



IMPROVING THE ECONOMIC PROSPECTS OF LOW-INCOME INDIVIDUALS THROUGH CAREER PATHWAYS PROGRAMS:

The Pathways for Advancing Careers and Education Evaluation

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Introduction

Millions of adults lack the post-secondary education and occupational training needed to obtain jobs that provide good wages, benefits and pathways to advancement. Over the past three decades, those with high school diplomas or less education saw their earnings fall compared to those who had more education.¹ At the same time, the share of jobs that require college credentials continues to grow. According to the Department of Labor, by 2018, 63 percent of job openings will require workers with at least some college education.²

There is longstanding interest among policy makers and program operators in finding ways to increase the skill levels of low-income individuals, improve their enrollment in and completion of post-secondary education, and improve their economic prospects. A number of factors, however, limited the success of efforts to date.³ Many low-income adults face challenges to post-secondary education enrollment and completion, including limited basic academic skills; limited academic or training goals due to negative school experiences and lack of college role models; work and family demands on time; inability to afford school; and stress and other issues associated with poverty. At a broader level, many post-secondary education systems are not geared towards non-traditional students, including low-income adults. For example, they have weak basic skills programs; an emphasis on long-term programs and general education degrees; fragmented and, at times, deficient academic advising and student support services; complex financial aid rules; and limited financial assistance. Supports from social services and workforce systems, which might assist these students, can be limited and/or difficult to coordinate.

The career pathways approach is gaining steady acceptance as a promising strategy to address these challenges and improve post-secondary education and training for low-income and low-skilled adults. Career pathways programs intend to improve the education and earnings of low-skilled adults by providing well-articulated training steps tailored to jobs in demand locally along with guidance and other supports. Although there is some research evidence on selected components of career pathways programs, to date, there has been no rigorous research on the overall effectiveness of this approach.

Three federal departments are funding career pathways research. The Departments of Labor and Education, for instance, launched a one-year Career Pathways Initiative in 2010, which provided funding to nine states and two tribal entities to develop sustainable career pathways to promote linkages among system partners. The Department of Labor produced a set of technical assistance tools for state, local, and tribal policymakers to use in development and implementation of career pathways approaches. The Department of Education's Office of Vocational and Adult Education funds the Designing Instruction for Career Pathways initiative.

The Department of Health and Human Services (DHHS) funds a career pathways research portfolio. The *Pathways for Advancing Careers and Education (PACE)* project is a major national effort to evaluate the effectiveness of nine career pathways programs using an experimental design. PACE is funded by the DHHS Office of Planning, Research and Evaluation (OPRE) within the Administration for Children and Families (ACF), and conducted by a team led by Abt Associates.⁴ Other DHHS-funded research includes impact and implementation studies of the Health Profession Opportunity Grant (HPOG) program.⁵

This brief focuses on PACE. It summarizes the framework used to describe the career pathways approach and the theory of change that guides the evaluation. It then describes the nine programs in the evaluation, and concludes with the study's research questions and data sources. Later reports and briefs will present findings from the evaluation and will be posted on the project website (www.acf.hhs.gov/programs/opre/research/project/pathways-for-advancing-careers-and-education).

The PACE Career Pathways Framework

The PACE evaluation framework provides a road map for studying career pathways programs.⁶ In addition to providing a guide for describing and assessing specific programs, the framework can inform the development of both discrete programs and systems change initiatives that seek to integrate services and resources.

Defining Career Pathways

The career pathways premise is that post-secondary education and training should be organized as a series of manageable steps leading to successively higher credentials and employment opportunities in growing occupations. Each step is designed to prepare participants for the next level of employment and education and also provide a credential with labor market value. Although steps in career pathways programs vary with their target populations, focal occupations, and service strategies, the broad training and employment levels shown in **Figure 1** provide a basis for classifying programs.

The bottom two steps (I and II) represent “on ramp” programs designed to prepare low-skilled participants for college-level training and lower-skilled jobs that are the first step on a career path. The next two steps (III and IV) provide college-level training for “middle skills”

employment—jobs requiring some college, but less than a Bachelor's degree (e.g., an Associate's degree or shorter certificate). The final step (V) provides coursework for occupations requiring a Bachelor's degree.

The career pathways design allows entries, exits, and re-entries at each step—depending on skill levels and prior training, employment prospects, and changing personal situations. Each step generally involves partnerships between multiple organizations, including community colleges and other post-secondary training providers, human services and workforce agencies, and employers.

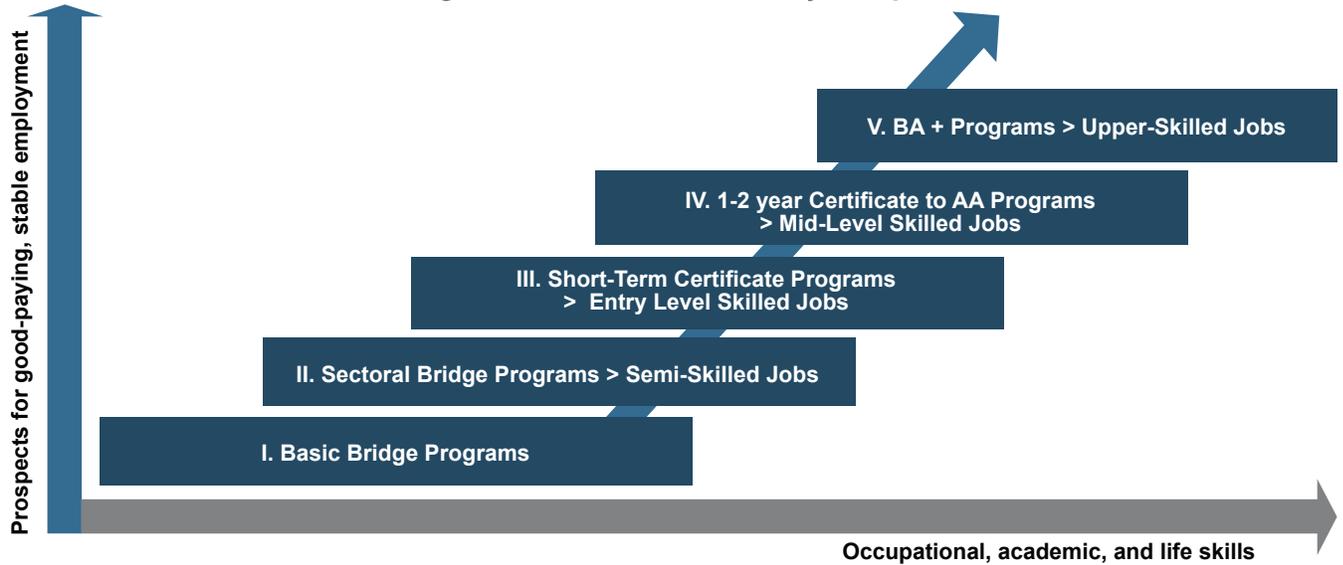
To effectively engage and retain participants, and to facilitate learning, career pathways programs integrate four core elements: (1) comprehensive assessment, (2) promising approaches to basic and occupational skills training, (3) academic and non-academic supports, and (4) strategies for connecting participants to employers. Individual programs vary in terms of emphasis placed on each core component, although all are comprehensive in nature in order to address the needs of non-traditional students.

Comprehensive assessment. To identify student needs and factors that may facilitate or hinder academic success (and ultimately career advancement), career pathways programs emphasize assessment of a range of skills, strengths, and challenges. They use both academic and non-academic assessments to identify student service needs.

Basic and occupational skills training. Career pathways programs aim to make education and training more manageable for students who are likely to be balancing school, work, and family life, and who may have weak basic skills. Strategies include:

- *Well-articulated training steps.* Programs break coursework required for a specific occupation into smaller, distinct steps that can be “stacked”

Figure 1: The Career Pathways Steps



or connected together through alignment of content, and recognition of credits across steps. This approach encourages student persistence by recognizing accomplishments quickly (e.g., a certificate following one course or term) and providing flexibility to enter and exit training as needed.

- *Contextualization.* Courses incorporate basic academic skills in the context of an occupation or “real life” situation. This includes integrating content from training classes into basic skills instruction (such as using occupation-specific materials and examples) and incorporating basic skills instruction in occupational training classes. Contextualization aims to improve basic skills by increasing the relevance of what is learned.
- *Acceleration.* Programs reorganize curricula to enable completion in a shorter (calendar) time period. Compressing total course or program hours into a shorter timeframe intends to improve information retention between classes and reduce the time for outside issues to interfere with school.

- *Flexible delivery.* Programs offer training at convenient times and places and in formats that facilitate participation by working and parenting adults, such as evening and weekend scheduling, self-paced instruction, easily accessible locations for training (e.g., in the community and not a central campus); and technology-supported distance learning.
- *Active learning.* Instructional approaches avoid traditional lecture formats and instead emphasize project-based learning and problem-solving tasks. This strategy also could involve more group work and encourage more classroom interaction.

Academic and non-academic supports. Program supports intend to help students succeed in their current academic step, as well as link to and persist in subsequent steps. These efforts seek to address gaps and deficiencies within existing support systems to meet the needs of a population that faces more extensive academic and personal challenges than traditional college students. They include:

- *Personal guidance and supports.* Advising can cover a wide range of academic and non-academic topics. Depending on the program, dedicated staff or faculty help students to access needed services. Compared with traditional college advising, there is a greater emphasis on career planning and navigation, coping with external life issues, and staying focused and motivated.
- *Instructional supports.* Supports include tutoring; study groups; and self-paced, computer-based instruction. Programs sometimes use supplemental workshops, courses, and support groups to emphasize a range of non-academic skills in areas like effective communication, time management, and handling personal finances.
- *Social supports.* Approaches include learning communities (e.g., maintaining student cohorts and consistent faculty-staff relationships), use of peer and alumni mentors, and teaching skills to build support networks among students and between students and faculty and staff.
- *Support services.* Programs provide services in-house or through a referral network to help participants cope with issues that may lead to problems with academic performance and school completion. Support services include childcare; transportation assistance; and substance abuse, domestic violence, and mental health counseling and therapy.
- *Financial assistance.* Assistance includes covering some or all academic expenses (e.g., tuition and fees), as well as the costs of books, tools, or other course-related needs. In addition to direct financial assistance, other forms of support include reimbursement for supportive services (e.g., child care or transportation), financial assistance with emergency needs, and performance-based stipends and scholarships.

Connecting participants to employers. Programs use a number of strategies to connect participants and employers. These include engaging employers and business groups as partners in designing programs and/or as instructors; providing employment experiences during occupational training, such as class projects that simulate on-the-job tasks or actual projects for local employers, internships, visits to local employers, and job shadowing; or offering post-training connections to employment, such as job placement services.

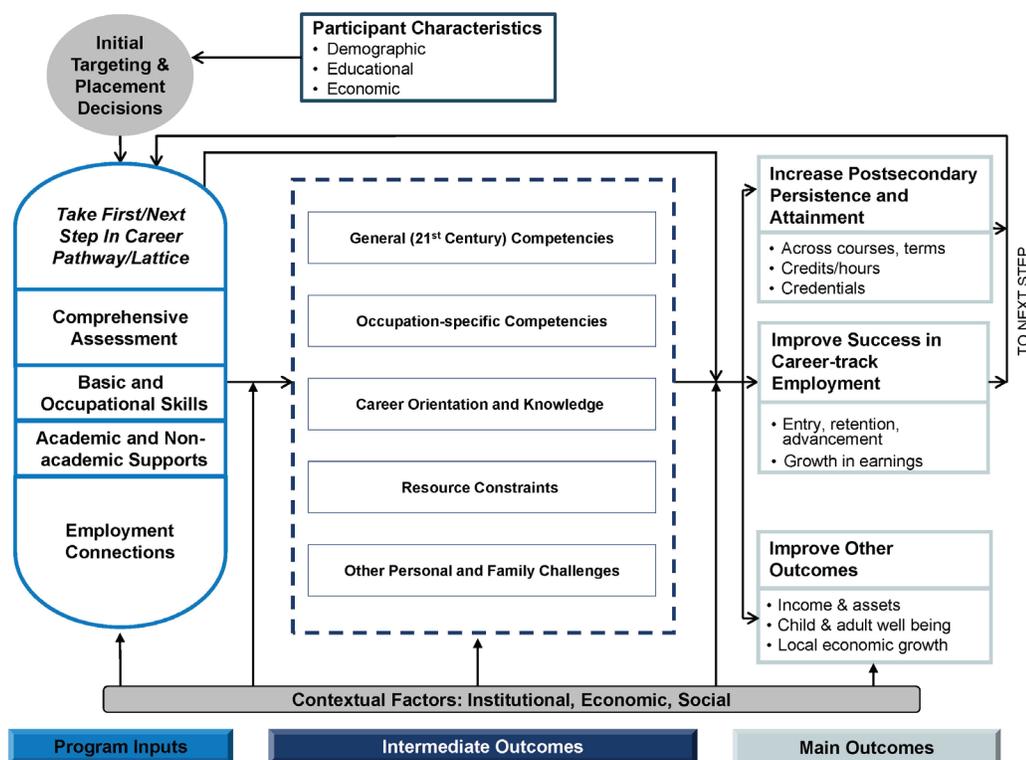
Career Pathways Theory of Change

The PACE evaluation’s framework provides a “road map”—or theory of change—for the expected connections between the program components described above and expected adult learner outcomes. **Exhibit 2** summarizes this theory of change.

The Exhibit depicts how the four program components described above (“inputs”) may influence intermediate outcomes, which in turn affect main career pathways outcomes—the primary targets of change— improved educational and employment outcomes. It also shows how local contextual factors are expected to influence program participant outcomes.

Intermediate outcomes. In many instances, career pathways strategies seek to produce key education and employment outcomes by improving intermediate outcomes, such as general and occupation-specific skills, fostering career awareness and direction and addressing material and other circumstances that can impede success in school and work. General skills can include a variety of cognitive (literacy, numeracy, critical thinking), intrapersonal (core self-evaluation, work ethic/conscientiousness, self-regulation,

Exhibit 2: PACE Career Pathways Theory of Change



meta-cognition), and interpersonal (teamwork, collaboration, leadership) skills. Other intermediate outcomes include development of career goals and knowledge (e.g., participants’ ability to navigate the norms and expected behaviors of college and work settings) through advising and career navigation supports, instruction in skills for success in college and work, and exposure to expectations in different employment settings. It is also expected that programs will help participants to obtain material resources they need to persist in school and at work (e.g., transportation assistance, tuition or other financial supports).

Main outcomes. Career pathways programs are designed to improve education and employment outcomes. Main outcomes include performance and persistence in education and training programs

followed by credential receipt leading to employment in high-demand occupational fields. Depending on the program or the step in the pathway, the credential might be a certificate, a one-year diploma, or a two- or four-year degree. Completion of a training step then leads to either the next step on the pathway or employment in the field of study. Participants’ completion of training and attainment of credentials also leads to improved performance and advancement in jobs, bringing higher earnings and receipt of job benefits. Once employed, a participant can remain in a job or seek another, with goals of increasing earnings and advancing in the field, or can return to the next training step on the pathway. An important rationale for improving low-income adults’ education and earnings is to enhance their other life outcomes. Higher earnings, incomes, job benefits, and improved job opportunities may lead to improved psychological

well-being of adults and enhance material aspects of daily living, increasing the quality of parenting, child care, and other resources available to children. Participants' economic outcomes also can contribute to local economic growth.

Contextual factors. Institutional, economic and social aspects of local environments can affect the degree to which career pathways programs foster positive participant outcomes. Although programs seek to prepare individuals for occupations with strong projected demand, local forecasting can be difficult, and jobs may not be available as anticipated. In addition, the ability of students to continue to move up the career ladder by attending additional training and acquiring more credentials depends on the availability of and access to follow-on training in their local community.

Programs in the PACE Evaluation

PACE aims to test innovative career pathways programs. The evaluation includes nine promising programs across the country (see **Exhibit 3**). The programs in the PACE evaluation are:

- Bridge to Employment in the Health Care Industry at the San Diego Workforce Partnership (SDWP)
- Carreras en Salud at Instituto del Progreso Latino
- Health Careers for All at the Workforce Development Council of Seattle-King County (WDC)
- Pathways to Healthcare at Pima Community College (PCC)
- Patient Care Academies at Madison Area Technical College (MATC)
- Valley Initiative for Development and Advancement (VIDA)

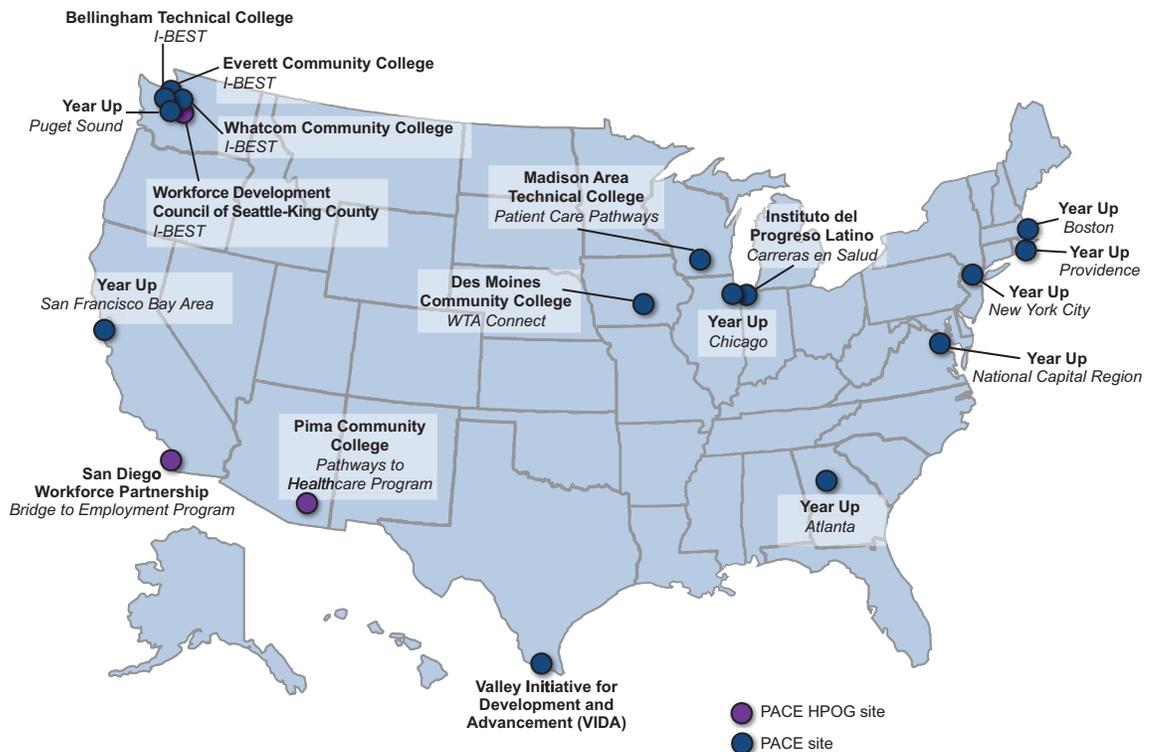
- Washington Integrated Basic Education and Skills Training (I-BEST) program at three sites (Bellingham Technical College, Whatcom Community College and Everett Community College)
- Workforce Training Academy (WTA) Connect at Des Moines Area Community College (DMACC)
- Year Up (eight sites)

Three programs (PCC, SDWP, WDC) are funded by ACF Health Profession Opportunity Grants (HPOG) and one (Instituto del Progreso Latino) is a sub-grantee to an HPOG-funded program.⁷ All four will be included in a related career pathways study.⁸

The nine programs included in PACE vary in specific designs and strategies used and differ in how they combine and prioritize elements within the career pathways framework. The Appendix summarizes key features and variations among the programs.⁹ Areas of diversity include:

- *Lead organization.* Community or technical colleges (DMACC, MATC, PCC, and the three Washington colleges) operate four of the programs in the PACE evaluation. Non-profit organizations (Instituto del Progreso Latino, VIDA, Year Up) operate three others, while Workforce Investment Boards (SDWP, WDC) lead the remaining two.
- *Target population.* By design, all of the programs in PACE target a low-skilled, low-income population. Instituto del Progreso Latino's program focuses on low-skilled Latinos with reading levels as low as 6th grade. Students at DMACC's WTA Connect have similar skill levels (7th to 8th grade). The other programs primarily target those whose assessment test scores are too low for college entry, but are above

Exhibit 3: PACE Programs



a certain threshold, such as a 10th grade reading level, including Washington I-BEST, VIDA and MATC’s Patient Care Academies. Finally, Year Up targets disadvantaged youth, ages 18 to 24.

- *Occupational focus.* Several programs in PACE focus exclusively on health-related occupations. This includes the three HPOG-funded programs (at PCC, SDWP, WDC), as well as Carreras En Salud at Instituto del Progreso Latino (an HPOG sub-grantee) and MATC’s Patient Care Academies. The other programs focus on multi-occupational areas, including welding, electrical, health and administrative support (Washington I-BEST and DMACC’s WTA Connect); health, manufacturing, and technology (VIDA); and IT and financial services (Year Up).
- *Steps on a career pathway.* The programs vary in the number and level of steps within a career

pathway they encompass. Instituto del Progreso Latino’s health care program captures the longest potential career path, with participants able to enter at the pre-certified nursing assistant level and advance to an Associate’s degree in nursing. VIDA, which offers longer-term programs, focuses largely on higher pathway steps with an Associates’ degree as the primary credential, although it also supports one-year and shorter certificates. In addition, VIDA operates a 16-week accelerated academic bridge program for individuals testing at 10th grade or higher, but not yet qualified for college credit courses. In contrast, the Washington I-BEST program and the programs at DMACC, WDC and SDWP help low-skilled students attain short-term credentials, though participants can opt to continue to additional certifications and degrees.

- *Service Strategies.* All of the programs include some type of assessment, instructional accommodations, supports, and connections to employment. The programs combine these strategies in different ways depending on the goals of their program and target population. Some sites, notably I-BEST and MATC, emphasize a contextualized curriculum, while the connection to employment is a critical component in others (Instituto del Progreso Latino, VIDA, and Year Up).

The PACE Evaluation

The goal of the PACE evaluation is to produce rigorous evidence about the effectiveness of career pathways approaches that is useful to federal, state, and local policymakers and practitioners. PACE uses an experimental evaluation design in which individuals who are eligible for the program are assigned, by lottery, to either a treatment group that can participate in the program or a control group that cannot, but can access other available programs and services in the community.¹⁰ PACE will produce program-specific impact, implementation, and cost-benefit studies.

Impact study. The impact study will measure differences between the treatment and control group members on main educational outcomes (persistence in education, receipt of certificates and degrees) and employment and earnings outcomes. Analyses also will assess whether impacts vary by subgroup and estimate impacts for intermediate outcomes for each program. The PACE team will analyze and report findings for each program separately.¹¹ The first impact reports will cover 15 months of follow-up post random assignment.

Implementation study. The implementation study will provide a detailed description of the programs, document the experiences of participants in the

career pathways programs (the treatment group), and examine how their program experiences compare to individuals who did not receive the career pathways services (the control group). The evaluation team will produce reports that analyze program implementation based on each program's theory of change.

Cost-benefit study. The cost-benefit study will describe the tangible benefits and costs from varying perspectives (i.e., social, participant, and taxpayer). It will address areas like the gross and net costs of each program and whether the benefits of providing services outweigh the costs.

Conclusion

Programs developed within the career pathways framework incorporate many promising approaches to increasing the skill levels, educational attainment, and economic well-being of low-skilled individuals. These programs are the subject of growing interest and investment at the federal, state, and local levels.

Through the use of a rigorous research design, as well as in-depth implementation studies and a cost-benefit analysis, the PACE evaluation provides a critical opportunity to understand the effects of these programs on individuals' educational progress and economic success.

Given the strengths and diversity of the nine programs in the PACE evaluation, findings will be of great interest to policy, program, and research communities working in this arena.

Appendix: Key Features of Career Pathway Programs in the PACE Evaluation

Program & Lead Organization	Occupational Focus	Target Population	Career Pathway Level and Program Length	Program Services
<p>Bridge to Employment in the Health Care Industry</p> <p>San Diego Workforce Partnership (WIB)</p> <p>San Diego, California</p>	<p>A range of health occupations in patient care (e.g., nursing), technical positions (e.g., pharmacy tech), and administration (e.g., medical billing)</p>	<p>Low income (200% of Lower Living Standard Income Level) individuals with at least 6th to 8th grade skill level</p>	<p>Individuals work towards short-term certificates or 1-2 year college diplomas or degrees. Program length varies by course and training provider, but can last up to 2 years.</p>	<p>Staff at three community-based organizations (“navigators”) guide participants in selecting a training program, provide advising and support, and teach job readiness skills. Individual training accounts (ITAs) are established to help participants pay for training, and the navigators can arrange for other financial supports including transportation, child care, rental and utility assistance’ as well as interview clothes and school supplies. Once enrolled, most participants attend classes at proprietary schools or community colleges to work towards a credential or an Associate’s degree while continuing to work with the navigator. Navigators assist participants with finding internships or permanent employment after the program.</p>
<p>Carreras en Salud</p> <p>Instituto del Progreso Latino (CBO)</p> <p>Chicago, Illinois</p>	<p>Health care training for Certified Nursing Assistant (CNA), Licensed Practical Nurse (LPN), and Associate Degree in Nursing (ADN)</p>	<p>Low-income (earning less than \$35,000 per year) Latinos with skills at the 6th to 11th grade levels</p>	<p>The program starts with the 6th grade level moves sequentially up to college-level training. Program length varies by course, with lower level courses lasting 8-16 weeks each, and LPN and ADN programs taking 9 to 12 months each.</p>	<p>The program is comprised of a sequence of accelerated courses: English as a Second Language (ESL), Vocational ESL, CNA, pre-LPN, LPN pre-requisites, LPN, and ADN. Individuals enter based on their skill level and exit at any point. Instituto itself provides some courses with its own instructors while others (CNA, LPN, LPN pre-requisites, and ADN) are provided by the city college system. All participants are assigned an academic advisor to address school-related issues and participants in Instituto-held courses also have a case manager to address support services. Participants meet with advisors and case managers at least monthly. Instituto covers tuition and provides on-site childcare, transportation assistance, and tutoring for the steps offered in house. An employment specialist assists individuals with securing a job through their relationship with industry employers. Most participants also attend the one-week job readiness class that covers resume development, job application completion, and interview skills.</p>

Program & Lead Organization	Occupational Focus	Target Population	Career Pathway Level and Program Length	Program Services
<p>Health Careers for All (HCA)</p> <p>Workforce Development Council of Seattle-King County (WIB)</p> <p>Seattle, Washington</p>	<p>A range of health care professions including Nursing Assistant, Medical Office, Phlebotomist, Medical Assisting and Nursing</p>	<p>Low-income population with low basic skills, including those too low for college entrance</p>	<p>Individuals work toward short-term certificates or 1-2 year degrees. Program length varies by training provider and the individual's course of study.</p>	<p>HCA participants receive career exploration and planning, advising, and support services from “navigators” provided through a community-based organization. Training is offered at three levels – foundational, entry and advanced -- providing multiple entry and exit points. Instruction at the foundational level integrates introductory healthcare content with basic academic skills. Entry-level training prepares participants for jobs such as Nursing Assistant, Medical Office, and Phlebotomist. Advanced training is customized to help participants reach and complete “next-step” programs including Medical Assisting and Nursing. Participants also receive job search assistance and continue to receive advising and support when they start working to assist with needs that arise and help determine future career options. Training is funded through ITAs or purchased cohorts in colleges.</p>
<p>Integrated Basic Education and Skills Training (I-BEST)</p> <p>Bellingham Technical College</p> <p>Everett Community College</p> <p>Whatcom Community College</p> <p>Washington State</p>	<p>Training in multiple occupations including nursing assistant, welding, electrical, clerical, and automotive</p>	<p>Individuals with skill levels too low for college entrance, those with 6th to 12th grade skills in English and 4th to 12th grade abilities in Math</p>	<p>I-BEST consists of a courses in a specific occupation that leads to a short-term credential, with option to move to college-level courses and degrees in that field. The programs last one quarter or more depending on the field and lead to a certificate or degree program that takes 1-2 years.</p>	<p>I-BEST is a statewide, multi-occupation program that concurrently provides basic skills or ESL instruction and training in a range of credit-based occupational training programs. I-BEST provides contextualized classroom instruction with two instructors in specified classes (one for basic skills, one for occupational content). Students also receive academic advising, supplementary academic and non-academic skills instruction, tuition assistance if existing financial aid is not available, and assistance with their employment search from course instructors and the college career center.</p>

Program & Lead Organization	Occupational Focus	Target Population	Career Pathway Level and Program Length	Program Services
<p>Pathways to Healthcare</p> <p>Pima Community College</p> <p>Tucson, Arizona</p>	<p>Training in five health care pathways: office/management, nursing, medical and physician support, emergency medicine, and other healthcare</p>	<p>Low-income individuals (70% of Lower Living Standard Income Level)</p>	<p>The courses are primarily at the college-level, with a basic skills course for those who do not meet college entrance skill levels. Program length varies from 1 to 24 months, depending on the number of steps taken.</p>	<p>The program provides college-level training in 16 different healthcare professions within the five pathways. Each pathway has multiple levels that roughly correspond to beginner, immediate and advanced. Many of the occupational trainings follow an accelerated format. For those not initially eligible for college-level coursework, the program offers a college readiness course providing basic skills instruction that is tailored to healthcare professions. Individuals may choose between a 10-week classroom course or a lab-based model that allows individuals to improve their basic skills at their own pace. Students have access to a range of supports including career advising, employability skills workshops, tutoring, and a dedicated academic advisor. Financial supports include tuition assistance, transportation vouchers, and employment-related expenses. The college provides work-based learning opportunities and a One-Stop Center case manager works with individuals to find employment upon program completion.</p>
<p>Patient Care Academies 1 and 2 (PCAs)</p> <p>Madison Area Technical College</p> <p>Madison, Wisconsin</p>	<p>Contextualized basic skills instruction and math and science prerequisite courses for those seeking a one-year diploma or two-year degree in the health field</p>	<p>Individuals who score below the college-eligible level on the entrance exam</p>	<p>Each PCA (PCA 1 and PCA 2) is one semester. After completion of PCA 1, individuals can enroll in a one-year diploma program or PCA 2; PCA 2 completers can enroll in a two-year degree program.</p>	<p>PCA provides accelerated entry into college-level programs in health for those with skill levels too low to meet entry requirements. Two tracks are offered depending on the student's skill level. PCA 1 is for students interested in a one-year health care diploma program or with skills too low to enter PCA 2. Students attend a series of classes in one semester where instruction is contextualized, allowing students to build knowledge about the health care field while simultaneously increasing their basic skills. Career development coursework is integrated into the curriculum. The PCA 2 is for students interested in a two year health degree program with scores too low to enter a program. It allows students to meet all the prerequisite requirements for math, chemistry and communications for the two-year health degree programs in one semester. PCA 1 and 2 also provides career advising and supports, with connections to on and off campus resources as needed.</p>

Program & Lead Organization	Occupational Focus	Target Population	Career Pathway Level and Program Length	Program Services
<p>VIDA</p> <p>Valley Initiative for Development and Advancement (VIDA) (CBO)</p> <p>Lower Rio Grande Valley, Texas</p>	<p>Training in multiple occupations including health, manufacturing, technology, business, education, social services, specialized trades</p>	<p>Adults who are unemployed, underemployed, or on public assistance typically with incomes below 200% of the poverty level; reading and math skills must be at or above the 10th grade level</p>	<p>The program helps participants to complete college-level certificate and Associate's degree programs. A 4-month College Prep Academy is provided to those with skill levels too low for college entrance but at the 10th grade level.</p>	<p>Staff help determine financial need and identify resources. The program also directly provides financial support to help cover needs such as: tuition gaps, childcare, transportation, testing and certification expenses, and financial emergencies. For those who need it, the College Prep Academy operates on community college campuses and provides an accelerated package of remedial instruction. In addition to financial support, VIDA's principal service is a strong, proactive counseling and guidance program. Counselors hold mandatory weekly meetings with participants. Once a month, this meeting is one-on-one with each participant to review progress and address academic and non-academic issues. The other sessions are conducted in a group setting on-campus to build social support among students, as well as provide instruction in areas such as study skills, time management, communication, job readiness, and work culture. Counselors make referrals for supports as needed.</p>
<p>Workforce Training Academy (WTA) Connect</p> <p>Des Moines Area Community College</p> <p>Des Moines, Iowa</p>	<p>Training in building maintenance (electrical, HVAC, plumbing); health (Medical Unit Clerk, CNA); administrative (Administrative Support Basics)</p>	<p>Adults with skill levels too low for college-level courses and incomes less than 80% of the state median</p>	<p>The program lasts for 3-6 months, depending on the type of training. After completion, individuals can enroll in 1-2 -year college-level certificate or degree programs.</p>	<p>Students begin with adult literacy remediation that focuses on math, reading, and writing (depending on each student's needs) and also includes instruction in basic study and workplace skills. Upon completion, students enroll in a short-term certificate course lasting 10 to 16 weeks. Finally, students complete 24 hours of a lab focused study skills, employer expectations, effective communication and other topics. Upon completion of the WTA Connect program, participants are qualified to enter college-level programs in the same occupational area. Participants do not pay tuition and receive a range of supports including advising, transportation support, and financial literacy training and benefits acquisition assistance.</p>

Program & Lead Organization	Occupational Focus	Target Population	Career Pathway Level and Program Length	Program Services
<p>Year Up</p> <p>Year Up (CBO)</p> <p>Boston, Providence, National Capital Region, (Washington, DC)</p> <p>New York, San Francisco, Atlanta, Chicago, Seattle</p>	<p>Training in Information Technology and financial operations</p>	<p>Low-income youth (18-24) who have a high school diploma or GED</p>	<p>The program lasts one year; participants get college credit.</p>	<p>Year Up provides one year of training and work experience. Participants co-enroll at a community college to receive six months of training. Cohorts are organized around learning communities of 40 students who attend classes together. They also participate in professional skills development which includes effective communication, leadership, and teamwork. After formal training, individuals enter six-month internships with local partner companies. They simultaneously participate in weekly half-day classes at Year Up, which allows for monitoring of their performance and guidance by program advisors. An on-site social worker helps students access supports like housing assistance, affordable dental/medical services, and childcare. The program provides financial support including weekly performance-based stipends of up to \$260 throughout the year.</p>

Endnotes

1. Carnevale, A., Smith, N., & Strohl, J. (2010). Help wanted: Projections of jobs and education requirements through 2018. Washington: Georgetown University Center on Education and the Workforce; Council of Economic Advisers. (2009). Preparing the workers of today for the jobs of tomorrow. Washington, DC: Council of Economic Advisers
2. Carnevale et al (2010).
3. For a summary of the evidence for the issues discussed here, see Fein, David J. (2012). Career Pathways as a Framework for Program Design and Evaluation: A Working Paper from the Pathways for Advancing Careers and Education Evaluation (PACE) Project. OPRE Report # 2012-30, Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. The paper is available at www.acf.hhs.gov/programs/opre/research/project/pathways-for-advancing-careers-and-education.
4. The study team includes MEF Associates, American Public Human Services Association, National Conference of State Legislatures, and National Governors Association. An important partner in the study is the Open Society Foundations Special Fund for Poverty Alleviation, which provided resources for many of the programs in the PACE evaluation to expand their scale to meet the requirements of the evaluation, to enhance services in specific areas, or both. The Joyce Foundation, the Kresge Foundation, the Meadows Foundation, and the Hearst Foundations have also provided generous support to some of the programs in the PACE evaluation.
5. The HPOG program provides education and training to TANF recipients and other low-income individuals for occupations in the health care field that pay well and are expected to either experience labor shortages or be in high demand. The HPOG program is administered by the Office of Family Assistance within ACF. Grant funds may be used for training and education and supportive services. http://www.acf.hhs.gov/programs/opre/welfare_employ/evaluation_hpog/overview.html. The HPOG Impact Study funded by OPRE/ACF and led by Abt Associates uses a 23-site, 2- and 3-armed experimental design to estimate the impacts of HPOG overall, as well as to estimate the impacts of specific program components.
6. For more detail on the career pathway framework for the PACE evaluation, see Fein (2012).
7. Instituto del Progreso Latino is a sub-grantee of the Will County Workforce Investment Board.
8. ACF funded the HPOG Impact and HPOG National Implementation Evaluations.
9. More detailed program-specific profiles are available at www.acf.hhs.gov/programs/opre/research/project/pathways-for-advancing-careers-and-education.
10. Random assignment design is considered the “gold standard” of program evaluation. Because the assignment process is random, there are no systematic differences between the treatment and control groups at the time they enter the study. Thus, any differences detected during the follow-up period can be attributed to the program.
11. The rationale for separate studies is that, although all nine programs utilize basic building blocks in career pathways, they vary on a substantial number of fundamental design features, including eligibility criteria and target populations; services provided; goals for participants; and timeframes for expecting goals to be achieved.

