it up to students to choose whether to enroll in developmental courses, presuming that adults should make their own decisions. But the students who most needed remediation were not taking, or sticking with, developmental classes and later would drop out altogether. In the scaling-up phase, PCC hopes to reach all students who test into developmental education courses.

The college now assigns an advisor/case manager to each student. The advisors help students address personal problems and ensure that they are on track to start college-level courses within a reasonable time frame. Students must attend a certain number of appointments per year, and they cannot register for the next semester without meeting first with their advisors. The college provides tutoring and other services as needed.

Nan Poppe, president of the Extended Learning Campus at PCC, has spearheaded the expansion of support services for low-skilled adults. She says the college had to make tough choices about how much of its own money to spend on the program after the *Breaking Through* demonstration project ended in 2008. The PCC Executive Cabinet decided to allocate about \$450,000 in permanent funding to augment the student-services budget and to pay for mandatory advising—a huge sum in difficult economic times. PCC invested the funding in providing specialized advisors for all developmental education students and in making the college-success classes free to all. The college has accommodated everyone who wants to enroll, although financial constraints may limit the program in the future. PCC is also receiving \$40,000 per year for three years from the Charles Stewart Mott Foundation to scale up this effort and document its outcomes.

According to Poppe, her colleagues were invested in the program based on the evidence of success: the *Breaking Through* demonstration tracked student outcomes, analyzed the data, and made adjustments on an ongoing basis. When college leaders saw that more students continued their enrollment after receiving support services, they knew this meant that more students would succeed—and that the college would retain more students. Improving the rate of transition from developmental education to for-credit programs is one of the key goals of the program. “It’s really important to make sure they get into developmental education,” Poppe says, “but also to help them get out” quickly and successfully.

Owing to budget limitations, Portland Community College has scaled back its initial scale-up of *Breaking Through* practices. It would have been prohibitively expensive to extend the broad range of supports from the demonstration project to accommodate all students referred to two developmental education classes. Instead, PCC is using its resources to support a much larger number of students but cutting back on the services available. For example, *Breaking Through* offered a tuition-free course on college study skills, along with a free college-success course. Now the college offers only the college-success course free, hoping students will then value this type of supplemental instruction enough to pay for the study-skills course.

It has been a challenging time to bring about a seismic philosophic shift on campus, but Poppe says it has been worth the effort. “We’ve been able to make some really significant institutional changes,” she says. “We’re early into it. . . . But generally now, the majority of people, whether it’s the administration or the faculty, are feeling pretty good about it.”

## References

- Abbot, Lynda. 2009. "Social Learning Theory." Retrieved August 12 from [http://teachnet.edb.utexas.edu/~lynda\\_abbott/Social.html](http://teachnet.edb.utexas.edu/~lynda_abbott/Social.html).
- Adult Student Advocacy Program. 2009. "Peer Mentoring Program." Retrieved August 6 from <http://ualr.edu/adults/index.php/home/peer-mentoring>.
- American Youth Policy Forum. 1994. *Promoting Youth Development in Urban Communities: Unprecedented Success for the Quantum Opportunities Program*. Forum Brief. October 28. Washington, DC: Author.
- American Youth Policy Forum. 1997. "Quantum Opportunities." In James, Donna Walker, ed., *Some Things DO Make a Difference for Youth: A Compendium of Evaluations of Youth Programs and Practices*. Washington, DC: Author.
- Association for Equality and Excellence in Education, Inc. 2009. "TRIO: Programs for Students of Disadvantaged Backgrounds." Retrieved August 5 from [www.aeee.org/trio.htm](http://www.aeee.org/trio.htm).
- Bailey, Thomas & Alfonso, Mariana. 2005. *Paths to Persistence: An Analysis of Research on Program Effectiveness at Community Colleges*. New Agenda Series. Vol. 6. Indianapolis, IN: Lumina Foundation for Education.
- Barondess, Jeremiah A. 1995. "President's Address: A Brief History of Mentoring." *Transactions of the American Clinical and Climatological Association*. Vol. 106.
- Bauldry, Shawn, Danijela Korom Djakovic, Wendy S. McClanahan, Jennifer McMaken, & Laurie Kotloff. 2009. *Mentoring Formerly Incarcerated Adults: Insights from the Ready4Work Reentry Initiative*. Philadelphia, PA: P/PV.
- Benard, Bonnie. 1995. *Fostering Resilience in Children*. ERIC Digest. Urbana, IL: ERIC Clearinghouse on Elementary and Early Childhood Education. (ERIC Document Reproduction Service No. ED 386 327.)
- Braddix, Dionne. 2000. "Mentors Assist Adults." *The Cincinnati Enquirer*. March 5.
- Case Management Standards Work Group. 1992. "NASW Standards for Social Work Case Management." Retrieved August 6 from [www.socialworkers.org/practice/standards/sw\\_case\\_mgmt.asp](http://www.socialworkers.org/practice/standards/sw_case_mgmt.asp).
- Choy, Susan P. 2002. *Access & Persistence: Findings From 10 Years of Longitudinal Research on Students*. Washington, DC: American Council on Education.
- Community College Survey of Student Engagement. 2008. *High Expectations and High Support*. Austin, TX: University of Texas at Austin, Community College Leadership Program.
- Council for Advancement of Adult Literacy. 2008. *Reach Higher America: Overcoming Crisis in the U.S. Workforce*. New York, NY: National Commission on Adult Literacy.
- Krodel, Karla, Karen Becker, Henry Ingle, & Susan Jakes. 2009. *Helping Under-Resourced Learners Succeed*. Highlands, TX: aha! Process, Inc.
- Liebowitz, Marty & Judith Combes Taylor. 2004. *Breaking Through: Helping Low-Skilled Adults Enter and Succeed in College and Careers*. Boston, MA: Jobs for the Future.
- Mentor. 2009. "What Is Mentoring?" Retrieved August 6 from [www.mentoring.org/mentors/about\\_mentoring](http://www.mentoring.org/mentors/about_mentoring).
- NACADA Clearinghouse. *Intrusive Advising*. Retrieved 9/21/09 from [www.nacada.ksu.edu/clearinghouse/advisingissues/Intrusive\\_advising.htm](http://www.nacada.ksu.edu/clearinghouse/advisingissues/Intrusive_advising.htm)
- Provasnik, Stephen and Michael Planty (2008). *Community Colleges: Special Supplement to the Condition of Education 2008 (NCES 2008-033)*. Washington, DC: National Center for Education Statistics.
- Purnell, Rogéair, Susan, Blank, Susan Scrivener, & Reishma Seupersad. 2004. *Support Success: Services That May Help Low-Income Students Succeed in Community College*. New York, NY: MDRC.
- Sherman, Renee, Janet Voight, John Tibbetts, Dionne Dobbins, Arthur Evans, & Danielle Weidler. 2000. *Adult Educators' Guide to Designing Instructor Mentoring*. Washington, DC: Pelavin Research Institute.
- U.S. Department of Education. 2009. "Federal TRIO Programs—Home Page." Retrieved August 5 from [www2.ed.gov/about/offices/list/ope/trio/index.html](http://www2.ed.gov/about/offices/list/ope/trio/index.html).

# THE BREAKING THROUGH PRACTICE GUIDE

Labor Market Payoffs

# TABLE OF CONTENTS

<b>INTRODUCTION</b>	<b>4.3</b>
<b>PROVIDE CAREER EXPLORATION OPPORTUNITIES</b>	<b>4.4</b>
Career Assessment and Exploration	4.5
Career-Pathways Road Maps	4.7
<b>ESTABLISH CONNECTIONS WITH KEY LABOR MARKET ACTORS</b>	<b>4.7</b>
Engage with Labor Market Actors in High-Demand Fields	4.8
Vignette: Lake Michigan Community College	4.11
<b>CHUNK TRAINING TO CREATE CAREER PATHWAYS</b>	<b>4.12</b>
“Stacking” Toward More Comprehensive Certifications and Degrees	4.13
The Role of Certificates and Credentials	4.14
<b>PARTICIPATE IN REGIONAL EFFORTS TO RETAIN AND RECRUIT BUSINESSES AND INDUSTRIES</b>	<b>4.15</b>
Participation in Regional Economic Development	4.15
<b>SCALING UP LABOR MARKET PAYOFFS: CASE STUDY OF MOTT COMMUNITY COLLEGE</b>	<b>4.16</b>
<hr/>	
<b>REFERENCES</b>	<b>4.18</b>

# LABOR MARKET PAYOFFS

## Introduction

A significant barrier to improving the career prospects of low-skilled adults (both older and younger) revealed during the 2004 *Breaking Through* research is the lack of “labor market payoffs” for those seeking to upgrade their marketable skills. To raise their academic skills to the level needed to qualify for postsecondary occupational credentials, they must invest significant time and resources—but there is no economic reward for skill improvement until one earns a full credential. With few incentives and many obstacles along the way, it is far too easy for adult students, especially those juggling work, family, and school, to get sidetracked. No wonder so few adults entering remedial programs ever earn college certificates or degrees.

The only potential early payoff built into the U.S. education system for low-skilled adults comes with earning the GED, intended for those who did not complete high school but have the motivation to develop their basic skills to a high-school level. The GED was introduced in 1942 to give World War II veterans without a high school diploma a way to take advantage of GI Bill benefits (Tyler & National Bureau of Economic Research 2001). Today, the GED is most useful as a “gatekeeper”: a number of community colleges require a diploma or a GED for matriculation, and research suggests that the payoff of postsecondary training for GED holders is just as high as for regular high school graduates (Tyler & National Bureau of Economic Research 2001).

A GED alone, though, is far from a guarantee that its holder can succeed in postsecondary education, let alone earn enough to support a family. The GED was associated with higher wages when it was first introduced, but current research into the true labor market value of the GED shows no clear-cut wage advantage (Murnane, Willet & Boudett 1995; Heckman & LaFontaine 2006; Tyler, Murnane & Willet, 2000; Tyler & National Bureau of Economic Research 2001).

While some employers may require a diploma or a GED, receiving that credential while employed does not entitle the worker to a pay raise. In addition, GED programs fail to address the needs of adults who already have a high school diploma yet still have low academic skills. The 2003 National Assessment of Adult Literacy found that for all three types of literacy it surveys—prose, document, and quantitative—about 10 percent of the adults sampled with a GED or high school diploma as their highest credential tested at below basic, “no more than the most simple and concrete literacy skills” (Kutner et.al. 2007, Kaestle et al. 2001).

Four issues concerning labor market payoffs have emerged:

- > Most low-skilled adults also have little knowledge of the modern labor market—what kinds of jobs are available, what they pay, what academic or technical skills are needed. As a result, they can waste time in training programs for which they lack aptitude and interest.
- > The designers and operators of many remedial programs lack knowledge of the modern labor market—about job availability and value and about employers and their skill needs. As a result, remedial programs are frequently taught with little or no reference to concrete information about the labor market (e.g., what jobs are in the region, and what skills and credentials employers require for these jobs).
- > College-based technical programs often take months or years to complete and are disconnected from one another. As a result, many low-skilled students drop out in response to life challenges, and they do not build on entry-level training or certification toward more advanced certifications.

- > Attempts to create career pathways for low-skilled adults depend on having industries in the region that offer decent entry-level jobs and a progression of jobs toward higher pay and better working conditions—but many regions lack a base of such industries.

Consequently, the *Breaking Through* report proposed this solution: create labor market payoffs for low-skilled adults (Liebowitz & Taylor 2004). During the demonstration phase, *Breaking Through* colleges innovated in four areas:

- > Providing career-exploration opportunities that enable low-skilled adults to make sound career choices.
- > Establishing connections with local employers and other key labor market actors to develop and maintain up-to-date information about jobs and advancement opportunities in the region.
- > Creating career pathways by “chunking” training programs into sections that respond to identified employer needs, awarding credentials that are recognized in the regional labor market and are stackable toward more comprehensive certifications and degrees, and eliminating skill gaps between “chunks.”
- > Participating actively in regional efforts to retain and recruit businesses and industries that meet the advancement needs of low-skilled adults.

## Provide Career Exploration Opportunities

Traditionally, programs for low-skilled adults did little to help students learn about the world of employment or about how their aptitudes, interests, and experiences align with local jobs, training activities, and advancement opportunities. Programs that provide academic remediation—adult education and developmental education—generally consider these economic issues to be outside their mandate.

Publicly funded training programs all too often focus on a few types of training, and they channel the people who present themselves into the training slots available at the time. Such programs have paid little attention to how well jobs match individuals, whether actual jobs are available for those who complete the program, or what potential they offer for career advancement. Institutions that offer training for a fee—usually colleges, whether public or private—rely on their students to choose programs that match their skills and interests by the time they walk through the door.

Unfortunately, many trainees subsequently discover that they either do not like or cannot function effectively in the occupation or industry for which they are preparing themselves. Examples abound: no matter how well paid they may be, people who become ill at the sight of blood belatedly acknowledge that nursing is a poor career choice; people who do not like working outdoors in bad weather realize that construction is not for them; people with chronic back trouble discover that they cannot stand all day to operate machinery.

Opportunities for career exploration early in education programs are critical: they give people the chance to experiment with a variety of fields and to learn what they like and do not like, as well as what their abilities are. The roots of career exploration go back to the beginning of the twentieth century and the movement to provide vocational guidance, which primarily focused on teens and young adults transitioning from school to work. As the movement matured, it focused more and more on the needs of the individual, and on helping the individual make career choices based on understanding both the labor market and oneself. Vocational guidance has embraced the use of tests (increasingly computerized) to identify individual skills and interests, and it has broadened in response to the civil rights, women's, and disabilities movements (Agnew 2000; Shahnasarian & Herr 2001).

Federal laws and regulations have reflected, and at times promoted, these advances in the vocational education movement. As early as 1917, the Smith-Hughes Act provided states with funding for secondary-level programs, and the 1929 George-Reed Act increased the funding for vocational guidance activities. Today, the Carl D. Perkins Career and Technical Education Act funds career guidance at the secondary and postsecondary levels (Moraru & Neilson n.d.; Patterson n.d.).

The U.S. Department of Labor has contributed to the quest for better ways to make career choices. It researches and analyzes occupations (publishing the first *Dictionary of Occupational Titles* in 1939), supports the development of aptitude tests for use in employment offices (introducing the first General Aptitude Test Battery in 1945), and funds career guidance for youths and adults (currently through the Workforce Investment Act) (Shahnasarian & Herr 2001). In recent years, the department has moved its considerable portfolio of career-assessment and information tools to the Internet. O\*NET is the updated, on-line version of the *Dictionary of Occupational Titles*. It is described as “the nation’s primary source of occupational information, providing comprehensive information on key attributes and characteristics of workers and occupations. The O\*NET database houses this data and O\*NET OnLine provides easy access to that information.” (For more information on O\*NET, see: <http://online.onetcenter.org/>; see also [careeronestop.org](http://careeronestop.org).)

Adult educators are also rethinking their role in helping students understand the world of work as it relates to their goals. During the 1980s, Congress began to look more closely at the question whether adult education (under the Adult Education Act, as it was then called) was improving outcomes for students in areas such as employment. The resulting National Literacy Act of 1991 included stronger accountability provisions and also established the National Institute for Literacy, with responsibility for identifying and monitoring progress toward goals. In response, NIFL implemented Equipped for the Future, an initiative that identified three essential adult roles, one of which is “worker,” and researched “role maps” (what workers do) and competencies associated with the roles. During subsequent years, several states have further implemented the EFF framework, but materials associated with implementation, such as lesson plans and curricula, have not emerged, and implementation of the 2009 Framework is spotty. (Stein 1999; Center for Literacy Studies, n.d.)

During the demonstration phase, *Breaking Through* colleges built on existing models of vocational guidance to develop career exploration and navigation tools, resources, and supports, with a focus on two practices:

- > *Career assessment and exploration*: This includes interest and skill assessments, college- and career-success courses, short courses on career exploration and skill building, and the development of career and education plans. Some colleges build career-exploration activities into basic skills and remedial training, offering opportunities for adults to investigate career options while improving reading, writing, and research skills.
- > *Career pathways road maps*: Colleges provide information on occupations, related education and training opportunities, credentials and certificates, industry information, and employment opportunities, often presented graphically as maps illustrating the steps to finding a certain job or entering a certain career.

## CAREER ASSESSMENT AND EXPLORATION

**Community College of Denver's** FastStart@CCD program sees the identification of career and educational goals as a key component in student success. Career-exploration activities are infused into class activities and assignments in academic courses and in a one-credit college and career-success course. Participants identify and investigate their career interests through research, interviews with those in the field, and visits to worksites. They also write an “I Search” paper on the results of their career exploration, including an action

plan that lays out the courses they need to take to achieve their goals. Through these activities, participants also build their reading, writing, and research skills.

The college and career success course gives students an opportunity to further investigate their career interests through informational interviews, job shadowing, and labor market research, culminating in an individual education plan. In addition, at career-majors fairs students meet with employers, college-program advisors, and former program graduates who work in the field.

**Cuyahoga Community College**, as part of its health care career pathway, helps low-skilled adults assess and explore their career options. Opportunities include assessments of career interests, as well as activities designed to help students explore careers, related jobs, career pathways, and the college's career education and training programs. There are also one-hour workshops on topics such as career planning, academics, and financial aid; the program includes job search and placement assistance as well.

**Portland Community College** offers several career exploration and navigation tools, resources, and supports to low-skilled adults in its career pathways programs. Students participate in interest assessments and receive assistance in developing career and education plans and selecting a career major. Students also write an "I Search" paper, which requires them to interview one or more people working in careers that interest them. In addition, students receive advice and assistance with their job search.

**Southeast Arkansas College**, as part of its nursing and allied health career pathway, provides low-skilled adults with interest and skill inventories to ensure that the field is a good fit. A college-success course includes tours, job shadowing, and informational interviews with workers in the health care field, and it culminates in a career-readiness certificate. *(For information on MECA, see "Definitions" in the Practice Guide Supplementary Materials.)*

**Davidson County Community College** offers low-skilled adults a three-day orientation that covers basic skills, the college, and career exploration. Career exploration includes an assessment tool to help students identify their career interests and aptitudes, plus a tool that shows which certificate and degree programs at the college align with their interests.

The college then places students in the basic skills class they need—ABE, GED, ESL, or college review. Instruction is contextualized to their career interests and aptitudes and selected career-pathways areas.

Another career-exploration tool is the Microcomputer Evaluation of Careers and Academics—MECA. This "virtual reality" program for career exploration and planning includes computer-guided training and interactive kits that offer hands-on experience in a field. *(For information on MECA, see "Definitions" in the Practice Guide Supplementary Materials.)*

**Mott Community College's** career-pathways programs provide comprehensive intake and skill assessments, career pathway road maps, and skill enhancement. This includes Operation Fast Break, an intensive, eight-week, thirty-hour-a-week program to prepare participants to enter career tracks or college. Fast Break helps participants build their math, reading, writing, computer, and employability skills. It uses WorkKeys to assess individual abilities and KeyTrain to help them improve their skills to WorkKeys Level 4, which is the skill level employers generally require for entry-level jobs. Fast Break also includes college and career exploration. Participants earn a certificate of completion, endorsed by the local workforce board. *(For information on WorkKeys and KeyTrain, see the Practice Guide Supplementary Materials.)*



**Tip:** Make sure students have opportunities to explore career options before they enroll in a career pathway.

At **South Piedmont Community College**, Human Resource Development—part of a statewide program—provides a range of short courses on career exploration and skill building. These are free of charge to the unemployed, underemployed, and those with incomes below the federal poverty level, with the state providing tuition waivers, although they still generate funding for the college. Topics include career interest and aptitude tests, career planning and assessment, career readiness and exploration of specific occupational areas, computer skills, workplace communication skills, customer service, and job search. The program serves as the front door for the college, where students can continue their education and training in the occupational areas they have explored. Participants are recruited through community partnerships and the local Job Link Center.

**Tacoma Community College** offers a three-credit college-success course as part of its Integrated Basic Education and Skills Training (I-BEST) program. The course covers such topics as career exploration, academic planning, goal setting, study skills, test-taking techniques, time management, communication, college and community resources, respecting diversity, and money management. As part of the course, students develop an educational and career action plan. The college also provides I-BEST students with a support specialist, who serves as a single point of contact and helps them navigate the college and employment systems.

## CAREER-PATHWAYS ROAD MAPS

**Portland Community College** provides the low-skilled adults in its career-pathways programs with “road maps.” Students receive guidance on the requirements for entering the program, industry information, employment opportunities, and related education and training opportunities (ranging from precollege “bridge” programs to three- to six-month programs, certificate and Associate’s degree programs, and further education opportunities). For an example of PCC’s career maps, see page 4.12.

At **Southeast Arkansas College**, the nursing and allied health department has developed career-pathways road maps that include information on occupations, credentials required, and certificates that can be earned along the way.

The career-pathways programs at **Mott Community College** provide road maps in four high-demand industries: business, engineering/manufacturing, human services, and health. Students can easily see how they progress from one stage of the pathway to the next, as well as the credentials associated with each of those stages. An example of Mott’s road maps can be seen on page 4.13.

## Establish Connections with Key Labor Market Actors

Too often community colleges and adult education programs have weak or nonexistent connections with employment-related institutions, particularly employers, business associations, and workforce-development agencies. This is primarily because the colleges do not view such connections as part of their mission. As a result, attempts to develop pathways to careers for adults can be abstract rather than grounded in the realities of the regional labor market. Colleges may teach technical skills no longer needed in the workplace, neglect critical “work-readiness skills,” or fail to connect students with actual employers and jobs. Low-skilled adults suffer disproportionately from programs and pathways disconnected from employers and existing jobs because they tend to lack their own personal connections to and knowledge of the labor market.



**Tip:** Connect students’ academic learning with their career paths and long-term goals whenever possible.

This challenge has been clear for some time, but little has emerged to address it. One exception is the NIFL Equipped for the Future Framework, and several states have begun to act on their own. Texas LEARNS, the Texas Adult Education and Family Literacy Collaboration, has emerged as a project of the state agency administering adult education that is committed to developing workplace literacy and language development. It developed the Texas Industry Specific English as a Second Language Curricula (TISESL) for three sectors: health care, manufacturing, and retail.

No comparable initiatives have connected developmental education with labor market goals. Therefore, *Breaking Through* innovations to connect career-pathways programs with the labor market will be of potential interest to a wide array of programs working with low-skilled adults.

*Breaking Through* community colleges have developed a variety of career pathways that result in high-demand jobs and careers. Key features include:

- > A focus on high-demand occupations: Pathways lead to jobs that are in demand in the local or regional labor market, and they provide family-supporting wages and opportunities for advancement. These jobs are usually in construction and building trades, manufacturing, health care, and early-childhood education.
- > Active engagement of labor market actors: The colleges make a major effort to involve employers and unions in developing and implementing their programs, inviting collaboration in such areas as curriculum development and program delivery. They also arrange for job placement for students who complete programs.
- > Structures that accommodate students who work: Instruction is offered at a variety of times and locations that are most likely to be convenient for adults who both work and attend school. Some courses involve work-based learning, which takes place at the students' workplaces. On-line courses are frequently available.

## ENGAGE WITH LABOR MARKET ACTORS IN HIGH-DEMAND FIELDS

**Central New Mexico Community College** offers a number of certificate and degree programs in the construction and building trades, such as: two-term certificate programs in carpentry, plumbing, and welding; three-term certificate programs in air conditioning, heating, and refrigeration and electrical trades; and a two-year Associate's degree in construction technology.

Unlike the workforce-development department, the Adult Education/basic skills side of the college (where the *Breaking Through* program was developed) had weak ties to industry. The *Breaking Through* team used the workforce department's model, which includes advisory meetings with business and industry representatives, to develop its program and assess both local labor needs and the associated skills that students needed to develop.

Central New Mexico Community College targeted the construction and building trades for several reasons. First, it knew from a critical-needs survey conducted through the region's U.S. Department of Labor WIRED grant that the construction field was growing. Second, CNM was committed to working with low-skilled adults, especially vulnerable populations. For example, the construction industry wanted to expand recruitment and was open to hiring those previously incarcerated. There was also interest in increasing the number of participants in registered apprenticeships—a common element in construction pathways. Many low-income adults need to earn while they learn, and this is a key feature of apprenticeship programs. Students also can earn college credit while in the apprenticeship program.

CNM works with industry partners to hire instructors for classes offered through the apprenticeship programs, and advisory meetings help ensure that programs meet local labor market needs. Industry partners who hire program graduates are a source of valuable feedback on students' career readiness and job skills, which can further help with program development. For example, industry suggestions led to an increased focus on soft skills—communication, timeliness, and critical thinking—as well as an emphasis on reading and math development through contextualized curricula.

**North Shore Community College's** early-childhood education career pathway is designed for child care workers who are English language learners. It provides them with a pathway to Child Development Associate (CDA) training and to the college's Associate's degree program in early childhood education. Contextualized ESL enables the participants to start on the early-childhood education pathway by taking noncredit workshops in English as a second language and courses contextualized for early-childhood education.

A leadership team, with representatives from a variety of college departments as well as community-based organizations and the local WIB, helped North Shore develop its focus on child care pathways. There was a local need to increase the skill level of child care workers, and the college already had a strong CDA program that could be adapted for the needs of non-native English speakers.

The college counts employers as crucial partners in this effort as well. Employers send incumbent workers for training and offer their child care centers as training sites. Those hosting onsite courses receive vouchers that enable their incumbent workers to take additional courses free of charge.

The CDA training assists child care workers in the process of obtaining their CDA credential, which is required for certification for child care teachers in Massachusetts, and is the first step toward earning higher wages for child care work. Massachusetts encourages more education and training for those working in early childhood education and has plans to raise requirements in the future. Such requirements provide employers and community colleges with an incentive to develop education and training programs for incumbent child care workers.

As part of the training, participants take courses in early-childhood education, covering such topics as child growth and development and developmentally appropriate early-childhood education practices. They also do fieldwork with children and develop portfolios demonstrating what they learn.

North Shore Community College also offers a two-year Associate's degree program in early-childhood education. Those who obtain a CDA credential can apply for six additional credits—a semester's worth of credit toward the Associate's degree.



**Tip:** Develop students' general employability skills. These can carry over to new industries when local labor markets change.



**Tip:** Identify and stay in touch with employers in targeted industries and occupations. This is key to ensuring that the technical aspects of the curriculum meet employers' needs and help students prepare for jobs.

**Cuyahoga Community College's** health care career pathway offers a pipeline into careers for low-skilled adults and increases the skills and credentials of those already in the field to help them advance. One key feature is Pre-State Tested Nursing Assistant (Pre-STNA) training, which provides an on ramp into health care training for students with very low skill levels. For those who need it, the college also offers a path to completing the GED, which is necessary for advancing into higher-level training programs. This contextualized basic skills training is designed to prepare participants for the next level, STNA training. STNA training provides over 100 hours of instruction, including clinical experiences, and usually takes four to nine weeks to complete.

Cuyahoga's Workforce and Economic Development division collaborates with employers to create incentives for enrolling and persisting in training programs, such as paid work release time or flexible scheduling. The college also relies on industry advisory committees so that students gain the skills they need to succeed in the workplace.

Of the sixty-six students enrolled in the first eight cohorts, 79 percent completed the STNA training, and 75 percent of the completers passed the STNA exam. These numbers include the very low skilled students who enrolled in the Pre-STNA program before beginning the STNA training. Of the students who started the program, whether at the STNA or Pre-STNA level, 24 percent were attending college as of late 2009.

**Southeast Arkansas College** has conducted labor market studies to identify high-growth fields in their service area, one of which is nursing and allied health. The college offers a number of certificate and degree programs in this field, including one-semester certificate programs (e.g., emergency medical technology, nursing assistant, and phlebotomy); one-year certificate programs (e.g., practical nursing and surgical technology); and two-year Associate's degree programs (e.g., LPN-to-RN nursing transition, radiologic technology, and respiratory care). Low-skilled adults start nursing and allied health career pathways by taking Fast Track developmental education, which offers basic skills training in reading, writing, and math, all contextualized for nursing and allied health occupations.

Employers are key and active partners in the nursing and allied health care career pathway. For example, health care employers provide sites for clinical experiences in the practical-nursing training program. They have also collaborated with the college to create career-pathways road maps to inform incumbent workers about advancement opportunities and related education and training programs.

As of spring 2008, SEARK had enrolled three cohorts of students into Fast Track developmental education and accelerated allied health. Of the students enrolled in Fast Track, 93 percent completed the sequence. By comparison, the traditional developmental education completion rates at SEARK ranged from 50 to 60 percent. Two-thirds (66 percent) of students enrolled in the accelerated allied health pathways have completed their programs.



**Tip:** Stay informed about state and local job markets. This is critical to helping students make informed choices and to guiding the college's decisions about program offerings.

# Lake Michigan Community College, Michigan

## ENHANCING WORKFORCE DEVELOPMENT PROGRAMS

Lake Michigan Community College's *Breaking Through* project focused on enhancing the college's existing workforce-development programs. LMCC added several elements that enhanced its *Breaking Through* portfolio, including remediation through KeyTrain, the opportunity to earn a National Career Readiness Certificate, and a Career and College Essentials course.

A variety of factors led the college toward development of their *Breaking Through* initiative:

- > Local employers had identified the need for literacy training for their incumbent workers.
- > Michigan Works (the state Workforce Investment Board) had found that many adults in the college's community were ineligible for the No Worker Left Behind program because they were not college ready.
- > The chair of transitional studies was concerned that LMCC's developmental education program was discouraging for students and felt that adult students needed flexible programming options.

A request from the dean of business services (who has since become the president of the college) to develop courses for a local health care facility was the start of LMCC's efforts to develop new, *Breaking Through*-oriented programming. LMCC found that cross-college collaboration was key to getting the project started.

- ☑ Develop a leadership team within the college: At LMCC, the *Breaking Through* team includes high-level administrators from developmental education, workforce development, business services, career education, and WorkKeys.
- ☑ Strengthen connections to the local Workforce Investment Board: LMCC is planning combined training for advisors from the college and the WIB so that two stakeholders in the labor market—education and employment—can get to know each other. The training will be followed by ongoing meetings.
- ☑ Work with credit-side instructional faculty: LMCC staff are examining the content and textbooks of courses on the for-credit and noncredit sides to create ladders for student advancement.

LMCC started by adding *Breaking Through* components to three noncredit workforce training courses (welding, hospitality, and pharmacy tech). The *Breaking Through* components included remediation through KeyTrain as well as the Career and College Essentials course, which covers a variety of topics aimed at advancing students' education and careers:

- > How to efficiently and seamlessly transition from noncredit to credit courses;
- > Opportunities for career-interest exploration;
- > An introduction to available training courses and their requirements;
- > Advice to students on college expectations and the resources available to them; and
- > Discussions of the advantages of postsecondary education. At LMCC, this discussion is led by TRIO support staff.

LMCC is using data from the first *Breaking Through* cohort to evaluate the success of these courses, but it is already moving to incorporate the initiative's components into more courses. Its advice for practitioners seeking to improve their workforce development offerings is to:

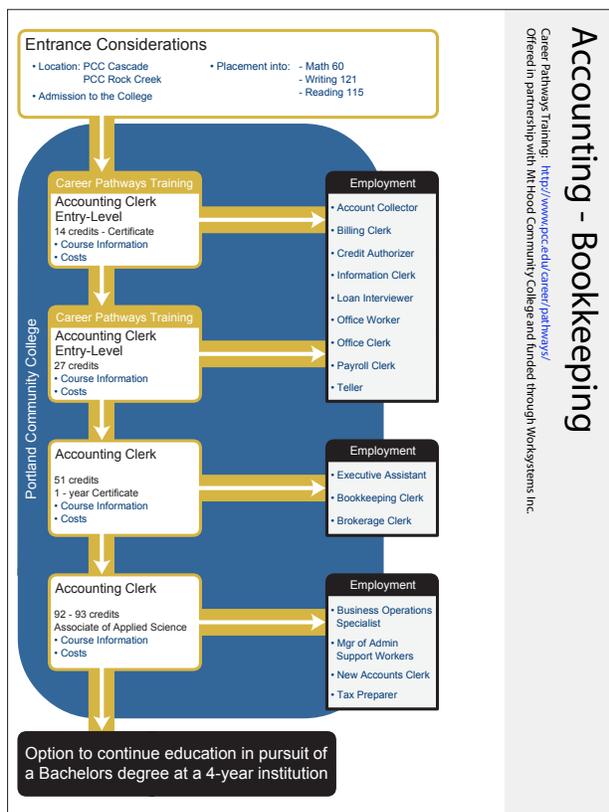
- ☑ Work with the WIB and local employers.
- ☑ Start by adapting existing programs and add new programs as needed.
- ☑ Use data to look at how students transition to college-level programs.
- ☑ Work closely with for-credit instructional faculty and administrators.

## Chunk Training to Create Career Pathways

*Breaking Through* colleges learned about various approaches to creating career pathways in the series of national meetings held between 2005 and 2008. Most influential to the vision of seamless pathways was **Portland Community College's** Career Pathways program, which “chunks” two-year occupational and technical degree programs into units that:

- > Are one year or shorter (12 to 44 credits);
- > Represent the mastery of skills in demand by local employers, and;
- > Build on prior coursework and credentials toward two-year and four-year degrees.

Figure 1 shows PCC's accounting/bookkeeping pathway.



**Tip :** Divide technical curriculum into shorter “chunked” modules that yield credentials, enabling students to get jobs (or promotions) more quickly. This also makes it easier for students to “stop out” for life emergencies without losing credit for work they've accomplished.

Figure 1. Portland Community College's Pathway Map for Accounting/Bookkeeping

In 2004-05, PCC's pathways were only open to college-ready students; low-skilled adults were not eligible, so the college has since added “bridges” to several pathways for students with lower academic skills. These bridge programs include coinstruction, with basic-skills instructors joining content instructors in the classroom.

(For more information on Portland Community College's fourteen career pathways and six vocational English as a second language pathways, see [www.pcc.edu/pavtec/pathways](http://www.pcc.edu/pavtec/pathways).)

A number of *Breaking Through* colleges have grasped PCC's essential notion of “chunking” and adapted it to create a continuum of programs for students starting at low skill levels. For example, Mott Community College has created pathways connecting noncredit workforce students to for-credit technical programs in four industry sectors. Figure 2 shows how the pathway looks in health sciences.

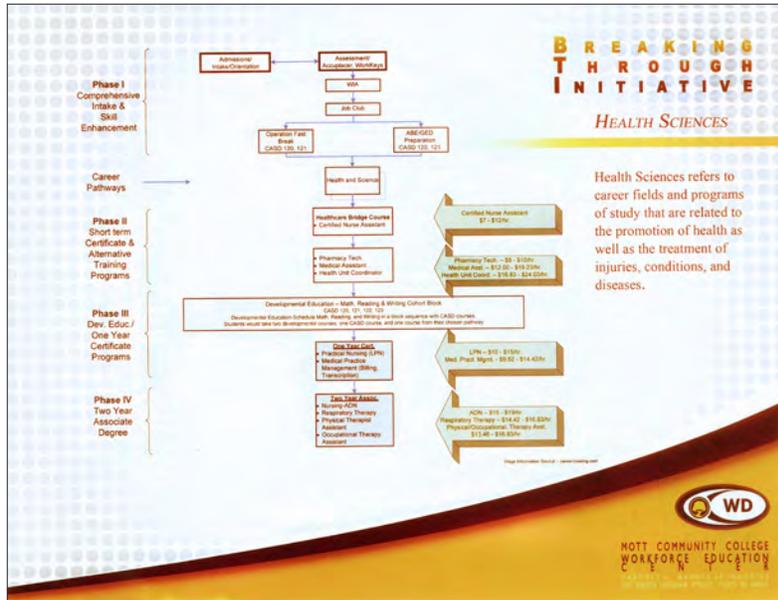


Figure 2. Mott Community College's Pathway Map for Health Science

### "STACKING" TOWARD MORE COMPREHENSIVE CERTIFICATIONS AND DEGREES

The maps of chunked programs presented here also illustrate "stacking"—that is, sequential building toward higher credentials linked to better jobs. Moreover, chunking and stacking creates pathways that are "seamless"—that is, without skill gaps. Many *Breaking Through* colleges have taken their understanding of seamless pathways from a metaphor used by David Prince of the Washington State Board for Community and Technical Colleges. He suggests thinking about career pathways as being like subway systems, where the exit point from the system is the entry point for the next segment of the system. The map from North Shore Community College takes this metaphor to heart (see Figure 3). At the entry level, the pathway accommodates students—mostly women—working for low wages in day care centers and advances their English and technical skills into and through a two-year degree program that articulates to a four-year program.

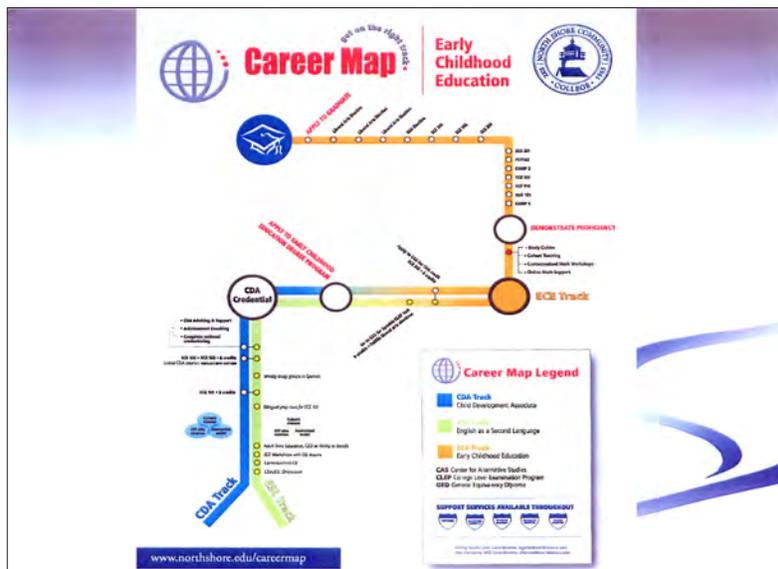


Figure 3. North Shore Community College's map for Early Childhood Education

A somewhat different approach to seamless stacking comes from **Owensboro Community & Technical College** and the **Kentucky Community & Technical College System**. Unlike the preceding examples, created inside a single college, and limited potential for expansion beyond that college, OCTC functions in a statewide system with the potential to build career pathways across the system. This potential was built into a statewide course catalogue developed by KCTCS explicitly to support the development of career pathways.

The KCTCS course catalogue presents career pathways in 108 technical areas, from Advanced Imaging in Radiology to Zoo Animal Technology, with notes indicating which of Kentucky's 16 community and technical colleges offer which courses in each program. The catalogue was developed using an "embedded credentials" approach that makes explicit the competencies taught in each course and aligns them across courses. Thus, students can map out a sequence of courses that add up to credentials and degrees. *(To access the KCTCS catalogue, go to <http://stage.kctcs.edu/catalog/curric/index.cfm?action=s>.)*

An innovative feature of the catalogue is to present courses and certifications available at the precollege level for a number of the programs. "Welder helper," for example, is open to people who test at the ninth-grade level. Various courses are offered at the next level up, and a student can build on the welder helper certificate to what KCTCS calls a "diploma" (less than a two-year degree), and then to a college degree.

OCTC started off by offering dislocated workers and others access to pathways in several industry areas that begin with precollege certificates and build toward college-level courses and degrees. OCTC is working to incorporate another innovation based on crucial observations made by program staff: the academic (KCTCS uses the term "foundational") skills of many students in these precollege certificate programs are well below college level, and the certificate programs do not include instruction in foundational skills. As a result, students can complete the requirements of precollege technical certificates but be unable to advance further because they cannot pass college-entrance exams or function at the reading and math levels required for the college-level technical courses. OCTC will experiment with several approaches to building these skills, using contextualized materials. The goal is to advance students' foundational skill levels alongside technical-skill development, seeking to ensure that those who want college-level certifications can matriculate into college and enroll in the courses they need.



**Tip:** Stack "chunked" curriculum modules so students can advance toward further credentials and degrees.

## THE ROLE OF CERTIFICATES AND CREDENTIALS

One theme cutting across discussions of chunked pathways is the essential role of certificates and other credentials. These are fundamental to the ability of low-skilled adults to advance in the labor market. If credentials are developed correctly, they match a set of skills that employers identify as needed, and they attest that the holder of the credential has mastered those skills. *Breaking Through* colleges have used this principle to construct and strengthen career pathways in several ways:

- > Incorporating nationally or state-recognized certificates into the early stages of a career pathway, giving participants a labor market advantage even before mastering technical material;
- > Using the design process to ensure that certificates for a particular occupation or industry stack, with the competencies to be mastered in a higher-level certificate building on competencies learned at the preceding level; and

- > Designing certificates that ensure a seamless sequence—that is, all the competencies needed for the next higher level of certification are presented in the preceding one.

The *Practice Guide Supplemental Materials* include a taxonomy of certificates, which fall into four types: career readiness, short-term, occupation specific, and community college based. They also describe each type of certificate, illustrated with examples of how *Breaking Through* colleges have used them.



**Tip:** Work with local and regional employers to connect training for incumbent workers with related certificates and/or degrees at the college. Then, develop pathways that enable students to build on employer-sponsored training to earn college certificates and degrees.

## Participate in Regional Efforts to Retain and Recruit Businesses and Industries

For some time national organizations, and also state and municipal governments, have promoted the goal of integrating economic development with workforce development. In practice, integration focuses on the high end of the labor market and neglects the low-skilled adults targeted by *Breaking Through*. For example, states often seek to attract biotechnology firms, while promoting training that offers employers a supply of highly skilled labor. Nevertheless, public agencies can include workers at the lower-skilled end of the spectrum in economic-development efforts, especially to attract and retain industries and firms that offer both family-supporting jobs at the entry level and formal opportunities to increase skills and advance to jobs with higher pay and responsibilities.

*Breaking Through* has nurtured several efforts to promote regional economic development intended to benefit low-skilled adults. Participating community colleges are expanding opportunities for low-skilled adults by influencing the direction of regional economic development in several ways, including:

- > Targeting industry sectors that provide low-income, low-skilled adults good jobs at the entry level and offer opportunities for skill building and advancement, and in which there is high demand;
- > Partnering with the public and private sectors on regional economic and workforce-development efforts;
- > Addressing the education and training needs of firms' incumbent workers to help them advance; and
- > Making targeted, short-term training part of longer-term certificates and degrees to promote advancement and further education and training.

### PARTICIPATION IN REGIONAL ECONOMIC DEVELOPMENT

**Portland Community College** is a key partner in its region's economic and workforce development efforts. One way it does this is by joining in efforts to recruit biotech, microelectronics, solar, and other new industries. By collaborating with new industries and firms, the college is involved with them from the outset. For example, after helping recruit biotech firms, PCC then engaged these firms in developing a 13-credit bioscience technician career-pathways certificate program. The goal was to meet employers' workforce needs while providing low-income, low-skilled adults with employment opportunities.

PCC's career-pathways certificate programs are aligned with the regional economy and high-demand industry areas, and the college collaborates with existing industries to help them grow. When firms experience labor and skill shortages, they are more open to working with the community college and providing employment opportunities to job candidates they might have previously overlooked.

PCC ensures that training not only meets the needs of specific firms but also aligns with certificate and degree programs: training is part of a career pathway. For example, PCC collaborated with a solar energy employer to develop a short-term training package designed to provide the skills required for entry-level jobs. Students completing the training earn credits—and a stackable credential—that can be applied to PCC’s one-year certificate and two-year degree programs.

Both external and internal partnerships are critical. External partners include economic developers, employers, and industry; internal partners include a college’s credit and noncredit sides.

**Owensboro Community & Technical College** collaborates extensively with its region’s economic-development stakeholders—including local government, the economic-development corporation, and unions and employer organizations—to improve the vitality of key sectors in the regional economy and provide low-income, low-skilled adults good jobs and advancement opportunities. OCTC is the workforce arm of regional economic development.

OCTC’s targeted sectors include manufacturing and health care. In manufacturing, the focus is on helping the region retain its local manufacturing base and attract new firms. Such efforts have included providing incumbent workers with the training required to maintain new industrial machinery, and, more recently, providing dislocated workers with retraining. In health care, the focus is on helping the local hospital system meet its need for hundreds of additional nurses. OCTC provides the hospital’s entry-level workers with the education and training required to move into these jobs.

OCTC structures training as part of a pathway, with short-term training and credentials embedded in longer-term certificates and degrees. The college’s activities related to economic development have helped it promote institutional change, bringing a new focus on who is served, and on how and where training is provided.



**Tip:** To improve job opportunities for low-skilled adults, community colleges must partner with state or regional economic-development organizations to attract or retain firms and industries with entry-level positions and genuine advancement opportunities.

## Scaling Up Labor Market Payoffs: Case Study of Mott Community College

In scaling up successful practices Mott Community College provides multiple opportunities for students to gain labor market payoffs from their education in the form of both noncredit occupational certificates and college credits. Mott does this by connecting its noncredit workforce-training programs with its for-credit side.

For students, the connection makes the best of both worlds available: students get opportunities to quickly earn employment credentials valued by employers, while also accumulating college credits that they can later apply toward more advanced certificates and degrees. Mott has instituted its innovative linkage process in all four of its high-demand industry/occupational program areas: health sciences, human services and public administration; business, management, marketing and technology; and engineering/manufacturing. Mott has restructured itself to provide full pathways into the college for low-skilled adults, with sequential certificates and degrees in all four industry areas.

Mott Community College is located in Flint, Michigan, where the auto industry dominated the economy for most of the twentieth century. The decline of the industry has meant huge job losses; by 2006, the number of employees at General Motors had decreased by 90 percent from its peak. With high numbers of unemployed workers, many of whom lack postsecondary credentials, the community college has an important role to play in Flint's economic revitalization.

Before Mott joined *Breaking Through*, career-advancement opportunities for students at its Workforce Education Center were limited, as they are at the noncredit centers of most community colleges. The connections between academic remediation and workforce training were weak, and students who entered with low academic skills had few opportunities to advance in technical training. Even more important, students had no way to build on technical training they had received and to earn college-level certificates and degrees. While noncredit students with poor basic skills could enroll in the college, they had to start in developmental education. Then, once they formally matriculated, they would have to start technical training back at the entry level.

While a number of *Breaking Through* colleges developed "demonstration programs" that they now seek to scale up, Mott Community College took a different approach: moving from having no connections between noncredit and credit programs to systematically developing pathways in four major industry/occupational areas that together accommodate the needs of most students. To roll out these pathways, Mott developed several processes that create opportunities for students to earn seamless sequences of noncredit and credit-level labor market credentials:

- > **Articulation:** Traditionally, "articulation" has referred to the process of formalizing agreements about such matters as the transferability of course credits across separate institutions. Mott adapted articulation to align content between its own noncredit and credit sides. See the *Practice Guide Supplemental Materials* for the items Mott developed to support this process.
- > **Industry/occupational program areas:** Faculty and other staff came together to restructure the curriculum. Now, both noncredit and credit faculty teach segments of some certificate programs, and students can receive college credit along with an industry certificate.
- > **Written programs of study:** For each student, a written program of study details the sequence of courses required to earn a two-year degree in the chosen field. It took several years to hammer out this process: many college staff and administrators had to be convinced that noncredit students were capable of college-level work.

Now students can advance through a clear sequence of certifications, each developed with regional employer input, and each connecting to a job in the chosen industry. For example, a student can acquire a Corrections Preparation Certificate, preparing him or her for a job earning \$12.98 to \$14.23 per hour, followed by a one-year Criminal Justice Certificate, for a job earning \$12 to \$16.23 per hour. This career pathway then leads to two-year Criminal Justice Associate's degree, which provides access to jobs paying up to \$24 per hour.

## References

- Agnew, David. 2000. "History of Career or Vocational Guidance." Web page. Retrieved September 21, 2009 from [www.clt.astate.edu/dagnew/co\\_his](http://www.clt.astate.edu/dagnew/co_his).
- Center for Literacy Studies. n.d. "Equipped for the Future—EFF Fundamentals." Web page. Retrieved 9/30/2009 from <http://eff.cls.utk.edu/fundamentals/default.htm>.
- Heckman, James & Paul LaFontaine. 2006. "Bias-Corrected Estimated GED Returns." *Journal of Labor Economics*. Vol. 24, No. 3.
- Kaestle, Carl F., Anne Campbell, Jeremy D. Finn, Sylvia T. Johnson, & Larry J. Mikulecky. 2001. *Adult Literacy and Education in America*. Washington, DC: National Center for Education Statistics.
- Kutner, Mark, Elizabeth Greenberg, Ying Jin, Bridget Boyle, Yung-chen Hsu, & Eric Dunleavy. 2007. *Literacy in Everyday Life: Results from the 2003 National Assessment of Adult Literacy*. Washington, DC: National Center for Education Statistics.
- Liebowitz, Marty & Judith Combes Taylor. 2004. *Breaking Through: Helping Low-Skilled Adults Enter and Succeed in College and Careers*. Boston, MA: Jobs for the Future.
- Moraru, Heather & Sonya Neilson. n.d. "George-Reed Act of 1929 (PL70-702)." Web page. Retrieved September 10, 2009 from <http://jschell.myweb.uga.edu/history/legis/reed.htm>.
- Murnane, Richard, John, Willet, & Kathryn Boudett. 1995. "Do High School Dropouts Benefit from Obtaining a GED?" *Educational Evaluations and Policy Analysis*. Vol. 17.
- Patterson, Shannon. n.d. "Smith-Hughes Act of 1917 (PL 347)." Web page. Retrieved September 10, 2009 from <http://jschell.myweb.uga.edu/history/legis/smithhughes.htm>.
- Shahnasarian, Michael, and Edwin L. Herr. 2001. "Selected Milestones in the Evolution of Career Development Practices in the Twentieth Century." *Career Development Quarterly*. March.
- Stein, Sondra. 1999. "Equipped for the Future: The Evolution of a Standards-Based Approach to System Reform." *Focus on Basics: Connecting Research and Practice*. Vol. 3, Issue C.
- Tyler, John H., & National Bureau of Economic Research. 2001. *What Do We Know about the Economic Benefits of the GED? A Synthesis of the Evidence from Recent Research*. Cambridge, MA: National Bureau of Economic Research.
- Tyler, John H., Richard J. Murnane, & John B. Willet. 2000. "Estimating the Labor Market Signaling Value of the GED." *Quarterly Journal of Economics*. Vol. 115, No. 2.

# THE BREAKING THROUGH PRACTICE GUIDE

Aligning Programs  
for Low-Skilled Adults

# TABLE OF CONTENTS

<b>INTRODUCTION</b>	<b>5.3</b>
<b>ALIGN ADULT EDUCATION PROGRAMS WITH COLLEGE</b>	<b>5.4</b>
Refocus Adult Education programs and Students on College—Not the GED—as the End Goal	5.6
Connect Adult Educators with Key College Departments	5.7
Revise Instruction to Bridge the Adult Education/College Skills Gap	5.8
Vignette: North Shore Community College, Massachusetts	5.9
<b>ALIGN NONCREDIT COURSES AND PROGRAMS WITH ACADEMIC COURSES AND PROGRAMS</b>	<b>5.12</b>
Assess Skills and Competencies in Noncredit Courses to Document How They Can Align With—and Sometimes Earn—Credit	5.13
Vignette: Pamlico Community College, North Carolina	5.14
<b>ALIGN DEVELOPMENTAL EDUCATION WITH TECHNICAL EDUCATION</b>	<b>5.15</b>
Accelerate Developmental Education	5.16
Customize Developmental Education for Technical Instruction	5.17
Allow Greater Flexibility in Taking the College-Entrance Exam	5.18
<b>SCALING UP A CONTEXTUALIZED DEVELOPMENTAL EDUCATION STRATEGY: CASE STUDY OF SOUTHEAST ARKANSAS COLLEGE</b>	<b>5.18</b>
<hr/>	
<b>REFERENCES</b>	<b>5.20</b>

# ALIGNING PROGRAMS FOR LOW-SKILLED ADULTS

## Introduction

The *Breaking Through* report of 2004 identified the profound lack of connections between programs housed in a typical community college as a crucial barrier to the educational and economic advancement of people with low skills (Liebowitz & Taylor 2004). While there is wide variation among the nation's community colleges, most colleges have separate divisions for credit-bearing academic programs, noncredit workforce programs, and developmental education; some have an adult education division.

*Breaking Through's* research into the particular programs revealed myriad structural problems—divergent missions; differing funding streams, with differing and often incompatible goals, performance measures, and testing and tracking systems; program staff unfamiliar with the needs of employers and modern higher education (standards for entry and the preparation needed for entry-level courses); and, all too often, significant gaps between the exit standards of one program and the entry standards of the program into which it leads (Liebowitz & Taylor 2004).

The nature of this disconnection differs significantly even among the three programs typically serving as entry points to postsecondary education for low-skilled adults (both older and younger). In the case of adult education and noncredit workforce training, the problem stems in large part from the fact that neither program was intended to connect its students to postsecondary education. Developmental education was instituted precisely to prepare people for college-level work, but persistence and transition rates are very low.

Deeper information emerged during the course of *Breaking Through*:

- > Adult education programs often do not view postsecondary education as an important goal for their students and do not provide instructional content that adequately prepares students for college-entrance exams and college-level work.
- > Noncredit workforce programs often provide technical instruction that matches some or all of a school's "for-credit" courses and programs, but lack mechanisms for demonstrating students' mastery of essential content to for-credit instructors and departments.
- > The content and goals of developmental education programs do not connect with students' goals of advancing to better jobs and careers.

These structural problems go a long way toward explaining the poor transition rates from lower-level programs to higher-level programs and the poor success rates in the higher-level programs. As one college official explained, echoing what the research found to be a common opinion, "I've been working in this field for many years, and I can hardly figure out what the route into college for a low-wage worker would be in my area. How would a person with low skills and little familiarity with public institutions figure it out?"

The *Breaking Through* report proposed this high-leverage strategy in response: Restructure programs for precollege students so that they align with college-level programs.

To a certain extent, this recommendation reflects research attributing higher success rates at some proprietary technical colleges—compared with those at public community colleges—to purposeful structuring and sequencing of courses in order to minimize potentially bewildering choices and focus students on clearly charted paths (Bailey, Badway, & Gumport 2001). At Portland Community College, the design of the college career-pathways program is drawn in part from these features of proprietary schools. (See *the Breaking Through Practice Guide: Labor Market Payoffs for more information on Portland Community College's career-pathways design.*)

In particular:

- > Adult education programs should promote students' college aspirations and ensure that content aligns with college tests and skill needs.
- > Noncredit workforce programs should link students with college-level programming through strategies (e.g., articulation agreements) that align competencies in noncredit and credit programs.
- > Developmental education programs should consider different programming for students with strong career goals (e.g., adding content that connects with students' goals and the college's professional/technical programs).

## Align Adult Education Programs with College

“Adult education” refers here to programs that many people call Adult Basic Education (ABE), Adult Secondary Education, GED, and ESL. It is what usually comes to mind when considering programs whose mission is to help adults needing remediation to improve their literacy skills. ABE is formally the Adult Education and Family Literacy Act (AEFLA), Title II of the Workforce Investment Act. In most states, many service sites are accessible to people living in low-income areas. In addition, these programs, supported through a combination of federal and state funds, are offered to individuals at no cost.

However, those who enroll in adult education programs face many challenges advancing to postsecondary education. For one, the capacity of programs generally falls far below need (Adult Education State Directors 2006). The waiting lists are usually long, mainly because the federal government and most states woefully underfund the program. As a result, instructor preparation and professional development are neglected, and program innovation has a low priority (Council for Advancement of Adult Literacy 2008).

Not surprisingly, adult education programs do a poor job of advancing students into postsecondary education. Washington, one of the few states with longitudinal data and the only one to analyze it, has found that only 4 percent of English as a Second Language students and 6 percent of adult education students advanced to attaining either degrees or certificates. Researchers David Prince and Davis Jenkins (2005) have found that students who can earn at least one year of college credit and a credential reach a crucial “tipping point” to substantial income increases.

This poor track record is due in part to the historical evolution of adult education, which was never conceived or designed to prepare students for postsecondary education. While the federal and state governments have long been involved in adult education, a formal federal role was not established until President Lyndon Johnson's War on Poverty in the mid-1960s. Title II B of the Economic Opportunity Act of 1964 created the first adult basic education program as a state grant. Today, Title II of the Workforce Investment Act of 1998 funds and ABE consist primarily of grants to states with required match. The current version of WIA administered by the Office of Vocational and Adult Education of the U.S. Department of Education.

### The Federal and State Investment in Adult Education

In 2005, the most recent program year for which data are available, the nation's adult education system, as defined by the Adult Education and Family Literacy Act, Title II of the Workforce Investment Act, enrolled 2,677,119 people; 43 percent were in English-literacy classes. The total federal expenditure was \$559,602,889. The state share of total expenditures varied widely, ranging from 25 percent in Mississippi, South Dakota, Tennessee, and Texas to 90 percent in Florida. Overall, the federal investment was 26 percent of total expenditures (U.S. Department of Education 2005).

As the federal role evolved, so too did definitions and testing mechanisms, and adult education became a compressed version of primary and secondary education for people who did not have a high school diploma. The Test of Adult Basic Education—TABE—was for many years the instrument used to identify, place, and track the progress of adults needing remediation. More recently, as it became clear that English is not the first language for many adults seeking literacy classes, "English as a second language" was added to the federal adult education program. ESL students now represent more than half of the 2.7 million people enrolled across the nation (U.S. Department of Education 2005). (*For more information, see "History of the Adult Education Act," prepared by Gary Eyre for the National Adult Education Professional Development Consortium, Inc. at [www.naepdc.org/issues/AEAHistory.htm](http://www.naepdc.org/issues/AEAHistory.htm).*)

Many adult educators—and people in the population at large—have long assumed that the GED is an appropriate and sufficient terminal credential for students in such programs. However, according to the National Commission on Adult Literacy, the GED no longer functions as a portal to postsecondary education. Few GED candidates actually enroll in higher education, and 85 percent of those who do must take at least one remedial course (Council for Advancement of Adult Literacy 2008).

Why is the record so dismal? Four main barriers to creating clear pathways from adult education into postsecondary education emerged during the *Breaking Through* demonstration phase:

- > The pervasive belief that the GED is sufficient as the final goal and credential of adult education students;
- > The delivery, in many locations, of adult education by entities with little or no connection with higher education in general or with the particular postsecondary educational institutions of the area;
- > The large and growing gap between the content and skills tested by the GED and those required for college entrance and success; and
- > The need to support students during the transition from adult education to college.

*Breaking Through* colleges have taken up the challenge of transitioning more ABE students to college. Recognizing that most GED completers require further remediation to be college ready, they have sought to eliminate or significantly reduce the time that students spend in developmental education. They have developed four strategies that promote clear pathways from adult education to postsecondary credentials:

- > Connect adult education staff with key college departments.
- > Change the culture of adult education programs so that both students and teachers consider postsecondary education an important and attainable goal.
- > Ensure that students receive instruction that bridges the adult education/college skills gap.
- > Support students as they transition to college.

### REFOCUS ADULT EDUCATION PROGRAMS AND STUDENTS ON COLLEGE—NOT THE GED—AS THE END GOAL

The goal of transitioning significantly higher percentages of adult education students to higher education will not be achieved as long as instructors, adult students, and adults who are considering adult education believe that the GED is a final goal and credential. Changing this belief involves reversing long-standing habits of mind among instructors, managers, and colleagues in other parts of the college.

Most *Breaking Through* colleges have relied on a combination of approaches to refocus adult education students and programs on college as the end goal rather than the GED: presenting college as an integral goal of adult education when recruiting students; finding ways to help adult education participants envision themselves as college students; and emphasizing the importance of postsecondary credentials for obtaining family-supporting jobs. This is powerful leverage: 34 percent of people who enroll in adult education say they want a better job (Strawn 2007).

Many *Breaking Through* colleges have also structured supports to aid students in successful transitions. Many have adopted formal support efforts to ease the transition for students from adult education into college.

**Pamlico Community College** in eastern North Carolina puts the college emphasis up front, when it recruits students. It created a staff position charged with recruiting and hired a local educator whose passion is to increase postsecondary attainment in the region. He stresses college-going as an important goal when he talks with potential students. Inside the program, which like the college is small, instructors begin working early with any student expressing interest in college, helping each to create a customized education plan.

Transition planning for college-bound adult education students goes into high gear when they pass their next-to-last GED test. The coach in basic skills introduces new students to the deans of all the college departments and tells them, “I know this is overwhelming, so I’m your contact. Here’s my cell phone number.” Planning at this stage includes such activities as reviewing and selecting college courses, touring classes and the entire campus, preparing for the college entrance



**Tip:** “Identity” is a strong influence. Many *Breaking Through* colleges have found that helping their adult students identify as college students improves their chances of enrolling in college. LaGuardia Community College offers “College for a Day” opportunities, and South Piedmont Community College in North Carolina issues college-student ID cards to basic skills students.

exam, and preparing financial aid applications. GED completers are scheduled into summer classes because the department has learned, as one staff member reports, “to not let time go by—it’s too easy to lose them.”

**Pitt Community College’s** Ready for College program uses case management to increase transition rates from adult education into college. The coach conducts self-awareness sessions on college-readiness skills (e.g., personal responsibility, study skills, managing time and stress) and organizes monthly career workshops on college services, career opportunities, financial planning, and other topics. The college also offers monthly “Courageous Conversations”—free workshops on topics such as services available from the college, financial planning for college, and career opportunities opened up by college.

The achievement coach stays with Ready for College students through the first year of college. When students get close to being ready to take the GED tests, she reminds them that college, not the GED, is the goal. Working with a half-time counselor, she assists students on all aspects of applying for college and for financial aid. For the first year after students enter college, she offers support and navigation assistance as well as access to the array of college- and community-based services.



**Tip:** Empower case managers to help students mediate conflicts with faculty, and to alert you when there is a seemingly intractable situation, as well as to resolve students’ personal barriers.

## CONNECT ADULT EDUCATORS WITH KEY COLLEGE DEPARTMENTS

A major reason for the disconnection of adult education from higher education is the administrative separation between the two areas, starting at the highest level. In three-quarters of the states, accounting for 76 percent of enrollments, adult education is administered not by the higher education system but by K-12 departments (thirty-two states) or departments of labor (five states) (Tyler 2005).

Moreover, the administration or delivery of adult education by a community college does not imply a higher level of understanding or connection. Even when adult education classes are physically located in the heart of the college campus, instructors and administrators rarely collaborate, and they often lack a good understanding of one another’s work.

As a result, *Breaking Through* colleges have taken steps to connect adult education with the postsecondary parts of the college—practices that can be adopted by any provider.

At **LaGuardia Community College**, the Adult and Continuing Education department has invested in developing “GED to Career” Bridge Programs for in health care and business. The goal are to improve the rate of successful transitions to college and to create a platform for the rigorous level of learning required for success in college. These programs provide GED students with contextualized instruction nine hours per week for fourteen weeks (a total of approximately one hundred hours). Students have the option of attending in the morning or evening, and they can access the computer lab, drop-in tutoring, and various assessments.



**Tip:** Get support from college leadership and involve key players in a program-advisory role as you attempt to link your program to the college.

Staff of the GED to Career Bridge Program work closely with other college staff in the admissions, financial aid, career-development, and academic counseling offices to better understand the systems that students must navigate once they graduate from the program. Staff in the health care bridge program also attend meetings of the college's Allied Health Committee, where they gain a better understanding of opportunities for their students in the health field and develop relationships with faculty who will work with the program graduates when they enter college. Additionally, adult education staff work closely with faculty in the academic and vocational training divisions to contextualize the GED curricula. (See *the Breaking Through Practice Guide: Accelerating the Pace of Learning* chapter.)

These close working relationships not only help adult education staff members better understand the administrative systems and supports their students will face in college; they also help the college staff and faculty become more familiar with the adult education staff, programs, and students. It is a two-way street. This increased familiarity helps college faculty and administrative staff better understand the needs, strengths, and weaknesses of students entering from adult education. This is especially important given that 20 percent of entering freshman at LaGuardia come from the GED program—President Mellow often notes that GED is the largest feeder “school” at LaGuardia.

When **Davidson County Community College** reorganized itself in 2000-01, guided by the then-president's vision of “one college for all students,” it identified the Basic Skills (as North Carolina terms adult education) Department as an important pipeline for credit-level programs. The Basic Skills Department is housed within the college's Academic Division, which helps to promote collaboration between their faculty members. Additionally, the Basic Skills director sits on the college management team, further promoting collaboration.

At the program level, the Basic Skills Department increasingly sees its contextualized curricula as key to better transition-to-college rates. Based on regional labor market data and employer input, it developed the curricula in occupational and industry areas identified as having a high demand for labor and high placement rates. Basic Skills Department faculty work closely with academic faculty to contextualize materials using the textbooks from first-year courses in appropriate program areas.



**Tip:** Formalize agreements with college leaders in writing. Memoranda of Understanding that spell out the college's commitment are especially useful. So also are articulation agreements that enable both parties (in a program and in the college) to specify what they are expecting the other party to do.

## REVISE INSTRUCTION TO BRIDGE THE ADULT EDUCATION/COLLEGE SKILLS GAP

Practitioners in adult education have long suggested that there is a significant gap between the level of skills needed to pass the GED tests and the level needed to succeed in college. While little reliable research is available on the topic, input from *Breaking Through* programs points to at least two dimensions of the skills gap: that involving college-entrance exams, and that involving the skills needed to succeed in college.

Some facets of the gap are easy to define. For example, most college programs require the ability to conduct formal research and to write research papers, but this is not part of adult education curriculum and not tested by the GED. In other areas, there is little reliable information but some speculation—for example, that most college-entrance exams test for proficiency in areas of mathematics beyond those taught in adult education.

# North Shore Community College, Massachusetts

## BUILDING PATHWAYS FOR NON-NATIVE ENGLISH SPEAKERS

North Shore Community College's *Breaking Through* initiative had a specific population in mind: low-skilled child care workers who were non-native English speakers. The college created a Child Development Associate (CDA) track for non-native speakers that could lead into the college's Associate's degree program in early-childhood education, ideally without the need to enroll in developmental education. To accomplish the college's goals, NSCC worked with a variety of internal and external partners:

✓ *Create a collegewide team that includes faculty and leadership from a number of departments:* The team included representatives from developmental education, early-childhood education, student support services, transition programs, and noncredit departments.

✓ *Include partners from outside the college on the team:* NSCC collaborated with community-based organizations and the local Workforce Investment Board. CBOs brought valuable experience working with lower-skilled, low-income students.

✓ *Work with employers to build support for the pathway program.*

While the college is currently collecting and analyzing data on program participants, it already reports increased professionalism among participants working in the field, as well as increased recognition of the importance of training. It is also finding that the success of the program is in part attributable to the sense of prestige that comes with being part of a national initiative, which has created a buzz about the work.

NSCC is extending *Breaking Through* practices into other programs throughout the college, including developmental education. To make the transition from ESL/CDA to for-credit courses easier for students, it has modified the early-childhood education program.

✓ *Allow for multiple student entry points:* At NSCC, there are entry options for students who are nearly college ready but need some bilingual support, as well as for those who need more remediation and English up front.

✓ *Create opportunities for stackable certificates:* The benefit of the CDA credential is that the credits can count toward the first semester of the Associate's degree.

✓ *Map out the pathway for students:* The map clearly indicates entry and exit points, as well as intermediary credentials that lead to employment.

In Massachusetts, most WIA-funded ESL classes are run by CBOs. North Shore Community College recognized a need to better align the curriculum provided at local CBOs with the requirements for enrolling and succeeding in community college coursework. The college now provides professional development to ESL providers to achieve alignment and consistency across programs.

Two key lessons emerged from North Shore Community College's *Breaking Through* initiative:

✓ *Targeting specific groups can lead to a greater awareness throughout the college and community of their needs:* NSCC's initiative led to a broad focus on the barriers facing non-native English speakers and an effort to align the college curricula with that for ESL classes taught at a community-based organization.

✓ *Relationships with community-based organizations can be mutually beneficial:* NSCC provided professional development to CBO staff, while the CBO provided students with additional supports.

## Confirming a Serious Skill Gap between Adult Education and College

The Lexile Framework® for Reading was introduced by MetaMetrics in 1997 to establish a common metric for assessing a reader’s level of proficiency and a text’s level of difficulty. According to MetaMetrics, a gap of 200 points between an individual’s reading level and a text’s level of difficulty indicates that the individual will comprehend 50 percent or less of the material in the text. In 2007, the Texas Higher Education Coordinating Board (THECB) commissioned MetaMetrics to assess “readability measures” indicated by passing scores on college entrance exams and the texts used in the state’s community and four-year colleges. According to the research, a passing score on the GED reading test indicates a level of 1060 Lexiles. “Readiness” for the THECB is 1170 Lexiles. However, 75 percent of college texts had Lexile levels between 1130 and 1450 (Smith & Koons 2008).

Practitioners have few tools they can use to help them identify the skills their students will need in order to both pass college tests and succeed in college. As a result, they generally develop “bridge” curricula on a one-by-one basis. Some programs enable students to take the college’s admissions exam for practice so they can identify areas of weakness requiring further instruction.

**LaGuardia Community College’s** GED Bridge programs are designed to simulate the college experience. The GED curriculum mirrors the first-year curricula of programs in the college’s academic division, and students are expected to do rigorous work. They are required to read extensively and to develop their academic writing skills by writing comparative or persuasive essays, interview-based narratives, and mini-research papers. Just as college-level students are expected to study outside the classroom, GED students are expected to spend one hour preparing for every hour in class.



**Tip:** Make sure students are well aware of the benefits of intensive remediation - these students are willing to put in extra hours if they can see how it is going to help them.

GED faculty devote a significant amount of time revising the curriculum to align with college-level expectations (as well to contextualize it). The program coordinator and instructors meet weekly, and instructors spend about 10 hours per week developing course materials— and they spend even more time at the beginning of the program. GED faculty are comprehensive in their

**Table 1. Unit Objective in LaGuardia Community College’s GED Bridge Program**

General Unit Overview	GED	College	Career
<ul style="list-style-type: none"> <li>• Students estimate measurements using the scale of a map.</li> <li>• Students conjecture and estimate the area of a circle with a one mile radius from their maps.</li> <li>• In groups, students measure a city block with surveying tools.</li> <li>• Students create population-to-business and business-to-city block ratios.</li> <li>• Students use math to identify community needs.</li> </ul>	<ul style="list-style-type: none"> <li>• Calculating area and perimeter</li> <li>• Using radius of a circle in calculations</li> <li>• Calculating percent and percent of change over time</li> <li>• Interpreting visual and numerical data from a map, charts, and tables</li> </ul>	<ul style="list-style-type: none"> <li>• Using inductive and deductive reasoning skills</li> <li>• Supporting an argument with data</li> <li>• Using scientific thinking to make observations and question patterns</li> </ul>	<ul style="list-style-type: none"> <li>• Thinking like an entrepreneur</li> <li>• Working with a team to solve a problem</li> <li>• Using math to strengthen persuasive writing</li> <li>• Appreciating the link between necessity and invention</li> </ul>

## Dorcas Place: How an Independent Program Built Bridges to College

Dorcas Place Adult and Family Learning Center in Providence, Rhode Island is the only noncollege lead partner in *Breaking Through*. How it built pathways to the Community College of Rhode Island is an example for the country's many noncollege-based adult education providers. It is also, as former executive director Brenda Dann-Messier (now assistant U.S. secretary of vocational and adult education) says, a lesson in approaching the challenge of connecting students with college incrementally. Dorcas Place has built on the lessons it has learned at each stage, which is especially important for organizations with ambitious missions and tight budgets.

Dorcas Place launched the Bridge to College/Transitions model several years ago, with funding from the Nellie Mae Education Foundation. The Bridge to College took an "aspirational" approach: to promote the goal of postsecondary attainment, it sought to change its own culture and the mind-set of the students. At first, Dorcas Place mainly supplied GED students with information about college, such as on financial aid and admission policies. Recognizing that information alone would connect few clients to college, it added counseling staff to support students' planning around college and career goals. When this still did not pull students into college and help them to stay there, the next step was to obtain funds to pay tuition for the first college class. Dorcas Place also arranged to cluster its students into learning communities—at first with Dorcas Place students, and later with other students—to make it feel more like college. The agency also identified three areas of study that students could try out to see how they would do and how faculty would treat them: it gave them "a taste of college."

Even so, the students were not prepared to succeed in college. Too many began college in developmental education, where they did not earn college credit, even as they used up part of their eligibility for Pell Grants, which are limited in how long students can use them (only up to 150 percent of the advertised length of the program).

In response, Dorcas Place is piloting a Developmental Education Institute to address academic deficiencies and to test whether providing developmental education in the community can eliminate low-skilled adult students' placement into developmental education at the community college. Thus far, most of the students are succeeding in the institute.

Dorcas Place is also aligning its curriculum with college-level classes at the Community College of Rhode Island. Alignment will seek to reduce or eliminate students' need for developmental education. As a first step, college faculty members are providing professional development for ABE instructors at Dorcas Place.

approach to designing rigorous GED curricula that align not only with college standards but also with the skills students will need in their careers. They have created grids that systemically align the objectives of each unit with standards expected in the GED program, in college-level courses, and in jobs, and they use these grids to develop lesson plans and curricula. Program staff emphasize that extensive interaction with college instructors is essential for developing the "college" content (see *Table 1 on page 5.10*).

**Pitt Community College** provides supplemental instruction focused on subjects and skills that will be needed to succeed in college or to pass the admissions test. For example, one of the English instructors in basic skills taught the for-credit freshman English course in order to better understand the academic requirements her

students will need to succeed in the class. As a result of this experience, she revised the writing assignments in the developmental education course to better prepare students for college-level work. Additionally, developmental math instructors meet once a year with academic math faculty and remain in touch year round. The college has two developmental math levels—one leads to a math course for the technical programs and the other into college algebra. Developmental education faculty revise the curricula as needed so that these courses align with college-level work.

## Align Noncredit Courses and Programs with Academic Courses and Programs

In recent years, college-based, noncredit workforce programs have emerged in response to several forces: demand by local employers for training that would keep their workers and hence their firms competitive; demand from public agencies seeking training for individuals with an identified need (e.g., workers recently laid off by a major employer); and individuals who seek credentials that can be gained quickly (e.g., real-estate licenses). Most noncredit workforce units deliver a mix of trainings offered to incumbent workers at the request of employers, trainings offered in response to requests from public entities, and courses paid for by student fees. The mix varies from college to college, as does the skill level of students.

These departments develop their courses outside higher education's accreditation structure, which sets standards for hiring faculty, course content, and other areas of college structure and offerings. State legislatures use a college's accreditation to determine whether it can receive public funding. The noncredit part of the college is not covered by the accreditation process or standards.

On the one hand, the lack of accreditation standards confers flexibility: workforce departments are exempt from standards governing such areas as hiring, course content, and course schedules. Partly because they are not funded through the college's formula based on full-time equivalency enrollments, many such departments become highly entrepreneurial in seeking revenue-generating training opportunities. However, this lack of accreditation also creates a significant barrier for students seeking to advance. As Macomb Community College president Jim Jacobs, who codirects the national *Breaking Through* initiative, has noted, noncredit students invest their time and energy in learning new skills, but they cannot parlay that investment into the certificates and degrees offered by the for-credit side of the house (Jacobs & Teahen 1997).

The challenges presented by the divide between noncredit and credit divisions in colleges will increase as postsecondary, noncredit education becomes more common. In fact, many community colleges now enroll more noncredit than credit students (Van Noy et. al. 2008).

The main challenge to connecting noncredit students with the credit side of the college is the lack of recognized mechanisms for assessing the skills and competencies imparted by noncredit courses in ways that enable comparisons with for-credit courses. For-credit departments want assurances that noncredit courses meet their standards for prerequisites or degree fulfillment.

*Breaking Through* colleges have pursued answers to these challenges. In particular, Mott Community College and Owensboro Community & Technical College have developed replicable processes for assessing the skills and competencies imparted by noncredit courses in ways that enable comparison with for-credit courses.

## ASSESS SKILLS AND COMPETENCIES IN NONCREDIT COURSES TO DOCUMENT HOW THEY CAN ALIGN WITH—AND SOMETIMES EARN—CREDIT

**Mott Community College's** Workforce Development division has adopted a few innovative ways of connecting noncredit and credit programs. First, it has established and published career pathways that connect a series of educational programs—both noncredit and credit—to provide a seamless career-advancement pathway for students. Faculty and staff have created pathways in four areas, and more are under development: business, management, marketing and technology; engineering/manufacturing and industrial technology; human services and public administration; and health sciences. All of the pathways include integrated work experience and support services, which enables working students to combine work and school more easily.

Second, the Workforce Development division has established “articulation agreements” for certain courses between the college’s noncredit workforce division and its for-credit academic division. By formally assessing the skills and competencies students gain in the noncredit courses, the college can demonstrate that at least some of the courses are equivalent to those on its “credit side” and are worthy of academic credit.

Another approach to the articulation-agreement process was to revisit some of the courses in the for-credit academic programs to see if they could be delivered in a nontraditional format by the noncredit workforce division (e.g., accelerated, intensive courses geared to students working full-time jobs and enabling them to earn credentials more quickly). As the workforce division is not bound by rules and regulations dictated by the accreditation process, it has more flexibility in designing courses. Cleverly, the workforce division then worked out an articulation agreement with the academic division to grant academic credit to course completers.

Third, the Workforce Development division blends some of its vocational programs with credit and noncredit courses. In this way, students earn both some college credit and industry-recognized credentials. For example, the Level One Welding Technician Program consists of fifteen-weeks of full-time education. Students take eight classes for a total of 510 contact hours. Completers earn eleven hours of college credit and a Level One certificate from the American Welding Society.

It has taken the staff in the Workforce Development division many years to implement these innovations. Staff carefully cultivated champions both within and outside the college (e.g., the director of the local Workforce Investment Board) to help make the case for the changes and to implement them. For example, when Mott Community College’s new vice president of academic affairs heard how enthusiastically the director of MichiganWorks! (the local Workforce Investment Board) supported the Workforce Development division’s career pathways, she reached out to partner more closely with the division. And when the dean of health sciences was facing a long waiting list for the credit-bearing Certified Nurse Assistant program, she turned to the Workforce Development division to develop a noncredit version that would mirror the credit program. *(For additional detail, see the Breaking Through Practice Guide: Labor Market Payoffs.)*



**Tip:** Cultivate champions for nontraditional programs from both within the college and outside the college. Sometimes strong supporters outside the college can have significant influence in building support for your programs inside the college.

# Pamlico Community College, North Carolina

## CREATING COMPREHENSIVE INSTITUTIONAL CHANGE

Pamlico Community College embraced *Breaking Through* as an opportunity to develop institutional-level innovations, using career pathways in health care as a starting point. Recognizing that students needed more than a GED to achieve a labor market payoff, and that few students were transitioning to college, the director of basic skills and the dean of noncredit education both wanted to ease transitions and clarify pathways. Health care was seen as an ideal pathway with which to start.

- ✓ *Start with high-demand occupations:* Pamlico recognized many employment options for students within the health care professions.

- ✓ *Look at the courses already offered at the college:* Pamlico already had implemented some elements of the health care pathway on both the for-credit and noncredit sides of the college.

Pamlico facilitated these efforts by hiring a staff person, who previously had taught EMT courses, to be in charge of health care courses on both the credit and noncredit sides. He expanded the number of certificates available to students, as well as the days and times courses were offered, to create more options for students.

- ✓ *Identify one department or administrator in charge of both the for-credit and noncredit elements of a pathway:* This makes it easier to connect and align courses to improve the pathway as a whole.

- ✓ *Think about labor market payoffs in terms of a portfolio of skills:* With new certificate options available on both the credit and noncredit sides, students can earn a degree along with various certificates that signify specific skills sets, thus and improve their employability.

- ✓ *Ensure that students have information on the different skills sets they can build, how to access them, and how they relate to specific jobs.*

Pamlico supplemented its *Breaking Through* efforts with a new counselor position and hired a former GED instructor who had a good understanding of the needs of basic skills students. The college recommends that programs:

- ✓ Use counselors to create bridges from basic skills to the credit side of the college and to connect students to program instructors and college counselors.

- ✓ Counsel GED students on their options in the credit side of the college, stressing the benefits of continuing to postsecondary education.

The innovations developed through *Breaking Through* have led to institutional changes, including reorganization. Even though Pamlico is small, different departments were not accustomed to working together. Today, the noncredit and for-credit divisions are being integrated, and a vice president for instruction will oversee this integration. This level of change requires buy-in across the college, especially at the leadership level.

- ✓ Start with two people: an ally from administration and one passionate person to get the ball rolling.

- ✓ Find ways to collaborate with people from several divisions within the college.

- ✓ Assess how the initiative fits with what the college is already doing. There may be overlap between projects.

- ✓ Use the *Breaking Through* strategies as part of high-level strategic planning.

- ✓ Find opportunities for peer learning or visits to other *Breaking Through* colleges.

**Owensboro Community & Technical College**, as part of the Kentucky Community & Technical College System, has access to an important tool to support career-pathways progression. The statewide system developed a comprehensive course catalog that serves as a guide for academic program and services available at each of its 16 colleges. Using an “embedded credentials” approach, programs are clearly outlined and courses aligned to a sequence that leads to a variety of credentials and degrees. OCTC offers three types of credential: certificates, diplomas, and Associate’s degrees (including Associate in Arts, Associate in Science, and Associate in Applied Science). *(To view the on-line version of the Kentucky Community & Technical College System catalog, go to <http://legacy.kctcs.edu/catalog>.)*

The catalog presents a clear succession of courses and certifications from beginning through advanced levels. For example, a “welder helper” certificate is considered an introductory or entry-level, short-term credential in OCTC’s Welding Technology program because it has no prerequisite courses for entry. This certificate leads to advanced certificates, a diploma (less than a two-year degree), and then a degree. Students in OCTC’s “Quick Jobs” career-pathways option can enter the welder helper certificate program without any postsecondary experience and a TABE (Test of Adult Basic Education) score of 9. This gives students, particularly those hesitant to take academic classes, the chance to experience college and gain an industry-recognized certificate in a short amount of time. As a result, OCTC is confident that sequenced credentials provide career-pathways opportunities that lead to valuable labor-market payoffs.

## Align Developmental Education with Technical Education

Developmental education has the same general goal as adult education: provide academic remediation to students with weak skills. However, only developmental education explicitly focuses on college preparation. Also, while federal funding and requirements promote some consistency across adult education programs, developmental education has evolved at the local and state level with state and local funding, with a great deal of variation among programs and states.

One distinction between students in adult education and those in developmental education is that adult students in developmental education generally have a high school credential (GED or diploma). That is because a high school credential is required for Pell Grants, the major form of federal financial aid for community college students, and Pell Grants can be used to pay for developmental education. A surprisingly high percentage of students test into the lowest level of developmental education—33 percent in math, for instance—which is the equivalent of “adult basic education” (Bailey 2009).

### The Investment in Developmental Education

The annual cost of developmental education is \$1.9 to \$2.3 billion at community colleges and \$500 million at four-year colleges. Reports from various states cite expenditures of tens or hundreds of millions of dollars annually. The Community College Research Center estimates that nearly 60 percent of community college students take at least one developmental education class (Bailey 2009).

Students are referred to developmental education on the basis of their scores on college-entrance exams. Scores below the college’s minimum result in a referral (either mandatory or voluntary) to developmental education. Colleges generally provide a developmental education sequence of two or three courses, from low-to high-level content in reading, writing, and math.

Data from *Achieving the Dream*, a national initiative to help more community college students succeed, bear out suspicions about the track record of developmental education (Bailey, Jeong, & Cho 2008):

*Our results indicate that only 3 to 4 out of 10 students who are referred to remediation actually complete the entire sequence to which they are referred. Most students exit in the beginning of their developmental sequence—almost half fail to complete the first course in their sequence. The results also show that more students exit their developmental sequences because they did not enroll in the first or a subsequent course than because they failed a course in which they were enrolled.*

For students who place into the lowest levels of developmental education, only 16 percent progress through the sequence into credit-level coursework (Bailey, Jeong, & Cho 2008). Through *Achieving the Dream* and other initiatives, significant resources are being brought to bear on developmental education. *Achieving the Dream* is particularly concerned with student groups that traditionally have faced significant barriers to success, including students of color and low-income students. The initiative aims to scale up high-impact state- and system-level policies that increase student success, both by creating incentives and by removing barriers. An emphasis on data collection has allowed participating states to track outcomes and learn what works.

In six states, the Developmental Education Initiative is building on momentum created by *Achieving the Dream*. These states are focusing on specific policy levers, such as redesigning courses and sequences and aligning with K-12 curricula, which are expected to improve outcomes for students testing into developmental education. (For more information on *Achieving the Dream* and the Developmental Education Initiative, see [www.achievingthedream.org](http://www.achievingthedream.org) and <http://www.deionline.org>.)

For many adult students, especially those with low skill levels and families to support, the typical developmental education curriculum, is daunting. *Breaking Through*, with its goal of occupational or technical certificates and degrees and a focus on adults with low academic skills, was developed to appeal to these students. Its pathway innovations have two distinguishing characteristics. First is the career identity of the developmental education portion of the pathway. Related to the career identity is the name that “brands” it. At many colleges, giving specialized developmental programs their own identity can eliminate much of the stigma associated with remedial education. Both characteristics are part of the essential career-pathways practice in this area: link the content of and success in developmental education to college matriculation.

## ACCELERATE DEVELOPMENTAL EDUCATION

**Southeast Arkansas College’s** innovative career pathway for Licensed Practical Nursing starts with an intensive, contextualized developmental education semester. The focus on developmental education resulted from an analysis of data on SEARK’s students: nearly 95 percent of entering students needed remediation. An LPN pathway fit the bill for a program that would advance them past developmental education quickly.

Students move through the pathway in cohorts, starting with Fast Track, a contextualized developmental education course explicitly focused on LPN preparation. The course is compressed into one semester and has succeeded with students who enter testing as low as the fourth grade. It is immediately followed by a one-year, accelerated, interdisciplinary Practical Nursing Track that is delivered in eight-week modules. The special name for the developmental education portion—Fast Track—distinguishes it from the school’s regular developmental education classes and likely confers a special status on the students who are in it.

While Fast Track's intensive "boot camp" approach motivates many students, it has the potential to leave behind those who drop out due to unexpected life challenges. However, the college has adopted two options for students who are falling behind: they can continue in the accelerated program by joining the next cohort behind them, or they can drop back to traditionally paced courses.

SEARK has served three cohorts of about fifteen students each in its Fast Track developmental education program, with a 96 percent completion rate for each cohort (compared to 63 percent or less in the traditional developmental education courses). Everyone in the first cohort and 80 percent of the second cohort have passed the National Council Licensure Exam for Practical Nurses (NCLEX-PN).

**Owensboro Community & Technical College**, with its Community Economic Development Unit in the lead, extended its *Breaking Through* model with a grant from the Robert Wood Johnson Foundation. It has developed a workplace-based model designed to enable entry-level health care workers at Owensboro Medical Health System to earn an Associate's Degree in Nursing in three years. Under OCTC's agreement with the health system, the program has enrolled frontline workers referred by their supervisors, and all continue to work full time while studying.

Prior to *Breaking Through* a large percentage of the participants entered requiring significant remediation, but success rates were not high in the college's regular developmental education program. Nursing instructors were convinced that developmental coursework failed to provide students with skills needed in their profession, especially math skills.

The result was a special developmental education track—OCTC@OMHS—organized around cohorts. The college delivers the program at the work site, contextualized it for nursing. As one program staffer says, "We needed to make the instruction relevant for students—remember, they are working full time as well as going to school—and to be sure that they learned the math and reading skills they needed to succeed in the nursing program."

Students move directly from the intensive developmental education component to nursing.

In the college's traditional nursing program, 45 percent of the students leave after the first year. But 75 percent of OCTC@OMHS students are on track to complete their RN credential.



**Tip:** Provide students with a clear career plan that spells out courses to take and in what sequence, career goals, and barriers to be reduced – these are especially useful for students who need to navigate through institutions that haven't yet created clear pathways.

## CUSTOMIZE DEVELOPMENTAL EDUCATION FOR TECHNICAL INSTRUCTION

Some leading-edge community college models integrate developmental education into content courses as a way of streamlining both types of education (e.g., the Washington State I-BEST model). However, many colleges have pointed out that the idea of creating special developmental education courses integrating remedial with technical instruction sounds impossibly complex. Typical community colleges offer a dozen or more technical programs: how could the college offer a specialized developmental education course for each one?

One possibility is to consider Davidson County Community College's strategy for customizing. The program has developed a centralized set of instructional materials for each of the region's five high-priority industries and occupations. These materials are taken from texts used in the college's entry-level for-credit courses

for each industry area. The program has keyed these materials to remedial content/objectives, such as fractions and writing paragraphs. Instructors can use this “library” of contextualized materials to customize lessons for individual students or groups of students interested in different industry areas. In this way, DCCC can continue to offer regular technical education courses, while at the same time provide customized contextualized remedial education within the courses.

### ALLOW GREATER FLEXIBILITY IN TAKING THE COLLEGE-ENTRANCE EXAM

Some *Breaking Through* colleges have experimented with allowing more flexibility in when or if students take the college-entrance exam. In some cases, the colleges have recognized that students might be able to succeed in some technical or academic courses without going through developmental education. In others, they recognize that the blanket cutoff score on a placement test students take when entering a college might not be appropriate for all programs the college offers and that a more nuanced approach would be more appropriate.

At **North Shore Community College**, students who seek to enroll in the English as a Second Language/Child Development Associate (CDA) degree pathway but cannot pass the college-entrance exam can still enroll in the first CDA course and delay taking the entrance exam. The entry-level course includes content that instructors know students must have in order to pass the college’s test. A student who passes the test at the end of the course can receive college credit for the course. This allows the student to get started with a program while preparing to pass the entrance exam. North Shore Community College has found that this approach also builds the student’s confidence, while the college maintains its standards.

At **Washtenaw Community College**, a professional-services instructor in the Adult Transitions Program analyzed the specific reading, writing, and math skills required in entry-level classes for nine occupational programs at the college (e.g., Fundamentals of Welding, Construction I, Auto Body Repair/Automotive Refinishing). Staff created a booklet that summarizes the entry-level skill requirements for each program’s entry-level class.

By understanding the specific skills required for entry into specific programs, the Adult Transitions Program can make the case for allowing students to enter into technical programs for which they have the basic skill levels, even if they fall below the college’s placement test cutoff score. Moreover, the analysis and the booklet give counselors and advisors a tool for helping students interested in the programs assess if they are ready to enter them. They also help developmental education instructors aid students in targeting their basic skills development, and they help outside agencies better understand the entry-level requirements of various programs and hence better advise their clients. Since the program released the booklet, several other Michigan community colleges have shown interest in replicating this practice.

## Scaling Up a Contextualized Developmental Education Strategy: Case Study of Southeast Arkansas College

Southeast Arkansas College is scaling up successful practices it developed as a partner in *Breaking Through*. The goal of these practices is to move students quickly through clear pathways of remediation and postsecondary education and into well-paying jobs. SEARK is doing this by extending a number of practices it developed with its *Breaking Through* demonstration funding to the entire Licensed Practical Nursing and Allied Health program, as well as into a second occupational area: Early Childhood Development.

SEARK's *Breaking Through* program grew out of the economic realities of southeast Arkansas. Jobs that pay family-supporting wages are not plentiful, and many that do exist require postsecondary education. However, 95 percent of the students enrolling at the college require remediation. Some have never read a magazine or a book.

SEARK's experimental LPN program addressed remediation needs quickly and innovatively, in a completely retooled, contextualized developmental education program delivered to a series of three cohorts, one starting each year of the demonstration. Completion rates were 96 percent, compared with 63 percent in traditional developmental education. Each cohort then moved immediately into an intensive, accelerated Practical Nursing track that had built-in labor market payoffs. As a result, students had job options throughout their education, at the end, and even afterward. Everyone in the first cohort and 80 percent of the second cohort passed their nursing exam (the NCLEX-PN).

SEARK is studying the "lessons learned" from this demonstration and extending the new practices into other parts of the college. A reorganization has placed developmental education together with all credit-level programs under one vice president for academic affairs. Based on the *Breaking Through* demonstration, several changes have taken place:

- > General-education instructors now also serve as developmental education instructors, improving their understanding of the full continuum of students SEARK is serving.
- > Instructors have become more involved in support services as they learn about how these can help meet the needs of their students.
- > Academic instructors in developmental education learn more about professional content areas (and vice versa) through the paired-instructor approach.
- > The college is fostering interdepartmental collaboration (e.g., aligning reading and writing with the content subject matter).

In addition, the college is implementing promising practices from *Breaking Through* more widely. Most important is a revamping of developmental education so it is now contextualized for all allied health students, including nursing students.

SEARK is also contextualizing and accelerating developmental education for early-childhood education and incorporating a "clinical" experience so students can get applied learning or work-based learning. The college is developing its own child care facility, which will be operational in the next year and will be used as a clinical site. Furthermore, the accelerated and integrated approach is being applied in upcoming general-education "honors" courses, starting with Sociology in fall 2009 and Biology/Ethics in spring 2010.

The Fast Track program is also helping the college "retool" reading across the board. And building on the Fast Track program approach, the college is utilizing more "block" scheduling for training. For example, Evergreen, a local paper company, pays for training its staff for an entire day in this block format.

Finally, SEARK has scaled up a number of *Breaking Through* strategies for student success, making them accessible to all students. These strategies include tours in particular industry sectors and mandatory orientation. Strategies for Student Success, a college-success course developed for *Breaking Through* students, is now mandatory, and it incorporates the Career Readiness Certificate.

## References

- Adult Education State Directors. 2006. *Adult Student Waiting List Survey*. Washington DC: National Council of State Directors of Adult Education.
- Bailey, Thomas. 2009. "Rethinking Developmental Education in Community College." CCRC Brief. No. 40. New York, NY: Community College Resource Center, Teachers College, Columbia University.
- Bailey, Thomas, Norena Badway, & Patricia Gumpert. 2001. *For-Profit Higher Education and Community Colleges*. Stanford, CA: National Center for Postsecondary Improvement
- Bailey, Thomas, Dong Wook Jeong, & Sung-Woo Cho. 2008. *Referral, Enrollment and Competition in Developmental Education Sequences in Community Colleges*. CCRC Working Paper No. 15. New York, NY: Community College Resource Center, Teachers College, Columbia University.
- Council for Advancement of Adult Literacy. 2008. *Reach Higher America: Overcoming Crisis in the U.S. Workforce*. New York, NY: National Commission on Adult Literacy.
- Jacobs, James & Roberta Teahen. 1997. "Shadow College and NCA Accreditation: A Conceptual Framework." *NCA Quarterly*. Vol. 71, No. 4.
- Liebowitz, Marty & Judith Combes Taylor. 2004. *Breaking Through: Helping Low-Skilled Adults Enter and Succeed in College and Careers*. Boston, MA: Jobs for the Future.
- Prince, David & Davis Jenkins. 2005. *Building Pathways to Success for Low-Skill Adult Students: Lessons on Community College Policy and Practice from a Statewide Longitudinal Tracking Study*. New York, NY: Community College Resource Center, Teachers College, Columbia University.
- Smith, Malbert III & Heather, Koons. 2008. *The Texas Higher Education Coordinating Board and The Lexile Framework for Reading* [PDF document]. Retrieved from The Texas Higher Education Coordinating Board: <http://www.theccb.state.tx.us/index.cfm?objectId=31COFA46-CAFD-99DD-5F0D73670BB8F542>
- Strawn, Julie. 2007. *Policies to Promote Adult Education and Postsecondary Alignment*. New York, NY: Council for the Advancement of Adult Literacy.
- Tyler, John H. 2005. "The General Educational Development (GED) Credential: History, Current Research, and Directions for Policy and Practice." *Review of Adult Learning and Literacy*, Chapter 3.
- U.S. Department of Education, Office of Vocational and Adult Education. 2005. *Adult Education and Family Literacy Act: Program Facts*. Washington, DC: Author.
- Van Noy, Michelle, James Jacobs, Suzanne Korey, Thomas Bailey, & Katherine L. Hughes. 2008. *Noncredit Enrollment in Workforce Education: State Policies and Community College Practices*. Washington, DC: American Association of Community Colleges and New York, NY: Community College Research Center, Teachers College, Columbia University.

# THE BREAKING THROUGH PRACTICE GUIDE

Supplemental Materials

# TABLE OF CONTENTS

<b>THE <i>BREAKING THROUGH</i> COLLEGES: ENROLLMENT AND PROGRAM DATA</b>	<b>6.3</b>
<b>PROFILES OF COLLEGES IN THE <i>PRACTICE GUIDE</i></b>	<b>6.8</b>
Leadership Colleges	6.8
Learning Colleges	6.10
<b>DEFINITIONS</b>	<b>6.16</b>
<b>TYPES OF CREDENTIALS</b>	<b>6.17</b>
<b>THE COMMUNITY COLLEGE ADVISOR TRAINING TOOLKIT</b>	<b>6.18</b>
<b>MOTT COMMUNITY COLLEGE'S ARTICULATION SYSTEM</b>	<b>6.20</b>

## The *Breaking Through* Colleges: Enrollment and Program Data

LEADERSHIP COLLEGES (all data except program details drawn from the integrated postsecondary education data system)

College name, location, Web site, and Carnegie classification	Total Student Enrollment, Fall 2007	Demographic Data for All Enrolled Students, 2007-2008					Program Details (self-reported)	
		Gender	Attendance	Race/Ethnicity	Age	Pell Recipients	Program Features	Students Served
Central New Mexico Community College Albuquerque, NM www.cnm.edu Associate's–Public Urban-serving Multicampus	22,759	43% Male; 57% Female	70% Part-time; 30% Full-time	36% White; 41% Hispanic	50% under 25; 50% 25 and over	41%	<ul style="list-style-type: none"> <li>Prepares students for work in construction trades.</li> <li>Provides contextualized developmental education courses in reading and math.</li> <li>Includes certificate programs, apprenticeships, courses in college-success and employability skills.</li> </ul>	160 students total  10 cohorts of varying sizes
Community College of Denver Denver, CO www.ccd.edu Associate's–Public Urban-serving Multicampus	8,359	37% Male; 63% Female	75% Part-time; 25% Full-time	43% White; 13% Black; 29% Hispanic	56% under 25; 44% 25 and over	50%	<ul style="list-style-type: none"> <li>Implemented Fast Start@ CCD with accelerated developmental education courses in reading, writing, and math.</li> <li>Includes focus on career development and required career-exploration course.</li> <li>Students encouraged to develop and persist with an education and career plan.</li> </ul>	415 students from spring 2006 - spring 2008
Cuyahoga Community College District Cleveland, OH www.tri-c.edu Associate's–Public Urban-serving Multicampus	24,563	38% Male; 62% Female	58% Part-time; 42% Full-time	58% White; 29% Black	53% under 25; 47% 25 and over	57%	<ul style="list-style-type: none"> <li>Developed pathways to nursing-assistant credentials</li> <li>Includes contextualized "bridge" classes for academic remediation, work-readiness skill development, and preparation for certification.</li> <li>Provides career-support specialists for students and support after students complete programs.</li> </ul>	66 total students:  8 cohorts ~10 each, 2006-2008
Durham Technical Community College Durham, NC www.durhamtech.edu Associate's–Public Urban-serving Single Campus	5,170	36% Male; 64% Female	74% Part-time; 26% Full-time	35% White; 39% Black	39% under 25; 61% 25 and over	50%	<ul style="list-style-type: none"> <li>Program built on successful <i>Achieving the Dream</i> initiative in developmental education, targeted to students in basic skills</li> <li>Includes incentive system to increase student retention and advancement.</li> <li>Includes case manager counselor and student mentors.</li> </ul>	164 total students:  Health Technologies: 102 students Industrial Systems Technologies: 58 students Early Childhood: 4 students

LEADERSHIP COLLEGES (cont.)

College name, location, Web site, and Carnegie classification	Total Student Enrollment, Fall 2007	Demographic Data for All Enrolled Students, 2007-2008					Program Details (self-reported)	
		Gender	Attendance	Race/Ethnicity	Age	Pell Recipients	Program Features	Students Served
Owensboro Community & Technical College Owensboro, KY www.octc.kctcs.edu Associate's–Public Rural-serving Medium	5,435	48% Male; 52% Female	69% Part-time; 31% Full-time	89% White; 11% other	66% under 25; 34% 25 and over	50%	<ul style="list-style-type: none"> <li>Started with program for incumbent manufacturing workers, expanded to Associate's degree nursing program for entry level hospital workers.</li> <li>Includes contextualized learning, stackable and modularized credentials, worksite and on-line learning.</li> <li>Intensive support services for students; students can work full time while obtaining certifications and degrees.</li> </ul>	261 total students:  IMAC cohort: 35 students OCTC@OMHS: 3 cohorts; 78 total students Team Leader Cohorts: 5 cohorts; 158 total students
Portland Community College Portland, OR www.pcc.edu Associate's–Public Urban-serving Multicampus	24,353	44% Male; 56% Female	64% Part-time; 36% Full-time	63% White; 15% Race/ethnicity unknown	48% under 25; 52% 25 and over	29%	<ul style="list-style-type: none"> <li>Provided "intensive and intrusive" support services for students in developmental education.</li> <li>Includes case management, tutoring, career-exploration and college-success classes.</li> <li>Implemented mandatory advising, with advisors assigned to small learning cohorts.</li> <li>Developed and tested Advisor Training program and manual.</li> </ul>	329 total students:  5 cohorts of sizes varying from 49 to 73 students
Southeast Arkansas College Pine Bluff, AR www.seark.edu Associate's–Public Rural-serving Medium	2,144	30% Male; 70% Female	52% Part-time; 48% Full-time	51% White; 46% Black	50% under 25; 50% 25 and over	91%	<ul style="list-style-type: none"> <li>Developed and implemented pipeline for students to become licensed practical nurses.</li> <li>Includes intensive developmental program contextualized for nursing and allied health, intensive instruction and preparation for LPN licensing exam.</li> <li>Partnered with Southern Good Faith Fund to provide comprehensive support services.</li> </ul>	45 total students:  3 cohorts of 15 students

**LEARNING COLLEGES (all data drawn from IPEDs)**

College name, location, Web site, and Carnegie classification	Total Student Enrollment, Fall 2007	Demographic Data for All Enrolled Students, 2007-2008				
		Gender	Attendance	Race/Ethnicity	Age	Pell Recipients
Cerritos College Norwalk, CA www.cerritos.edu Associate's–Public Suburban-serving Single Campus	22,273	46% Male; 54% Female	72% Part-time; 28% Full-time	13% White; 51% Hispanic; 12% Asian/Pacific Islander	61% under 25; 39% 25 and over	35%
City College of San Francisco San Francisco, CA www.ccsf.edu Associate's–Public Urban-serving Multicampus	46,411	42% Male; 58% Female	82% Part-time; 18% Full-time	22% White; 16% Hispanic; 40% Asian/Pacific Islander	36% under 25; 64% 25 and over	40%
Davidson County Community College Thomasville, NC www.davidsonccc.edu Associate's–Public Suburban-serving Single Campus	3,399	33% Male; 67% Female	59% Part-time; 41% Full-time	81% White; 13% Black	49% under 25; 51% 25 and over	39%
Forsyth Technical Community College Winston-Salem, NC www1.forsythtech.edu Associate's–Public Urban-serving Single Campus	7,276	36% Male; 64% Female	60% Part-time; 40% Full-time	65% White; 26% Black; 4% Hispanic	51% under 25; 49% 25 and over	29%
Grand Rapids Community College Grand Rapids, MI www.grcc.edu Associate's–Public Urban-serving Single Campus	15,212	48% Male; 52% Female	56% Part-time; 44% Full-time	77% White; 11% Black; 6% Hispanic	70% under 25; 30% 25 and over	32%
Henry Ford Community College Dearborn, MI www.hfcc.edu Associate's–Public Suburban-serving Multicampus	13,983	42% Male; 58% Female	62% Part-time; 38% Full-time	51% White; 22% Black; 3% Hispanic	60% under 25; 39% 25 and over	48%
Houston Community College System Houston, TX www.hccs.edu Associate's–Public Urban-serving Multicampus	43,518	41% Male; 59% Female	71% Part-time; 29% Full-time	20% White; 26% Black; 28% Hispanic; 11% Asian	56% under 25; 44% 25 and over	35%
LaGuardia Community College Long Island City, NY www.lagcc.cuny.edu Associate's–Public Urban-serving Multicampus	15,169	38% Male; 62% Female	46% Part-time; 54% Full-time	19% Black; 35% Hispanic; 16% Asian/Pacific Islander	67% under 25; 33% 25 and over	58%
Lake Michigan College Benton Harbor, MI www.lakemichigancollege.edu Associate's–Public Rural-serving Medium	3,740	40% Male; 60% Female	67% Part-time; 33% Full-time	67% White; 17% Black	66% under 25; 34% 25 and over	39%

**LEARNING COLLEGES (all data drawn from IPEDs) (cont.)**

College name, location, Web site, and Carnegie classification	Total Student Enrollment, Fall 2007	Demographic Data for All Enrolled Students, 2007-2008				
		Gender	Attendance	Race/ Ethnicity	Age	Pell Recipients
Macomb Community College Warren, MI www.macomb.edu Associate's–Public Suburban-serving Multicampus	22,081	48% Male; 52% Female	62% Part Time; 38% Full-time	76% White; 6% Black	65% under 25; 35% 25 and over	23%
Mott Community College Flint, MI www.mcc.edu Associate's–Public Rural-serving Large	10,455	39% Male; 61% Female	64% Part-time; 36% Full-time	60% White; 17% Black	55% under 25; 45% 25 and over	51%
Northampton County Area Community College Bethlehem, PA www.northampton.edu Associate's–Public Urban-serving Multicampus	7,912	38% Male; 62% Female	55% Part-time; 45% Full-time	77% White; 6% Black; 9% Hispanic	63% under 25; 37% 25 and over	29%
North Shore Community College Danvers, MA www.northshore.edu Associate's–Public Suburban-serving Multicampus	7,107	39% Male; 61% Female	57% Part-time; 43% Full-time	68% White; 8% Black; 13% Hispanic	59% under 25; 41% 25 and over	35%
Pamlico Community College Grantsboro, NC www.pamlicocc.edu Associate's–Public Rural-serving Small	393	36% Male; 64% Female	51% Part-time; 49% Full-time	52% White; 45% Black	44% under 25; 56% 25 and over	25%
Piedmont Virginia Community College Charlottesville, VA www.pvcc.edu Associate's–Public Rural-serving Medium	4,674	41% Male; 59% Female	77% Part-time; 23% Full-time	80% White; 14% Black; 2% Hispanic	64% under 25; 36% 25 and over	28%
Pitt Community College Winterville, NC www.pittcc.edu Associate's–Public Rural-serving Large	6,499	40% Male; 60% Female	47% Part-time; 53% Full-time	63% White; 29% Black	64% under 25; 36% 25 and over	37%
Seattle Community College-South Campus Seattle, WA southseattle.edu Associate's–Public Urban-serving Multicampus	6,664	60% Male; 40% Female	70% Part-time; 30% Full-time	49% White; 9% Black; 6% Hispanic; 12% Asian	37% under 25; 61% 25 and over	32%

**LEARNING COLLEGES (all data drawn from IPEDS) (cont.)**

College name, location, Web site, and Carnegie classification	Total Student Enrollment, Fall 2007	Demographic Data for All Enrolled Students, 2007-2008				
		Gender	Attendance	Race/Ethnicity	Age	Pell Recipients
South Piedmont Community College Polkton, NC www.spcc.edu Associate's–Public Rural-serving Medium	2,250	27% Male; 73% Female	72% Part-time; 28% Full-time	63% White; 30% Black	54% under 25; 46% 25 and over	41%
South Texas College McAllen, TX www.southtexascollege.edu Associate's–Public Urban-serving Single Campus	19,827	42% Male; 58% Female	65% Part-time; 35% Full-time	3% White; 94% Hispanic	73% under 25; 27% 25 and over	74%
St. Clair County Community College Port Huron, MI www.sc4.edu Associate's–Public Suburban-serving Single Campus	4,270	38% Male; 62% Female	55% Part-time; 45% Full-time	90% White; 3% Black; 2% Hispanic	63% under 25; 37% 25 and over	30%
St. Philips College San Antonio, TX www.accd.edu Associate's–Public Urban-serving Multicampus	9,256	43% Male; 57% Female	58% Part-time; 42% Full-time	35% White; 16% Black; 46% Hispanic	54% under 25; 46% 25 and over	65%
Tacoma Community College Tacoma, WA www.tacomacc.edu Associate's–Public Urban-serving Multicampus	5,811	36% Male; 64% Female	46% Part-time; 54% Full-time	61% White; 8% Black; 7% Asian/Pacific Islander	56% under 25; 44% 25 and over	28%
Tallahassee Community College Tallahassee, FL www.tcc.fl.edu Associate's–Public Rural-serving Large	13,776	45% Male; 55% Female	51% Part-time; 49% Full-time	55% White; 32% Black; 7% Hispanic	76% under 25; 24% 25 and over	41%
Washtenaw Community College Ann Arbor, MI www.wccnet.edu Associate's–Public Urban-serving Single Campus	12,068	45% Male; 55% Female	68% Part-time; 32% Full-time	68% White; 15% Black	55% under 25; 45% 25 and over	28%
York County Community College Wells, ME www.yccc.edu Associate's–Public Rural-serving Small	998	39% Male; 61% Female	66% Part-time; 34% Full-time	36% White; 62% non-resident alien	58% under 25; 32% 25 and over	48%

## Profiles of Colleges in the *Practice Guide*

The *Practice Guide* draws on work undertaken by six *Breaking Through* Leadership Colleges, thirteen Learning Colleges, and one community-based organization that participated in the initiative. Practitioners can use these profiles to assess the contexts in which various practices were developed for potential compatibility with their own circumstances. All enrollment data is taken from the IPEDs database.

### LEADERSHIP COLLEGES

#### **Central New Mexico Community College**

With over 26,000 students, Central New Mexico Community College (CNM) is located in Albuquerque. During fall 2009, CNM's enrollment grew substantially; now, CNM is the largest educational institution in the state. Seventy percent of its students attend part-time, and half of the student body is over 24 years old. The program, which focuses on preparing students for work in the construction trades, provides contextualized developmental education courses in reading and math. It targets low-skilled adults who, after multiple challenges, seek a new start in life and employment. The students are a mix of unemployed and underemployed adults already enrolled at the college, TANF recipients, and previously incarcerated individuals. In addition to contextualized learning, the program provides certificate programs, apprenticeships, comprehensive support services, and courses in college-success and employability skills.

#### **Community College of Denver**

Community College of Denver, in Colorado, enrolls just over 8,000 students, 75 percent of whom attend part-time. Forty-four percent are over 24 years old. In its *Breaking Through* project, CCD tested the theory that spending less time in remedial education would increase retention, result in higher certificate and degree completion, and increase successful transfers to four-year colleges. Focusing on developmental education students, the college implemented FastStart@CCD, a program that uses the learning-community philosophy to allow students to complete two to four semesters of developmental courses in reading, writing, and math in one semester. In addition to the focus on academic competencies, FastStart integrates career exploration into the curriculum in a variety of contexts, including mandatory coenrollment in a college-experience course that features an enhanced career-exploration component. The integration of academic and career competencies guides students through the informed selection of a career and the formalization of a college academic plan that will help them reach their goals.

#### **Cuyahoga Community College**

Cuyahoga Community College, in Cleveland, Ohio, enrolls over 25,000 students in a wide range of career fields. For *Breaking Through*, the college focuses on developing pathways to a nursing-assistant credential for low-skilled adult students, many of whom are on public assistance and have little work experience. The State-Tested Nursing Assistant program includes contextualized "bridge" classes for students in need of academic remediation, work-readiness skill development, and preparation for certification. Career-support specialists provide case management and connect students with on-campus resources and career counseling. Staff keep in touch with students after they complete the program to support them in continuing their education in allied health fields.

### **Owensboro Community & Technical College**

Located in Owensboro, Kentucky, a city of more than 50,000 people, Owensboro Community & Technical College enrolls nearly 5,500 students; 69 percent attend part time. OCTC focuses on career pathways and labor market payoffs. Because of the region's growth in the industrial and manufacturing sectors, and in order to address an aging skilled workforce, it initially focused its *Breaking Through* program on incumbent workers in local manufacturing sites and on finding ways to advance this population's education and training while allowing them to continue working. With assistance from the Robert Wood Johnson Foundation, OCTC then created a program for workers in the region's hospitals, preparing entry-level health care workers to earn Associate's degrees in nursing. Key aspects of OCTC's *Breaking Through* program include contextualized learning, stackable and modularized credentials, and worksite and on-line learning. Students also have a variety of options for remedial instruction and get intensive support services through a case manager. Students can work full time while obtaining certifications and degrees.

### **Portland Community College**

With multiple campuses throughout Portland, Oregon, PCC is the state's largest institution of higher education. The college enrolls more than 24,000 students annually; 64 percent attend school part time. For *Breaking Through*, PCC tested the hypothesis that providing "intensive and intrusive" support services for students in developmental education would improve persistence and transition rates, with the goal of having more students progress from developmental education into degree and certificate programs. The *Breaking Through* program includes case management, tutoring, career exploration, and classes in college-success and study skills. PCC assigns dedicated advisors to small learning cohorts; advising is mandatory for *Breaking Through* students. Advisors seek to ensure that students complete the two-term program, and they assist students with the transition to credit coursework. Advisors also help students manage life challenges that threaten to derail their educational progress. PCC helped develop and test a *Breaking Through* advisor-training program and manual for college advisors who provide case management services.

### **Southeast Arkansas College**

Southeast Arkansas College, located in Pine Bluff, a city of 50,000 people, enrolls just over 2,000 students. Nearly three-quarters attend part time, and half are over the age of 25. Because outcomes for students seeking nursing credentials had previously been weak, the school sought a different approach to helping students succeed. SEARK's *Breaking Through* program has aimed at developing and implementing a pipeline for low-skilled adults to become licensed practical nurses. It consists of an intensive developmental program contextualized for nursing and allied health, followed by intensive instruction toward becoming a licensed practical nurse. SEARK also provides support to students as they prepare to take the LPN licensing exam. The college has partnered with the Southern Good Faith Fund, a local community-based organization, to provide counseling, financial-literacy classes, and other comprehensive supports aimed at increasing students' financial stability. *Breaking Through* offers students an opportunity to speed up the process of gaining nursing credentials—the program takes three semesters—and provides options for those unable to keep up the pace.

## LEARNING COLLEGES

### **Cerritos Community College**

Cerritos Community College, located south of Los Angeles in Norwalk, California, has over 22,000 students. Most attend part time (72 percent), and just over half of the students are Hispanic. Thirty-nine percent of the students are over 24 years old. To accelerate pathways for English language learners, Cerritos has developed contextualized courses for machine tools, retail management, and health sciences. Students first take vocational ESL, then transition to a bilingual training course. After these two semesters, students can start a credit-bearing vocational training program. The college also provides support services, provided by staff fluent in Spanish. For students with low levels of education in their native language, Cerritos hosts a program to develop native-language literacy skills through Plaza Comunitaria, a program offered by the Mexican government.

### **City College of San Francisco**

City College of San Francisco in California serves primarily nontraditional students. Of its total enrollment of over 46,000 students, 82 percent attend part time, and 64 percent are over the age of 25. In its *Breaking Through* program, CCSF is accelerating pathways in the construction trades and has created a rigorous pre-apprenticeship program and vocational ESL contextualized for construction and for food service. To serve its *Breaking Through* target population of older, low-skilled adults, the college offers a large number of Saturday and evening classes and incorporates reading, writing, and math into technical classes that prepare students for college placement tests. The program includes an introduction to college expectations and options and emphasizes the long-term payoff of taking basic skills courses.

### **Davidson County Community College**

Davidson County Community College enrolls about 3,500 students. The college is located in Thomasville, a city with a population of just under 20,000, in rural North Carolina. Fifty-nine percent of students attend part time, and 51 percent are over 24. The college's *Breaking Through* project focuses on providing better career-assessment and exploration services for low-skilled adults entering the college, as well as increasing the rate of transition from ABE/ESL/GED to credit-level coursework. Student opportunities for developing informed career plans include a three-day orientation before enrollment in ABE/ESL/GED, a 30-hour career-exploration course offered through the Human Resources Development department, and MECA, a computer-based career-exploration tool. In addition, courses for low-skilled adults are contextualized for high-demand occupations, and students can get a certificate in one year or less in each of the targeted pathways.

### **Dorcas Place**

The mission of Dorcas Place, a community-based organization in Providence, Rhode Island, is to serve low-income adults. Founded in 1981 as a literacy program for single mothers, it has grown into a full-service organization that provides Providence's low-income population with education, employment assistance, family literacy programs, and advocacy. While not a community college, Dorcas Place participates in *Breaking Through* because of its efforts to create pathways from adult education to college. Dorcas Place offers Adult Basic Education, as well as on-site developmental classes aimed at eliminating the need for remediation for students who transition to college-level work. Both programs are aligned with the curricula at the Community College of Rhode Island. Dorcas Place works closely with CCRI to smooth the transition of students from community-based adult education to credit-level college coursework.

**Durham Community and Technical College**

Durham Community and Technical College is located in North Carolina's Research Triangle. Its 5,000-person student body includes a large number of nontraditional students: 72 percent attend part time, and 61 percent are over 25. In *Breaking Through*, the college's goal is to build on the success of its participation in the national *Achieving the Dream* initiative, while serving a lower-skilled population faced with more barriers to success. Durham Tech uses an incentive system to increase student retention and advancement: students can earn cash or certificates as they advance past a series of benchmarks. The *Breaking Through* program includes a dedicated case manager counselor, along with student mentors who have transitioned out of the basics skills program.

**Forsyth Technical and Community College**

Forsyth Technical and Community College serves over 7,000 students in Winston-Salem, North Carolina. Sixty percent of its students attend part time. The college's *Breaking Through* program has focused on student advising, especially for continuing education students seeking to transition to college-level work. This effort includes broadening the definition of an advisor to include all the faculty and staff that students encounter and providing training to those individuals so that they are better equipped to work with low-skilled and/or low-income adults. Forsyth has used the *Breaking Through* Advisor Training Toolkit to provide professional development throughout the college.

**Grand Rapids Community College**

Grand Rapids Community College serves over 15,000 students, 56 percent of whom attend part time. Its Career Advancement Program is a partnership between the college and Michigan Works!, the local Workforce Investment Board. The goal is to prepare displaced factory workers to reenter the workforce or enter more advanced training and credential programs. GRCC's accelerated, cohort-model program includes both pre-college remedial courses and college-level courses. Remedial coursework is contextualized for workplace skills. Students also receive instruction in such areas as computers, life skills, and transitioning to college, and they have access to career guidance and counseling, as well as additional support services provided through Michigan Works! The program uses WorkKeys to assess entering students and strives to boost their scores. Students leave the program prepared to reenter the workforce or to begin the next stage of their chosen career pathway.

**Henry Ford Community College**

Henry Ford Community College, in Dearborn, Michigan, enrolls nearly 14,000 students, 62 percent of whom attend part time. The college focuses on two industries for *Breaking Through*: health care and weatherization. For health care pathways, the college is building on a program model developed for the JET Plus initiative (the funding for which has been cut), with a goal of creating a health care career center. Developed in partnership with a local community-based organization, the center will be an off-campus facility involving both the for-credit and noncredit sides of the college. The weatherization program, also being developed in partnership with CBOs, as well as with input from the local utility company, will provide training for a variety of "green jobs." Key elements of this program include contextualized curricula and wraparound support services.

### **LaGuardia Community College**

A City University of New York school in Long Island City, LaGuardia Community College enrolls close to 15,000 students; 46 percent attend part time. In 2007, the college's Adult and Continuing Education Department created and piloted a GED Bridge program contextualized for health and business careers. The goal is to prepare students to pass the GED, develop an education and career plan, and successfully make the transition to college or career training. Graduates of the GED Bridge program can enroll in a for-credit degree program, take a vocational certification course, advance to better jobs in a chosen career field, or do all three. Contextualized GED coursework prepares students to enroll in college or vocational certificate programs after receiving the GED. Students also benefit from case management, career advising, and postsecondary-transition services.

### **Lake Michigan College**

Lake Michigan College is located in Benton Harbor, population 11,000, in southwestern Michigan. Its enrollment is just under 4,000 students, with 67 percent attending part time. Lake Michigan works closely with the local Workforce Investment Board to prepare TANF participants for employment and postsecondary education. The college uses KeyTrain to provide individualized remediation, with the goal of getting students to a WorkKeys level that will qualify them for a Bronze National Career Readiness Certificate. Lake Michigan links TANF students with the college's TRIO services and provides a life coach who offers student support. The college is also working on creating stackable certificates that can lead to job prospects and degrees.

### **Macomb Community College**

Macomb Community College is located north of Detroit in Warren, Michigan. While new to *Breaking Through*, this large college—it serves over 20,000 students, 62 percent of whom attend part time—had previously developed three programs based on the initiative's strategies. The college offers compressed vocational ESL, an intensive, compressed noncredit program that prepares students for administrative jobs, and a basic skills-upgrade program combining classroom and computer-based instruction. In both the ESL and basic skills programs, students have the option of further accelerating their pace of learning through on-line options. A Macomb counselor primarily serves students in the basic skills and ESL programs. The counselor helps students explore career options and make the transition to further education and training. President Jim Jacobs, who is also the president of the National Council for Workforce Education, is committed to expanding *Breaking Through* at Macomb through the development of pathways and articulations between noncredit and for-credit coursework, as well as by expanding student-support services.

### **Mott Community College**

Mott Community College, in Flint, Michigan, enrolls just over 10,000 students, 64 percent of whom attend part time. For *Breaking Through*, Mott is addressing the gaps between academic remediation, workforce training, and college-level coursework. Working from the belief that students who see a clear pathway to better employment will be more motivated, Mott has created career road maps in high-demand industries. It also created Operation Fast Break, an intensive eight-week program to prepare students for employment or postsecondary education. Fast Break uses WorkKeys and KeyTrain to assess and improve students' skill sets, and the college is developing articulation agreements with its for-credit side so that Fast Break graduates are better prepared for the next segment of their chosen career pathways.

**North Shore Community College**

North Shore Community College, in Lynn, Danvers, and Beverly, Massachusetts, all suburbs of Boston, enrolls about 7,000 students. Fifty-seven percent attend part time, and 41 percent are over 24. North Shore has developed a career-pathways program for home-based and center-based child care workers, including those who are also English language learners. The program prepares students for a Child Development Associate Early Childhood Education credential that the college has aligned with its Associate's degree in Early Childhood Education; as a result, credits earned in the CDA program count toward the degree. The program offers a compressed, integrated curriculum, including contextualized ESL, to prepare students for CDA courses. In addition, much of the coursework is offered at child care centers, helping participants to continue earning an income while they earn credentials.

**Pamlico Community College**

Pamlico Community College, enrolling just under 500 students, is located in the eastern North Carolina town of Grantsboro, population 750. Fifty-one percent of the students attend part time, and 56 percent are over 24. In working toward the goal of transitioning more adult education students into college-degree programs, the college offers a number of modularized, stackable certificates that can add up to a degree in medical professions. Early on in their enrollment as adult education students, college staff identify those with a goal of college enrollment and work with them on career and educational planning. Because it is so small, Pamlico uses a "one room school" approach that utilizes media and technology to let each student proceed at his or her own pace within a supportive environment.

**Piedmont Virginia Community College**

Piedmont Virginia Community College, in Charlottesville, serves nearly 5,000 students; 77 percent attend part time, and 36 percent are 25 and over. PVCC developed its *Breaking Through* program in response to employer demand for advanced career pathways in health care. PVCC's pathways include personal care aide training and a nursing assistant program. The programs are aligned, with the personal care aide training as the first step. Students who complete it are both prepared for employment and can enter the nursing assistant program and earn a credential as a certified nursing assistant. While working as a CNA, students can further develop their health care skills through specialized training in phlebotomy or gerontology. Program staff also advise students on potential next steps, such as nursing programs or, for students who do not wish to continue in direct patient care, alternative careers in health care. Support services and career guidance are available throughout the program, as are self-paced remedial programs and work-readiness development. PVCC plans to expand its pathways to include medical administration and clinical health care training.

**Pitt Community College**

Pitt Community College, in Winterville, North Carolina, a small town near Greenville, enrolls about 6,500 students; approximately half attend part time. Pitt uses case management to increase the transition rate from adult education into college; its achievement coaches work closely with students to provide support and help develop college-readiness skills. The college also offers monthly workshops on financial planning, college services, and other topics. The college offers supplemental instruction to prepare students for the college-admission test and college-level work, and it is implementing contextualized learning in its developmental and continuing education departments.

### **South Piedmont Community College**

South Piedmont is located in Polkton, a small town in rural North Carolina near Charlotte. Seventy-two percent of its 2,250 students attend part time, and 46 percent of students are over 24. The college's *Breaking Through* strategy focuses on the Human Resource Development program, which is part of continuing education and workforce development and serves as a "front door" to the college. HRD offers career-planning classes that are free for unemployed and underemployed individuals and for those below the poverty level. It also awards career-readiness certificates through WorkKeys. Students take the WorkKeys test, target their skill building to areas that need the most development, then retake the test to increase the level of their National Career Readiness Certificate.

### **South Texas College**

South Texas College in McAllen serves nearly 20,000 students, 94 percent of whom are Hispanic. With this population in mind, the college is developing career pathways for low-skilled adults with limited English proficiency, with a specific focus on those who have low literacy in their first language. The project is identifying high-demand occupations and sectors and using the findings to create contextualized remedial curricula based on specific career fields. The college is developing pathways in health care and manufacturing. The health care pathway, focusing on younger adults, will include both GED prep and stackable certificates that can transfer to the for-credit side of the college. The manufacturing pathways include academic skill development contextualized for construction, machinery maintenance, green building, and other industries.

### **St. Clair County Community College**

St. Clair County Community College, which serves just over 4,000 students in Port Huron, Michigan, has developed a *Breaking Through* program called Adults Who Are Returning to Employment. AWARE seeks to increase the transition of low-skilled, unemployed, or underemployed adults into workforce training or college-level programs, with the end goal being a certificate or degree. The program is open-entry/open-exit, making it easier for nontraditional learners to access. It also provides additional remediation and support to students seeking to transition into workforce training or for-credit programs. Support services include access to an advisor who has participated in the *Breaking Through* Advisor Training. The program, which started in May 2009, has enrolled over 100 students, and 16 have advanced into either credit-level courses or certified nursing assistant training.

### **Tacoma Community College**

Tacoma Community College in Washington has 6,000 students. Forty-six percent attend part time, and 44 percent are over 24. For its low-skilled adult students, the college uses an I-BEST program design that combines basic skills with career training and technical coursework. The Integrated Basic Education and Skills Training program was developed by the Washington State Board of Community and Technical Colleges to accelerate the pace of learning for students with low education levels. Tacoma integrates its I-BEST students with other students in the same field of study. While they are in the same classes as "regular" students, I-BEST students take basic skills or language courses with instruction contextualized to their field of study. The ABE/ESL instructors are also in regular classes with the students and provide tutoring afterward. As part of the I-BEST program, Tacoma offers a three-credit college-success course covering study skills, time and money management, and how to develop an educational and career action plan.

**Tallahassee Community College**

Tallahassee Community College is located in Florida; of its nearly 14,000 students, approximately half attend part time, and the majority (76 percent) are under 25. The *Breaking Through* program transitions adult education students into postsecondary education. The accelerated program focuses on three career fields: allied health, information technology, and business management. It offers a variety of workshops through Student Services on such topics as coping with stress, career assessment and goal setting, and employability skills. Entering students sign a contract that signals their commitment to the *Breaking Through* program and their understanding of their responsibilities. Tallahassee is developing “chunked” pathway programs that students can enter after completing the adult education program. A variety of student supports are available to all students, including those in adult education.

**Washtenaw Community College**

Washtenaw Community College, located in Ann Arbor, Michigan, enrolls about 12,000 students; 68 percent attend part time. Nearly half of the students are 25 or older. To create more opportunities for low-skilled adults to access technical programs, Washtenaw analyzes the reading levels needed to succeed in entry-level courses in these programs. Based on this, the college allows students to enroll in specific courses as long as their reading levels are high enough for them, even if the score is lower than the minimum for enrollment in a program. In addition, to ease the transition from GED programs to credit-level coursework, Washtenaw develops connections between staff and students.

## Definitions

*Breaking Through* has included definitions of these products and programs because they are used by a number of colleges, not as an endorsement.

### WORKKEYS AND KEYTRAIN

Many *Breaking Through* colleges use WorkKeys, a test developed by ACT, to assess students' workplace competencies and determine their individual skill weaknesses. The test includes two different assessments: WorkKeys Foundational Skills assessments measure cognitive abilities such as those in applied mathematics, reading for information, and locating information; WorkKeys Personal Skills assessments are designed to predict job behavior and measure the full potential of individuals.

KeyTrain is also developed and produced by ACT, and is a curriculum designed to help students build the skills measured by WorkKeys. Its self-paced interactive materials are available in print and online.

*For more information on WorkKeys and KeyTrain, see <http://www.act.org/workkeys/>.*

### I-BEST

I-BEST is a program developed by the Washington State Board of Community and Technical Colleges to create pathways to family-supporting employment for low-income adults. I-BEST integrates basic skills education into content-focused training courses. There are 34 community colleges in Washington offering I-BEST programs.

### MECA

MECA is a computer-based career-exploration program that incorporates interest assessment, hands-on job simulations, academic and workplace-skills assessment, and goal planning. It also includes skill enhancement in goal setting, social/emotional learning, life, and work skills. *For more information, see <http://www.conovercompany.com/products/meca/Index.html>.*

### ALEKS

ALEKS (Assessment and Learning in Knowledge Spaces) is a Web-based program that provides students with customized mathematics and science lessons based on their knowledge gaps. The program includes Spanish-language instruction as well. *For more on ALEKS, see <http://www.aleks.com/>.*

### AZTEC

Aztec Software produces online and computer-based basic skills remediation for a number of educational areas, including ESL, GED preparation, and workforce development. Their programs include skill assessment, interactive learning, and individualized education plans. *For more on Aztec, see <http://www.aztecsoftware.com/aztec/>.*

## Types of Credentials

Technical certifications are part of all the career pathways developed by *Breaking Through* colleges. These certificates fall into four types: career-readiness, short-term, occupational, and community college certificates and Associate's degrees.

### CAREER-READINESS CERTIFICATES

These credentials indicate skills levels in reading for information, applied math, and locating information (based on WorkKeys), and provide a foundational-skills certificate. Central New Mexico Community College, Owensboro Community & Technical College, South Piedmont Community College, and Southeast Arkansas College all offer low-skilled adults the national Career Readiness Certificate based on WorkKeys. Participants first take the WorkKeys test, which measures their reading and math skill levels; they then use KeyTrain, a computer-based training program (see page 6.16 for more detail) to build their skills and improve their WorkKeys score.

### SHORT-TERM CERTIFICATES

These are credentials awarded upon completion of segments (usually less than a year) of longer-term certificate or degree programs, and can be stacked. For example, Portland Community College awards short-term career-pathways certificates (of 12 to 44 credits) that acknowledge the acquisition of skills and competencies required for entry-level, high-demand occupations; they can be combined into longer-term certificates and degrees. Owensboro Community & Technical College's pathways, which focus on incumbent workers and laid-off workers, are modularized, competency-based curricula. Credentials are stackable, starting at the precollege level and building to a two-year Associate's degree.

### OCCUPATION-SPECIFIC CREDENTIALS OR CERTIFICATES

These are industry-recognized credentials that qualify students for specific jobs and career fields. At Central New Mexico Community College, construction-related certificates include two-term certificates in carpentry, electrical trades, plumbing, and welding and a three-term certificate in air conditioning, heating, and refrigeration. After a three-to-four-year apprenticeship, students can earn a journey worker license. Participants in Southeast Arkansas College's nursing and allied health certificate and degree programs earn industry-recognized certificates—for example, paramedic and respiratory therapist certificates—that increase their employability. SEARK also prepares participants for a variety of occupational credentials in nursing (CNA, LPN, and RN). North Shore Community College's Certified Development Associate training prepares incumbent child care workers to obtain the CDA credential, which is required for certification as a day care teacher in Massachusetts

### COMMUNITY COLLEGE CERTIFICATES AND ASSOCIATE'S DEGREES

These include one-year certificates, such as in carpentry, welding, or surgical technology, and two-year Associate's degrees in construction technology, early childhood education, or industrial maintenance technology. For example, Owensboro Community & Technical College started its career pathways work in manufacturing several years ago, with the creation of a pathway to advance incumbent workers receiving employer-sponsored workplace training into obtaining college certificates and Associate's degrees. OCTC has also applied this career pathways model to health care. It works with the area's largest hospital to provide entry-level workers with the training required to become nurses.

# The Community College Advisor Training Toolkit

BROCHURE (OUTSIDE)



**ForsythTech Community College** in Winston-Salem, North Carolina, is applying *Breaking Through's* *Advisor Training to* enhance advising and track the progress of both credit and non-credit students. Its advisor trainers are also sharing this knowledge with other North Carolina campuses.

*— I think the package is a great way to train almost everyone in college about advising. It is a positive way to support students and where they want to go.*

ForsythTech President  
Dr. Gary Green

## To Order:

For details on ordering your own, customized training package from *Breaking Through*, contact:

Judith Taylor  
Breaking Through Program Director  
617.728.4446  
jtaylor@jff.org  
www.breakingthroughhcc.org

## New from *Breaking Through*

# The Community College Advisor Training Toolkit

Helping all of today's community college students succeed requires new tools and innovative approaches.

### College success for every student

Community college students are more diverse than ever before. Working adults, immigrants, and those who struggled in (or dropped out of) high school are turning to these public institutions in record numbers to earn the skills and credentials needed to support themselves and their families. Effective advising is essential to ensuring that today's community college students reach their goals.

*Breaking Through's College Advisor Training Toolkit* is a comprehensive, cost-effective way to guide students through the maze of academic, financial, and personal challenges toward college credentials and successful, family-supporting careers.



JOBS FOR THE FUTURE



NCWE  
National Council for  
Workforce Education

# The Community College Advisor Training Toolkit

BROCHURE (INSIDE)

## Training the trainer

Through *Breaking Through's Toolkit*, your advising supervisor, department chair, or dean—a person who knows your campus and students well—prepares to upgrade the skills of all college staff who advise students. Each trainer benefits from:

- **A customized workshop** for learning and exploring how to meet your school's and your students' specific needs and how to train your advisors most effectively
  - **A comprehensive manual** of proven tools to share with all advisors at your college as they seek to increase student and staff performance
  - **Post-workshop support** from *Breaking Through* to ensure that your trainer and all student advisors get the most out of the *Toolkit* for years to come
- Your advisors will gain practical strategies and extensive resources for serving students with multiple challenges. Your students will gain more support to move forward and complete their credential and degree programs. Staff and student retention rates will rise. Everyone succeeds.



## It's your college. Customize your training.

The cornerstone of *Breaking Through's* package is the workshop and its “textbook”—our comprehensive *Advisor Training Manual*. Topics are organized in 13 modules, so advisor trainers can present each in standalone training sessions tailored and selected to fit your campus and your students. The manual is only available to trainers who participate in *Breaking Through's* intensive workshop, which is customized to provide the best ways to apply these lessons on your campus.

Advisors nationwide use tools and practices to respond to the variety of challenges that can block a student's paths to success. *Breaking Through* has identified these 13 modules to be highly effective for increasing student *and* staff performance.

### SEMINAR A: STUDENT NEEDS AND REFERRALS

**Module 1:** An overview of changing student demographics at today's colleges

**Module 2:** Methods to identify the roles (and boundaries) of today's college advisor

**Module 3:** The barriers students face, including homelessness, domestic violence, substance abuse, and mental health

**Module 4:** How poverty affects academic success and strategies for advising students from low-income households

### SEMINAR B: ADVISOR TOOLKIT

**Module 5:** Cultural barriers and how to advise students of various cultural backgrounds

**Module 6:** Strategies for effective communication and rapport-building

**Module 7:** Guidelines for advisors' boundaries and accountability to students

**Module 8:** The theory of motivational interviewing for students

**Module 9:** Tips on avoiding burnout and managing job stress

### SEMINAR C: ADVISOR-STUDENT PARTNERSHIPS

**Module 10:** Tips for assessing a student's needs—designed for advisors who see a student once or as part of an ongoing caseload

**Module 11:** Tips for creating a student action plan—also designed for advisors with ongoing caseloads

**Module 12:** Strategies for documenting student progress and interactions

**Module 13:** The financial barriers faced by low-income students, how these barriers affect retention, and the local resources available to both students and advisors

**Portland Community College** in Oregon requires *Breaking Through's Advisor Training* for all staff whose job is to help students meet personal, financial, and academic challenges. A large number of PCC students are academically unprepared for college;

others are older, juggling the demands of a full-time job, a family, and classes.

*I don't think I could've done it without [my advisor]. I'm just coming back to school after 30 years... [My advisor] said just see how it works out... and I got an A in [my first math] class. I wanted to drop the class. I'm glad I didn't.*

PCC student  
Patty McCoy, age 46

*[My advisor] is keeping me going... I went in independent, and I left interdependent. I have more help and resources that I didn't have before.*

PCC student  
Linda Jones, age 18

# Mott Community College's Articulation System

## ARTICULATION APPLICATION

**Mott Community College**  
**MCC Workforce Development/Workforce Education**  
**Articulation Application/Referral Form**

Name SMITH Johnathon  
Last First M.I. Maiden Name (if applicable)

Address 123 ABC Street Flint MI 48503  
Number and Street City State Zip Code

Program: Building & Construction Trades Certificate Program Program Completion Date: December 2008

---

This certifies that the above-named student has satisfactorily met all performance standards outlined in the articulation agreement for the **Building & Construction Trades Certificate** Program and is recommended for articulated credit in the following college course(s):

MCC WD-EDC Program Component	College Course Title	MCC Course Number	MCC Credit Hours
<u>Construction Fundamentals</u>	<u>Construction Fundamentals</u>	<u>BCON 180</u>	<u>4 credits</u>
_____	_____	_____	_____

Recommendation: The student has demonstrated proficiencies to enable him/her to enroll in the next course(s) in the sequence.  
 Upon successful completion of the recommended course(s), credit for the above course(s) will be posted on the student transcript.

College Course Title/Number BCON 181 Construction Materials or BCON 183 Building Maintenance & Alteration

College Course Title/Number \_\_\_\_\_

Instructor Signature

A.B. XYZ A.B. XYZ

12/20/08 \_\_\_\_\_  
Print Name (Instructor) Signature Date

Student Signature: *Please sign and bring form with the following to Advising appointment to take advantage of the articulated credit(s)*

- College admissions application
- Student Competency Record/Skills Checklist (*with minimum 70% proficiency*)

Signature (Student) \_\_\_\_\_ Date \_\_\_\_\_

**For College Use Only**

When the appropriate college level courses, as specified in the articulation agreement, have been successfully completed, credit will be granted for the articulated classes as well.

Course Title	Course Number/Cr. Hours
_____	_____
_____	_____

Approved \_\_\_\_\_ Program \_\_\_\_\_ Date \_\_\_\_\_  
MCC Program Coordinator



**NCWE**  
National Council for  
Workforce Education

TEL 231.591.5820

410 Oak Street, ALU 113  
Big Rapids, MI 49307

**NCWE@NCWE.ORG**



**JOBS FOR THE FUTURE**

TEL 617.728.4446 FAX 617.728.4857 info@jff.org

88 Broad Street, 8th Floor, Boston, MA 02110

85 Prescott Street, Suite 405, Worcester, MA 01605

2000 Pennsylvania Avenue, NW, Suite 5300, Washington, DC 20006

**WWW.JFF.ORG**

<union bug>