Bridges to Opportunity for Underprepared Adults

A State Policy Guide for Community College Leaders

©2008 Bridges to Opportunity Initiative



About this Guide

This guide is based on lessons from the Community College Bridges to Opportunity Initiative. Funded by the Ford Foundation, Bridges was a multi-year effort designed to bring about changes in state policy that improve education and employment outcomes for educationally and economically disadvantaged adults.

The guide is intended for governors, legislators, and state agency officials who are concerned about the competitiveness of their state's workforce. It will be especially useful to leaders in states with few welleducated workers to replace retiring Baby Boomers or in those with large low-skill immigrant populations. The guide is also intended for business and labor leaders. In many parts of the country, there is a strong need for skilled labor to fill "middle skill" positions, which require postsecondary training but not necessarily a bachelor's degree. Employers and labor groups in every industry want to see incumbent workers in their industries stay up-todate with new technology and business practices. Groups that advocate on behalf of low-income people will also find the quide useful. Those who are interested in reducing barriers for underprepared adults to pursue and succeed in collegiate work through two-year college credentials and on to a bachelor's degree will find helpful tips and tools in this publication. And, finally, the guide is designed as a resource for college presidents, trustees, and other education leaders who are seeking ways to better serve their communities.

Improving Outcomes of Underprepared Adults, which follows the Introduction, describes what states can do to break down barriers that stand in the way of success of many underprepared adult students at community colleges. It includes examples of supportive policies implemented by the six Bridges states.

Studies examines the efforts of three states, Louisiana, Ohio and Washington, which among the six Bridges states have advanced the furthest in implementing the Bridges theory of change. The experience of these three states – each with year.

Successful Efforts: Bridges Case

Bridges theory of change. The experience of these three states – each with very different higher education systems – shows that it is possible to change state policy in ways that encourage community colleges to better serve underprepared adults.

Strategies and Tools describes "toolkits" that were developed through the Bridges initiative. These toolkits can help state and local leaders implement key elements of a comprehensive strategy for cultivating state policies that support increased success by underprepared adults. Individual toolkits, which provide an in-depth "how to" manual with tools and tips from the field, are contained on a CD that accompanies this guide and are also available online at www.communitycollegecentral.org.

Putting Strategies and Tools into
Practice outlines steps for putting
strategies for policy change into practice.
It presents guidelines on getting started
for stakeholders within and outside state
government, and it provides tips on
overcoming common obstacles that might
be encountered. This section concludes
with a summary of roles for leaders from
key stakeholder groups in advocating
for improved educational and career
outcomes for underprepared adults.

Table of Contents

ABOUT THIS GUIDE TABLE OF CONTENTS ACKNOWLEDGEMENTS	 1. 2. 3.
 INTRODUCTION The Challenge of Underprepared Adult Workers Guiding Principles of the Bridges Model 	4.
 IMPROVING OUTCOMES OF UNDERPREPARED ADULTS: ROLES FOR STATE POLICY Education Disconnects that Create Barriers to Success Roles for State Policy in Bridging the Disconnects 	9.
 SUCCESSFUL EFFORTS: BRIDGES CASE STUDIES Washington State: A Mission-Driven State Agency Ohio: The Power of Stakeholder Engagement Louisiana: A Case Study of Effective Strategic Communications and Advocacy Common Strategies for Policy Reform 	20
 STRATEGIES AND TOOLS Linking Educational Opportunity and Economic Development Using State Data to Inform Improvements in Policy and Practice Creating Career Pathways to Accelerate College and Career Success Bridging the Gap between Remedial Education and Credentials and Careers Financing Community Colleges to Better Serve Underprepared Adults Making the Case for Community College: Tools for Communications Advocacy 	30
 PUTTING STRATEGIES AND TOOLS INTO PRACTICE Getting Started Overcoming Obstacles to Systemic Change Actions for Key Stakeholders 	35
ENDNOTES	41
NOTES	12

2.

Acknowledgements

We are indebted to the Ford Foundation for its generous support of this work. Special thanks go to John Colborn and Cyrus Driver, our program officers at Ford, who jointly conceived and managed the Bridges initiative, for their leadership.

Davis Jenkins of the Community College Research Center (CCRC) was the lead author for this guide. However, many others contributed ideas and insights. These include the members of the national management team for the initiative: Katherine Boswell, Earl Hale, Byron McClenney and Kay McClenney of the Community College Leadership Program at the University of Texas at Austin; Douglas Gould and Jennifer Hahn of Douglas Gould and Company; Thomas Bailey, Katherine Hughes, and

Jim Jacobs of CCRC. Project leaders from each of the participating states also provided feedback on the guide. Of course the guide would not have been possible without the hard work of the six states that participated in the initiative: Colorado, Kentucky, Louisiana, New Mexico, Ohio, and Washington. Their efforts to promote changes in policy aimed at improving educational and employment outcomes provided the substance and the inspiration for this guide.



Introduction

Increasing global competition and rising income inequality pose serious challenges for the continued economic and social vitality of the United States. Reports describing this situation are generally persuasive about the nature of these challenges, but the solutions they offer are often too broad or impractical. This guide, based on lessons from the Ford Foundationfunded Community College Bridges to Opportunity Initiative, offers practical strategies and tools for addressing an important but often overlooked part of the problem: the need to provide large numbers of working-age adults with education and training that will allow them to secure jobs paying wages sufficient to support their families and real opportunities for social mobility in American society.

The Challenge of Underprepared Adult Workers

One widely accepted solution to maintaining the economic and social health of our nation is to strengthen its education system. In fact, most states have raised educational standards and taken other steps to improve primary and secondary schools. But while efforts to reform K-12 education are crucial, they are not sufficient. This is because most members of the current workforce are already out of school, and these adults must qualify for good jobs now and for many years if they and the nation are to prosper.

However, a large segment of the current workforce is unprepared to succeed in today's economy, where most jobs that pay family-supporting wages require at least some education and training beyond high school and often a college degree.¹ Nearly half of U.S. workers age 25 and older have, at most, a high school education.² And many who do finish high school are not prepared to go on to college. It is also the case that much of the growth in the labor force in recent years has come from immigrants. According to the U.S. Census Bureau, over 12 million of these workers lack basic fluency in English, which limits their ability to secure good jobs.³

State Partners in Bridges to Opportunity

Through the Community College Bridges to Opportunity Initiative, the Ford Foundation provided grant funding to agencies in six states: Colorado, Kentucky, Louisiana, New Mexico, Ohio, and Washington State. Each grantee received an initial one-year planning grant, and subsequently \$100,000 to \$200,000 per year for five years. In four of the states - Colorado, Kentucky, Louisiana, and Washington - the grantee was the state community and technical colletge system or board. In New Mexico, which lacked a state governmental postsecondary entity at the beginning of the initiative, the funds were first awarded to the state association for community colleges and later was continued with the New Mexico Business Roundtable for Educational Excellence. In Ohio, the grantee was the KnowledgeWorks Foundation (KWF), an education-focused philanthropy which convened a group of stakeholders from a wide variety of organizations to advocate for policy change in that state. Ford also awarded related grants to advocacy groups in California (California Tomorrow, UC Merced, LIFETIME, the Campaign for College Opportunity and Californians for Justice), Illinois (Women Employed), Louisiana (Appleseed), Maine (Maine Community Foundation) and New Mexico (ACORN) to support grassroots efforts to promote policy changes to benefit underprepared adults in those states. For more information on Bridges, see the initiative's website at http://www. communitycollegecentral.org.

Underprepared Adults: The Challenge in Six States

Colorado

Colorado's population is one of the most educated in the country, ranking near the top in the percentage of adults with a college degree. Nevertheless, the state ranks well below the national average in high school graduation and postsecondary participation by native-born students, and it is near the bottom in participation by low-income students. The reason for this "postsecondary paradox" is that Colorado has relied on its natural amenities to attract skilled labor from elsewhere and has underinvested in education for its native citizens. Its policymakers and business leaders are now realizing that the state can no longer afford to rely on "imported" skilled labor if it is to remain economically and socially viable.

Kentucky

Policymakers and business and civic leaders widely agree that Kentucky will continue to be affected by widespread poverty and will have difficulty attracting and retaining employers in knowledge industries if it does not dramatically increase the level of education and the skills of its residents. The state has a shrinking population that traditionally relied on mining and manufacturing for employment and consequently did not place great value on education. Furthermore, the number of students graduating from high schools is projected to decline for the foreseeable future. Since the state has experienced little in-migration, leaders recognize that much effort needs to be focused on increasing the education levels of the state's large population of underprepared adults.

Louisiana

Louisiana is a poor and largely rural state, with nearly 20 percent of its general population, and 30 percent of its children living below the official poverty line. Twenty percent of Louisiana's adults have not graduated from high school, and the state has one of the highest rates of illiteracy among adults in the nation. Until recently, the economy was largely driven by agriculture and by the oil and petrochemical industries. As a result, Louisiana does not have a strong history of valuing formal postsecondary education and training. Yet it is engaged in a concerted effort to restructure its economy around high-tech, skilled occupations. In recent years, statewide economic development and postsecondary education master plans have articulated goals and strategies for increasing the education and skills of the population in order to support technology-intensive industries and raise the standard of living.

New Mexico

New Mexico's labor market is bifurcated: the state has, relative to other states, both a high proportion of Ph.D. holders and a high proportion of adults without college or even high school credentials. Individuals with doctorates work in well-paid jobs in government research labs, while lesseducated adults, many of them Hispanic, work in low-wage occupations such as retail sales, food preparation and service. New Mexico ranks forty-fifth of the 50 states in per capita income. It has traditionally taken a very decentralized approach to education and economic development; state departments of public and higher education have been established only in the last several years. There is, though, increasingly widespread support for more centrally-driven, strategic efforts at workforce and economic development, and there is more recognition that efforts need to be made to help poorly educated adults get postsecondary training.

Ohio

Between 2000 and 2007, Ohio experienced its worst job losses since the Great Depression, including over 230,000 lost jobs in manufacturing. In 1960, the state had the sixth highest median family income in the nation; today it ranks twenty-seventh. Over 600,000 of Ohio's current workforce meets the definition of "working poor." Compared to many other states, Ohio has experienced very little in-migration and the population of school-age young people is projected to decline in the coming decade. This means that the state will need to focus on improving educational outcomes for underprepared adults if it is to increase the overall educational attainment of its workforce.

Washington State

Since the early 1990s, the demographic makeup of Washington State has changed, particularly because of a large influx of immigrants, many with limited education. In 2004, the State Board for Community and Technical Colleges estimated that the population of low-skill workers – those with a high school education or less – was larger than the next ten state-wide high school graduating classes put together. Hence, efforts to increase the overall education level of the state's population cannot be confined to K-12 system reforms; rather, they must extend to increase postsecondary access and success for underprepared adults.

Guiding Principles of the Bridges Model

The Community College Bridges to Opportunity Initiative was designed based on the conviction that community colleges are essential to any effort to help underprepared adults succeed because, more than other postsecondary institutions, community colleges serve local public needs. Moreover, because of their multiple missions to provide basic skills education and remedial instruction as well as college coursework in academic subjects and in career fields, community colleges have the potential to serve as "bridges to opportunity." They can enable individuals who are unprepared for collegelevel work to undergo remediation and to progress to college-level programs that lead to career-path employment or on to a baccalaureate education.

Too often, however, the potential of community colleges to play this bridging role is not fully realized. One reason is that the colleges' focus on increasing access to higher education frequently results in insufficient attention to another important goal – ensuring that their students acquire credentials for higher-level employment and further education. Another reason is that offerings in various mission areas of community colleges are often disconnected from one another. These disconnects create barriers to success by students, particularly those who are unprepared for college.

It is clear that community college practices must change in ways that lead to improved student outcomes on a substantial scale. A central premise of the Bridges initiative is that rethinking state policy is a necessary prerequisite to bringing about such change. Through Bridges, the Ford Foundation provided grant funding and technical assistance to community college agencies and other state-level entities in six states. This was done to test a theory of how to promote changes in state policy that motivate and support community colleges to better serve underprepared adults.

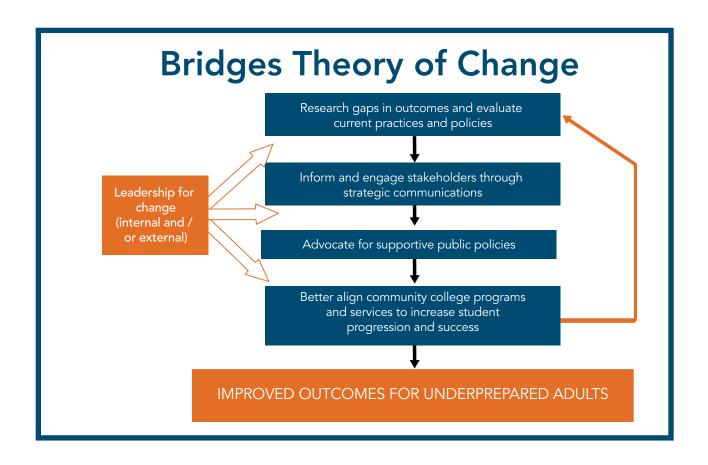
According to the Bridges theory of change, state policy should provide incentives to colleges to better align their remedial, occupational, and academic programs and offer needed support services so that more underprepared adults succeed in college-level programs leading to career-path employment and further education. Moreover, the model holds that decisions about changes in policy and practice, and the evaluation of the impact of reforms, should be informed by data collected at the state level that track student progress and student outcomes over time.

Another premise of the Bridges model is that strong leadership is critical for policy change. Leadership may come from reformers within colleges and state government as well as from change agents outside of the system – such as business or labor groups and advocates for low-income people – who organize to create external pressure for reform.

To rally both internal and external stakeholders to support the needed changes, leaders need to communicate a compelling vision.

It is important to point out that Bridges does not advocate a particular set of programs or practices. Instead, it calls for a process of continuous improvement, informed by good data collection and evaluation. Each state grantee was challenged to better align its programs and services for adult student success and simultaneously to advocate more beneficial public policies. The figure below illustrates this process.

The experience of the Bridges initiative shows that state policy can indeed be changed to create conditions necessary for community colleges to more fully realize their potential as bridges to opportunity for underprepared adults and other disadvantaged students.



Improving Outcomes of Underprepared Adults: Roles for State Policy

This section describes barriers to success that underprepared adult students at community colleges typically face. It then outlines ways that state policy can help break down such barriers.

Education Disconnects that Create Barriers to Success

Because community colleges are "open door" institutions, they accept many students who are not adequately prepared for college-level study. Virtually all community colleges offer remedial instruction to help such students. Many also offer GED or high school completion programs for individuals who dropped out of high school, as well as adult basic education and English as a Second Language (ESL) programs for students who need them.

Despite such supports, however, many older, "non-traditional" students who enter community college underprepared for college-level work find it difficult to succeed. Often colleges' own practices produce "disconnects" in and between programs and services that serve as barriers to success for these students. Some common barriers faced by underprepared adult students at community colleges are described below.

Poor alignment between adult basic skills programs and college-level programs.

Individuals who lack high school credentials or who have low levels of English language proficiency are typically referred to adult basic skills programs, which include adult basic education (ABE), GED, and Englishas-a-second language preparation (ESL). Many community colleges offer adult basic skills programs for such individuals. Too often, however, these programs are not well aligned with college-level programs. For example, few community college adult basic education programs explicitly prepare students for college placement tests that are used to identify students who need remediation, and few of them align their curricula with college-level courses to ensure that their students gain the basic skills needed to succeed in college courses.

This misalignment is one reason that too few adult basic skills students advance successfully to college-level coursework. A study that tracked outcomes of adult basic skills students in Washington State's community and technical colleges, found that less than a third of ABE students, and only 13 percent of ESL students, went on to take college-level courses, even though community colleges are the primary provider of adult basic skills programs in Washington State. Of those in either group who did make the transition, fewer than one in three went on to earn a college credential.4

A similar kind of misalignment is frequently found between pre-college remedial instruction (which is often called "developmental") and collegelevel programs in community colleges. Remedial instruction in community colleges is often focused on helping students pass tests required for placement into college-level English and math courses. Too many students who take remedial classes fail to take and pass college-level English and math courses, let alone go on to earn college credentials or transfer to a baccalaureate program. Older students who have been out of school for some time often find that their skills are rusty, especially in math.

Occupational programs and academic offerings operate in isolated "silos."

Older individuals are more likely than students of traditional college age to enroll in community college occupational and technical programs, and they are considerably more likely than traditional-age students to earn occupational certificates. But very few community college students who earn occupational certificates go on to earn any sort of degree.⁵ A key reason is that degree programs, unlike certificate programs, require students to take college-level English, math, and other academic or "general education" courses, and adults who are academically underprepared for college must often take remedial courses before they can enroll in collegelevel courses in those subjects. Older certificate students often struggle in remedial courses, and they become discouraged by the time and expense of having to take courses that do not count toward a credential.

Limited counseling and other needed supports.

Community colleges receive substantially less funding per student than do four-year institutions. This gap constrains their capacity to offer advising and other support services that many students, particularly those who have been out of school for a long time or who are first-generation college students, may need to succeed. Moreover, at some colleges with limited resources, student services are less available in the evening, when nontraditional students are more likely to attend. And students in adult basic skills programs often have no access to support services beyond those provided by the instructor in the classroom.

Difficulty securing sufficient financial aid.

Non-traditional community college students often do not qualify for financial aid, and some community colleges do not offer federal student loans. Adult students are more likely than traditional-age students to attend part time; they therefore receive less financial aid even if they do qualify. It is also true that the financial situation of lower income families is often fragile, even when family members are working. In some cases, students may not qualify for financial aid because they or their spouses earned too much during the period their income eligibility was determined, even though their financial situations may have since become more precarious because of a job loss or other financial setback occurring around the time of enrollment.

The opportunity costs of education for low-income individuals are often prohibitive. The foregone income of attending college for individuals who have to work one or more jobs is sometimes too great for them to even consider enrolling. This is likely one reason for the dismally low participation rates of low-income males.

In many cases, attending college for older students also means incurring additional costs. A high proportion of community college students are also parents who find it difficult to afford the child care that is needed to allow them to attend classes. The cost of books can also become a significant barrier for many non-traditional students. Textbook costs continue to climb, averaging more than \$500 per semester at many colleges.

Difficulty transferring community college occupational program credits to baccalaureate programs.

Non-traditional students are more likely than traditional-age students to enroll in occupational certificate and applied associate degree programs, which often require courses in vocational subjects that are not offered in most baccalaureate programs and so are generally not transferable. Some states have instituted statewide articulation agreements and other policies making it much easier for community college students to transfer to baccalaureate programs, but four-year institutions in many states do not consistently accept credits from community colleges. Even when community college credits are transferable, older students are likely to have job and family constraints that limit their ability to commute long distances to a college or university offering a bachelor's program in their field of interest.

Poor coordination with outside workforce and human services agencies.

Some educationally disadvantaged adult students in community colleges also qualify for public assistance or publicly-funded employment and training programs that could supplement the financial aid and support services they receive in college. Unlike community organizations and other agencies with public funding for workforce and human services, community colleges generally have limited capacity to provide "wraparound" services such as personal counseling, child care, and job placement assistance. Yet, outside agencies are often funded in ways that provide few incentives to work with colleges, and community colleges themselves can be reluctant to give

such groups access to students on campus. The result is that students who could benefit from additional supports often do not receive them.

Lack of sufficient resources to serve underprepared students effectively.

Beyond the barriers facing students, community colleges themselves confront significant challenges in trying to meet the needs of academically underprepared students, some of whom bring with them a range of needs, such as affordable child care, that can be difficult and costly for colleges to address. In addition, older students are less likely to attend full time or take classes during the day when most colleges make student support services available.

Securing the resources to provide needed supports for underprepared adults is a formidable challenge for community colleges in an era when state higher education funding is becoming more and more contested. At the same time, many community colleges have seen enrollments increase dramatically as recent high school graduates, recognizing the need for postsecondary education, choose community colleges as a lower-cost and more easily accessible alternative to four-year colleges and universities.

Flat or declining per student appropriations inevitably lead to limited course offerings, increased dependence on part-time or adjunct instructors, capped enrollments, and infeasible demands on limited student support personnel, even when that is not the intent of policymakers. And non-traditional students, who are far more likely to enroll at the last minute – either because they are unfamiliar with the process or are preoccupied with juggling their complex responsibilities

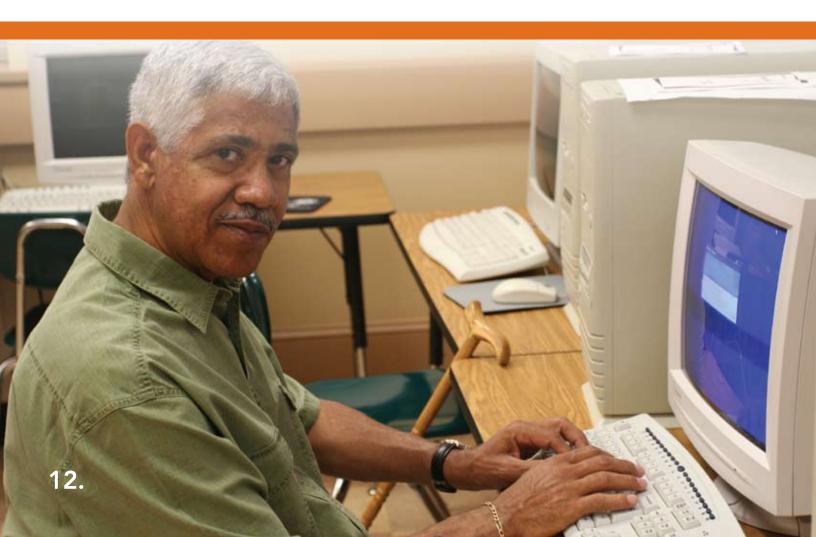
IMPROVING OUTCOMES OF UNDERPREPARED ADULTS

to make time for college attendance – are the students most likely to be turned away because needed sections of key courses are full.

Lack of students' political clout.

A significant impediment to making changes in policy that would benefit underserved adults is that these students themselves are not a natural constituency. Unlike middle-class families seeking to reduce the costs of sending their children to college or employers seeking public subsidies to train their workforces, educationally and economically disadvantaged nontraditional students are for the most part neither politically powerful nor effectively organized to advocate for

public policies that would promote education more responsive to their needs. As a result, state and local officials are unlikely to face pressure for change from low-income student advocates.



Roles for State Policy in Bridging the Disconnects

States can take a number of steps to help "bridge" the disconnects in practice that create barriers to success in college for underprepared adults in community colleges. Several of these measures are presented below, with examples from the Bridges states.

Make advancement of underprepared adults a strategic priority. States can make the advancement of educationally and economically disadvantaged adults a strategic priority for community colleges and other relevant state-funded agencies and programs. Kentucky, for example, set a common set of goals for its public colleges and universities aimed at ensuring a better return to the commonwealth and its citizens of its investment in higher education. As part of its efforts to achieve those goals, Kentucky consolidated its community and technical college systems and overhauled its adult basic education programs to better serve the states many adults who lack a postsecondary credential (see page 15).

Promote alignment of programs and services. States can provide incentives to community colleges to better align programs and services and thus facilitate and accelerate advancement by underprepared adult students. Efforts should focus on the key transitions that non-traditional students often have trouble negotiating: between adult basic skills or pre-college remedial programs and collegelevel programs, between occupational certificate and associate degree programs, and between occupational associate degree and bachelor's degree programs. State higher education agencies can also collaborate with other state agencies responsible for human services, workforce development, and economic development to encourage local partnerships between colleges and workforce and human services organizations aimed at providing job

placement, wrap-around support, and other services for adults seeking postsecondary education or training. In addition, states can convene teams representing key local stakeholders to plan and coordinate programs and services for underprepared adults. Five of the six Bridges states have adopted "career pathways" as a framework for better aligning programs and services to promote educational and career advancement by students and for making education programs more responsive to local economic needs (see page 16).⁷

Collect data and conduct research to inform policy and practice. A small but growing number of states are using the data they collect on education and workforce development programs to inform improvements in policy and practice. Particularly potent for this purpose are data on individual students that can be used to track their progression and outcomes over time, within and across educational sectors and into the labor market.8 Tracking student outcomes using data collected at the state level can encourage colleges to conduct similar analyses using their own data aimed at better understanding their students' performance and identifying opportunities for improving student success. An example of how a longitudinal student tracking study was used as a catalyst for improvements in programs for adults in Washington State appears on page 17.

IMPROVING OUTCOMES OF UNDERPREPARED ADULTS

Offer financial aid for non-traditional students and provide funding for student support services. States can provide need-based financial aid suited to low-income adult students who may not qualify for traditional forms of support. See page 18 for an example of a grant program for non-traditional students in New Mexico. States can also provide dedicated funding to colleges to expand counseling, academic support, and other services that many underprepared adult students need to negotiate college successfully.

Engage stakeholders to advocate for supportive policies. State agencies can educate legislators about the critical importance for the state of supporting policies and providing resources that foster the success of underprepared students. State community college or higher education agencies can also help to engage college presidents, trustees, faculty and students - as well as business groups and other external stakeholders - to champion support for a policy agenda that promotes advancement by underprepared adults. Page 19 describes a successful campaign in Colorado to support a state-wide ballot initiative that allows the state to use revenues it otherwise would have lost to increase support for public higher education and infrastructure improvements.

Of course, states are more likely to have a positive effect on student outcomes when they take actions like those described in this section in concert with one another. The next section describes efforts in three states that have adopted multi-faceted approaches to bringing about changes in state policy to benefit non-traditional community college students.

Reforming Higher Education to Increase Adult College Attainment

Since the mid-1990s, Kentucky has enacted a series of major reforms of adult and postsecondary education aimed at dramatically increasing the education levels of its population, particularly working adults, in a state where comparatively few people have traditionally gone to college. In 1997, under the leadership of former governor Paul Patton, the state set in motion a "ground-up" process, with strong community and business support, to consolidate the community college branch campuses of the University of Kentucky and the state's postsecondary technical schools into regional comprehensive community colleges that are now part of a unified state system. The Kentucky Community and Technical College System (KCTCS), the centerpiece of Governor Patton's vision, was designed with a strong workforce development mission to enable Kentucky workers to acquire the skills they need to advance, to help retain existing employers, and to attract new employers, particularly those in "new economy" industries.

Another key initiative, also spearheaded by Governor Patton, was the 2000 reform of Kentucky's adult education programs, which sought to more than double participation in adult basic skills programs (ABE, GED, and ESL) in the state and reorient them away from a narrow focus on literacy gains and GED completion and toward the broader goals of preparing and motivating adults with limited basic skills to pursue postsecondary education and careers in well-paying skilled fields.

As part of that reform effort, the state aggressively sought to get the message of the importance of postsecondary education out to the public in order to combat the culture of educational underachievement that dominated many parts of the state. It launched the "Education Pays" campaign, in which that slogan was emblazoned on bumper stickers,

billboards, and public service announcements throughout the state.

In 2005, the Kentucky Council on Postsecondary Education (CPE) adopted a set of five questions to guide postsecondary reform efforts and to serve as the basis for an accountability system for postsecondary education in the state:

Question 1: Are more Kentuckians prepared for postsecondary education?

Question 2: Is Kentucky postsecondary education affordable for its citizens?

Question 3: Do more Kentuckians have certificates and degrees?

Question 4: Are college graduates prepared for life and work in Kentucky?

Question 5: Are Kentucky's people, communities, and economy benefiting?

The CPE established a set of indicators to measure progress toward these goals, and each of the state's adult and postsecondary education systems has developed plans, with measurable objectives, to meet the goals.

In 2006, the CPE completed a study projecting that Kentucky will need 800,000 adults with at least a bachelor's degree by 2020 in order to reach the national average; in 2000, the state had only 400,000 such degree holders. Therefore, to meet the ambitious goal of doubling the number of college graduates, the CPE developed Double the Numbers: Kentucky's Plan to Increase College Graduates, which outlines five strategies for ramping up degree production. Given the demographics of the state, the plan places heavy emphasis on increasing college attainment by underprepared adults.

Establishing Career Pathways

Career pathways are connected educational programs with integrated work experience, on-the-job training, and support services. They enable students to combine work and learning so that they can advance over time to better jobs and higher levels of education. Career pathways programs target jobs of importance to regional economies and are thus designed both to create educational "stepping stones" for workers and job seekers and to build a steady supply of qualified workers for employers.

Beginning in 2003, and as part of its Bridges project, the Kentucky Community and Technical College System (KCTCS) began working with its member colleges to establish regional career pathways to support entry into and advancement in career fields of importance to local economies in the state. KCTCS sees career pathways as the framework for achieving the objectives of Bridges to integrate the remedial, workforce, and academic missions of community and technical colleges in ways that build pathways to further education and careers, particularly for underprepared working adults.

Using funds from its workforce trust fund, to date KCTCS has awarded over \$6 million in funding to help colleges build career pathways programs that meet the following guidelines:

 Involve regional partnerships of community and technical colleges, adult education providers, employers, economic development planners, workforce investment boards, human services agencies, and others.

- Focus on job and educational advancement for low-income adults while at the same time meeting employer needs.
- Offer programs that lead to postsecondary credentials while also teaching marketable skills.
- Build on existing state-and federalsupported initiatives, such as the One-Stop Career Centers, the Kentucky Employability Certificate, and the Kentucky Workforce Alliance.
- Leverage existing resources to fund program operation.
- Seek to bring about systemic change within and across institutions, not just implement demonstration projects that serve small numbers and disappear when dedicated funding ends.

Louisiana, New Mexico, Ohio, and Washington State are also using the career pathways approach to better align programs and services with the needs of students, employers, and communities. The Bridges project has developed a toolkit for other states interested in applying the approach. It is described in more detail in the Putting Strategies and Tools into Practice section of this guide and is available for free download at http://www.communitycollegecentral.org/careerpathways/index.html.

Washington State "Tipping Point" Study

In 2003, David Prince, a researcher at the Washington State Board for Community and Technical Colleges (SBCTC), conducted a study in partnership with the Community College Research Center (one of the Bridges national partners) to increase understanding of the educational pathways and labor market outcomes of low-skill adults students, who comprise about a third of the 325,000 students served annually by the Washington community and technical colleges.

Using transcript data on individual students collected by the SBCTC, Prince tracked the progress over five years of a cohort of Washington State community and technical college students age 25 or older who entered the system with at most a high school diploma. The cohort included students in adult basic skills programs (including ABE and ESL), which in Washington are provided by the community and technical colleges.

One of the main findings of the study was that students in the cohort who took at least one year's worth of college-level courses (equivalent to two semesters of full-time study) and who earned a certificate or other credential over the five years they were followed earned substantially more than students who did not reach that threshold. Compared with students who earned fewer than ten credits, those who reached the "tipping point" of at least two semesters of credits and a credential had a substantial average annual earnings advantage: \$7,000 for students who started in ESL, \$8,500 for those who started in ABE or GED, and \$2,700 and \$1,700 for those who entered with at most a GED or high school diploma, respectively.

The study found, however, that few students reached the tipping point, with most basic skills students never progressing to the point where they could earn college-level credits. This finding motivated the SBCTC staff to explore with educators throughout the system ways to increase the rate at which basic skills students transition to college and reach the tipping point. One strategy that was developed, called Integrated Basic Education and Skills Training, or I-BEST, incorporates basic skills instruction directly into career-technical courses that are jointly taught by basic skills and college-level occupational faculty. SBCTC evaluated pilots of the I-BEST approach and found that they substantially increase the rate at which basic skills students advance to college and reach the tipping point.9

The tipping point study also showed the power of tracking the progression of all students over time in identifying "leakage points," such as basic skills and remedial programs, where students founder. David Prince and his colleagues have since carried out other analyses based on the longitudinal tracking of students, including a study of "achievement points," which are intermediate attainments such as passing a college-level math course or accumulating a semester's worth of credits, beyond which students' chances of completion increase markedly. This work is described in more detail in the case study of Washington State on page 20.10

New Mexico's College Affordability Act

In 2005, the New Mexico state legislature passed the College Affordability Act, creating a new, needs-based scholarship program. The story behind this achievement is an instructive example of how diverse stakeholders can join together to influence state policymaking in ways that support access to higher education for underprepared adults.

New Mexico has had a merit-based scholarship program since 1996. The program is funded through the state lottery. Students transitioning directly from high school into full-time college studies are eligible: if they earn a 2.5 GPA their first semester, they receive a tuition grant for the following eight semesters. However, the rules allow for only four semesters at a community college, and they do not permit stop-outs. Efforts to amend the eligibility requirements to enable returning adult and part-time students to access the program were not successful. Needed was a new, need-based aid program suited to non-traditional students.

A broad consortium of stakeholders – including two Ford Foundation grantees, the New Mexico Association of Community Colleges and ACORN (Association of Community Organizations for Reform Now), as well as New Mexico Voices for Children, a statewide advocacy organization, and the New Mexico Business Roundtable for Educational Excellence —campaigned for the College Affordability Act. Hearing the strong support from such different constituencies – higher education representatives, non-profit organizations, the business community, and students themselves

- convinced the legislature of how important it was to help low-income New Mexicans acquire further education. Hence, the Act was specifically geared to a different target population than the lottery scholarships: adults not entering college directly from high school are eligible, as are part-time students (although grantees must be enrolled at least half time). Students may receive up to \$1,000 per semester for eight consecutive semesters. One stop-out of one year may be approved by the institution of higher education.

The Act created an endowment, originally funded at \$49 million in 2006, with another \$50 million added in 2007, that would be used in perpetuity to fund scholarships. During the 2007-08 academic year, for example, over \$1 million was disbursed, with most of the funds going to students in two-year institutions.

Colorado: The Taxpayer Bill of Rights Referendum on Education Funding

In 1992, Colorado's constitution was amended to incorporate the Taxpayer Bill of Rights (TABOR), which limited the annual growth in Colorado's state budget to the rate of growth of the state population plus an inflation factor. This led to reductions in public services, particularly in higher education, which represents the largest discretionary part of the state budget. During the first ten years of TABOR, inflationadjusted per capita appropriations for higher education suffered the largest decline among all major categories of the state budget. The deep recession that Colorado suffered in the wake of the "tech bust" led to further cuts in state funding for higher education. Because their enrollments surged during the recession, community colleges experienced the deepest cuts. Between FY 2001-02 and FY 2004-05, general fund spending per student in the state's community colleges declined by 35 percent. At the same time, community colleges kept tuition increases relatively low. As a result, when both general fund appropriations and tuition are considered, the community colleges experienced a drop of 17 percent per full-time equivalent student, compared with an average cut of 9 percent across public higher education institutions in the state as a whole.

In 2004, a coalition of business and civic groups, together with politicians from both parties, launched a ballot initiative for November 2005 that would provide an exemption to TABOR and allow the state to keep surplus revenue for five years – projected to be \$3 billion – for transportation, infrastructure, and public higher education. The governor supported the effort.

Community colleges figured prominently in the campaign to support the ballot initiative. The governor visited each of the colleges to hold rallies in support of it. Members from the State Board for Community Colleges also went to the campuses. Particularly in rural areas, community colleges are a vital economic asset for their communities. The message was spread that without the additional revenue, there was the real possibility that rural colleges could close.

Several of those involved credited early Bridges efforts in helping to strengthen the campaign for the ballot initiative. Public engagement and media training that had been provided to highlevel Community College System staff was seen as invaluable, as was assistance they received in messaging strategies. Earlier in the initiative, Bridges funds were used to increase financial and political support for the community colleges from foundations and business groups. This effort included creation of a mailing list of key "influentials," development of communications materials, training for college presidents, and relationship building with foundations.

The campaign succeeded. In November 2005, Colorado voters passed the referendum. After the election, an analysis showed that the referendum passed overwhelmingly in rural areas that had a local community college, even where they were conservative politically. If there was no college, people tended to vote against the referendum.

Successful Efforts: Case Studies

This section briefly describes efforts in three of the Bridges to Opportunity states — Washington, Ohio and Louisiana—that were successful in bringing about major policy reforms to improve college and career outcomes for underprepared adults. Here we summarize their main accomplishments and the common elements of the strategies that were used to effect policy change in three very different state contexts. More information on the activities of these and other Bridges states is available at: www.communitycollegecentral.org

Washington State: A Mission-Driven State Agency

As Washington State sought to grow out of the economic slump that followed the "tech bust" of 2001, policymakers realized that a concerted effort was needed to help the large number of working adults in the state who lacked skills for well-paying jobs gain the necessary postsecondary training for such jobs.

Leading the response to this challenge were the state's community and technical colleges. Adults age 25 and older comprise about a third of the approximately 325,000 students served annually by these colleges, and about half of them are in adult basic skills programs. The State Board for Community and Technical Colleges (SBCTC) projected an increase in enrollment of more than 30,000 full-time equivalent (FTE) students over ten years in all program areas, with much of the growth coming from adults with at most a high school diploma, including many non-native speakers seeking instruction in English to improve their job prospects.

Although at the time members of the legislature questioned the state's investment in basic skills education for adults, SBCTC affirmed its commitment to all three of its major mission areas – workforce education, academic transfer, and basic skills – and emphasized the importance to the state of meeting the demand for these programs, particularly from low-income, immigrant, and minority residents.

The SBCTC staff, as part of its Bridges efforts, developed a plan to gain support for persuading the legislature to provide funding sufficient to meet the projected demand and work with the colleges to find ways to improve student outcomes, particularly among underprepared adults. The plan had five main objectives:

- Identify barriers that prevent low-skill adults from entering and completing programs leading to credentials and career-path employment;
- Increase attention throughout the system to these barriers for underprepared students and encourage colleges to implement program and service strategies for overcoming them;
- Identify policy changes that would facilitate program and service improvements;
- Promote a policy agenda to bring about those changes; and
- 5. Implement a strategic communications plan to persuade internal and external constituencies that supporting efforts to serve underprepared adults and other disadvantaged students would be in everyone's best interest.

With financial support from the Ford Foundation and technical assistance from the Bridges national partners, the SBCTC staff undertook the following activities to achieve these objectives and build support for its policy agenda:

- Persuaded college presidents and the State Board to affirm as a central part of the system's mission the goal of promoting advancement by underprepared adult students;
- Conducted research to identify barriers to access and advancement by underprepared adults;
- Engaged colleges and statewide councils of faculty and student services staff in exploring ways to address barriers to advancement;
- Pilot tested and rigorously evaluated strategies for improving outcomes for underprepared students; and
- Launched a strategic communications campaign to convince policymakers and the public of the benefits to the state of improving service to underprepared adults – and of the potential costs of not doing so.

SBCTC created a full-time staff position (director of student achievement projects) to coordinate these activities. Initially this position was funded by Bridges, but state funds now support it.

Through these efforts, the SBCTC, working in partnership with leaders from the colleges and other stakeholders at the state and local levels, was successful in securing support from policymakers for several major policy initiatives that are summarized in the table on the next page.

Washington State's Bridges Policy "Wins"

Policy	Description	"Wins"
I-BEST (Integrated Basic Education and Skills Training)	I-BEST pairs ABE/ESL and occupational instructors in the classroom to help students simultaneously gain basic and occupational skills. I-BEST programs build toward certificates or degrees and prepare students for employment in high-demand fields. I-BEST challenges the traditional notion that students must first complete all levels of remediation before they can begin workforce training.	 2004-05: SBCTC funded I-BEST pilots at ten colleges; evaluation by SBCTC found that I-BEST students were 5 times more likely to earn college credits and 15 times more likely to complete workforce training than a comparison group of basic skills students. 2005: SBCTC approved funding of programs on the I-BEST model at 1.75 FTE – 1.50 FTE for the two instructors, and 0.25 FTE for the added coordination involved in this approach. 2007: Legislature provided \$4.9 million for growth and expansion of I-BEST programming for 500 FTE at a high-funded rate of \$9,800 per FTE for the 2007-09 biennium. SBCTC allocated additional funds to each of the 34 community and technical colleges to promote moving I-BEST programs to scale across the system.
Opportunity Grants	Flexible financial aid designed to help low-income adults (at or below 200% of federal poverty guidelines) complete high-wage, high-demand workforce education programs and move along an educational pathway mapped to a career-path jobs. Grants cover tuition plus up to \$1,000 in fees and other costs per year for up to 45 credits. Grants can be used to cover transportation, child care, and a range of other expenses that can thwart the progress of adult students.	 2005: Legislature appropriated \$5 million for 10 pilot grants at 11 colleges during the 2006-07 academic year; the 10 pilot programs showed excellent results with 73 percent retention and ap proximately 843 low-income students participating in training for high-wage, high-demand career pathways. 2007: Legislature appropriated \$23 million for Opportunity Grants for the 2007-09 biennium—enough for all 34 colleges to offer them; the appropriation also provided \$1,500 per FTE grant recipient to colleges to offer counseling and other support services needed to help grant recipients stay in college and complete their programs.
Applied Baccalaureates	Bachelor's degree programs offered by community colleges that address unmet local labor market needs and that articulate with applied associate degree programs in occupational fields.	 2006: Legislature authorized the SBCTC to support the development of four AB programs and to begin enrolling students in fall 2007. 2007: Legislature allocated funds to support a second cohort of students in the four existing applied baccalaureate programs and to start programs at three new colleges, including a technical college.
Student Achievement Initiative	A performance funding policy that rewards colleges for increasing the rate at which their students reach "achievement points," or intermediate attainments (such as passing a college-level math course) that are associated with increased likelihood of earning a credential or transferring.	 2007: SBCTC approved recommendation from a task force of State Board members, college presidents, trustees, and faculty union representatives for a policy whereby colleges receive financial rewards for increasing the rate at which their students attain achievement points. 2007-08: During this "learning year," colleges all received equal start-up funding. SBCTC provided colleges with quarterly data on achievement point attainment and technical assistance. Colleges organized teams to devise strategies for increasing achievement point attainment rates. 2008-09: Colleges will receive payment for performance improvements starting in fall 2008.

Ohio: The Power of Stakeholder Engagement

Although its economic circumstances are much different than those in Washington State, Ohio, too, faces an imperative to increase the postsecondary attainment of large numbers of underprepared adults. In the 1960s, the state enjoyed an average family income well above the national average, but by the early part of this decade, with the loss of tens of thousands of manufacturing jobs, the average income of Ohio families had sunk below the national mean. In a state that could once rely on an abundance of manufacturing jobs that paid well without requiring an education beyond high school, educational attainment has also lagged the national average. For example, Ohio ranks thirtyeighth among states in the number of high school graduates going directly on to college.¹¹ As a result of these trends, over 600,000 Ohioans are working, but still considered to be low-income.

Unlike Washington and other states, Ohio did not experience a surge in immigration during the 1990s, and the population of young people entering the workforce has leveled off and is projected to decline. Thus, if the state hopes to move beyond its historical reliance on manufacturing and begins to cultivate knowledge industries, it will have to invest in the upgrading of its current workforce, in addition to strengthening primary and secondary education.

Whereas in Washington State the response to the challenge of improving educational outcomes for disadvantaged adults came from a single, well-coordinated community and technical college system, no such unified response was possible in Ohio. The state's agencies and institutions that serve adult learners were decentralized

and fragmented, with 23 community and technical colleges; 24 two-year branch campuses of the state's public four-year institutions; 50 adult career-technical centers; and adult basic skills programs operated by over 100 entities throughout the state. The Ohio Board of Regents traditionally oversaw the two-year colleges and state universities, while the Ohio Department of Education administered the adult career centers and adult basic education programs.

In some regions of the state, the various providers of education for adults have worked together well. More often, they have battled for turf. This lack of cooperation has created barriers to advancement for students, particularly underprepared adults, and sometimes resulted in duplication of effort among the different providers.

Policymakers in Ohio have long been frustrated that this fragmented "nonsystem" of adult and postsecondary education is not as responsive as it could be to the needs of students and employers. As Ohio has lost manufacturing jobs and seen tax revenues decline, policymakers have pressured the various education providers and state agencies to cooperate with one another. The state implemented programs on more than one occasion to try to foster such cooperation, but these efforts did not have much impact. Many of the individuals within the non-system recognized that they needed to cooperate to better serve their students and communities. Yet, despite the desire for change in many quarters, no one organization was able by itself to provide the strategic leadership and vision needed to bring about bold, systemic change. What was needed, therefore, was an effort to build a coalition of the various stakeholders to advocate collectively for change.

The role of building such a coalition was assumed by the KnowledgeWorks Foundation, a private foundation that works to improve education in Ohio for children,

SUCCESSFUL EFFORTS: BRIDGES CASE STUDIES

youth, and adults. In 2002, with funding from the Bridges initiative, KnowledgeWorks launched the Ohio Bridges to Opportunity Initiative (OBOI) with the goal of increasing the number of low-income adults who enter and complete the postsecondary training they need to secure family-supporting jobs.

Beginning in late 2002, KnowledgeWorks convened a group of representatives from the organizations with a stake in improving education and training of low-income adults, including community and technical colleges, adult career centers, community organizations, employer associations, and state agencies. In concert with this "stakeholder" group, and with technical assistance provided by the Bridges national partners, the foundation developed a policy agenda designed to raise awareness among policymakers about the importance to the state of investing in efforts to advance underprepared adults and of promoting better alignment among the state's resources for addressing this challenge.

To further their policy agenda, KnowledgeWorks and the OBOI stakeholders carried out an array of supporting activities. Notably, they:

- Developed a plan for better aligning the programs and services among the various providers of adult and postsecondary education in order to create "career pathways" that promote educational and career advancement by low-income adults.
- Supported career pathways pilots at six sites (three funded by KnowledgeWorks and three by the state) throughout the state.
- Held an annual conference with 300-400 participants each on strategies for helping low-wage workers advance educationally and economically.

- Convened for the first time the 50 adult career center superintendents and 23 community college presidents for a series of meetings designed to build support for change among the leaders of the key institutions.
- Gave numerous briefings to legislators, agency officials, and the governor's staff; and served on or made efforts to influence commissions and task forces established to ensure that the OBOI policy agenda was reflected in recommendations to policymakers.
- Spearheaded a communications campaign designed to raise awareness of the issue, which made use of market research on public opinions of community colleges.

Over time, these efforts began to pay off. Through the efforts of KnowledgeWorks and the OBOI stakeholders, policymakers in Ohio came to recognize that having a large number of underprepared adults in the workforce threatens the future economic vitality of the state, and that aligning the existing systems for adult learning is a necessary step toward addressing the problem. As shown in the table on page, beginning in 2005, the legislature and executive branch enacted a series of measures to bring about such alignment.

As a respected, "neutral" intermediary, KnowledgeWorks was able to build a coalition of stakeholders to advocate major policy changes with the goal of improving education and career outcomes of underprepared adults in Ohio. The efforts of this stakeholder coalition led to new legislation and funding that have reshaped the structure of higher education in the state in ways designed to achieve that goal.

Higher Education Policy Changes Achieved in Ohio

Date	Action
Spring 2005	The General Assembly passed House Bill 66, which mandates articulation and transfer of credits among adult career centers, community and technical colleges, and public four-year colleges and universities, and which compels the Ohio Board of Regents and Department of Education to work more closely together to smooth the transition from one sector to the other.
Spring 2006	The Higher Education Funding Study Council (HEFSC), a body responsible for recommending priorities for higher education funding to the legislature in advance of its biennial sessions, incorporated into its final report the recommendation from the Ohio Bridges to Opportunity Initiative (OBOI) that the governor create a commission to examine ways to improve alignment of education and training to better serve Ohio's low-wage working adults and their employers.
Fall 2006	The Ohio Workforce Education and Training Advisory Council appointed by the governor in response to the HEFSC recommendation advised placing Ohio's 50 adult career centers and the adult basic education sites administered by the Ohio Department of Education under the auspices of a restructured Ohio Board of Regents. It also advised establishing an industry-level board to set performance standards and funding priorities based on the needs and economic development goals identified by regional "workforce advancement councils."
Spring 2007	The General Assembly authorized legislation calling for the restructuring of higher education in Ohio to better meet the needs of citizens and employers. The legislation also gave the governor the power to appoint and supervise a chancellor of the Board of Regents and making the chancellor a member of the governor's cabinet – in effect, giving the governor more power to oversee a more unified system that has the potential to better align Ohio's education and training resources with state economic needs.
July 2007	The General Assembly unanimously approved the governor's budget, which included major reforms advocated by OBOI, including the transfer of the adult basic literacy programs and adult career centers from the Ohio Department of Education to the Ohio Board of Regents. It also included funding for Accelerate Ohio, a program to create "stackable" certificates enabling completion of industry-driven training programs that lead to associate and technical degrees.
August 2007	Governor Strickland issued a directive creating the University System of Ohio, consisting of Ohio's 13 public universities, community and technical colleges, adult career centers, and adult basic skills programs, with the goal of creating a collaborative, flexible, and efficient system of higher education that can meet the needs of the state in the twenty-first century.
March 2008	Board of Regents Chancellor Eric Fingerhut presented to the Governor and General Assembly a 10-year strategic plan for the new University System. Among the major elements of the plan is a mandate to improve access to community colleges both for younger students graduating from high school as well as for adults through stronger connections between adult career centers, adult basic skills programs and two-year colleges. The plan also calls for the creation of the Ohio Skills Bank with regional councils responsible for ensuring that the system's programs continue to be responsive to local labor force needs.

Louisiana: Effective Strategic Communications and Advocacy

The Louisiana Community and Technical College System (LCTCS) was formed in 1999 to create a single integrated system with multiple campuses for the state's 42 technical schools and six community colleges. The tech schools had been established by individual legislators to serve local constituents, and tended to be small and parochial. In general, they had few connections with the community colleges. LCTCS leaders acknowledged that they had little idea how the new governing board should operate or what its goals should be, but it was clear that a major objective should be to rebuild the long-lost trust of employers in the state. At the same time, advocates were pressing for an expansion of educational and economic opportunities for the state's large low-income adult population.

When the Bridges initiative began in 2003, the new system was still in the early stages of development. Only modest progress had been made to consolidate the sometimes conflicting missions and cultures of the community colleges and technical schools. New funding for instructors and renovation of dilapidated buildings was needed, as was a mechanism for collecting reliable data on the performance of the system's institutions.

Resistance to increased funding for LCTCS came from state legislators who were skeptical about throwing more money into what some viewed as a hopeless sinkhole and an attempt to dilute their local influence with the tech schools. The system staff spent much time fending off state efforts to restore local control and further weaken the system.

In this environment, LCTCS conceived of the Best Practices Study Tours for policymakers and other state leaders. The tours were seen as a way to show decisionmakers what a viable community college system looks like, why it made sense to centralize governance, and how such a system would benefit the state. LCTC's first study tour took members of the state legislature and their staffs, representatives of the governor's office, the State Workforce Commission and the Department of Economic Development to Texas to visit the Dallas County Community College District. Visits to community colleges in North Carolina and Ohio followed. During these trips, LCTCS organizers highlighted ways that community colleges contribute to the economic and workforce development of their regions.

The study tours developed enough political support that, at the end of 2004, the state legislature increased LCTCS funding by \$5 million, allowing for slow but steady steps toward strengthening the overall community and technical college system in 2005. Then Hurricane Katrina struck.

After the hurricane, LCTCS leaders spent most of late 2005 and early 2006 persuading legislators and staff members that it would still be possible to create an efficient, well-functioning community and technical college system, and that, in fact, post-hurricane reconstruction demanded it more than ever. LCTCS promised to train 10,000 new construction workers if it received \$15 million to do it. In February 2006, a revised consolidation plan split the state into eight multi-campus regions for administrative purposes, and established three pilot career pathways programs under Bridges: advanced manufacturing, information technology and marine industry. In June 2006 the state legislature approved the \$15 million requested for construction training and career pathways.

Responding to the slow pace of post-Katrina rebuilding, LCTCS's new president Joe May went on the road in late 2006, visiting every campus to personally cultivate relationships with each college president and meet with local community leaders. His "region-up" campaign asked regional system leaders to identify and court local leaders for support and suggestions, turning regional pride into an LCTCS asset. Based on what he learned during these visits, May developed a 14-point "advocacy agenda" for campus leaders to refer to and promote in unison for the first time, instead competing with one another for influence as they had in the past. Leading the list were calls for rebuilt and improved facilities, some of which had been near collapse long before Katrina.

LCTCS orchestrated a media campaign to support the agenda and college presidents and local leaders they recruited testified at numerous committee hearings, all with the same message. As a result, legislators heard a consistent argument for \$151 million to complete the plan for rebuilding KCTCS facilities post-Katrina. In June 2008 the legislature provided that funding and then some: \$173 million, the largest capital outlay ever for the state's community colleges.

Following that success, LCTCS turned its attention to the need for a more stable funding mechanism that would provide incentives to colleges to build programs responsive to local labor force needs. Finding little support from the Board of Regents, which historically has had a primary focus on baccalaureate and graduate education, May and his colleagues launched a new, aggressive campaign designed to build support from the governor and legislature for a policy agenda designed to dramatically strengthen workforce education and training services for Louisiana residents and employers. Specifically, they wanted policymakers' backing to:

- Designate LCTCS as the primary provider of workforce training in the state.
- Establish a standing "rapid response" training fund to address urgent workforce needs.
- Create "centers of excellence" to meet industry demand in key sectors.
- Fund increases in faculty salaries, offer need-based student financial aid and expand dual enrollment for high school students in collegelevel courses.

LCTCS also advocated restructuring the existing funding mechanism for its programs, which provided little incentive for colleges to expand enrollment and offer programs responsive to labor force needs. In speeches to policymakers and local leaders, May frequently pointed out the benefits to the state of training a nurse, which costs LCTCS \$22,000 over two years, compared to training of a nail salon technician, which costs \$1,500 over six weeks. He noted that, although nurses were clearly a higher-priority need for the state than nail technicians, very few nurses were being trained because the state provided the same funding for every program regardless of its cost. That story got people's attention. Even the governor picked it up as part of his stump speech on workforce development.

Between January and March 2008, LCTCS held eight two-day meetings across the state. Each meeting would start with a dinner for 20 to 30 of the top local decision-makers, during which system leaders outlined the benefits of giving LCTCS the lead role in workforce development for the state. The next day would typically feature breakfast with local community and technical college campus staff to get their

SUCCESSFUL EFFORTS: BRIDGES CASE STUDIES

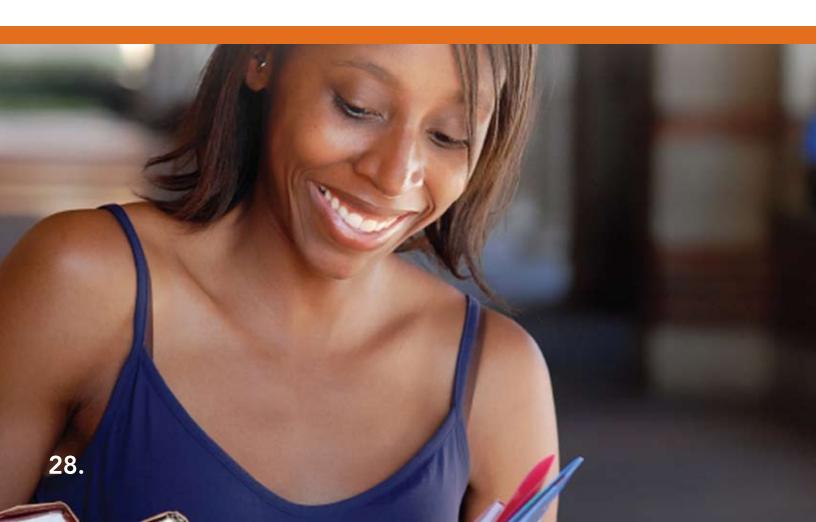
buy-in, and then a morning workshop with 100-150 area residents on local needs. A wrap-up lunch would bring in local legislators and other state leaders to promote local partnerships and garner commitment to take next steps, including what local people could do to carry the message.

This "road show" created a groundswell of interest and support that exceeded the LCTCS's expectations. A separate business community economic development initiative called Blueprint Louisiana adopted LCTCS's agenda as part of its own, as did the state's new governor. To strengthen their appeals, LCTCS leaders honed their messages and used every opportunity to talk to local and state-level media.

During the spring 2008 legislative session, rather than organize a small number of large events for legislators, May declared that "every day is community and technical college day," and orchestrated visits by

three different colleges each week to their representatives to discuss local workforce needs and ways LCTCS could help meet them.

As a result of this well-organized campaign, the legislature passed 15 pieces of legislation that addressed every element of the LCTCS policy agenda. In addition to establishing LCTCS as the main provider of workforce training in the state, the legislation revamped the funding formula to better align funding with program costs and established performance funding to reward colleges for being aggressive in responding to local needs.



Common Strategies for Policy Reform

While different in some ways, the strategies pursued in Washington State, Ohio and Louisiana to effect changes in policy were similar in at least three respects.

First and perhaps most important, the three states adopted a strategic focus on advocating for policies and practices that help underprepared adults advance educationally and economically. Second, all three efforts sought to improve alignment within and across programs, services, and education levels in order to break down barriers to advancement and create clearer paths to educational and economic advancement for students and a pipeline of qualified workers for employers. Third, they organized stakeholders to advocate for policies supportive of alignment, and they implemented strategic communications plans to build support for change internally among educators and with business leaders and other outside stakeholders. In all three cases, the central messages of these communications plans emphasized the economic benefits that would accrue to individuals, employers, local communities and the state from an investment of public resources in efforts to improve educational outcomes for underprepared adults.

The Washington State Board for Community and Technical Colleges was able to make use of its well-developed state-level information system and research capacity to inform changes in policy and practice and to evaluate the effectiveness of new approaches. And in general, Washington had the advantage of a much more centralized community college system, which made it easier to orchestrate reforms. However, the case of Ohio shows that with the right vision and a coalition of support from stakeholders, it is possible to bring about major reforms in policy to benefit underprepared adults

even in a state with a very decentralized, and in many respects fragmented, system of adult and postsecondary education. The Louisiana Community and Technical College System also demonstrates the power of stakeholder engagement and strategic communications. Through a series of well-organized campaigns, this fledging system that was struggling to recover from the disaster of Hurricane Katrina succeeded in convincing the state's legislature to appropriate substantial additional funding for college facilities and operations, and establish a new funding mechanism that creates incentives for colleges to be more responsive to the needs of their communities while also building a base of financial support colleges can use to strengthen their programs over time.

Strategies and Tools for Promoting Supportive State Policies

This section presents an overview of a series of "toolkits" that were developed through the Bridges initiative to help state and local leaders implement key elements of a comprehensive strategy for cultivating state policies that support increased success by underprepared adults. Individual toolkits provide an in-depth "how to" manual with tools and tips from the field. Six toolkits are now available on the Bridges website (www.communitycollegecentral.org):

- Linking Educational Opportunity and Economic Development;
- 2. Using State Data to Inform Improvements in Policy and Practice;
- Creating Career Pathways to Accelerate College and Career Success;
- 4. Bridging the Gap between Remedial Education and Credentials and Careers;
- Financing Community Colleges to Serve Low-Income Adults; and
- 6. Making the Case for Community Colleges: Tools for Communications Advocacy.



The following are brief descriptions of each toolkit.

Linking Educational Opportunity and Economic Development

State policies governing adult and postsecondary education, workforce and economic development, and social and human services are typically designed and implemented in isolation from one another. The result is a hodgepodge of disconnected programs, governance structures, and systems that do not effectively serve either individuals seeking job advancement or employers seeking qualified workers.

This toolkit addresses these disconnects by presenting strategies and tools to help education leaders and policymakers advance the public agenda of linking educational opportunity and economic development.

It contains resources and case studies for forging stronger connections by, for example, creating more seamless and versatile adult learning systems, linking postsecondary education and training to economic development strategies and employer needs, and making more strategic use of existing public resources for workforce development. It presents ways to make community colleges more responsive to local needs and demands through noncredit job training and adult basic education. It also gives advice on building a supportive infrastructure for economically and educationally disadvantaged students and on developing new instructional models and career pathways. This toolkit is available at http://www.communitycollegecentral. org/economicdevelopment/Downloads/ entiretoolkit.pdf

Using Data to Inform Improvements in Policy and Practice

The structure, capacity, and versatility of education data systems vary widely from state to state. Currently, 40 states and the majority of multi-campus community college systems maintain databases with student unit records (SUR) on enrollment, credits, cumulative grade performance, and a range of student demographic descriptors. Properly used, SUR data represent an unmatched asset for a state or system committed to improving its policies and practices to facilitate student progression through the postsecondary education pipeline. However, the great majority of states and systems have yet to develop the full potential of their SUR databases to enhance their overall effectiveness, strategy, and planning.

To enable postsecondary institutions to use data more effectively, this toolkit provides an overview of what robust, versatile longitudinal data systems look like and are capable of doing. It also discusses notable trends in, and examples of, the sharing and mining of student-level data; accountability systems and strategies that recognize the role, missions, and challenges of community colleges; and promising practices and resources for sharing data and research with key audiences. This toolkit is available at http://www.communitycollegecentral.org/
Downloads/Data_Performance_TOOLKIT.pdf

Creating Career Pathways to Accelerate College and Career Success

Millions of individuals struggle to rise above low-wage, low-opportunity jobs but lack access to the training necessary to compete in the workforce. A career pathways strategy can be used to deal with this problem. Career pathways are integrated education and training programs with support services that prepare students and working adults for employment in fields that are important to local economies. Pathways can enable community colleges and workforce development practitioners to connect these individuals to the education, training, and learning opportunities they need.

This toolkit provides information on how to plan, build, and refine career pathways programs, and discusses ways to strengthen leadership and support for such programs. It also presents case studies and examples of policy approaches that have helped to advance the development of career pathways in several states. This toolkit is available at http://www.communitycollegecentral.org/careerpathways/careerpathways



Bridging the Gap between Remedial Education and Credentials and Careers

One of the most unrelenting challenges facing higher education is the large number of students in need of remediation. While community colleges are the primary pathway to postsecondary education for large numbers of low-income, minority and underprepared students, expecting these institutions to continue to provide remediation on a large scale entails considerable financial and opportunity costs. State leaders, therefore, need to rethink and, in some cases, wholly redesign education policies to reduce the number of students coming to college underprepared while also improving the success of those who enroll in community colleges.

This toolkit serves as a resource to help state leaders examine and reshape policy to support the efforts of community colleges to reduce the number of students who arrive underprepared and ensure the academic success of all students. It examines five key topics - college-readiness, postsecondary transition, programming, financing, and performance accountability - that can help policymakers and educators rethink their remedial education policies and practices. It also provides tools, such as worksheets and key policy questions, for analysis and discussion of the five key topics, and it reviews national policy trends and innovative models. This toolkit is available at http:// www.communitycollegecentral.org/ Downloads/Developmental_Education_ TOOLKIT.pdf

Financing Community Colleges to Serve LowIncome Adults

The demand for community college programs and services is set to increase over the next decade due to converging economic, demographic, and technological trends. This growth threatens community colleges' defining features of accessibility and affordability, requiring states to reconsider funding policies that constrain the capacity and versatility of their community college systems.

This toolkit is designed to help state leaders develop financing models that recognize the role of community colleges in expanding education and training opportunities for individuals of all backgrounds and circumstances. It contains tools and models for financial analysis, such as state policy audits, and templates to guide discussions about the fiscal implications of different strategies. It also examines current and emerging policy trends in various states and provides information on how to organize a state or regional community college finance workshop. This toolkit is available at http://www. communitycollegecentral.org/ financetoolkit/finance toolkit%20 2007_2_05032007.pdf

Making the Case for Community Colleges: Tools for Communications Advocacy

Policymakers and the public are generally unaware of the challenges faced by community colleges despite the important role these institutions play in higher education for low-income adults. Therefore, it is essential to communicate effectively with decision makers about community colleges in order to achieve desired education policy or practice-related goals.

Communications advocacy involves the use of effective messaging, spokespeople, public engagement, and media outreach tools to focus opinion, resources and action on influencing a policy or practice. As they are often focused on legislative change, state

resource allocation, or removing systematic barriers, advocacy campaigns are generally directed at legislators, media, and/or business and community leaders.

This toolkit, designed to facilitate the development of communications advocacy campaigns, contains information for community colleges and advocates on messaging, targeting audiences, branding and promotion, media outreach, and building an advocacy strategy. It can be used to create a full-fledged advocacy campaign or to address specific communications needs. This toolkit is available at http://www.communitycollegecentral.org/Advocacytoolkit/



Putting Strategies and Tools into Practice

This section describes how to begin putting the tools and strategies outlined in the last section into practice. It outlines pitfalls to avoid and concludes with a discussion of roles for leaders of key stakeholder groups.

Getting Started

Based on the experience of the Bridges initiative, we offer the following suggestions for initial steps to take in advocating for state policies that support community college efforts to serve underprepared adults.

1. Assess the impact of underprepared adults on the state's well-being.

A key initial step is to examine the impact of underprepared adults on the economic and social well-being of the state. Among the questions to ask are:

- How large is the population of underprepared adults in the state and is it growing?
- What are their demographic characteristics and economic profile (family income, employment rate, etc.)?
- Are there areas of the state with particularly high concentrations of underprepared adults?
- What are the implications for the state's economic and social wellbeing of maintaining the status quo with respect to education and training of underprepared adults?

2. Conduct a program and policy audit.

This step follows from the first and examines how effective existing educational policies, programs and services are in serving underprepared adults. Questions to ask include:

- Which publicly funded institutions and programs in your state serve adults who are unprepared for postsecondary education?
- How many individuals are being served annually?
- Are there groups defined, for example, by race or ethnicity, native language, income, or geography – that are not being adequately served?
- What are the outcomes and impacts of these programs?
- In what ways can existing programs and services be improved?
- What additional programs and services are needed?
- In what ways do state policies encourage effective programs and services for underprepared adults?
- Do state policies also create disincentives to serving this population effectively? If so, what changes in policy would help to improve the impact of programs and services on this population?

Where possible, this assessment should be grounded in data, particularly data on outcomes. States that are able to track the progression and education and labor market outcomes of non-traditional students over time have better evidence about what is occurring than those that cannot. Even in states without the capacity to track students over time, however, there is generally a lot of

PUTTING STRATEGIES AND TOOLS INTO PRACTICE

data that can be compiled to assess the outcomes of existing programs and services.

Community colleges and their state agencies put a high priority on promoting their institutions, on building a positive public image, and on generating enrollments. This is understandable, given the existing incentives from public policy; but in focusing on what is working well, colleges and states may be overlooking opportunities for improvement. This is not to say that colleges and states should broadcast their weaknesses to the public, but they should be honest with themselves internally about areas that could be improved.

Colleges should also be more proactive about including stakeholders – such as policymakers, elected officials, and community leaders – in discussions on how they can be more responsive to the needs of their students and communities. Opinion research shows that the public is supportive of community colleges' overarching mission of expanding opportunity, but many are not well informed about the scope of community college programs and services and the challenges these colleges face. Communicating with a diverse group of stakeholders can help improve understanding of and support for colleges.

The experience of Bridges states further suggests that policymakers respond very favorably when colleges and systems are open with them, particularly about what needs to change to improve outcomes for students and about what concrete plans exist to bring about needed improvements. The Washington State Board for Community and Technical College (SBCTC), for example, presented to the governor and key legislative committees the results of its "tipping point" study. It showed that few students make it to the tipping point of at least a year of college and an occupational credential, which is associated with substantially higher earnings for low-skill adults (see page 17). The SBCTC mounted a multi-faceted effort to ensure that more students make it to the

tipping point, and was successful in securing support from policymakers for measures to accomplish this goal, including funding for its I-BEST integrated basic education and skills training programs and for Opportunity Grants financial aid for non-traditional students (see table on page 22.)

3. Engage insiders in crafting an agenda for reform.

Real change will not occur unless the individuals within the education and workforce systems – faculty, staff, and administrators – feel a sense of ownership. Thus, any effort to assess the effectiveness of programs and services and create and implement strategies to improve outcomes should involve those on the front lines in a central way.

One approach to engaging broad-based involvement and support is to convene regional teams - with representation from colleges, workforce agencies, and other entities with a stake in improving outcomes for underprepared adults - to examine data on the performance of existing programs and services and develop ways to improve outcomes. All of the Bridges states sponsored such meetings. In each of the states, efforts were also made to more closely coordinate the work of state agencies concerned with education, workforce development, and human services. Such cooperation at the state level can encourage local partnerships to flourish.

4. Make the case in terms of the public interest.

Even though there are large numbers of underprepared adults in the U.S., their situation is often not well understood by policymakers and the public. In discussing the need to support community college efforts to improve educational and employment outcomes for these residents, policymakers are most likely to be swayed by arguments that emphasize the economic benefits that accrue to the state and to the local areas where the problem will be addressed – as well as the economic costs of not taking action.

In making the case to the public, it is essential to do so in terms of the public interest, not in terms of resource needs of colleges, even though colleges may be underfunded. Further, the public is influenced by and deeply invested in the promise of opportunity; indeed, the concept that everyone deserves access to educational and economic opportunity is a core American belief. While it is critical to use data and research to support the need for change, effective case-making also involves touching people emotionally and appealing to their values.

The opinion research conducted for Bridges – important reading for anyone in a community college advocacy role – is available at http://www.communitycollegecentral.org/research/opinionresearch/opinionresearch.htm.

5. Develop and implement a communications plan to support a policy agenda for change.

An effective communications plan should put messages, tactics, and tools for promoting public awareness and engagement into the hands of stakeholders trained to advance it. College and system leaders must be able to clearly and concisely articulate what they want, how they plan to get it, and what they need in order to succeed. The public gets much of its information about community colleges through coverage in newspapers, radio, and television. Therefore, it is important to ensure that there are multiple "vehicles" to help make the case.

6. Engage "key influentials" and other stakeholders to build a coalition joined by common interests.

The broader the coalition for reform, the more likely it is to succeed. Individuals and groups will be more likely to join a coalition if it is in their interest to do so. Thus, stakeholder engagement efforts should emphasize the mutual benefits of working together to effect changes in policy. Each of the Bridges states took different approaches to building stakeholder coalitions for policy change. Their efforts, as well as lessons learned in the process, are profiled in Engaging Stakeholders for Community College Success, which is available at http://www.communitycollegecentral.org/engagingstakeholder.pdf

7. Identify or cultivate leaders who will champion the necessary changes.

In every case where progress has been made toward advocating policies that promote improved outcomes for non-traditional students, there has been strong leadership both to focus attention on the challengefaced by specific states and localities and to rally constituencies within and outside educational institutions to address it. In Kentucky, leadership for creating a statewidecomprehensive community college system came from a governor, Paul Patton. In Washington State, the leadership of the State Board for Community and Technical Colleges reaffirmed the system's commitment to serve underprepared adults, and it spearheaded efforts to advocate for supportive policies and practices. In Ohio, the KnowledgeWorks Foundation, as a neutral intermediary, built a coalition of stakeholders, including the leaders of the community and technical colleges and adult career centers, who had never previously met together as a group, to advocate for its policy agenda.

Overcoming Obstacles to Systemic Change

The Bridges states encountered several obstacles to policy reform that others may experience as well. Some of the more common obstacles, along with suggestions on how to address them, are presented below.

Ingrained Attitudes and Culture

It almost goes without saying that efforts to bring about substantial changes in policy and practice are going to run up against an inclination to maintain the status quo. Bridging the disconnects in policy and practice, as outlined in the section on Improving Outcomes of Underprepared Adults: Roles for State Policy (starting on page 9), requires overcoming ingrained attitudes and beliefs about the potential of students to succeed and the responsibility of educators to help them do so.

One strategy to help shift such attitudes and beliefs is to make data on student outcomes and on gaps in achievement by various student groups available to practitioners, and then to ask whether these outcomes are acceptable and whether there are efforts that they could make (along with students themselves) to increase student success. This was the approach that the Washington State Board for Community and Technical Colleges (SBCTC) used in presenting the research showing that students who attain the "tipping point" of at least a year of college and an occupational credential earn substantially more than those who do not and yet very few students, particularly those who start out in adult basic skills, make it to that level. SBCTC used this research to rally educators throughout the system to the view that the tipping point is the minimum level of achievement that should be expected of students without postsecondary credentials

and that concerted efforts had to be made to increase the rate at which students reach that point.

"Projectitis"

This term refers to the tendency of community colleges and their governing agencies to focus their energy and resources on grant-funded projects that serve relatively small numbers of students and that tend to disappear when funding ends, rather than on systemic change efforts that could benefit large numbers. This pitfall is particularly difficult to avoid in part because state agencies are often constrained in their discretionary resources and in their leverage to promote systemic changes in college operations that would benefit large numbers of students. As a result, they often resort to demonstration grant programs to "seed" innovations in practice, which easily fall prey to "projectitis."

The Bridges experience shows clearly that in order to avoid piecemeal projects that are not sustainable, it is necessary to set clear strategic priorities and use resources to build broad-based support and create incentives for achieving those priorities.

Leadership Turnover

Efforts to bring about changes in policy take time and are therefore susceptible to changes in leadership or other key personnel. In the Bridges states, where there were early efforts to build a broad-based coalition of stakeholders, turnover in leadership was less disruptive.

Vagaries of the Political Process

Advocating for policy change is a political process, which means that it is messy and unpredictable. Some aspects of the process are more predictable, but no less easy to deal with. For example, policymakers in many states have term limits, which means that efforts to educate them on the issues need to be ongoing. Moreover, the short time many governors and legislators are in office means that there is usually a small "window" in which to advocate for change.

To be successful, efforts to promote policies supportive of underprepared adults need to be clear in their goals and strategy, and advocates need to be persistent in their efforts to achieve their aims.

Actions for Key Stakeholders

The following are actions that stakeholders can take to create policies supportive of improved outcomes for underprepared adults.

Governors and Legislators

- Call for a "state of the state" review of the state policies and regulations related to education and employment for underprepared adults, identifying both incentives and disincentives for improvement.
- Track and require public accounting of the performance of community colleges

in helping meet your state's economic and educational goals generally, and supporting access to educational and economic opportunity for underprepared adults in particular.

- Promote policies that encourage and support community colleges to partner with other education, workforce, human services and economic development agencies in creating more seamless pathways to postsecondary credentials and career-path employment for underprepared adults.
- Examine the incentives and disincentives created by state policy for community colleges to respond to the education and training needs of citizens and employers.

State Agency Heads and Board Members

- Build a data-informed case for a statelevel policy focus on the link between educational attainment and workforce and economic development.
- Make improving educational and career outcomes for underprepared adults a strategic priority for the agency.
- Incorporate into state accountability systems performance goals and measures aimed at improving education and employment outcomes for underprepared adults.
- Support development of strong state data systems and research capability to track the educational progression and labor market outcomes of students within and across education sectors.
- Require and publish regular reports comparing educational and labor market outcomes for underprepared adult students compared to other students.

PUTTING STRATEGIES AND TOOLS INTO PRACTICE

- Help build the capacity of colleges to collect, analyze and use longitudinal cohort data to design and improve programs and services for students.
- Identify existing promising programs and practices in the state and consider what changes in policy could encourage their implementation on a wider scale.
- Partner with other state agencies concerned with workforce, human services, and economic development to encourage collaborative at the local level aimed at better serving underprepared adults.

College Presidents and Trustees

- Commit to improving the outcomes of underprepared adult students as a strategic priority for the college.
- Promote the development of a "culture of evidence" in which decisions about the design, management and funding of programs and services are made based on evidence of what works to improve student success.
- Examine institutional policies to determine which promote successful outcomes for underprepared students and which may actually serve as barriers.
- Consider what changes in institutional policy can be made to increase the scale and impact of programs and services that are effective in helping underprepared students earn postsecondary credentials and secure career-path jobs.

Business and Labor Leaders

- Help underprepared workers find programs that are effective in enabling them to earn postsecondary credentials in fields relevant to your industry.
- Advocate that the state's resources for adult and postsecondary education be focused on enabling working adults to earn postsecondary credentials in relevant fields.
- Identify and address business practices that may thwart participation by lowskill workers in education and training.
- Actively partner with community colleges to create programs that help underprepared workers advance to better jobs in your industry.

Community-Based/Advocacy Organization Directors

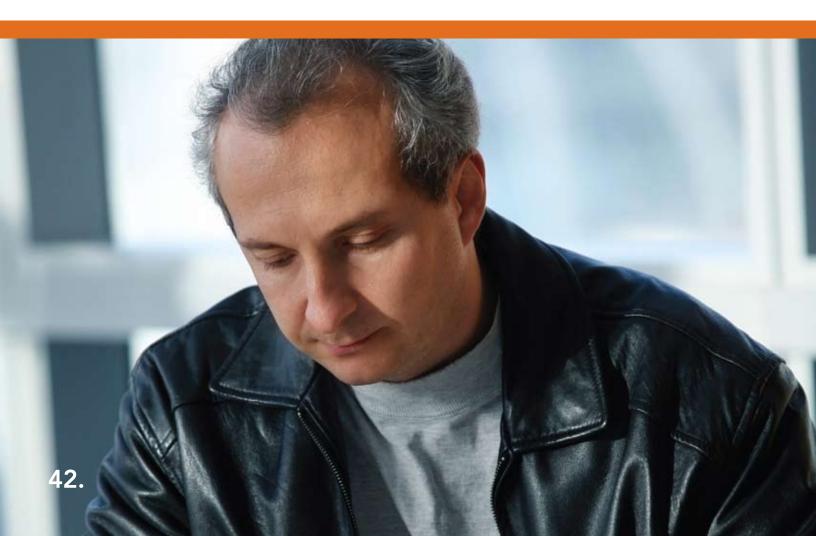
- Get informed about the strengths and weaknesses of local colleges and their impact on your constituency; track data on student outcomes and push for improvements.
- Build coalitions to advocate policies (such as financial aid for non-traditional students) that help underprepared adults enter and succeed in postsecondary education.
- Actively partner with community colleges to provide services and other supports that help underprepared adults complete programs, enter career-path employment and advance to further education and training.

Endnotes

- Anthony P. Carnevale and Donna M. Desrochers, Standards for What? The Economic Roots of K-16 Reform. Princeton, NJ: Educational Testing Service, 2003, p. 36.
- 2 According to the U.S. Census Bureau's American Fact Finder, 46.1 percent of Americans age 25 or older (90.3 million persons) have a high school credential (including equivalencies) or less. Available at http://factfinder.census.gov/servlet / STTable?_bm=y&-geo_id=01000US&-qr_name=ACS_2006_EST_G00_S1501&-ds_name=ACS_2006_EST_G00_.
- 3 See U.S. Census Bureau, American Fact Finder, Table S1601, Language Spoken at Home. Available at: http://factfinder.census.gov/servlet/STTable?_bm=y&geo_id=01000US&-qr_name=ACS_2006_EST_G00_S1601&-ds_name=ACS_2006_EST_G00.
- 4 See David Prince and Davis Jenkins (April 2005), Building Pathways To Success For Low-Skill Adult Students: Lessons For Community College Policy And Practice From A Statewide Longitudinal Tracking Study, CCRC Research Brief Number 25, New York: Columbia University, Teachers College, Community College Research Center. Available at http://ccrctc.columbia.edu/Publication.asp?uid=288.
- 5 Based on an unpublished analysis by the Community College Research Center of data from the Beginning Postsecondary Student survey (BPS 96/01).

- 6 More than a third of community college students have children. See Sarah Kichels Goan and Alisa F. Cunningham (July 2007), Differential Characteristics Of Two-Year Postsecondary Institutions: Postsecondary Education Descriptive Analysis Report, Table 8, p. 22, NCES 2007-164rev, U.S. Department of Education, Washington, DC: National Center for Education Statistics.
- 7 See Davis Jenkins and Christopher Spence (November 2006), The Career Pathways How-To Guide, New York: Workforce Strategy Center; and Davis Jenkins (August 2006), Career Pathways: Aligning Public Resources To Support Individual And Regional Economic Advancement In The Knowledge Economy, New York: Workforce Strategy Center. Available at http://www. workforcestrategy.org/publications/ bysection/all.
- 8 A recent 50-state survey found that 40 states have databases containing unit record data (data on individual students' demographics, course-taking, and outcomes) for their public higher education institutions. See Peter Ewell and Marianne Boeke (January 2007), Critical Connections: Linking States' Unit Record Systems To Track Student Progress, Indianapolis: Lumina Foundation for Education. Available at http://www.luminafoundation.org/publications/Critical_Connections_Web.pdf.

- 9 See Washington State Board for Community and Technical Colleges (December 2005), I-BEST: A Program Integrating Adult Basic Education And Workforce Training, Research Report No. 05-2, Olympia: Author. Available at http:// www.sbctc.ctc.edu/college/d_basicskills. aspx.
- 10 See D. Timothy Leinbach and Davis Jenkins (January 2008), Using Longitudinal Data To Increase Community College Student Success: A Guide To Measuring Milestone And Momentum Point Attainment, CCRC Research Tools No. 2, New York: Columbia University, Teachers College, Community College Research Center. Available at http://ccrc. tc.columbia.edu/Publication.asp?uid=570.
- 11 See National Center for Higher Education Management Systems (2007), Participation: College-Going Rates Of High School Graduates Directly From HS, Year 2004, Boulder, CO: Author. Available at: http://www.higheredinfo.org/dbrowser/index.php?submeasure=63&year=2004&level=nation&mode=graph&state=0.



©2008 Bridges to Opportunity Initiative





