



Moving Beyond the GED: *Low-Skilled Adult Transition to Occupational Pathways at Community Colleges Leading to Family-Supporting Careers*

RESEARCH SYNTHESIS

**National Research Center for
Career and Technical Education
UNIVERSITY OF MINNESOTA**

**MOVING BEYOND THE GED:
LOW-SKILLED ADULT TRANSITION TO OCCUPATIONAL PATHWAYS
AT COMMUNITY COLLEGES LEADING TO FAMILY-SUPPORTING CAREERS
(Research Synthesis)**

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October 2007

Funding Information

Project Title: National Research Center for Career and Technical Education

Grant Number: V051A990006

Act under Which
Funds Administered: Carl D. Perkins Vocational and Applied Technology Act of 1998
P. L. 105-332

Source of Grant: Office of Vocational and Adult Education, U.S. Department of Education
Washington, DC 20202

Grantees: National Research Center for Career and Technical Education
University of Minnesota
1954 Buford Avenue
St. Paul, Minnesota 55108-6197

Director: James R. Stone, III

Percentage of Total Grant
Financed by Federal Money: 100%

Dollar Amount of Federal
Funds for Grant: \$2,400,000

Disclaimer: The work reported herein was supported under the National Dissemination for Career and Technical Education, PR/Award (VO51A990004) and/or under the National Research Center for Career and Technical Education, PR/Award (VO51A990006) as administered by the Office of Vocational and Adult Education, U.S. Department of Education. However, the contents do not necessarily represent the positions or policies of the Office of Vocational and Adult Education or the U.S. Department of Education, and you should not assume endorsement by the Federal Government.

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INTRODUCTION AND RATIONALE

Introduction

This review of research is part of a larger project which identified exemplary community college programs that employ innovative curriculum and instructional practices in order to help low-skilled adults attain a family sustainable wage. The project goal was to identify best practices that are replicable at other community colleges. These programs and models combine Adult Basic Education (ABE), General Educational Diploma (GED), and sometimes English as a Second Language (ESL) programs with the opportunity to attain postsecondary credentials leading to gainful employment at a family sustainable wage. The project involved three universities and was part the National Research Center for Career and Technical Education (NRCCTE) funded by the Office of Adult and Vocational Education, U.S. Department of Education. This review of the research was a first step in that project and summarizes what is currently known about low-skilled adults and programs for them.

Background

The most comprehensive research study on the literacy of American adults is the National Adult Literacy Study by Kirsch, Jungeblut, Jenkins, and Kolstad (1993) and updated by the National Assessment of Adult Literacy (NAAL) conducted by the National Center of Educational Statistics (2003). These surveys show that the percentage of Americans falling into the *below basic* and *basic* literacy categories has remained more or less stable over the last decade with 14% in the *below basic* category and 22-33% scoring at *basic* literacy levels¹. Scores were higher for prose and document literacy, but lower across all categories, including race and gender, for quantitative literacy (NAAL, 2003).

These literacy figures inspire considerable concern when an increasing proportion of jobs require postsecondary skills. These concerns are reflected in the popular press (Friedman, 2006), and have been cited by the U.S. Department of Education in its recent drive to improve all levels of education (U.S. Department of Education, 2004). Most recently these concerns have been cited in the National Commission on Adult Literacy Brief entitled *Policies to Promote Adult Education and Postsecondary Alignment* (Strawn, 2007):

According to the Bureau of Labor Statistics, between 2004 and 2014, 24 of the 30 fastest-growing occupations are predicted to be filled by people with postsecondary education or training Yet a recent analysis of American Community Survey data found that nearly half the U.S. workforce has only a high school education or less (Strawn, 2007, p. 1)

Support for claims made with respect to the educational skills needed in the job market is available from U.S. Department of Labor-sponsored services such as the Occupational Information Network or O*NET On-line (<http://online.onetcenter.org/>), which lists the educational quali-

1 *Below basic* indicates no more than the most simple and concrete literacy skills.

Basic indicates skills necessary to perform simple and everyday literacy activities.

fications needed for each occupation. Lack of such skills presents a huge barrier for a large percentage of low-skilled adults who need to break out of poverty and get and maintain meaningful employment. Workers increasingly need postsecondary-level skills in order to acquire jobs that provide a family sustainable wage (Friedman, 2006). Jenkins (2006) explains, “In a global economy, communities will thrive or decline based on how well they do to ensure sufficient numbers of high-value jobs and an ample supply of ‘knowledge workers’ to fill them” (p. 4).

Official government definitions of *poverty* and a *family sustainable wage* are found in the Definition of Terms section below, but given their complexity, more detail is provided in Appendix B. For the purposes of this study, we have used the U.S. Department of Labor definitions of *poverty* and *family sustainable wage*.

Two-year community and technical colleges are often the gateway to postsecondary education for low-skilled adult students. The broader study of which this literature review is a part focuses on the role of the community colleges in providing education—specifically, occupational training. Community colleges are often charged with the task of making up the skills gap needed for success in postsecondary education and job training. An estimated 40% of students entering community college have to take at least one remedial course; in urban areas, that percentage can rise to 75% (Parsad & Lewis, 2003). However, much of the research on community colleges is not reported in the traditional adult literacy journals and reports; rather, it is published in state reports that have to be retrieved state-by-state. For example, Minnesota compiles reports on recent high school graduates who took developmental and remedial courses at community colleges (Minnesota State Colleges and Universities, 2002, 2005). Much of the research on low-skilled adults who attend community colleges is published in journals specifically devoted to developmental education. The Center for Research on Developmental Education and Urban Literacy at the University of Minnesota (<http://cehd.umn.edu/CRDEUL/>) has compiled a large quantity of studies on underprepared students who take developmental or remedial classes in postsecondary institutions. However, this research is rarely referenced in journals devoted to adult basic education. We attempted to bring information from all these sources as background to our study of low-skilled adults who seek ABE, GED, or ESL as a first step to occupational pathways.

The Scope of the Literature Review

This preliminary review focuses on programs aimed at helping low-skilled adults in ABE, GED, and ESL to enter and complete postsecondary occupational-technical transition pathway programs. The review addresses the following basic questions:

1. What is the foundational research on the numbers of low-skilled adults, primarily those seeking ABE, GED, or ESL training?
2. What ABE, GED, or ESL to postsecondary occupational pathway programs that display innovative policies and practices and also offer promising evidence of outcomes for low-skilled adults, particularly completion of a postsecondary credential and placement in related employment, exist in the U.S.?

3. What practices and institutional strategies are associated with ABE, GED, or ESL to postsecondary occupational pathways that promote low-skilled adult participation in postsecondary credential (certificate or degree) programs and placement in related employment?
4. What lessons can be learned about curricular and instructional design that may be transportable to other ABE, GED, or ESL to postsecondary occupational pathways for low-skilled adults?

Definition of Terms

Adult status: The Workforce Investment Act (WIA) defines *adults* as those eligible to receive services under Title II of the Adult and Family Literacy Act, Section 203: Definitions. Adults who receive these adult basic and continuing education services must be 16 years of age and not enrolled or required to be enrolled in secondary school under state law (WIA, 1998).

Low-skilled adults: “Low-skilled adults” refers to the same population eligible for public adult education (ABE/GED) services as defined below.

Adult Basic Education (ABE): ABE programs provide:

services or instruction below the postsecondary level for individuals who have attained 16 years of age; who are not enrolled or required to be enrolled in secondary school under state law; and who lack sufficient mastery of basic educational skills to enable the individuals to function effectively in society; do not have a secondary school diploma or its recognized equivalent, and have not achieved an equivalent level of education; or are unable to speak, read, or write the English language (U.S. Department of Education, 1999).

These programs are most frequently referred to as Adult Basic Education, although federally they are identified as Adult Basic and Continuing Education (ABCE). These adults by definition fall under the category of low-skilled adults. ABE programs also provide preparation for the GED for those with higher skill levels. Some of these adults need little assistance to pass the GED. Thus the range of skills in ABE programs that include pre-GED is broad.

General Education Diploma, GED: The General Educational Development test (GED) is a high school diploma equivalency exam administered by the American Council on Education (ACE). It consists of five areas: mathematics, science, social studies, writing, and interpreting literature. Started by the U.S. military and the American Council on Education in 1942, the GED provided veterans who lacked a high school diploma a chance to obtain an equivalent credential (Chaplin, 1999). By 1952, the GED became available to non-veterans, and was available in all 50 states by 1963 (Tyler, 2005).

Literacy: Literacy was defined in the National Literacy Act of 1991 (see <http://www.nifl.gov/public-law.html>) as “the ability to read, write, and speak in English and compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one’s goals, and to develop one’s knowledge and potential.” For the purposes of our study, we will use

the National Assessment of Adult Literacy (see <http://nces.ed.gov/naal/>) definition of literacy to identify low-skilled adults as those who lack the skills of “using printed and written information to function in society, to achieve one’s goals, and to develop one’s knowledge and potential.” The International Adult Literacy Survey (see <http://www.aved.gov.bc.ca/literacy/>) definition of literacy is quite similar, describing literacy as “the ability to understand and use printed information in daily activities at home, at work and in the community - to achieve one’s goals, and to develop one’s knowledge and potential.”

Limited English Proficiency: The term *individual of limited English proficiency* in WIA means an adult or out-of-school youth who has limited ability in speaking, reading, writing, or understanding the English language, and whose native language is a language other than English; or who lives in a family or community environment where a language other than English is the dominant language.²

Orem (2005) describes adult English language learners as individuals age 16 or older who may be professionally trained immigrants or illiterate refugees; who may have landed at the airport yesterday or lived their entire lives in the U.S.; and who may know enough English to ask very sophisticated grammar questions or want to learn how to communicate orally with their employer.

English as a Second Language (ESL) or English as a Foreign Language (EFL): Learners in ABE programs who attend classes to learn English have traditionally been identified as ESL learners. However, many of these learners are proficient in more than one language not including English, so the term EFL is now commonly used in these programs (Orem, 2005). The term English Language Learner (ELL) is more frequently found in K-12 settings. ESL learners cover a very broad spectrum of skills from preliterate adults not literate in any language to those with advanced degrees who speak little or no English.

Career pathways: Career pathways are explained in more detail in Appendix A. For the purposes of this study we are using Jenkins’ (2004; 2006) definitions. Career pathways are designed to create “educational *stepping stones* for advancement of workers and job seekers, including those with basic skills deficiencies, and to provide a supply of qualified workers for employers” (Jenkins, 2004, p. 1). Career pathways provide a framework and process for improving the outcomes of our publicly-supported education, workforce development, and social service systems by aligning their resources and energies toward the common goals of individual career advancement and regional economic development. In doing so, they help increase the return on the public’s investment in human capital development (Jenkins, 2006).

Family sustainable wage or living wage: The Economic Policy Institute (2002) stated that a living wage is “usually the wage a full-time worker would need to earn to support a family above federal poverty line, ranging from 100% to 130% of the poverty measurement” (n.p.). This wage level can be determined by consulting the federal poverty guidelines for a specific family size.

2 Carol H. Van Duzer, National Clearinghouse for ESL Literacy Education, Center for Applied Linguistics. (The National Center for ESL Literacy Education is now the Center for Adult English Language Acquisition [CAELA], <http://www.cal.org/caela/>.)

Often, living wage levels are assumed to be equivalent to what a full-year, full-time worker would need to earn to support a family of four at the poverty line. In 2000, this amount was \$17,690 a year or \$8.20 an hour (Federal Register, 2006). However, some living wage levels are set at 130% of the poverty line. This slightly higher level is the maximum income a family can earn and still remain eligible for food stamps (see Appendix B).

Criteria for Inclusion in the Review of Research

The initial section of this review is an attempt to synthesize the most recent data on adult literacy in the U.S., including the increasing role of the community colleges in preparing low-skilled adults for the world of work. As mentioned above, research in this area comes from a variety of sources, and relatively few of these studies include experimental data. The programs identified in this synthesis of the literature are limited to:

- Programs designed for low-skilled adults and limited English proficient adults.
- Programs in postsecondary institutions/community colleges that offer career training or technical training.

We have excluded studies that:

- Are older than 10 years.
- Are purely descriptive in nature or without an empirical basis for comparison on the success of the program.
- Do not have occupational training or career training as a goal or that focus only on high school students.

PART 1: FOUNDATIONAL RESEARCH

Research that focuses on low-skilled adult participation in ABE, GED, or ESL programs in the community college context has special relevance to our review.

The Need for Adult Basic Literacy Programs

As indicated above, the most reliable figures on adult literacy are from the National Adult Literacy Study by Kirsch et al. (1993) and updated by the National Assessment of Adult Literacy (NAAL, 2003). These surveys show that the percentage of Americans falling into the *below basic* and *basic* literacy categories has remained more or less stable over the last decade, with 14% in the *below basic* category and 22-33% scoring at *basic* literacy levels.³ Scores were higher for prose and document literacy, but lower across all categories, including race and gender, for quantitative literacy (NAAL, 2003).

3 *Below basic* indicates no more than the most simple and concrete literacy skills.
 Basic indicates skills necessary to perform simple and everyday literacy activities.

There is also a large body of research compiled by two national research centers, the National Institute for Literacy (NIFL) funded by the 1991 amendment of the Adult Education Act (AEA), and the National Center on Adult Literacy (NCAL) funded by the U.S. Department of Education. The National Center for the Study of Adult Literacy and Learning (NCSALL) is the successor to NCAL. These organizations have been charged with knowledge production and dissemination related to adult literacy. However, a review of their publications failed to produce any specific research on the narrower topic of career pathways for low-skilled adults relevant to this synthesis.

Participation in ABE and ESL programs and adult secondary education (including adult high school diploma and GED) is reported to Congress each program year (Office of Vocational and Adult Education [OVAE], 2004). The latest figures available from the 2002-03 program year showed that 2,736,192 learners participated in these programs. Of these, just under 40% were enrolled in ABE, 17.5% in adult secondary education, and 42% in ESL programs. The majority of the learners (1,231,273) were 25-55 years old, while 697,053 were 19-24 years old. Both of these age groups are those in which adults are most likely to be raising a family.

Due to changes in U.S. immigration patterns, ESL programs have been dramatically increasing. By far the largest ethnic group participating in ESL programs was Hispanic with 1,142,912 participants; 540,227 were listed as Black or African American; 203,732 were recorded as Asian; and 35,996 ESL students were American Indian or Alaskan Native (OVAE, 2004). In terms of gender, male and female enrollment was roughly equal with slightly more women (1,773,811) enrolling than men (1,262,381) (OVAE, 2004).

States are mandated to collect information and report on subsequent employment and postsecondary enrollment of participants. It is significant that only 28 of 50 states were able to report on participants entering or maintaining employment (OVAE, 2004, Table 7, p. 11). Data from the 2003 NAAL shows that 57% of those at the lowest literacy level were unemployed and only 35% were employed full-time. As a group, those not in the labor force had the lowest literacy levels (NAAL, 2003).

In terms of postsecondary enrollment, the OVAE report notes that there are few comprehensive databases available for states to track the numbers of adult education graduates who enroll in postsecondary education. Most states (26) had to rely on individual student surveys of ABE/GED graduates.

Despite the efforts listed above to develop consistent reporting systems for ABE programs, locating data on actual skill gains made by adult literacy participants has been difficult. The problems in this regard documented by Kutner, Webb, and Herman (1993) still persist. A 1995 Government Accounting Office (GAO) report found that the diversity of goals that adults have for their education, the diversity of the students themselves, and the lack of uniformity of assessment systems cited above made comparisons of progress difficult. In addition, data from programs were either missing or inaccurate (GAO, 1995). Adult clients do not stay in programs long enough to get reliable test/retest information. More than 50% of adults leave programs with-

in the first 16 weeks (Kutner et al., 1993). We have been unable to find any large-scale national studies showing basic skill gains, only the NAAL data cited above.

Research on the GED

The GED is often regarded as an alternative for individuals who would not otherwise complete secondary education, including teenage and adult learners who are dropouts, are at-risk, have limited English proficiency, and/or have disabilities (Tyler, Murnane, & Willett, 2000a; Scanlon & Lenz, 2002). According to ACE testing service data, more than 703,000 people took the GED test in 2003 and over 412,000 successfully passed it. Approximately 200,000 of those who passed were under the age of 20 and of these, 50,000 were 16 or 17 years old (ACE, 2003). Therefore, almost half of those who take the exam and successfully complete the GED fall into the traditional high school age group. One of the greatest benefits of obtaining a GED is that it offers recipients a credential that allows them the opportunity to further their education and training to further increase their labor market potential (Brown, 2000; Virshup, 1999). According to a survey by the U.S. Department of Education in 2003-04, only about 3% of community college students enter community colleges without a diploma or GED (Arenson, 2006).

Given current high school dropout rates, GED programs have the potential to grow as an important vehicle for linking students to postsecondary education. GED preparation coursework is generally offered by the state community college system or by state K-12 community education programs. In some cases, private, non-profit, and community-based organizations receive federal and state funds to operate these programs. Many of these programs are actively developing means and strategies to improve adult literacy and GED access to postsecondary education. For example, Massachusetts has developed a GED transition program to help students to further their education beyond the high school diploma (Bragg et al., 2005). Many community colleges are developing remedial (developmental) curriculum and supportive instruction to help individuals with GEDs obtain an associate degree or transfer to four-year colleges or universities.

The GED and the Employability of Low-Skilled Adults

Getting and retaining employment is often difficult for adults who lack a high school diploma. The GED is intended as an alternative credential that will open doors to employment and postsecondary education. A national study by Cameron and Heckman (1993) showed that GED holders had lower annual earnings, hourly wages, and probability of employment than people with a high school diploma. In addition to this, low-skilled adults face limited opportunities for on-the-job learning once they enter the workplace (Hart-Landsberg & Reder, 1993). It was also found that short-term vocational training (averaging 569 hours) has little or no impact on wages (Murnane, Willett, & Tyler, 1999), and only a modest impact on average rates of employment over the long term (Prince & Jenkins, 2005a, 2005b). By contrast, adults who completed community college occupational degree programs were 8% more likely to be employed and averaged over \$4,400 more per year in salary than those who did not reenroll in training programs (Hollenbeck & Huang, 2003).

Thus community colleges are an avenue for skill improvement and increased employability (Hollenbeck & Huang, 2003). However, although postsecondary education and training can be routes to economic success, data indicates that few GED graduates actually enroll in and complete further education or training (Tyler, 2005). Prince and Jenkins (2005a) described a longitudinal tracking study of low-skilled adults in community and technical college programs in Washington State. Their research showed that only 13% of the students they studied who started in English as a Second Language programs went on to earn any college credits; less than 30% of the ABE students they followed successfully made the transition to college-level courses; and less than 30% of students who started with a GED earned 45 postsecondary credits within five years. Community colleges can offer an effective pathway to educational and economic success for low-skilled adults only if the adult learners complete their training (Prince & Jenkins, 2005b) and few low-skilled adults seem to do this.

Economic Returns for GED Earners

A great deal of research has focused on the value of the GED. Cameron and Heckman (1993) used a national dataset to analyze the causes and consequences of the growing proportion of GED recipients who achieved high school equivalency by examination rather than through traditional schooling. They found that the GED provided value by opening doors to postsecondary training opportunities, but college completion rates for exam-certified graduates were much lower than they were for traditional graduates. Differences between exam-certified persons, high school dropouts, and high school graduates were accounted for by the years of schooling each completed. As a result, Cameron and Heckman argued that a traditional high school education could not be replaced by exam-certification. Their report also showed that the labor market returns for attaining a GED were relatively small, casting doubt on the overall effectiveness of the GED as an alternative to a traditional high school diploma. Their data indicated that exam-certified high school equivalents were statistically indistinguishable from high school dropouts.

Murnane et al. (1999) used random effects models to examine the earnings of two groups of 27-year-old males, one high school diploma recipients and one GED earners. They used data collected in the early 1990s, using the sophomore cohort of the High School and Beyond (HS&B) dataset. Their findings were consistent with previous studies, indicating that obtaining a GED was associated with higher earnings at age 27 for those male dropouts who had low cognitive skills, but not for those with stronger cognitive skills as 10th graders. Low-skilled dropouts were defined as those in the bottom quartile on the 10th grade math test. In a related study, Tyler, Murnane, and Willett (2000b) tested the GED credential as a signal to the labor market of potential employees' value using a dataset that contained GED test scores and Social Security Administration earnings. They explored variations generated through differing state GED examination standards to identify the GED's signaling value of net human capital effects (return on investments in individuals). The results of the study indicated that the GED signal increases the earnings of young white dropouts by 10-19%, but they found no statistical significance for minority dropouts. Economic outcomes for white females were similar for those of white males (Tyler, 2005). No data was reported on minority males or females (Tyler, 2005).

Clark and Jaeger (2002) explored the economic returns to the GED by comparing the differences in benefits to U.S.-born and immigrant GED recipients using U.S. census data. In contrast to Cameron and Heckman's findings, this study found that immigrants who passed the GED exam but had formal schooling outside the U.S. earn considerably more than either immigrant dropouts or individuals who earned high school diplomas prior to their arrival in the U.S. Foreign-born men who obtained a GED with some U.S. schooling earned a higher income than immigrants with a U.S. high school diploma, although the difference was not statistically significant. These patterns contrasted with those of U.S.-born men, among whom GED holders earned less than high school graduates but significantly more than dropouts. The wages of GED recipients, both U.S.-born and foreign-born, were substantially higher than dropouts. Although a causal relationship between the GED and economic returns cannot be assumed, the study implied that the economic return to GED varied across segments of the population. Furthermore, the study suggested that the GED might play an important role in assimilating low-skilled immigrants to the labor market.

The bulk of the research literature on the GED has examined how completion of a GED correlates with future earnings, and which student groups are best served by GED programs. Much of this research has been carried out by economists, primarily Murnane at Harvard (Murnane et al., 1999) and more recently Tyler (2001) at Brown.

Non-Economic Outcomes Related to the GED

There has been limited research on non-economic benefits of the GED credential. A study of GED recipients in Pennsylvania by Miller (1987) indicated that a primary benefit of passing the GED is improved self-esteem. His research study found that 70% of the respondents indicated an increase in self-esteem, and 90% felt their families shared their sense of accomplishment. In economic terms, results showed that full-time employment increased from 32% to 48%.

A follow-up survey of 3,099 GED graduates in Pennsylvania from 1974-1994 identified how changes in employment characteristics, living arrangements, and income correlated with preparation for the GED, further education, and outcomes of passing the GED (Dean, Eisenreich, & Hubbell, 1996). Respondents to this survey reported improvements in all of the economic and non-economic indicators measured. These findings provide additional strong evidence of the value of obtaining a GED. An Iowa study found 13 measures of employment and economic security increased for GED graduates (Iowa Department of Education, 1992). Similar positive findings were also evident in a study in Kentucky (Raisor, Gerber, Bucholtz, & McCreary, 1993).

GED Recipients' Participation in Postsecondary Education

Extensive literature has asserted that the role the GED plays, at least for some groups, may be significant in the labor market and that the return on investment from having the GED increases over a lifetime. Attainment of a postsecondary credential is crucial for occupational opportunities and higher earnings, consequently, increasing attention has been paid to the postsecondary education participation and the educational persistence of GED recipients (Dean, 1998; Reder, 2000).

The data on GED students' completion of postsecondary education is not encouraging. "Nontraditional students"—that is, students older than the traditional high school student who are returning to education—do not fare as well as their more traditional-age high school peers. They are only half as likely as traditional students to complete a degree within five years. Just 27% earned an associate degree in that time compared with 53% of high school students (Strawn, 2007).

Earlier studies showed that GED graduates were strongly oriented toward educational opportunities that emphasize acquiring occupational skills (Boesel & McFarland, 1994). GED holders who sought vocational certificates were almost as likely as high school graduates to attain them, those who sought associate degrees were about half as likely to attain them, and male GED earners who sought bachelor's degrees were very unlikely to attain them (Boesel & McFarland, 1994).

Dobbs (2003) conducted a longitudinal study comparing the academic performance of 22,520 students in seven freshman cohorts enrolled in Indiana University-Purdue University Indianapolis. Of these students from the longitudinal study, 1,686 had GED credentials. The first cohort entered college in 1995 and the last cohort entered in 2001. The students entering with GED credentials were an average of three-and-a-half years older than the non-GED students. During their first year of coursework, the students with GED credentials were more likely to enroll part-time and had lower average GPAs than the other students. However, a noteworthy finding was that the GPAs of the GED-credentialed students began approaching those of the non-GED students during the second year. By the fifth year, there was no statistical difference between this group and the non-GED students. However, retention for students with GED credentials declined more rapidly than for non-GED students.

English as a Second Language Learners

Persons needing to learn or become more proficient in English are an increasing percentage of the student population enrolled in community colleges. Many students with limited English skills are enrolled in ESL programs at community colleges, but may also be enrolled in GED or other adult literacy programs. Enrollment in separate ESL classes is often determined by the demand. Where there are not enough ESL students to make a single class cost-effective or the level of English proficiency is high enough, ESL students are enrolled in GED classes along with non-ESL learners (Orem, 2005).

About 25% of students enrolled in community colleges in the U.S. are immigrants, and ESL programs are the largest and fastest growing programs at many community colleges (Crandall & Sheppard, 2004). ESL students include immigrants and international students with diverse academic, social, cultural, and language backgrounds. The broad range of educational experiences and motivations for participating in ESL and GED instruction requires an equally diverse range of programs. It is often difficult to design a program that is sufficiently broad and accommodates the diversity of needs of the varied group.

The Emerging Role of Community Colleges

The role of community colleges in serving low-skilled adults varies to some degree from state to state. In some states ABE, GED, and ESL programs funded by the Adult Education Act are administered by the public schools, often through community education programs. Increasingly, however, community colleges are being asked to administer these programs. The Council for the Advancement of Adult Literacy (<http://www.caalusa.org/>) has established a task force to study the role and potential for community colleges in adult literacy. The most recent report by the National Commission on Adult Literacy states explicitly that postsecondary and adult education systems must work together to serve the needs of low-skilled adults (Strawn, 2007). Historically, remediation has not been customized to career and education pathways as the Strawn report recommends (Strawn, 2007).

Some recommendations about the role of community colleges as they relate to Tech Prep may apply to ABE and GED students. Students who are at risk of not making the transition from high school to postsecondary technical training have many of the same characteristics as ABE and GED participants. There is an overlap in the population served by adult education and college remediation (Strawn, 2007). Bragg and Reger (2002) offer recommendations for successful preparation of students for technical careers, including a recommendation that community colleges enter into partnerships with business, industry, labor, and community groups that support a sustainable approach to Tech Prep. They emphasize advanced academic and career technical education sensitive to academic reforms, larger economic changes, and local market forces. The role of community colleges should be strengthened by recognizing and learning from the lessons that successful Tech Prep consortia have learned by involving their postsecondary partners in important ways. In other words, there should be an alignment between job training and postsecondary policies (Strawn, 2007). This suggests that community colleges should be more aligned to the occupational needs of postsecondary students and the economy.

PART 2: THE CASE STUDIES, METHODOLOGY, AND FINDINGS

Introduction

Gaps exist in our knowledge about the development of programmatic models that lead to student success as demonstrated by a range of student outcomes, particularly retention in postsecondary education and placement in related employment. Despite the growing literature on the economic benefits of the GED reviewed above, very little is known about how new curricular and instructional pathways integrate ABE, GED, ESL, and other pre-college and developmental instruction with postsecondary occupational certificate and associate degree programs in community colleges. In undertaking the broader research project, we sought to deepen understanding of an emerging trend that has the potential to create fundamental changes in the ways low-skilled adult learners enter into, engage in, and succeed in postsecondary education and employment (Liebowitz & Combes Taylor, 2004). Part one of this study surveyed the foundational research on low-skilled adults. Part two deals with the remaining three research questions:

- What ABE, GED, or ESL to postsecondary occupational pathway programs that display innovative policies and practices and also offer promising evidence of outcomes for low-skilled adults, particularly completion of a postsecondary credential and placement in related employment, exist in the U.S.?
- What practices and institutional strategies are associated with ABE, GED, or ESL to postsecondary occupational pathways that promote low-skilled adult participation in postsecondary credential (certificate or degree) programs and placement in related employment?
- What lessons can be learned about curricular and instructional design that may be transportable to other ABE, GED, or ESL to postsecondary occupational pathways for low-skilled adults?

A detailed description of successful programs would help administrators allocate limited resources more effectively and increase completion rates.

Finding Promising Indicators

Reports on successful programs are limited in number and are also limited in their research findings. For example, Liebowitz and Combes Taylor (2004) chose one community college in each of four regions of North Carolina for their research study. This geographic limitation to one state makes it difficult to generalize their finding that successful GED students are demographically similar. If successful students are similar, then identifying their shared characteristics could be as important as program design features in predicting program success.

The Del Mar College program shows that interagency cooperation has had some success in reducing dropout rates and increasing skill levels. Increasingly, community colleges are collaborating with local education agencies, community-based organizations, and public and private organizations to help low-skilled adults attain their GED, learn occupational skills, and stay in school. These programs are particularly targeting limited English proficient individuals, individuals with physical and/or learning disabilities, out-of-school youth, the incarcerated, and those with low occupational skills (Gigi, 1999). Del Mar College experienced a decline in certificates and degrees awarded when their system changed and low-skilled students were required to complete more remedial coursework. As a result, time to degree completion increased and graduation rates decreased. In response to this problem, the college contracted with the Corpus Christi Literacy Council and the Corpus Christi/Nueces County Workforce Development Corporation to provide instruction for GED, English as a Second Language (ESL), and basic literacy skills (Flores, Snouffer, & Flores, 2005). This collaboration resulted in literacy improvement, but no data on completion rates were reported.

On a different note, changes in curriculum designed to prepare students for postsecondary education have received attention. One innovative program is the Florida GED PLU.S. College Preparation Program. This program was designed to provide students completing their GED program with the knowledge and skills necessary to reduce their need for remedial classes and assist them with their pursuit of education and employment. More than 68% of the Florida GED

PLU.S. candidates planned to pursue higher education, aspiring to attend Florida’s community colleges, technical education centers, or universities (Guglielmino, Pittman, & Vondracek, 2005) However, a report on this program gives few specifics as to just how these curricular models and instructional designs were developed and delivered and how closely they aligned with postsecondary instruction.

What is Not Known

Little empirical information exists concerning educational and employment outcomes of low-skilled adults, leaving policymakers and practitioners uncertain about how to guide program development and implementation. The focus of the U.S. Department of Education has been on empirical research and evidence-based decision-making (McShane, 2005). Consequently, hard evidence is needed to understand the ways community colleges attract low-skilled adults and connect them to opportunities to prepare for and pass the GED, and enroll and retain these adults in occupational programs that lead to careers with family-sustainable wages. The examples cited above give partial results on strategies that appear successful. The programs presented below met the criteria for inclusion in our review.

Case Studies of Programs that Meet the Criteria for Inclusion in the Review

The criteria used in the literature review are:

- Programs designed for low-skilled adults and limited English proficient adults.
- Programs in postsecondary institutions/community colleges that offer career training or technical training.

We have excluded studies that:

- Are older than 10 years.
- Are purely descriptive in nature or without an empirical basis for comparison on the success of the program.
- Do not have occupational training or career training as a goal or that focus only on high school students.

We identified eight studies of programs that are designed to give low-skilled adults the training needed to find and hold jobs providing a family-sustainable wage. These studies were identified after searches of existing electronic databases including the U.S. Department of Labor, ERIC, NCCTE, and the Community College Research Center. Not all of the eight studies met all of the criteria described above, but each provided helpful information. The studies are sorted by methodology used. Each is described below and the findings are summarized in Table 1 (see page 30).

1. *Breaking through: Helping low-skilled adults enter and succeed in college and careers.*

Liebowitz, M., & Combes Taylor, J. (2004). Boston: Jobs for the Future.

Description and Methodology

This is a literature review and summary of discussions with practitioners and researchers regarding existing programs. It sought to identify, promote, and accelerate innovative practices so that other practitioners may revise, strengthen, spread, and sustain informed career pathway initiatives for low-skilled adults at community colleges. The *Breaking Through* analysis consisted of a review of research with field investigations of program transition points, site visits, phone interviews with practitioners (adult literacy, developmental education, and workforce development), interview sessions at conferences and a convening committee of 12 practitioners who discussed their own programs (2004). Their research identified two populations of low-skilled adults who were most likely to benefit from such programs and whom initiatives should target:

- 1) Adults with 6th- to 8th-grade level skills, helping them move quickly to complete high school, develop pre-college skills, and benefit from developmental education; and
- 2) adults with 8th- to 10th-grade pre-college skills, helping them develop college-level skills and enter credit programs. (Liebowitz & Combes Taylor, 2004, p. 5)

The authors identified problems for adult learners during transition points (low basic skills to high school completion, high school to college enrollment, enrollment to degree) and with institutional and individual barriers (loosely connected programs, lack of time for student, employment/economic payoffs, crisis support services), all of which can potentially lead to dropout.

Breaking Through examines transition points among many programs and career pathways, suggesting four “high-leverage strategies to increase access and success” for low-skilled adults (Liebowitz & Combes Taylor, 2004, p. 1):

- 1) Integrated institutional structures and services: the coordination of programs that “create multiple paths” for low-skilled adults.
- 2) Accelerated learning: the quickening of instruction in “individualized,” “contextualized,” “short-term, intensive learning programs” to expedite program completion.
- 3) Providing labor market payoffs, strategies driven by employers’ needs and priorities, which “focus on high-demand occupations,” enable low-skilled adults to complete programs quickly, and help students learn faster by contextualizing content.
- 4) Comprehensive supports: services and guidance in career counseling, childcare, providing a learning community, tutoring, case management, etc. Specific programs which illustrate and describe in detail concrete examples of each strategy in practice are described.

Breaking Through also identified promising state policies that are having a significant impact on the capacity of the community college to create pathways to postsecondary skills and credentials for low-skilled adults.

Recommendations

Recommendations to the academic and policy community include: 1) further development, support, diffusion, and study of the small number of programs in order to spread them within and beyond institutional boundaries; 2) targeting programs toward the two identified populations of low-skilled adults; and 3) focusing efforts on colleges where programs are sustained when funding ends or leaders leave. Specific community college programs were identified that exhibited long-term commitment, perseverance, integrated leadership, and sustainability. Barriers to progress in the innovative programs were also identified. Examples of barriers to progress include federal and state adult education policies requiring minimum seat time, set curriculum, and separation of workplace skills from curriculum.

Finally, ways to promote and support innovation through public and private investments were identified from discussions with community college leaders and practitioners. Notable areas identified for investment include peer learning between institutions adopting promising strategies, support for broader peer learning by the institutional leadership, and “strategic investments that support state policy analysis and advocacy” (Liebowitz & Combes Taylor, 2004, p. 29).

Limitations

- This study used a descriptive research design. Consequently, we have no empirical basis for comparison with other similar programs.
- Instrumentation is not clear; the report is more review of literature than research.
- Data collection and analysis procedures are not detailed for the reader, making the study difficult to replicate.

2. *Community colleges as labor market intermediaries: Building career ladders for low wage workers.* Fitzgerald, J. (2000). New York: New School University, Community Development Research Center.

Description and Methodology

This study set out to identify best practices and examine “the extent to which community colleges play an active role in encouraging employers to restructure jobs, given the proliferation of low-wage jobs” (Fitzgerald, 2000, p. 5). Fitzgerald interviewed administrators and practitioners at three community colleges with innovative career ladder programs where students continue training after employment and are provided opportunities for increased wages and career upgrades. Selected case study sites infused career ladder programs with certificate and degree programs targeted to welfare-to-work clients. Sites were chosen for their innovative focus on career ladder or wage progression after informal interviews with administrators, organization representatives, and researchers. Faculty, administrators, college presidents, business partners, social service agencies, and partners were interviewed at each site. In addition to interviews, data and documentation were reviewed, although the sites had little data on long-term progression in careers.

Career ladder descriptions, program philosophy, student requirements, funding, support services, and outcomes (when available) were reviewed for each of the following: Essential Skills Partnership of the Community College of Denver (CO), Job Ladder Partnership of Shoreline Community College (Seattle, WA), and Environmental Health and Safety Program of the South Seattle Community College (WA).

Interviews identified one of the Essential Skills Partnership Program strengths to be the assignment of a *track coordinator* to each cohort. For the duration of the program, the coordinator checks on student attendance, performance, and concerns. Job placement, performance assessment, and communication between Department of Human Services (DHS) case managers and program staff are also the responsibility of the track coordinator. The guiding principle of the program is, “All learning takes place in relationships,” (Fitzgerald, 2000, p. 24). In order to create these relationships, Fitzgerald reports that cohorts in the Essentials Skills Program are facilitated to include group interaction and study sessions where children are allowed to attend with clients. The emphasis of these sessions is on creating and maintaining circles of support with other students in the cohort by building relationships. Research identified five factors (vocational training and high demand occupations, group learning, intensive career counseling, internships, and strong business partnerships) as underlying the program’s success.

Shoreline Community College’s Job Ladder Partnership Program offers an intensive career counseling program where students are placed into pre-employment programs, work, remedial classes, or ESL. Students develop a career plan with the counselor, move toward career goals, seek job placement, and finally work with the retention specialist once employed.

South Seattle Community College offers modules toward certification in Hazardous Materials through the Environmental Health and Safety program. Learning and work are combined so that students find jobs quickly and take steps toward continuing their education and increasing their earnings. Students are provided instruction without the constraints of the academic calendar. Each module is designed in collaboration with the industry so that students learn specific skills in accordance with standards and demonstrate them through performance-based competencies. Students may accumulate credits toward degrees and certificates while employers may gain higher quality workers who stay on the job longer.

In all three case studies, internships were found to be an essential program element. At Shoreline, work-study in area of interest on campus and/or at a private site for one year is required. In South Seattle, workers are trained for specific hazardous waste cleanup jobs and continue training while employed. At Essential Skills (Denver), all students are required to do an internship as part of their education/work. After initial DHS workshops on career counseling, communication skills, and life skills, students attend class for 35 hours per week for the first month, including GED preparation, group time, and workshops.

Findings

The findings point to promising strategies in all or some of the programs studied:

- 1) Vocational training in high-demand occupations
- 2) Cohort approach that promotes group learning
- 3) Intensive career counseling
- 4) Internships
- 5) Work schedule accommodations
- 6) Strong business partnerships
- 7) Continuing education tied directly to job advancement and wage progression
- 8) Partnerships with human service agencies
- 9) State funding
- 10) Student financial support

Recommendations

Following program-specific case study descriptions, Fitzgerald focuses on employment structure, policy environment, and program institutionalization after funding decreases in order to examine the potential influence community colleges may have with employers with regard to job restructuring. She defines a *progressive intermediary* as an institution attempting “to work on both the supply and demand sides of labor market” (Fitzgerald, 2000, p. 7). Fitzgerald asserts, “by providing technical assistance in manufacturing modernization and customized training, community colleges have the potential to maintain and increase the number of high performance workplaces in the local economy” (Fitzgerald, 2000, p. 7). Seven principles emerged from the interviews:

- 1) Community colleges need to make career progression a priority.
- 2) Continuing education has to be flexible.
- 3) Continuing education has to be tied directly to job advancement and wage progression.
- 4) State government has to support career progression programs.
- 5) Community colleges need partners (but partners are not the same as intermediaries).
- 6) The role of labor market intermediary is more complex than connecting supply and demand.
- 7) Wage progression strategies will not work for every student.

If community colleges are to be progressive intermediaries, a two-pronged policy agenda is recommended: 1) state policy needs to focus on upgrading skills for both low-wage workers/adults

who are transitioning from welfare to work, and for incumbent worker training programs; and 2) *sectoral strategies* must be used by the intermediary to solve industry problems and improve training for incumbent workers, thereby increasing access to the industry for the disadvantaged.

Limitations

- Uses a descriptive research design.
- Lacks appendices with details on interview questions, sample sizes, or research processes.
- Limited information in case study responses—Fitzgerald admits that the “whole picture” detailing how each program fits into its college is missing for these sites.

3. Making connections to jobs, education, and training: The essential skills program of the Community College of Denver. Suárez, C., & Meléndez, E. (2001). Boston: University of Massachusetts, Mauricio Gastón Institute.

Description and Methodology

This program report summarizes descriptive qualitative data gathered through guided interviews with ten individuals—managers, staff, and former and current students—at the Essential Skills Program of the Community College of Denver. It aims to inform the U.S. Department of Labor about the program, which is described as an education broker and labor market intermediary coordinating services with the needs of the Denver Department of Social Service clients. Enrollment numbers (approximately 100 students per semester) are provided for the program’s short educational tracks of Early Childhood Education, Financial Services, Medical Instrument Technician, and Retail Sales. Descriptive data for each available career pathway includes credit hours, required hours of on-the-job training, phase I-IV time requirements, and graduation, employment, and salary rates.

The Essential Skills Program was designed to provide education, training, employment, and support services to adult welfare clients affected by the Temporary Assistance to Needy Families [TANF] legislation (1996). The program offers participants the chance to become self-sufficient in a career track. The Denver Department of Social Services identifies individuals as ready to participate if they are assessed as level II, *almost job ready*, or level III, *marginally job ready*. Services are provided to help clients successfully obtain employment and remain employed in a stable job after developing an understanding of work culture, expectations, essential literacy, and job function vocational skills.

The 10-month program is divided into four phases after pre-assessments. *Phase I* clients begin job-readiness activities by completing at least 12 credit hours of core coursework, including a minimum 6 credit hours of workplace readiness courses, support services, and 3 credits of corporate work experience. Five to seven additional credit hours of vocational courses must be completed for students to start *Phase II*, which can last 3-6 months, depending on the student’s need. In *Phase II*, clients spend 22 hours a week at work and 18 hours a week in classes on vocational

competencies, workplace core competencies, and cooperative work experiences. During this period, support services are provided, including backup childcare, professional wardrobe stylist, assistance with transportation, and counseling. In *Phase III*, clients continue vocational training twice a week in two-hour sessions while working full-time. Finally, *Phase IV* is full employment.

Findings

Findings from interviews with the program director and staff indicate that the development of the Essential Skills Program benefited from participation in the federally-funded Workplace Learning Project, a work program on the jobsite. Affiliations, partnerships, consistent leadership, and procedures already in place from the 1994 work-based learning initiative created a strong foundation for the newly designed Welfare-to-Work program. Reputation, service, experience, and the program's operational design of inter-organizational cooperation offer employers graduates who "do not only have the competencies necessary to function on the job but also have the attitudes and work habits employers expect from their workforce" (Suárez & Meléndez, 2001, p. 10). Interview data provided additional details regarding support services (counseling, academic, basic needs), pedagogy, curriculum and instruction (contextualized learning, alternative course scheduling, matriculation to a degree program, tracks to in-demand careers), and supportive leadership (community college, state policy, industry, service agency, regional boards).

The researchers identified the following practices as strengths of the program: internships, cohort approach, partnerships with local industries, partnerships with human service agencies, and outreach to the Hispanic and ESL populations.

Recommendations

Recommendations for working with non-mainstream populations, based on the success of the program, include the following:

- 1) Offer a comprehensive array of services that address the multiple barriers experienced by non-mainstream students;
- 2) Rethink the methods and educational approaches utilized with non-mainstream populations; and
- 3) Design programs for nontraditional students with employer participation.

Limitations

- Uses a descriptive research design.
 - Describes one program in Denver at a large institution with good state support and may not be generalizable. Replicability in other regions of the nation may be difficult.
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4. *English as a Second Language learning communities* (Research Rep.). Brancard, R., DeLott Baker, E., & Jensen, L. (Draft, June 22, 2006). Denver, CO: Community College of Denver.

Description and Methodology

This unpublished empirical, quasi-experimental study of intervention at the Community College of Denver focuses on English as Second Language (ESL) learners. An intervention group and a comparison group are included in this study. The intervention group includes a case manager as part of a learning community. The comparison group does not have a case manager and participants are not part of a learning community. ESL student outcomes at the Community College of Denver (CCD) were examined to identify the effects of learning communities on retention, course completion, and grade point average. CCD served 9,274 students in the fall of 2004, 55% of whom were students of color. Outcomes were examined for the intervention group, which consisted of approximately 45 ESL students as part of the learning community with case management, and a comparison group consisting of ESL students neither in a learning community nor receiving case management.

Students enrolled during spring 2005 were included in the first stage of the study. Forty-five ESL students in the intervention group were matched with a sample of 45 ESL students enrolled in at least one ESL course but not participating in the learning community. In the second stage of the study (fall 2005 students), the intervention and comparison groups were matched carefully again, with 44 ESL students in each. Age, gender, and self-reported racial/minority status were closely matched in an effort to control for educational background and cultural differences.

Findings

The results of the study include statistical comparisons, as well as descriptive statistics of the groups, in response to each of the following research questions:

Question 1: Do the groups differ in semester-to-semester retention rates?

- *First Stage:* Chi-square results indicated that the difference in retention rates between intervention and comparison groups was nearly 27 percentage points in favor of the intervention group, a finding that is statistically significant at the .05 level.
- *Second Stage:* Chi-square results indicated that the difference in retention rates for ESL students of nearly 7 percentage points in favor of the intervention group, a finding that is not statistically significant.

Question 2: Do the groups differ in successful course completion rates?

- *First Stage:* Chi-square results indicated that the intervention group had 12.1% higher course completion rates, another statistically significant finding.

- *Second Stage:* Although the intervention group had a higher course completion rate, the Chi-square results were not statistically significant.

Question 3: Do the groups differ in successful ESL course completion rates?

- *Both Stages:* Although the intervention group had higher rates of ESL course completion, the Chi-square results were not statistically significant.

Question 4: Do the groups differ in semester GPA?

- *Both Stages:* Independent sample *t*-test results indicated that although the intervention group had a higher average GPA, the results were not statistically significant.

In summary, a significantly higher retention rate and successful course completion rate were found for the first stage intervention group. Differences in ESL course completion and average GPA results, however, were not statistically significant. In the second stage, the differences in all of these measures were not statistically significant.

Recommendations

The researchers were encouraged by higher course completion, retention, and GPA in the first and second stage of the study although results were not always statistically significant. These results warrant further study. The third stage of the study will continue tracking two groups of Spring 2006 Learning Community students using the same intervention group as in the first and second stages. Future research should include student outcome data for the whole ESL population in order to identify segments of the population for whom learning communities may be more effective. Additionally, qualitative studies are recommended to identify specific elements of learning communities that increase retention.

Limitations

- Students were not randomly selected, so this is not a purely experimental study meeting the U.S. Department of Education's gold standard for research design, although its methodology is more sound than that of the studies detailed above.
- ESL Learning Communities may differ in terms of language background and culture.
- Some anecdotal evidence suggested that the intervention group practices were having an unintended effect on the comparison group, which may have skewed the results.
- Some anecdotal evidence suggested that ESL learning community students may have originally been at higher risk of dropping out than those in the general ESL population. For example, students were referred to the learning community group by their advisers for the following reasons: lower levels of literacy, less formal schooling, and poor performance in skills-based classes. The results may have underestimated the program effects because the intervention group might have included more individuals with lower skill levels.

5. *Building pathways to success for low-skill adult students: Lessons for community college policy and practice from a statewide longitudinal tracking study.* Prince, D., & Jenkins, D. (2005a). New York: Columbia University, Teachers College, Community College Research Center.

Description and Methodology

Prince and Jenkins used system data to sample student transcript information from 34 community colleges in Washington State. Demographic data and analysis of student transcripts, combined with a review of the literature, provide a clearer picture of the State's low-skilled adult learners. The purposes of the study were to provide and develop profiles of low-skilled adult students, identify the critical points where adult students drop out or do not advance, and use the findings to determine how to better serve low-skilled adult learners.

The researchers used developmental, ABE, GED, and ESL students' records to track the progress of two cohorts consisting of 34,956 individuals in one of the following groups: 25 or older with a high school education or less, and 18-24 year-old first-time students who lacked a high school diploma or GED. The samples were selected from those students who entered one of the state's community or technical colleges in 1996-97 or 1997-98. The sample represented about one-third of the total enrolled first-time community college students during the baseline years. Each cohort included adults enrolled in the basic skills programs provided by the colleges as well as those enrolled directly in college credit courses. Student educational attainment and earnings five years after initial enrollment were examined for both cohorts.

Findings

- Confirmation that “the higher students’ educational attainment . . . the higher the wages they earn on average” (Prince, & Jenkins, 2005, p. 14). Students who earned a certificate after completing at least one year of college credit courses had an average annual earnings advantage of \$7,000 (started in ESL program), \$8,500 (started in ABE or GED program), \$2,700 (entered with a GED), or \$1,700 (entered with a high school diploma).
- Sixty-six percent of students receiving financial aid were successful in earning a credential or at least 45 credits after a start in ESL, compared to 16% of students who did not receive financial aid. Forty-two percent of students receiving financial aid were successful in earning a credential or at least 45 credits after a start in ABE, compared to 13% of students who did not receive financial aid.
- Of the students who started in ESL, those who subsequently took developmental education earned a credential or at least 45 credits more often (55%) than students who did not (19%). Of the students who started in ABE, those who subsequently took developmental education earned a credential or at least 45 credits more often (56%) than students who did not (27%).
- Thirty-four percent of ESL students who planned to attend school for at least one year were successful in completing 45 credits or a credential, compared to 23% of those who

did not state such plans. Twenty-eight percent of ABE students who planned to attend school for at least one year were successful in completing 45 credits or a credential, compared to 18% of those who did not state such plans.

Recommendations

The results from this study support the following recommendations for Washington community and technical colleges:

- 1) Consider establishing a minimum goal for low-skilled adults of earning a credential and taking at least one year of college-level courses;
- 2) Redesign programs and services so that supports are in place for ABE and ESL students during transition points to college-level work. This can increase the likelihood of these students earning a credential by two or three times;
- 3) Provide more aggressive support to inform and educate the large group of students with only a high school diploma or GED about their college opportunities after basic skills in community college; and
- 4) Ensure that short-term options lead to real educational attainment in the long run.

Limitations

- Study is specific to Washington State.
- Since programs for ABE and ESL differ across regions and states, these results may not be generalizable across the country.
- This report does not contain program-specific data.

6. *I-Best: A program integrating Adult Basic Education and workforce training* (Research Report No. 05-2). Washington State Board for Community and Technical Colleges. (2005). Olympia, WA: Author.

Description and Methodology

This Washington State Board for Community and Technical Colleges' (WSBCTC) research report on ESL-focused *Innovative Demonstration Integrated Basic Education and Skills Training* (I-BEST) programs sought to identify differences between student outcomes in I-BEST and traditional programs. The study included 268 I-BEST students from 10 selected demonstration programs and 1,425 traditional ESL students at the same institutions. Both groups started with similar levels of English proficiency; students in the sample were identified as Level Three or higher ESL learners in the state's six-level competency system. Workforce training and ESL results following I-BEST training are aggregated; however, the report's appendix contains results from individual colleges.

I-BEST is described as “primarily a mode of instruction where ABE/ESL and professional-technical faculty both provide instruction together in the classroom contributing to a learning experience for students that results in both literacy and workforce skill gains” (WSBCTC, 2005, p. 10). These programs, based on professional technical programs of at least one year in length, incorporate entry and exit points as part of a certificate or degree program, or they result in high-wage employment, defined as jobs available for program graduates at a minimum of \$14 per hour in King County and \$12 per hour in the rest of the state. Intensive assessment processes informed counselors by identifying next steps for language skill development when students were employed, as well as later in their education and training. The critical components in cost structure were the necessity of having two faculty members in the classroom and the coordination of services for students needing assistance with external barriers during the course the program.

Findings

Essential elements of I-BEST include 1) pairing ABE/ESL and professional-technical instructors, 2) providing intensive instruction, 3) designing well-supported supplemental vocational ESL classes, and 4) engaging in careful and regular assessment. Additional findings include:

- 1) All 10 I-BEST projects focused training on higher-skill ESL students, since these adults were able to read at a level that allowed them to interpret job training and employment materials, and to comprehend via listening within contexts and situations.
- 2) I-BEST ESL students were five times more likely to earn college credits than those not in I-BEST.
- 3) Forty-four percent of I-BEST ESL students completed workforce training, compared to 3% of the traditional ESL students during the same time period.
- 4) Three programs developed pathways to further education and training that were long enough to reach the goal of one year of college-level credit plus a credential. The remaining programs were weakly linked or had no connection to further training.
- 5) English skill gains for I-BEST students and the comparison group were nearly identical. ESL students did not make consistent gains in language skills. The researchers suggest that it is difficult to compare the two groups in this area because the I-BEST programs’ focus on workplace literacy was more specialized than the English language skills measured in the Comprehensive Adult Student Assessment System (CASAS) pre- and post-test.

Recommendations

Recommendations for scaling up I-BEST and applying lessons learned include:

- 1) Develop close relationships between basic skills administrators and workforce training faculty involved in ongoing curriculum development and student assessment processes.
- 2) Help students who need assistance identifying services, resources, and strategies to succeed by providing a coordinator.

- 3) Provide an appropriate balance of English for the workforce, related instruction for success outside the classroom, rigorous assessment of ESL skill gains, and dedicated ESL coursework above and beyond federally supported levels.
- 4) Recruit and retain students by increasing knowledge of the students' background, goals, and proficiency levels, and aligning this knowledge with program expectations.
- 5) Use classroom strategies applicable to all students and make those strategies explicit to both students and workforce instructors.
- 6) Align training in pathways. Do not base programs on a patchwork of classes. Research indicates that strong links to training, education, and employment is especially important for ESL students, as relatively few transition to workforce training.

Limitations

- The study includes only Washington State community college students.
- No information about data collection procedures and analysis; a descriptive research design was used.
- The study is limited to higher-skilled ESL students.

7. *Innovators under duress: Community college initiatives in “work first” settings.*

McCormick, L. (2001). New York: New School for Social Research.

Description and Methodology

McCormick reviewed welfare-to-work policies and their impact on New York City (NYC) community college programs that serve TANF (Temporary Assistance to Needy Families) students. These *work first* policies affected programs by limiting training benefits for welfare recipients. The report examines the programmatic changes required as a result of the TANF legislation and recommends effective program elements. By conducting comparative case studies at two community colleges (Hostos Community College in the South Bronx and La Guardia Community College in Queens), the researcher sought to answer the following questions:

- 1) Specifically, in these two institutions, how has *welfare* affected existing education programming for welfare recipients?
- 2) For this population, to what extent to did “the new federal and state laws impede further development of education and training programs”? (McCormick, 2001, p. 2)
- 3) Have community colleges adapted to welfare reform, or have innovations ceased?
- 4) “What adaptations appear most effective in combining training with the *welfare* experience?” (McCormick, 2001, p. 2)

Interviews were conducted with key staff and students in these programs, and program materials were examined. Additionally, a follow-up phone survey was conducted with administrators at 17

of 20 NYC community colleges in order to put the case study sites in context.

McCormick described past and current programs for TANF students at the two colleges and explained the specifics and impact of welfare reform policy in the NYC context. The College Opportunity to Prepare for Employment (COPE) program, initiated in 1993 for welfare recipients, provides grounds for comparison that each institution working within the requirements of the *work first* setting can use. Case study research indicates that Hostas and La Guardia both offer ESL and basic skills remediation for the many poor, foreign-born, and welfare-receiving enrolled students. Both community colleges offer unique instructional programming. At Hostas, a bilingual educational model specifically serves the adult Hispanic LEP population. At La Guardia, a *co-op internship program*, described as cooperative approach linking education to employment through internships, allows students to explore career options, apply classroom concepts in the workplace, and successfully transition to employment. The report notes that La Guardia uses *learning communities* throughout the college, where clusters of students move together through coursework specific to career areas of common interest.

Findings

The follow-up survey of NYC community college administrators yielded several conclusions:

- 1) Compared in aggregate to community colleges nationally, NYC's community colleges are less involved in TANF student programs and services;
- 2) Fewer NYC community colleges offer programs and support services for special needs and TANF clients than community colleges nationwide;
- 3) TANF student performance is slightly below the national average; and
- 4) NYC community colleges are much less likely to offer TANF clients alternatives to full-time study such as non-degree or certificate programs than is the case nationally.

These findings indicate that both colleges have dealt successfully with budget cutbacks by devising mechanisms to help students continue their assigned program on-site while negotiating the state human resource agency bureaucracy. Additionally, each college's staff links students to work experiences that employ degree-related skills during internships and, later, on their first jobs.

Other programs at LaGuardia for public assistance TANF recipients and other low-income individuals are offered in addition to the program described above, including Project Enable (which runs training programs for homeless heads-of-household, other public assistance recipients, and the low-income unemployed), VOWS (a vocational work-study project in computer-based office skills), Family College (in which TANF recipients attend college while their children attend preschool/school at the same college), and the Adult Career Counseling and Resource Center. Descriptions of and difficulties with these programs are detailed in the report.

La Guardia Community College is described as more flexible and innovative than Hostas

in its approach to training TANF students in the *workfare* environment. The following factors allowed for this greater flexibility: a mission focused on serving the poor, nontraditional institutional structure, and nontraditional pedagogical philosophy.

Finally, McCormick stressed the need for community colleges to develop an alternative vision where innovation is supported and encouraged by college administration within new “*welfare-to-school-to-work*” policy (McCormick, 2001, p. 31).

Recommendations: “Mainstream practices that support disadvantaged students” by, for example, opening up the skill center services to all college students (McCormick, 2001, p. 51).

Limitations

- Specific to NYC context.
 - Uses a descriptive research design.
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8. *Welfare-to-work initiatives in California and Los Angeles: Los Angeles City College & Los Angeles Trade Technical College.* Meléndez, E., & de Montrichard, A. (2001). New York: New School University, Community Development Research Center, and Boston: University of Massachusetts, Mauricio Gastón Institute.

Description and Methodology

After describing the historical and political context of the Welfare to Work programs in California’s Los Angeles County, Melendez and de Montrichard (2001) completed case studies of programs at Los Angeles City College (LACC) and Los Angeles Trade Technical College (LATTC), two of the nine community colleges in the Los Angeles Community College District (LACCD). California Work Opportunity and Responsibility to Kids (CalWORKS), a program giving flexibility to counties for program design, is the 1997 California state-instituted Welfare-to-Work program which replaced the Greater Avenues for Independence (GAIN) program. The main characteristic identified as influential to these colleges was the receipt of substantial funds to establish CalWORKS programs within the parameters set by the county and the guidelines for allocation of funds received through the state community college Chancellor’s office. Melendez and de Montrichard concluded that although all such programs were established within those parameters, the projects undertaken varied significantly from one another, and certain colleges within the LACCD, without the benefit of synchronized planning with their local social service departments, have not yet received the student referrals expected.

Findings

The researchers visited the two selected community colleges to investigate their developing CalWORKS programs. The LACC program’s main emphases were: 1) development of collaborations with industry, 2) integration of academic and occupational curriculum, 3) intensive coursework, and 4) distribution of a comprehensive student program guide. Conclusions drawn from the case study analysis of GAIN/CalWORKS initiatives at LACC are:

- 1) LACC has benefited from the “amicable state policy context in which community colleges are seen as key players in the state’s Welfare-to-Work program” (Melendez & de Montrichard, 2001, pp. 30–31), allowing colleges the flexibility to choose initiatives;
- 2) the work experience in such programs as Dietetics and Human Services provides opportunities for students as well as strong ties between LACC and potential employers;
- 3) the program benefits from its focus on accessibility and through the collaboration and support of key faculty and administrators;
- 4) job placement, counseling, and support services are necessary to ensure that students can take full advantage of new programs; and
- 5) program implementation engaged everyone in a rethinking of how LACC might be more accessible to CalWORKS participants.

The LATTC program was designed to provide CalWORKS students with the following: flexibility in scheduling, basic skills education for remediation, intensive short-term training with connections to certificates or degree programs, lab-based vocational training, work experience assignments, and academic/administrative/personal support services. By taking advantage of multiple schedule formats in current programs and involving those college liaisons in regular contact with employers, the program encourages students to continue their education through post-employment training. The authors concluded that one of the main assets of LATTC was its status as a trade school and its focus on vocational training; the school has maintained close links with the trades. Another advantage of LATTC is its history of work with the adult basic education needs of AFDC recipients. This work established strong student support services and a good working relationship with Los Angeles Department of Social Services. Students receive individual counseling, including a personal educational plan, specialized development classes, academic monitoring, advocacy, supports, and a sense of community. Additionally, LATTC has mainstream practices that benefit disadvantaged students—for instance, the Learning Skills Center, available to all college students, provides learning skills classes and math and English self-paced computer programs. New vocational courses designed specifically for CalWORKS students focus on granting occupational certification or providing marketable skills combined with work-study assignments. Finally, CalWORKS increased and improved initiatives in childcare, support services, and work-study opportunities for students. Faculty have been involved in the redesign and reconsideration of curriculum to increase the likelihood of short-term programs leading to employment.

Recommendations: Specific recommendations were not made explicit in this report.

Limitations

- Only two of nine community colleges in the LACCD are included in the study.
- CalWORKS initiatives were preliminary; some data are not available.
- The School Improvement Program (SIP) student population, defined as welfare recipients who started college on their own, is not identifiable.

RESEARCH SYNTHESIS RESULTS FROM THE CASE STUDIES

The results from the case studies summarized in Table 1 (see next page) are not listed in order of importance. We looked at the consistency of the findings across programs and evaluated the findings based on rigor.

Lessons Learned

What has the research reviewed taught us? First, it is difficult to find model programs that generate rigorous empirical data to back up claims of success. The problems in evaluating success in adult basic education are noted above (Developmental Associates, 1992; GAO, 1995; Kutner et al., 1993). Low-skill adult clients do not stay in programs long enough to get reliable test/retest information; more than 50% leave programs within the first 16 weeks (Kutner et al., 1993).

Many community colleges lack good information management systems, making the collection of information and the measurement of success difficult (Pearson & Champlin, 2003). A report about an electronic needs sensing program designed to elicit concerns of CTE instructors and administrators conducted by NCCTE concludes that one major concern in the field is “developing uniform methods or processes for articulating or sharing accountability data to inform decisions effectively, improve programs, and better serve students” (NCCTE, 2003). Part of the problem is systemic: community colleges do not have uniform ways of collecting, storing, and analyzing data. Assessment measures also vary across colleges, districts, and states, especially with respect to measuring gains for LEP students. Without good and uniform information management systems or consistent instrumentation to measure success, solid quantitative research is nearly impossible. Measuring gains from instruction is further complicated by the heterogeneity of the population. Large standard deviations make it difficult to establish statistically significant results.

Measuring and documenting economic gains is also difficult. Research on high-poverty populations is especially difficult when dropout rates are high. Follow-up is hampered by frequent moves and a lack of contact information. What we are left with is descriptive case studies that do not support comparative statistical analysis. However, there is some consistency across programs regarding strategies that appear to support student success; these are summarized below.

Promising Strategies: Implications for Practice

We find nearly complete agreement on the following features of successful programs, including institutional, instructional, and counseling and support features, and ties to business and industry (see Table 2, page 33).

How Reliable are These Strategies and Elements?

No single variable has been statistically shown to determine program success in preparing participants for family-supporting occupations. The Washington State study uses group

Table 1
Summary of case study methods and findings

<i>Study</i>	<i>Methodology</i>	<i>Findings and/or Essential Elements</i>
1. Liebowitz, M., & Combes Taylor, J. (2004). <i>Breaking through: Helping low-skilled adults enter and succeed in college and careers.</i> Boston: Jobs for the Future.	Descriptive. Reports on percentage completion rates.	<ol style="list-style-type: none"> 1. Integrated institutional structures and services 2. Accelerated learning 3. Labor market payoffs 4. Comprehensive supports
2. Fitzgerald, J. (2000). <i>Community colleges as labor market intermediaries: Building career ladders for low wage workers.</i> New York: New School University, Community Development Research Center.	Recorded interviews.	<ol style="list-style-type: none"> 1. Vocational training in high-demand occupations 2. Cohort approach that promoted group learning 3. Intensive career counseling 4. Internships 5. Work schedule accommodations 6. Strong business partnerships 7. Continuing education tied directly to job advancement and wage progression 8. Partnerships with human service agencies 9. State funding 10. Student financial support
3. Suárez, C., & Meléndez, E. (2001). <i>Making connections to jobs, education, and training: The essential skills program of the Community College of Denver.</i> Boston: University of Massachusetts, Mauricio Gastón Institute.	Qualitative and quantitative data. Guided interviews with managers, staff, and current and former students.	<ol style="list-style-type: none"> 1. Internships 2. Cohort approach 3. Local industry partners 4. Partnerships with human service agencies 5. Outreach to Hispanic and ESL populations
4. Brancard, R., DeLott Baker, E., & Jensen, L. (Draft, June 22, 2006). <i>English as a Second Language learning communities.</i> (Research Report.) Denver, CO: Community College of Denver.	Empirical, quasi-experimental study of intervention and comparison groups.	<ol style="list-style-type: none"> 1. Learning communities found statistically significant; improved retention and course completion 2. Case management retained more students 3. ESL course completion and GPA results not significant

<i>Study</i>	<i>Methodology</i>	<i>Findings and/or Essential Elements</i>
<p>5. Prince, D., & Jenkins, D. (2005). <i>Building pathways to success for low-skill adult students: Lessons for community college policy and practice from a longitudinal student tracking study.</i> (CCRC Brief No. 25). New York: Columbia University, Community College Research Center.</p>	<p>Tracking data from 34 community colleges in Washington State, including data on developmental, ABE, GED, and ESL students.</p>	<ol style="list-style-type: none"> 1. Confirmed earlier studies: higher education equals higher average wage 2. Retention and earning a credential tied to amount of financial aid received 3. ESL/ABE/GED helped by developmental classes 4. Students who planned to attend at least one year were more successful
<p>6. Washington State Board for Community and Technical Colleges. (2005). <i>I-Best: A program integrating Adult Basic Education and workforce training.</i> (Research Report No. 05-2.) Olympia, WA: Author.</p>	<p>Comparison group study of integrated workforce skills and ESL/ABE training programs.</p>	<ol style="list-style-type: none"> 1. Pairing ABE/ESL and professional technical instructors 2. Intensive instruction 3. Well-designed supplemental vocational ESL classes 4. Careful and regular assessment 5. I-Best students were 5 times more likely to earn college credits and 15 times more likely to complete workforce training 6. All I-Best projects focused on higher-skilled ESL students 7. ESL students did not make consistent gains in language skills
<p>7. McCormick, L. (2001). <i>Innovators under duress: Community college initiatives in “work first” settings.</i> New York: New School for Social Research.</p>	<p>Case studies of two community colleges in New York City.</p>	<ol style="list-style-type: none"> 1. Flexibility in dealing with welfare reform 2. Nontraditional institutional structure 3. Nontraditional pedagogical philosophy 4. Internships 5. Family services/support 6. Stressed the need for community colleges to develop an alternative vision to those traditionally followed

<i>Study</i>	<i>Methodology</i>	<i>Findings and/or Essential Elements</i>
8. Meléndez, E., & de Montrichard, A. (2001). <i>Welfare-to-work initiatives in California and Los Angeles: Los Angeles City College & Los Angeles Trade Technical College</i> . New York: New School University, Community Development Research Center, and Boston: University of Massachusetts, Mauricio Gastón Institute.	Case studies.	<ol style="list-style-type: none"> 1. Focus on lab-based vocational training 2. Close ties with the trades 3. Experience with ABE needs of welfare students 4. Integrated curriculum 5. Intensive/short-term coursework 6. Flexibility in scheduling 7. Work experience assignments 8. Strong support services where students receive: <ul style="list-style-type: none"> • Educational plan • Personal development classes • Academic monitoring • Advocacy via social services • Supportive environment • Sense of community • Flexibility to choose initiative • Job placement • Child care • Work study • Student guidebook

comparisons to look at gains made in English language learning and concludes that regular ESL classes were effective in producing gains on standardized tests. However, offering such classes did not influence any of the other variables, such as retention. A more rigorous design was used by Brancard et al. (in press) in a study of the Community College of Denver program. This study found a significantly higher retention rate and successful course completion rate for the intervention group. The intervention group included a case manager and a learning community, while the comparison group did not have a case manager and was not organized as a learning community. Differences in ESL course completion and average GPA results, however, were not statistically significant. In the second stage, the differences in all of these measures were not statistically significant. The ESL gains were not significant.

IMPLICATIONS FOR FUTURE RESEARCH

Instrumentation

Achievement Tests

Above, we made mention of the difficulty of showing significant academic gains in a highly heterogeneous population over a relatively short period of time. The TABE and the ABLE have had a long history of use in adult populations since they conform to accepted psychometric

Table 2
Promising strategies

<p>Institutional factors</p> <ol style="list-style-type: none"> 1) Integrated institutional structures and services 2) <i>Nontraditional</i> institutional structure 3) Flexible policies to accommodate welfare reform requirements 4) Retention and earning a credential tied to financial aid 5) Experience with ABE needs of TANF students 6) Availability of stackable credentials
<p>Vocational and business linkages</p> <ol style="list-style-type: none"> 1) Vocational training in high-demand occupations 2) Focus on vocational training 3) Labor market payoffs 4) Internships 5) Strong business partnerships 6) Local industry partners 7) Close ties with the trades 8) Continuing education tied directly to job advancement and wage progression
<p>Instructional features</p> <ol style="list-style-type: none"> 1) Cohort approaches that promote group learning 2) Learning communities 3) Nontraditional pedagogical philosophy 4) Accelerated learning 5) Intensive instruction 6) ESL/ABE/GED developmental classes 7) Paired ABE/ESL and professional technical instructors to integrate learning 8) Strong supplemental ESL classes supporting vocational classes 9) Careful and regular assessment 10) Academic monitoring
<p>Counseling and support services</p> <ol style="list-style-type: none"> 1) Comprehensive supports 2) Case management to increase student retention 3) Partnerships with human service agencies 4) Strong support services 5) Individualized educational plans 6) Clear expectations of how long student will attend 7) Personal development classes 8) Intensive career counseling 9) Advocacy to connect students with needed social services 10) Supportive environment 11) Sense of community

standards. The community colleges have used different tests such as ACCUPLACER. The difficulty is getting conformity in usage across systems so that results can be compared. In addition, there are questions whether these tests are really adequate for increasingly diverse ESL populations, a problem that was recognized by the U.S. Department of Education through a request for proposals to develop more reliable tests (OVAE, October 26, 2001).

Determining Best Practices

We have identified strategies that are institutional and instructional, and that deal with student support, counseling, and linkages to the business sector. Which of these elements is most crucial, or are they interdependent? Meta-analysis is of little use if the data are flawed. Do we need proof that each of these factors are necessary for success, or is the current knowledge base sufficient? Given the overall difficulty of building a strong randomized experimental study, the case study visits undertaken by this grant sought further information regarding the value of these strategies. Our visits can only provide more or less confirmatory evidence of the utility of these strategies and elements. Future research must focus on results such as economic well-being, where fairly sophisticated analyses are possible.

Follow-up Data

For future studies, provisions should be made for participants after they exit the program to answer questions about the economic benefits of the program. Are they earning more or less than non-participants from an equivalent population? A tracking system is needed to contact participants after they graduate or drop out. This may involve identifying a relative who can supply contact information if participants move or lose phone service. Incentives may need to be built in to keep participants involved and willing to share information.

Longitudinal studies, particularly in sociology, have been successfully carried out and the field of education can learn from those techniques. Sociologists study social, economic, political, industrial, and environmental change. For example, Jackson, Tirone, Donovan, and Hood (2004) have conducted long-term studies of the impact on individuals and communities of the loss of good-paying employment when the only employer in town leaves. This is part of a comprehensive study of the decline of the fishing industry in Northern Newfoundland, Canada, that has been ongoing since April 2000. This government-funded project has enabled the researchers to take on not one but a series of research studies to better understand a complex social and economic phenomenon. Could similar multi-faceted studies encompassing social and economic factors increase our effectiveness in improving the employment of low-skilled adults?

Finally, none of the research suggests that the problem we are exploring on finding family sustainable employment for low-skilled adults is easily solved. The percentage of adults with less than functional literacy skills has remained approximately the same since 1975 when Northcutt conducted the first Adult Performance Level research (Northcutt, 1975). Finding pathways to employment for these adults in an era of increased demand for skilled workers may take a sustained and multifaceted effort from all the academic disciplines.

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APPENDIX A CAREER PATHWAYS

Descriptions of career pathways

Two major definitions of career pathways are relevant to this research. The College and Career Transitions Initiative and Center for Occupation Research and Development (CORD) jointly developed a definition of career pathways which was approved by OVAE and used by Jenkins in his career pathways model (Jenkins, 2004):

A career pathway is a coherent, articulated sequence of rigorous academic and career/technical courses, commencing in the 9th grade and leading to an associate degree, baccalaureate degree, and beyond; an industry recognized certificate; and/or licensure. The career pathway is developed, implemented, and maintained in partnership among secondary and postsecondary education, business, and employers. Career pathways are available to all students, including adult learners, and lead to rewarding careers. (Hull, 2004, p. 6)

The essential characteristics of a career pathway at the postsecondary level include: opportunities for students to earn college credit through concurrent enrollment or articulation agreements, alignment and articulation with baccalaureate programs (if appropriate), skills and knowledge recognized by the various industries as foundational in each cluster area, and opportunities for placement in their chosen career areas at multiple exit points (Hull, 2004). Like Hull, we are interested in programs with partners ensuring the regular collection of qualitative and quantitative data as empirical evidence, the use of that data for planning and decision-making for program improvement, and consistent and open communication between all partners.

Career pathways, as defined in Jenkins' *Evaluating Career Pathways*, are designed to create educational *stepping stones* for advancement of workers and job seekers, including those with basic skills deficiencies, and to provide a supply of qualified workers for employers. Conventional approaches to educating for employment are characterized by disconnects among the different institutions that provide education and training and between educational programs and the labor market. Targeting jobs of importance to the local economy, a career pathway is a series of connected educational programs with integrated work experience, on-the-job training, and support services that enables adults to combine learning with work and advance over time to better jobs and further education and training. (Hull, 2004, p. 1)

Jenkins reports that although career pathways are built to local specifications, they have common features (Hull, 2004, p. 1):

- Regional partnerships of community colleges and other educational institutions, employers, and workforce, human service, and economic development agencies working in concert.
- *Road maps*, jointly produced by educators and employers, that connect education and training programs and jobs in a given sector.

- Easy articulation of credits across educational institutions and clear connections among remedial, academic, and occupational programs within institutions, enabling students to progress *seamlessly* and earn credentials while improving their career prospects.
- Curriculum focused on competencies required for jobs—and, where possible, tied to industry skill standards, certifications, or licensing requirements—and to further education.
- *Bridge programs* for educationally disadvantaged students that teach basic skills such as communication, math, and problem-solving in the context of training for job advancement.
- Opportunities for those enrolled to engage with the pathway at multiple levels, from unskilled laborers to skilled technicians who need more education to advance their careers.
- Programs offered at times and places (including workplaces) convenient to working adults and structured in small modules or *chunks*, each leading to a recognized credential, to allow learners to enter and exit education as their circumstances permit.
- *Wrap-around* support services, including career assessment and counseling, case management, childcare, financial aid, and job placement.

APPENDIX B FAMILY SUSTAINABLE WAGE

What constitutes a family sustainable wage?

The Federal Poverty Level (FPL) defines the minimum amount of income a family needs for clothing, food, transportation, shelter, and other necessities. The U.S. Department of Health and Human Services (HHS) determines the FPL according to family size. The number is adjusted for inflation and reported each February in the form of poverty guidelines that public assistance programs use to determine eligibility income limits (HHS, 2007). The U.S. Census Bureau follows the Office of Management and Budget’s (OMB) Statistical Policy Directive 14 which:

uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family’s total income is less than the family’s threshold, then that family and every individual in it is considered in poverty. The official poverty thresholds do not vary geographically, but they are updated for inflation using Consumer Price Index (CPI-U). The official poverty definition uses money income before taxes and does not include capital gains or noncash benefits (such as public housing, Medicaid, and food stamps). (U.S. Census Bureau, 2007)

2006 HHS Poverty Guidelines

<i>Persons in Family or Household</i>	<i>48 Contiguous States and DC</i>	<i>Alaska</i>	<i>Hawaii</i>
1	\$9,800	\$12,250	\$11,270
2	13,200	16,500	15,180
3	16,600	20,750	19,090
4	20,000	25,000	23,000
5	23,400	29,250	26,910
6	26,800	33,500	30,820
7	30,200	37,750	34,730
8	33,600	42,000	38,640
For each additional person, add	3,400	4,250	3,910

SOURCE: *Federal Register*, Vol. 71, No. 15, January 24, 2006, pp. 3848-3849

The Economic Policy Institute stated that a living wage is:

usually the wage a full-time worker would need to earn to support a family above federal poverty line, ranging from 100% to 130% of the poverty measurement. The level of the living wage is usually determined by consulting the federal poverty guidelines for a specific family size. Often, living wage levels are equal to what a full-year, full-time worker would need to earn to support a family of four at the poverty line (\$17,690 a year, or \$8.20 an hour, in 2000). Some living wage rates are set equal to 130% of the poverty line, which is the maximum income a family can have and still be eligible for food stamps.

The rationale behind some living wage proposals is that these jobs should pay enough so

that these families do not need government assistance. Cities and counties with a higher cost of living tend to have higher living wage levels. The wage rates specified by living wage ordinances range from a low of \$6.25 in Milwaukee to a high of \$10.75 in San Jose. Furthermore, some advocates have attempted to calculate a living wage based on an income that would provide for a family's basic needs (see EPI's *How Much is Enough?* for a discussion of "basic family budget" measures). The living wage levels based on these self-sufficiency income measures are generally much higher than the poverty guidelines. (Economic Policy Institute, 2002)

However, the Economic Policy Institute analyzed family basic budgetary needs required for safe housing and a decent living standard while adjusting for different types of communities and families. They found "the national median living wage (\$33,511) is almost twice the national poverty line (\$17,463) and that 29% of families nationwide fall below this basic budget threshold" (Berstein, Brocht, & Spade-Aguilar, 2000, p. 3). Using 30% of income as a standard for housing costs, for example, in 2000, a family would pay an estimated \$28,000 per year for a two-bedroom residence—"well beyond the earnings of low-income families" (Berstein et al., 2000, p. 3).

The National Center for Children in Poverty (NCCP) reports that for 2006, the FPL for a family of four was \$20,000. Families with incomes below the FPL are referred to as poor (see <http://www.census.gov/hhes/www/poverty/poverty.html>).

A family-supporting wage, however, is on average suggested to be an income of about twice the federal poverty level in order to meet the basic needs of food, stable housing, and health care. NCCP reports that "Children living in families with incomes below this level—for 2006, \$40,000 for a family of four—are referred to as *low income*. Thirty-nine percent of the nation's children—more than 28 million in 2005—live in low-income families" (Fass & Cauthen, 2006). NCCP's report, *When Work Doesn't Pay: What Every Policy Maker Should Know*, illustrates anecdotally how increasing a single parent's income does not benefit the family until she earns twice the poverty rate with two children. Using NCCP's Family Resource Simulator, the report states:

Even with the help of government work supports, Becky can't cover her family's basic expenses until her earnings reach about \$23,000, which would require full-time work at \$11.05 an hour. She can almost make ends meet at about \$19,000 in earnings, but by \$20,000, her family is no longer eligible for food stamps and falls farther behind. If her earnings increase beyond \$23,000, Becky will have a small cushion in her budget that could be saved or used to cover an emergency. But if her income reaches \$36,000, she will lose her child care subsidy. Subsequent earnings gains will be reduced as her children lose their health insurance, and Becky begins to pay premiums. Becky's earnings will have to increase to \$40,000 before she breaks even again. The bottom line is that Becky's family is no better off financially if she earns \$40,000 than if she earns \$23,000. (Cauthen, 2006, p. 3)