Flexible Learning Options for Adult Students

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Table of Contents

I. Introduction

In a March 2006 report to the Department of Labor, *Adult Learners in Higher Education: Barriers to Success and Strategies to Improve Results*, Jobs for the Future, Eduventures, and FutureWorks assessed the obstacles facing adult learners who want to earn postsecondary credentials and pointed toward innovative policies and practices that could improve their postsecondary outcomes. One significant barrier the paper identified is the inflexible nature of traditional program and course design. Adults need a range of flexible design and delivery options that recognize the time constraints facing people who work, have family responsibilities and are trying to upgrade their skills to be more competitive in the labor market and improve their standard of living. Such designs are emerging and maturing across the country, particularly in the community college sector. Yet, the development, expansion, and diffusion of these options, particularly of entire credential programs, have been slow and isolated in particular pockets of creativity.

This paper takes a closer look at emerging trends in public postsecondary education that offer adult learners more flexible access to courses and help accelerate their progress through credential programs. FutureWorks and Jobs for the Future have examined the literature and conducted interviews with public postsecondary education practitioners and research experts and fielded two surveys with state-level experts in an effort to identify barriers to program development and diffusion, identify promising practices, and solicit examples of model programs. A companion paper prepared for this project by Dr. Mary Gatta of Rutgers University, *Online Programming for Sub-baccalaureate Credentials*, explores online learning options for lower-skill adult learners. Assessments of trends in the for-profit sector can be found in reports from Eduventures (see Bibliography).

The following pages begin with a framework for the paper categorizing and evaluating different approaches to increasing flexibility and accelerated learning that various degree-granting institutions have developed, based on a literature review and interviews with practitioners and research experts then presents profiles of five innovative efforts that demonstrate how combining multiple flexible delivery options can produce positive results for adult learners, noting outcomes when available. The profiles highlight:

- Denver Community College;
- Madisonville Community College in Kentucky;
- Housatonic Community College in Connecticut;
- The statewide Pathways to Advancement Initiative in Oregon; and
- The statewide I-BEST program in Washington State.

The next section identifies and discusses common barriers facing postsecondary institutions seeking to develop innovative alternatives to traditional programs. This analysis is informed by interviews, program profiles, and two surveys conducted by the authors in July-August 2006—of members of the State Higher Education Executive Officers (SHEEO) Association and of the National Association of State Student Grant and Aid Programs. The paper leads to consideration of policy strategies for addressing common obstacles to expansion and diffusion of promising program models. The final section suggests specific recommendations for how the U.S. Department of Labor can

promote the development and diffusion of more flexible postsecondary programs that meet adult learners' particular needs.

II. The Challenges Facing Adult Learners in Higher Education

Today's jobs increasingly require "knowledge workers" who have more education and more diverse skills than the workforce of the past—and who have the ability to continuously learn new skills. Of the 20 occupations projected to grow the fastest (in terms of percentage growth in new and vacant positions), 15 require some form of postsecondary education and 9 require a bachelor's degree or higher. Jobs that require only on-the-job training are on the way out: All 20 occupations projected to have the sharpest declines in openings require no more than on-the-job training (Jobs for the Future, Eduventures, and FutureWorks 2006).

These trends would not be alarming if the workforce were keeping pace with educational demands; but it is not. Just 40 percent of working-age adults in the workforce (age 25-64) have a credential beyond a high school diploma (Bosworth and Choitz 2002). Demographic trends indicate that we will not be able to "grow our way" out of this dilemma because the cohorts of workers following the baby boom generation are smaller and are projected to be less educated that the current workforce (Jobs for the Future, Eduventures, and FutureWorks 2006). By some projections, there will be a shortage of 9 million qualified workers by 2014 (Employment Policy Foundation 2004) (a number larger than the populations of 41 out of the 50 states).

This gap threatens to hobble the nation's economic competitiveness as well as personal living standards. Companies that cannot find qualified workers cannot compete in the global economy. Without enough qualified workers, companies must find "work-around" solutions, hiring a less-educated workforce or moving to countries that produce a greater number of highly educated citizens. For workers, having inadequate skills and credentials limits their earning potential. While this has been true for decades, the wage gap between high and low earners continues to grow. In 1975, a worker with a Bachelor's degree could expect to earn 1.5 times the salary of a worker with just a high school diploma. By 1999, that ratio had increased to 1.8 (Day and Newburger 2002).

Adults in the workforce understand these trends and are responding. Millions participate in some form of postsecondary education: In fact, the number of adults in postsecondary education jumped dramatically from 58 million in 1991 to 90 million in 1999 (Bosworth and Choitz 2002). This number increased to 93.1 million in 2005, which is the latest data available from the Adult Education Survey of the National Household Education Surveys Program (O'Donnell 2006). High percentages of adults are engaged in work-related education—33 percent of the population over age 25 in 2003, up from 24 percent in 1999 National Center for Education Statistics (NCES) data (Jobs for the Future, Eduventures, and FutureWorks 2006). Millions of adults study at the nation's college campuses—nearly one-third of all undergraduates are older than 24 years, which represents approximately 4.7 million out of 15 million total undergraduates (Snyder, Dillow, and Hoffman 2007).

However, while adult demand for postsecondary education is strong and participation is relatively high, their success rates are poor. Too many adults who work full time and study part time have trouble completing their educational programs or earning credentials. For example, 62 percent of workers who considered themselves "employees who study" had not completed a degree or certificate and were no longer enrolled six

years after beginning postsecondary studies—compared to 39 percent of students who considered themselves "students who work"—according to data from the 1999-2000 National Postsecondary Student Aid Study (Berker et al. 2003). These findings are consistent with data on non-traditional students from the NCES. At community colleges, nearly half of non-traditional students leave without a degree after three years, compared to one-fifth of traditional students. At four-year colleges, less than 15 percent of non-traditional students with at least two risk factors complete a degree within six years compared to 57 percent of traditional students (Choy 2002).[1]

Practitioners and researchers alike have identified various problems that hold adult success rates down. One key challenge is that the program model that dominates postsecondary education delivery was designed when the vast majority of students were recent high school graduates who attended school full-time and worked little if at all. Unfortunately, these traditional ways of delivering postsecondary education—such as courses offered during the day Monday through Friday, over a 16-week semester, and meeting two to three times per week for 1 to 1.5 hours—fail to meet the needs of most adult workers. Credential and degree programs based on these models take too long to complete for many adult workers, who must study part-time and fit their learning around work and family responsibilities.

The Commission on the Future of Higher Education noted this dilemma in its bold call for change in the way the nation educates postsecondary students. The Commission found that too many "colleges and universities have not embraced opportunities to be entrepreneurial, from testing new methods of teaching and content delivery to meeting the increased demand for lifelong learning . . . state and federal policymakers have also failed to make supporting innovation a priority" (U.S. Department of Education 2006). The Commission report continued, "Numerous barriers to investment in innovation risk hampering the ability of postsecondary institutions to address national workforce needs and compete in the global marketplace." The Commission concluded:

> *We recommend that America's colleges and universities embrace a culture of continuous innovation and quality improvement by developing new pedagogies, curricula and technologies to improve learning, particularly in the area of science and mathematical literacy.*

The conclusions of the *Adult Learners in Higher Education* report were consistent with those of the Commission. Section Two noted the following challenges for adult learners—and innovations that hold out promise to improve their success:

Adult learners have significantly different needs than traditional college students and face many challenges as they seek postsecondary credentials.

- Adult learners are more likely to work full time and have family responsibilities that compete for their time, energy, and financial resources.

- Adult learners want to minimize the amount of time they spend in class while maximizing the economic payoff of their effort.

The inability of the higher education system to meet these needs is a significant barrier to access and success for many adult learners.

- Traditional higher education institutions are organized in ways better suited to younger, traditional students who are more likely to attend full-time, work less, and have greater flexibility in terms of time and other commitments.

- As a result, adult learners have more trouble staying in college and earning credentials than do more traditional students.

Public and private institutions that target adult learners seeking postsecondary credentials emphasize alternatives to the inflexibilities built into traditional higher education institutions.

Flexible and accelerated program schedules and designs

- Postsecondary institutions are increasingly offering more flexible schedules, such as weekend-only classes, accelerated vacation programs, online instruction, and critical support services during nontraditional hours.

- Some institutions offer multiple entry, exit, and re-entry points, including more frequent start times throughout the year.

- An area with great promise is shortening and modularizing curricula and offering interim credentials linked to career advancement.

- Some community colleges are improving developmental education by offering basic-skills and English-language instruction in work-related contexts and occupational certificate programs.

"Adult-friendly" instructional methods

- For-profit institutions and many college occupational programs are emphasizing adult-focused teaching methods with applied learning models and "practical" curricula that tap into adult experiences in work and life.

- New partnerships with employers are helping to integrate job-related content and teach what students need to advance in their careers.

Easier transitions and transfer across institutions

- Many individual institutions are creating systems that make it easier to move between non-credit and credit courses and programs.

- Articulation agreements between institutions help students know in advance which courses will receive credit at their new school; statewide agreements can help smooth turf battles.

This paper focuses on the first of these innovative approaches: flexible and accelerated program schedules and designs because there is significant potential for redesigning education to be more accessible to adults, particularly working adults—and because of the body of emerging innovative efforts to do so across the country. Policymakers will

benefit from a better understanding of this trend and both its potential and its fragility as they develop strategies for improving student learning and outcomes in higher education, particularly for adult learners.

III. Alternative Approaches for Delivering Postsecondary Education to Meet the Needs of Adult Learners

Postsecondary education providers—two- and four-year colleges, for-profit and non-profit institutions alike—are responding to market signals and developing a range of methods for increasing adult access to courses and accelerating their time to degree. The least intensive approaches—those that require the least revamping of institutional practices and policies—involve scheduling classes at non-traditional times and in non-traditional locations, without altering the design of courses or programs.

The next level of ambition and complexity is represented by efforts to redesign individual courses, by adding on-line components or shortening their length to less than traditional semester units through modularization or acceleration. The most ambitious approach—and the one that holds perhaps the most promise for busy working adults—is restructuring the design and delivery of entire credential programs. Online delivery of entire programs is one way to do this, an approach championed by the for-profit sector in particular (Gallagher and Poroy 2005; Eduventures 2006; Jobs for the Future, Eduventures, and FutureWorks 2006).

The research exploration in this paper is limited to courses and programs that result in a postsecondary credential, since these have the greatest potential return for adult students and for society.[2]

This section presents and follows a framework that categorizes and organizes the most common types of program design innovations that are identified in the literature and recognizable in institutional innovation. This framework is only that: a way to distinguish among distinct types of delivery innovations. In “real life,” of course, these strategies are rarely implemented as separate and isolated approaches. Instead, institutions trying to address the adult learner market more effectively tend to use a combination of approaches that seek to optimize flexibility, access, and success for working adult students.

The remainder of this section defines each alternative approach featured in the framework and provides short, specific examples to illustrate the innovation. The following section provides five longer and more in-depth examples of innovative colleges and statewide initiatives that feature the combination of alternative delivery approaches to create effective, flexible postsecondary programs that can improve adult learner access, persistence, and degree completion.

Framework of Alternative Delivery Approaches in Postsecondary Education

Course Scheduling and Location

- Weekend colleges
- Evening courses
- Branch or satellite campuses
- On-site at workplace

Course Design

- Open entry-open exit courses
- Modularized courses

Program Design

- Modularized programs
- Accelerated programs
  - Developmental education-occupational credential
  - Degree programs
- Career pathway and "bridge" programs

Distance Learning

Course Scheduling and Location

The most common—and simplest—strategy to increase postsecondary program flexibility is to change the time and/or location of course offerings. This approach addresses one of the most significant barriers working adults face in trying to access and complete credentialed educational programs—their lack of time. "Adult friendly" colleges offer courses when and where they are most convenient to adult students. This includes scheduling classes on weekends and at night, when day-shift workers are available. It also involves offering classes at branch or satellite campuses that are closer than main campuses to where many adult students live or work. The most creative colleges offer classes at workplaces, as well.

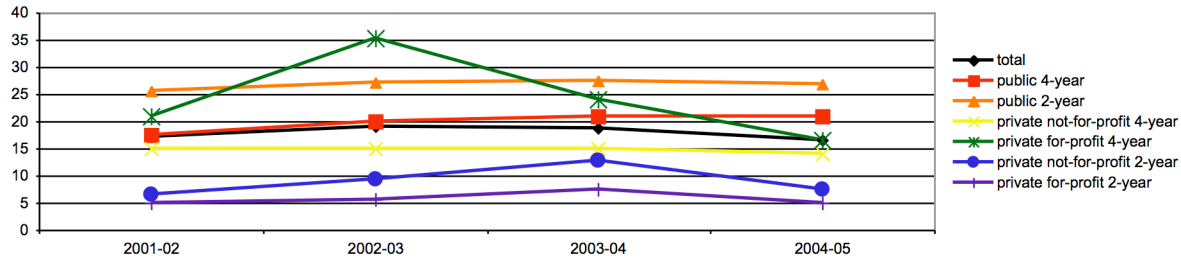
Weekend Colleges

Weekend colleges consist of courses offered only on Friday evenings, Saturdays, and/or Sundays, in which, ideally, students can earn most or all of a credential by attending class on weekends only. Generally, the courses are compressed to accommodate the shortened time frame. This approach is especially valuable for adults who work Monday through Friday and have family obligations during the week, but who have time for study on the weekends. It also is convenient for adults who travel extensively for work during the week. For example, at Harrisburg Area Community College in Pennsylvania, truck drivers found value in the weekend college because their work schedules precluded them from taking classes during the week, even at night. Weekend colleges also serve

as useful alternatives to distance education for students who need flexible scheduling but prefer in-person instruction and learn better in a classroom environment.

Weekend colleges have existed since the early 1970s (Mabry 1988). Today, just over 16 percent of all public and private postsecondary institutions (eligible for Title IV programs) offer weekend courses, according to the most recent data (2004-2005) from the U.S. Department of Education See Figure 1. Public 2-year institutions offer more weekend college options than other institutions, with public 4-year institutions a close second. Interviews with practitioners suggest that the recent growth in distance learning options may have suppressed the development of weekend colleges and the demand for them.[3]

Figure 1: Percentage of Postsecondary Education Institutions Offering Weekend College Programs



Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 2001, 2002, 2003, and 2004

One example of a significant weekend college is Madisonville Community College in western Kentucky. The school has created weekend accelerated Licensed Practical Nurse and Registered Nurse programs to meet the large and growing demand for nurses in that part of the state. See profile on page 26.

Evening Courses

One of the most obvious and easiest ways to increase working adults' access to postsecondary education is to offer courses at night when many have concluded their workday. Again, ideally, students can earn most or all of a credential by attending class only in the evening. Like weekend colleges, evening programming has existed for decades. The Department of Education does not collect data on the prevalence of evening programs, but one estimate indicates that nearly 70% of higher education institutions allow students to complete a degree by taking courses entirely at night or on the weekends (Jobs for the Future, Eduventures, and FutureWorks 2006). Interviews for this report confirm that many colleges and universities offer evening programs.

For some occupations, variable schedules demand that training and education opportunities be offered at different times in the day and week. Police, firefighters and other first responders are among the workers who need such flexibility. It is not uncommon for community colleges to offer the same, or similar, courses in both the day and evening, so that students may attend whichever class fits their schedule each week. Instructors in day and evening classes typically coordinate their curricula and use the same learning assessments.

Branch or Satellite Campuses

Branch or satellite campuses—an increasingly common, even ubiquitous response to students' need for greater ease of access and proximity to classes—are physical locations for college programming that are geographically separate from a college's main campus. Branch campuses are permanent entities that often have their own faculty, administration, and budget and hiring authority. Branch campuses offer entire degree programs, allowing students to complete degrees closer to home. Satellite campuses usually are smaller and set up to serve specific needs in an area (therefore, they can be temporary locations). Both branch and satellite campuses are located in neighborhoods or other places that are convenient to particular sub-groups of students, especially working adults. Both individual institutions and state systems can operate branch and satellite campuses. For example, Bunker Hill Community College in Boston has one branch and five satellites. The Georgia Technical College System has 32 branch campuses and several satellite campuses.

On-site at the Workplace

Some colleges are especially dedicated to serving working adults and set up classes at their place of employment. Non-credit, non-credentialed workforce education and training programs are frequently offered on site at the workplace. However, a growing number of colleges also are delivering credentialed postsecondary education programs there to meet increasing demand, though for-credit courses remain far less common.

Delivery models may include classroom learning with a group of workers, distance learning with individual students, or a combination of the two. Some programs build in student projects related to the workplace in order to provide "authentic assessments," focused on the practical application of learning in "real world" contexts.

One example can be found in northeast Chicago at Truman College, which has developed an employer-based, online hybrid nursing curriculum for University of Chicago Hospital employees. The schedule includes online instruction two days each week, plus classroom instruction and a lab on Fridays at the hospital. A community college partner, Harold Washington College, provides pre-requisite classes in math and English at the hospital for workers who need to brush up on these skills. Upon completion of the program, participants earn an Associate's Degree in Nursing (ADN).

Course Design

Often colleges need to do more to meet the needs of working adult students than offer courses at more convenient times and locations. The traditional 16-week semester can be a significant stumbling block for adults who cannot commit that much time to their education. FutureWorks research has found that working adults prefer fewer and more intensive classes (Bosworth and Choitz 2002). To address this need, colleges have experimented with courses that allow adults to progress at their own pace and to exit and re-enter the program as their schedule allows. Some have broken down traditional-length courses into smaller units that might be more manageable for students with limited time and energy.

Open-Entry/Open-Exit Courses

In open entry-open exit courses, students have maximum flexibility to enter, exit, and re-enter courses as their schedules and learning needs demand. This approach includes courses that are completely self-paced, in which students progress through the material as quickly or slowly as they like (usually requiring competency-based assessments since "seat time" rules are irrelevant in these courses). This flexibility can be valuable for students whose schedules are so limited that they can only gradually pick away at a course. The format appears to be most potentially useful for students who are re-entering college after a long lapse or are entering for the first time and could benefit from a more gradual start.

There is no national data on the extent of this delivery strategy, and interviews for this report suggest that it is not common. Although it allows tremendous flexibility for students, it is fair to say that it could be logistically difficult for providers.

An innovative example is an open-entry/open-exit, competency-based developmental education program under development at Housatonic Community College in Bridgeport, Connecticut. See profile in next section on page 29.

Modularized Courses

In modularization, traditional-length courses are subdivided into smaller increments, such as one 3-credit-hour course divided into three separate 1-credit-hour courses. This approach is designed for students who want shorter courses, but cannot enroll for an entire 16-week semester and cannot keep up in an accelerated course or do not have access to accelerated courses. Support for this approach is divided among researchers and practitioners. Some consider it a disservice to adult students because it can slow down their pace of attaining college credits. However, others see it as an effective way to provide academically at-risk adult students with manageable amounts of college work with maximum flexibility in scheduling.

As with many of these innovations, there is little or no national data on the prevalence of the practice. However, one example can be found at Jefferson Community and Technical College in Kentucky that offers a modularized Team Leadership Certificate (of 18 credit hours) in the Business Studies program. Each course is condensed to 0.6 credit hours and 9 contact hours (in contrast to the traditional 3-credit-hour course consisting of 48 contact hours). The core curriculum consists of 25 of the condensed courses, plus 3 credit hours the student chooses from 15 electives (each also 0.6 credit hours). The state review process has approved this program and any community or technical college in Kentucky may offer it.

Program Design

While it is useful to provide more flexible and convenient courses for working adult students, the crux of the nation's workforce challenge is to ensure that more adults earn postsecondary credentials. To this end, colleges and universities need to review and redesign entire programs of study to increase both working adults' access to postsecondary education as well as their completion of degrees. Creative approaches to

program redesign include modularized programs, accelerated programs, “bridge” programs, and career pathway programs.

Modularized Programs

In this approach, credential programs are subdivided into segments, and courses are combined in new ways to offer program "modules." The programs can be designed so students earn interim credentials after passing certain modules, such as an associate’s degree program divided into two complementary certificate programs. This approach is also referred to as “chunking” courses within a program.

Developing career pathways is a related approach, but with one significant difference. The scope of a modularized program is a single credentialed program, such as an associate's or bachelor's degree. The scope of a career pathway program usually involves a series of education and training opportunities that include but are not limited to credentialed postsecondary education. As the description below indicates, career pathway programs usually are quite elaborate and sophisticated.

An example of a modularized approach initiated a few years ago is Macomb Community College’s “3+1 Sequence.” In a partnership with Ferris State University, employees in TACOM, the US Army Tank-automotive and Armaments Command, a research and support organization for the U.S. Army, can move through a set of clearly-identified credit and skill “milestones” that are recognized through the award of appropriate interim credentials. The curriculum builds upon a basic foundation and adds breadth as well as depth as the student continues. The “chunked” curriculum is part of a larger career pathway that includes remedial coursework if necessary; academic, career, and financial advising; occupational and career roadmaps; and conveniently scheduled classes (Park 2004). The partners are trying to expand this effort by getting the authority from the state to grant an applied baccalaureate degree that rolls up from earned modular credentials.

Accelerated Programs

Accelerated programs allow students to take specially designed, compressed courses and earn a credential much more quickly than in a traditional program. For example, courses might last eight weeks instead of the traditional 16 weeks and require six class-hours per week instead of three. These programs can be designed for full- or part-time students. The research in this paper focused on accelerated programs that allow part-time students to complete credential programs more quickly than they would have in a traditional part-time program. Research for this report revealed two distinct types of accelerated postsecondary programs, accelerated developmental education-occupational credential programs and accelerated degree programs.

Accelerated Developmental-Occupational Programs

These programs target adult students who require at least some remedial education before entering a credential program. They merge developmental education into occupational or academic courses. Approximately 40 percent of all community college students are required to take at least one remedial education course, and this figure is even higher among working adult students with limited education and/or who have been out of school for a number of years (Kazis and Liebowitz 2003). A common problem with developmental courses is that they are prerequisites for college-level work, and students

often get bogged down in them, never making it to courses that count toward a credential.

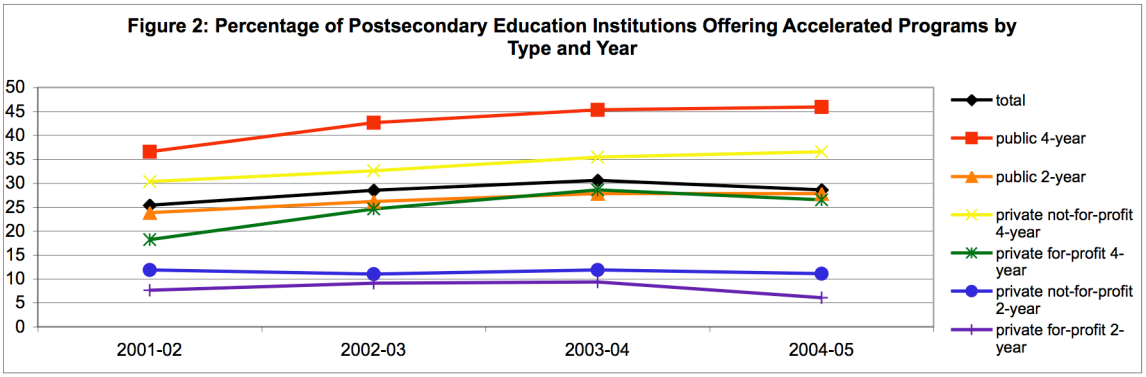
Merging developmental education with credentialed certificate programs is a relatively new practice; therefore there is little data on how widespread or effective it is. One example of the approach is the Integrated Basic Education and Skills Training (I-BEST) program in Washington State. I-BEST pairs adult basic education and/or English-as-a-Second Language instructors with professional-technical instructors in the classroom to help students work on both types of skills simultaneously. Courses are in programs that build toward degrees and/or certificates and prepare students for employment (Washington State Board for Community and Technical Colleges 2005). I-BEST began as a demonstration program in the spring of 2004 and is now fully integrated into the community and technical college system program offerings. See profile on page 35.

Accelerated Degree Programs

More common are accelerated programs designed for college-ready students seeking associate's or bachelor's degrees. The premise is to aid students in earning a degree faster than the traditional completion schedule. Program designs vary considerably, but the basic components include compressed courses that are shorter than the traditional 16-week semester with three hours of classroom contact per week (48 classroom hours total). For example, classes might meet for eight weeks, with one classroom session per week of four to six hours each. In accelerated degree programs, classroom hours do not have to add to 48.

Accelerated programs often integrate evening and/or weekend courses, as well as distance learning. The programs most responsive to working adult students offer courses on a rolling basis, cutting across the traditional fall, spring, and summer semester schedule. The most flexible allow students to drop out when they need to and re-enter as their schedule permits without losing credits already earned.

The percentage of institutions offering accelerated programs has grown over the last several years, with just over 28 percent of all institutions (1,347) offering this type of programming in 2004-2005. See Figure 2. However, public 4-year institutions offer this approach significantly more than other institutions. In 2004-2005, some 46 percent of public 4-year institutions (294) indicated that they offered accelerated programs. It is interesting to note that while public 2-year colleges frequently offer weekend colleges and distance programs, they fall below the average percentage of institutions offering accelerated learning. This is due to the fact that much of the accelerated programming has been in undergraduate and graduate business management programs, which is relatively simple to break down into standardized modules and for which there is a large adult student market (*Building Blocks for Building Skills* 2006).



Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 2001, 2002, 2003, and 2004

The NCES data in Figure 2 does not distinguish between accelerated programs for full-time traditional students and those for part-time adult students; therefore, it is impossible to know how many of these accelerated programs are designed for and available to working adults. A more realistic estimate of the number of accelerated programs for part-time working adult students may be found through the Commission for Accelerated Programs. CAP is a special interest group within the Council for Adult and Experiential Learning (CAEL) whose members focus on providing effective accelerated learning environments for nontraditional and adult students.[4]

CAP maintains a database of accelerated learning programs focused on nontraditional and adult students that meet three specific criteria: 1) program courses are credit-bearing; 2) they require 32 or fewer contact hours; and 3) they are 8 weeks or less in duration. CAP estimates that there are approximately 350 programs that meet these specific criteria, which is about one-quarter the number of institutions that self-report to the U.S. Department of Education that they offer accelerated programs (that do not meet any specific criteria). Many of these programs integrate additional alternative delivery approaches into their accelerated programs, including weekend and evening programming and distance learning. CAP also estimates that about 20 percent of all adult college students—1.5 million—are enrolled in accelerated programs.[5] Research by the Center for the Study of Accelerated Learning (CSAL) in the School of Professional Studies at Regis University suggests that accelerated courses are high quality and that adult students appreciate their efficiency and effectiveness (Wlodkowski, Gonzales, and Mauldin 2002).

Although little research has been conducted to date to measure the relative effectiveness of accelerated courses as compared to traditional courses (as measured in student learning, persistence, and completion), the CSAL has reported modest evidence that adult learners in accelerated programs "learn satisfactorily and in a manner that meets the challenges of college coursework" (Wlodkowski, Gonzales, and Mauldin 2002).

One sector in which accelerated programming has boomed is nursing. In an effort to meet the looming shortage of one million new and replacement registered nurses by 2012, nursing schools across the country have developed accelerated baccalaureate (Bachelor's of Science in Nursing (BSN) and master's (Master of Science in Nursing MSN)) programs. According to the American Association of Colleges of Nursing (AACN), there were just 31 accelerated BSN programs in 1990, but that figure grew to 90 by

2002, and 173 as of July 2006. Accelerated MSN programs have grown just as rapidly; there were 12 in 1990, 27 in 2002, and 46 as of July 2006. AACN projects that an additional 40 new accelerated BSN programs and 17 new MSN programs are under development. Today, accelerated nursing programs are available in 43 states plus the District of Columbia and Guam.[6] In addition, since 2006, there are 37 new accelerated BSN and 10 new accelerated MSN programs under development.[7] (See profile of Madisonville Community College in next section.)

Oklahoma has used the accelerated approach to design a program specifically to help many of the 69,000 adults in the state who started but never finished a college degree. Northeastern State University in Tahlequah, Oklahoma, has led a collaboration of 7 other regional state universities to develop an accelerated baccalaureate degree-completion program for adults who have earned at least 77 credit hours. The program is called ReachHigher: Oklahoma's Degree Completion Program. Students will earn a Bachelor of Science in Organizational Leadership degree after completing a core of ten courses, a set of courses developed by each of the regional universities in an area of focus specific to business needs in the local community, and a capstone course. The core consists of courses in the areas of organizational leadership, professional communications, data analysis, fiscal management, ethics, management, and marketing. All courses are eight weeks long and will be offered in both face-to-face and online formats. Additionally, most all admission, enrollment, and payment processes are available online. Tuition costs are comparable to other online courses at the state universities.

The program's success is measured along two data points: the number of inquiries and applications and program enrollment. Both have increased since the program's implementation in March 2007. The number of inquires grew from 176 in March 2007 to 952 one year later; the number of applications grew from 81 to 514 in the same period. The number of enrollments have grown from 36 in March 2007 to 185 one year later.

"Bridge" Programs

"Bridge" programs prepare adults who lack basic academic skills to enter postsecondary education and training and to access and advance in promising careers (Women Employed 2005). They serve as a bridge from reading and math skills below a ninth grade level to college-level learning. Although these programs prepare adults for entry into postsecondary credential programs, they do not by themselves result in a postsecondary credential. The challenge for these innovations is to make sure that students who start in the pre-collegiate program not only accelerate to college-readiness, but also make the transition into a college program that yields a credential. This is not easy and requires careful planning, intensive supports and advising; but without it, adult learners are likely to fall short of their goal.

Key features of "bridge" programs are listed below. They are relatively new and as such, there is little evaluation research on their effectiveness. However, there are many promising models that can serve as a foundation for future program development, i.e., connection to a credential or credential program, and research and evaluation efforts.

Key Features of Bridge Programs

- Curriculum is defined in terms of competencies
- Programs are focused on basic skills taught in the context of the workplace and the postsecondary classroom
- Instruction emphasizes "learning by doing"
- Programs focus on significant sectors in the local economy
- Programs are offered at convenient times and locations and use adult learning methodologies
- Programs are compressed
- Programs include support services and assistance and follow-up with job and college placement

From: *Bridges to Careers for Low-Skilled Adults: A Program Development Guide* by Women Employed, 2005.

One example is Instituto del Progreso Latino's Manufacturing Technology Bridge program. It is designed for Latinos in the Pilsen neighborhood of Chicago who have been laid off from low-skilled manufacturing jobs or are stuck in low-wage service jobs and want to advance into entry-level skilled manufacturing jobs and advanced manufacturing certificate programs at West Side Technical College. The curriculum includes technically-focused basic skills and occupational modules in applied mathematics, computer applications, workplace communication, blueprint reading, and machining. Participants receive training and support with job preparation and placement assistance. Graduates are strongly encouraged to continue their education in West Side Tech's advanced certificate programs in precision metalworking or industrial maintenance (Women Employed 2005).

One significant barrier to the development of bridge programs is the lack of funding to support their continuation and growth. These programs are more costly than traditional adult basic education and college developmental programs, as they are significantly more sophisticated in their design and implementation. Finding a funding stream to sustain these types of programs is a significant challenge (Kazis and Liebowitz 2003).

Career Pathway Programs

Career pathway programs offer a "series of connected education and training programs and support services that enable individuals to secure employment within a specific industry or occupational sector, and to advance over time to successively higher levels of education and employment in that sector" (Jenkins 2006). They provide "a long-term and focused combination of preparation, training, work experience and upgrade training that helps individuals enter and advance in the workplace" (Alssid, et al 2002). Ideally, they integrate three distinct levels of education -- basic skills training, entry-level training, and job upgrade training and education—and include extensive employment support services. Like bridge programs, career pathway programs target significant sectors in the local economy and are sophisticated and expensive. Also like bridge programs, they are fairly new approaches and are still under development. As such, they have not been rigorously evaluated for effectiveness.

Certain career pathways models do not really change the basic structure or format of postsecondary course or program delivery. A common pathways model focuses on making the steps along the way to an occupational credential more transparent and mapping a recommended sequence of courses or credentials. This is an important contribution, given the general lack of such ease of navigation. However, from the perspective of adults looking to speed up their time to credential, the most appealing career pathways programs are those that provide robust connections between the steps along the career pathways, transparent linkages, and interwoven support mechanisms. Even more appealing are well-integrated pathways that are designed to eliminate duplication and combine courses in ways that accelerate time to credential for adult students.

One example of a career pathway program for low-income adults with low-skills is the Job Ladder Partnership, a consortium of Shoreline Community College and five other Seattle-area community colleges. Participants begin with a short-term, pre-employment, developmental, or ESL basic skills program and advance to credentialed certificates and degrees. The program is designed to help students quickly acquire basic academic and workplace skills necessary for initial employment and enter pathways to advancement that combine work and learning. At every level, there is a clear link between education/training and career advancement.

The 12-week pre-employment program is designed to help students develop workplace and life skills at night or on weekends. Learning is focused around three high-demand career pathways—manufacturing assembly, office occupations (information technology), and health services—that offer relatively high entry-level wages and opportunities for career advancement.

The competency-based curriculum is designed to meet skill requirements identified by employer partners. Students who demonstrate 70 percent proficiency in all classes receive a certificate. They also are placed in jobs based on their performance and receive retention services and career counseling to help them chart a course to career advancement through credentialed education and training. The program provides an entry point to credentialed modular pathways to advancement.

The Job Ladder Partnership provides modular pathways to advancement that combine work and learning in manufacturing, customer relations, health services, and information technology. Advancement reflects skills acquired in the workplace as well as the classroom. There are multiple points of entry, beginning with students who lack the basic skills necessary for credit-level programs and have little or no employment history. Strong partnerships with employers identify skills and education or training necessary for career advancement at a broad range of levels. Students can take courses, which build on their own particular partnerships with employers, at any of six community colleges. Each college provides staffing to build and maintain partnerships and provide ongoing career counseling, job placement, and retention services. Career Pathway Passports, which are computerized career planning tools, help students develop career advancement goals and navigate work and learning to progress toward their goals. Each passport lists career opportunities and training programs in each of the pathways so students can see how far they have come toward their goals and chart next steps.[8]

A handful of states including Kentucky, Oregon, and Washington, have created statewide career pathway initiatives, spurred by foundation investments and creative

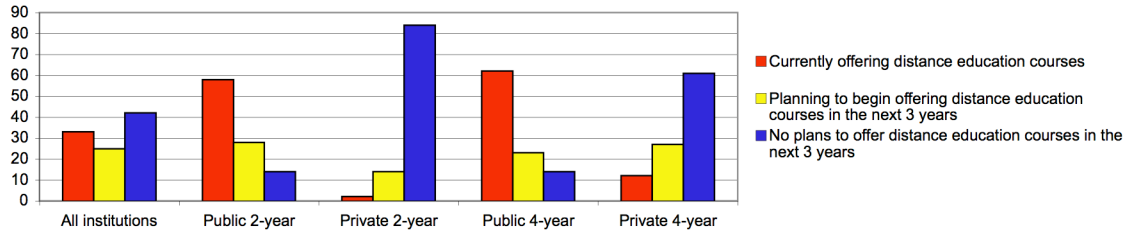
combinations of private and public resources. Examples of programs in these states are profiled or noted throughout this report.

Distance Learning

Distance learning can be used in all three types of flexible delivery approaches described in the framework above. It offers opportunities for nontraditional course times and locations, as well as changing the design of single courses or entire programs. The range of distance learning methods includes "old fashioned" distance learning such as correspondence, broadcast television, and videotaped courses, as well as newer approaches that use two-way interactive video and computer-mediated and internet-based approaches (e.g., synchronous and asynchronous computer courses and hybrid models that combine distance learning and classroom instruction). It also includes hybrid courses that blend classroom and distance learning. One can imagine a spectrum of possibilities: on the left are courses that are almost 100 percent classroom-based learning with some distance learning opportunities built in, e.g. a classroom-based course in which students must post on a online bulletin board reactions to assigned readings prior to class meetings. At the right end of this spectrum are 100 percent distance learning courses with no classroom component. Many colleges are most interested in developing courses that fall between the two ends and that combine some classroom learning with some distance learning.

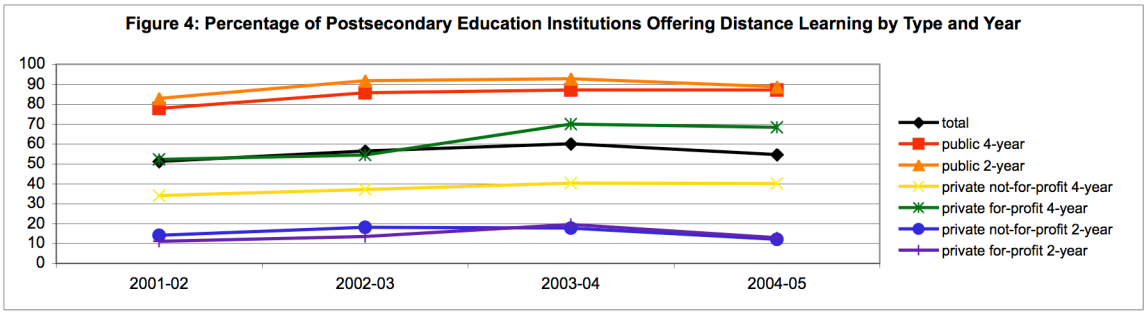
Distance learning has grown tremendously over the past decade. One of the first national surveys of postsecondary education institutions on distance learning was conducted in 1995 by the Department of Education's National Center for Education Statistics (under the Postsecondary Education Quick Information System or PEQIS). It found that 33 percent of all institutions were offering distance education, and 25 percent were planning to do so in the next three years. (See Figure 3.) Remarkably, 42 percent of all institutions had no plans to offer distance education in the next three years. Then, as now, 2- and 4-year public institutions were in the lead.

Figure 3: Percentage of Postsecondary Education Institutions Offering or Planning to Offer Distance Education: 1995



Source: U.S. Department of Education. National Center for Education Statistics. Postsecondary Education Quick Information System. Survey on Distance Education Courses Offered by Higher Education Institutions. 1995.

In more recent years, the Department of Education has included questions on distance education in annual surveys of postsecondary education institutions. (Today the system is called the Integrated Postsecondary Education Data System, or IPEDS). Significantly more institutions now offer distance learning opportunities—just over 54 percent, or 2,573 institutions, in 2004-2005—and public institutions continue to dominate. (See Figure 4.)



Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 2001, 2002, 2003, and 2004.

According to research by Eduventures (2006), in 2004, more than 2.35 million students —almost 14 percent of all higher education students—were enrolled in an online course. In 2005, 1.2 million higher education students—7 percent of all higher education students—were enrolled in fully-online certificate or degree programs (not simply courses). While fewer than 4 percent of prospective adult students have enrolled in a fully online program, more than 77 percent report that they would consider enrolling in such a program.

The pervasiveness of distance learning has spurred numerous studies; however, there is no conclusive evidence that distance education works any better or any worse than the traditional classroom approach.[9] Many studies point to student success in distance education, including good program completion rates, acceptable course grades and test scores, and high student satisfaction. However, research to date has left unanswered the question, “Is distance education more effective than traditional classroom teaching?” Two significant challenges with the research are the vast and varying methods of distance learning as described above and the limitations of the research designs. Research and evaluation efforts in the future should be carefully designed to distinguish between specific types of distance learning. They also should pay attention to which distance learning approaches work best for which students, i.e., part-time versus full-time, traditional versus nontraditional, by age, by gender, by employment status, etc.

In addition to individual colleges offering distance learning courses and programs, there are models of distance learning-only colleges and “virtual colleges.” Colleges that only offer distance-learning programs include the private, for-profit University of Phoenix, the non-profit Western Governors University, and Rio Salada College, a public, two-year college within Arizona’s Maricopa Community College System. Rio Salada offers an impressive 220 courses via the Internet, leading to 12 Associate's degrees, 21 certificate programs, and two post-baccalaureate pathways. The college gives students the choice of frequent starting dates to meet needs more quickly (Gatta 2006).

The University of Phoenix was developed as a for-profit institution “to foster a spirit of innovation that focuses on providing academic quality, service, excellence, and convenience to the working adult.” The Western Governors University is a non-profit university founded and supported by 19 state governors (and supported by major national corporations and foundations) to provide access to education to rural populations. Some states also have created “virtual colleges,” which are collections of distance learning offerings across a variety of public institutions in the state. Models vary considerably, but include Nebraska, Texas, Georgia, and Oklahoma.

IV. Profiles of Innovative Alternative Delivery Designs

The previous section presented a conceptual framework for thinking about course and program redesign options that can increase flexibility and accelerate student progress. But in the real world of institutions and programs of study, these discrete approaches are combined in a myriad of creative ways to meet student needs.

The following profiles of innovation highlight some very exciting examples of flexible and accelerated program designs. The profiles describe the program of study and provide information on outcomes, financing (where available), and lessons for policy and practice that derive from implementation challenges and successes.

The five profiles fall into two distinct groups. The first, focused on institutional practice in three different community colleges—the Community College of Denver, Madisonville Community College in Kentucky, and Housatonic Community College in Connecticut—describe how individual colleges organize to meet adult learner needs, in health occupational programs and, in the case of Housatonic, in the delivery of developmental education that less academically prepared students need if they are to succeed in a college degree program. Madisonville stands out in this group as an example of how a state-funded training initiative was put to good use in service of adult learner demand for easier access to postsecondary education and credential programs. It is also an example of how blending state and federal funds creatively can dramatically accelerate advancement along education and career pathways for adult learners.

The second set of profiles highlight statewide initiatives that built upon local innovation and success to move flexible design delivery strategies to a significant scale. Both the Oregon modular delivery effort and the Washington State I-BEST program emphasize acceleration of progress to interim credentials and creative approaches to financing and delivery. Each began with pilot programs and has been expanded based on the interest and outcomes that those pilots demonstrated.

Community College of Denver CNA to LPN Program

Flexible Delivery Approaches:

- *Weekend and evening courses*
- *On-site at workplace*
- *Accelerated learning*
- *Modular program*
- *Career pathways*

Overview[10]

In 2004, the Community College of Denver (CCD), in partnership with the City of Denver's Division of Workforce Development, The Colorado Trust, and local health care employers, developed a par[11]t-time, evening and weekend worksite program to prepare Certified Nursing Assistants and other entry-level workers to become Licensed Practical Nurses (LPN). This program will end in May 2008, when the last cohort graduates. The primary reason is a lack of clinical placements for students. The competition for clinical

placement sites and clinical nursing faculty members continues to be a challenge for the program.

The program begins with a nine-hour Nursing Success Course in which students receive counseling on life skills, time management, and study skills. The first main phase of the program is skills remediation. Customized to meet the needs of each student, this phase was originally offered in a self-paced learning lab format using Plato computer software to help students upgrade their math, reading, and writing skills to prepare them for college-level course work. However, when it became clear that the self-paced lab was not adequately preparing all students for the rigor of the nursing prerequisite courses, program administrators added a more structured approach. Starting in Spring 2007, the remedial coursework was delivered in two formats: (1) in self-paced learning labs and (2) in accelerated remediation classrooms.

The accelerated remedial instruction in the Learning Lab was delivered in three ten-week modules and was designed to take students with as low as a third- to fifth-grade math and seventh-grade English or reading level up to the eleventh/twelfth grade level required for entry into the LPN program. Tutoring also was provided. Once students completed the remediation phase, they took all prerequisite courses required for entry into the LPN program, including nutrition, medical terminology, English composition, and anatomy and physiology.

After completing the prerequisite courses, students move into the nursing classes required for licensure. Most of the courses have been delivered at the worksites of participating employers, who provide classroom space and coordinate work schedules for employees. Courses meet two evenings per week and have been offered consecutively, so students are only enrolled in one class at a time. In addition, students complete five clinical rotations over fifty-five weeks, with rotations taking place one to two days a week, depending on the specialty. To the extent possible, clinical rotations are scheduled for the weekends, and the first rotation is done at the employee's worksite. The entire program takes about two and a half years to complete:

Learning Lab/remediation course	30 Weeks
Prerequisite Courses	23 Weeks
Nursing Courses	74 Weeks
	127 Weeks

This worksite LPN training program is designed to meet employer needs for skilled nurses while providing a career advancement ladder for dedicated, frontline caregivers. As such, it relies upon employer support for its success. Employers adjust work schedules of participating employees to accommodate program demands. In addition, most employers provide funding to help pay for tuition and fees; some provide paid release time.

Program Design

Accelerated and Modular Remediation Program

The original Learning Lab model was designed as a modular remediation program that would accelerate basic skill acquisition. As described above, the program model was changed in Spring 2007 to a classroom approach because students needed more

intensive remediation instruction in order to meet the skill levels necessary for enrollment in the nursing program.

Support Services

In addition to offering classes at the worksite, the program provides several layers of support to adult students. Mentorship and case-management support, provided by employers and the Community College of Denver respectively, help students balance work and family with the requirements of intensive training. CNA and LPN students receive support throughout the program from a college case manager assigned to assist with any barriers the students may encounter. Depending on each person's needs, the case managers may coordinate on-site tutoring services throughout the program, assist in accessing the college's financial aid services, and help complete all of the necessary paperwork.

Participating employers pair student CNAs with peer mentors who encourage them and address cultural and language issues. CNA mentors receive bonus pay when their students pass the state skills test, another bonus if the student stays on the job for six months, and then a third if the student stays for one year. Students also have access to all Community College of Denver support services.

Career Pathways: Entry into LPN Program

Employees who complete the remediation phase of the program move on to take four college courses required for entry into the LPN nursing courses. These prerequisites include medical terminology (1 credit), nutrition (1 credit), English composition (3 credits), and anatomy and physiology (4 credits). Once employees pass these courses, they can enroll in the nursing courses. Participants can bypass the general waiting list for entry into the college's LPN program because this part-time, employer-supported program is specially designed and funded to serve employees of participating facilities.

Description of Participating Students and Employers

Since 2002, when the city's Division of Workforce Development asked the Community College of Denver to develop a nursing career ladder program for entry-level health care workers, the program has partnered with 10 health care organizations, most with multiple facilities, to serve 230 workers at 26 nursing homes, hospitals, and outpatient facilities. Most employers support the financing of the program several ways, including providing classroom space, computers, release time for classes, and tuition reimbursement. Participants are low-income employees working as Certified Nursing Assistants and clerical, dietary, laundry, and housekeeping staff.

The program provides tangible benefits to employers. In addition to helping to fill critical nursing positions with staff who understand the culture of the institution and have previously demonstrated their abilities as caregivers, the program also helps employers to retain these proven employees. Employers are virtually guaranteed that program participants will stay in their employment for the duration of the program. Also, participants are typically high-caliber employees who are happy with their jobs and see the program as a job-related benefit.

From the student's point of view, the "cohort" model, in which employees from the same facility are grouped together for classes, provides important peer support. Additionally, they appreciate their employer's tangible support and encouragement. Both sides wish to see the students continue in their employment as LPNs after they complete the program and pass the licensure exam. However, it is also acknowledged that employers may not be able to absorb all LPNs at one time.

Outcomes

Since its inception, this program has served 13 cohorts of students. Seven of these cohorts started in the developmental education phase (either a Learning Lab or Developmental Education coursework), and five started immediately in the prerequisite course phase. Of the 177 students who started the LPN program, 151 have completed, for an 85 percent completion rate.[12] Average grade point averages of the cohorts ranged from 2.99 to 3.45 (on a 4.0 scale). The 14th and final cohort will graduate in May 2008.

Funding

The cost of the preparatory or Learning Lab portion of the program varied by the number of modules that a student was required to take based on his or her entering assessment scores in ACCUPLACER[13] math, reading, and writing. The cost for a student who places at the lowest level on the test, and therefore requires the full 30 weeks of preparatory coursework, was $3,044. Students who place at the highest level (ninth and tenth grade) only need to take the final 10-week module; the cost for them was $1,500 each. The cost for students who require 20 weeks of instruction was $2,226. These cost figures all include tuition, fees, supplemental instruction (tutors), and textbooks.

The total cost of the LPN program for a student requiring the full 30-week of Learning Lab courses was $8,252. This included the costs of Learning Lab, prerequisite, and nursing courses and all other costs, except for required immunizations and background checks.

U.S. Department of Labor grant funds secured by the Denver Division of Workforce Development (DWD), along with general city funds and Workforce Investment Act (WIA) funds, helped finance the program during its first two years. Typically, DWD grants covered half of the costs of delivering the worksite LPN program, with employers providing the other half in cash and in-kind contributions. Employees using DWD or WIA funds had no obligation to continue working for the employer after completion of the program. However, the employer did have the right to terminate funding contributions should the employee leave the facility during the course of the program. If a student qualified for a Pell Grant, then the student was expected to use that as a "first source" of payment, with DWD/WIA paying the remainder. Typically only a small portion (15 to 20 percent) of students qualified for Pell Grants as most were gainfully employed within the facility.

Challenges/Lessons Learned

Adjustments to Model Needed to Reduce Early Attrition

Over the course of the program, administrators realized that students needed intense remediation. The very first Learning Lab design was twenty-four weeks or three eight-week modules. This proved to be too fast-paced for students who entered with serious

academic deficiencies. As a result, the program extended the modules to ten weeks each, or thirty weeks total. By Spring 2007, the model evolved into a regular classroom approach to delivery.

Additional Resources Required for Model Expansion

The Community College of Denver has expanded its personnel to accommodate the site-based LPN programs. Several full-time employees have been involved in the program. A full-time program manager, the nursing program director, and a part-time case manager were assigned to the project. Funding for the program positions has been provided by the college's general budget; it is not included in the tuition costs charged to employers and employees. Program faculty has included both full-time and part-time faculty members who were added as needed. However, diminishing resources has been a significant challenge for this program and is the primary reason it will be terminated after the May 2008 graduating cohort.

Student Financial Aid a Challenge, But Can be Secured for Most

With the end of the federal grant in 2004, the tuition burden shifted to the students and their employers. Arrangements vary with these newer cohorts. In some cases, employers are providing tuition reimbursement; in other cases, it is the employee's responsibility. A small portion of employees can secure Pell Grants to finance their education; those who are not eligible for Pell Grants are often eligible for low-interest student loans and other forms of financial assistance from the Community College of Denver.

Madisonville Community College Accelerated Weekend Nurse Programs

Flexible Delivery Approaches:

- *Weekend and evening courses*
- *Accelerated courses and programs*
- *Career pathway*
- *Distance learning*

Overview[14]

In response to the significant and growing demand for nurses in Western Kentucky, Madisonville Community College's (MCC) Nursing Department began offering a weekend Registered Nurse program in fall 2001. Since then, the program has expanded to include a full career pathway from Certified Nurse Aid to Registered Nurse with all courses offered at night, on the weekend, and/or online. MCC enrolls almost 50 students in these programs in addition to the more than 250 students in the daytime nursing programs.

Program Design

Certified Nurse Aid Evening Program

MCC's Certified Nurse Aid program is offered every semester. Students take classes Monday, Tuesday, and Thursday evenings from 4:00-9:00 P.M. for eight weeks. The Nursing Department recruits low-income individuals in the general population into the program as well as current CNAs at long-term care facilities and hospitals into the accelerated weekend Licensed Practical Nurse program.

Accelerated Weekend LPN Program

The accelerated weekend LPN program was first offered in January 2004 and is geared toward CNAs seeking career mobility. The traditional daytime LPN program takes 3 semesters to complete or about 1.5 years (fall—spring—fall semesters) and includes 9 to 10 hours of lecture and 18 clinical hours each week. Conversely, the accelerated weekend program takes just over one calendar year to complete (January to the next February) because it is delivered year-round and the courses are compressed. All courses are on Friday evenings and all-day Saturday. Each course lasts for 8 - 10 weeks, and students are in six to seven lecture hours and 12 clinical hours each week.

Students go through the program in cohorts; however, the college recognizes that some students might find that they have to "stop out" at some point due to work or family constraints (students who "stop out" return a few semesters later, versus "drop outs" who never return or return to school significantly later). When these students are ready to return to the program, they can join the daytime program or the next cohort of weekend students without losing any credits they have earned.

Accelerated Weekend RN Program

MCC also offers an accelerated weekend and online Associate Degree Registered Nurse (ADN) program for students who have earned the Practical Nurse (PN) degree. Students who are applying for the Weekend RN program who are graduates of the PN program are accepted conditionally with the understanding that they must pass the National Council Licensure Examination for Practical Nurses (NCLEX-PN) before finishing the Bridge course. This allows the graduate of the PN program to begin coursework in the RN weekend program and complete the requirements for licensure established by the Kentucky Board of Nursing.

Students must take a 5-credit hour pre-requisite "bridge" course to review information taught in the PN program and the first two semesters of the RN program. This course lasts 6 to 8 weeks (depending on the semester, i.e., if there is a school vacation week to work around) and includes 45 clinical hours. Delivery methods include online and face-to-face, and all face-to-face meetings on held are Friday nights and Saturdays. Students who pass this course earn advanced standing in the RN program.

Students then move into course work that is typical in the third semester of the nursing program. These courses are 15 weeks long and taught online and on the weekends. The same is true for the fourth semester. In total, the program takes no more than 45 weeks, and the school markets it as a program that goes from May of one year to May of the next. With the weekend online lecture format the student can complete the 120-hour post-graduate requirement during the week and be part of the weekend format.

Academic Supports and Student Financial Aid

MCC provides academic support and tutoring to students in all three programs through a "facilitator tutor." This person is a nurse who works full-time providing one-on-one and small group tutoring and is a "critical piece" of the program. The Trover Foundation/Regional Medical Center offers weekend and evening tutoring space in its library. The LPN and RN programs are eligible for federal student financial aid, and MCC earns the regular full time equivalency reimbursement from the state of Kentucky for students enrolled in these courses. The college also leverages financial assistance from the West Kentucky Workforce Investment Board for students in the CNA program

Outcomes

MCC is careful to track participant outcomes. It enrolls 24 students per cohort in the LPN program and runs one cohort at a time. The first cohort had a graduation rate of 65 percent, and the second 55 percent. The second group of students included more who were working full-time and who had slightly lower academic skills. A full 96 percent of graduates from both cohorts are working as LPNs, and 21 percent have enrolled in the RN program.

As with the LPN program, a maximum of 24 students are enrolled per cohort in the RN program. There have been just two dropouts out of six cohorts since 2001 (144 students). While an average of 15 to 18 students graduate from their own cohort (a rate of 63-75 percent), the others tend to join another cohort or enter the daytime program after they have stopped out.

Funding

MCC has creatively combined several sources of funding to support development and implementation of these programs. Curriculum development and a full-time coordinator for the accelerated weekend LPN program was funded by a $500,000 Health Resources and Services Association (HRSA) grant through the U.S. Department of Health and Human Services. This grant also supported the development of the Nurse Mobility Program. A $250,000 grant from the Kentucky Community and Technical College System under its Career Pathways Initiative supported curriculum development and funds the full-time "facilitator-tutor" position. In order to encourage full-time working students to reduce their work load and concentrate on their studies, the college has leveraged a grant from the U.S. Department of Labor to fund scholarships for students who agree to reduce their work load from 40 hours per week to 30. So far, six students have received $1,500 each.

Challenges and Lessons Learned

Program Development Requires Additional Funding (Either External or Internal)

The accelerated weekend LPN program took nearly a year to develop. Faculty in the Department of Nursing were agreeable to the program; however, it still required a full-time coordinator (funded by the HRSA grant) to work with faculty to develop it, to shepherd it through the program approval processes, and to prioritize it. On the other hand, the accelerated weekend RN program was funded using a small amount of internal college funds, and a small group of faculty developed the program. Since it drew

heavily on the daytime program, it took just 3 months to develop and considerably fewer resources.

Program Development Requires Both Creativity and Familiarity with the Content

By definition, nontraditional program delivery approaches such as compressed weekend and evening courses and distance learning are outside the scope of most faculty members' program development experience. Most are never explicitly taught how to design traditional courses and programs, much less nontraditional ones. Therefore the process of developing alternatively delivered programs requires much creativity and willingness to experiment, all the while staying true to the content. It is quite a balancing act that faculty members across Kentucky and the country are trying to figure out.

Programs Are Never Stagnant

Course scheduling is flexible to meet the needs of both students and faculty. For example, when faculty grew tired of teaching every Friday night in the RN program, they decided to transition that part of the program to online. This has worked well for students who are inclined to enroll in the weekend program; however, any daytime students taking the online course are not as happy with online learning.

Also faculty and staff have taken a closer look at the programs as a whole and determined that it is redundant to have both an LPN program and an RN program—after all, according to the Program Advisor for the RN program, "they both enroll *nursing* students." By fall 2010, MCC hopes to roll out a new, integrated accelerated weekend nursing program. It is still early in the development; however, given their experience with developing similar programs, it is likely a "go."

Housatonic Community College
Open-Entry/Open-Exit Remedial Math Courses

Flexible Delivery Approaches:

- *Open-entry/open-exit*
- *Accelerated courses*
- *Distance learning*

Overview[15]

In an average year, 80 percent of new students test into one of two levels of remedial math at Housatonic Community College in Bridgeport, Connecticut. From this starting point, students—and in particular the adult students who make up over 70 percent of Housatonic's student population—have had a difficult time moving into mainstream academic courses and on to achieving credentials or degrees. This has long concerned administrators and instructors at the college, but recent declines in the success rates for those students—from 50 percent to 39 percent in recent years—has led to the development of an innovative, open-entry/open-exit program for remedial math students. Depending on a student's demonstration of competency, the primary two remedial math courses, which should take a year to complete but often take much longer, can be completed in a single, five-week semester. The program was launched in the Spring

2007 semester with an initial cohort of 44 students. In Fall 2007, 111 students were enrolled. Thus far in Spring 2008, 160 students are enrolled.

Program Design

Persistently low and continuously decreasing percentages of students at Housatonic Community College have passed their first year math courses. School administrators and instructors found that the low passing rates in the gatekeeper math courses suggested that successful completion of remedial math courses does not necessarily provide sufficient knowledge and skill to succeed in higher level math courses. Annual student surveys found that students who placed directly into first year math courses had between a 22 percent and 29 percent higher success rate than those students who had first completed a remedial math course.

The same data survey found that most students in the lowest level developmental courses did not register the next semester to retake the course if they did not pass it, and those students who elected to repeat the course used up much of their financial aid, dramatically limiting their ability to pursue degrees or credentials.

Open-entry/Competency-based Exit

Housatonic's open-entry/competency-based exit remedial math program was created specifically to address both the low success rate and the high drop-out rate of remedial math students. Administrators and instructors at Housatonic found that their students too often view math as a series of unrelated rules and formulas. However, success in math depends upon students progressively building math knowledge and skill. The rate at which this learning occurs is very individualized, tending to make the regimented presentation of math concepts to whole classes cause quick learners to lose interest, and slower learners to become frustrated. The open-entry/open-exit format is addressing this dilemma by permitting individualized, self-paced instruction so that students may progress at their own rate as math concepts are mastered. Students can register for open-entry/open-exit courses anytime during the semester if seats are available. Students in the initial cohort self-selected into the course, but administrators anticipate recommending students for later cohorts, once instructors get a better sense of the type of student who will benefit most from this format.

Computer-based Instruction

The computer-based program was first introduced in Housatonic's two remedial math sections, MAT*075 (Pre-algebra) and MAT*095 (Elementary Algebra Foundations). With an instructor and tutor present at all times, students progress through the computerized PLATO software, an instructional software designed to remediate secondary and post-secondary students on basic math skills. This allows students to complete the course at their own pace, with some students finishing in less than one semester, and others taking longer. Students who do not finish within the semester pick up where they left off in the program the next semester. They are required to sign a contract indicating that they will re-enroll in and complete the course and are allowed a total of three semesters to do so. Classes are offered two days per week and one evening per week to accommodate working adults' schedules.

Accelerated Progress to College Readiness

Since course completion is determined by competency instead of "seat time," students can complete both sections of remedial math, typically offered over two semesters, in as few as five weeks. However, students are limited to three attempts to pass each of the two sections of the course.

Outcome Measurement

Housatonic is developing several measures for assessing the outcomes of its open-entry/open-exit remedial math courses. Among them are:

- Increasing the percentage of students who successfully complete MAT*075 with a grade of "C" or higher by 15 percent by the end of the fourth year of implementation;

- Increasing the percentage of students who successfully complete MAT*095 with a grade of "C" or higher by 10 percent by the fourth year of implementation; and

- By the end of the fourth year, increasing the percentage of students by 20 percent who have completed MAT*095 and then have gone on to successfully complete the first year math gatekeeper course with a grade of "C" or higher.

In Fall 2007, students in the open-entry/open-exit MAT*075 course outperformed students in the traditional developmental math course, with higher percentages earning A's and B+'s. Also, a student survey revealed satisfaction with the open-entry/open-exit design. More data on grades, retention, and student satisfaction will be collected as the program continues.

Funding

Housatonic's open-entry/open-exit remedial math course is funded primarily through a grant from the Lumina Foundation, as part of its Achieving the Dream initiative (see www.achievingthedream.org). The Connecticut Community College System's participation in this five-year long program will permit Housatonic to implement and expand this approach, as well as eventually institutionalize it within the college.

Challenges/Lessons Learned

Resources Needed for Program Research and Development

Challenges for Houstonic to this point have been largely logistical. Researching the types of software that would be best suited to Housatonic's adult learner population, creating and finding space for the math labs, and providing release time for faculty to design the open-entry/open-exit courses were some of the initial challenges. Designing and scheduling the courses, lining up faculty and hiring tutors, and training instructors in the use of the PLATO software have taken a significant amount of faculty and staff time in recent months. However, the response from the mathematics faculty at Housatonic has been decidedly positive.

Program Design Must Be Worked Out with Faculty, Administrators

Other challenges have been more programmatic in nature. Administrators and instructors have had to address a number of questions that relate to course design. For example, will counseling be provided to students in the course, and how much flexibility will there be in moving students from traditional math courses into the open-entry, open-exit remedial course?

Financial Aid Deadlines Can Clash with Open- Entry Delivery

The biggest challenge to date has been aligning financial aid application deadlines with the open-entry model, since students who enroll later in the semester run the risk of missing financial aid application deadlines. Full-time students can add an open-entry/open-exit course to their course load, and it will be covered by the student aid package. However, part-time students' aid packages do not automatically add additional funds for the additional course(s). Administrators are exploring with the college Foundation the possibility of special scholarships for students in the open-entry/open-exit courses.

Oregon's Pathways to Advancement Initiative Portland and Mt. Hood Community Colleges

Flexible Delivery Approaches:

- *Weekend and evening courses*
- *Modular program*
- *Accelerated program*
- *Career pathways*

Overview[16]

Oregon's Pathways to Advancement Initiative is one of two statewide efforts profiled here (the other being Washington state's I-BEST program profiled on pages 35-39. These statewide initiatives are significant for the potential they have to reduce developmental costs through coordination and economies of scale—and to promote expansion, diffusion, and scale that is so difficult for individual institutions to accomplish.

Oregon's seventeen community colleges have implemented the state-supported Pathways to Advancement Initiative, designed to accelerate the rate of certificate and degree attainment for adult learners by establishing an innovative program approval system. Twenty-nine different professional technical career pathways have been restructured in Oregon's community college system to provide occupational training that prepares low-literacy adults for jobs or entry into mainstream postsecondary education.

Community colleges can package and align credit-bearing, academic and career college courses into smaller modules and credentials as part of their degree programs. This permits the adult learner the flexibility to earn credits toward degrees or credentials, and to exit and re-enter the programs without jeopardizing credits already earned. Two colleges that have led the way are Portland (PCC) and Mt. Hood Community Colleges, (MHCC) from which many of the challenges and lessons highlighted here are drawn.

Program Design

Modular Career Pathways Programming

The Pathways initiative integrates a broad range of programs and funding streams to create modularized career pathways that help accelerate students' advancement from adult education and workforce development programs through credit-level occupational/technical degree programs. Modularized career pathways break degree programs into manageable "chunks" of courses that are driven by employer skill needs. These pathways meet the needs of working adult students who may only be able to attend for short periods of time and often have to "stop out" for work or family-related reasons. They provide multiple entry, exit, and reentry points into and through a broad range of programs that are directly linked to jobs and specific employment outcomes. By focusing programs on discrete, occupation-specific courses, Oregon's Pathways programs are designed to accelerate the pace at which students achieve skill proficiency in a given occupation

Students proceed through a series of 1-2.5 credit hour courses that can be taken in one to two academic terms, preparing students for discrete jobs linked to career and education goals. The majority of the Pathways programs offer courses on the weekends and in the evenings to accommodate the work schedules of the adult learner. Credentials (including degrees, interim certificates, and industry certifications) are awarded upon completion of the appropriate sequence of courses. These credentials not only count as credits toward a degree, but also signal to employers that students have achieved a certain level of occupational skill proficiency.

The development of career pathways in Oregon has been built upon strong relationships with employers and recognition that higher education is typically a start-and-stop affair for working adults with little time and many responsibilities. The modular structure has advantages in terms of incremental progress tied to valued credentials. However, this structure runs the risk of losing many students who achieve certificates that better their job situation and then decide not to return to continue toward a degree. To maximize the re-engagement of students who complete initial modules, institutions like PCC and MHCC are developing an internet-based system of access to the college through which students will be able to post their personal academic plans and goals, see their progress, and decide on next steps. The colleges plan to use the system to stay more connected to students who have stopped out and to send customized emails to targeted groups of students, such as developmental students who completed a course successfully, but then chose not to continue their studies.

The Pathway program recruits students from One-Stop Career Centers, Temporary Assistance for Needy Families (TANF) programs, General Educational Development (GED) classes, and English for Speakers of Other Languages (ESOL) classes. This multiple pipeline design is supported by Oregon's governance structure, which houses workforce development, adult basic skills (ABE/GED/ESOL), and community colleges in one state agency. Cohorts of participants enter through a one-term or two-term career pathways training, with internships provided for most trainings. Staffing and infrastructure are funded through WIA by the local Workforce Investment Board.

Support Services

Pathways training teams in each college serve as brokers with academic departments and coordinators to the training cohorts. They also work with other departments to develop new trainings, and to provide career planning, curriculum, internship coordination, and job development and placement services. In addition, students receive mentoring, coaching, tutoring and assistance with accessing childcare and transportation.

Outcomes

Participating community colleges have identified several transition points across the education continuum in which to implement Pathways, including secondary to postsecondary transitions and adult basic education to postsecondary transitions, but with particular attention given to providing postsecondary education and skill development to adult learners.

Since its adoption and implementation in 2003, the Pathways project statewide has accomplished a great deal, including the development, in conjunction with employer advisory committees, of 29 career pathway "roadmaps" offered in the seventeen participating community colleges. The more well-developed initiative at PCC and MHCC offer all 29 career pathways trainings to 225 to 250 people annually, and approximately 200 students enter internships with participating employers each year. Other Oregon community colleges offer instruction in fewer pathways.

Funding

The state legislature supports the Pathways project by funding a full-time project coordinator position by combining Perkins, Workforce Investment Act, and state general funds. In addition to resource development and communications responsibilities, this coordinator oversees the Pathways project implementation in the five participating colleges, as well as directs plans for expanding the project to all seventeen community colleges.

The development of Oregon's Pathways project has also been aided by the state's practice of providing FTE reimbursement for students in all community college programs, including adult education, ESOL, workforce development, and developmental education, based on the number of hours they attend. It helps that Oregon community colleges, by statute, are the primary provider of adult education and workforce development, indicating the importance the state places on that role. This makes it possible for community colleges to use a combination of state and federal Title II adult education funds and general FTE reimbursement to fund adult basic education and ESOL programs. They can also use workforce development and FTE reimbursement to fund workforce development programs.

Under Oregon's funding statute, colleges tally the aggregate amount of time that students spend at the college, with 510 hours translating as one FTE, regardless of the type of course or the number of hours in a course. The "510 hours divisor," as it is called, acts as a great leveler, giving the system an incentive to expand its adult basic and part-time offerings. Costs for programs that are more expensive, such as technical courses

with lab work, are offset by the greater number of hours that can be billed for such courses.

Students enrolled in the professional technical career pathways trainings can use financial aid to complete other modules because the modules are part of existing college certificate and degree programs.

Challenges/Lessons Learned

While career pathways have been introduced in all seventeen of Oregon's community colleges, the initiative is most fully developed at PCC and MHCC. These institutions provide significant insight on challenges and lessons learned from implementation and expansion of this model. For this reason, the challenges and lessons that follow are drawn largely from the experience of PCC and MHCC.

Administrative Commitment Needs are Significant

The development of integrated pathways is supported by a core of creative leaders, many of who have been at PCC for many years and have worked in a broad range of adult education, workforce, non-credit, and developmental programs. They share a strong commitment to integrating these programs with one another and with the college's credit-level side. Several who began as program leaders now serve in key positions at PCC and are mentoring a new generation of programmatic leadership.

Faculty Resistance Can be a Significant Barrier to Expansion

The college faces several barriers to extending modularized career pathways to other occupations and sectors. The development of pathways began with faculty who were most interested in moving to a competency-based modularized approach, and new pathways are still being developed by faculty who want to do it. Getting faculty who are not supportive, however, to adopt a modularized pathways approach presents new obstacles. In some cases, faculty have been resistant to changing tried and true curricula. In other cases, administrators have had difficulty in recruiting faculty to teach at non-traditional hours. In addition, while the community colleges operating the Pathways Initiatives are working to institutionalize their programs, the Pathways Initiative is highly dependent on inconsistent state funding

Staying Demand-driven an Ongoing Challenge

One additional concern expressed by Pathways project administrators in the participating colleges has been the need to remain up-to-date on labor market information in their regions in order to ensure that their projects are meeting local workforce development needs. Colleges have noted that their capacity to conduct this sort of research on an ongoing basis is limited.

Washington State
Integrated Basic Education and Skills Training (I-BEST)

Flexible Delivery Approaches

- *Weekend and evening courses*
- *Accelerated program*
- *Career pathways*

Overview[17]

In the Spring of 2004, the state of Washington began implementing an innovative program designed to address the low basic skill levels of many of the adult students turning to the state's two year colleges for education or skill development. Low basic education and poor English proficiency frequently slows, and sometimes stops, advancement by adult learners into core academic or credentialed training programs. The Integrated Basic Education and Skills Training (I-BEST) program partners English as a second language (ESL) or adult basic education (ABE) instructors with professional-technical instructors in the classroom to concurrently provide students with literacy education and workforce skills linked to an explicit career path in high-demand industries. Initial findings demonstrate that I-BEST results in dramatically improved rates of college credit attainment and workforce training program completion.

Program Design

ABE in Washington state is administered by the State Board of Community and Technical Colleges (SBCTC) and delivered primarily through the state's two-year colleges, giving administrators considerable insight into the dynamics effecting low-skilled adult learners. Analysis of statewide performance data by administrators and researchers at the SBCTC found that the longer it took adult learners to achieve basic skills competency, the less likely they were to advance into and through postsecondary academic and training programs. Accelerating the rate at which basic skills were developed became a priority if the state were to increase the competitiveness of its workforce, as well as improve the capacity for adult learners to acquire family-sustaining occupations.

For many adult learners, the pathway between ABE/ESL and workforce training or academic programs is too long and complex. In Washington as in most other states, basic skills and workforce instruction have been traditionally offered separately and sequentially, with few clearly delineated transition points. Only one out of ten ESL students in Washington makes the transition from ABE/ESL into postsecondary programs within three years, and just two in every 100 students starting in ESL go on to earn certificates or degrees within five years. The statistics are not much better for students who begin in ABE programs, with fewer than two in ten making the transition to postsecondary education.

Based on the state's research findings that adults with at least one year of postsecondary credits, coupled with a credential, have a real earnings bump compared to those who earn fewer credits and do not earn a credential. The community and technical colleges in Washington were given an opportunity to volunteer for funding to create demonstration projects testing ways to accelerate adult progress through ABE

and ESL and into occupational credential programs. The demonstration was funded with federal ABE and Perkins funds. Nine of these projects are contextualized ESL courses, and one is a contextualized ABE course. The success of these demonstrations prompted and enabled the state to go to the legislature for additional resources and made it possible for the State Board to revamp its funding formula for I-BEST model programs (see Funding section below).

I-BEST challenges the traditional notion that basic education must precede training. Instead, ABE and ESL instruction are provided within the context of skills training by two instructors in the classroom, permitting the adult student to learn both simultaneously. Instructors are responsible for jointly evaluating their students, and for working with employers to develop curricula. To help ensure that students remain enrolled in their courses, instructors are also responsible for working with adult education and professional-technical administrators to connect I-BEST students with support services, including mentoring, career counseling and tutoring, as well as external support services such as transportation and child care assistance. Colleges that deliver I-BEST programs are required to identify which ABE/ESL/Developmental components are needed for subsequent levels of training, including ESL for students who test out of ABE/ESL federal level of support.

Professional and Technical Instruction

Each I-BEST program must go through a specific SBCTC integrated program approval process, which includes sign-off at the college level by both workforce and basic skills administrators. In order to be approved, I-BEST programs must be included among the college's workforce program inventory, and must also meet at least one of the following criteria for approval by the SBCTC:

- The program must be contained within a currently-approved professional-technical program of at least one year in length or an approved professional-technical associate degree program; and/or

- It must result in high wage employment with jobs available for program graduates at a minimum of $14.00 per hour in King County and $12.00 per hour in the rest of the state; and/or

- It must articulate with an approved program (i.e., certified nursing assistant to licensed practical nurse) where completers are given preferential status. (Washington SBCTC, Integrated Basic Education and Skills Training: Program Guidelines and Planning Process. December 2005. Olympia.)

Basic Skills Instruction

All I-BEST students must qualify for federally supported levels of basic skills education. Students must be pre-tested using either the CASAS ECS[18] or Life and Work series at the start of the I-BEST program and must be post-tested upon program completion, or at the end of the academic year, whichever occurs first. A plan for continued gains and reaching English language proficiency must be developed for students who transition into professional-technical programs but have not yet reached language proficiency. The SBCTC recommends that these plans take into account ABE/ESL classes above the federally supported levels.

Outcomes

An initial study of I-BEST outcomes found that I-BEST students earned five times more college credits on average and were 15 times more likely to complete workforce training than were traditional ABE/ESL students during the same amount of time. I-BEST students earned an average of 12 workforce and 10 college level credits. This compared to two workforce credits and three college-level credits earned by comparison students when they were enrolled in workforce training. The study also found that I-BEST programs increased the access to workforce training for ABE/ESL students.

Funding

As noted above, federal Perkins and ABE funds were used to create the I-BEST demonstration projects. The state legislature awarded an additional $4 million in 2005 to support a second round of I-BEST funding in order to expand the program to additional colleges.

A key innovation in I-BEST, however, is the enhanced FTE model developed and implemented by the SBCTC. The enhanced FTE model of 1.75 (as compared to 1.0) applies to classes in programs meeting the criteria specified above, and was developed to remove the cost disincentive of providing two instructors to deliver the basic skills and professional/technical curriculum. In addition to providing funds for a minimum 50 percent joint instruction time and curriculum development, it offsets the costs of efforts around coordination and support services. There is no new FTE funding for colleges using the I-BEST model. The model allows colleges to generate 1.75 FTE for I-BEST classes within the college's current state FTE allocation.

Challenges and Lessons Learned

Resources Needed for Pilot Research and Development

Implementing I-BEST in the ten participating colleges has taken considerable planning between workforce training administrators and basic skills administrators. Applicants for I-BEST programs must not only demonstrate how they will guide their adult students into successful career options after completing the program, but they must also demonstrate how I-BEST instruction puts students on an educational path up to and including a four year degree. In addition, proposals for I-BEST programs must account for how the program administrators will coordinate with local support service providers in order to meet the needs of students.

Faculty Coordination Between ESL/ABE and Vocational Instructors Challenging

Implementing the instructional model has been identified as a challenge by some of the early I-BEST demonstrations. The instruction component is based on the presence of two faculty members in the classroom, requiring continuous coordination between the two instructors around periodic student assessments and curriculum evaluation. According to SBCTC administrators, there has been reluctance on the part of some vocational instructors to the curriculum changes required by I-BEST, but this is rare. Moreover, administrators note that the pairing of ABE/ESL instructors with vocational instructors has led, in several cases, to improvements in the quality of instruction. In some of the participating colleges, basic skills instructors are holding professional development forums for vocational instructors.

Integrating ABE with Vocational Instruction Takes Time

Integrating ABE with vocational instruction has proven to be more of a challenge than anticipated. As made evident by the preponderance of ESL-based programs, college administrators have found that English language instruction lends itself more easily to integrated instruction. However, increasing the number of ABE based programs is a goal for SBCTC administrators for the coming round of I-BEST grants.

State Reimbursement Policies Do Not Match Traditional Programs

Perhaps the biggest challenge facing I-BEST is related primarily to state funding, but also to demographics. Washington State funds 72 percent of the cost of each FTE, leaving the colleges to pick up the remainder, which comes largely through tuition. While the state reimburses non-credit and for-credit courses at the same rate, the state charges a flat $25 fee for basic skills instruction, such as that offered through I-BEST. This funding formula can serve as a disincentive to expand enrollment in basic skills, in favor of expanding enrollment of traditional, tuition-paying students. At present, with postsecondary enrollment flat across the state, this is not a significant concern. However, according to SBCTC administrators, plans to take I-BEST to a larger scale must address the looming demographic changes faced by Washington colleges. Beginning in 2008-2009, enrollments will begin to turn upward as the much larger population of current high school sophomores begins to graduate, creating pressure on postsecondary institutions to maximize the number of traditional students.

V. Barriers and Strategies

Overview of Barriers to Developing and Implementing Alternative Delivery Approaches

Interviews with practitioners and researchers conducted for this study identified a number of significant barriers to the development, implementation, and expansion of innovative flexible and accelerated program design and delivery options in public postsecondary institutions. Overall, the most significant barriers included:

- Lack of research and development resources to develop new program models;
- Lack of faculty and/or faculty hesitancy to teach in non-traditional courses and programs;
- Student financial aid program regulations that do not align well with alternative delivery approaches; and
- State policies for program approval and reimbursement for student enrollment that do not align well with creation and diffusion of these approaches.

These barriers were evident in the discussions we had with leaders of the programs and institutions profiles in the previous section. Most institutions lacked program research and development dollars to research labor market needs and design the programs. They cobbled together federal, state, and philanthropic funding for this purpose (with Washington, Oregon, and Kentucky making important state investments), but a lack of adequate developmental funds has clearly constrained program development and expansion. Some institutions we interviewed have had to address faculty skepticism and concerns about non-traditional courses and their pedagogical and scheduling demands.

Student financial aid regulations presented myriad barriers. In some cases, there was lack of clarity about whether programs were “eligible programs” under the federal student aid program, which led to much confusion by program practitioners and state administrators. In others, students were eligible for little or no aid because they attended less than half time (making them ineligible for student loans) and/or because even their modest income was too high for need-based aid. In addition, the rigid delivery schedule of student aid at the beginning of traditional fall, spring, and summer semesters has often clashed with the sequencing of flexible programs offered on a rolling basis or in an open-entry/open-exit format.

In a few cases, state policies on program approval or reimbursement to institutions for student enrollments undermined the development and implementation of flexible and accelerated program models. Strategies for addressing these barriers must be initiated at the state level, since rules and procedures vary greatly from one state to the next.

Online Surveys Reinforce Findings on Barriers

To get a different perspective on the relative importance of particular barriers to expansion of more flexible delivery models that meet adult learners' needs—and to solicit strategies to minimize these barriers, FutureWorks and Jobs for the Future conducted two online surveys of state level experts on higher education policy and practice.

The primary survey was of the State Higher Education Executive Officers (SHEEO) association members conducted in late July and early August 2006. Fifty-four SHEEO members were sent an online survey with questions on examples of alternative delivery approaches designed especially to improve access and success for working adult students, barriers to developing and implementing these approaches, strategies for overcoming the barriers, and federal and state policy incentives to increase adult student enrollment and completion (See survey protocol in Appendix A). We received eight complete responses, for a response rate of 15 percent.

In addition to the SHEEO survey, we worked with the National Association of State Student Grant and Aid Programs (NASSGAP) to conduct a short online poll of its members to learn more about this issue from a student aid perspective. The responses we received from this survey, though limited in number, validated the findings from the SHEEO survey.

These surveys should not be seen as definitive assessments, but more as additional input and confirmation of findings from the literature review and the program-related interviews. A full understanding of the scope and depth of the challenges facing the development, implementation, and expansion of flexible and accelerated postsecondary programs to benefit working adult students will require a more in-depth research methodology, including input from state-level executive officers (distinguishing between two- and four-year institutions), college presidents, college academic deans, and faculty. Moreover, a fuller research agenda would also explore developments and trends in private postsecondary institutions.

Of the eight possible barriers probed in the SHEEO survey, consensus appeared to target three as the most significant:

- Lack of financing to redesign and/or develop new program models;
- Faculty hesitancy to designing and/or teaching non-traditional courses and programs; and
- Lack of faculty capacity for teaching in non-traditional programs, especially those with non-traditional schedules, i.e., weekend colleges

As shown in the following table, the relatively high average or mean scores are weighted down by a few low scores in the top two barriers. The middle score (median) for the "lack of financing" barrier was a 4 (out of 5, with 5 indicating a "significant barrier") and the most frequent score (mode) was a 5. Similarly, the mode on the "faculty resistance" barrier was a 3.5 and the mode was a 5. Clearly, there is a clear perception among

respondents that these two barriers are significant, given that the most frequent score on both was at the top of the scale.[19]

Barriers to Developing and Implementing Alternative Delivery Approaches for Working Adult Students			
	mean	**median**	**mode**
Lack of financing to redesign and/or develop new program models	***3.7***	***4***	***5***
Faculty resistance to designing and/or teaching non-traditional courses and programs	***3.3***	***3.5***	***5***
Schools may not have faculty available to teach in non-traditional programs, especially those with non-traditional schedules, i.e., weekend colleges	***3.3***	***3***	***3***
Programs do not qualify for state reimbursement and/or the state reimbursement is not enough to cover the higher cost of the program	2.3	1.5	1
Programs do not qualify for student financial aid	2	1	1
Redesigned programs may not support student transfer between two- and four-year institutions	2	2.5	0
It can be difficult to get approval from accreditation bodies for non-traditional programs	1.6	1.5	2
It can be difficult to get state approval of non-traditional courses or programs	1.1	1	0

Strategies for Overcoming Barriers

In the course of our research, we identified a number of strategies for addressing the most commonly perceived barriers to implementation and expansion of more flexible and accelerated approaches to delivering credential programs in public postsecondary institutions. In this section, we suggest strategies in policy and practice for overcoming or minimizing each significant barrier identified above. These possible responses to identified barriers are summarized in the table that concludes this section.

Barrier: Lack of research and development resources for new program models

Possible Responses:

- *Develop a new Alternative Delivery Innovation Fund that would provide training, technical assistance, and resources to institutions that develop and deliver alternative approaches*
- *Integrate training, technical assistance, and resources for alternative delivery approaches into existing national initiatives*
- *Leverage the Fund for the Improvement of Postsecondary Education (FIPSE) to provide training, technical assistance, and resources for this work*

Researching and developing new programs with flexible and accelerated formats takes time and requires new ways of thinking about curriculum development. Although curriculum design is a regular part of faculty duties, the more demanding research and development efforts that must go into many of the models presented in this paper are not. For example, to be effective and to meet demand, program development includes a great deal of labor market research that is not regularly a part of traditional curriculum

design. These models frequently require curricular and pedagogical redesign. This takes both time and resources to accomplish. A clear example is distance learning, which involves both a significantly different teaching format and an infusion of new technology. Another example is instruction delivered at the worksite, in close cooperation with employers.

In *Adult Learners in Higher Education*, Jobs for the Future, Eduventures, and FutureWorks recommended creation of new "alternative delivery innovation funds" at the state and/or federal levels that would give education institutions a chance to compete for development and start-up funding for new models for serving adult learners. Such a fund could support training programs, "academies," or mentor programs to help faculty develop effective, quality new models. Examples can be found in both Kentucky and Oregon. As part of the career pathway initiatives in these states, the state community and technical college organizations provide annual and as-needed training to faculty in how to develop career pathways programs. Similar training and technical assistance sessions could be developed for other alternative delivery approaches and offered statewide or even nationally. Training could be organized as conferences in which individuals attend as their schedules permit. Alternatively, they could be offered as "academies," in which cohorts of individuals attend a short series of training sessions together and provide peer support as they develop and implement the programs.

Another model for supporting innovation in program design and delivery includes setting up a mentor-protégé program that pairs experienced faculty with less experienced faculty to help the latter develop alternative delivery approaches. Again, this could be implemented at a state or federal level. Training and professional development opportunities—in addition to fair compensation for course and program development—may encourage more faculty participation and innovation. By making funding competitive, incentives drive both institutions and individuals to invest time and be creative.

Training, technical assistance, and resources can also be integrated into existing initiatives that focus on increasing adult workers' access to and success in attaining postsecondary credentials. Alternatively, this strategy could be implemented through the Fund for Improvement of Postsecondary Education (FIPSE) program administered by the Office of Postsecondary Education in the U.S. Department of Education. FIPSE has more than 30 years of experience managing competitive distribution of funds for improvement of postsecondary education. Revitalization and increased funding of FIPSE also was part of draft recommendations of the Secretary's Commission on the Future of Higher Education.

This kind of one-time start-up and development investment can have a powerful impact on practice in states and nationally. Newly developed courses and models can be made available to other institutions in a state or to national consortia of innovative institutions. This strategy should require or strongly encourage course-sharing across postsecondary education institutions and systems in order to leverage resources even further. Funding requirements could stipulate that funding be restricted to the development of courses that result in college credit, in order to make it easier for adults to work their way up a educational pathway to a credential.

Barrier: Lack of faculty and/or faculty hesitancy to teaching non-traditional courses and programs

Possible Responses:

- *Colleges pay faculty more for teaching in nontraditional courses and programs*
- *State governments reimburse colleges more for enrollments in these courses*
- *Colleges hire faculty willing to design and implement alternative delivery approaches*

At some institutions, there may not be enough faculty to teach in non-traditional programs or faculty may be skeptical of the changes required to teach in alternative format classes. Our research found that maintaining faculty loyalty plays a large role in institutional decisions to develop or expand courses for "non-traditional" students. Some institutions noted reluctance on the part of some faculty members to programs that may detract from an institution's transfer mission. Others noted resistance to teaching at times that suited adult learners but were inconvenient for instructors: recruiting faculty to teach in the evenings and on weekends is typically more difficult. Other obstacles include the requirements by accreditation agencies that instructors have Master's degrees in their fields and the cost of providing security and electricity to schools in evenings and on weekends.

Strategies for overcoming this set of barriers are primarily institutional in nature. However, state governments might provide some help. State governments could provide support and incentives for innovation by reimbursing colleges at a higher rate for students enrolled in flexible and accelerated programs, particularly those that demonstrated strong retention and completion results. (We recommend similar incentives for programs targeting high demand occupations as well).

Several states already have differential reimbursement rates for different program offerings. For example, the state of Washington reimburses colleges for I-BEST enrollments at a rate 75 percent higher than other enrollments (a 1.75 full-time equivalent student rate compared to a 1.0 FTE rate). The State of Pennsylvania offers higher reimbursement rates for enrollments in courses focuses on high demand occupations as defined by the state.

In some situations, faculty shortages or skepticism may be so acute that colleges will have to hire more faculty, frequently part-time and adjunct faculty with recent industry experience and flexible schedules. This can present trade-offs in terms of instructional rigor. Each college will have to tackle this issue on its own terms and within its own context. Federal and state governments, however, should be aware of these institutional dynamics and factor it in when considering strategies for developing such programs.

Barrier: Programs do not qualify for student financial aid and the complex regulations confuse practitioners in determining program eligibility.

Possible Responses:

- *The student financial aid regulations regarding nontraditional courses and programs should be clarified and more transparent.*
- *The statutory and regulatory rules concerning eligible programs for federal student financial aid should be further refined, streamlined and simplified in order to allow and encourage more alternative delivery approaches*
- *States can design new forms of student aid aimed specifically at working adults enrolled in nontraditionally delivered courses and programs, helping to expand the market for these strategies.*

Over the last several years, advocates, practitioners, policymakers, and researchers have noted the complexity and confusing nature of the student financial aid system from the student user perspective. Complexity also affects institutional decisions, particularly vis a vis innovation in program design and delivery. As nontraditional students and their demand for nontraditional courses and programs continues to grow, student aid rules defining program eligible for student aid need to become more transparent and easily understandable. (A quick primer on "eligible programs" in the federal Title IV student financial aid system is provided in Appendix B.)

There are real regulatory barriers in the federal student aid system to postsecondary education institutions developing and offering certain types of programs. For example, strict program eligibility requirements for programs less than one-year could stifle the development of modularized programs. Institutions have little incentive to change the way courses have always been delivered and delve into the morass of student aid regulations to figure out which program formats are eligible for aid and which are not.

The frequent revision of rules regarding program eligibility for aid is a disincentive to many institutions to pursue innovative program delivery models. Significant statutory and regulatory rules have changed in the last few years. For example, in the fall of 2002, the U.S. Department of Education eliminated the "12-hour rule," a regulation that required educational programs not operating on a traditional calendar—semester, trimester, or quarter system—to provide at least 12 hours of in-class instruction each instructional week in order to be eligible for student aid. Today, nonstandard programs are treated the same as standard programs, and "an 'instructional week" is any week in which one day of regularly scheduled instruction, examination, or examination preparation occurs, regardless of whether that activity occurs face-to-face with a faculty member or at a distance" (Wolanin 2003). After the policy change, there has been a lag in institutions understanding and adjusting to the change. Additionally, there is ambiguity about what needs to occur on the minimum one day in order to "count" toward an instructional week. A similar dynamic has accompanied the repeal of the "50 percent rule," which made institutions that enrolled more than half their students or offered more than half their courses in distance education ineligible for federal student aid programs.

While these rule changes are welcome and add opportunities for flexibility, it takes a while for these changes to diffuse beyond financial aid officers and to be understood by academic officers and new program developers and designers.

The following two steps could be taken to address these challenges:

1. The current regulations governing student financial aid for courses and programs should be more transparent and explicitly address what types of alternative delivery approaches do and do not qualify for federal student aid; and

2. The statutory and regulatory rules concerning eligible programs for student financial aid should be further refined, streamlined, and simplified in order to allow and encourage more alternative delivery approaches.

In order to encourage postsecondary institutions to experiment more with alternative delivery strategies, administrators, practitioners, and technical assistance advisors must have the same understanding of eligible programs as student aid officers and program administrators. Program guides, toolkits, and training sessions explicitly focused on this set of issues would be helpful.

In addition, a policy analysis of which statutory and regulatory rules governing student aid impact alternative delivery strategies, and in what ways, would help to target those that should be amended in order to encourage more nontraditional delivery. Such analysis was conducted by several parties on distance learning as it started to proliferate, which brought to light the challenges caused by the “50 percent rule” and the “12 hour rule.” The same kind of policy analysis should be undertaken for other flexible program delivery approaches highlighted here.

At the state level, new forms of student aid could be offered that students could use to pay for nontraditional programs that do not qualify for federal aid. For example, the Georgia HOPE Grant program (not to be confused with the separate Georgia HOPE Scholarship program) provides full tuition, approved mandatory fees, and a $300 per academic year allowance to students enrolled in certificate or diploma programs approved by the Georgia Department of Technical and Adult Education (up to 63 semester or 95 quarter hours of study). This program aids a broader range of students and programs than does the federal student aid program and can serve as a model for a “work around” solution to federal student aid constraints.

Similarly, the Pennsylvania Higher Education Assistance Agency (PHEAA) launched a special program in 2005-2006 specifically for adult students. The Workforce Advancement Grant for Education (WAGE) Program is designed to provide aid to fill in the gaps left by federal and state aid programs. It provides a block grant to postsecondary institutions that have applied and been determined eligible to participate. Institutions establish and award grants to adult students who meet both PHEAA and institutional student eligibility guidelines. The guidelines are less restrictive than the federal aid programs and therefore, make it easier to support students in alternatively delivered programs.

Barrier: State policies for program approval and reimbursement to colleges for student enrollment undermine alternative delivery approaches.

Possible Responses:

- *States can reassess their program approval processes to ease approval of flexible and accelerated programs*
- *States can reassess their reimbursement policies to colleges for student enrollment to provide for more sufficient and consistent funding*

Since there are fifty different sets of policies around these two regulatory areas, barriers related to state program approval and reimbursement were identified as a problem only in certain states. For this reason, solution sets should be targeted to the state level, not the federal level.

Regarding program approval, stumbling blocks in a few states centered mostly on the long timeframe required for securing program approval, particularly for completely new programs. However, in one case studied, the college successfully worked within the program parameters already approved by the state and simply reworked the program format to accelerate progress and completion.

When state reimbursement policies surfaced as a barrier, two issues dominated: 1) insufficient reimbursement for more expensive courses; and 2) inconsistent funding from one state budget cycle to the next in reimbursement appropriations. Institutions seem to face both of these challenges with their traditional programs as well as their non-traditional programs, especially given the funding cuts that have affected higher education in most states in the past five years.

These challenges create difficult choices for institutions that, when funding dips, are forced to cut back on relatively expensive programs that working adults enroll in most, such as allied health programs. Compounding the problem are corresponding increases in tuition required to offset cuts in appropriation, which raise yet another barrier for the adult learner.

States have pursued various strategies to address the state reimbursement challenge, focusing on the funding formula that drives reimbursement. States could follow the model in Washington in which enrollments in I-BEST courses are reimbursed at a higher rate than other course (1.75 reimbursement rate compared to 1.0). In Pennsylvania, community colleges are reimbursed a higher FTE for courses that cost more to deliver and that are in high-demand occupations as determined by the state. This encourages colleges to secure faculty who can teach these courses. In South Dakota, postsecondary education intuitions can charge a “self-support tuition rate” (approved by the Board of Regents) that is higher than the regular state-set tuition for courses that are offered off-campus, i.e., distance learning courses or courses that are taught at one of three education centers in the state (courses must be for-credit).

States might explore a more radical strategy—considering the value of reimbursing colleges for outcomes as opposed to enrollments. A reimbursement policy based on enrollments in the front end does little to encourage completions on the back end, which, as stressed throughout this paper, is the ultimate measure of success. Reimbursing colleges for completions would provide incentives not only to get students in the door, but also to get them out successfully.

Summary of Strategies to Expand Alternatively Delivered Postsecondary Education		
Barrier	**Recommendations for Federal Government**	**Recommendations for State Governments**
Lack of research and development resources to develop new program models	Develop a new Alternative Delivery Innovation Fund that would provide training, technical assistance, and resources to institutions that develop and deliver alternative approaches; or Integrate training, technical assistance, and resources for alternative delivery approaches into existing national initiatives; or Leverage the Fund for the Improvement of Postsecondary Education (FIPSE) to provide training, technical assistance, and resources for this work.	Establish a state-based "alternative delivery innovation fund"
Lack of faculty and/or faculty resistance to teaching non-traditional courses and programs		Colleges pay faculty more for teaching in nontraditional courses and programs; state governments reimburse colleges more for enrollments in these courses.
Programs do not qualify for student financial aid and the complex regulations confuse practitioners in determining program eligibility.	Clarify and make transparent the student financial aid regulations regarding nontraditional courses and programs; and Refine, streamline, and simplify the statutory and regulatory rules concerning eligible programs for student aid in order to allow and encourage more alternative delivery approaches.	States can design new forms of student aid aimed specifically at working adults enrolled in nontraditionally delivered courses and programs (create a market for these strategies).
State policies for program approval and reimbursement to colleges for student enrollment undermine alternative delivery approaches.		States can reassess their program approval processes to ease approval of flexible and accelerated programs. States can reassess their reimbursement policies to colleges for student enrollment to provide for more sufficient and consistent funding.

VI. Conclusion

This is an exciting and dynamic time in the fields of education and training. Demand for postsecondary education and credentials is surging, and interesting and innovative models are emerging. As this and the other papers in this series on adult learners has demonstrated, there is much to build on, but there is also much that remains to be done to support a higher education system that can be more responsive to and more successful for adult learners.

This study did not focus on traditional four year institutions, but rather the community colleges or two year programs. Undoubtedly, there is work to be done, encompassing the more traditional four year institutions. Important barriers to change across types of institutions include how postsecondary education institutions are structured, how they are financed (their business models), and how they structure their offerings. On the last one, there is a need to take to scale many of the promising practices discussed this in paper – providing more competency-based models, opportunities to earn more income while learning, dual enrollment, modularized credentials, etc.

Postsecondary institutions that are engaged in developing and growing these innovative models can benefit from contact and exchange with others working toward similar goals. In addition, as this paper indicates, these innovators can often use additional support in terms of ideas, contacts and resources that can help them cover research and development costs and accelerate their progress.

Finally, employers in many industries are looking for efficient and effective ways to help their incumbent workers improve their skills and earn valuable credentials. Yet, it is not always easy for employers to get information about these opportunities in ways they can make use of. There is reason to believe, though, that some of the models that are emerging would be of great interest to employers in health, construction, manufacturing, etc., and to their associations, if the information could be disseminated effectively.

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Appendix A:
SHEEO Survey Protocol

Introduction

Thank you for taking the time to complete this short survey about models of flexible, modularized, compressed, and accelerated credential programs and courses at postsecondary educational institutions in your state. This survey is part of a research project conducted by Jobs for the Future (JFF) and FutureWorks. The focus of this research is public two- and four-year institutions serving working adult students who are pursuing their first postsecondary credential.

The purpose of this research is to explore innovative curricular and credential program designs that help adult students persist in and complete certificate and degree programs. Examples of these designs are provided below. Research indicates that traditional models simply do not work for working adult students because they are based on daytime schedules, elongated and inflexible designs, and long timeframes for completion (relative to part-time adult students' timeframes). Therefore, JFF and FutureWorks are interested in models that include but are not limited to:

COURSE SCHEDULING—innovative scheduling of all courses in a credential program that quicken the pace to completion, including:

- Weekend colleges in which an entire credential can be earned attending courses primarily or exclusively on the weekend; and
- Evening programs in which an entire credential can be earned attending courses primarily or exclusively in the evenings.

COURSE DESIGN—innovative curricular designs within credential programs, including:

- Compressed courses that are shorter and more intense than the traditional 16-week, 3 classroom hours/week model;
- Open entry-open exit courses, i.e., courses that are competency-based and students move through at their own pace;
- Hybrid courses combining classroom and distance learning;
- Distance learning; and
- Modularized courses, i.e., a three-credit course broken into 3 one-credit courses.

PROGRAM DESIGN—innovative designs for whole credential programs, including:

- Modularized programs that are broken into program segments taken by cohorts of students and that may grant interim credentials within the program; and

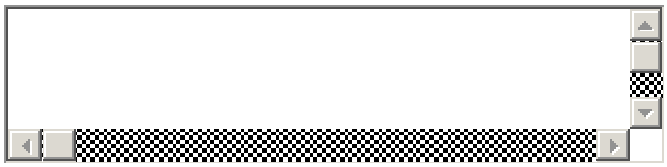
- Accelerated programs composed of a series of compressed courses and other innovative curricular offerings with completion in less time than average.

(You may want to print this Introduction and outline for reference while you take the survey.)

The questions in this survey ask about any creative, successful, and replicable models in your state; barriers institutions may face to developing and offering these types of models; and any policy levers and incentives that allow and encourage development and implementation of these models. Any information you provide is appreciated. We will share the results of our research with SHEEO.

Questions

1. Please share examples of credential programs in your state designed especially to improve access and success for working adult students (especially any at two-year institutions or other institutions specifically focused on serving adult students). Examples may include but should not be limited to those provided in the Introduction. Please provide a short description of any programs along with contact names and information for individuals we could contact for more detailed information.



2. Institutions can face barriers to redesigning programs or creating new ones to better serve the adult learner. Listed below are some common barriers that could limit the development of these programs. Please indicate the significance of each barrier using the ranking scale (0=not a barrier; 5=significant barrier). There is room below for comments on any of the barriers.

	0 (not a barrier)	1	2	3	4	5 (significant barrier)
a. Lack of financing to redesign and/or develop new program models, i.e., no available staff time	☐	☐	☐	☐	☐	☐
b. Programs do not qualify for student financial aid	☐	☐	☐	☐	☐	☐
c. Programs do not qualify for state reimbursement and/or the state reimbursement is not enough to cover the higher cost of the program	☐	☐	☐	☐	☐	☐
d. Faculty resistance to designing and/or teaching non-traditional courses and programs	☐	☐	☐	☐	☐	☐
e. Schools may not have faculty available to teach in non-traditional programs, especially those with non-traditional schedules, i.e., weekend colleges	☐	☐	☐	☐	☐	☐
f. Redesigned programs may not support student transfer between two- and four-year institutions	☐	☐	☐	☐	☐	☐
g. It can be difficult to get state approval of non-traditional courses or programs	☐	☐	☐	☐	☐	☐
h. It can be difficult to get approval from accreditation bodies for non-traditional programs	☐	☐	☐	☐	☐	☐
i. There are campus or state perceptions that these are not "real" courses or "real" programs	☐	☐	☐	☐	☐	☐
j. Other (use comment box below to explain)	☐	☐	☐	☐	☐	☐

Comments regarding barriers to "adult friendly" credential programs and courses:

3. We are interested in strategies for overcoming these barriers. If your state has implemented strategies for overcoming one or more of the barriers listed above and/or if you have ideas on how to overcome any of them, please share the information next to the topic listed below.

a. Lack of financing to redesign and/or develop new program models, i.e., no available staff time

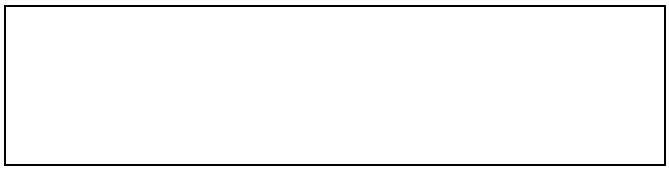
b. Programs do not qualify for student financial aid

c. Programs do not qualify for state reimbursement and/or the state reimbursement is not enough to cover the higher cost of the program

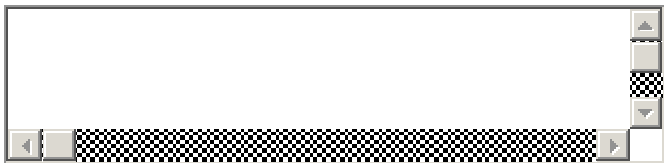
d. Faculty resistance to designing and teaching non-traditional courses and programs

e. Schools may not have faculty available to teach in non-traditional programs, especially those with non-traditional schedules

f. Programs may not support student transfer between two- and four-year institutions if they are redesigned

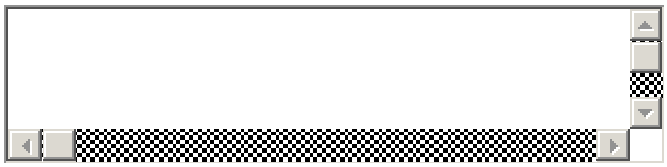


g. It can be difficult to get state approval to offer non-traditional programs



h. It can be difficult to get approval from accreditation bodies for non-traditional programs

i. There are campus or state perceptions that these are not "real courses" or "real programs"



j. Other

4. The ultimate goal of this research is to propose federal and state policy incentives to increase adult student enrollment and completion and to foster curricular and institutional innovations that support this goal. Below, we propose three hypothetical objectives toward this end to provide concrete examples. For each hypothetical objective, please indicate promising policy incentives at both the federal and state levels that could help to achieve the objective. Include both changes to existing policies as well as new policies.

a. Objective: increase enrollment and completion of working adult students (who currently lack a postsecondary credential) in certificate and degree programs by 25% over the next 5 years (especially sub-baccalaureate programs).

b. Objective: Increase the percentage of "working adult friendly" (flexible, compressed, modularized, accelerated) courses and credential programs by 50% over the next five years.

c. Objective: Increase the number of postsecondary education institutions working as "workforce intermediaries" to improve education and career opportunities for (low-income, under-educated) workers, improve operations and competitiveness for companies, AND improve the economic outlook for local and regional communities.

5. We may want to follow-up with you regarding your responses. If you are willing to participate in a short follow-up telephone interview and/or would like to receive a copy of the final research report, please provide your contact information below, including name, title, organization, mailing address, e-mail address, and telephone number.

Appendix B:
Primer on Federal Title IV
Student Financial Aid "Eligible Programs"

In general, there are two levels of eligibility from an institutional perspective to participating in the federal student aid program: 1) institutional eligibility and 2) program eligibility. There are three types of eligible institutions:

1. Institution of higher education – a public or private nonprofit educational institution located in a state;
2. Proprietary institution of higher education – a private, for-profit educational institution located in a state; and
3. Postsecondary vocational institution – a public or private nonprofit educational institution located in a state.[20]

All three institutional types must meet the following minimum requirements:

- Must be legally authorized by the state where the institution offers postsecondary education to provide a postsecondary education program;
- Must be accredited by a nationally recognized accrediting agency or have met the alternative requirements, if applicable; and
- Must admit as a regular student only individuals with a high school diploma or its recognized equivalent, or individuals beyond the age of compulsory school attendance in the state where the institution is located.

In addition, to qualify as an eligible institution, a school must offer at least one eligible program based on its institutional type:

- Institutions of higher education:
  - Associate, bachelor's, graduate, or professional degree, *or*
  - At least a two-year program that is acceptable for full credit toward a bachelor's degree, *or*
  - A program that is at least one year in duration that leads to a degree or certificate (or other recognized educational credential) and prepares students for gainful employment in a recognized occupation.

- Proprietary institutions of higher education—Programs offered must provide training for gainful employment in a recognized occupation and must meet the criteria of at least one category below:
  - Provides at least a 15-week (instructional time) undergraduate program of 600 clock hours, 16 semester or trimester hours, or 24 quarter hours. May admit students without an associate degree or equivalent, *or*
  - Provides at least a 10-week (instructional time) program of 300 clock hours, 8 semester or trimester hours, or 12 quarter hours. Must be a graduate/professional program, or must admit only students with an associate degree or equivalent, o*r*
  - Provides at least a 10-week (instructional time) undergraduate program of 300-599 clock hours. Must admit at least some students who do not have an associate degree or equivalent and must meet specific qualitative standards. (Note: these programs are eligible only for federal loan participation; they are not eligible for Pell grant distribution.)
- Postsecondary vocational institutions—same as proprietary institutions above.

The basic distinction between eligible program types is whether the program is less than one year or is at least one year and results in a recognized credential (both must prepare students for gainful employment in a "recognized occupation"). Less than one-year programs face the very strict eligibility requirements listed above.[21] However, programs, which are at least one year in length, do not seem to face such strict requirements. The regulations state that there are "no minimum program length requirements" for associate, bachelor's, professional, or graduate degree programs; however, they are not clear on minimum program length requirements for one year programs.

These definitions of eligible programs are not mutually exclusive, and a public or private non-profit institution may meet the definition of more than one type of institution. For example, a community college may offer programs as an institution of higher education, i.e., associate degrees and one-year certificates, and as a postsecondary vocational institution, i.e., four-month certificate programs.

Endnotes

[1] Risk factors include being financing independent, attending part-time, delaying college enrollment after high school graduation, working full-time, having dependents, being a single parent, and lacking a high school diploma.

[2] For a review of innovative program designs in shorter duration education and training programs that do not necessarily lead to postsecondary degrees, the authors recommend the report titled, *Building Blocks for Building Skills: An Inventory of Adult Learning Models and Innovations*, prepared by the Council for Adult and Experiential Learning (2006).

[3] Personal interview with Glen Lum, Director of Institutional Research and Asssessment, September 2004.

[4] For more information on CAP, see http://www.capnetwork.org/index.php

[5] See the posting, "From the Executive Director's Chair: Looking Forward to CAP's Future—A Commitment to Accessibility and Equity" by Raymond Wlodkowski, April 28, 2006 at http://www.capnetwork.org/modules.php?op=modload&name=News&file=article&sid=27&mode=thread&order=0&thold=0

[6] See http://www.searchforclasses.com/articles/accelerated_learning/article-accelerated-nursing-programs.aspx and http://www.aacn.nche.edu/Media/FactSheets/AcceleratedProg.htm

[7] See http://www.aacn.nche.edu/Media/FactSheets/AcceleratedProg.htm

[8] See *Changing Courses: Instructional Innovations That Help Low-Income Students Succeed in Community College,* Jobs for the Future and MDRC. 2003.

[9] For more information, see: Phipps, Ronald and Jamie Merisotis. 1999. *What's the Difference: A Review of Contemporary Research on the Effectiveness of Distance Learning in Higher Education*. The Institute for Higher Education Policy: Washington, D.C. Prepared for the American Federation of Teachers and the National Education Association. April; *Postsecondary Distance Education: Issues of Student Outcomes, Access, Cost, and Quality Assurance*. Research Report No. 01-02 prepared by the Office of Institutional Research, Northern Virginia Community College. January 2002.; Joy, Ernest H. and Federico E. Garcia. "Measuring Learning Effectiveness: A New Look at No-Significant Difference Findings". 2000. *Journal of Asynchronous Learning Networks*, Vol. 4, Issue 1. June.

[10] *Sources*: Heath Prince (2006). *Creating Careers, Improving Care*. Jobs for the Future; Sue Goldberger (2005), *From the Entry Level to Licensed Practical Nurse: Four Case Studies of Career Ladders in Health Care.* Jobs for the Future.;.

[11]

[12] The 177 includes only students who began taking nursing courses (Nursing 101). It does not include those who started in the earlier phases of the program, i.e., Learning Lab, remediation course, or prerequisites.

[13] A placement test, developed by the College Board, that is used by colleges, universities, and technical schools as an aid to determine the course placement of incoming college students.

[14] *Sources*: Personal interview with Shauna King-Simms, Director of Adult Education, Partnerships and Transitions, Kentucky Community and Technical College System, July 21, 2006; personal interview with Linda Thomas, Program Advisor for the Registered Nurse Program, Department of Nursing, Madisonville Community College, August 2, 2006*;* e-mail communication with Linda Thomas on March 26, 2008; Women Employed (2005). *Bridges to Careers for Low-Skilled Adults: A Program Development Guide.* Chicago: Women Employed.

[15] Sources: Interviews with Dr. Jackie Belcher; also Sheila Anderson, Developmental Studies Chair at Housatonic Community College; both September 25th, 2006. Also, e-mail communication with Shelia Anderson on March 31, 2008.

[16] *Sources:* Personal interview with Mimi Maduro, State Director of Oregon Pathways Initiative, August 25th, 2006; Marty Liebowitz and Judity Combes Taylor (2004). *Breaking Through: Helping Low-Skilled Adults Enter and Succeed in College and Careers*. Jobs for the Future; Richard Kazis and Marty Liebowitz. (2003). *Changing Courses: Instructional Innovations That Help Low-Income Students Succeed in Community College,* Jobs for the Future and MDRC*;* www.oregon.gov/WORKSOURCE/PATHWAYS/index.shtml, accessed on September 26, 2006.

[17] *Sources:* Personal interviews with Tina Bloomer, Director of Student Achievement Project, and Jan Yoshihara, Director of Education Services Division of the Washington State Board of Community and Technical Colleges, August 9th, 2006; Washington State Board for Community and Technical College *(*2005). *I-BEST: A Program Integrating Adult Basic Education and Workforce Training*; Washington State Board for Community and Technical Colleges (2005) *Integrated Basic Education and Skills Training: Program Guidelines and Planning Process.*

[18] The Comprehensive Adult Student Assessment Systems (CASAS) Employability Competency System (ECS). CASAS is a widely used system for assessing adult basic reading, math, listening, writing, and speaking skills within a functional context. The ECS evaluates an individual's strengths and weaknesses as they relate to employability competencies. For more information, see www.casas.org.

[19] The survey also included a field for "other" barriers; however, none of the respondents used this field to submit additional information.

[20] See the Student Financial Aid Officers Handbook, Vol. 2—School Eligibility and Operations, 2005-2006 (insert URL)

[21] Strict regulations on less-than-one-year programs were established after questionable schools were caught offering fraudulent programs.