# COABE Journal
## The Resource for Adult Education

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**COABE JOURNAL**
The Resource for Adult Education

**COABE**
COALITION ON ADULT BASIC EDUCATION

SPECIAL EDITION
**Featuring Career Pathways**

# WELCOME

Welcome to this special edition of *The COABE Journal*. For 40 years COABE has been the leader in publishing current and relevant materials to aid adult educators in understanding the unique needs of adults to aid in developing programs and instruction to best serve these learners. Our recent readership survey yielded responses from nearly 400 COABE members in an effort to understand your preferences and needs for adult education news and information. These responses indicate the wants and needs for publications and information and the dissemination of such materials has changed in a number of ways. In particular, these responses provided valuable information for electronic dissemination, length of articles, the integration of research to practice, and practical suggestions for instructional and program improvement. This feedback, and the input from leaders in the field have informed COABE's new publications strategy that we will share in greater detail in the coming months. This special Career Pathways themed edition is presented in the spirit of delivering a current and relevant resource to the field in electronic form.

Career Pathways programs are essential in adult education because of their role in enhancing the workforce skills of adult learners thus aiding in the alleviation of poverty through increased earnings. The positive impact of these programs is in harmony with COABE's mission *to help adults succeed so communities can thrive*. The works contained in this edition are authored by leaders in the field who have reviewed the literature, studied individuals and programs, and have conducted research about Career Pathways and workforce development.

This special edition would not have been possible without the leadership of Judy Mortrude from The Center for Law and Social Policy (CLASP). Judy was instrumental in soliciting, reviewing, and working alongside the authors on each of the pieces contained in this publication.

We are excited to present this body of work to the field and we look forward to rolling out new publications and materials over the coming months!

Wishing you pleasant reading,

Don Finn, Ph.D.
COABE President-Elect (2017-2019)
Publications Committee Chairman

# BLENDING COLLEGE PREPARATION AND CAREER DEVELOPMENT FOR ADULT STUDENTS IN NEW ENGLAND

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## ABSTRACT

Transition to College and Careers was a two-year demonstration project that addressed both academic and non-academic barriers to college for adult learners.  Of the 397 adult learners who enrolled in one of the six participating programs, 66% completed it , 69% attained  college level reading skills, and the majority enrolled in college afterwards. Students who enrolled in TCC with poor math skills made the least amount of progress in math.  One innovative program feature was an online 'Introduction to Health Science' course that students from all programs took as a cohort. The findings support a program design that emphasizes students' personal readiness, math, online learning, pro-active counseling and advising, and engagement with career centers and employers. Lack of reliable transportation and health issues were the main reasons for non-completion.

## BACKGROUND AND OVERVIEW

*"I always wanted to go to college but I didn't know how. When I heard of this, I enrolled, and now I am doing well and getting ready to go to college. I didn't know where to start, and this program enlightened me with how it all works."* ~Transition to College and Careers program student

Postsecondary education and training is an economic imperative, both for individuals and for the nation. Employers across the United States have difficulty filling openings for middle-skilled jobs, which make up the largest segment of the labor market. The jobs, requiring education beyond high school, but less than a four-year degree offer economic opportunity to

those with the training and credentials to meet the demand (National Skills Coalition, 2015).[1] However, approximately two-thirds of adults age 25 or older do not persist in postsecondary education long enough to earn any type of credential, and many others do not even enroll (Ryan and Siebens, 2012).[2]

A 2013 study of adults' skills in 24 industrialized countries found U.S. adults lagging well behind their counterparts in the other countries: 16th and 21st in literacy and numeracy, respectively.[3] For adults with low literacy and numeracy skills and those learning English, the transition to and completion of postsecondary education and training can be especially challenging. As nontraditional students, they face a range of barriers, including inadequate academic preparation, lack of the information needed to navigate college admissions and financial aid systems, and family and work obligations.

Transition to College and Careers (TCC) was a two-year demonstration project aimed at addressing these barriers, designed and managed by the National College Transition Network (NCTN) at World Education. It built on the successes and lessons of the New England ABE-to-College Transition Project (2000–2007), adding an increased emphasis on career pathways.[4] The goal was to help young and older adults with limited education enter and succeed in college-level programs of study that prepare them for high-growth occupations providing family-sustaining wages. Implemented in partnership with six adult education centers across New England and funded by Nellie Mae Education Foundation, the TCC project began in January 2009 and ended in December 2010.

## THEORETICAL FRAMEWORKS

### College and Career Readiness Framework

Although academic skills are critical to accessing college and career training opportunities, ample research shows that nontraditional learners and first-generation college students need more than academic skills to succeed in college.

The NCTN uses a framework of college and career readiness that identifies four areas of college and career readiness—personal, career, academic, and college knowledge—in which adult learners are typically underprepared and without which it is difficult to succeed in a

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1  National Skills Coalition. (May 2015). *Analysis of Bureau of Labor Statistics Occupational Employment Statistics by State* and (2015). *American Community Survey* data.
2  C. Ryan and J. Siebens (2012). *Educational Attainment in the United States: 2009*. Washington, DC: US Census Bureau http://www.census.gov/prod/2012pubs/p20-566.pdf.
3  http://piaacgateway.com
4  C. Zafft, S. Kallenbach, and J. Spohn (2006). *Transitioning Adults to College: Adult Basic Education Program Models*. Boston, MA:National Center for the Study of Adult Learning and Literacy  https://www.collegetransition.org/college-career-readiness/publications/transitioning-adults-college

college environment. The TCC model was designed holistically to foster college and career readiness skills in all four areas:

1. *Personal readiness:* Noncognitive factors that underlie individuals' persistence and resilience, including the ability to anticipate challenges, access varying forms of supports, balance competing priorities and responsibilities, conduct a realistic self-appraisal of strengths and attributes, resolve conflicts, and advocate for oneself.

2. *Career readiness:* The ability to assess one's skills, interests, and values; to research labor market information, occupational profiles, and training opportunities; to set realistic goals and determine the steps needed to pursue the appropriate education and career pathway; and to develop effective interviewing and job search skills.

3. *Academic readiness:* Gaining the level of reading, writing, math, and algebra skills needed for placement into college-level classes; learning the necessary academic vocabulary; developing study and test-taking skills; and achieving computer and digital literacy.

4. *College readiness and knowledge:* The ability to navigate college admissions and financial aid processes, take advantage of the full array of campus resources, and communicate proactively and appropriately with faculty and staff.

## Noncognitive Variables and Learner Persistence

Research on noncognitive variables that influence student success and deepen the focus on personal readiness informed the TCC program and evaluation tools. Sedlacek (2004) cites eight noncognitive variables that, in addition to test scores, predict success in postsecondary education programs.[5] The TCC evaluation used four of these variables in analyzing learner persistence:

1. *Positive self-concept*: Demonstrates confidence, strength of character, determination, and independence

2. *Realistic self-appraisal*: Recognizes and accepts any strengths and deficiencies, especially academic, and works hard at self-development

3. *Availability of a strong support person*: Seeks and takes advantage of a support network or has someone to turn to for encouragement

4. *Preference for long-term goals*: Defers gratification, plans ahead, and sets goals

In addition, research on adult learner persistence identifies six affective needs of adult learners that drive persistence: a sense of belonging and community, clarity of purpose, competence, agency, relevance, and stability.[6]

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5  Sedlacek, W. E. (2004). *Beyond the Big Test: Noncognitive Assessment in Higher Education*. Hoboken, NJ: Jossey-Bass.
6  Kallenbach, S.  and A. Nash. (2008). *Making It Worth the Stay*. Boston: NELRC/World Education.

## METHODOLOGY

Data were collected from all students when they entered the TCC program and during their time in the program. Students who completed the program filled out a survey that was a self-assessment of their personal characteristics, level of knowledge, and life circumstances upon enrollment and after completion of the program. The analysis focused on the degree to which these perceptions changed over the 14 weeks of their TCC program participation.

Academic skill gains were measured by college placement test scores at entry and upon completion of the program. Most community colleges in New England use the Accuplacer college placement test to assess whether a student has sufficient reading, writing, math, and English language skills to succeed in college-level courses. A cutoff score is used to determine whether students must take one or more developmental (also known as remedial) classes or may proceed to college credit-bearing courses.

These cutoff scores vary from state to state, and sometimes from college to college within a state. Therefore, NCTN used cutoff scores set by the Massachusetts Board of Higher Education as a threshold for determining TCC students' academic readiness as a group.

Toward the end of the program, NCTN also collected focus group data from staff at the TCC program and partner organizations (e.g. community colleges, health care employers, workforce development agencies). The purpose was to learn about the strengths and challenges of the program design and partnership activities in meeting the needs of the targeted student population.

Academic and noncognitive outcomes of the students who completed TCC were analyzed for possible program effects. To this end, the evaluation looked at students' use of counseling services, dropouts' reasons for leaving, and focus group findings for students near program completion, among other information. The data from TCC completers and noncompleters were compared in an effort to understand why students completed or did not complete the program.

## PROJECT FINDINGS

### 1) Demographics of the Transition to College and Careers Students

The majority of TCC students were female (79%), white (57%), and born in the United States (63%), with an average age of 37. They had graduated from high school (55%) or earned a GED® credential (31%), were employed (58%), and were parents (69%). Family income was $25,000 or less for 54% of students. Students spoke over 20 different native languages, but the language most often spoken at home was English (68%), followed by both English and Spanish.

Students' most commonly cited reasons for enrolling in TCC were "to change jobs/careers" (30%), "to achieve a personal goal" (24%), and that they "always wanted to go to college" (24%). Of the majors identified by students upon enrollment, health care was cited the most frequently (33%).

## 2) Transition to College and Careers Enrollment and Completion

- The TCC programs enrolled 397 students over four semesters, which exceeded the enrollment target of 360 students by 19 students, or 5.3%.
- The project also exceeded its program completion target of 60%: of the 379 students who enrolled, 66% completed the program (n = 249).
- The enrollment of students in the online "Introduction to Health Science Course" far exceeded the target of 96 students, for a total of 307 students in this course; 54% of the students who enrolled completed the course.

## Challenges to Persistence and Completion

*"I am having a tough time with my time management, but I am working on it." ~TCC student*

A 66% program completion rate is commendable for a rigorous 14-week program, but one-third of the students did leave the program before completion. Their reasons for leaving were primarily challenges related to transportation, their own or their family's health, or the overall program demands and the demands of college that the transition program foreshadowed.

In every focus group, students reported that when faced with the reality of program demands, they had to make changes in their lives. In spite of lessons and activities on time management, TCC  students felt challenged by having to juggle school, work, and family responsibilities. The post- program assessment indicated that time management remained a challenge, even for TCC completers. This was reflected in the pre- and post-TCC self-assessment, in which students reported only a slight increase in their knowledge of time management skills (0.47 on a 4-point scale).

Following is a poignant example of how even some noncompleters served as inspiration for their peers:

*"There was one young girl with three kids. She would come home from work, pick up the kids and take care of them so that she could get ready to come to school. She was incredible. She was my inspiration to continue when I was frustrated. She was one of the reasons that I did not quit right away. I saw her and said to myself, 'If she can do all that, I can do it too.' It finally just got to be too much for her, and she dropped out."* ~TCC student

## 3) Postsecondary Enrollments

The TCC program was designed to enable students who completed the program to transition successfully to college, with a target of 75% enrolling in college. Shortly after the fourth program cycle, 50% of the 249 students who had completed the program had transitioned to postsecondary education and 33% were at different points along a continuum of transitioning to college (i.e., applied or applied and accepted) at the conclusion of the evaluation.

## 4) Personal Readiness

As discussed above, personal readiness refers to noncognitive factors that underlie a person's resiliency and persistence with her studies. Personal readiness is fundamental to college readiness and success because it underlies adults' ability and motivation to attain academic and career readiness and college knowledge.

In addition to academic skills, career awareness, and college knowledge, the TCC program was designed to increase students' self-efficacy and confidence to pursue their goals. Specific strategies included cohort development and peer support, individual and group counseling, ongoing encouragement by teachers, and college success skills workshops. The personal readiness outcomes are discussed in relation to the noncognitive characteristics that research indicates underlie student persistence and success.

## Self-Efficacy and Realistic Self-Appraisal

*"Sometimes when you are given an assignment, it is hard to know how to even start it. And the fear takes over. Now, I don't have that and I am not as afraid."* ~TCC student

*Self-efficacy* refers to a person's confidence and belief in their competence to perform specific task(s), whereas *self-concept* refers to a more general appraisal of self-worth.[7] In all focus groups, students and program staff described positive changes that reflected an increase in students' college-related self-efficacy and more general self-concept during their participation in the program. The results of the pre- and post-TCC student surveys were consistent with students' focus group statements.

Regarding their sense of academic preparedness, students on average reported the highest ability in "I have a good understanding of my academic strengths and weaknesses" (4.09 out of 5). In the post- program survey, students were asked to rate their preparedness for college in various academic areas on a 4-point scale. Their self-rating of skills in reading (3.08) and math (2.45) echoed the results of college placement test scores, in which average reading scores exceeded the math scores. Similarly, the relative self-ratings of preparedness in writing and reading (2.82 versus 3.08) were consistent with students' statements in focus groups in which many students (especially English language learners) talked about their difficulty writing essays and research papers for the first time.

Specifically, students identified some or all of the following gains:

- Pride in their ability to overcome their fears of returning to school;
- Clear academic progress in all basic skill areas (math, reading, writing);
- Adaptations made in personal life arrangements and choices in order to succeed;
- Reduced personal and academic barriers, achieved with the help of staff and peer support;

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7  Bandura, A. (1995). *Self-Efficacy in Changing Societies*. NY, NY. Cambridge University Press.

- Feeling better about themselves because of what they had accomplished; and

- A broader overall knowledge base of college and career options.

*"I have seen my own growth in the way that I handle English assignments since when I started. Now I can correct my old assignments and I know what I did wrong. I have seen my growth in English and science, not quite as much in math."* ~TCC student

Strong self-efficacy predicts academic success if it is based on a realistic self-appraisal. In order to understand whether the ability to make a realistic self-appraisal played a role in student persistence, the evaluation compared how completing and noncompleting students assessed their anticipated barriers to completing the transition program at the time they entered, and then examined how completing students rated these challenges as they finished the program.

The nonacademic challenges fell into two broad categories: personal characteristics and what can be called logistical challenges, such as reliable transportation and work schedule. Transportation emerged as the greatest challenge to attending college between pre- and post-program surveys (from 6% to 15%). Questions related to personal characteristics asked about students' perceptions of their academic skills; the clarity of their goals; and their abilities to manage time, keep up with homework, and deal with change and an unfamiliar environment. Upon entry to the program, completers on average rated each of these factors as greater potential challenges than noncompleters did.

Noncompleters entered the transition program with less concern about personal challenges than completers did. Completing students ultimately found these challenges to be even greater than they had anticipated. Nevertheless, this would seem to show that maintaining a realistic self-appraisal has a protective effect against dropping out of the program and hence supports persistence.

If this also held true for noncompleting students (which cannot be known because exit data were not collected consistently from noncompleting students), it is possible that they may have underestimated their personal challenges to a greater extent than completing students did. Unrealistic assessment of their skills and personal characteristics may have been a factor in their not being able to complete the program.

## Sense of Belonging and Community

*"I think we have managed to find a really good peer support system. On the first day, it was a small little room; we all did this silly exercise that we all laughed about and started building friendships right away. All of us have at least one of each other's contact information and we talk to each other."* ~TCC student

A sense of belonging and community in the TCC program, and the peer support it engendered, played a large role in student persistence. In the post-TCC survey, 82% of the students who completed the program said that being part of a community of learners played

a "very important" or "important" role in staying in the program. This community of learners was also "very important" or "important" to learners: 80% said they felt connected and 84% said it helped them learn. The support from the community of learners played a role in strengthening students' persistence.

## Availability of a Strong Support Person

> "When you feel like you just want to give up because it is too hard, the staff is right there saying 'Look, you have come this far, you can't quit now. You are so close to making it and you need to do this for yourself because you deserve it.' They really build you up." ~TCC student

> "They all are always available . . . and I think it is important that the support is not just academic. It is in everything." ~TCC student

Students themselves were a major source of support to each other. Students found their peers just as critical as staff members to their ability to feel that they could handle the challenge. In addition, students said the reason they persisted in the program was the supportive staff who continually reached out to them when they needed encouragement and support. Most students seemed to also have the support of friends and family.

In the survey questions about support, the largest increase from pre- to post-TCC survey on average was in response to the statement, "If I run into problems at school, I have someone who will listen to me or help me" (0.18). This statement also had the highest average rating regarding support in the pre-program survey (4.20), showing that the level of support they were receiving before entering the program was high, and that being in the program only increased it further.

TCC students began the program with a relatively high level of support from family and friends, with average ratings of 3.71 and 4.14, respectively, on a 5-point scale on the pre-program survey. There were small increases from the pre- to post-TCC survey in having support from children (0.02) and friends (0.05). The data suggest that challenges caused by unsupportive family and friends, other than those related to health, were a relatively small issue for TCC students. It may indicate that support from family and friends is a precondition for adults' feeling confident enough even to apply to a transition program.

## 5) Academic Readiness

In addition to academic instruction in math, reading, writing, and computer skills that were aligned with developmental courses at partnering colleges, the TCC programs taught college success strategies and study skills. These included topics such as vocabulary encountered in college texts, awareness of learning styles, note-taking, and test-taking skills.

## Academic Skill Gains

TCC students were asked to take the Accuplacer college placement test when they

entered the program. At baseline, the percentage of completing students whose pretest scores were at or above the Massachusetts cutoff score in elementary algebra was 2.74%; in reading comprehension it was 55.77%. These data indicate that most students did not know elementary algebra, but about one-half of them started the transition program with college-level reading comprehension skills. TCC students entered the program with poor math skills and made the least progress in math. Even those who entered the program with a traditional high school diploma did not have sufficient algebra skills to place into a college-level math course.

For the Accuplacer post-TCC test, the percentage of completing students who were at or above the cutoff score in elementary algebra was 20.55%; in reading comprehension it was 69.23%. This means that after completing the program, about one-fifth of TCC students were ready for college-level math courses and two-thirds were ready for college-level reading-based courses. For math in particular, this represents a significant skill gain and yet, the majority were still not ready for college-level math classes.

## Online Health Science Course

*"I am kind of old school in that when I was in school, we didn't use computers. Coming back into this was difficult. Everyone has a computer and I have not had much experience on a computer."* ~TCC student

The model of blending online and classroom instruction allowed TCC sites to supplement general academic instruction with contextualized academic instruction to learners who set the goal of entering health care programs. The rationale for providing an online course was to support smaller communities, where individual adult education centers were not likely to have a critical mass of learners for a specific career sector. Online and onsite instructors collaborated to ensure that students received enough access to technology and support on site to complete course assignments successfully.

While intended as an optional supplement, some programs required all students enrolled in TCC to take the online "Introduction to Health Science" course, regardless of their interest in health careers or assessment of technology skills. A total of 307 students enrolled in the course and 166 students completed it.

Of the completers, more than 100 responded to a post-course survey about the course. Almost all responders said that the research project that was required for completion of the health science course helped them learn research, writing, and note-taking skills they needed for college. They also felt that with some positive online learning experience behind them, they would consider taking another online course in the future.

The positive attitude toward the online course expressed in the surveys was mirrored in the focus groups, where many students cited it as a strength of the program, in part because the course gave them experience with online learning. At the same time, they found using the

computer, working independently, and handling the extra work challenging. Both students and staff indicated that many students did not have sufficient computer skills for the online course without more individual assistance than was available on site.

## 6) Career Readiness

*"It [career planning] is the piece that we have not had the luxury of having in the past. Having a dedicated career counselor has really made a difference."* ~TCC staff

## Gains in Career Knowledge

Virtually all participants in the staff focus groups cited the career education and planning component as a strength of the TCC program, including the requirement to develop a written Career and Education Plan. It was seen by some staff and students to have a positive effect on student focus and motivation. Most TCC programs started out with making individual career counseling optional but moved toward requiring that each student meet individually with the counselor at least three times—at the beginning, middle, and end of the program—so that all students received individual guidance. The TCC sites that integrated career planning content (e.g., online occupational research, analyzing labor market data) into the academic classes to supplement individual career counseling reported stronger student participation than those that held separate workshops.

According to student survey data, most students increased their knowledge of career pathways. Over one-half of students (53%) who completed the program had said at the beginning of the program that they "knew something" about their chosen career field. At the end of the program this response rate increased to two-thirds (66%). Students also indicated that learning resume writing, job search, and interviewing skills were very important to their growing career knowledge.

Students and staff alike considered having a staff member designated as a career counselor highly beneficial. When asked in the post-program survey to check "all of the things that helped you learn about chosen career path while you were in the TCC program," 80% of students selected "TCC counselor and program materials." Online career research was a close second, with 70% indicating it was also helpful. Fifty-seven percent of the students found guest speakers at the TCC program helpful.

## Clarity of Purpose and Preference for Long-Term Goals

*"I got laid off and I wasn't sure what to do. This has given me direction and a focus on my future and getting ready to go to college."* ~TCC student

While all TCC students indicated a desire to prepare for college, not all had specific career goals or were used to setting and striving to meet specific goals. On average, from pre- to post-TCC survey, students showed an increase in goal-setting and goal-oriented behavior. "I make goals and work toward them" showed a change from an average pre-program rating of 4.17

(on 5-point scale) to an average post-program rating of 4.36 (a change of 0.19). Responses to the statement, "I have clear career goals," changed from an average rating of 3.77 beforehand to an average rating of 4.28 (a change of 0.51) afterward.

## 7) College Knowledge

*"We wouldn't be able to succeed without it. I think that the College Skills course is* **the** *most important thing that they provide us."* ~TCC student

When asked about their knowledge of topics related to college knowledge before and after the program, completing students rated their knowledge and understanding higher on all seven topics that were assessed for college knowledge: college culture, study skills, time management, cost of college and financial assistance available, college admissions requirements and process, types of college degrees and certificates, and academic requirements for chosen career.

On a 4-point scale, the highest average change students reported was in their knowledge and understanding of "financial assistance and cost of college" (1.05). This was followed by "academic requirements for my chosen career or the careers I am considering" (0.92) and "college admissions requirements and process" (0.91).

Consistent with their learning gains in college knowledge, students' responses showed *decreases* on average from pre- to post-TCC surveys in what they anticipated would be challenging in these areas: lack of financial aid, overall cost of college, and needing to work to pay for tuition. In other words, most TCC students became more adept at overcoming the barrier of financing college.

## SUMMARY

Both students and staff reported that TCC program components had a tremendous impact on students' ability and confidence (i.e., self-efficacy) to tackle more challenging academic work and navigate college culture and systems. Students who entered TCC with slightly higher academic skills in math and language arts completed their coursework at a higher rate on average. The findings also indicate that while students were attending the TCC program, they benefited from the sense of community and the readily available support from staff and peers that the TCC programs provided.

Still, some were challenged by unreliable transportation, juggling multiple responsibilities, and health problems.

Although the online introductory health science course challenged students' technology and independent learning skills, the majority of course completers derived great benefit from the experience. Given the flexibility that online courses can provide and the trend toward increasing online and hybrid college course offerings, gaining competence and confidence in online learning is a significant benefit.

In addition to deepening their existing relationships with their college partners, most TCC sites were also successful in engaging career centers and health care employers to leverage their expertise to benefit students' career exploration activities.

During their time in the program, TCC students evidenced noncognitive gains, including positive self- concept and preference for long-term goals, which helped students to succeed in the program and transition to postsecondary education. Students indicated that the program helped clarify their goals, prepared them for college-level work, and motivated them to persist.

## IMPLICATIONS FOR PRACTICE AND RESEARCH

The TCC project is instructive in its implications for practitioners and researchers. While we believe that all the following components are essential for preparing adults to enter and succeed in college, we also recognize that reflective practice and research can enhance implementation of these components.

### Design programs to foster personal readiness as well as academic readiness and college knowledge.

The TCC program experience and findings highlight the importance of a holistic college transition program design that balances emphasis on academic skills development with career planning, college knowledge, and personal readiness. The TCC findings indicate positive outcomes for program design intended to promote student persistence through a sense of community, peer support, and availability of consistent support from staff. They also point to the importance of supporting students in securing reliable transportation and addressing their own and their family's health issues.

### Include career counseling and planning as an essential component.

Career counseling/advising is an essential function in a college transition program and one that requires investments in building staff's capacity to provide it. Both TCC students and staff identified the career planning component as a valuable tool for enhancing motivation and an opportunity to learn new research and planning skills.

In addition, occupation-specific preparatory courses, such as the "Introduction to Health Science" course, give students a head start along an educational and career pathway. They can also help students steer away from a career choice that is not a good match for their interests and aptitudes, without negative repercussions.

Program administrators would benefit from further training in how to lead the process for incorporating career exploration activities across the broader program curriculum design. Instructors and advisors would benefit from targeted professional development on how to incorporate career exploration and planning into their classroom instruction and advising activities.

### Focus on math.

TCC students' math skills mirror the results of the international assessment of adult skills,

which showed that adults in the United States have numeracy skills well below the other industrialized nations, even worse than their literacy skills.[8] TCC students benefited from attention to both academic and nonacademic skills, but the program model did not adequately address math skill development. It is not clear if this stemmed from lack of sufficient intensity and duration of math instruction or if instructors in the adult basic education setting were not equipped to teach precollege math. More research and development is needed to identify practices that accelerate adults' learning of math.

## Develop postsecondary and employer partnerships.

College transition programs should not operate in isolation from the postsecondary institutions or the college-level programs to which they aim to transition their students. Partnerships between local adult education providers and community colleges can expose students to college life and give them personal contact with college personnel, which increase college knowledge and a sense of belonging on a college campus.

The TCC programs' experience confirms the truth about any partnerships: they require ongoing communication and relationship-building as well as concrete mechanisms for working together. Partnership development takes time and perseverance. It can be prompted by line or executive staff, but institutional leaders must come on board with their full support to ensure a lasting partnership.

In addition to deepening existing relationships with their college partners, most TCC sites increased their level of engagement with career centers and health care employers in order to leverage their expertise for the benefit of students' career exploration activities. Employers and career center staff are in the best position to help staff and students gain a firsthand understanding of the local labor market and in-demand jobs. Such partnerships should inform both the transition program design and students' career research.

Programs should pursue multiple avenues for partnering with the industry sector targeted by the program, including large and small employers, unions, and sector-specific networks and trade organizations. These entities can provide firsthand knowledge about the local labor market and in-demand jobs to inform the transition program design. They may be willing to host workplace site visits and provide guest speakers. They also help to recruit students who are already working in the health care industry and interested in advancing in their careers.

## Provide supported opportunities for online learning.

Adults in the United States scored below the international average in the ability to solve problems in a technology-rich environment,[8] which is cause for concern because use of information technology is a growing imperative in virtually all educational and employment settings. At the time of enrollment in TCC, only about one-half of the students had the computer skills they needed to succeed in online learning without more support than was

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8  U.S. Department of Education, Office of Career, Technical, and Adult Education. (2015, February). *Making Skills Everyone's Business: A Call to Transform Adult Learning in the United States*. Washington, D.C.: Author. http://www2.ed.gov/about/offices/list/ovae/pi/AdultEd/making-skills.pdf

available at most sites. The TCC findings indicate that most students would be better served with programs that incorporate explicit digital literacy instruction, and that students benefit from online learning that supplements classroom instruction. Programs would do well to use a hands-on technology assessment at intake and to gear instruction and support at the level students need to succeed. The TCC experience demonstrates that with instruction, support, and opportunities for online learning, adult learners can make progress and gain confidence to succeed in online learning. ⌘

## TRANSITION TO COLLEGE AND CAREERS PILOT SITES

- **Community Education Project**, Holyoke, MA, in partnership with Holyoke Community College

- **Lewiston Adult Education**, Lewiston, ME, in partnership with Central Maine Community College, Central Maine Medical Center College, and the University of Southern Maine

- **Marshwood Adult and Community Education**, South Berwick, ME, in partnership with Great Bay (NH) Community College and York (ME) County Community College

- **North Shore Community Action Programs, Inc**., Peabody, MA, in partnership with North Shore Community College

- **The Tutorial Center, Inc**., Bennington, VT, in partnership with the Community College of Vermont and Vermont Adult Learning in Burlington

- **Vernon Regional Adult Basic Education**, Vernon, CT, in partnership with Manchester Community College

## TRANSITION TO COLLEGE AND CAREERS PROGRAM MODEL

| **Target Population** |
| --- |
| Adults with a GED or alternative or traditional high school diploma with a stated goal of enrolling in postsecondary education |
| **Program Length** |
| Minimum of 14 weeks of instruction and minimum 6 hours per week of direct academic instruction, including language arts, math, study skills, and basic computer and Internet skills at each site |
| **Academic Instruction** |
| Instruction in math, reading, writing, and computer skills aligned with developmental courses at partnering postsecondary institution(s) |
| College knowledge; for example, the vocabulary related to college processes and policies, information and assistance with admissions and financial aid, additional emphasis on navigating academic departments that prepare students for health care careers |
| College success and study skills; for example, awareness of learning styles and strategies, test-taking skills, and time management |
| **Blended Instruction for Health Careers** |
| Online "Introduction to Health Science" course for those interested in health careers, taught centrally by an NCTN instructor to supplement general academic instruction with contextualized instruction |
| **Counseling and Advising** |
| Proactive counseling and support in group and/or individual sessions to foster resiliency and persistence and to help participants solve problems and manage multiple commitments |
| Career counselor/advisor available on site to provide general counseling support and facilitate career awareness workshops and individual career planning sessions, which draw on local labor market information about high-growth occupations |
| A written Career and Education Plan required of students completing the TCC program |
| **Partnerships** |
| Partnerships and formal agreements between adult education programs and postsecondary institutions, including the academic departments that prepare students for health care careers |
| Dual enrollment or college credit earned for college transition completion offered by some partnerships |
| Partnerships with health care employers and workforce partners to build sites' capacity to provide effective career counseling, which incorporates the most up-to-date information on regional health care career opportunities; to recruit students already working in the health care industry and interested in advancing; to host workplace site visits; and to serve as guest speakers |

## TCC SUCCESS STORY

My name is Queen Ceasar. I came to the Transition to College and Careers (TCC) program at Holyoke Community College in Massachusetts after I lost my job at a warehouse. I was having difficulty finding employment. I had heard about transitions classes at Holyoke Community College, so I enrolled in the noncredit course. I'd always wanted to go to college but didn't think I was smart enough.

There were several phases of the TCC program that we students had to participate in for a completion. We did a lot of academic work to learn to do math, take quizzes, and write essays. I also completed the online "Intro to Health Sciences" class offered by World Education. As part of the transition program design, we also had to start planning for our career. I decided that I wanted to work in the human services field.

When I graduated from the transition program, I enrolled in credit classes at Holyoke Community College. The staff of the TCC program helped with the process. When I got into college classes, I could see the difference in my skills and confidence compared to those of other students. My first college writing assignment was a narrative essay, which I had practiced in the transition program.

Recently, I got a job working with the mentally ill. The TCC instructor also asked me to serve as the "Intro to Health Sciences" online course teaching assistant this semester. If it was not for the transition program, I don't think I would ever have had the courage to go to college or to work at a job I really enjoy.

# STRENGTHENING ADULT CAREER PATHWAYS IN MINNESOTA: A PROFESSIONAL DEVELOPMENT COHORT FOR MANAGERS

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## ABSTRACT

Establishing adult career pathways is challenging, complex work. In Minnesota, a new professional development initiative provides ABE managers with a facilitated, supported, year-long cohort as they work to create or strengthen a career pathway program in collaboration with WIOA partners in their localities. In this article, the rationale, design, and outcomes of this professional development activity are outlined. Key features include an experiential learning approach, a mix of face-to-face and online interaction and presentation, peer partners, coaching calls, goal-setting, and local action steps.

## INTRODUCTION

Driving forces in the field of adult basic education have reshaped our work in profound ways in recent years. While preparing adults for family-sustaining work has always been a tenet of ABE, the creation of seamless career pathways for adults in need of both basic skills and career preparation has taken on new emphasis with the 2014 passing of the Workforce Innovation and Opportunity Act (Public Law 113-128 [29 U.S.C. Sec. 3101, et. seq.]). Establishing strong, sustainable career pathways is complex work that requires a great deal of knowledge and skill, as well as dedicated time and resources on the part of ABE practitioners.

In Minnesota, a new professional development (PD) cohort specifically for managers assists in creating and strengthening adult career pathways (ACPs). This article describes this ACP program development initiative, our approach to design and delivery of the PD, and the initiative's impact to date.

## CONTEXT FOR A NEW CAREER PATHWAYS COHORT FOR ABE MANAGERS

Starting in 2007, Minnesota was fortunate to participate in the Joyce Foundation Shifting Gears Initiative,  out of which grew the "FastTRAC" model of career pathway work, focused on making systemic changes to help low-skilled adults gain in-demand skills and postsecondary credentials. When the Shifting Gears Initiative ended in 2012, there continued to be a focus on adult career pathway programming in the state, with some funding available through competitive grant programs. With the passage of WIOA in 2014, the call for adult career

pathways programming has increased, and adult basic education programs, along with their partners, are striving to develop ACP options to best meet the needs of low-skilled adults across the state.

Through their ongoing efforts with FastTRAC and other career pathway programming over the past ten years, Minnesota adult basic education programs have encountered a number of common challenges in developing and delivering sustainable career pathways. In response, it became clear to state ABE leadership that comprehensive professional development was needed to equip and support ABE managers as one of the critical partners in developing and sustaining quality ACP programs.

## DEVELOPMENT AND DESIGN OF THE ACP COHORT

In Minnesota, professional development for the state's ABE professionals is provided by agencies funded by the Minnesota Department of Education. One agency, ATLAS (ABE Teaching & Learning Advancement System), provides the lion's share of PD for the state.  Housed at Hamline University in St. Paul, ATLAS (www.atlasABE.org) has, for ten years, designed and implemented PD initiatives large and small for Minnesota ABE and was recently recognized by the National Coalition for Literacy with a national leadership award.  While ATLAS staff has an abundance of expertise in language, literacy, and math instruction, the ACP work required hiring a consultant with direct experience in teaching career-focused classes, writing curricula, participating in ACP partnerships, and facilitating professional development.

The consultant (Elizabeth Andress, co-author of this article) spent a full year gathering information and designing a PD response. Top priority was listening to the field to ensure our PD would be relevant to real needs and contexts. She met with ABE managers and other ABE professionals from across the state, asking them to detail their keys to success as well as their most pressing challenges in ACP work. She took care to meet with managers from a variety of contexts for ABE: urban, rural, suburban, as well as mid-sized cities, programs with leveled classes and those who serve students in drop-in settings, etc. It soon became clear that a PD response to strengthen ACPs in Minnesota could not be a series of content-heavy workshops, nor could it be a one-size-fits-all approach. A multifaceted, differentiated, and highly supported PD design was required to meet the needs of our many and varied ABE contexts.

As the year-long development work progressed, the ACP consultant met regularly with an ACP leadership team to help shape this initiative. This team includes the ATLAS Director (Patsy Egan, co-author of this article) and three members of the state ABE staff: the transition specialist, the professional development specialist, and the state ABE director. While adult career pathways PD work could stretch in many directions and could continue for multiple years, four key areas of ACP best practice were chosen to focus our efforts, based on top priorities identified in the field. These foci were formulated into training objectives for the first-year ACP cohort participants.

> *Upon completion of the one-year PD cohort, participating ABE administrators will be able to:*
>
> 1. Define and describe adult career pathways (ACPs) and integrated education and training (IET) as outlined in WIOA and as interpreted by MN Dept. of Education and identify/modify/create courses and pathways that meet federal and state requirements.
> 2. Expand and strengthen connections for ACP programming with various local workforce entities.
> 3. Build relationships with employers within the target career pathway sector and engage them in various aspects of the program.
> 4. Identify and address possible barriers to full enrollment in ACP programs and build strong referral/recruitment streams to build strong enrollments.

The decision was made to narrow the focus in this way to promote solid capacity-building in these areas, rather than attempting to address every aspect of ACP programming and run the risk of building lasting skills in none of them. (We have tentatively identified five new areas of focus to be addressed in a second phase of the PD cohort.)

As this PD cohort initiative took shape, we drew extensively from other professional learning experiences created for ABE professionals throughout the state (see www.atlasABE. org for more information on PD for transitions,  STAR, CCRS, numeracy, and other areas of ABE practice).  As always, our PD work was grounded in evidence-based PD practices (Desimone, 2009).

The design for the cohort landed on the following key components: a mix of face-to-face and online presentation and interaction, "in the trenches" assignments to complete in each participant's locality, regular peer partner feedback and support, occasional check-in calls, and ongoing evaluation throughout the initiative (Guskey, 2002). Table 1 details the PD design. The cohort was promoted to all ABE administrators across the state in an effort to build overall capacity and was not connected to receipt of any particular grant funding.

## Innovative Design Approach

A primary challenge in designing professional development to improve adult career pathway programming in Minnesota is the diversity of ABE program contexts, experience, and capacity.  One participant in our first-year cohort had 24 years of ABE experience; another was brand new to the field. One had three well-established adult career pathway programs and strong collaborations in place; another had no ACP programs and no collaborating partner relationships.  Several participants manage metro-area programs and others are in medium-sized towns; two operate within the Department of Corrections; and one serves ABE learners who are deaf, deafblind, hard of hearing, and deaf disabled across the state. Throughout our

development year, the field's advice was loud and clear: *Do not inundate us with best practices that do not fit the realities in our setting. Do not tout model programs that would never be replicable in our locality.* Creative approaches were required to equip ABE program managers with essential knowledge, skills, and tools from the field and promote best practices, all while also supporting them to apply these in their own way in their own contexts.

In response, an *experiential learning model* was chosen to ground the design of this professional development. An experiential learning approach to PD, illustrated in Figure 1, ensures that the work is constantly grounded in the concrete experience of participants; includes deliberate individual reflection on that experience; moves to shared conceptualization (what can we conclude?) and a search for other sources for making sense of the experience; then integrates the new understanding into next action steps. This design contrasts with a PD model that relies primarily on conveying best practices from existing expert sources and sends people off to implement on their own, often with residual resistance and minimal success.

A select set of *tools* are provided in the ACP cohort from the vast array of resources available, rather than pointing participants to all available materials. For example, we encourage use of the complete Career Pathways Toolkit, but for training and implementation purposes, we culled a few select guidelines and tools from this 300+ page document that were deemed immediately useful and relevant.

To *contextualize* the application of knowledge from the training, assignments are completed within each cohort participant's setting. The three primary assignments focus on (a) establishing/strengthening workforce partnerships; (b) building strong enrollments; and (c) engaging employers. Each assignment includes guidelines for best practice, a tool for assessing current practice and identifying opportunities for growth, a process for setting a "SMART" goal, time to carry out action steps, and reflection on results. (SMART goals are specific, measurable, achievable, relevant, and time-based.)

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### Building Strong Enrollments: Examples of SMART Goals

- The community college admissions staff will understand our ACP program offerings and have a process in place for referring incoming students to the Manufacturing and Healthcare ACP programs. This will result in a minimum of 10 participants in each bridge course in the summer of 2018.
- I will develop a brochure that clearly outlines our ParaProfessional course (outline, career ladder, potential earnings, etc.). This brochure will be distributed through outreach efforts in at least three deaf and hard-of-hearing high school and transition programs.

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*Support and accountability* are key to the experiential learning, SMART-goal based approach to PD outlined in this article. As most of the cohort work was carried out locally, connecting

with colleagues within the cohort played a vital role. To this end, at the initial workshop participants chose peer partners to work with throughout the cohort year. These partners provided feedback on each other's draft SMART goals and action steps, participated together in periodic check-in calls with the PD facilitators, and shared information and insights with one another. Partners and facilitators served to both support and hold participants accountable during the year's ACP work.

*Evaluation* was deliberate and ongoing throughout the pilot year of this ACP PD cohort. Participants reflected on successes and challenges in meeting their SMART goals. They also provided feedback on required evaluation surveys after each PD activity. A significant part of the spring wrap-up webinar was dedicated to evaluation of impact and on the methodology and quality of the PD cohort.

## Impact of ACP Program Development Cohort

The pilot year of the cohort concluded in May 2018. In the final evaluation, participants reported significant knowledge and skill development gained from the PD cohort, summarized in Table 2.

Specific progress made at the local level varied widely among cohort participants. Here are a few examples as reported in the final evaluation:

*"We have identified the strongest areas of job growth and wages in our area and have created career pathway classes that are aligned to prepare participants to succeed in these jobs. We are building the pathways from prep to specific training classes for entry-level and higher level positions in the health care sector, providing multiple entry/ exit options and constant expansion of skills and knowledge." (Alison Wilcox, Career Pathways Coordinator, Metro South ABE)*

*"As ABE and Workforce continued our partnership, we made great progress this year in redefining our roles in our bridge programs, including utilizing others' areas of strength to divide tasks." (Ron Fleischmann, FastTRAC Program Supervisor, Mankato Area ABE)*

*"I have built relationships with multiple employers to better prepare the students to be the most equipped applicants after completing the ACP course." (Tammy Schatz, Program Manager, Moorhead ABE)*

Participants reported that the support and accountability of a cohort model, the range of assignments, concrete goal-setting, and the ACP tools provide ABE managers with what they need to move forward with ACP program design or improvement in ways they wouldn't have otherwise.

*"The check-in calls provided necessary accountability. It made us take time to reflect on where we were, what was next, what was going well, and provided feedback in the middle of the planning process. We got to hear others' struggles, successes, and experiences during the cohort." (Ann Trochlil, ABE Manager, Glacial Lakes Consortium)*

*"The most valuable aspects of the cohort training for me were using tools to evaluate our current ACP programming; setting concrete goals so we accomplished things locally and didn't just learn passively; and reflection time at the end of the cohort year." (Karen Wolters, ABE Program Coordinator, Mankato Area ABE)*

In addition, a less tangible but significant result of the PD is a sense of connection and solidarity among ABE administrators in the cohort, contributing to greater creativity and persistence in addressing challenges at the local level. Participants' energy and engagement in the full-day wrap-up workshop bodes well for these relationships to sustain into the future, providing ongoing peer support for the ACP work that lies ahead.

## CONCLUSION

Professional development for building effective adult career pathway programs across a wide variety of settings requires a creative and contextualized approach. Peer support among participating ABE administrators seems to be one of the most highly-valued aspects of our model. Reported impacts—in knowledge and skills obtained, progress in development of ACPs in each locality, and confidence in the work—are significant. The commitment to use evaluation data from this pilot year will inform an even better cohort experience in year two. We are pleased to share the approach and what we have learned in our pilot year with the wider ABE community as we all work toward stronger career pathways for adult learners in our communities. ⌘

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## TABLE 1: DESIGN OF ACP PROGRAM DEVELOPMENT COHORT

| | |
|---|---|
| **Duration** | 10 months, August–May |
| **Participants** | 24 ABE program administrators from across the state, self-selected |
| | Several ACP focus career sectors:  healthcare, trades and industry, education, business |
| **Staffing** | Cohort lead: ATLAS ACP consultant |
| | Staff with roles: ABE state PD specialist, transitions specialist, and ATLAS director |
| **Delivery Components** | Pre-workshop assignments on ACP basics |
| | 7-hour face-to-face intensive workshop—presentations, discussions, skill-building, peer partner relationship-building |
| | Three major action-oriented assignments spaced over 8 months, on (a) workforce partnerships, (b) building strong enrollments, and (c) employer engagement |
| | Two 1.5-hour webinars on partnering with workforce and employers |
| | Two 1-hour check-in calls (peer partners + 2 cohort facilitators) |
| | 7-hour face-to-face wrap-up workshop—share accomplishments, reflect on learning, evaluate, plan next steps |
| **Online Platform** | Schoology used for |
| | Weekly communication with cohort participants |
| | Submission of and feedback on assignments |
| | Sharing reference materials and tools relevant to ACP work |
| | Discussion forums and information sharing among participants |
| **Participants Receive** | 25 CEUs |
| | $400 stipend to the program, plus mileage and lodging expense reimbursement for workshop attendance |

**TABLE 2: COHORT FINAL EVALUATION RESULTS—SELF-ASSESSMENT OF PROGRESS ON PD OBJECTIVES**

| I was / am now fully able or quite able to: | Before the Cohort | Upon Completion of the Cohort |
|---|---|---|
| list, explain, and implement the seven criteria of a fully-realized adult career pathway (ACP) program. | 5% | 89% |
| partner with the local workforce entities in design and delivery of ACP programs. | 37% | 79% |
| engage employers in ACP program development and delivery. | 10% | 52% |
| build strong enrollments for an ACP program. | 10% | 63% |
| continue effective ACP program development work beyond the cohort year. | n/a | 94% |

**FIGURE 1: EXPERIENTIAL LEARNING MODEL
(BASED ON KOLB, 1984. VISUAL AVAILABLE: HTTP://DOCEO.CO.UK/L&T/
LEARNING/EXPERIENCE.HTM )**
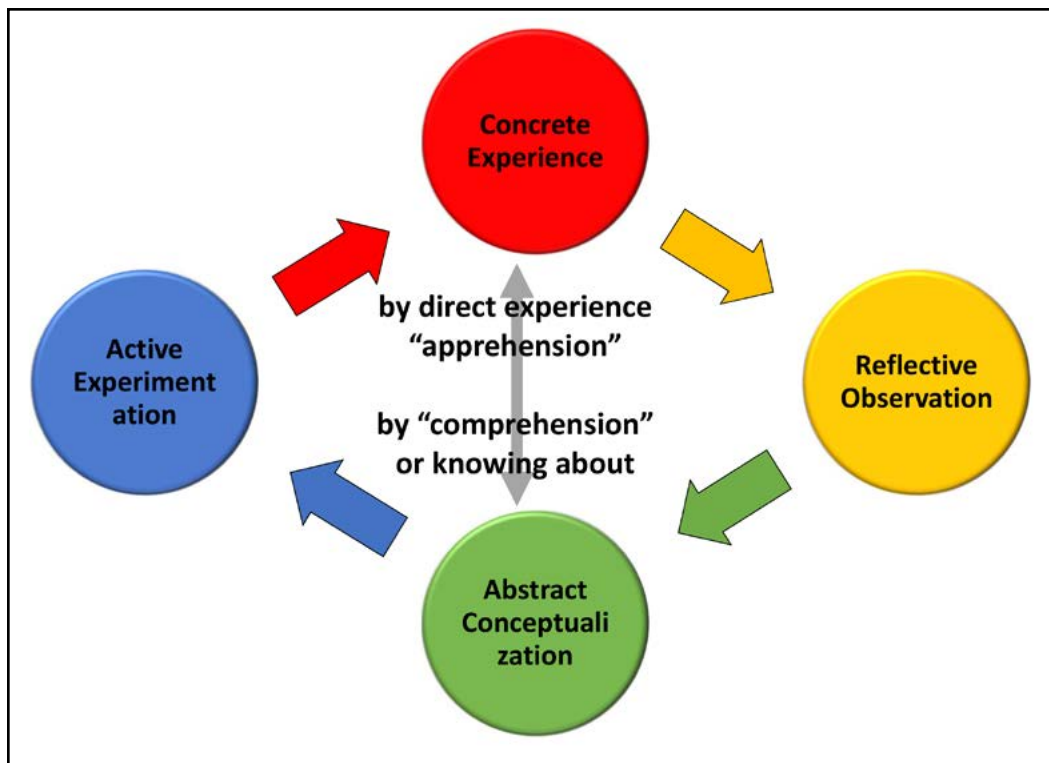
# INTEGRATED CAREER PATHWAYS: LESSONS FROM ACCELERATING OPPORTUNITY

**Rachel Pleasants McDonnell**
**Lisa Soricone**
Jobs for the Future

## INTRODUCTION

The Accelerating Opportunity (AO) initiative, which launched in 2011, was an unprecedented investment in underprepared adult learners. Multiple funders joined forces to support the implementation of integrated career pathways at community colleges across seven states. These states spent four years focused on large-scale state and institutional transformation. The goal was to address policy, programmatic, and systems gaps at the state and college level so that greater numbers of adults with significant educational and skills gaps could successfully advance from federally-funded Adult Basic Education into and through technical pathways in high-demand occupational areas. The initiative also included a rigorous third-party evaluation, which provided an important opportunity to deepen our understanding of the impact of integrated pathways on student outcomes.

The final grants to states ended in 2015, and the final implementation and outcomes reports were published in 2017. JFF is now in a position to reflect on over five years of learning from and with our state and national partners. This initiative provided valuable lessons about what it takes to implement integrated career pathways for underprepared adult learners, including lessons about instructional practice, supportive services, policy, and systems change.

This is a critical time for understanding what it takes to increase the skill levels and employment opportunities of Americans. The OECD's 2013 Survey of Adult Skills (PIACC), a landmark international study, shows that the United States is falling behind in international comparisons: one in six adults have low literacy skills, and one in three have low numeracy skills. Educators and policymakers are seeking evidence-based approaches to addressing these skill deficiencies; Accelerating Opportunity has the potential to be one such approach.

In this article, we explore lessons that JFF learned as the initiative lead as well as lessons

documented by our evaluators. With the current push of the Workforce Innovation and Opportunity Act (WIOA) to expand integrated education and training we hope that what we have learned can help practitioners, researchers, and policymakers continue to improve outcomes for underprepared and underserved adults.

## WHAT IS ACCELERATING OPPORTUNITY?

Accelerating Opportunity was developed as a strategy for helping more underprepared adult learners enter and succeed in postsecondary credit-bearing career pathways. While postsecondary credentials are increasingly important for obtaining family-supporting careers, more than sixty percent of adults 18 and older lack any postsecondary credential. In addition, weak literacy and numeracy skills keep millions of adults from succeeding in today's labor market. Historically, disconnected systems—including adult education, secondary education, community colleges, and workforce development—have made it difficult for underprepared adult learners to advance through education and training programs in a reasonable time frame. Very few Adult Basic Education students (by some estimates, less than 5%) ever enroll in college-level pathways, much less graduate with marketable credentials.

The Accelerating Opportunity model was designed to accelerate progression by combining Adult Basic Education and career and technical education into a single integrated career pathway. Accelerating Opportunity builds on the I-BEST (Integrated Basic Education and Skills Training) model developed by the Washington State Board for Community and Technical Colleges (SBCTC). Through I-BEST, Washington pioneered the use of postsecondary team teaching for Adult Basic Education students.

Participating states and colleges all agreed to implement the following non-negotiable elements:

1. Explicit articulation of two or more career pathways that begin with Adult Basic Education or ESL and continue to a one-year college-level certificate and beyond
2. Evidence of strong local demand for the selected pathways
3. Acceleration strategies, including contextualized learning and the use of hybrid course designs (online plus classroom-based instruction)
4. Comprehensive student support
5. Evidence-based dual enrollment strategies, including paired courses and I-BEST and I-BEST-like approaches
6. Achievement of marketable, stackable, credit-bearing certificates and degrees and college readiness
7. Award of some college-level professional-technical credits
8. Partnerships with Workforce Investment Boards and employers

## PARTNERS AND FUNDERS

The initiative was supported by a consortium of funders: the Bill & Melinda Gates Foundation, the Joyce Foundation, the W.K. Kellogg Foundation, Kresge Foundation, the Open Society Foundations, the Arthur Blank Foundation, the Woodruff Foundation, the Casey Foundation, and the University of Phoenix Foundation. JFF also partnered with three other organizations to provide a full range of technical assistance and initiative leadership: the Washington State Board for Community and Technical Colleges, the National Council for Workforce Education, and the National College Transition Network/WorldEd.

## WHAT DID WE ACCOMPLISH?

In its four years of implementation, the AO initiative achieved scale and success for adult learners. The initiative grew from 8 colleges in each of the 4 original states to cover seven states, in which 85 colleges implemented 189 integrated career pathways in manufacturing, healthcare, automotive, business, education, and other sectors. Over 10,000 individuals enrolled in AO programs, earning over 12,000 credentials, with more than 3,500 students earning 12 or more credits.

An evaluation of AO conducted by the Urban Institute examined the initiative's operation in four states (Illinois, Kansas, Kentucky, and Louisiana) and provided additional insights into the impact of programs on participants. AO students expressed high levels of satisfaction with the program. Among over 400 students surveyed, 97% said it met or exceeded their expectations, and two-thirds said they would recommend the program to family and friends.

In a rigorous, quasi-experimental study, AO was found to increase the probability of earning a credential compared to similar non-AO students (see Figure 1). In most cases, AO reduced the number of credits earned, suggesting more efficient course-taking and accelerated learning among participants. With respect to earnings, the initiative had mixed results; however, AO showed strong and sustained positive impacts on earnings for two subgroups of students: AO students recruited from adult education in Kentucky and from career and technical education in Kansas. It is likely that the mixed results are influenced by diverse state economic contexts. More long-term data would provide greater insight into the trajectories experienced by AO participants over time.

In addition to its impact on students, AO resulted in changes at policy and system levels. For example, Illinois altered its performance-based funding measure to include momentum points, such as GED® acquisition and transition to postsecondary, a change that added an incentive for community colleges to address the needs of adult education students more intentionally and to work more closely with the state Division of Adult Education. In Kansas, new state agency agreements enabled the use of TANF funds to cover the tuition of students who completed a 12-credit hour AO pathway. In Georgia, the state's Technical College System altered its testing policy to delay COMPASS testing to allow adult education students to enter credit-bearing

courses based on their TABE scores. At the college level, many institutions made changes to better integrate ABE students, such as providing them with access to college resources (library, parking, student ID's) like other college students. Colleges also made efforts to facilitate the co-enrollment of adult education students into college courses and alter course scheduling to better meet the needs of adult learners.

Significantly, AO changed the culture around perceptions of ABE students and their potential in community college. Adult education students are now seen as part of the strategy to help states boost college enrollment, meet employer needs, and achieve credential attainment goals. As leaders in Illinois reported, "...three years ago, adult education was seen as a free program for ESL and GED students. Today, adult education is seen as a potential area of growth for the college credit enrollment."

## WHAT DID WE LEARN?

### Lessons About Partnerships

The AO leadership team recognized early on that **partnerships are an essential building block for an initiative focused on bridging the "silos" of adult and career and technical education**. Historically, the internal and external partners needed to develop integrated pathways work—college CTE departments, Adult Basic Education, student services, workforce development partners, and employers - haven't worked together closely (if at all). In some cases, the AO grant provided the impetus for these stakeholders to come together for the first time.

At the beginning of the initiative, ABE staff had to collaborate regularly with CTE leadership and faculty to identify the appropriate pathways and courses for co-enrollment and determine what the team teaching model would look like. Throughout implementation, faculty needed to meet frequently to share information on student progress, hone team teaching strategies, and identify new potential pathways for expansion. It was also important to work closely with student services in order to ensure access to supports like tutoring, counseling, and other resources. Often this too was a new relationship for ABE; in many colleges ABE students did not previously have access to college-provided supports.

**College leadership commitment played a large role in the success of these internal partnerships.** At colleges where the upper-level leadership made clear their support of AO it was easier to build internal relationships. At colleges where ABE was the primary driver, it was more challenging to make headway.

**Colleges relied on external partnerships with the public workforce system and employers to inform program design, recruit participants, and assist with job placement**. Some colleges also worked with community-based organizations (such as Goodwill Industries) to provide supportive services. These external partnerships were more challenging to establish—especially partnerships with employers. However, employer engagement did increase over the course of the initiative.

**Partnerships proved critical at the state level as well**. In particular, state-level collaboration between CTE and ABE could set the tone for colleges. In Illinois, for example, the close working relationship between state CTE and ABE leadership sent a clear signal to colleges that AO wasn't just an ABE initiative. Similarly, states could facilitate partnerships with the workforce system or other state agencies (such as TANF) that would then drive local-level partnerships. These state-level partnerships also enabled leveraged resources and funding. In Kansas, collaboration with the state TANF agency led to an agreement that TANF would fund pathway tuition for eligible students.

## Lessons About Instructional Practice

One important lesson from AO is that **team teaching, while challenging, provides students with an accelerated and supportive learning environment**. Over the course of AO, JFF and its partners learned about the various ways that team teachers contribute to classroom success. A core component is contextualized basic skills instruction, but the benefits of the partnership go beyond content delivery. In many cases, the adult education teacher would model how to be a student—how to take notes and how to ask questions during class. They are also often the ones to notice when students are getting lost, and can stop the CTE instructor and ask for clarification. ABE teachers also provide CTE instructors with feedback on teaching techniques, as well as new ideas for how to reach students.

One of the most important lessons is that **picking the right teachers is critical**—as well as knowing when a teaching team isn't working. Team teachers are a diverse group, but they do need to be collaborative and willing to experiment with classroom practice. Once the right teachers are on board, they need time to plan and coordinate activities, and they need professional development to understand what team teaching can look like. Another lesson is that the implementation of team teaching requires **ongoing professional development** and other supports to build instructors' effectiveness and flexibility in applying this new approach. For example, instructors need to understand the different models that can be used to maximize their contributions as equal partners in the instructional process.

## Lessons About Supportive Services

The AO experience reinforced the need to consider adult learners more holistically and offer them an array of supports to encourage their persistence and success in postsecondary education.

**Comprehensive supports:** In addition to academic supports like advising to support goal-setting and efficient course-taking, students require non-academic advising to navigate the college environment. Students also require career services to support career exploration, transitions to work, and financial services to help them manage the costs of postsecondary education. Finally, low-income adult students can benefit from personal counseling and access to social services that help them manage life situations that can impede progress in college.

This range of supports should be available throughout a student's path through community college and be adjusted to suit student needs at different phases of their progress.

**Partnerships:** Offering comprehensive student supports can challenge the capacity of most community colleges and thus requires collaboration across multiple departments as well as external partners. For example, local career centers can supplement college resources to provide career services, while community-based organizations can offer help with housing, child care, transportation, and mental health counseling.

**Bringing the services to students:** The AO experience revealed that students do not always access available services due to lack of information or reluctance to ask for help. It is thus important to communicate about available services to students, such as through presentations to classes, which can inform students and faculty alike. To reduce the stigma associated with accessing services, programs can require that all students participate in forms of support, such as non-academic advising, which can open up conversations to address personal, financial, and other issues that can impede student success.

## Lessons Learned About Systems Change

Changing perceptions about a population like Adult Basic Education students does not happen overnight; it takes time and the commitment of leadership.

**Alignment with larger goals:** AO leaders aligned the initiative with other state efforts to connect low-skilled adults to education and workforce services, recognizing that this segment of the population had been largely underserved by these systems, showing how AO's success could meet larger education and workforce goals. For example, Kansas intentionally framed AO as a workforce initiative, which helped gain buy-in from the state workforce system.

**Building buy-in through positive experiences:** Over time, colleges developed strategies to better serve low-skilled students and successfully promoted positive attitudes toward these students on campuses. Internal partnerships between the college AO staff and CTE or college administrative staff created understanding of the value of the initiative and the potential for success among ABE students. One of the most powerful levers for change was faculty who had positive experiences with AO students; they became champions for the initiative and persuaded other faculty members of its value. Shifting attitudes motivated change in college policies to help students, such as waiving course prerequisites for AO students.

## Lessons About Getting Started with Integrated Pathways

The timing of the AO grants meant that many colleges had to hit the ground running with their initial pathways. Later, as colleges expanded to new pathways, they were able to take more time to lay the groundwork for pathway implementation. For those getting started with integrated pathways, we recommend taking time up front to think through the following elements and questions.

**Stakeholder engagement:** Prior to getting started, it's important to engage everyone who

might be involved with pathway development and implementation. This includes everything from college leadership to admissions. Focus on making sure that everyone understands what integrated pathways will mean for their work. For example, your registrar needs to know how to code team-taught classes.

- What departments and individuals will be impacted by this work? How can you get them on board with potential changes?
- Who are your possible champions and who might get in your way?
- Does college leadership understand why integrated pathways are important for meeting the college's strategic goals?

**Pathway selection:** Some programs lend themselves to integration more than others. In selecting pathways, colleges considered multiple factors, including labor market demand (including starting wages), student interest, and the receptivity of instructors and program leadership. At JFF, we felt it was important for students to be able to earn a credential after a semester of full-time enrollment, but also wanted to ensure that students could continue on after the first semester to earn more advanced credentials. If these pathways didn't already exist, it was tricky for adult education leaders to push department leadership to shift pathway structures.

- What pathways and credentials are in demand in your local labor market? What are the starting wages in those fields?
- In what fields has the college already developed pathways with multiple stackable credentials?
- What programs have leadership and faculty that are receptive to trying new things?
- What programs and careers are your ABE students interested in?
- What programs have manageable initial reading and math skill requirements?

**Student support:** As discussed earlier, students in integrated pathways tend to need a higher level of support and guidance, especially at the beginning of the pathway. This includes a mix of academic and non-academic supports.

- Will students have access to a dedicated navigator or coach?
- What on-campus supports can students access?
- What external supports are available (through the workforce system or community-based organizations)?
- How proactive or "intrusive" will supports be?

**Team teaching:** In addition to picking the right instructors, it is critical to build in sufficient up-front and ongoing professional development. Team teaching is a new experience for many faculty; they need to feel supported, especially at the beginning when they are working out the kinks of working together in the classroom.

- What kind of up-front joint planning time will instructors have?

- What professional development is available?
- Are there team teachers they can shadow at your college or another college?
- Will team teachers have ongoing paid planning time throughout the semester?

## Implementing Integrated Programs in Non-College Contexts

Although AO was implemented in states where Adult Basic Education was offered through community colleges, several aspects of the AO experience apply across situations, regardless of where ABE services are offered—in community-based organizations, school systems, or colleges.

**Labor market connections:** To ensure students' success in transitioning to the labor market, the selection of integrated pathways must be driven by labor market demand. It important to engage employers—directly or indirectly—by working with workforce system partners to ensure the relevance and marketability of the skills and credentials offered in integrated programming.

**Partnerships:** Integrated career pathways necessitate partnering at multiple levels, from agencies and institutions to the classroom. As noted earlier, partnerships can be valuable to enable the provision of comprehensive supports, including career advising and personal supports. It is important to bring partners together to determine what each can offer to support the success of an integrated pathway effort.

**Planning:** Developing integrated pathways requires planning to design services, mobilize resources, and anticipate barriers. Planning supports the alignment of integrated pathway efforts with larger system goals. It is particularly important that instructors be given paid time for planning the integration of instruction to ensure clarity of roles and alignment of learning objectives.

**Communication:** As is the case for most educational reforms, communication plays an important role in launching and sustaining integrated pathway initiatives. It is important to communicate program goals within and across the agencies/institutions involved, and communicating successes is critical for building and sustaining buy-in.

**Data:** Data on student completion and outcomes can help to clarify the purpose and provide the rationale for an integrated approach to adult learning. As an integrated pathway unfolds, data can be used to demonstrate success or highlight problem areas to be addressed.

## WHERE DO WE GO FROM HERE?

JFF and its partners are thrilled by the ongoing commitment to integrated pathways across the AO states. Each state is taking a slightly different approach to sustainability and scale, but all continue to offer integrated pathways for adult education students and increasingly for developmental education students as well. Many colleges are also considering how to combine integrated instruction with other community college redesigns, such as the development of

more structured pathways and enhanced advising models.

**Georgia's** colleges have continued to offer Accelerating Opportunity programs for their GED students, often through partnerships with United Way and other local organizations and funders.

**Illinois** continues to scale Accelerating Opportunity, with more than half of the 48 colleges in Illinois continuing to operate aspects of the model (called ICAPS). To move the state toward stronger economic mobility and education and employment outcomes, this fall the state's Adult Education program began a 10-month process to develop a Five-Year Strategic Plan. The plan includes strategies to ensure students have access to comprehensive pathways with postsecondary education and training, embedded employability skills training, and comprehensive support services.

**Kansas** continues to support integrated pathways through its AO-K Proviso, which makes the first twelve credits of approved pathways free for students without a high school diploma and provides colleges with funds to support team teaching. The state is also exploring strategies to use team teaching for CTE students who already have a high school diploma.

**Kentucky** continues to offer AOKY as a dual enrollment option for GED seeking students, with adult education providing contextualized GED prep to the program or sector the student is enrolled in. The student receives wraparound services from the college and continues to get career coaching services from the local Kentucky Career Center. Programs offered in AOKY vary from college to college based on local labor market data from one to 12 programs. Currently, AOKY is much more focused on students without a high school credential; as a result, enrollment is lower than during AO, when colleges also targeted developmental education students.

**Louisiana** prioritized integrated pathways in its most recent ABE providers RFP, and is working to ensure that each college continues to offer at least two pathways. Its 5 for 6 scholarship, funded through the revenue colleges receive from tuition increases, covers tuition for the first six credit hours of a pathway, after which students are eligible for Pell. Colleges and their adult education partners (in locations where adult education is not offered by the college) are working to expand the number of pathways available and increase overall enrollment. They are also starting to expand bridge programs for those students who need additional basic skills development before starting an integrated pathway.

**Mississippi** is supporting the statewide implementation of integrated pathways through its MI-BEST initiative. The W.K. Kellogg Foundation provided support for all 15 colleges to develop team-taught pathways; as of March 2017, over 1200 students had enrolled in integrated pathways.

## Synthesizing Lessons Learned

In 2017, JFF received a grant from the Annie E. Casey Foundation to conduct a meta-analysis

of program evaluations, including the AO evaluation, with the goal of synthesizing what we know about training and education models, as well as programs and practices, that prepare adults for living-wage careers. The purpose of this analysis is to inform the field about how best to address the education and employment needs of America's large and underserved adult learner population, as well as catalyze future public and private investments in underprepared adult learners. The analysis identified three main foci for assessing the impact of career pathways: pathway entry, integrated training, and career progression. Positive and significant impact was found for pathway entry and integrated training, with more limited evidence of impact for career progression models. Common core elements emerged across all three foci, including engaged education/employer/workforce partnerships; contextualized, accelerated, and competency-based instruction; work-based learning; and proactive student supports.

## Expanding Team Teaching

Through a grant from the ECMC Foundation, JFF is working with five colleges across two of the AO states (Kansas and Kentucky) to expand the team teaching model to serve all CTE students who need to build their basic academic readiness. These colleges are experimenting with a variety of strategies to extend the reach and effectiveness of the AO model, including restructuring the first semester of CTE programs to provide greater support and prepare students for a range of credentials and careers.

## FUTURE RESEARCH QUESTIONS

Accelerating Opportunity was a fantastic learning opportunity for JFF and its partners and funders. But there are many other research questions we would love to dig into further as we expand our understanding of what works for underprepared learners. Some of our burning questions relate to better understanding how the AO model can work in states where adult education is not housed within postsecondary education. In AO, we focused on states with this governance model because we felt that this state-level connection would facilitate local-level implementation. While some colleges in AO did partner with K12 or CBO-based ABE providers, we haven't yet tested how the model works—or how it may need to adapt—in states where ABE is housed within K12 education or within the workforce system, which is the case in the majority of states.

There are numerous questions we could explore related to team teaching models, including what approaches work best in different pathways, how the team teaching relationship evolves over time, and how CTE instructors who work with a team teacher evolve their own teaching practice.

JFF is also interesting in exploring how team teaching can be integrated into other education and workforce development models, including apprenticeship, on-the-job training, and competency-based education.

Finally, there is more to learn about the long-term outcomes on student employment and wages, as well as the return on investment for integrated pathways.

## CONCLUSION

Accelerating Opportunity was a tremendous opportunity to learn about how the integrated pathway model can be implemented and scaled in diverse contexts. Over the course of the initiative we worked closely with our partners and our states to refine the model, strengthen college capacity, provide professional development, and create opportunities for cross-state sharing. In this article, we have highlighted some of the major lessons learned during the initiative, with a focus on lessons that can help practitioners and policymakers strengthen opportunities for underprepared learners. Our lessons learned span everything from individual student interventions to state policy, but we would like to conclude with the most important lesson: implementing integrated pathways is hard work, but the impact on students' lives and families makes it all worthwhile. ⌘

## FIGURE 1: LIKELIHOOD THAT ACCELERATING OPPORTUNITY STUDENTS EARNED ANY CREDENTIAL, RELATIVE TO MATCHED COMPARISON GROUP, BY STATE
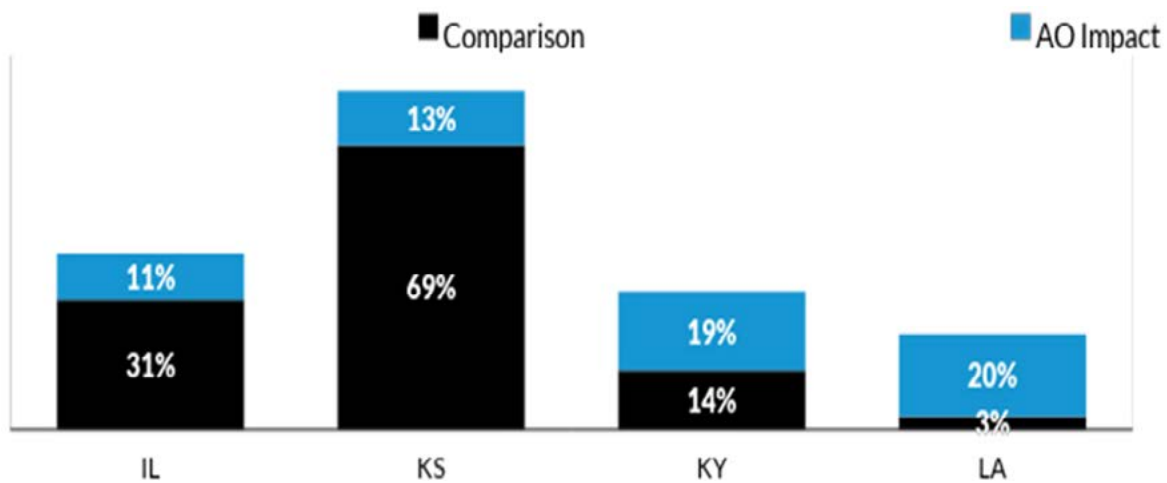


**Source:  New Evidence on Integrated Career Pathways Final Impact Report for Accelerating Opportunity. Urban Institute, 2017.**

# CAREER PATHWAYS IN CHICAGO, HOUSTON, AND MIAMI: KEY FEATURES AND SUPPORT SERVICES AMONG ADULT EDUCATION PROVIDERS

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## ABSTRACT

Many adult education providers are developing career pathways (CP) programs, which are viewed as an important workforce development and poverty alleviation strategy in the Workforce Innovation and Opportunity Act, by state and local governments, and by private funders. Based on a three-year researcher-practitioner partnership, this paper uses survey data from 106 adult education agencies to describe salient features of CP programming in Chicago, Houston, and Miami and then uses focus group data and case studies of six agencies to analyze wraparound support services in greater detail. Ninety-four percent of survey respondents were providing or developing CP programs, but design and implementation varied widely. The findings underscore the importance of providing comprehensive support services to help adult learners address the cognitive and material burden of poverty.

Many adult education providers are developing career pathways (CP) programs, which are viewed as an important workforce development and poverty alleviation strategy in the Workforce Innovation and Opportunity Act (WIOA), by state and local governments, and by private funders. Although adult education agencies have long provided job training, the career pathways label is relatively new. The CP model offers "a series of education and training programs and support services that enable individuals to get jobs in specific industries and advance over time by successfully completing higher levels of education and work" (Strawn, 2011, p. 1). CP programs are intended to help adults—including immigrants, refugees, dislocated workers, and adults with limited income and education—progress along academic and career "ladders" (Estrada & DuBois, 2010).

However, the research base on CP is thin, especially concerning programs that are operated by community-based organizations (CBOs) and that are designed for adults with limited education. As discussed below, most studies have focused on CP programs for adults who are community college students or high school graduates, which excludes more typical adult basic education (ABE) students. As such, there is scant research to guide adult educators' decisions about how to design and implement CP programs so that adults are better prepared for postsecondary education and employment.

This paper addresses these gaps by analyzing the current state of CP programming in adult education organizations in Chicago, Houston, and Miami, drawing on mixed-methods data from a three-year researcher-practitioner partnership. Funded by the Institute of Education Sciences, the project included researchers at the Institute for the Study of Adult Literacy at Penn State and partners at the Chicago Citywide Literacy Coalition, Houston Center for Literacy, and Miami-Dade County Public Schools. The purpose of the project was to map the landscape of CP in these cities. This article uses survey data to describe salient features of CP across the cities and then uses qualitative focus group and case study data to analyze support services in greater detail. We selected this programmatic feature because it cuts across all case study sites and because the findings suggest it was crucial for helping students access and persist in CP programs. We argue that mental bandwidth is a useful way of conceptualizing how wraparound supports minimize the cognitive load of poverty, thereby expanding adult learners' ability to focus on their studies.

## RELEVANT LITERATURE

### Career Pathways for Adult Learners

Several federal agencies, including the Office of Career, Technical, and Adult Education, Health and Human Services, and the Department of Labor, have invested in CP implementation and research, indicating policy makers' widespread interest in this topic. However, most federal research and other studies have focused on CP programs in better-resourced settings such as community colleges or workforce organizations, minimizing the role of adult education agencies as CP providers (Anderson, Hall, & Derrick-Mills, 2013; Anderson, Kuehn, Eyster, Barnow, & Lerman, 2017; Carroll, Kersh, Sullivan, & Fincher, 2012; Liebowitz & Taylor, 2004; Mazzeo, Rab, & Alssid, 2003; Zeidenberg, Cho, & Jenkins, 2010). Accordingly, many studies include students who already have a secondary diploma. For example, adults without a high school degree comprised less than 8% of participants in one federally funded CP study (Fountain et al., 2015) and 1% to 40% of participants in another (Fein, 2016). Less academically prepared adults face greater barriers to entering and succeeding in postsecondary study and employment (Reder, 1999), so their outcomes are likely to diverge from those of CP students with a stronger academic base and credentials. Thus, previous studies have limited relevance for practitioners serving adult learners with lower levels of education or unmet literacy, numeracy, and English language needs.

Many CP providers face disincentives to serving these types of students because they "require additional services and a longer timeframe to succeed in postsecondary education and the labor market" (CLASP, 2014, p. 27). Also, their interim gains and achievements are not captured by most existing federal and state outcome measures (CLASP, 2014). In sum, adult education programs are more likely than other types of CP providers to serve adults who have the greatest educational and socioeconomic challenges and who need the most support to

attain their educational and employment goals.

Experimental and non-experimental longitudinal studies show that CP programs have helped low-income adults achieve promising educational and employment outcomes such as full-time employment status, earnings, length of employment, financial stability, participation in subsequent education and training, and completion of academic credentials (Anderson et al., 2017; Chase-Lansdale et al., 2017; Conway, Blair, & Helmer, 2012; Elliott & Roder, 2017; Fountain et al., 2015; Gardiner, Rolston, Fein, & Cho, 2017; Maguire, Freely, Clymer, Conway, & Schwartz, 2010; Zambrowski & Gordon, 1994). Although most of these programs tended to enroll high school-educated adults, the findings highlight how CP programs can support adults' educational and economic well-being.

## Support Services

Policy makers, researchers, and funders have increasingly emphasized support services for low-income students in adult education and community colleges (Bettinger, Boatman, & Long, 2013; Weissman et al., 2009). Wraparound supports are also considered a key CP service strategy (Fein, 2012) because they help adults resolve financial and social barriers to education and employment, including transportation, childcare, housing, health, and financial instability (see e.g. Seefeldt, Engstrom, & Gardiner, 2016 on students' financial and other challenges). However, there is scant research on what kinds of support services are offered by CP programs in adult education.

The limited research on wraparound supports in job training and adult and higher education suggests that they are linked to better employment and education outcomes such as earnings, employment status, and college enrollment and retention (Hess, Mayayeva, Reichlin, & Thakur, 2016; Maxwell, Hock, Verbitsky-Savitz, & Reed, 2012). In addition, exploratory evidence indicates that bundling supports—"provid[ing] a set of coordinated services in one location" (Hess et al., 2016, p. 3)—yields better outcomes (Price, Long, Quast, McMaken, & Kioukis, 2014, p. 24), and that financial counseling improves job placement and retention (Rankin, 2015), college degree attainment, and job advancement (Kaul, Burnett, & StGeorge, 2011). Research on other support services such as transportation and childcare shows similarly positive results (Hess et al., 2016). These studies underscore the importance of support services in adult education and CP.

## METHODS

### Partnership Background and Site Selection

The project focused on Chicago, Houston, and Miami because our adult education partners in these cities had previously collaborated on the U.S. Department of Education's Adult Education Great Cities Summit Project (2009-11). These cities and their respective counties are also home to a high percentage of adults with unmet educational needs, demonstrating the relevance of their CP practices and policies for other regions. Collectively, the counties

account for over 5% of the nation's adults without a high school degree and nearly 10% of U.S. residents with limited-English proficiency. Although the counties have 20% of their states' total adult population, they represent 25% of adults without diplomas and over 35% of limited-English speakers (U.S. Census Bureau, 2011).

## Research Questions and Design

The research questions examined (1) the key features of adult education career pathways in each city, (2) CP outcome measures (including any common measures and which interim- and long-term outcomes programs are measuring), (3) how selected programs design and implement CP; (4) how policies and practices shape CP programming and coordination across systems; and (5) the programmatic features, policies, and other factors that contribute to student success. This article provides selected survey findings on research question 1 and then uses qualitative data to analyze support services (one programmatic component of research questions 3 and 5). The other findings can be accessed in our final report (Prins et al., 2018)

The study employed a sequential, mixed methods research design (Collins, Onwuegbuzie, & Jiao, 2007). We first gathered *survey* data to answer research questions 1-2 and to inform the use of *focus groups*. Survey and focus group data were then used to select programs and design research instruments for a *collective case study*. Qualitative focus group and case study data were used to answer questions 3-5. In the sequential sampling design (Collins et al., 2007), the case study and focus group samples were derived from the previous phase.

## Survey

Designed collaboratively by the research team, the survey included closed-ended questions about organizational and student characteristics, program design and delivery, data collection systems and outcome measures, and aggregate student outcomes, and several open-ended questions (e.g., identify organizations with successful CP programming) pertaining to the 2014-15 program year. An "in development" option allowed respondents to indicate initiatives that were in progress. The survey was pilot-tested with several practitioners, including a data analyst, and revised accordingly.

Our city partners created a list of all known ABE providers in their cities, including community colleges, CBOs, libraries, workforce development organizations, K-12 schools, correctional institutions, and other organizations (n=184). We excluded organizations that serve only or primarily in-school youth. The final list of organizations reflected each city's structure of adult education provision: In Chicago and Houston, CBOs and community colleges are the main providers, whereas the key providers in Miami are the public school district and Miami Dade College. Chicago and Miami each have a single, multi-campus community college system, whereas Houston has six community college systems.

The confidential, web-based survey was administered in late 2015 to early 2016 by a university survey research center, using strategies proven to increase response rates, such

as incentives ($2 bill, chance to enter a raffle for a $50 gift card) and repeated contacts (Dillman, Smyth, & Christian, 2009). We also held a webinar to explain the project and survey completion. Follow-up contacts included emails, phone calls, and letters.

Of the final eligible sample (n=147), 106 agencies returned a complete (n=102) or partial (n=4) survey, for a 72% response rate.[1] The principal investigator contacted respondents to provide missing data and correct inaccuracies. The data were analyzed by calculating descriptive statistics and Chi-square statistics to identify significant differences between cities and between agencies that offered CP (per the definition below) versus those that said "no" or "in development." (See Prins et al., 2018 for survey questions and detailed analyses.)

## Focus Groups

Focus groups with adult education providers were used to investigate how policies and practices have shaped CP implementation and coordination in each city. We selected providers that were nominated by survey respondents, recommended by city partners, and/or reported successful outcomes on the survey; that represented the city's main adult education providers (community colleges, CBOs, or school district); and that served different neighborhoods and student populations. In spring 2016 staff from five to seven providers in each city participated in a focus group (18 providers total). The two-hour focus groups were audio-recorded, transcribed, coded, and analyzed to answer the research questions.

## Collective Case Study

In a collective case study, several cases are studied jointly "to inquire into the phenomenon, population, or general condition" (Stake, 1994, p. 237). Extreme case sampling (Collins et al., 2007) was used to identify two successful programs per city. Through a review of survey and focus group data and discussion with city partners, we chose organizations with exemplary CP programs and a large percentage of students without a secondary degree. Organizations also represented different organizational types, occupational sectors, student populations, and neighborhoods. These "instrumental" cases were chosen because they would yield insights into an issue that transcends each case (Stake, 1994, p. 237): the role of adult education in helping adults and immigrants access CP services and how successful programs design and implement these initiatives.

In organizations with multiple CP classes, we selected classes with better outcomes (e.g., program completion, job placement) and that either did not require a secondary diploma or had a higher proportion of students without a college degree. The CP classes also included a mixture of male- and female-dominated occupations such as manufacturing and healthcare, respectively.

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1   Twenty agencies were deemed ineligible because they no longer offered adult education services, only provided wraparound services but no direct adult education, or did not offer career pathways. Seventeen agencies were classified as "other" because one entity (community college or school district) collects and reports data for all of its sites or campuses. To avoid duplicative data, these additional sites and campuses were not included when calculating the response rate.

Two university researchers spent 2 to 2.5 days at each site in fall 2016. The following data were collected:

- 18 class observations (3-5 per site, for a total of 11 hours), recorded in field notes.
- 44 interviews with 56 people (6-9 interviews per site), including vocational and basic skills teachers, administrators, support staff, and key partners (e.g., employers). Interviews lasted 17-73 minutes (42 minutes average).
- three focus groups with 53 students (3-13 per site) and one interview with an additional student. Focus groups lasted 44 to 77 minutes (63 minutes average). All but a few students were U.S.-born minorities, immigrants, or refugees. Ages ranged from late teens to 50s.
- program documents (e.g., curricula, promotional materials, reports, class schedules).

The focus groups and interviews were audio-recorded, transcribed, and analyzed in NVivo qualitative data analysis software. We began with a set of general codes pertaining to the research questions (e.g., support services, partnerships, coordination) and refined the codes as needed, for example, by deleting, adding, combining, or renaming them.

Permission was granted to use the organizations' real names. Although all the agency staff and most students gave permission to use their personal names, in this article we identify them only by their role. The case studies included the following organizations:

1. Malcolm X College (City Colleges of Chicago) is one of six campuses that offer Career Bridge programs. Each campus specializes in one or two occupational sectors. The Healthcare Career Bridge at Malcolm X is the largest Bridge program. Students with lower or higher Tests of Adult Basic Education (TABE) scores can enroll in Career Foundations or Gateway classes, respectively.

2. Jane Addams Resource Corporation (JARC; Ravenswood location) offers sectoral training in three types of manufacturing classes, along with a bridge class for lower-scoring students and adult literacy tutoring.

3. Alliance for Multicultural Community Services (Alliance) in Houston is the largest refugee resettlement agency in Texas. Among Alliance's CP offerings, we selected CNA (certified nursing assistant) and AutoCAD because both were being offered in fall 2016 and CNA attracts more participants without college degrees.

4. Houston Community College's Community-Based Job Training Program is a state-funded CP program that included eight "training pathways." All classes were offered at CBOs; we selected two CBOs with CP classes that enrolled students with lower levels of education: AVANCE's General Office Support Specialist (GOSS) class and Chinese Community Center's CNA class.

5. Lindsey Hopkins Technical College is one of more than two dozen adult education centers governed by Miami-Dade County Public Schools. Lindsey Hopkins has more than 20 short-term certificate programs that can be completed in a year or less. We chose

three CP classes that do not require a secondary degree and that have 90-100% job placement rates: nutrition and dietetic clerk, automotive service technology (a regular class and an on-site class and paid internship at Braman Motorcars), and commercial foods and culinary arts.

6. Miami Dade College offers numerous CTE classes. We chose the Hialeah campus because it serves lower-income students, primarily Latinos. The case study focused on the FICAPS (Florida's Integrated Career and Academic Preparation System) program, which included three occupational tracks in 2015-16: TRAMCON (manufactured construction, offered only at North campus), business (School of Business college credit certificates), and healthcare (Behavioral Health Technician or Community Health Worker non-credit certificates). We collected data on TRAMCON and business.

Key features of the organizations' CP program design are shown in Table 1.

## ADULT LEARNER PROFILES

To situate the findings, we describe three participants and their CP classes. Their backgrounds are typical of the adults who attended the focus groups, including ex-offenders, dislocated workers, immigrants, and refugees. Tanisha, Francisco, and Farah (pseudonyms) are three of more than 100,000 adult CP students in Chicago, Houston, and Miami. Tanisha, a 51-year-old African American woman, was studying to take the GED® exam and learning about health careers through Malcolm X College's Healthcare Career Bridge Program in Chicago. She was passionate about working with the elderly in nursing homes and hoped to become a CNA social worker. As a self-described recovering addict and former offender, Tanisha stated, "I just want to give back…to let young people know you don't have to do what I did and wait as long as I waited to get your life together. You can do it today while this opportunity is here." Although her dream of being a CNA was initially "cut short" by addiction, Tanisha saw the Malcolm X program as a second chance to fulfill this dream. Tanisha and the other students took math and language GED® classes that incorporated health-related content and then took a credit-bearing class in the second semester.

Francisco, a native of the Dominican Republic, began taking ABE classes at Lindsey Hopkins Technical College in 2014 and then enrolled in the Automotive Service Technology program. If he passed the certification exams, he would earn 24 credits toward an associate degree. Reflecting on his goal of becoming an engineer, he stated, "I really want to be a success in life….I don't want to stop at this."

Farah, a Pakistani woman, began taking ESL classes at Alliance for Multicultural Community Services soon after arriving in the USA and then enrolled in the 8-week CNA class, which qualifies students to take the state CNA exam. Students attested that Alliance staff guide refugees who "don't know the way" and feel "confused" by helping them access support services, enroll in ESL or basic skills class, identify career goals, and select short-term, career-

technical programs in CNA, AutoCAD, child development, commercial truck driving, or other occupations. Due to these services and career guidance, Farah asserted, "Now we are not confused."

## OVERVIEW OF CP FROM SURVEY DATA

This section reports survey findings on selected features of CP programming in the cities.

### Organizational Type

The majority of survey respondents (58%) were CBOs, followed by school district adult education programs (22%), all of which were located in Miami (Figure 1). Nearly half (48%) of CBOs were located in Chicago. Community colleges are under-represented in the percentages below because one survey each was completed for all campuses in the Miami Dade College and City Colleges of Chicago systems. Other organizations included correctional facilities and homeless shelters, among others.

### CP Provision

Respondents were asked whether they offer CP, according to the Center for Law and Social Policy's (CLASP, 2013) definition. The career pathways approach

connects progressive levels of basic skills and postsecondary education, training, and supportive services in specific sectors or cross-sector occupations in a way that optimizes the progress and success of individuals—including those with limited education, English, skills, and/or work experience—in securing marketable credentials, family-supporting employment, and further education and employment opportunities (p. 2).

Per this definition, 83% of respondents offered CP and another 11% were developing such programs. There were no significant differences among cities. This finding indicates that CP is widespread among ABE providers in these cities. The types of organizations that offer CP were similar to the overall survey sample (58% CBOs, 22% school district programs, etc.).

The most common types of CP classes or services were ESL (84%), employability or work readiness (76%), and classes to transition to postsecondary education (75%). In our analyses, we categorized seven of the classes or services as "core" CP because they emphasize postsecondary transitions, job preparation, or obtaining certificates or credentials more so than GED or ESL classes, for example. These core classes and services are marked with an asterisk in Figure 2. With the exception of classes to transition to postsecondary education, far fewer agencies offered these core services (16% to 54%).

On average, agencies offered 7.5 adult education classes, services, or regular activities. Agencies that said they offer CP provided significantly more classes and services, on average, than those that said "no" or "in development." Agencies that said they offered CP were significantly more likely to provide 12 out of the 15 classes or services, particularly career

exploration or awareness, classes to transition to postsecondary education, and classes combining basic skills and CTE. Miami agencies offered significantly more services, on average, than those in Chicago or Houston.

## Occupational Sectors

Each occupational sector was offered by at least one organization. Education, child, and family services (44%), health and medical technology (38%), and information technology (30%) were the most common sectors (see figure 3). Miami agencies offered the largest number of sectors, and manufacturing programs were most common in Chicago.

## Student Demographics

Agencies reported demographic characteristics of CP students as a sub-set of all adult learners.[2] Due to missing data and inaccurate reporting of some demographic data, these figures are rough estimates. About 59% of CP students were women and 41% were men. Approximately 67% were foreign-born. Hispanics comprised about 57% of the U.S.-born CP students, followed by 22% black, 8% white, and 7% Asian. Overall, about 44% of CP students were receiving cash or in-kind public benefits. The majority (55%) of students were working at least part-time and approximately 45% were unemployed. Nearly two-thirds of CP students (63%) did not have a secondary degree, 21% had a high school/GED® diploma, 6% had some college, and 11% had a postsecondary or post-graduate degree.

## Entry Requirements

More than 50% of agencies had grade level, test score, or language entry requirements for each of the classes or services they offered. These requirements were most common for classes to obtain an industry-recognized credential (86%), to access specific job opportunities (86%), and to obtain a postsecondary or stackable credential (85%), and least common for apprenticeships (53%) and employability or work readiness classes (53%). The case studies show that two organizations required a secondary degree plus a minimum TABE score. Three organizations did not require a secondary degree but had a minimum TABE score, ranging from 5.0 to 9.0. Finally, Lindsey Hopkins had exit requirements (TABE score or pass industry certifications), which enabled lower-level students to enroll in CP classes.

## Support Services

The most frequently offered support services were tutoring or other academic support (80%), job search assistance and placement activities (68%), career counseling or planning (63%), and case management (62%), as shown in Figure 4. Fewer than half of the agencies

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2   These included students participating in: (1) classes to assist students in transitioning to postsecondary education; (2) classes that enable students to obtain a postsecondary or stackable credential; (3) classes required for completion of a short-term certificate program needed for advancement in education or employment; (4) classes that result in an industry-recognized credential; (5) apprenticeships; and (6) internships.

provided childcare or transportation assistance, two of the chief barriers to enrollment and persistence, although agencies that offered CP were significantly more likely to provide these services.

Agencies that offered CP were significantly more likely than other agencies to provide nine out of the 12 support services (Figure 4). The largest differences between CP and non-CP agencies were for career counseling or planning (71% versus 20%; $p \leq .000$), case management, (70% versus 20%; $p \leq .001$), and financial aid advising and application support (52% versus 7%; $p \leq .001$). These differences indicate that support services are far more common at agencies that offer CP.

On average, agencies provided 5.3 kinds of support services. The average number of services was significantly higher for agencies that offered CP than those that did not (5.9 versus 2.2; $p \leq .001$). Also, Miami agencies offered significantly more support services, on average, than respondents from other cities (6.6 versus 5.1 in Chicago and 4.0 in Houston; $p \leq .01$). The largest differences were for disability and veterans' services ($p \leq .001$), which we attribute to the comprehensive services available through the public school district's adult education centers.

These finding underscore the prevalence and importance of support services in CP programs, which the next section describes in more detail using focus group and case study data.

## SUPPORT SERVICES: A CLOSER LOOK

Each case study agency provided non-academic support services to address students' financial and social barriers to education and employment. Our data suggest that these support services were essential for helping students access and complete CP programs.

### Students' Material Needs

Adult education programs serve students with high levels of poverty, and the case study agencies in our study were no exception. Teachers and support staff described various problems that students face, many of them rooted in poverty, including housing, homelessness, food insecurity, physical and mental health, domestic violence, transportation, child care, debt, criminal records, and more. The following excerpts from interviews with CP staff illustrate students' material needs—and why support services are vital:

> There was a single parent [in the CNA class and] the women's shelter would allow women only. [They told her,] "You have to find somewhere else for your child." She had to find a distant, distant relative for the preadolescent son while she went through the program [while living] at shelters. And it boils down to basic need. I'll be honest, some of them are hungry. Don't have food to eat. It will tug at your heart. And this is not made-up stuff. This is real. Some of them are embarrassed about it. (Houston)

I had a student that was homeless [and living in a car]. And so then, yes, I did call the rescue mission. I was glad we had that relationship….They were full at the time…but [they told me,] "Here's what you do." (Miami)

I think there's definitely consensus among us that we're seeing people with a lot more barriers to employment. Much, much bigger gaps in employment history, much less stable personal lives, much less work experience, and so that's where the soft skills and support services really are kind of the make or break. They can get the job. That's not really a problem. We can teach them how to use the machines to get the job. You know, perfect example: we had a guy, phenomenal, did great in the press brake program, things were looking pretty good. He got a great job working over the weekends at a manufacturing place. And the car that he had access to, the person needed it back. And he couldn't get to that job without it. And he had kind of no other real backup. So it was basically he had to take a job next door. He couldn't follow through with it. So there's a lot of that part too. Or even something as basic as if you've got a lot of court dates. (Chicago)

Support services enable students to resolve and cope with not having a home, car, or sufficient food—problems that would otherwise impede their ability to enroll, attend classes, complete the program, or meet goals such as finding and retaining a job or applying for college. Not all CP students face such dire conditions, but poverty and material hardship are a reality for many. Indeed, the problems described above echo those of CP students in other studies (Seefeldt et al., 2016).

## IMPLEMENTATION OF SUPPORT SERVICES AT CASE STUDY SITES

### Voluntary Versus Bundled, Required Services

Adult education agencies typically address non-academic problems through a combination of support services, provided on-site or via referrals. Case study organizations used two support service models: voluntary or bundled. In contrast to the voluntary model, the bundled model not only coordinated support services at one location, but also required participation in two or more services (Kaul et al., 2011, p. 2). The Center for Working Families (CWF) and Financial Opportunity Center (FOC) are national, bundled support models developed by the Annie E. Casey Foundation and Local Initiatives Support Corporation, respectively (Dietz et al., 2016; Hess et al., 2016; Kaul et al., 2011; Rankin, 2015).

The three case study organizations that aimed to increase adults' financial stability—JARC, Alliance, and Chinese Community Center—each offered bundled supports, including financial coaching, employment coaching, and access to income supports, that is, screening for public benefits such as food stamps, health insurance, rental and utility assistance, and child care subsidies. Income supports enhance socioeconomic stability, but many low-income adults do not know that they are eligible for these benefits or know how to apply (McKean, 2002).

Participants in the bundled support agencies received more intensive services and a wider array of financial supports, including credit-building products (e.g., secured loans and credit cards), small business loans, credit reviews, one-on-one financial counseling, and more. They were also eligible for other, voluntary supports as needed.

Located at JARC, the Center for Working Families (Kaul et al., 2011) provides financial counseling and education (e.g., credit score review, access to credit-building products, medical debt reduction), digital literacy classes, and access to income supports. Manufacturing students are also required to meet with a job developer and employment and financial coaches. A designated fund for women is available, along with other supports from JARC. CWF clients are eligible for a lifetime of services; even after exiting the program they can return for assistance with buying a home, improving their credit rating, or other services.

Alliance and the Chinese Community Center are home to two of the five FOCs in Houston. FOCs provide employment and career planning assistance, financial education and coaching, and access to income supports (Dietz et al., 2016). FOC services are also available to income-eligible Houston residents. An Alliance staff member explained that students must choose at least two out of three services because "research has found out that if students are engaged in more than one service, they stay in the program longer, so we can provide them better services." Students meet with their coach(es) at least monthly. Additional support services are available from the organization, apart from the FOC.

The other case study sites also offered various wraparound services. In particular, CP students at community colleges had access to support centers related to veterans, students with disabilities, academic tutoring, physical and mental health, financial aid, and other needs. However, the non-bundled supports model was voluntary, had eligibility requirements (income, age, etc.), or did not include financial literacy or counseling. Table 2 summarizes the key support services at each agency.

## Staffing for Support Services

As shown in Table 1, organizations had different constellations of instructional and support staff. The three organizations that provided bundled services had designated employment, financial, and/or income support coaches who met regularly with participants, and JARC also had job developers. These additional staff enabled the organizations to provide a hands-on, tailored, intensive support system with individualized case management. By contrast, support staff at the other organizations included transition specialists, case managers, counselors, and career readiness advisors. Community colleges' wellness centers and centers for veterans and students with disabilities had staff who served CP and credit students. Due to differing student populations and limited staffing, in some organizations support staff had caseloads of 300 or more students. These heavy caseloads raise concerns about the organizations' ability to adequately meet students' non-academic needs. In sum, the case studies suggest that to offer more extensive and intensive support services for CP students, organizations must hire

specialized staff, especially if a programmatic goal is to increase students' financial stability.

## Meeting Students Where They Are At

Although the support service model and variety and intensity of services differed, most agencies offered some form of case management to meet students' comprehensive needs. This approach was articulated by a Chicago provider:

> We have a philosophy of trying to meet the student where the student is at. Which means that, you know, if the student needs the citizenship, or if the student needs the job, or if the student needs the drug counseling, or if the student needs the domestic violence referrals and case managers—we feel if the student leaves, there's something that we didn't do.

An example from Miami illustrates what case management looks like in practice:

> I had student [who] was going to go homeless last year around this time. She was having trouble with her mom, she didn't have a job, her mom kicked her out of her house. And then no one was trying to help her in the family. She came to me, she was crying that she didn't know what to do. I called 411…and I get the different agencies in Miami Dade County, see if I can help that student get a place to live. We called different agencies. I went also to Single One Stop [on campus] to see if they had any agencies that could help me…since they deal with foster care students, to assist me with that student. Thankfully, her grandmother, at the end, opened her house for her. But in the meantime, I'm also a part of the AFC [Association of Florida Colleges] on campus, and I spoke to one of the directors…and we got that student clothes, bunches of clothes, so she had business attire to go to job interviews….And instead of giving her money, what we did, we collected clothes from some of the staff at the school, and we gave it to her….And we all worked together to help her out and eventually, we helped her write her resume and she got a job at Panera Bread, where she's working there now.

Housing, clothing, job searching, interviewing, preparing resumes: these are just a few of the issues that staff members help students resolve.

For the agencies with bundled supports, meeting students where they are at also meant increasing their financial security. For example, the Center for Working Families helped students reduce medical debt, a key driver of poverty. The director estimated that they initially helped five or six people eliminate $40,000 to $50,000 in collective medical debt, a figure that had climbed to more than $150,000 at the time of the study. The Financial Opportunity Center offered small business loans; in fact, a former refugee who taught the commercial driver's license class at Alliance began his successful trucking business with a loan from the FOC. These kinds of services are vital for supporting adult learners' economic well-being.

## Wraparound Supports and Mental Bandwidth

We propose that wraparound supports work because they expand participants' "mental

bandwidth" (Mullainathan & Eldar, 2013; Schilbach, Schofield, & Mullainathan, 2016). Our mental bandwidth is finite, and for people in poverty, thinking about and managing financial problems imposes a massive cognitive load (Schilbach et al., 2016). In field and laboratory studies, the cognitive impact of thinking about financial concerns was the equivalent of losing a night of sleep—even for people without real financial problems (Mani, Mullainathan, Shafir, & Zhao, 2013). When CP programs help students apply for food stamps, pay for transportation, obtain health insurance or childcare, or reduce debt, they increase students' bandwidth for focusing on academics.

Our data support this interpretation. For instance, during the focus group with JARC students, a dislocated worker stated that because of the agency's support services,

we don't have to stress about all those actual life problems. All we have to do is concentrate on our school work....It takes a big burden and a big load off the mind when you don't have to worry about that, and you just concentrate on the school work, which is very helpful.

In his own words, this student articulated the concept of mental bandwidth: support services reduce the cognitive load of "life problems" and allow students to devote more mental energy to their studies.

Another student had a similar perspective:

They don't give you no excuse for not being here. You're going to get here because you get either a bus card or a gas card....I mean, you don't got no excuse for how you don't want to be here, because they going to help you with something. I just signed up for [health] insurance the other day. I've never had insurance. I didn't even sign up for insurance. I sat there and gave the guy my information. And then before I knew it, I was [like], oh, wow, now I got insurance!

A third student needed to get her son's eyes checked and had been "waiting for *weeks*" for the insurance company to send a list of in-network doctors. She marveled that a JARC employee supplied this information in a matter of minutes.

The CWF director explained that they provide bundled support services "in order for people to be able to focus on the end goal, which is to remain in training:"

Through the relationships they build with support staff, students end up coming to us with whatever their challenges are because they know that we'll try to figure something out for them. And that is a thing that kind of keeps them coming back. Because they can see that it's starting to make sense and they want to kind of stay on the training at that point because they know there are supports in place and there's no judgment.

The students' and director's comments suggest that bundled support services help students cope with the tangible, non-academic problems that undermine success in education and employment. They also allow students to *focus on their goals* and *enhance relationships with staff*, thereby increasing program completion.

## DISCUSSION

This was the first study to chart the landscape of career pathways in Chicago, Houston, and Miami. Given the paucity of research on CP among adult education providers, this study elucidates how these organizations are designing and implementing CP, especially for adults with lower levels of education. The survey findings show that CP is widespread, with 94% of adult education providers offering or developing CP classes and services. Given WIOA's emphasis on employment and coordination between the adult education and workforce development systems, we expect this trend to continue. (Policy implications and providers' perspectives on policies that shape CP programming, including concerns about disincentives for serving lower-level students, are discussed in our final report.) Agencies were also offering a wide range of classes, but overall, "core" CP classes (e.g., classes combining basic skills and career-technical education) were less common. Further research is needed to determine whether classes labeled as CP have substantial career and employment content or whether career-oriented topics are a minor add-on, especially in smaller organizations that are new to CP.

CP students were disproportionately women, foreign-born, and Hispanic, with high levels of economic vulnerability, as measured by unemployment and use of public assistance. In addition, nearly two-thirds of adult learners did not have a secondary degree, yet more than 50% of the classes or services that were offered had academic entry requirements such as a secondary diploma or minimum TABE score. These requirements—especially having a secondary degree—raise concerns about entry-level students' ability to access substantive CP classes, an issue that we explore in more detail in the final report (Prins et al., 2018).

Consistent with the CP model (Fein, 2012), support services were a common feature of the agencies in this study. Indeed, organizations that said they offered CP were significantly more likely to provide nine out of 12 types of support. The case study data reveal that agencies offer myriad supports to address the underlying, persistent problems that often undermine participation and success in education and employment. In particular, bundled supports—including financial literacy education and coaching, employment coaching, access to income supports and credit-building products, and more—appear to be a promising model not only for increasing persistence and program completion, but also for enhancing students' longer-term financial stability. We posit that wraparound support services help students cope with tangible problems, thereby decreasing the cognitive load of poverty and increasing their mental bandwidth for academic pursuits. Further research should explore whether CP participants who use support services are more likely than their peers to complete their program and to achieve positive postsecondary and employment outcomes.

In conclusion, this article documents the prevalence and salient features of career pathways among adult education providers in three large U.S. cities. In particular, the findings underscore the importance of providing comprehensive support services to help adult learners address the cognitive and material burden of poverty. ⌘

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## TABLE 1: KEY FEATURES OF CASE STUDY ORGANIZATIONS

| | City Colleges of Chicago – Malcolm X | JARC | Alliance | HCC: AVANCE | HCC: Chinese Community Center | Lindsey Hopkins Technical College | Miami Dade College – FICAPS |
|---|---|---|---|---|---|---|---|
| **Occupational Sector** | Health | Manufacturing<br><br>Computer numerical control (CNC)<br><br>Press brake<br><br>Welding | AutoCAD<br><br>CNA | General Office Support Specialist (GOSS) | CNA | Automotive Service Technology (AST – General or Braman)<br><br>Commercial Foods & Culinary Arts<br><br>Nutrition & Dietetic Clerk | Business<br><br>Manufactured construction (TRAMCON)<br><br>Health (not included in study) |
| **Primary Goal(s)** | Postsecondary education | Job placement, financial stability | Job placement, financial stability | Job placement | Job placement, financial stability | Job placement | Job placement, postsecondary education |
| **Primary CP Components** | Career Bridge: Health-contextualized math & language arts classes (GED® prep)<br><br>Free credit course (2nd semester) | Bridge class (contextualized math & reading) OR<br><br>Manufacturing class (includes digital literacy) | Contextualized basic skills class AND<br><br>CTE class (AutoCAD: concurrent; CNA: sequential) | Basic skills class (not contextualized) AND<br><br>CTE class (GOSS: concurrent; CNA: sequential) | | Orientation & CP exploration<br><br>CTE class AND<br><br>Practicum (dietetic clerk) practicum<br><br>Paid internship (Braman AST)<br><br>Internship (General AST)<br><br>GED® class (optional); remediation lab (if needed) – not contextualized | Orientation & CP exploration<br><br>Online GED® class (not contextualized) AND<br><br>CTE class |
| **Enrollment Model** | Cohort (semester) | Open enrollment | Cohort | Cohort | | General AST & Culinary: open<br><br>Others: cohort | Cohort (semester) |
| **Program Length** | 32 wks. (2 semesters, 512 hrs.) | Bridge: 12 wks. (192 hrs.)<br><br>CNC: 20 wks. (500 hrs.)<br><br>Press brake: 10 wks. (250 hrs.)<br><br>Welding: 14 wks. (350 hrs.) | CNA: 8 wks. (180 hrs.)<br><br>AutoCAD: 10 wks. (160 hrs.) | 12 wks. (272-292 hrs.) | 2 mos. (188-208 hrs.) | Culinary: 18 mos. (1200 hrs.)<br><br>Dietetic Clerk: 4 mos. (300 hrs.)<br><br>Braman AST: 13 mos. (1050 hrs.)<br><br>Gen'l AST: 18 mos. (1800 hrs.) | Business: 16 wks. to 1 year<br><br>TRAMCON (4 levels): 23 mos. (880 hrs.) (fewer credentials = shorter) |

## TABLE 1: KEY FEATURES OF CASE STUDY ORGANIZATIONS (CON'T)

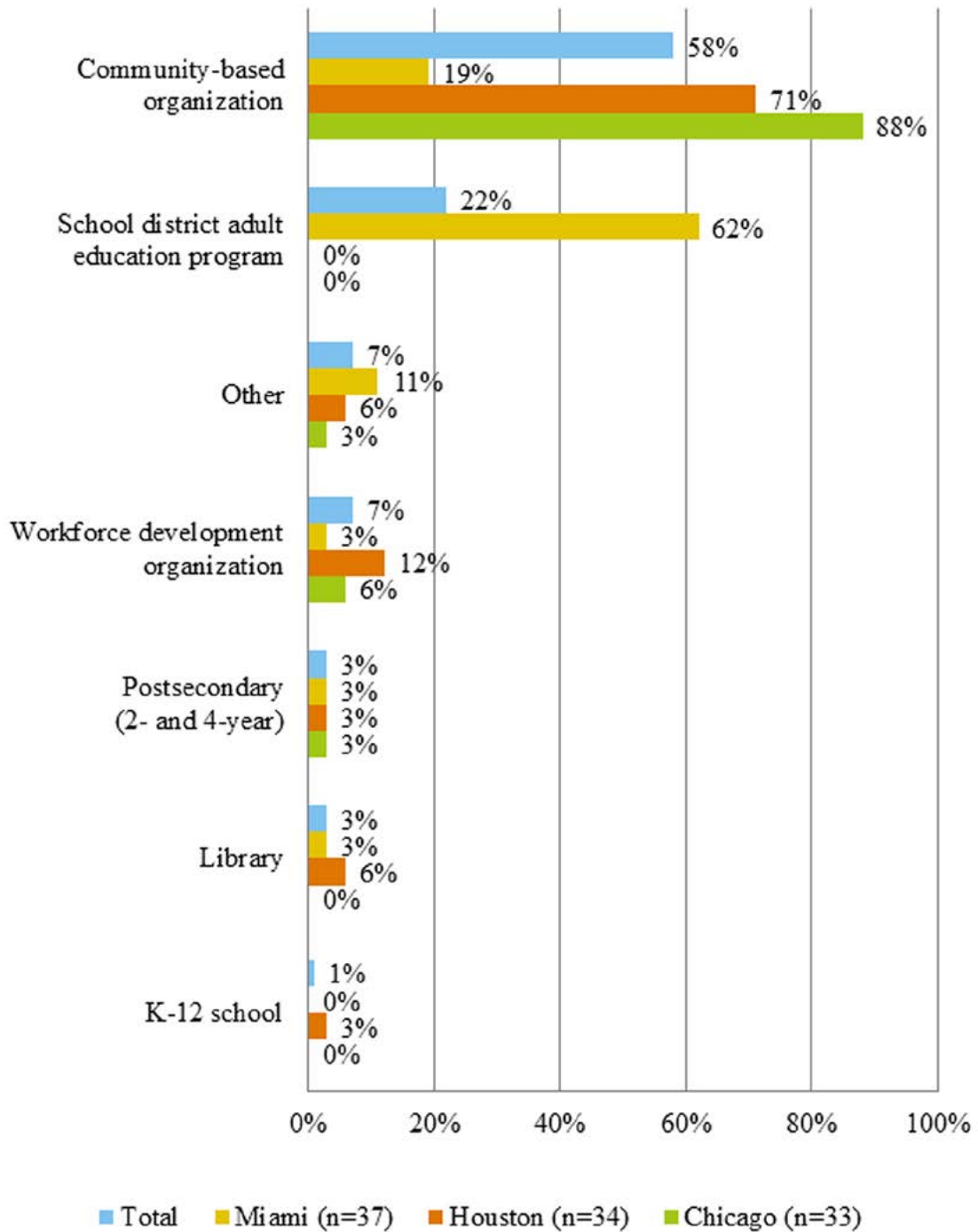| | City Colleges of Chicago – Malcolm X | JARC | Alliance | HCC: AVANCE | HCC: Chinese Community Center | Lindsey Hopkins Technical College | Miami Dade College – FICAPS |
|---|---|---|---|---|---|---|---|
| **Credentials, Certifications, & Other Outcomes** | GED® diploma<br><br>Transfer to credit courses | Industry credentials<br><br>Manufacturing jobs | CNA: eligible for state exam, certificate of completion<br><br>AutoCAD professional user certification | Office skills certifications (e.g., Microsoft Office Specialist Certification, IC3 Digital Literacy Certification) | Eligible for state CNA exam | AST: industry credentials<br><br>Transferrable credits<br><br>Certificates<br><br>Occupational completion points | GED® diploma<br><br>Business: college credits<br><br>TRAMCON: industry credentials, transferrable credits |
| **Key Instructional & Support Staff** | Language arts teacher<br><br>Math teacher<br><br>Transition specialist | Bridge teacher<br><br>CTE teachers (most program graduates)<br><br>Program coordinators<br><br>Employment coaches<br><br>Job developers<br><br>Financial coaches | Basic skills teacher<br><br>CTE teachers<br><br>Employment coaches<br><br>Financial coaches<br><br>Income support coaches | Basic skills teacher<br><br>CTE teacher<br><br>Program manager<br><br>Workforce director | Basic skills teacher<br><br>CTE teacher<br><br>Employment coaches<br><br>Financial coaches<br><br>Income support coaches | Basic skills/ GED® teachers<br><br>CTE teachers<br><br>Counselors<br><br>Case managers | GED® teacher (support)<br><br>CTE teachers<br><br>Career readiness advisors |

## TABLE 2: SUPPORT SERVICES AT CASE STUDY AGENCIES

| Support Services | City Colleges of Chicago – Malcolm X | JARC | Alliance | HCC: AVANCE | HCC: Chinese Community Center | Lindsey Hopkins Technical College | Miami Dade College – FICAPS |
|---|---|---|---|---|---|---|---|
| **Child Care** | On-site child care (sliding scale) & Head Start* | Referrals | Referrals | Referrals<br><br>On-site Early Head Start, Head Start* | Referrals | On-site child care (~$50 per week) | Referrals, including subsidized child care* |
| **Transportation** | Public transit card*<br><br>Free campus shuttle | Public transit or gas card<br><br>Bike share discount* | Discounted public transit* | No | No | Discounted public transit | Case-by-case basis<br><br>Discounted public transit |
| **Access to Financial Support** | Referrals<br><br>Case management to apply for public aid | Access to income supports & credit-building products**<br><br>Emergency fund (women)* | Access to income supports & credit-building products*** | Referrals | Access to income supports & credit-building products*** | Referrals | Referrals<br><br>Public benefits screening (via Single Stop) |
| **Financial Literacy or Coaching** | No | Yes** | Yes*** | No | Yes*** | No | Yes (voluntary, via Single Stop) |
| **Employment Coaching, Job Search or Placement** | No (other than Career Planning & Placement Center) | Coaching, job search & placement** | Coaching, job search*** | Career readiness, job search workshops | Coaching, job search*** | Career readiness<br><br>CareerSource Job search assistance | Career readiness, some job search & placement (CareerSource) |
| **Financial Aid for Tuition, Fees, Supplies** | Free non-credit classes<br><br>1 or 2 free credit courses | Free classes & equipment (e.g., boots) | Low registration fee ($20-$120) | Low registration fee (e.g., $170 for CNA)<br><br>Free tuition, books, supplies (e.g., uniforms, exam fees) | | Pell grants*<br><br>Scholarships*<br><br>Test fees*<br><br>Free tuition* | Free books & supplies<br><br>Free tuition* |
| **Disability Services** | Yes (disability center) | No | No | No | No | Yes | Yes (disability center) |
| **Other** | Wellness Center, services for homeless students | Financial incentives for job placement & retention, etc. | Affordable Care Act navigators; Dress for Success; Career Gear | Dress for Success; Career Gear | Dress for Success; Career Gear | Services for homeless students, veterans, inmates | Single Stop (food pantry, free tax prep, legal referrals, etc.) |

*Only for students who meet eligibility requirements (e.g., income, age, or other demographic characteristics; type of CP class; attendance; test scores).
**Mandatory.
***Clients much choose at least two out of three services.

## FIGURE 1: TYPE OF ORGANIZATION (N=104)



Community-based organization
- Total: 58%
- Miami: 19%
- Houston: 71%
- Chicago: 88%

School district adult education program
- Total: 22%
- Miami: 62%
- Houston: 0%
- Chicago: 0%

Other
- Total: 7%
- Miami: 11%
- Houston: 6%
- Chicago: 3%

Workforce development organization
- Total: 7%
- Miami: 3%
- Houston: 12%
- Chicago: 6%

Postsecondary (2- and 4-year)
- Total: 3%
- Miami: 3%
- Houston: 3%
- Chicago: 3%

Library
- Total: 3%
- Miami: 3%
- Houston: 6%
- Chicago: 0%

K-12 school
- Total: 1%
- Miami: 0%
- Houston: 3%
- Chicago: 0%

Legend: ■ Total ■ Miami (n=37) ■ Houston (n=34) ■ Chicago (n=33)

## FIGURE 2: TYPES OF CAREER PATHWAY SERVICES (N=80 TO 103)



| Service | Yes | In development |
|---|---|---|
| ESL | 84% | 1% |
| Employability or work readiness | 76% | 6% |
| *Classes to transition to postsecondary | 75% | 2% |
| HS diploma/GED classes | 71% | 2% |
| Job development services | 68% | 6% |
| Career exploration or awareness | 65% | 3% |
| Classes leading to specific job opportunities | 56% | 5% |
| *Classes combining basic skills & CTE | 54% | 8% |
| *Short-term certificate program | 49% | 7% |
| *Obtain industry-recognized credential | 44% | 9% |
| *Obtain postsecondary or stackable credential | 40% | 5% |
| Other services (secondary or postsecondary education) | 39% | 6% |
| *Internships | 35% | 2% |
| Other services (employment) | 33% | 11% |
| *Apprenticeships | 16% | 2% |

■ Yes    ■ In development

## FIGURE 3: OCCUPATIONAL SECTORS (N=47 TO 100)



| Sector | Total | Miami | Houston | Chicago |
|---|---|---|---|---|
| **Educ., child dev., & family svcs. | 44% | 66% | 40% | 23% |
| Health & medical technology | 38% | 47% | 35% | 32% |
| *Information technology | 30% | 46% | 18% | 28% |
| *Building trades & construction | 29% | 44% | 27% | 14% |
| *Hospitality, tourism, & recreation | 25% | 39% | 10% | 26% |
| *Mfg. & product development | 18% | 13% | 9% | 32% |
| Finance & business | 18% | 21% | 18% | 13% |
| Public services | 15% | 24% | 9% | 10% |
| Transportation | 15% | 21% | 9% | 16% |
| Marketing, sales, & service | 13% | 21% | 6% | 13% |
| ***Arts, media, & entertainment | 11% | 28% | 0% | 3% |
| Engineering & design | 11% | 18% | 3% | 11% |
| Energy & utilities | 10% | 15% | 3% | 13% |
| Other | 9% | 21% | 0% | 7% |
| Fashion & interior design | 5% | 13% | 0% | 3% |
| Agriculture & natural resources | 3% | 9% | 0% | 0% |

## FIGURE 4: SUPPORT SERVICES BY WHETHER AGENCIES OFFER CP (N=32 TO 100)



Chart data:

| Service | Total | Career Pathways: No or In Development | Career Pathways: Yes |
|---|---|---|---|
| Tutoring or other academic support | 80% | 80% | 80% |
| **Job search assistance, job placement activities | 68% | 33% | 74% |
| ***Career counseling or planning | 63% | 20% | 71% |
| ***Case management | 62% | 25% | 70% |
| *Financial support provided by organization | 53% | 25% | 58% |
| *Child care | 48% | 19% | 53% |
| ***Financial aid advising & application support | 46% | 7% | 52% |
| *Transportation assistance | 44% | 20% | 49% |
| **College navigation support | 42% | 6% | 49% |
| Disability services | 34% | 20% | 37% |
| *Veterans services | 22% | 0% | 26% |
| Other | 3% | 14% | 0% |

Legend: ■ Total ■ Career Pathways: No or In Development ■ Career Pathways: Yes

# BARRIERS TO SUCCESS INCLUDE
# BARRIERS TO ASPIRATION

**Sylvia Van Nooten**
Montrose Adult Education Center

In this Practitioner Perspective article with instructional strategies, I demonstrate the techniques I use to help my adult English language learners aspire and succeed in choosing and working towards a career. The steps I use include: pair work, multi-level strategies, student presentations, research on the Internet, and field trips to businesses and the local vocational-technical college culminating with a trip to the Workforce Center.  My goal is to motivate them out of the rut of 'can't do it' and onto a career pathway that allows them financial security and hope.

Ask my female English language learners what their dream job is and most of them will look at me like I'm crazy.  They don't dare dream. They may have an interest in something other than housekeeping and childcare as ways of making money, yet putting their dreams into words is beyond them.

**"Get your ESL students into the workforce!"** sums up the direction the funders of adult education want AEs to move. I wish it were that easy. Many of my women students don't want to be in the workforce. They are very busy, stay-at-home moms. When I began to implement more soft skills and workplace dialogues these women went along but they still weren't convinced. I needed to find a way to make getting a job a realistic and exciting prospective.

 What are the barriers to aspiration and what causes them?  I'll list three I have encountered but I am sure there are more.

- Living in a country that doesn't necessarily want you forces people into a  mental state of fear and hiding which blocks the ability to dream of a different life.
- When women come from a culture that primarily values them as mothers and wives only, it is difficult for them to break out and become independent.
- Struggle for survival/security and lack of education curbs the ability to dream.

Maslow's "Hierarchy of Needs" touches on all of the above.  (See Figure 1.)

## LESSON PLANS: TAKING ACTION

**Teacher: "What is your dream job?"**

**Students: "I don't know."**    (Shrugs.  Eye rolls.  Indulgent smiles.  What does teacher want *now*?)

Time for an activity. Pair work is how we began. Below is a worksheet I created which can

be a multi-level activity if you do the vocabulary together as a class with higher-level students writing the words on the board.

## What's Your Dream Job?

**Use the Picture Dictionary.  Write 3 to 5 jobs you would like to have.**

| I am interested in _____. |
| --- |
| |
| |
| |
| |

**Think about why you like these jobs.  What are some adjectives that describe them?**

| | | |
| --- | --- | --- |
| | | |

**Interview your classmates:  Why do you like these jobs?**

**Write their answers**

| Job |
| --- |
| **Reason** |

**Higher-level students:** Write a paragraph about the job you are most interested in.

**Lower-level students:** Tell the teacher about your job; teacher or higher-level student writes it on the board to be copied.

After this activity we have an open discussion. Students read their work. More is revealed. I had no idea what my students' interests were. We simply needed to create a comfortable space for people to share. Here are two examples of student writing:

"My dream job would be to become a veterinarian, because I like the animals but I need to study to learn. To help my animals and the animals of my friends. I have good work maybe my own clinic I dream with shower the dogs, give shots, give medicine, to have other types of animals. It would be a great satisfaction." ~Celia

"My dream job would be to become a chef. In this job I cook and create different dishes. I have to make different food. Yes, special classes are needed. Some of the things I need are special pans good knives. I need my uniform and my chef hat. I cook Mexican food like Asado Rojo, tamales, Ensalada de pollo." ~Elena

## Internet Research:  Combining ESL with Learning How to Navigate the Web.

Our classes are organized so that all students spend an hour using technology. With the help of a paraprofessional, all the students began to research the job that most interested them. Some had a basic understanding of using a search engine, for others we started from scratch. None of them had any experience using the keyboard. These are all skills they need to

know for college and the workforce.  As they were interested in their topic, they persisted.

Skills Practiced:
- Search for data about a job
- Find and download pictures about their chosen job
- Print pictures and begin to assemble material for a presentation
- Write the presentation using Word, learning spell check and grammar checks (The latter raised a lot of good grammar questions!)

I would never claim this lesson went perfectly smoothly and everyone learned everything they needed about computers.  To me, adult education is baby steps, building confidence, motivating. This lesson managed that much, at least, and everyone got their data, pictures, and started writing their presentation.

The presentations were a hit. They included the steps the students needed to take in order to achieve their goals. The graphics were beautiful and the presenters had a friendly, attentive audience for their dream. I have them hanging in my classroom to inspire a new semester of students.

## INTRODUCING THE EXPERTS

### Removing Barriers to the Workforce and Higher Education

The idea of going to college is intimidating for many of those who *are* native speakers of English. The paperwork, finances—just dealing with a new step in life—is difficult. My program decided to bring our students to the Vocational-Technical College so they could meet the instructors and other students. They got a tour of the college, peeked in on some classes, and met several instructors, all of whom were friendly and encouraging. I could see the class relax. They asked questions and took notes. They realized that yes they could do this, if they persisted in learning English.

All my students have high aspirations for their children. Many of their questions were focused on what age a high school student could enroll, how much it would cost. My student Rocio got information about the Police Academy and her son is now enrolled for next semester.

We finished the semester with a field trip to the Workforce Center where the students learned how to navigate job searches, practiced interviews, and talked about their potential and skills. More inspiration leads to aspiring. Curiosity begets aspiration, not just for students but for educators as well.

What I as a teacher learned from the field trips and activities was important too. I realized I had been challenged in my ability to aspire *for* my students. Sure my classes are fun; sure we look at the building blocks of language in innovative ways and do many types of activities—yet I get discouraged when concepts we practice so much still don't stick. I don't aspire for

students who are irregular attendees to class. I look at beginners and wonder, "How am I ever going to get them to learn the verb *to be*?"

At the college field trip, watching students' *curiosity* about what was presented showed me something lacking in my classroom. I really need to make my lessons more favorable to curiosity. To do that requires more real-life and less of the abstract. ⌘

## FIGURE 1: MASLOW'S HIERARCHY OF NEEDS
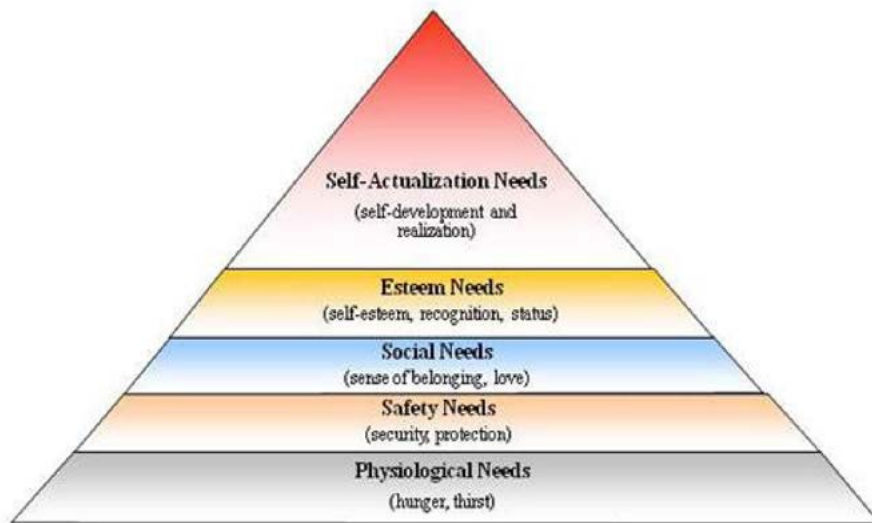
# CAREER PATHWAYS COLLABORATION IN WISCONSIN

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**Toni Van Doren**
Nicolet Area Technical College
**Annette Kornell**
Madison College

The Workforce Innovation and Opportunity Act (WIOA) challenged the State of Wisconsin to combine resources and create stronger partnerships, look to labor market data and industry research to determine which skills the workforce needs, and to focus on the creation of a workforce that can meet the expectations of the future economy. Wisconsin's Department of Workforce Development (DWD) and the Wisconsin Technical College System (WTCS) already had a strong tradition of utilizing partnerships to support and grow its workforce creating a foundation for implementing WIOA. As the Wisconsin State Leadership team consisting of all four of the WIOA Title partners worked to draft the Wisconsin State Plan, a golden opportunity for alignment was born. This opportunity for alignment was framed within one of the key strategies noted in the WIOA Legislation: Career Pathways.

In 2014, Wisconsin was granted a 4 year, $4.9 million grant from the U.S. Department of Labor for project work aimed at scaling the state's career pathway system. This project, called Advancing Careers for TAA and Transitioners, or ACT2, is geared toward bringing dedicated and directed cohesion to existing practices and taking career pathway advancement in Wisconsin to greater scale and alignment.  The ACT2 framework has illustrated three primary goals for the project:

1. Align career pathway policy between systems
2. Scale career pathways across WTCS districts
3. Incorporate career pathway best practices at WTCS colleges

Goal one points toward system-level activities and outcomes, including by WTCS as well as other state-level partners, such as the Department of Workforce Development (DWD), Department of Public Instruction (DPI), and the Wisconsin Economic Development Corporation (WEDC). Goal two points toward college and district level activities and outcomes, including local and regional partnerships between colleges, workforce and economic development organizations, and employers. In order to effectively align policy between systems, Wisconsin would require a unique team of leaders from organizations across the spectrum of WIOA Titles. Through outreach efforts of the ACT2 project team in addition to WTCS System Office, the Wisconsin Pathways Committee was formed. The Wisconsin Pathways Committee (WPC), comprised of many of the same members that had served on the Wisconsin State Leadership

team, operates at the state policy level to bring cohesion and policy alignment to the systems in which career pathway students often navigate. The Wisconsin Pathways Committee is working to further complement the relationship that each of the Wisconsin Technical colleges have with their local and regional employment and economic development partners in order to promote the use of career pathway resources throughout the State of Wisconsin.

In a relatively short time the WPC has adopted a common definition of Career Pathways, planned and supported professional development aimed at members and staff of key organizations, and worked to create alignment within the agencies represented by the WPC members. Of particular note is a recent policy brief developed by members of the WPC with guidance from the Center for Postsecondary and Economic Success (CLASP) titled: Expanding the Talent Pipeline Using Career Pathway Strategies.  Education, workforce, and economic development professionals across the nation are working with employers to create a robust talent pipeline utilizing career pathways. The Talent Pipeline brief builds on a literature review of the collective experience and a series of collaborative conversations with professionals from Wisconsin's Department of Workforce Development (DWD), Workforce Development Boards, Wisconsin Technical College System (WTCS), Wisconsin Department of Public Instruction (DPI), and Wisconsin's Economic Development Corporation (WEDC). The brief intends to offer guidance to practitioners about career pathway strategies they can use to meet employers' needs for skilled employees.

Within each Technical College and Workforce Development district throughout Wisconsin, similar work is being undertaken by regional partners to align systems through collaboration such as sector partnerships. Each of Wisconsin's technical colleges and Workforce Boards maintains a strong commitment to collaboration as evidenced by local and regional activities throughout Wisconsin.  Technical colleges including Madison College, Nicolet Area Technical College, and Wisconsin Indianhead Technical College continue to enhance their relationships to the workforce community as WIOA provides further motivation to continue building on a strong foundation of collaboration.

At Madison Area Technical College, Career Pathways provide the structure in which short-term training opportunities are organized and developed in collaboration with their workforce partners. As noted in the 2017 Annual Report of the Workforce Development Board of South Central Wisconsin (WDBSCW), the Career Pathways model offers a unified framework that grounds and sustains the work of the Board. Sector and industry partnerships are brought together to address skill shortages and develop training programs in collaboration with the college to develop pipelines of skilled workers.

WIOA outcomes stress employment and providing students the opportunity to gain a credential that leads to employment as efficiently as possible. Well-planned and deliberate curriculum development is central to the student experience on their path to an industry validated credential.

As part of the WTCS approval process for embedded credentials, the entry-level credentials in each pathway are validated by area employers to meet entry-level job requirements for

jobs that are in demand, utilizing WIOA financial resources more effectively. As noted in the WDBSCW 2017 Annual Report, through the career pathways model, "Workers and job seekers have the flexibility to access essential skill-building and support activities at any point in their career pathway."

The underserved workforce, including those with low income, receiving public assistance, or dislocated, are served through WIOA-funded Academies in collaboration with the WDBSCW. These academies are short-term, cohort-based training programs that focus on high-demand fields. Not only does the student earn a credential leading to an in-demand job opportunity, they also start on a pathway to higher education should they choose to return to school.

Madison College and the WDBSCW collaborate with other partners as well, such as the Urban League, area K-12 school districts, Operation Fresh Start, and the Department of Corrections, to offer programming that meets the needs of diverse student groups. All training programs are developed with input from employer partners to ensure that programs have relevance and employer demand. Employers also collaborate in the student experience through work-based learning experience.

The complex needs of disadvantaged and disconnected youth are served collaboratively by Madison College, WDBSCW, workforce, and community agencies through the Middle College program. WDBSCW's WIOA funding allows WIOA-eligible youth to begin college while still in high school. Completers of the program earn a college certificate as well as their high school diploma, helping them to attain self-sufficiency and career success. An important component of the program is the collaboration with workforce partners to offer internships for the students. One example of short-term training leading to in-demand employment is within the Construction and Remodeling Technical Diploma offered at Madison College. This 1-year diploma includes 2 embedded and stackable credentials that enable a student to enter the workforce more quickly. The initial entry-level credential, Construction Essentials, can be completed in 8 weeks and includes OSHA 30 Industry Certification, which appeals to a variety of employers. Through experience, additional education, apprenticeship, or some combination of these opportunities, students can attain every increasing level of employment in this field which is #14 on Wisconsin's High-Demand Jobs list.

Similar to many of the other technical colleges in Wisconsin, Nicolet College enrolls more noncredit than credit students. Much of the growth has occurred in continuing education, professional development, and certification and contract training. These areas, offered by the Workforce & Economic Development team, provide an important role in meeting shifting workforce demands and providing skills in a way that is flexible and responsive to employer needs. One benefit of that programming is the flexibility to quickly meet industry demand. Nicolet has now partnered their Workforce & Economic Development team with credit program faculty to create pathways for these students to gain the deserved recognition of their efforts and show proof that actual learning has taken place.

Nicolet began looking into the benefits of creating non-credit to credit pathways for students during the ACT2 grant period, in which the college made the bold decision to add a

career pathway coordinator position to their staff. One of the key duties of the career pathway coordinator was to attend training sessions as well as meetings regarding the newly updated Workforce Innovation and Opportunity Act (WIOA). The career pathways coordinator's mission was to analyze the immediate and future needs and trends for the local workforce. In addition, the coordinator would partner with local agencies while continuing to meet goals for pathway creation for incoming and current students, allowing those students to better access industry validated credentials at each stage of their educational and career journey.

The partnership between the local workforce board, job center, and college served as the foundation for determining which contracted and continuing education classes would best fit the pathway strategy. Once the courses were identified, Nicolet's workforce development team met with the credit program faculty frequently to determine the most effective mean of breaking-apart the current credit curriculum into smaller offerings that could be offered as contracted training opportunities or continuing education courses.

Once curriculum was identified and broken-down, the logistics involved in building the bridge between the non-credit offering and credit program had to be created. Non-credit offerings that were done as contract courses with employers or stand alone as continuing education professional development courses would have to cost as much as (or some instances more than) the equivalent of the credit course. Not only does that pricing structure help gain funds for the college but it also discourages people from taking non-credit offerings to save money over enrolling in the credit program courses. The courses will be flagged as having the option for students to obtain advanced standing if they take the assessment at the end of the course. If a student opts out of the assessment they still receive their continuing education credits, and if they decide at a later date to request the assessment they can do so through Nicolet College's Credit for Prior Learning process. This offers the student two different ways to obtain credit for the contract course or continuing education course. Using the assessment method also proves that educational attainment and real learning has occurred, unlike the non-pathway continuing education courses grading method of successful or unsuccessful based on attendance only for continuing education courses. This new method also validates the material being taught and the student's ability to demonstrate mastery of the skill being assessed.

Nicolet utilizes career coaches that meet with all the students in the identified pathway courses to discuss the option of advanced standing, offer credit for prior learning, and aid any students interested in pursuing a degree into credit programs. Creating student access to the career coaches allows the student to identify and plan for any barriers the student may face prior to enrolling into a credit program. The relationship the students have with the college, the faculty, and the staff make the transition from the workplace to the classroom easy and painless for the students. This approach creates a seamless pathway into credit programing for those who may have been out of the world of education for many years who are hesitant to return to college. It lets the student truly experience the rigors of college program work within one or more classes, eventually creating the confidence to enter a credit program.

One additional benefit of using the non-credit to credit pathway is the flexibility in scheduling that it offers to non-traditional students. Contract training is often done on-site at an employer's location or during work hours. Continuing education can be scheduled nights, weekends, hybrid, online, or as an open lab. This allows for students to get the training they need in small chunks at a time and place that works best for them. Having this flexible option helps students to see that it is possible to get college credit around their busy schedules. Having our career coaches available to these students also allows our staff to explain how our credit programs have many flexible options they may not be aware of in a face to face environment.

Nicolet uses comprehensive wrap around student services for all students, whether they are involved in contracted training, continuing education, or credit course. Students have access to all the services the college has to offer, and having career coaches meet with students involved in any non-credit to credit pathway to help them navigate their individual needs and goals sets our students up for success. While creating the non-credit to credit pathways, Nicolet relied heavily on their partnerships between the workforce development team, credit program faculty, the workforce development board, the job center, and the student services staff. Without having every team represented, pieces would have been missed. Collaboration was key to making each of the pathways a seamless transition between the world of work and the world of education.

Northwest Wisconsin is not unlike other regions in Wisconsin or throughout the country facing a labor shortage. Unemployment in Wisconsin continues to decline and individuals entering retirement age continue to rise. Many employers are struggling to find workers and those they do find sometimes don't stick around for long or have many other hurdles within their life. Wisconsin Indianhead Technical College (WITC) offers career-focused associate degree programs, technical diplomas, short-term certificates, customized training, and a wide array of courses for personal or career enhancement. WITC has four campuses in Ashland, New Richmond, Superior, and Rice Lake, two outreach centers at Hayward and Ladysmith, and our Washburn County Learning Center located in Spooner. In total, it covers 11 counties and over 10,000 square miles. The college is also part of the Wisconsin Technical College System. Within this region are two Workforce Development Boards (Northwest Wisconsin Workforce Investment Board and West Central Wisconsin Workforce Development Board). WITC and the workforce development agencies have worked together for years through referring students, on career events, and more, but hadn't created a formal collaboration tied to career pathway programs, which under the Workforce Innovation and Opportunity Act (WIOA), was a new approach. The emphasis on career pathways forced all of us, in a really positive way, to examine how we could work together to ultimately get people trained and ready for employment and meet the employment needs of employers within the region. There are multiple factors that have proven useful as we work on aligning credit-based career pathways between WIOA and WITC:

- **Gather Partners Together: Learn about Programs & Look for Common Initiatives**
  With this intent in mind, WITC developed a Partnership Team in January 2017. When

planning who to gather, representatives from all the agencies tied to WIOA, literacy programs, community action programs (CAP), and other community service agencies were sought out and invited. In the case of this team, representatives from the following agencies attended: Northwest Wisconsin Workforce Investment Board, West Central Wisconsin Workforce Development Board, Workforce Resource, Northwest Wisconsin Concentrated Employment Program (CEP), Division of Vocational Rehabilitation, Area Health Education Center (AHEC), Northwest Wisconsin Community Services Agency (NWCSA), Western Wisconsin Community Action Agency (WestCAP), Indianhead Community Action Agency (ICAA), Crossroads Literacy, and WITC. Since this initial meeting, additional agencies have been involved. While a large part of the time was spent learning about the programs of each agency, it resulted in a fairly easy consensus when looking at the initiatives to focus on. In addition, it showcased the extensive work that each agency has done to look at the economic needs of the region and how combining our knowledge can have a bigger impact. The initiatives that resulted from this initial meeting have since provided guidance for the committee.

- **Jump In and Try Projects Together**
  One successful collaboration was with the NWWIB. It was the development of the Construction Essentials Academy. A 10-week training program was developed, incorporating this nine-credit, embedded Technical Diploma. Individuals were recruited through the NWWIB and CEP and WITC coordinated the training. In addition, NWWIB was able to highlight some opportunities for improvement through the training, and as a result, together we were able to redesign the training that will continue to meet the needs of employers and also meet the unique needs of the population. As a result, further construction academies are being planned.

- **Continue to Communicate & Recognize That You All Need Each Other**
  One of the initiatives that resulted from the Partnership Committee, was to look at opportunities to collaborate on basic education and literacy as tied to WIOA Title II. Multiple working meetings and much outreach has been done since January 2017 to find out the best way to meet the outcomes of the grant.

There are several other projects being explored by the Partnership Committee and other sub-groups that have resulted, but had we not taken the time to come together, we may not have gotten to this point. All of the partnering agencies bring new insights, knowledge, and research to the table as how to meet the needs of individuals and employers in the region. Thanks to the openness and spirit of collaboration among all, we have been able to make real strides at credit-based career pathways and look forward to working together on more.

As the Wisconsin Technical College System and its WIOA title partners continue their journey, the future of Wisconsin Pathways is bright. The collaborative approach to exploring what is possible and how best to achieve these goals is fueled by a common passion to continually improve the quality of life in Wisconsin. Through consistent collaboration across all organizations, Wisconsin will continue to grow its talent development resources to meet the current and future needs while creating opportunity and access for all Wisconsinites. ⌘

# CAREER FOUNDATIONS: THE MISSING LINK IN ADULT CAREER PATHWAYS

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Women Employed

## ABSTRACT

Career Foundations is a career exploration and goal setting course jointly developed by City Colleges of Chicago and Women Employed and launched at City Colleges in 2014. Subsequent expansion of Career Foundations to local community organizations proved to be the catalyst that jumpstarted true collaborative career pathways efforts among diverse agencies. Through a consortium convened by Women Employed, the Chicago Jobs Council, and the Chicago Citywide Literacy Coalition, not only has Career Foundations been adopted by multiple organizations, but they have worked together to ensure consistent, accurate information and access to pathways leading to family-sustaining employment for their students and clients.

But Career Foundations (both the course and the local consortium built around it) would likely not exist without the earlier proliferation of adult education sector bridge programs throughout Chicago, nor without a major initiative launched by City Colleges in 2011 that included revamping its Career and Technical Education programs to align them with employer needs and employment opportunities.

An appetite for bridge partnerships between City Colleges and smaller organizations had already surfaced among Chicago's adult education providers, but structural barriers to bridge collaborations seemed insurmountable. However, as information about WIOA reauthorization and its emphasis on career pathways for people across the educational spectrum began emerging, community-based adult education providers and workforce development agencies alike became hungry for City Colleges pathways information to effectively serve their students and clients. It quickly became evident that partnerships built around Career Foundations as a

common tool were highly feasible and would substantially benefit organizations, the colleges, and the community.

## BEGINNING WITH BRIDGES

In 2011, adult education providers throughout Chicago were no strangers to sector bridge programs as a way to prepare students for college and careers. Bridges—programs or courses designed to help adults with low skills achieve college readiness through instruction contextualized to a particular sector—were incentivized by the Joyce Foundation Shifting Gears initiative launched in 2007, and were subsequently required by the Illinois Community College Board (ICCB) for all funded adult education providers in accordance with ICCB's 2009 Adult Education five-year strategic plan.[1] That plan stated, "We envision adult education as the foundation of a career pathways system that prepares adult learners for economic self-sufficiency." [2, 3]

ICCB's bridge definition grew out of the Shifting Gears work, specifying three elements: contextualized instruction integrating basic skills and industry or occupation knowledge, career development, and transition services to help students move from adult education or remedial coursework to credit or occupational programs.[4]

In Illinois, the majority of adult education students are served through community colleges, although many community-based providers receive ICCB adult education funding as well. By far the largest provider in the state is City Colleges of Chicago (CCC), which offers adult education (AE) to 27,000 students annually at six of its seven colleges. Several CCC colleges piloted AE bridges under Shifting Gears or other funding sources; however, with little institutional support outside of AE departments and no state funding earmarked for bridge programming, most early CCC bridges proved to be short-lived.

However, in 2011, CCC's launch of a district-wide "Reinvention" initiative, aimed at improving the institution and enhancing student success, dramatically altered the direction and scope of its bridge programming. Among its strategic priorities were "reviewing programs

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1  Illinois adult education programs, governed by the Illinois Community College Board and funded by a combination of federal and state funds, serve individuals lacking high school equivalency or who are English language learners. While generally not funded to offer job training programs, they prepare students for transition to postsecondary education and training.

2  The Joyce Foundation launched Shifting Gears, a seven-year initiative, in 2007 to promote efforts to "equip low-skilled workers with the necessary credentials to expand their job opportunities and strengthen economic growth in the Midwest…" Many bridge demonstration projects were launched under the initiative, and it sparked a strong focus on policy development to help promote and sustain bridge efforts. See http://www.joycefdn.org/shifting-gears.

3  *Creating Pathways for Adult Learners, A Visioning Document for the Illinois Adult Education and Family Literacy Program*, Illinois Community College Board, 2009.

4  *Creating Pathways for Adult Learners*, 32.

and offerings to increase the economic and educational value of the credentials students earn [and] better aligning our programs with employer needs."[5] A CCC district-wide task force reviewed existing programs of study, researched regional labor market data, and engaged employers as advisors to revamp career programs, many with stackable credentials that would launch students onto career pathways. As a result, seven College to Careers (CCC's name for Career and Technical Education) pathways were identified as promising in terms of current and future job outlook, family-sustaining wages, and opportunities for advancement.

As part of its pathways redesign, CCC committed to integrating and funding adult education bridges as onramps to career programs for individuals with low skills. New adult education sector bridge programs were designed at the district level in collaboration with college leadership, and were expanded in less than a year from one college to six. The range of sectors was broadened as well. Healthcare was the first sector targeted for bridge program development and new healthcare bridges were launched in fall 2012. Steadily over the years, bridges in four more sectors were developed and launched at various CCC colleges: transportation, distribution, and logistics; hospitality/culinary; early childhood education; manufacturing; and information technology.

Using the ICCB bridge definition as the foundation, CCC designed bridges that were longer and more intensive than earlier models to help students at 6th grade reading and math levels or higher achieve readiness for the GED® test and college-level coursework in reading, writing, and math, through instruction contextualized to the participant's chosen career pathway. Career exploration and transition services—the second and third component of the state's bridge definition—were built into the design. In fact, CCC bridge participants took their first college course (part of their chosen certificate program) with tuition waived and with support while still enrolled in the bridge. Some bridges included industry-recognized certifications, enabling completers to apply for entry-level jobs immediately.[6]

From the beginning, City Colleges welcomed the advocacy agency Women Employed (WE) as a natural partner in the development and expansion of its bridge programs. WE was already focusing substantial efforts on building and strengthening educational and career pathways for disadvantaged adults at local and state levels, recognizing that to earn credentials that open the door to better-quality, better-paying jobs, individuals must be able to count on community colleges, the most accessible and affordable postsecondary institutions. Women Employed took an active role in bridge curriculum development and instructor training. [7]

When bridges were first launched around the state, "career pathways" was not the

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5 *Reinvention*, Chapter 1, https://www.ccc.edu/menu/Documents/Reinvention/REI_Reinvention_ Chapter_1_03302011.pdf, 6.
6 E.g., forklift operations and food sanitation certifications can be earned.
7 CCC bridge and Career Foundations curricula are publicly available at https://womenemployed.org/ pathways-careers-network.

catchphrase it has become today, and many bridges were focused on getting individuals into entry level training and jobs. Designing bridges that were part of a pathway and promoting access to stackable credentials were goals strongly shared by CCC and Women Employed.

## WAS THE CART BEFORE THE HORSE?

By the time every CCC college had implemented at least one sector bridge program, it became increasingly clear that there was a missing link in an adult education student's trajectory—some type of short career exploration and goal-setting tool that would guide low intermediate students into sector bridges and pathways that were a good fit for them. For students, such a tool could foster a stronger sense of purpose in their current program and empower them with the knowledge they needed to set and follow through on their future direction. For the institution, the tool could help boost bridge enrollment and increase retention in both bridge and other adult education programming. It could also aid advisors, who typically faced large caseloads, by arming their prospective advisees with broad pathways knowledge and a basic career plan.

With experience in developing bridge curricula under their belts, CCC and WE set out to develop a supplemental adult education course—the missing link—that would precede the bridge and help participants with a minimum 4th grade reading level, or at least intermediate level English language skills, make informed pathway choices. Input on the curriculum was solicited from bridge instructors and community organizations. The resulting course, named *Career Foundations: Making Your Education Work for You*, guides participants through the following components:

- Gaining self-awareness in terms of skills, interests, values, financial goals
- Matching skills, interests, and values with career clusters
- Learning about programs of study at CCC with emphasis on **career pathways and stackable credentials**
- Learning about support services available
- Choosing a CCC pathway of interest and developing a plan and timeline to get to college

In summer 2014, once course approval for Career Foundations was received, teachers were trained, and the course was launched as a supplement to basic skills instruction.

City Colleges data indicates that between FY15 and FY17, 301 out of 966 adult education students who took Career Foundations transitioned to credit courses. "Although Career Foundations is geared toward students at lower levels of adult basic education, over 30% have subsequently enrolled in credit [courses]." Practitioners know that this is a high rate of transition for adult education students.[8]

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8  *City Colleges of Chicago: Adult Education Transitions Overview*, City Colleges of Chicago, September 21, 2016. Presentation delivered to the Institute for the Study of Adult Literacy.

## CAREER FOUNDATIONS AND THE COMMUNITY

Bridge expansion at CCC coincided with statewide efforts to promote bridge expansion, whether the provider was a community college or a community organization.[9] In Chicago, there were successful CBO bridge programs in both adult education and workforce development programs (i.e., bridges for adults with or without high school equivalency but with foundational skills needs). However, some smaller community-based adult education programs reported that they struggled to meet state bridge requirements due to the limited size of their participant pools and a lack of resources. CCC adult education leadership, keenly interested in building relationships beyond the college walls in its efforts to promote college transition, offered to partner with community organizations on bridges. There seemed to be an abundance of goodwill and an appetite for partnerships, but no clear initiative surfaced, and there were barriers, including the lack of state funding for bridge programs and the absence of provisions for providers to partner and each receive "credit" for serving the students.

Interested in fostering partnerships and real systems change, Women Employed began to work closely with CCC's Adult Education division, the Chicago Jobs Council (CJC), and the Chicago Citywide Literacy Coalition (CCLC) to develop and seek consensus on a vision that would align programs across the city, facilitate student transitions across programs, and align services no matter which agency acts as the initial or primary service provider.[10]

Women Employed worked along with CJC and CCLC to generate collaboration among service providers. For a year, leaders at these three advocacy agencies held conversations with community organization leadership to build trust and overcome resistance to working with City Colleges. Additionally, New York-based nonprofit Public Agenda (with funding from the Joyce Foundation) conducted formal qualitative research with City Colleges and community organization personnel to gauge readiness for collaboration and elicit information on potential barriers. Findings were that organizations that historically had difficult relationships with City Colleges began expressing optimism about collaborating with CCC for the first time in recent history.

Meanwhile, community organizations were first hearing about the Career Foundations course; reaction was that this was a tool they urgently needed to build into their programming. Some organizations saw Career Foundations as a way to offer the "career exploration" bridge component with existing resources. Furthermore, the idea of partnering around Career Foundations seemed to resonate with organizations in a way that partnering around bridges had not.

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9  Bridges were first required by ICCB in FY12-13 for their funded programs, but were strongly encouraged starting with the release of its 2009 five-year strategic plan.

10  The group crafted the following vision statement: "Any low-skilled Chicagoan, no matter which organization s/he approaches for help, has the opportunity to improve his or her skills to be able to transition to a postsecondary credential leading to a family-sustaining job."

As WIOA reauthorization requirements gradually started becoming available, not only did adult education providers become eager for CCC pathways information, but workforce development agencies did as well. Both types of organizations realized they needed to understand and help clients get onto career pathways. Information on CCC's revamped postsecondary pathways had been slow in filtering through to the community, and the Career Foundations course held promise as a means of demystifying those pathways.

With growing interest from the community, Women Employed noticed CBO managers were enrolling in the 12-hour teacher training to learn about the course. In response, they developed a shorter (three-hour) orientation, the "Career Foundations Institute," especially for directors, managers, transition advisors, and support staff who needed an understanding of the curriculum to manage program planning, instructor support, and recruitment, and who could contribute to the shared vision of pathways alignment through implementation of the course. After the first institute in Summer 2015, 12 organizations came together to form the Career Foundations Consortium, convened by Women Employed and with continued CJC and CCLC involvement.

During Year 1, the Consortium:
- Implemented Career Foundations at each organization
- Collaboratively designed a recruitment flyer
- Developed a list of reputable non-college training programs to supplement CCC pathways
- Participated in student and staff field trips to CCC campuses
- Developed curricular adaptations for an ESL population

Significantly, there was collaboration and sharing between WIOA Title I and Title II organizations, many of whom had never had the opportunity to sit at the same table, despite the similarities among the populations they serve. The course had become the catalyst that brought diverse organizations together to promote and align local career pathways.

The Career Foundations Consortium is now in its third year and, with minimal changes in the roster of participating organizations, includes five funded under adult education (WIOA Title II) and seven under workforce development (WIOA Title I or a local funding source, e.g., Community Development Block Grant funds). The Career Foundations Consortium model has been fine-tuned over time. Under the model, Women Employed has committed to:

- Maintaining the Career Foundations curriculum
- Providing teacher training
- Providing liaisons for technical support
- Convening consortium meetings to share best practices and challenges
- Coordinating CCC campus visits and facilitating student transitions
- Collecting data through instructor and student surveys
- Providing stipends to consortium members

Student response has been positive. In student end-of-course surveys, 95 percent indicated they learned about next steps to complete their education goals. Ninety-six percent reported feeling more confident about reaching education and career goals. As a group, respondents showed a 19 percent increase in their level of interest in going to college as a result of the course.[11]

Participating organizations agree to outcome targets for the numbers of students served with Career Foundations, cohorts launched, and transitions accomplished (e.g., moving to bridges, college career pathways programs, upper-level high school equivalency or ESL classes at CCC, or enrollment in a training program). Organizations also agree to communicate regularly with their WE liaisons, provide data on outcomes and transitions, attend consortium meetings, participate in college visits, and send new Career Foundations teachers for training.

In May 2017, researchers from Penn State University released preliminary findings from a study of pathway programs in Chicago, Miami, and Houston. In public remarks, they noted that Women Employed's Career Foundations work is one of the only examples they found of on-the-ground efforts to coordinate programs across systems and move adults into postsecondary training.[12] Thus, development of the consortium not only allowed both workforce development and adult education organizations to come together and share knowledge, expertise, challenges, and solutions, but the collaboration has been invaluable as we seek to encourage the development of an aligned pathway system that can be replicated in other regions. This work can serve as an example for both citywide and state-level workforce development and adult education collaboration going forward.

While we have come a long way, we have only laid the groundwork for our collective vision to create a citywide career pathway system that more than 45,000 young and older adults can access through existing organizations and colleges in their neighborhoods. Much work is still to be done—partnerships must be expanded so smaller organizations without the capacity to deliver programming will refer clients to Career Foundations classes; cooperative agreements must be developed with larger agencies and institutions to become referral networks to move more students through Career Foundations; and procedures must be institutionalized to facilitate transitions from community programs into college-level classes—to ensure a functioning career pathway system where adults experience a smooth transition from community programs into college, where they can earn the degrees and credentials needed to launch or advance a career and achieve their dreams. ⌘

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11  *Career Foundations Student Post-Course Survey*, Women Employed, survey conducted through Survey Monkey October 2017-April 2017.
12  *Data-to-Action Summit*, Carol Clymer and Esther Prins, May 1, 2017. Lecture presented at Data-to-Action Summit in JPMorgan Chase, Chicago.

# DEVELOPING INTEGRATED, CONTEXTUALIZED INDUSTRY MATHEMATICS CURRICULA IN SHORT TERM CERTIFICATE PROGRAMS

**Dirk A. Keaton**[1]

So Others Might Eat Center for Employment Training

## ABSTRACT

Many educators in community-based adult education organizations are attempting to adopt Integrated Education and Training (IET) strategies. In this paper, the author describes how he has collaborated with instructional and program staff to develop and deliver an integrated, contextualized industry mathematics curriculum. He highlights the impact of this curriculum on student success, instructional delivery, and school culture while underscoring the challenges posed by adopting IET, a methodology developed for community colleges, in a community-based organization.

## CONTEXT

So Others Might Eat Center for Employment Training (SOME CET) offers two Integrated Education and Training (IET) programs: Building Maintenance Service Technician (BMST) and Medical Administrative Assistant (MAA). IET is a service delivery strategy in which students receive workforce training, workforce preparation, and basic education services concurrently. All students receive 660 or more hours of workforce training, approximately 70% of which is hands-on. In addition, both programs include integrated, contextualized basic skills courses that are co-taught by the basic education and industry instructors. Students also participate in two workforce preparation courses: Career Development and Shop Talk. Career Development is a 60-hour-long course that covers topics such as business communication, job searching, and networking. Shop Talk, a 24-hour-long course, teaches students how to better "utilize resources...work with others, understand systems, and obtain skills necessary for successful transition into and completion of postsecondary education or training or employment," all of which are defined by the Workforce Innovation and Opportunity Act of 2014 (WIOA) §113-128 as workforce preparation subjects. Each program is designed to be completed in 6 to 9 months. All participants take an industry-recognized certification exam—The National Health Association Certified Medical Administrative Assistant or the Environmental Protection Agency

608 Type I—upon completion. After securing employment, graduates participate in a year-long Retention Services program. The employment retention specialists serve as mediators between employed graduates and their places of work and help graduates identify and remedy barriers that may interfere with successful employment.

SOME, SOME CET's parent organization, is an interfaith, community-based nonprofit that exists to help the poor and homeless of our nation's capital. We meet the immediate daily needs of the people we serve with food, clothing, and health care. We also work to help break the cycle of homelessness by offering services such as affordable housing, job training, addiction treatment, and counseling to the poor, the elderly, and individuals with mental illness. Because of the range of services offered by SOME, we can easily refer SOME CET clients to services such as housing, behavioral health services, and other medical care.

We chose to provide integrated, contextualized basic skills courses because of the diverse and profound needs of both SOME CET's students and those of DC adult learners in general. Despite DC's deserved reputation as one of the most educated cities in America, many of DC's poorest residents lack the basic skills they need to enter middle-skill employment. Fewer than 25% (24.36%) of all persons who took eCASAS tests at American Job Centers scored at least at the 8th grade level on both math and reading in FY 2016 (Department of Employment Services, 2017).[2] Moreover, more than 90% (90.78%) of DC residents who participated in WIOA Title II adult education programs in FY 2016-2017 read and/or did math at an 8th grade level or lower (Office of Career, Technical, and Adult Education).[3] SOME CET's students' scores mirror these statistics. Although 80-90% of all SOME CET students have a high school diploma upon entering the program, the average student enrolls with a CASAS math score of 225 (Adult Basic Education Intermediate High, 6th grade equivalency) and a reading score of 236 (Adult Secondary Education Intermediate Low, 9th grade equivalency).[4]

Many DC residents are prevented from entering job training programs because they have low basic skills. DC has historically required students to both have a high school diploma and to read and do math at least at an 8th grade level before qualifying for Individual Training Accounts (which are funded with WIOA Title I dollars). Many training providers, regardless of their funding source, have adopted these requirements. While DC's Workforce Investment Council[5] overturned this regulation in April of 2016, many training providers have not changed

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2 Most DC programs use the "Grade Levels for WIOA Title I Funded Agencies and Youth Providers" to determine grade level (Comprehensive Adult Student Assessment Systems). All grade level equivalencies given in this paper are based on that document.

3 Because of differences in fiscal years and reporting requirements between the American Job Centers, the district's WIOA title 2 providers, data from identical time frames and the percentage of title II students who scored below an 8th grade level are not available.

4 Based on an analysis of SOME CET's CASAS test data since 7/1/2014, when we first implemented ECASAS tests.

5 A local body that functions as our Workforce Investment Board

their entry requirements. Even before adopting IET, SOME CET did not require students to have high school diplomas and only required students to have a CASAS Math score of 214 (Adult Basic Education Intermediate Low, 4th grade equivalency) and a reading score of 224 (Adult Basic Education Intermediate High, 6th grade equivalency).

IET was a relatively new strategy in 2013 when SOME CET fully implemented the model. When developing our model, most of the IET programs and initiatives that we researched—I-Best, FastTRAC, and Accelerating Opportunities—were delivered at community colleges and the level and nature of the support services offered by each varied considerably. Washington State piloted I-BEST, the most famous of all career pathways initiatives, in the 2004-2005 school year and fully implemented it in 2007-2008. Though I-BEST introduced integrated, contextualized instruction to a wider audience, most I-BEST programs did not include a workforce preparation component.[6] Minnesota's FastTRAC is a more robust IET model as it includes a navigator who provides support services, referrals, assists in career development and job searches, recruits and orients students, and serves as a bridge to the college (i.e. helping students register). FastTRAC programs also incorporate "bridge" courses, contextualized basic skills courses for students who don't achieve the scores necessary to enter true FastTRAC programs. The bridge courses in half of the FastTRAC programs in 2011 "included job search skills [such as] finding jobs, resume preparation and intervention, and less commonly, job retention" as part of their curriculum (Burns, Lindoo, Dincau, Speck, & DeMaster, 2013, p. 24). Jobs for the Future's 2011 Accelerating Opportunities Initiative required all participating states to provide "academic and social student supports" such as the services of a FastTRAC-style navigator as well as services like tutoring, career counseling, financial counseling, advising, and access to computer labs (Anderson, et al., 2015).

I-Best, FastTRAC, and Accelerating Opportunities differ considerably from SOME CET's IET model as they were designed for the community college context and represented a collaboration between multiple schools and nonprofits. In a FastTRAC program, for example, a technical instructor employed by a community college may co-teach with a basic education instructor who works for the local school system. Their class may be held in a community college classroom, and a nonprofit may employ the navigator who handles the cases of students in that class. This strategy of combining multiple resources is often referred to as "braiding." While SOME CET does "braid" funding (students' tuition is supported by a variety of foundation grants, private donations, SNAP Education and Training funding, which provide funding for 80 students, and WIOA Title II, which provides funding for 90-100 students), we are a single, community-based nonprofit which hosts all of the IET programming and employs all of the program staff and instructors.

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6 Though research on I-Best is limited, Wachen, Jenkins, & Van Noy noted in their 2010 essay that only a third of I-BEST programs had designated a main point of contact who could connect I-BEST students to resources.

## CHALLENGES

I was hired as the Adult Basic Education (ABE) instructor in December of 2012 and was tasked with developing and delivering integrated, contextualized adult basic education courses. I had previously worked as a basic education instructor at Living Wages, a local high school equivalency program, and as a computer instructor at a trade school. Working in both contexts gave me a unique understanding of the techniques used to teach both basic and industry skills. Though I had not developed integrated lessons per se, Living Wages is a program dedicated to popular education. This doctrine, founded by Paulo Freire, suggests that students learn best when they engage in dialogue with instructors about topics that are relevant to their everyday life. While at Living Wages, I incorporated local news and neighborhood events, students' goals, and students' interests into lessons. Developing industry lesson plans seemed to be an extension of this work. However, I faced three challenges upon starting the program at SOME: 1) the industry instructors and I were new to co-teaching, 2) industry instructors had limited time dedicated to co-planning, and 3) SOME CET's enrollment strategy lead to new students enrolling in my class biweekly.

Both my co-teachers and I had little to no experience co-teaching. Initially, some instructors were resistant. Lonnie Murray, one of the BMST instructors, started at SOME CET in November of 2012. He was concerned about the effect that co-teaching would have on the classroom environment since he had "just gotten the rhythm" of teaching his class. This was also his first teaching position, and he worried that I would try to "tell him what to do" because I had more teaching experience (personal communication, October 25, 2017). Others worried that having a math instructor in their classroom would send the message that they weren't equipped to teach math themselves. This was especially true for those industry instructors who lacked confidence in their own math ability.

We also had limited time to co-plan and deliver instructional material. SOME CET students participate in 30 hours of instruction a week. This includes 2 hours of Shop Talk, 6 hours of Career Development, 3 hours of integrated basic education, and 19 hours of industry instruction. While the employment retention and professional development specialists deliver Shop Talk and Career Development, respectively, industry instructors are wholly or partially responsible for delivering the remaining 22 hours of content.  As a result, industry instructors have a limited amount of time to perform their administrative duties, meet with their supervisors, and plan lessons. Co-planning took up this valuable time, and since I had little background in the building maintenance or the medical administration industry, our early meetings were lengthy and not very productive.

SOME CET's biweekly enrollment model also presented challenges. After completing a 1-2 week long introductory course, students are incorporated into existing industry classes. This means that on their third week, students might enter a plumbing unit and work alongside students who have been in the same program for several months. While this enrollment

model is common for technical schools, adult basic education programs in DC usually operate on quarter or semester schedules. When I first started teaching adult education in 2008, the received wisdom was that students should study the four basic operations (addition, subtraction, multiplication, and division), fractions, decimals, percentages, geometry, and algebra (usually in this order). Classes typically "cycled" through these topics, and most programs waited until the "cycle" restarted to enroll new students. Advocates of this enrollment model argue that mathematical knowledge is scaffolded. In other words, the acquisition of new concepts (i.e. percentages) is predicated upon knowledge of certain, foundational concepts (i.e. multiplying decimals, long division, and the use of ratios and proportions). To teach effectively in this environment, I would have to go against conventional wisdom and create a curriculum that would allow students with varying grasps of foundational concepts to participate and succeed in the same lesson.

## IMPLEMENTING CHANGE

Though we did not realize it at the time, SOME CET set out to create a new model of co-teaching. I-Best paired industry instructors with adult basic education instructors who spent at least 50% of their time co-teaching. Wachen, Jenkins, & Van Noy in "How I-BEST Works" emphasized that "facility with [team teaching] often develops on the job, slowly, over a period of time." One of the instructors interviewed even likens the process to a "marriage" (2010, p. 19). I was mandated to begin co-teaching with 4 different instructors by the end of January 2013. Because of this time frame and the number of instructors I had to work with, 50% co-teaching was out of the question, and I had to find ways to quickly develop successful working relationships with each of the instructors. Several factors contributed to the success of our integrated, contextualized basic education curriculum: the support of management, meeting with industry and ABE instructors to develop shared priorities, collaboratively drafting lesson plans with industry instructors, observing industry instruction during my first months at SOME CET, and creating materials targeted to our students' learning needs.

The importance of management's support cannot be overstated. Our management team reiterated to instructors that integrated, contextualized education was not an experiment that we were trying out, but a strategy that we were committed to adopting. My manager, Veronica Wright, also checked in with me regularly to ensure that industry instructors were meeting expectations. If an instructor was, for example, not co-teaching, she would monitor the situation and communicate expectations to them when necessary.

I created industry instructor buy-in by, first, focusing on lessons that addressed instructors' priorities. Both industry courses had existing lessons and assignments that required mathematical knowledge. For example, the final two units in the Medical Administrative Assistant course require students to maintain a simulated petty cash box, reconcile a bank statement, and calculate patient balance (including percentages) on patient ledger cards. By

developing lessons focused on these subjects, I created goodwill and met instructors' needs.

After meeting instructors' needs, I made my own requests. For example, I found that students in a plumbing class had difficulty multiplying decimals. I asked Blaine Vann, one of the BMST instructors, how plumbers use decimal multiplication. He told me about offsets (which is the vertical distance between two fittings). Offsets are used to measure the travel, the distance between two angled fittings. To calculate the length of a travel, one multiplies a constant, a decimal like 1.414, with the length of the offset. We then worked together to develop several lessons focused on calculating offsets.

We developed these lessons through a system of drafting. I usually began lesson planning by asking leading questions like, "when does an HVAC technician add or subtract fractions?" When the industry instructor said, "I add fractions when I'm trying to determine the height of a split system (a unit that combines a heater and air conditioner) and subtract them when I calculate the distance between the duct and the split system," I would ask follow-up questions like, "how tall is the average split system" and "how far does a duct hang down from a ceiling?" I would take the measurements they gave me and work with them to develop several example word problems. Then, I would attempt to solve the problems in front of them, asking them questions about the process they use when necessary. After the meeting was over, I would do my own research (i.e. looking up additional measurements and scenarios in which HVAC technicians use fractions) and expand the example questions into a full-length assignment or packet.

After my draft lesson plans were complete, I presented them to the instructors for feedback. While I would often take the lead in the initial planning conversation, the industry instructors gave much more enthusiastic feedback and suggested helpful and creative additions to the lesson during the follow-up meetings. For example, I presented Lonnie Murray with a relatively simple lesson on calculating Boyle's Law that largely used examples from physics textbooks. He enhanced the lesson by suggesting that I incorporate the "drag," or the volume of the tubes used in an HVAC recovery system. I suspect that this method was effective because I leveraged each of our strengths: I had been trained as an instructor and could structure activities as effective lessons while Mr. Murray and the other industry instructors had the ability to think creatively about their industries. These planning sessions would generally last for an hour, but developing and revising the drafts was very time-consuming. During my first nine months at SOME CET, I estimate that I devoted about 50% of my time to writing and revising lessons. This investment of time on my part may seem excessive, but it enabled us to maximize our limited co-planning time.

Observing industry lessons had the greatest impact on my development and delivery of lesson plans. During my first year at SOME CET I attended a few industry classes a week, outside of my industry math classes. I first did so with the intention of serving as a "model

student." In many I-BEST classrooms, the adult basic education instructor spends all or part of their time as a "model student" who learns the trade alongside the students and asks questions or requests more clarification from the industry instructor when necessary (Wachen, et al. 2010). While I was occasionally able to help struggling students or ask a clarifying question, I found that I benefitted much more from being in the class than the student did. Through attending industry classes, I learned much more about the trade, the lessons the teacher taught, and the terminology he or she used. Moreover, I could refer to specific moments or topics from a previous day's lesson when giving my own lecture. For example, when teaching how to calculate using Ohm's Law, I could refer to the definitions, metaphors, and examples that the industry instructor used in his or her basic electrical theory lecture. Referring to colleague's instruction can help students to draw connections between material across disciplines and to develop a global understanding of their field.[7] As I became more familiar with the trades and the instructors' favorite terms and explanations, observing classes became less necessary.

When I developed my lesson plans, I had to design them wholly or partly from scratch. This is because there were few adequate industry lessons and curricula directed at my students' skill level in 2013. As I mentioned above, most students at SOME CET do math at an ABE Intermediate High level. While educators in both Minnesota and Washington state had made lessons and curricula publicly available online, many of the best were directed at students who performed at a much higher or lower educational functioning level than my students and many were directed at ESL students.

Similarly, most of the industry math textbooks available could not be used without adaptation. Some assumed a high level of math proficiency and devoted most of their space to word problems and provided only brief explanations of the text (e.g. ATP's Math for the Building Trades). Others focused on general workforce applications rather than a specific industry sector (e.g. Steck Vaughn's Math Skills for the Workforce). Still others (e.g. Mathematics for the Health Sciences by Joe R. Helms) offered high-quality, integrated exercises but were written for a college audience. Adapting these texts made it easier for lower-level students to engage in higher-level math.[8] For example, some medical textbooks will present Clark's Rule as follows:

$$Infant\ Dosage = \frac{Patient\ weight \times Adult\ Dosage}{150}$$

7  Similarly, Melissa C. Leavit argues that referring colleagues' ideas during lecture allows students to "achieve higher levels of synthesis and integration into their study of new material" (2006).

8  SOME CET went through a similar process when designing its curriculum. While we use textbooks (like Delmar's Administrative Medical Assisting) which are designed for a community college audience, we deliver our own tests rather than those provided with the book. Our tests are shorter and less comprehensive than those created by the textbook companies and generally focus on the skills that one most needs to succeed in their target profession.

This algebraic formulation looks unfamiliar to many of my students who may not have passed or even taken an algebra course. However, if it is reformulated like so:

$$\frac{patient\ weight}{150} \times adult\ dosage = infant\ dosage$$

it looks like a fraction multiplication problem, something more familiar to intermediate high students. Similarly, many electrical textbooks often require students to derive all three formulations of Ohm's law from

$$Watts = Volts \times Amps$$

By providing students with all three formulations, difficult calculations that industry professionals perform daily can be made accessible to students.

Creating and adapting content also allowed me to include more authentic industry materials. For example, plumbers use a manual called a fitting schedule to determine the size of fittings. Similarly, insulation companies publish tables for calculating the minimum and maximum amount of insulation to use per square foot. While these documents have obvious math applications, they are not created for educational purposes, and neither is likely to be found in an industry math textbook. Looking up these documents requires considerable research. However, incorporating them into classes makes industry math seem more real and lends credibility to instructors' claims that professionals use math daily.

Because of SOME CET's enrollment model, my math classes were composed of students whose industry experience, time in the program, and mathematical abilities varied considerably. SOME CET addresses this challenge in its industry courses by making each unit modular. The HVAC unit, for example, does not presuppose a knowledge of carpentry or electrical wiring (though relevant competencies from both are incorporated into lessons). We attempted to make our industry math courses just as modular by identifying a small set of math competencies with units in the curriculum. For example, we associated the units in the BMST program with the following competencies:

| Unit | Competencies |
|---|---|
| Carpentry | Area, Reading Blueprints, Multiplying Fractions, Volume, Converting Weights and Measures |
| Electrical | Multiplying and dividing using decimals, formulas |
| HVAC | Volume, Area, Multiplying Fractions, Order of Operations, Solving Single Variable Algebra Equations |
| Plumbing | Adding and Subtracting Fractions, Multiplying Decimals, Converting Decimals to Fractions |

Though some of the above units share competencies in common (i.e. HVAC and Carpentry), many do not (i.e. Electrical and Carpentry). As a result, new students felt less overmatched when entering a class with students who had spent more time at SOME CET. For example, a veteran student in an electrical class who had taken carpentry would not have much more of an edge over a new student since neither had taken courses that involved dividing decimals before. The competencies in each of these units are scaffolded. One, for example, must know how to divide decimals before they can use electrical formulas like Ohm's Law. However, the curriculum does not presuppose that one needs to be familiar with fractions before progressing to decimals (as many adult education curricula do). Moreover, the number of competencies addressed in each unit was small enough that a student who entered in the middle of a unit could catch up through warm-up assignments and the help of their peers.

## RESULTS

During the first six months of implementing I-BEST (January through June of 2013), we saw an 11.75% increase in Educational Functioning Level (EFL) gains by post-tested students (students who took two or more CASAS tests while attending SOME CET). In each successive fiscal year, the number of post-tested students with EFL gains has exceeded 50%. Moreover, in FY 2015-2016, more than 67% of post-tested students achieved EFL gains, exceeding the percentage of students making EFL gains in the state by more than 12%. Furthermore, if we exclude those categories in which no students enrolled, such as ESL and ASE High, we exceeded state performance by more than 25% (Office of Career, Technical, and Adult Education). During FY 2015-2016, approximately 59% of all SOME CET students achieved EFL gains (as defined by NRS table 4). This exceeds the state percentage achieving EFL gains (excluding categories in which no students were enrolled at SOME CET) by approximately 31% and the overall state performance by approximately 25% (according to the NRS). This success not only lends credence to the effectiveness of integrated education and training, but also shows that a highly successful IET program can be built without having the high levels of co-teaching mandated by initiatives like I-BEST.

Furthermore, our experience provides evidence that lower-level learners and learners without high school diplomas can benefit from co-taught instruction. As I mentioned above, DC has historically required students to both have a high school diploma and to read and do math at an 8th grade level before participating in job training programs. As DC area programs have adopted IET, many have placed students without a high school diploma or 8th grade level reading and math proficiency into either bridge courses (which are generally contextualized but not integrated or co-taught) or un-integrated, un-contextualized basic skills courses. Similarly, many FastTRAC students with my students' CASAS or TABE scores would be required

to participate in a bridge class.[9] These "cut scores" are a reflection of a national debate about who can benefit from IET. Many educators and administrators, including advocates for low-scoring learners like Pickard (2016), are skeptical that students with low basic education scores can succeed in integrated, contextualized education or even bridge courses. SOME CET provides evidence that these students can succeed and that the "cutoff" for fully integrated, contextualized instruction can be lower than many educators believe.

Perhaps the most important result of implementing integrated, contextualized basic education was its effect on industry instructors. When I met with Rosalie Jaenisch, a FastTRAC industry instructor at Saint Paul College and head of that college's Medical Office/Health Information Technology Department, and Carlynn Miller-Gore, her basic education co-teacher, in November of 2013, Ms. Jaenisch told me that one of the most valuable things she learned from working with Ms. Miller-Gore was teaching techniques.  Specifically, Miller-Gore taught Jaenisch how to use second language teaching techniques (such as those adapted from Dictation: New Methods, New Possibilities by Paul Davis and Mario Rinvolucri) to help students learn medical terms (personal communication, November 15, 2013). I have noticed that the industry instructors have acquired new and sharpened their existing teaching skills through working with me.

By co-teaching with industry instructors, I modeled behaviors that they adopted. For example, Lonnie Murray (personal communication, October 25, 2017) noticed how I would walk around the room while teaching, checking to make sure that students were comprehending and on task, and began to do so himself. He also appreciated how I would model thought (or explicitly describe my behaviors and thoughts I was having) when teaching students a new concept. After co-teaching a lesson on gauge reading with me, he began to use my technique for reading gauges while teaching students in the shop, and worked to model thought when introducing a new concept to his students. While Lonnie estimates that "less than 50%" of students used to be able to comprehend any of his lectures before he worked with me, he estimates that now, about "85% percent of students can understand."

As our relationships developed, I also began to directly teach my fellow instructors techniques like lesson planning and assessment. SOME CET, like most DC area trade schools,

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9  For example, St. Paul's medical office assistant course required seventh grade reading and math for participation in the bridge and 8th grade reading and math for integrated coursework (Burns, et al, 2013). Furthermore, the audience for healthcare bridge curricula available through Minnesota's Atlas ABE database list varies considerably. One requires a CASAS reading 230-236 (8th-9th Grade, ABE Intermediate High to ASE Low), while another is targeted at students with TABE reading between 6.0-12.5 (usually correlated with 6th to above 12th grade level) and TABE math between 5.0 and 12.5 (Miller-Gore, 2017). In each of these cases, most of our students would have to take a bridge before proceeding to integrated instruction. Burns, et al also note that most FastTRAC participants take a bridge before entering integrated instruction (2013). Since most of my learners would have entered a bridge course in FastTRAC, this helps to account for the lack of publicly available integrated curricula targeted at my learners' level.

does not require industry instructors to have previous training or experience in education. Of the 11 instructors who I have taught alongside at SOME CET, 6 had not taught before arriving at SOME CET. Four of the medical instructors had taught at proprietary schools. These schools typically use packaged curricula (in which all lesson plans, PowerPoint presentations, and assignments are produced by a company like Delmar or Elsevier). Because of this, most instructors I worked with had never received formal training on how to write a lesson plan, structure a lesson, or assess student understanding. Many of the lesson plans that existed at CET upon my arrival did not reflect the activities that went on in the classroom. Moreover, many lessons were devoted entirely to lecture or lacked key components (such as assessments or opportunities for guided practice). For example, MAA instructors would often lecture on CPT codes and then release students to complete a CMS-1500 form without first showing learners how to properly fill out said form.

The managers, seeing the need to create consistency in the curriculum, encouraged me to provide internal professional development to the other instructors. I observed industry instructors' classes and met with them biweekly to go over the results of the observations. I then worked with them to improve their delivery and revise their lesson plans. Through this method, I taught instructors how to cold call confused or inattentive students, develop outcomes, and match assessments and instruction to the stated outcomes. I also enhanced their professional development by directing instructors to online courses offered by LINCS. Not only did these courses teach them additional skills such as formative assessment, but instructors would come to me to ask questions about topics that arose in the courses, enriching our conversations about student learning and progress.

This opportunity for collaboration also helped instructors to develop their own math abilities. One instructor, Ameisha Gathers, reported that co-teaching math with me gave her the confidence she needed to pursue her bachelor's degree, and another reported that co-teaching with me helped her study for the math portion of the GRE. Lonnie Murray (personal communication, October 25, 2017) also said that participating in industry math "rejuvenated" math skills that he hadn't used. Not only has he incorporated additional math concepts into his industry class, but he works with students to help reinforce lessons that I teach in the industry math class. He will often tie hands-on, practical lessons to recent math assignments. For example, if we do a packet focused on subtracting fitting allowances, he will take students to the shop the next morning and show them how to subtract fitting allowances in real life. This helps them retain math concepts and be more prepared for the next math class.

As the industry instructors developed their math skills, they have shared their experience with their classes, thereby raising enthusiasm for math. Whenever a new group of students arrives in Ameisha Gathers' class, she makes a point of saying how she "used to hate math" and tried to avoid it both in school and her personal life. She then shares the effect that working with me has had on her math ability and her confidence in it. Since Ms. Gathers is a

professional in their target field, students identify with her, and this testimonial helps students to see myself and Ms. Gathers as a team and encourages resistant students to "buy in" to industry math.

## RECOMMENDATIONS

SOME CET successfully developed and delivered integrated, contextualized basic skills curricula at a time when this technique was largely limited to community colleges. Because of the success of high-profile initiatives like I-BEST and the passage of WIOA, many nonprofit organizations, community colleges, and other providers are now attempting to develop integrated, contextualized curricula of their own. These educators can derive the following lessons from our example:

- Use ABE instructors as internal professional development resources—Adult education instructors often have more experience and formal training in how to teach and develop curricula than the industry instructors who they partner with. By creating formal and informal opportunities for ABE instructors to share their skills, industry instructors can improve their own delivery.
- Design contextualized materials directed at students with low educational functioning levels—While many off-the shelf contextualized math textbooks are not appropriate for students with low math skills, these materials can be modified and enhanced to serve students with low educational functioning levels.
- Include learners with low basic skills in contextualized, integrated instruction— Contextualized, integrated instruction is extremely beneficial to students with low basic skills. In integrated classes, the ABE instructor is able to reinforce concepts taught by the industry instructor, and vice versa.

By utilizing ABE instructors to develop and deliver curricula directed at low-skilled learners and strengthen industry instructors' teaching skills, programs can lower their "cut scores" and allow more adult learners to achieve occupational credentials and enter sustainable wage employment. This helps fulfill the vision presented by WIOA: that all adult education students can enter and advance in a career pathway. ⌘

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# NURTURING ADULT STUDENTS' INTERNAL LOCUS OF CONTROL TO IMPROVE SELF-EFFICACY AND ACHIEVEMENT

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If you indulge me for a few moments as you read on, I think you will appreciate the reminders of just how much our work as adult educators can influence our students' lives. When a student darkens our door, we may be the last bastion to help empower them to move forward in their lives.

As adult educators, we know many of our students enter our programs with "barriers" to learning. These barriers often require, not just overcoming, but disabling, before a student can successfully engage in their educational pursuit. This pursuit is just the first step in becoming a productive, self-sufficient contributor to a healthy economy and quality standard of living in their community.

Barrier is defined as something that prevents movement or access. Synonyms for barrier include, obstacle, obstruction, hurdle, stumbling block, etc. Therefore, there is an implication a barrier may be removed. However, many of our students don't find their way over or around their barriers because over time their barriers have come to define them. I am not referring to barriers like transportation, childcare, etc. I am referring to barriers that follow our students like their shadows. Those formerly mentioned barriers are more easily removed through referrals and partnerships in our communities. The latter barriers, not so much.

In these students' minds, the barriers to which I denote have become persistent, pervasive, and permanent, and, ultimately, their reality. What's more, their support network is frequently plagued by the same verity and, in principle, offer little opportunity to realize something beyond short-term, present-day survival.

When I was an undergraduate in psychology class, I discovered two terms that profoundly resonated with me for a variety of reasons, least of which were my parents' life experiences and their conscious choices not to let those experiences define them or what they and their children could achieve.

Those terms were locus of control and self-efficacy. There appears to have been keen interest in researching the two terms in the 70s, 80s, and 90s, but less prolific now. Locus of control is likely defined as what you expect; center of control. What distinguishes the definition is the addition of "internal" and "external." Individuals who believe that they have control over a life situation have an internal locus of control and those who believe that outside factors have more control over a life situation have an external locus of control. Therefore, locus of control describes the degree to which people believe they have control over situations in their lives.

When you think of your students does there appear that one locus of control is more

prevalent than the other? Hold that thought… Consistently viewing life situations as out of your control and generally directed by outside forces can lead to learned helplessness (which we can explore another time) and poor self-efficacy. Self-efficacy involves believing in one's ability to take the steps necessary to produce desired outcomes. High self-efficacy permits an individual to approach a situation with the belief they will succeed. Low self-efficacy, on the other hand, will likely impede an individual's approach to and achievement of a desired outcome.

Studies have indicated individuals with high self-efficacy tend to have an internal locus of control. Ironically, these same individuals have an external locus of control in the event of failure. So if I predominately possess an internal locus of control, it is likely I approach situations with a high self-efficacy. However, if my desired outcome does not come to fruition, I will blame factors outside of my control or exhibit external locus of control.

With that in mind, it has been indicated that if I have low self-efficacy approaching a task, I will likely possess an external locus of control when it comes to achieving a desired outcome, BUT an internal locus of control if I fail to achieve the desired outcome. Therefore, I will blame myself for failures, while at the same time, give credit to outside forces for my successes.

Self-efficacy generally resembles the level of competence an individual feels. What characteristics should we look for to identify individuals with low self-efficacy (who will typically exhibit external locus of control)? Individuals with low self-efficacy do not envision themselves succeeding. Consequently, they are unwilling to take risks or try new things. They fear uncertainty related, again, to self-doubt. They want guaranteed success. Frequently, low self-efficacy leads to feelings of failure because beliefs of incompetence are generalized to other aspects of their lives, resulting in persistent, overall feelings of failure. Ironically, some low self-efficacy individuals may try to impress upon others a successful and competent image when in fact they believe and feel the opposite.

Starting to sound familiar? The good news is that we already do things that help empower our students—even though we may not directly correlate them to locus of control. Additionally, at least according to Russ Hill who has written, "Teach Internal Locus of Control," students can learn how to internalize success by learning to view their world in terms of an internal locus of control.

Hill recommends using what he calls, "The Personal Achievement Strategy." It is a six-step strategy having students (1) study themselves; (2) create goal ideas; (3) set personal goals; (4) plan; (5) strive to achieve these same self-set goals; and (6) evaluate the effectiveness of their efforts. Hill's theory is as students achieve personal goals, they act and think like "internals" (internal locus of control) and experience achievement. Consequently, they come to believe their ability to influence their own lives. Based on research, achievement and internal locus of control are interactive—achievement leads to a greater belief in internal control. Below each step in the personal achievement strategy is briefly described:

**Step 1: Studying Self:** Ask students to share their past achievements (writing them down can be very powerful). This provides the student with a forum in which to define examples of specific personal past achievements for which they can be identified as "doers," who set and achieve goals, are recognized and reinforced for their achievements, and begin to build a "reserve" of personal past achievements. Consequently, students begin to think they can influence desired outcomes in their lives.

**Step 2: Getting Goal Ideas:** Use the information resulting from step one's self-study and facilitate students' exploration of potential personal goals, e.g., brainstorming, interest inventories, etc. This exploration continues the process of generating positive energy, promoting them as agents of their own destinies, and begins to lay the groundwork for commitment to their personal goals.

**Step 3: Setting a Goal:** Educators frequently recognize the value of goal setting. For students learning internal locus of control, measurable, specific, and timely goals are equally important. However, goals that are attainable/doable/reasonable are particularly key for these students in order to promote the achievement → internal control → achievement experience.

**Step 4: Planning:** Help students to become "process-conscious." This step underscores the planning process by doing and receiving real-life feedback on achieving planned outcomes. Planning behavior such as listing tasks to be accomplished to reach goals; sequencing tasks; matching tasks to resources; collecting necessary information and revising plans; selecting ways in which to work; and seeking help, support students in realizing the need to break down bigger, more complicated goals, further fortifying their commitment, and illustrating that they are in control of how their goals are achieved—not outside forces.

**Step 5: Striving:** Essentially this step involves persistence and follow-through. Just do it. Strategies that can assist students with this step include, remembering and focusing on past successes, visualizing achieving their goal, and recalling others who have persevered and succeeded.

**Step 6: Evaluating:** This is an important step to permit students to reflect upon their achievement process. This concluding step sets the stage for the continuation of their achievement process. Assist students with understanding their answers to these questions: Did I achieve my goal as I have specified it?; What did I do well?; and What can I improve? Together you can reflect upon whether and how the six-step strategy worked.

As adult educators, we frequently cite barriers to students' educational pursuits. While the usual transportation and childcare issues often arise, we have to consider our students' life experiences and how they have internalized them. Our students need to understand they are in control of their lives and building these steps into the educational experience early on can demonstrate to them that they can achieve their desired outcomes. However, it takes time, commitment, and goal setting with intentional pursuit of incremental successes. Most

importantly, it takes perseverance and the ability to reflect upon successes and missteps to underpin continued achievement and advance internal locus of control.

It is likely the process outlined above is familiar to adult educators because they are already integrating these elements in the educational experience. However, I think it's worth visiting the geneses of why we provide specific feedback, chunk goals into smaller milestones, create a safe environment in which it's okay to fail, reinforce successes, and perpetuate resolve and reflection. How students view their control over the world around them shapes many things, including their perception of their competence and likelihood to achieve. Therefore, like our students, as adults, we want to know why we are learning and, ultimately, applying what we learn. Recognizing the influence of locus of control and self-efficacy reminds us why our actions and attention to these concepts can be so significant. ⌘

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# ARE WE ON THE BRINK OF SOMETHING BIG? REFLECTIONS ON THE CURRENT AND FUTURE STATE OF CAREER PATHWAYS POLICY AND PRACTICE

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In this brief article I reflect on what we—as a nation—have accomplished to date in career pathways policy and practice. I argue that we should not rest on our laurels and take on the next level of policy and practice challenges until we make good on the promise of career pathways as an equity strategy that provides employers with the skilled labor they seek and individuals and families with meaningful employment, good wages, and benefits. The views in this article are entirely my own and draw on my experience in the Obama Administration (2009-2017) and my roles prior to that as the state director for the Office of Adult and Career and Technical Education in Rhode Island. In describing policy developments, I did not opt for creating a historical chronicling of all events. Instead, I used events that I have perceived as significant contributors to the federal policy framework that has emerged over time.

## LET'S ACKNOWLEDGE THE GREAT WORK THAT DROVE THE DEVELOPMENT OF FEDERAL POLICY FOR CAREER PATHWAYS

Up until the late 2000s, there was very little in terms of federal policy or investments pertaining specifically to career pathways for youth and adults. There were the remnants of workplace literacy investments, which had been significant in the 1980s and 1990s. There were residual school-to-career efforts initially authorized by the School-to-Work Opportunities Act, which expired in 2001. There was some funding for workplace education and incumbent worker training through the programs authorized by the Workforce Investment Act of 1998. And, there were some isolated, uncoordinated investments by federal agencies in education and training programs for youth and adults.

In the 2000s, however, there were several developments in both the public and private sectors that, in hindsight, were preludes to the full emergence of a federal policy framework for career pathway program and system development. I share some of these developments below for illustrative purposes.

Most of the innovative work focused on adults was seeded by philanthropy (e.g., Shifting Gears and Accelerating Opportunity), state innovations (e.g., Washington's I-BEST and Minnesota's Fast TRAC), or locally-driven by strong partnerships between educators, non-profits, and employers (e.g., Instituto del Progreso Latino in Chicago). On the federal side, the introduction of *programs of study* in the Carl D. Perkins Career and Technical Education

Act of 2006 was a critical development. The 2006 Law called upon states to create sequences of academic and Career Technical Education (CTE) coursework to help students attain a postsecondary degree or industry-recognized certificate or credential. Advance CTE, the association of state directors of CTE, took this construct and developed programs of study that spanned secondary and postsecondary by design and tied these programs of study to career pathways in career clusters to assist states and local practitioners in implementation. Roughly around the same time, the United States Department of Health and Human Services initiated in 2007 the *Pathways for Advancing Careers and Education* project (PACE), a multi-site, random assignment evaluation of promising strategies for increasing employment and self-sufficiency among low-income families. The PACE team came to focus on career pathways as the main intervention framework to study. The Office of Career and Technical Education, then still the Office of Vocational and Adult Education, began a series of modest technical assistance investments using its national activities resources authorized under the Adult Education and Family Literacy Act to advance the ideas of integrated education and training programs and career pathways for adults. The Employment and Training Administration at the United States Department of Labor, using resources from discretionary programs and resources from the American Recovery and Reinvestment Act of 2009, invested in pathways out of poverty and career and social pathways leading to economic self-sufficiency.

By the late 2000s, these initiatives had created lots of momentum and "buzz" in our capital, but questions started coming up because these initiatives weren't necessarily coordinated or tied together into a publicly supported talent development strategy.[1] Leading research, policy and advocacy organizations in both the public and private sectors developed policy recommendations in the context of the reauthorization of the Workforce Investment Act of 1998 that spoke directly to the need for greater connections between various education, training, human services agencies, and the private sector and to the need for shared accountability measures and for greater alignment between various programs in order to create college and career pathways for youth and adults. In retrospect, these concerns taken together is what gave rise to the development of a comprehensive policy framework for career pathways.

## LET'S CELEBRATE THE EMERGENCE OF A FEDERAL POLICY FRAMEWORK FOR CAREER PATHWAYS

In the decade that followed, policy development for career pathways accelerated and practice matured ultimately resulting in the codification of career pathways in statute with implementation expectations at scale. Leading up to the codification of career pathways in the Workforce Innovation and Opportunity Act (WIOA) of 2014, there were several key "events"

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1  The private sector uses terms such as talent development and talent pipeline development. These are demand-side phrases for what the public sector understands as career pathways.

that facilitated the definition and eventual adoption of federal career pathways policy and practice. I offer a chronological account of select reports, policies, programs, and funding opportunities that, at least in my mind, were preludes to the federal policy framework for career pathways that is known today.

In 2011, Harvard University released *Pathways to Prosperity: Meeting the Challenge to Prepare Young Americans for the 21st Century*, launched the Pathways to Prosperity Project, and subsequently partnered with Jobs for the Future to develop a network of practitioners in 14 states (to date) to build college and career pathways for youth.

In October 2011, the first round of the U.S. Department of Labor's *Trade Adjustment Assistance Community College and Career Training (TAACCCT)* grant program was kicked off. Congress had authorized the TAACCCT grant program as part of the American Recovery and Reinvestment Act of 2009 to increase the capacity of community colleges to meet local and regional labor demand for a skilled workforce. The Health Care and Education Reconciliation Act, signed in March 2010, provided the TAACCCT program with nearly $2 billion in funding over fiscal years 2011-2014, or approximately $500 million annually over four rounds of grants. DOL, which administers the grants, funded a total of 256 three- to four-year grants to institutions of higher education offering programs that can be completed in two years or less. This is a major investment to increase the ability of community colleges to address the challenges of today's workforce. Grants are designed to help workers eligible for training under the TAA for Workers program, as well as a broad range of other adults. "Through TAACCCT, community colleges have developed or redesigned nearly 2,600 Programs of Study to help adults learn skills that lead to family-supporting jobs. Each college or consortium of colleges developed programs of study aligned with local and regional business needs, which were identified through partnerships formed or strengthened with grant funds. To help adult students obtain industry-recognized credentials more quickly, colleges are using TAACCCT funding to innovate with strategies such as career pathways, credit for prior learning, competency-based models, online training, and strong student support systems. The curriculum and other learning materials developed by TAACCCT grantees are being made widely available to all types of training providers on SkillsCommons.org."[2]

The release of *Investing in America's Future: A Blueprint for Transforming Career and Technical Education* by the United States Department of Education in April 2012 introduced a set of principles to increase the responsiveness of programs to the demand side, enhance equity and quality, and promote greater collaboration between various segments of the education and workforce development systems and between the public and private sectors including business, industry, and labor market intermediaries.

In that same month, the federal agencies of Labor, Education, and Health and Human

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2  https://doleta.gov/taaccct/

Services issued joint guidance (http://www2.ed.gov/about/offices/list/ovae/ten-attachment.pdf) around career pathways. In the guidance, career pathways is defined as a series of connected education and training strategies and support services that enable individuals to secure industry relevant certification, obtain employment within an occupational area, and advance to higher levels of future education and employment in that area. The agencies established an interagency working group and began to increase and coordinate their programmatic, technical assistance, and research investments. They also partnered with external organizations such as the National Governors Association, foundations such as the Joyce Foundation, and leading research organizations such as Abt Associates on a series of national dialogues on career pathways exploring issues of evidence, practice, and policy. As a result of this joint letter, many states took executive or legislative actions to replicate the interagency collaboration modeled by federal agencies at the state levels.

Also in 2012, the Center for Law and Social Policy launched the Alliance for Quality Career Pathways, funded by the Joyce Foundation, the James Irvine Foundation, and the Greater Twin Cities United Way, to help state and local/regional partnerships strengthen their career pathway systems. This Alliance developed a set of indicators to measure the quality, outcomes, and impacts of career pathway programs and systems.

In 2013, the National Governors Association and its partners, the Corporation for a Skilled Workforce and the National Skills Coalition, released *State Sector Strategies Coming of Age: Implications for State Workforce Policymakers* in which it introduced a framework that articulated the relationships between and showed the integration of Career Pathway Programs, Sector Strategies, and Industry Clusters. This was a significant contribution, as there had been inadequate clarity up to that point regarding how economic development, sector development, and career pathway strategies relate to and support each other.

In November of 2013, the U.S. Department of Labor and the U.S. Department of Education launched the Youth CareerConnect grant program to encourage America's school districts, institutions of higher education, the workforce investment system, and their partners to scale up evidence-based high school models that would transform the high school experience for America's youth. The program's intent was to "strengthen America's talent pipeline through *Integrated Academic and Career-Focused Learning*; Work-Based Learning and Exposure to the World of Work; Robust Employer Engagement; Individualized Career and Academic Counseling; and Integration of Postsecondary Education and Training."[3]

In December of 2013, JPMorgan Chase launched *New Skills at Work*, a five-year $250 million global initiative to leverage its resources, expertise, and global reach to help inform and accelerate efforts to support demand-driven skills training for adults. Additionally, JPMorgan Chase launched a program to expand skills—based education for young people—*New Skills for*

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3   https://doleta.gov/ycc/

*Youth*—which is a $75 million program to help solve the youth unemployment crisis.

On Capitol Hill, leading members of Congress, such as Senator Murray and others, started introducing career pathway bills and in spring 2014, the bi-partisan Senate HELP Committee team picked up its last Workforce Investment Act reauthorization conversation and sent the WIOA to President Obama to sign, which he did on July 22, 2014. A federal definition of career pathways was formally codified in WIOA, intended to improve systems alignment, and expectations were articulated for state and local workforce boards to build career pathway systems. On the same day, Vice President Biden released *Ready to Work: Job-Driven Training and American Opportunity* that further validated the importance of career pathways as a critical element of a demand-driven talent development system.

In December 2014, the Consolidated and Further Continuing Appropriations Act of 2015 gave career pathways an additional legislative boost. It helped reopen the door to opportunity in postsecondary education by changing the Higher Education Act of 1965, as amended (HEA), to partially restore what is known as the "ability to benefit (ATB) alternatives." This law changed the HEA to allow a student who did not receive a high school diploma (or its recognized equivalent), or who did not complete a secondary school education in a home-school setting, to be eligible for Title IV financial aid through enrollment in an eligible career pathway program.

In January 2015, President Obama launched *UpSkill America* and called on businesses across the country "to help workers of all ages earn a shot at better, high-paying jobs, even if they don't have higher education."[4] Since then, this effort was institutionalized at the Aspen Institute. This employer-led movement aims "to expand opportunity for America's workers and allow our economy and communities to thrive. The movement promotes training and advancement practices to help workers progress in their careers and move into better-paying jobs. Led by a leadership team of employer organizations, *UpSkill America*'s mission is to "recognize employers that invest in their frontline workers; promote the adoption of policies and practices used by employers to educate, train and develop frontline workers; and highlight effective local and regional workforce development partnerships and how they educate, train, and develop individuals for success in the workplace."[5] More than one hundred (100) leading employers (e.g., CVS, Walmart, and others), labor-management initiatives, and labor unions made commitments through *UpSkill America* to upskill their frontline workers. Many others have joined this movement since then.

In March 2015, New America launched *Opportunity@Work*, a new civic enterprise to be based at New America and focused on "re-wiring" the U.S. labor market to enable more

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4  https://obamawhitehouse.archives.gov/blog/2015/01/22/upskill-america-presidents-plan-help-hardworking-americans-earn-higher-paying-jobs

5  https://www.aspeninstitute.org/programs/economic-opportunities-program/upskill-america/

Americans to achieve economic opportunity and upward mobility in the job market and workplace. Focused on the demand side, *Opportunity@Work* expands access to career opportunities so that all Americans can work, learn, and earn to their full potential in a dynamic economy. In the next decade, *Opportunity@Work* aims to "enable at least 1 million Americans to demonstrate their skills and get hired—generating a $20 billion boost in annual earnings by helping workers overcome barriers to hiring, learning, and financing training."[6]

In that same month, President Obama launched the *TechHire Initiative,* a new campaign to expand local tech sectors by building tech talent pipelines in communities across the country. The President pledged $100 million in federal grant funding. One year later, in spring 2016, the U.S. Department of Labor announced the $100 million H-1B *TechHire Partnership Grants Program*.

In that same year, thirteen federal agencies, including the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Housing and Urban Development, Interior, Justice, Labor, the Social Security Administration, Transportation, and Veterans Affairs, issued a <u>letter of commitment</u> affirming the importance of aligning workforce and education systems to support career pathways. This second joint letter was an outgrowth of the Obama Administration's interagency Skills Working Group, which launched in 2014 and held a <u>National Dialogue on Career Pathways</u>.

On September 13, 2016, in a 405-5 vote, the U.S. House of Representatives passed H.R. 5587, the Strengthening Career and Technical Education for the 21st Century Act (the bill that would reauthorize Perkins). On June 22, 2017, H.R. 2353, an updated version of the Strengthening Career and Technical Education for the 21st Century Act, was brought to the floor of the U.S. House of Representatives, and the bill was passed on a voice vote. The bill included the Workforce Innovation and Opportunity Act definition of career pathways. The Senate has yet to consider its bill.

Finally, the emergence of the *Guided Pathways* movement at community colleges in recent years is another significant development, as it looks at optimizing the learning experiences and outcomes of those who are part of the postsecondary segment of career pathways. As that work moves from theory to more widespread practice, a clearer articulation of how Guided Pathways fit within the broader career pathways policy framework would be helpful to the field.

Clearly, there is lots to celebrate. In a relatively short period of time, our nation has gone from no federal policy framework for career pathways to codifying career pathways in the largest federal statute that authorizes activities and funding in the public workforce

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6   http://www.opportunityatwork.org/about-us/

development system, as well as significant inclusions of career pathways in federal student aid appropriation bills and CTE reauthorization proposals.

## LET'S REFLECT ON THE CURRENT STATE OF CAREER PATHWAYS POLICY AND PRACTICE

Today, our emphasis needs to shift to support robust career pathways implementation at scale, continued investments in evaluation, and innovation and ideation.

### Supporting Implementation

Technical assistance to those who design and implement career pathways programs will continue to be essential. The federal agencies have developed tool kits and other useful resources to support implementation and have increasingly made coordinated technical assistance investments. They should stay that course so that the promise of career pathways reflected in the policies in WIOA becomes a promise kept in implementation.

The career pathway system development expectations in the law will require enhanced resources and technical assistance. The level of cross-sector, cross-system, and within-system segment alignment and collaboration that is needed is significant. This is not about renaming old programs as career pathway programs and bundling them to claim the establishment of a system. It is about state and local leaders in both the public and private sectors working together to design pathways that span, include, and leverage state, local, and private resources from various education, training, health and human service agencies and from business, industry, and intermediaries such as labor management initiatives. Those collaborations will clarify how each player contributes to the pathway and how these pathways are nested in sector strategies that support economic development and growth.

One next-level challenge in this work will be to further develop the demand side components of pathways. With the growing interest in apprenticeship, a truly demand-driven and demand-/employer-funded career pathway component, we are beginning that work. Closer collaboration with our businesses and industry beyond apprenticeships is next so we can make the learning firms support an integral part of the pathway. We have made huge strides on the supply side with the pre-employment segments of pathways, but now we need to do a better job of connecting the work on the demand side that leading forward-thinking employers are pursuing as part of their long-term talent pipeline development efforts. This demand-side activity is significant. Walmart and the Walmart Foundation, for instance committed to unlocking the full potential of the U.S. retail workforce. Starting with their own associates, Walmart has invested $2.7 billion over two years in higher wages, education, and training. Together with the Walmart Foundation, the company is investing $100 million in systems that help create economic mobility within and beyond retail. Some investments have included issues of pathways and credentialing in the retail sector. As policy and funding

responsibilities and federal authority are devolving to the state and local levels, greater involvement of the private sector in local and state career pathway system development work is necessary. A great starting place is making connections with the talent strategies of these forward-thinking employers.

## Maintaining Investments in Evaluation

As implementation evolves, federal, state, and local policy makers, funders, and practitioners want to know what the outcomes of career pathway programs are and what the impact is of the career pathway systems we create. Evidence is needed that shows whether and how career pathway programs perform relative to the status quo. Collectively, we need to gather data to either reject or confirm the hypothesis that career pathway systems can make talent pipelines more efficient and affect firm and economic performance in a region. Fortunately, there are some significant robust evaluations under way and new evaluation capacity is being funded. The long-term evaluations under the PACE and H-POC Programs at the U.S. Department of Health and Human Services and the recent investment in a CTE research network by the Institute for Education Sciences are two examples. As career pathway programs are being implemented at scale, states and local communities should consider supplementing these federal investments with their own. Intermediary short-term outcomes and impact from the PACE and H-POC programs suggest that career pathway programs can be effective. Longer-term outcome and impact data are currently being analyzed.

## LET'S INNOVATE: POLICY AND PROGRAM INNOVATION AND CAREER PATHWAYS IDEATION

### Innovating Within the System

As mentioned earlier, we cannot rest on our laurels because we are learning that the first iteration and generation of career pathway programs and systems may need to evolve to meet unmet equity challenges and take full advantage of rapid technology developments. To address these challenges and to refresh the career pathway program and system constructs for the future, we need to engage in policy and program innovation within the current career pathways system and we need to engage in an ideation exercise about what career pathways programming, service delivery, and systems could or should look like in the future. The latter is, in essence, a question about the relevance of the model for a workplace that will continue to rapidly change in terms of what people do, what machines do, and what challenges and opportunities human-machine interactions will present.

Let me start with innovation in our current policies and practice. As of today, we cannot say that our career pathway programs and systems fulfill the equity promise. Resources are inadequate to ensure universal access. And, the available resources from various federal and state programs are not leveraged in an optimal way due to eligibility constraints tied to select funding streams. To address the latter, a policy innovation is needed—perhaps a

career pathways performance partnership authority conceptually similar to the Performance Partnership Pilot Authority for disconnected youth. Such authority would allow local, regional, state, and even inter-state career pathway partnerships to receive flexibility through their tribal, municipal, county, and state governments to pool any federal, state, and local resources that can support any aspect associated with the participation of youth and adults in career pathway programs, and be exempt from accountability and reporting requirements associated with these programs in exchange for an agreed upon set of outcomes. But beyond resources, there are other challenges.

One particular challenge that warrants much more attention than it has received to date is that not all of our programs and systems are designed to facilitate the participation of individuals with visible and invisible disabilities. With the exception of an investment in a handful of states by the U.S. Department of Education's Office of Special Education and Rehabilitative Services, very little is known regarding the extent to which local career pathway programs facilitate the participation and success of persons with disabilities. Stimulating innovation in how universal design principles can be used to create programs that will result in competitive employment for youth and adults with disabilities is one important next step for us to take collectively.

Similarly, innovation is needed in program models that leverage the assets of immigrant and refugees, particularly those individuals who are still developing their English language skills and those facing re-credentialing barriers. Because too often we use a deficit model—which drives selectivity—we are unnecessarily delaying the unleashing of the talents of these individuals.

Along the same lines, we need innovation in the adult career pathway designs of programs that work with adults who may not have had access to or may not have been successful in postsecondary education and training. Particularly, we need innovation and collaboration. Community schools—of which there are an estimated 5,000-7,500 in our country—are anchor institutions in communities. So are community colleges. Career pathway programs—both for youth and for the parents—present an affordable opportunity to link the offerings of these two anchor institutions. Far too few of these institutions have found each other for this purpose. In addition, we need new designs for low-income adults that accommodate their needs to learn and earn at a much greater scale, with much enhanced supports, and with a greater likelihood of in-program and post-program success. The recent Adult Career Pathways Design Challenge, a partnership between COABE, the National Association of State Directors of Adult Education and the Institute for Educational Leadership, with the support of the ECMC Foundation, is one example of the type of innovation that is needed.[7]

A final area of innovation that we ought to consider is how we can leverage the rapid, exponential improvements in technology to address unmet opportunity in various areas of

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7   For more information, please visit: http://mindsthatmoveus.org/.

programming. Applications based on artificial intelligence will make it possible to rethink competency-based remediation and learning that is fully personalized and customized. It can facilitate embedded assessment and micro credentialing. Augmented and virtual reality applications can optimize applied learning and create virtual work-based learning experiences including virtual apprenticeships. Authoring platforms can be created to facilitate the creation of customized work-based learning experiences and virtual collaborative problem solving using real life and real work problem sets engaging learners from all over the world. These opportunities are here today. We need to incentivize innovations that use these technologies to enhance the quality and effectiveness of education, training, and work-based learning experiences in career pathway programs while keeping the cost for the user low or nonexistent as to not exacerbate equity issues.

## LET'S IDEATE AND CREATE A CAREER PATHWAYS MODEL FOR THE FUTURE

### Re-envisioning the Career Pathways Model for the Future

We must do more, though, than innovate within the existing career pathways policies and practices. We need to ask ourselves: What do future career pathway programs and systems look like? How might we design them using equity as the driving design principle so we can begin to address persistent inequities and inequalities? These questions get at the heart of how different constituent groups view the purposes of education and workforce development and our education and schooling models, which I argue, were created to accommodate the needs of different economies (predominantly agriculture) and have outlived their usefulness.

With the exponential growth in computing power and advances in artificial intelligence and virtual and augmented reality applications, the question of the durability of the current career pathways model is begging for an answer. It will soon be possible to facilitate access to the highest quality content and fully personalize and optimize learning of children, youth, and adults. If we keep costs for learners down, then that means that we—at least in theory—would no longer depend on anyone in our institutions to be the facilitators of access to content and the attainment of competencies. We would no longer depend on a brick and mortar face-to-face arrangement, or at least, not exclusively. As Reecie Stagnolia, the Chair of the National Association of State Directors for Adult Education, says, "we are moving from bricks to clicks."[8] These developments call for a change in the role of our institutions. They also call for at least an examination of what career pathway programs and systems may look like. Given the custodial responsibilities schools have under mandatory school attendance laws, what happens in these schools of the future? What do career pathways look like? Similarly, how do these developments affect the community college model? Or the model our workforce development and employment training institutions employ? Do our institutions become centers of applied

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8   Personal communication at the Western Pathways Conference in Salt Lake City in June 2018.

learning where youth and adults can access technologies and subject matter experts—humans and robots and machines—to facilitate the solving of real life problem sets? Do they become "performance centers," as Parminder Jassal at the Institute for the Future has suggested? Or, will they go away? Or, will they maintain face-to-face opportunities as supported onramps to assist with navigation for those youth and adults who might need significant wrap around support services? Perhaps we should talk less about what the role is of our current institutions in the future of work and learning but more about what ecosystems we need to facilitate learning in the future. We need to begin this conversation.

Let's go one step further. Remember when hybrid and online learning took off and eventually matured? The online learning field went from participation, quality, and outcome concerns to a place where it is now widely accepted that—when designed well—online learning opportunities can be effective and efficient. With the anticipated developments in technology over the next 3-5 years, there is an opportunity to consider a new way of thinking about "anytime, anywhere learning." In online learning, that phrase basically means you can do your learning at a location and a time that is convenient for you to use the Internet to access your web-enabled course. But what if we expanded our interpretation and acknowledged that learning takes place all the time in different contexts (formal and informal) and in different formats. Can we envision a competency-based learning system that does both prior and current (i.e., real-time) learning assessments in the very locations and moments where we find ourselves? Can the role of institutions be to facilitate access and navigation to resources in real-time and aggregate learning/competency attainment and credential it? The technology is here. We must have this conversation.

Now let's think about career pathways in that new technology-rich world. It is almost impossible to predict what jobs will be generated or how current jobs will be affected. That poses a real challenge for both individuals who want a career, a career pathway, and career progression and for those who provide education, training, work-based learning, and credentialing experiences along the various segments of the pathway, particularly since a large portion of the programmatic offerings are still tied to being physically present at an institution. The current model for career pathways might not work well for many careers in that new future of ours. We might have to think about a model that is more about skill acquisition that facilitates continued employment as a job evolves or facilitates access to new ones as they are created and old ones eliminated. And the "leave to learn" model will not work well in that context because people cannot afford to leave work, be without income, and on top have to pay significant amounts in tuition and fees. The Institute for the Future envisions that work and learning will no longer be separate but that we are moving towards a new model that fully integrates both. What does that mean for the way we think about career pathways? How do we begin to build on the cross-sector ecosystem we have today for one that fits this new challenge? We must begin this conversation.

## LET'S ACT

There is lots of work to be done. I have described some of that work. There are ample opportunities for public and private funders to seed the policy and program innovation work. There are numerous opportunities for tribal, municipal, county, state, and national lawmakers to grant the authority and flexibility to optimize the pooling of resources to expand access to and outcomes of career pathway programs. There are almost unlimited opportunities for local leaders and teachers, faculty, and trainers to identify and implement program innovations.

Beyond these steps, I believe that it is time for us collectively to begin the next dialogue on career pathways to examine what career pathway programs and systems look like in the future world of work. I am willing to help facilitate that dialogue and invite you to step forward if you are. This dialogue will afford us—in the public and private sectors—the chance to design a system for equity and prosperity that can reverse the disturbing trends in lack of affordable access and widening income gaps and wealth inequalities by race, ethnicity, gender, disability, language proficiency, and other background characteristics and circumstances. The ecosystem we aspire to should work for all Americans, not some. If we build it with equity as our central design principle, it will work well for everyone, everywhere, from the urban core, to suburbia, to Indian country, to rural communities, including Appalachia. ⌘

# FAILURE TO FOCUS ON ECONOMIC IMPACTS DIMINISHES ADULT EDUCATION

**Judy Mortrude**
CLASP's Center for Postsecondary and Economic Success

Adult education—formal structured activities designed to educate adults—occurs in schools, colleges, church basements, community centers, libraries, and workplaces. Adult education serves people needing high school completion, working adults, adults with limited work history, elders with a lifetime of work behind them, parents with small children, college bound individuals. The common denominator in these diverse settings and among these diverse populations is people motivated to build foundational skills in order to make a change in their lives.

Adult education as a profession, as a system, wastes far too much energy debating the most important purpose of adult education and bemoaning the fact that showing the impact of adult education on an individual's life is difficult. How do we measure self-efficacy? How do we measure an adult learner's involvement in support of a child?  How do we measure civic engagement? As a consequence, the adult education system has defaulted to "Educational Function Level" gain as the demonstrable, reportable mark of success. The National Council of State Directors of Adult Education Legislator's Resource Book, "The Blue Book,"[1] lists state-by-state employment status of participants, state and federal investment, and enrollment by program area, but then tells the story of that investment only by 'Program Enrollment Performance' noting how many adults "left before completed" or "improved one or more levels or still enrolled."  This, essentially, is the current state of the argument for adult education's value.

As a practitioner and program administrator, I understand what "Program Enrollment Performance" means. I also know that 'improved one or more levels' in adult education primarily means gaining points on a standardized test which could be an indicator of many things outside of knowledge gain, e.g., having had breakfast on post-test day, having had the experience of test taking recently, having external motivation to focus on that particular testing event. Every educator knows that the *real* value of adult education isn't measured by exams. And for nearly anyone outside of adult education, including most policy makers, "improving a level" is a complete mystery.

A decade ago, in my role as a program administrator of a large urban adult education school, I read an article that argued for dismantling the federal adult education investment and included this description:

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1  http://www.naepdc.org/Blue%20Book%2020160825.pdf

*The stereotype of adult basic education and ESL courses conjures up the image of adults, tired from a full day of hard work, meeting in stark classrooms in an otherwise empty primary or secondary school, and being led through skill drills by equally tired teachers. Sadly, this negative stereotype is uncomfortably close to reality. Of course, there are many shining examples of adult basic education that do not come close to this negative stereotype. But there is a big gap between best practice and common practice.*[2]

New to the world of policy papers and angered by this (too close to home) argument, I tried to understand what kind of anti-liberal organization would make such a claim. Who was this Center for American Progress (CAP)? Imagine my chagrin when I discovered CAP is an agent of national progressive thought. If progressives were writing this about adult education, what could we do to prove the value of our work to the larger world of policy makers whose worldviews span the political spectrum?

Thankfully, during the first decade of 2000, leading adult education administrators and practitioners were stepping up to innovate in adult education design and delivery through career pathway program development. Over the past decade, adult education has become part of a national conversation initiated in part by the haunting ETS Perfect Storm[3] research—responding to the structural reality that a high school credential is no longer the marker for self-sufficiency in our new economy and that, demographically, our growing populations are those we have historically served poorly in our education systems (not to mention the structural hurdles built into our society for many low-skill, low-income communities of color when accessing housing, healthcare, banking).

The conversation became even more critical as the Program for the International Assessment of Adult Competencies (PIAAC)[4] research revealed the abysmal performance of American adults, including young adults, on literacy, numeracy, and Problem Solving in Technology Rich Environments (PSTRE) tests. In response, philanthropic investment supported adult education to build programs and policies to support bridge programs, transition programs, integrated education and training, and career pathways for people outside of the main educational pipeline who were seeking educational and economic mobility through adult education.[5]

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2  https://cdn.americanprogress.org/wp-content/uploads/issues/2007/12/pdf/nes_lifelong_learning.pdf

3  https://www.ets.org/Media/Education_Topics/pdf/AmericasPerfectStorm.pdf

4  http://piaacgateway.com/what-is-piaacupdated/

5  Ford Foundation Bridges to Opportunity: https://www.fordfoundation.org/library/reports-and-studies/bridges-to-opportunity-for-underprepared-adults-a-state-policy-guide-for-community-college-leaders/; Multiple funders of Breaking Through: http://www.jff.org/initiatives/breaking-through/funders-partners; Joyce Foundation Shifting Gears: http://www.joycefdn.org/news/2015-shifting-gears-report-released; Multiple funders of Accelerating Opportunity: http://www.jff.org/initiatives/accelerating-opportunity.

While practitioners built pathways, researchers demonstrated adult education's impact in new ways. Most revolutionary was the bold decision by Washington state leaders to bring about systemic change in its adult education system by first analyzing data on the outcomes needed for low-skill adults to achieve educational and economic success and then revealing how few basic skills students were achieving those outcomes:

*"Ingrained Attitudes and Culture:" It almost goes without saying that efforts to bring about substantial changes in policy and practice are going to run up against an inclination to maintain the status quo. One strategy to help shift such attitudes and beliefs is to make data on student outcomes and on gaps in achievement by various student groups available to practitioners, and then to ask whether these outcomes are acceptable and whether there are efforts that they could make (along with students themselves) to increase student success. This was the approach that the Washington State Board for Community and Technical Colleges (SBCTC) used in presenting the research showing that students who attain the "tipping point" of at least a year of college and an occupational credential earn substantially more than those who do not—and yet very few students, particularly those who start out in adult basic skills, make it to that level. SBCTC used this research to rally educators throughout the system to the view that the tipping point is the minimum level of achievement that should be expected of students without postsecondary credentials and that concerted efforts had to be made to increase the rate at which students reach that point.*[6]

This courageous step of acknowledging systemic deficits was coupled with affirmation that Washington state leaders knew a better way: Integrated Basic Education and Skills Training (I-BEST). Washington state and local practitioners have continued to lead the field with their groundbreaking strategy. In spring 2018, Pathways for Advancing Careers and Education (PACE) is expected to release a gold standard evaluation of I-BEST and other pathway programs[7] which will again build our field's knowledge base on what works, for whom, and how.

Of great importance to practitioners working in the spectrum of adult education services outside of integrated education, Dr. Steve Reder's 2014 research report *The Impact of ABS [Adult Basic Skills] Program Participation on Long-Term Economic Outcomes* was a breakthrough:

*The results of this research are clear. Three different methods—treatment effects, difference-in-differences, and fixed effects panel regressions—all show statistically significant and financially substantial impacts of ABS program participation on earnings growth. Individuals who participate in programs have higher future earnings as a result*

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6  https://ccrc.tc.columbia.edu/press-releases/new_advocacy_publication_announced_bridges_to_ opportunity_for_underprepared_adults_a_state_policy_guide_for_community_college_leaders_649.html
7  http://dev.abtassociates.com/practice-areas/income-security-workforce/career-pathways.aspx

*of participating, income premiums are larger with more intensive participation, and minimal levels of participation do not produce statistically significant premiums.*[8]

The story told through this research is of the economic impact of adult education, not illustrated in the reporting period of one federal program year but accrued through time. It's a story we, as a field, should embrace even as more longitudinal research reveals the critical importance of adult education's  multiple impacts.

The immediate opportunity, however, is to better use adult education's mandated annual reporting to communicate our work's value to policy makers, investors, and our participants. The federal adult education investment, The Workforce Innovation and Opportunity Act of 2014's title II: Adult Education and Family Literacy Act,[9] codified much of the learning from the past decade of career pathway innovation, allowing federal investment to support integrated education and training (Public Law 113-128, Section 203(29)) and career pathways (Public Law 113-128 Section 3(7)), *and* offering an opportunity for adult education to tell the story of its impact in new ways.

Outside of the still-being-defined "effectiveness in serving employers" metric, WIOA performance measures fall into three categories that are reported either during program participant or after exit:  interim progress measures, credential attainment outcomes, and labor market outcomes.

New to WIOA is the performance metric for obtaining a recognized postsecondary credential (Public Law 113-128 Section 3(52)). State initiatives like WorkINdiana[10] that emphasize obtaining career certifications in in-demand fields will optimize this metric. WIOA labor market outcomes shift the focus from job placement and retention to the percentage of participants who are in unsubsidized employment during the second quarter and fourth quarter after exit from the program, along with the median earnings of participants who are in unsubsidized employment second quarter after exit. While it is true that not all adult education participants are in the labor force, the majority is, both when they enter adult education and when they exit adult education, so overall these metrics will help adult education tell that story. The biggest change is in the interim progress measures now defined as Measurable Skill Gain. There are five measurable skill gain types:

1. Documented achievement of at least one educational functioning level of a participant who is receiving instruction below the postsecondary education level;
2. Documented attainment of a secondary school diploma or its recognized equivalent;
3. Secondary or postsecondary transcript or report card for a sufficient number of credit hours that shows a participant is meeting the state unit's academic standards;

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8  https://www.pdx.edu/linguistics/sites/www.pdx.edu.linguistics/files/ABS_EconomicOutcomes_13.pdf
9  https://www.gpo.gov/fdsys/pkg/PLAW-113publ128/pdf/PLAW-113publ128.pdf
10  http://www.in.gov/dwd/adulted_workin.htm

4.  Satisfactory or better progress report, towards established milestones, such as completion of OJT or completion of one year of an apprenticeship program or similar milestones, from an employer or training provider who is providing training; or

5.  Successful passage of an exam that is required for a particular occupation or progress in attaining technical or occupational skills as evidenced by trade-related benchmarks such as knowledge-based exams.[11]

And the National Reporting System further defines Educational Functioning Level achievement three ways:  pre/posttest; Carnegie units; and transition to postsecondary education or employment. This new performance system is as large a seismic shift as when standardized testing first entered the federal adult education accountability world. For those of us who have been in this field long enough to remember when Educational Function Level gain was introduced, there can be no doubt that performance reporting metrics WILL drive service delivery and program design. The opportunity now is to use WIOA performance to design our services in a way that helps adults move farther faster, brings us into partnership with sector partners and providers of non-academic supports, and helps our system tell the impact of that collaborative work on our participants' lives.

In the classroom, that means career contextualized education. Julia Wilber, Academic and Employment Navigator at the International Institute of Minnesota, writes compellingly of the "false dichotomy" of choosing to deliver "school focused" or "work focused" curriculum. Even with a population of resettlement students, IIMN has realized "By deepening our commitment to career contextualized education, we not only give students the academic and career skills they need to succeed in the American workforce, but also remind them that they are welcome—that they have a job and a home here as well."[12]

Outside of the classroom, that means partnering with local workforce development practitioners who, under WIOA, will operate with interim progress measures as well. Unlike the previous Workforce Investment Act (WIA), working under WIOA, local workforce development programs will be able to focus their services on participants who will *not* achieve a credential or employment within a program year. Workforce development participants who incrementally demonstrate skill gain through the full complement of WIOA Measurable Skill Gain metrics while still enrolled for career and training services will be performance wins for all the WIOA core programs, not just adult education.

In this service delivery model, the focus is not only on triaging the "most ready" candidates for immediate job placement, but also on developing a comprehensive service model to build skills over time, showing progress in multiple ways which will eventually result in educational

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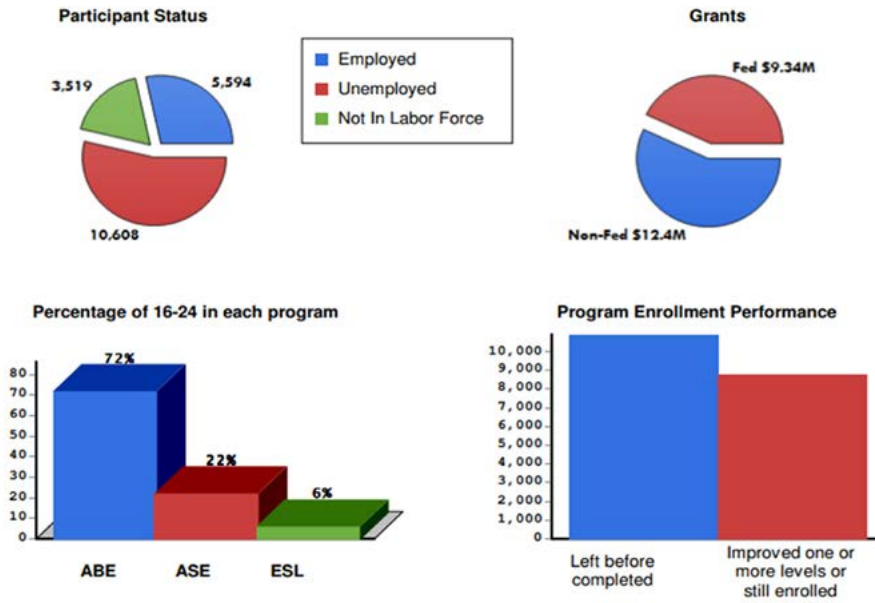11  https://www.doleta.gov/performance/guidance/tools_commonmeasures.cfm

12  http://atlasabe.org/mn-abe-news/welcoming-refugees-into-the-workforce-with-career-contextualized-basic-skills-instruction

credentials and economic payoffs. Adult education is a crucial partner in helping low-skill people onto a pathway, and expanded interim progress measures can liberate adult education to play with new strategies to show skill gain. However, adult education participants have far more needs than academic skills, and the adult education system itself is not resourced or trained to do this work alone. At the local level, we need to leverage public benefits, community-based organizations, and workforce development. At the state level, we need policies that reward co-enrollment between WIOA core partners and build out administrative data capability to demonstrate the long-term impact of our work. By 2020, WIOA data collection may begin to tell this story, but only if state and local practitioners understand the performance metrics and the value of quality data collection.
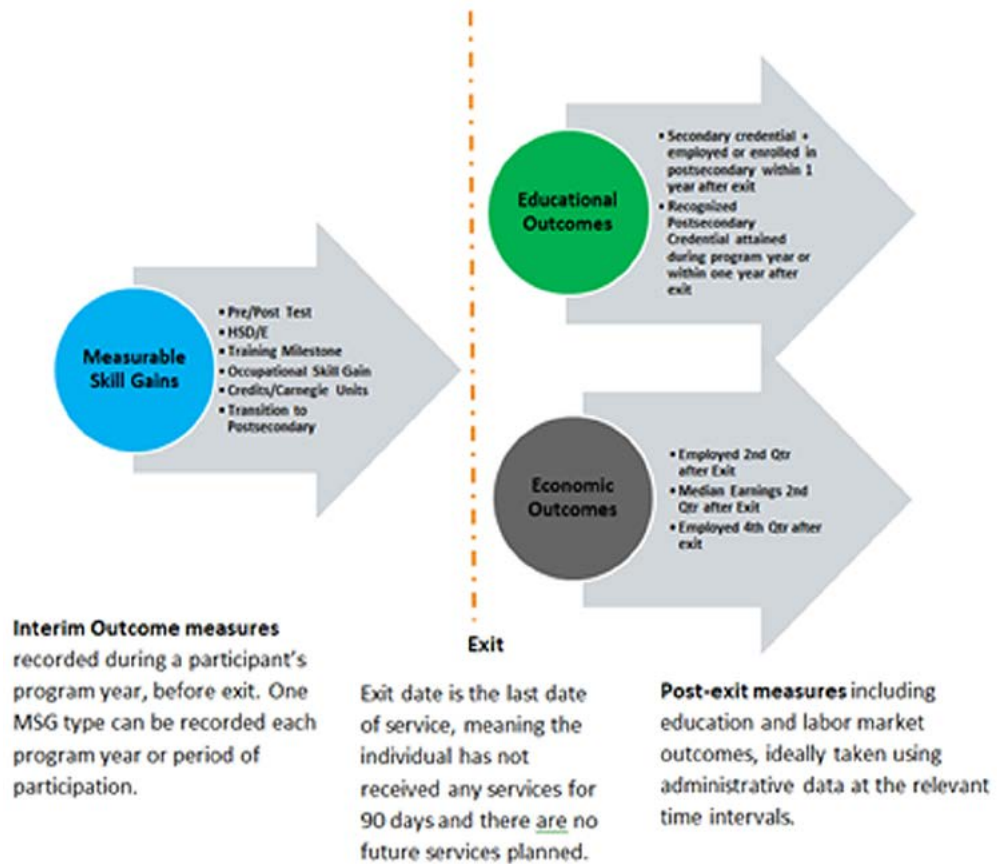
Beyond federal reporting, WIOA performance metrics are showing up in state funded initiatives like California's Adult Education Block Grant and Strong Workforce programs as well as in TANF outcome design strategies (MO example). State and local investment in adult education dwarfs the federal investment. States can choose to add additional performance measures for their funds, but the more alignment we can build, the stronger the structure that will allow educators, workforce development professionals, and social service providers to co-enroll in order to co-invest and leverage one another's strengths while 'getting credit' for performance gains in each distinct funding stream.

Unfortunately, too many adult educators are still unaware of the changes WIOA performance brings to the federal investment and to aligned state accountability. And many educators resist these changes and remain skeptical of the ability of the WIOA performance measures system to tell the story of adult education's impact. I understand that skepticism, but I encourage adult educators to jump into the effort. Join the conversation on how we can show the value of education for those with the courage to enter our programs. And, yes, I mean economic value. The people who come to our programs are making a choice to spend their time and their energy with us, and they deserve to get something of tangible value for that expenditure. I believe quality adult education has economic value for an individual and a family. I believe quality adult education is an anti-poverty and an anti-*intergenerational* poverty strategy. I believe quality adult education builds career pathway education and employment opportunities. As a profession, let us set out to prove that value to all those who invest their time with us and those who invest resources to support us. ⌘

# ALABAMA, PROGRAM FACT SHEET 2014-2015

**Participant Status**

- 5,594 — Employed
- 10,608 — Unemployed
- 3,519 — Not In Labor Force

**Grants**

- Fed $9.34M
- Non-Fed $12.4M

**Percentage of 16-24 in each program**

- ABE 72%
- ASE 22%
- ESL 6%

**Program Enrollment Performance**

- Left before completed
- Improved one or more levels or still enrolled

# WIOA PERFORMANCE METRICS

**Measurable Skill Gains**
- Pre/Post Test
- HSD/E
- Training Milestone
- Occupational Skill Gain
- Credits/Carnegie Units
- Transition to Postsecondary

**Educational Outcomes**
- Secondary credential + employed or enrolled in postsecondary within 1 year after exit
- Recognized Postsecondary Credential attained during program year or within one year after exit

**Economic Outcomes**
- Employed 2nd Qtr after Exit
- Median Earnings 2nd Qtr after Exit
- Employed 4th Qtr after exit

**Interim Outcome measures** recorded during a participant's program year, before exit. One MSG type can be recorded each program year or period of participation.

**Exit**

Exit date is the last date of service, meaning the individual has not received any services for 90 days and there are no future services planned.

**Post-exit measures** including education and labor market outcomes, ideally taken using administrative data at the relevant time intervals.

# GUIDED PATHWAYS, WIOA, AND WASHINGTON STATE'S I-BEST:BLUEPRINTS FOR THE FUTURE OF ADULT BASIC EDUCATION

**William S. Durden**

Washington State Board for Community and Technical Colleges

## ABSTRACT

The guided pathways approach to community and technical college redesign has significant impacts for adult basic education (ABE). The Workforce Innovation and Opportunity Act (WIOA) and Ability to Benefit provide federal support that complements the work being done in Guided Pathways. Washington state's approach to implementing guided pathways with Integrated Basic Education and Skills Training (I-BEST) as a foundational element can serve as a model for colleges and ABE providers nationwide as they address adult basic education and developmental education redesign. Redesign elements include integration and contextualization of adult learning standards and foundational skills instruction; faculty training and support; and navigational services for students. ABE students are a diverse set of students who can help the nation meet its needs for a skilled and equitable workforce, so long as they are given a structured pathway that will allow them to succeed.

Guided pathways effectively launched as a nationwide movement with the publication of *Redesigning America's Community Colleges* (2015). Bailey, Smith Jaggars, and Jenkins identify that their "goal is to conduct research to help improve student success at community colleges" with the added observation that "there is little evidence that the nation is moving toward a widespread and significant improvement in the outcomes of community college students" (2015, i). The book then reviews the current structure of services and makes research-based proposals for improvements that will lead to better student outcomes. The Community College Research Center (2016) provides a succinct summary of the guided pathways approach: "The idea behind guided pathways is straightforward. College students are more likely to complete a degree in a timely fashion if they choose a program and develop an academic plan early on, have a clear road map of the courses they need to take to complete a credential, and receive guidance and support to help them stay on a plan" (p. 1).

These redesign aspects have significant and immediate impacts for adult basic education and English language acquisition (ABE/ELA) programs. Luckily, these impacts align with changes in adult education brought about by the Workforce Innovation and Opportunity Act (WIOA), and with the re-introduction of Ability to Benefit in 2014 that provides Title IV financial aid

to students without a high school credential. Guided pathways can be seen as a college initiative that aligns well with some pre-existing career pathway approaches in postsecondary education. Mortrude (2017) notes that "Guided pathways can fit the Higher Education Act (HEA) and Workforce Innovation and Opportunity Act (WIOA) career pathway definition" if the components of sector focus, career counseling, and specific occupational advancement are addressed. Taken together, the guided pathways approach, WIOA, and Ability to Benefit have created a unique and timely opportunity for adult education providers to meet workforce needs by connecting a diverse student population to the postsecondary credentials needed to secure living wage work in high demand industries. Washington state's nationally renowned Integrated Basic Education and Skills Training (I-BEST) provides a model for how this work can be accomplished and scaled.

## CONTEXTS AND OPPORTUNITIES

Guided pathways is a redesign of the current model for serving students in the community and technical college system. The redesign targets and describes four features of the prevalent "cafeteria" service model: academic program structure, student intake, instruction, and progress monitoring and support. For each of these aspects of the current service model, guided pathways offers research-based strategies that are collectively intended to improve rates of student completion (CCRC, 2015, p. 2).

While each of these design elements are in need of critical attention by adult education providers, of most importance here is the joint focus on assessment and remediation. In the cafeteria model, "assessment is used to sort students" and remediation "is narrowly focused on college algebra and English composition" (CCRC, 2015, p. 2). In contrast, the guided pathways approach uses assessment to "diagnose areas where students need support," and the instruction in these foundational skills is "integrated and contextualized with critical program outcomes" (CCRC, 2015, p. 2). It is important to note that "assessment" here is talking about current and future college placement practices, not formative and summative assessments in the classroom.

Many students on college campuses take adult basic education (ABE), English language acquisition (ELA), and pre-college, remedial, developmental education coursework in English and mathematics. Yet, as has been well documented, "most students who enter developmental education never successfully emerge from it to embark on a college-level program of study" (Bailey, Smith Jaggars, and Jenkins, 2015). Traditionally, assessment is used to place students into ABE programs if they do not have a high school credential or are learning English, and into remedial English or math sequences if they have the high school credential but do not achieve the cut score on a placement exam. Students who go on to earn their high school credential still usually end up placing into these developmental sequences.

In the guided pathways approach, however, assessment is used not to sort students into

different levels of programming, but to identify the crucial areas where a student needs support in their chosen pathway (CCRC, 2015, p. 2). Furthermore, the result of assessment is a focus neither on decontextualized high school completion, nor on remedial sequences in English and math, but on successful completion of a program that leads to a living wage career or to further education. The focus on the end goal rather than on a process of remediation stems from the observation that prior developmental education reforms "have sought to strengthen elements of the prevailing model without challenging that model. But if the problems originate in the model itself, then it is not surprising that the results of these reforms have been disappointing" (Bailey, Smith Jaggars, and Jenkins, 2014).

The structural and pragmatic outcome of this redesign for colleges and adult education providers is that foundational skills integrates with and contextualizes to learning outcomes in the student's selected pathway. ABE and developmental education no longer exist as separate from the design of an academic program. Thankfully, federal and state policies and programs that support the guided pathways redesign already exist. Contextualized instruction can be built and supported from three complementary innovations that have taken place at the federal and state level: the redefinition of adult education in Title II of WIOA and the inclusion of Integrated Education and Training (IET) as a funded activity; competency-based, co-enrolled high school completion; and the Higher Education Act (HEA) provision known as Ability to Benefit.

While low college completion rates were providing animus for the guided pathways approach, skilled labor shortages in the U.S. workforce prompted the federal government to overhaul the Workforce Investment Act (WIA) and establish the foundation of a comprehensive workforce development system. This was in response to statistics like those from Carnevale, Smith, and Strohl (2013), whose research indicated that by 2020 two-thirds of available jobs will require some type of postsecondary education and training—a rising figure (p. 2). There will be fifty-five million job openings through 2020, with total employment set to rise by twenty-four million in the next ten years (p. 2). Yet, at current levels the U.S. will fall five million short in credentialing workers with the skills needed to take these jobs (2013, p. 2). Meanwhile, the Office of Career, Technical, and Adult Education published figures establishing that one in six adults in the United States has low literacy skills, and one in three tests at low skill levels for numeracy (p. 3).

To address these and other challenges, a bipartisan Congress passed the Workforce Innovation and Opportunity Act (WIOA), which President Obama signed into law on July 22nd, 2014. WIOA requires the various funded partners of the old Workforce Investment Act (WIA) to become part of a unified workforce development system. WIOA binds education, training, and employment services together with a set of shared performance indicators and regional planning requirements among the partners. The biggest shift for educators occurs in Title II of WIOA, or the Adult Education and Family Literacy Act (AEFLA).

Traditional literacy efforts under WIA typically focused on teaching "life" skills in the classroom, with a high school completion as a terminal goal for both English language learning and adult basic education students. Through WIOA, however, the federal government redefined adult education as a service approach that transitions students to postsecondary education or otherwise prepares them for living wage work. In order to achieve transition to postsecondary education and training, WIOA directs adult education programs to provide students with the skills needed to be college-ready. This definition closes the gap between completion of a high school credential and enrollment in credit-bearing coursework that leads to a certificate or degree. The high school credential is still a required service under WIOA, but placing students in living wage careers in high demand fields became the new mandatory target.

At the same time, WIOA also placed new emphasis on Integrated Education and Training (IET), a service approach that contextualizes and integrates ABE standards and instruction with career-technical education programs. One of the primary benefits of an IET is that the student does not have to earn a high school credential prior to entrance into the program, nor do they have to test out of ABE. They can earn the high school credential while continuing to learn the necessary English language, mathematical, and employability skills in the context of the training program.

While it is technically possible for students to study for a test-based high school credential in tandem with their postsecondary program, the real opportunity under WIOA's redefinition of adult education and emphasis on IET is to build a competency-based, co-enrolled high school completion program that allows students to count the credits they earn in the postsecondary program toward the completion of a high school credential. In Washington state, the program that provides this option is called High School 21+ (HS 21+). In state statute, each community and technical college also functions as a high school district, thus granting the college the authority to award high school diplomas. Students can get credit for work experience, military experience, and other forms of prior learning.

Ability to Benefit is a final key piece of federal support that colleges and adult education providers have in integrating instruction and contextualizing assessment of foundational skills. Traditional Pell grants require a high school credential. With the Higher Education Act (HEA) provision known as Ability to Benefit, students without a high school credential can receive Pell grants and other forms of Title IV financial aid which, unlike many state grants, provides students financial support for living expenses, allowing individuals to increase the amount of time dedicated to education and training. In order to become eligible, students must be enrolled in a Title IV eligible career pathway program, while the institution must meet a range of criteria, including that the student can earn a high school diploma as part of the program and that the student receives counseling services. Students must also either achieve a cut score on an approved placement exam or earn six college credits. Critical for planning efforts,

then, is how to fund the first quarter of a students' IET program until they can be placed on Ability to Benefit.

With WIOA Title II requirements and Ability to Benefit in place, ABE providers inside and outside the community and technical college system can join guided pathways efforts to integrate and contextualize instruction.  With I-BEST, Washington state offers a blueprint for what these efforts can look like.

## I-BEST: A MODEL FOR IET IN GUIDED PATHWAYS

In the guided pathways approach, adult education merges with other college functions designed to establish where the student is at and what they will need most to be successful. Key intake activities include a basic skills assessment, setting both educational and career goals, the development of an educational plan, identifying whether or not a high school credential is needed, and the creation of a funding package built with the student's end goal in mind. A navigator is assigned, and this navigator serves to assist the student as they move along their pathway toward the certificate and/or degree that will launch or build their career options. Guided college and career pathways are defined, articulated, and funded from the beginning of the student's journey all the way to college certificates and degrees that lead to living wage careers. Students co-enroll in competency-based high school completion programming that allow students to earn their high school diploma while they earn college credit in I-BEST or other IET structures. They learn the metacognitive and foundational math, reading, writing, speaking, and listening skills as well as the employability skills needed to be successful in both the postsecondary classroom and in the workplace.

Integrated Basic Education and Skills Training (I-BEST) is Washington state's delivery model, both for offering IET services in the community and technical college system as well as for how pre-college interfaces with postsecondary programs in guided pathways.  I-BEST is "consistent with the design principles for guided pathways" in that the "the program integrates foundational basic skills" and "enrolls students in a prescribed, whole-program schedule of courses that are aligned with job requirements in related fields" (CCRC, 2015, p 4). The added benefit of I-BEST as the IET delivery model of choice is threefold: 1) it has research demonstrating its results and a positive return on investment, 2) it provides a model for serving all pre-college students; 3) it includes the training and support of faculty in integrating outcomes, developing joint assessments, and building continuous feedback loops to improve instruction.

I-BEST's effectiveness is well-documented and consistent. Wachen, Jenkins, Belfield, and Van Noy (2012) note that I-BEST "approximately equal[s] the additional costs incurred by providing the program" (p. 23). Washington state's own research determined that students in I-BEST gain an annual return on investment of 12.4% per year for students attaining a minimum of one year of college credit plus a workforce credential, with the taxpayer earning a 4.1%

return on investment for the cost of providing I-BEST (SBCTC, 2013). The reason I-BEST is worth the investment is because it produces results. In a long-term net impact study published in 2016, "I-BEST exiters gain[ed] substantial labor market outcomes" with employment rates rising by 12.3%, average hourly wage increases of $1.61, and average hours of work per quarter increased by 65 hours (Hollenback and Huang, 2016, p. 118-119). I-BEST continues to scale-up in Washington state, serving 4,891 students in over 250 approved pathways for 2016-17 (an 8% increase in headcount over the prior academic year), with those students earning an average of 4.6 Student Achievement Initiative (SAI) points each (SBCTC, 2017). This more than doubles the average points per student of any other student type in the community and technical college system (SBCTC, 2017). SAI is Washington state's nationally recognized performance-based funding model.

Since its initial inception as a short-term certificate program for upper-level ABE/ESL students, the I-BEST model has evolved and updated to include more students and more options. In 2010, I-BEST took a significant leap forward with the expanded "Prof-Tech" model that contextualizes developmental education requirements in an accelerated outcomes course to workforce content in a longer-term certificate or degree pathway that allows students to learn the English and/or math requirements as part of their pathway. Valenzuela (2012) demonstrated that I-BEST students learning math contextualized to their pathway out-performed students in the traditional remedial course (p. 56).  In 2011, the model expanded further to include academic/transfer pathways, which are now available in nearly half of Washington state's community and technical colleges. Emory, Ramyond, Lee, and Twohy (2016) found that Academic I-BEST students achieved an acceleration rate of 1.93, "indicating that the program reduced students' time in the writing sequence by nearly two quarters" (p. 48). Finally, I-BEST is expanding into more options for lower-level ABE/ESL students with the I-BEST at Work model, which places an adult education instructor in a workplace with a company trainer to provide team-taught incumbent worker skills training. Students are then encouraged to continue their education at a community and technical college. These expanded models can serve not only all ABE/ESL students but also developmental education students, making I-BEST a blueprint for how all students needing to complete pre-college coursework can be served in the guided pathways approach.

In the guided pathways approach, instructional redesign also includes a call to train and support faculty in assessment and in using assessment results to inform continuous cycles of improvement for instructional design and delivery. Through the I-BEST Team Teaching Cadre, the Washington State Board for Community and Technical Colleges (SBCTC) continues to offer several trainings yearly, both in-state and out-of-state, to support I-BEST programming nationwide. Faculty receive training and support in the essentials of team-teaching collaboration that includes the contextualization of adult education standards and developmental education outcomes to the outcomes in the pathway program, as well as training and practice in contextualizing and co-planning assignments and assessments. In this

way, I-BEST meets both the guided pathways approach to support faculty in assessment and improvement, and the WIOA IET mandate that an IET have a single set of integrated learning outcomes.

Finally, guided pathways calls for significant progress monitoring and support for students. These navigational supportive services provide critical student feedback on progress with coaching and mentoring to retain the student and guide them to completion. In 2017 SBCTC created the I-BEST Navigator Cadre to support the professional development needs of an integrated approach to navigational services that meshes the highly supportive I-BEST environment with the larger supportive services redesign offered by the guided pathways approach. Trainings are now being conducted statewide to support and define the role of student navigators as they assist students with everything from intake and assessment to funding and co-enrollment in other services.

## CONCLUSION: A DIVERSE AND EQUITABLE WORKFORCE

With the right supports in the right places, all students can be successful in college-level programs, oftentimes years sooner than they would be in a traditional paradigm that insists on decontextualized remediation. The integration of adult education into guided pathways work is, at its core, about equity, diversity, and inclusion. In Washington state Prince, Bloomer, and Kaikkonen (2014) discovered that adult education students are more diverse than current mainstream college students and ABE as a whole is "a particularly important portal into community and technical colleges for groups under-represented in attainment in the state population" (p. 12). Immigrants and refugees are most likely to begin their college and career journeys in adult education (p. 13). And students in adult education are more likely to have low socioeconomic status regardless of race or ethnicity (p. 13). If colleges are going to fulfill their mission areas to serve their regions and connect students with real educational and economic opportunities as well as meet employer needs, they will have to include adult education in their planning and redesign efforts. I-BEST, backed by WIOA and Ability to Benefit and supported by a high school completion program like HS 21+, provides one powerful option for doing so. ⌘

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COABE
COALITION ON ADULT BASIC EDUCATION

# TECHNOLOGY, INNOVATION, AND ADULT CAREER PATHWAYS

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The Workforce Innovation and Opportunities Act (WIOA) not only legislated a collaborative structure crucial for implementing adult career pathways (ACP) programming, it also clarified the role of technology in Adult Basic Education (ABE). New language embedded in Title II, the Adult Education and Family Literacy Act (AEFLA), resolved any ambiguity around the necessity for ABE to strengthen efforts in technology integration and distance learning. This made it clear that the very legislation designed to support ACP programming also specifically called for the use of information and communication technologies (ICTs) for the improvement of teaching, learning, professional development, productivity, and system efficiencies (WIOA, 2014). This public affirmation followed years of the development of innovative ACP programing for career-minded ABE learners across the country (e.g., educational programming developed as part of the iBEST initiative in the state of Washington[1] and MN FastTRAC in Minnesota[2]). However, just as ABE practitioners began to better use ICTs and to support digital literacy skill development, ICT innovation in the world of work moved even more quickly. The result is that employers are increasingly looking for potential employees who not only possess digital literacy skills but those who can nimbly apply those skills as they take on tasks requiring problem solving in the workplace.

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1  https://www.sbctc.edu/colleges-staff/programs-services/i-best/
2  http://literacyactionnetwork.org/sites/default/files/Minnesota%20FastTrac%20Handout.pdf

This technological reality demands that ACP programs provide access to, and require the use of, relevant technologies in educational programming. Toward this end, ABE must be present in policy discussions that shape the work, particularly concerning 1) innovation in ACP programming, 2) partnerships to support such innovation, and 3) strategies that extend programming options to learners not currently served in ACP programs. These issues, along with some exemplar initiatives showcasing how new technologies can support ACP, are discussed below.

## INNOVATION IN THE ACP PROGRAMMING MUST MATCH INNOVATION IN THE WORKPLACE

21st century work is defined as much by its mutability as by any other characteristic. Consider this example: a bean picker at a canning facility was once part of a team of workers standing at a conveyor belt and picking off nonconforming beans, so they did not end up in the canned product. That position is now filled by a technician who monitors a computerized camera, which recognizes nonconforming beans and then triggers a blast of air to expel them from the conveyor belt. Will this same job be around in 10 years, when artificial intelligence (AI) has advanced to the point that the machine can monitor, reset, and perhaps even repair itself? There are already examples of AI reshaping similar work. For example, commercial cleaning services might now employ technicians to coordinate robotic vacuum cleaners rather than a crew of workers, and salespeople at a leading retail store now use handheld devices to receive instructions from AI-enabled robots on where to move or relabel products.

These examples suggest that for ACP programming to remain relevant, instruction in the use and application of ICTs is critical. A framework for creatively employing ICTs in ACP programming exists in current federal policy guiding ABE, the Integrated Education and Training (IET) model called for in WIOA and defined as

> …a service approach that provides adult *education and literacy activities concurrently and contextually with workforce preparation activities and workforce training* for a specific occupation or occupational cluster for the purpose of educational and career advancement [emphasis added]" (Final WIOA regulations at 34 CFR §463.35) (Mortrude, 2016, p 2).

Programs working with learners at all levels should integrate ICT use as part of the workforce preparation and training activities articulated in the IET approach. This differs depending on the students' levels.

## EMBEDDING DIGITAL LITERACY SKILL DEVELOPMENT IN IEL/CIVICS PROGRAMMING

In Integrated English Literacy and Civics Education (IEL/Civics) programming, ICT use might fill the requirement of "workforce prep and training," where learners develop digital

literacy skills while engaging in English language learning and civics education. For example, in a bridge-level manufacturing program in Minneapolis,[3] students develop English language, literacy, and math skills relevant to employment in manufacturing. At the same time, they focus on digital literacy skills to support career exploration and job search activities.

Washington State Community and Technical Colleges' Integrated Digital English Acceleration (I-DEA) Program[4] is another example. In the 32-week program, students complete activities that simultaneously teach English language and literacy while learning relevant college and career-readiness skills such as information literacy, job exploration, and interview skills. In this flipped model, students also strengthen digital literacy skills; students complete online work to learn concepts before coming to class, where they engage in application and practice activities and have the opportunity to get help with technical challenges they encountered working online.

## HIGHER LEVEL LEARNER APPLICATION OF DIGITAL LITERACY SKILLS

Learners with higher academic and language skills, who perhaps have already established proficiency with foundational digital literacy, should be given support to utilize their skills as they complete tasks in their ACP programming at the bridge or postsecondary level. This support might involve explicit instruction for determining how to effectively use technology for solving problems. Such a process is laid out in PIAAC's Problem Solving in Technology Rich Environments (PSTRE) framework.[5] Examples of classroom activities that teach the steps of this process can be found in *Using the PIAAC Framework for Problem Solving in Technology-Rich Environments to Guide Instruction: An Introduction for Adult Educators*.[6]

Along with receiving instruction for problem-solving, students benefit from instruction making use of technologies used in the actual work environments. Such relevant programming requires investment in ICT resources and infrastructure (Carter, 2017; Jacobson, 2012). ABE programs cannot do this work without close collaboration of postsecondary institutions involved with higher-level training and employers who might partner with them.

## ABE AS A PARTNER IN ACP WORK

To be sure that relevant technologically-rich ACP programming is available, ABE leaders need to be present and in dialogue with 1) WIOA partners who can advise on how to align no-

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3  http://atlasabe.org/resources/adult-career-pathways/technical-fields/english-for-manufacturing-and-trades
4  https://www.sbctc.edu/colleges-staff/programs-services/i-dea/default.aspx
5  http://www.oecd-ilibrary.org/education/literacy-numeracy-and-problem-solving-in-technology-rich-environments_9789264128859-en
6  https://static1.squarespace.com/static/51bb74b8e4b0139570ddf020/t/589a3d3c1e5b6cd7b42cddcb/1486503229769/PSTRE_Guide_Vanek_2017.pdf

cost to the participant instructional programming with labor market and employer needs and 2) developers of learning technologies with the capacity to create the resources and learning tools needed by adult learners.

## COLLABORATION TO ALIGN PROGRAMMING WITH DEMAND

One example of successful alignment of educational opportunities with labor market demand is found in Rhode Island, where an employer intermediary informed the development of a new career pathway program. The Rhode Coder and Data Navigator programs at the Providence Public Library[7] allow adults to explore coding and data analytics, build skills, and provide next steps to more advanced training. Findings from initial implementation suggest that, ideally, such programming offers open admission, is free to the public, and begins with on-ramp classes followed by employment a little further in the future. This allows participants to explore new career fields before committing resources and time.

Clark County, NV, is creating new partnerships by relocating services traditionally provided through the Workforce Development Board's American Job Center (AJC) to the public library system. Currently, three Clark County libraries have co-located services to offer both adult education and workforce training services to everyone in the county. Co-location models such as these illustrate the potential benefit of sharing student data, accommodating the needs of students who change locations, and meeting the needs of all adult learners on a single curriculum delivery platform (i.e., an online curriculum that includes a robust reporting system to monitor student academic progress).

## COLLABORATION ON SCREEN-IN HIRING

New tech-enabled assessments allow employers to screen job applicants based on simulated performance of relevant tasks rather than screening only credentials. ACP programs can assist employers in developing relevant assessments, just like the Northstar Digital Literacy Assessment[8] has for measuring job applicants' computer skills. ACP programs can also inform participants of what competency-based assessments to take to qualify for jobs that may have previously required credentials.

Through TalentABQ,[9] the City of Albuquerque, the New Mexico Department of Workforce Solutions, and Central New Mexico Community College partner to advance Albuquerque's workforce and help employers find talent using skills-based hiring. TalentABQ assesses and builds job seekers' qualifications and the credibility required to access a new job by measuring core foundational skills that are found across 95 percent of all jobs in the U.S. Leveraging

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7  http://www.provlib.org/rhode-coders-clubs-data-navigators
8  https://www.digitalliteracyassessment.org/
9  https://www.talentabq.org/about/

the Core Score online technology for assessing soft skills, non-traditional job candidates demonstrate their job readiness to employers who may otherwise have overlooked them. Employers identify new talent through a "screen-in" process, rather than missing a great candidate through a traditional, degree-oriented "screen-out" method.

Technology algorithms can also assist job seekers in understanding what degrees may be worth pursuing. An open source database called Credential Engine[10] allows job seekers, employers, and educators to easily search, aggregate, and compare over 1,500 employment credentials (Trumka & Dimon, 2017). The registry details which employers accept certain credentials, what type of education and training is needed to receive the credential, and where job seekers can get them. ACP program providers, minimally, should understand and introduce these "screen-in" technologies to learners and work to build partnership with their developers to ensure that ACP programming includes, or at least leads up to, recognized credentials.

## COLLABORATION TO DEVELOP ICTS FOR LEARNING

Finding relevant online learning resources for learners to use in ACP programming can be a challenge. Online environments might be confusing for learners new to computers; content, language, and graphics developed for younger students might be off-putting to adult learners; or literacy levels required for successful use might be too high. Working with developers to overcome these issues is critical. Partnering with developers can help solve this problem.

In Minnesota, Pine Technical Community College, in partnership with Johnson Center for Simulation[11] and Health Force MN,[12] collaborated to meet the need for Certified Nursing Assistant (CNA) students to build soft skills required to provide quality patient care. As soft skill development was not a component of the CNA exam, many ACP programs did not offer direct instruction. The result of this collaboration is the CNA Game,[13] a virtual reality (VR) where CNA students are walked through a series of scenarios that push them to address affective and non-technical aspects of CNA work. The game is accessible to learners with basic computer skills and includes scaffolding for learners with lower literacy proficiency. A glossary of terms is presented at the beginning of each scenario, which employs audio, text, and semiotic cues that reflect the real world (e.g., spaces and objects commonly found in care facilities depicted in the VR). Programs can use the game to ensure that ELL/ASE learners develop soft skills as they build academic and English language skills.

## MAKE THE MOST OF ICTS TO EXPAND COMMUNITY OF LEARNERS

The strategies described above are important, but just a start. Traditional ABE

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10  https://www.credentialengine.org/about
11  http://www.johnsonsimcenter.com/
12  http://www.healthforceminnesota.org/about/
13  http://cnagame.org/

programming, including its ACP options, reaches only 11 percent of the 36 million U.S. adults that have basic literacy needs (OECD, 2013). Expansion of ACP to more learners requires policy shifts in assessment and enrollment plus building new partnerships to on-board learners who have not been drawn to ACP.

One example of a new partnership includes the Minnesota libraries' Better Together initiative,[14] which leverages collaboration in support of digital literacy programming for adult learners. Through Better Together, ongoing networking has strengthened relationships amongst participating organizations, including libraries, adult education, and workforce organizations statewide. The impact is a delivery system for digital literacy programming available to learners outside of the formal ABE system, yet aligns with workforce demands and prepares learners for future enrollment in ABE.

Providence Public Library's Rhode Island Family Literacy Initiative (RIFLI)[15] coordinates educational services for immigrants in the areas of English language and literacy, technology and math at public libraries, public housing, public schools, the workplace, and American Job Centers. RIFLI's person-centered approach takes services to where they are needed, employing open and flexible options where adults can make choices about their learning paths. Learning Lounges,[16] where adults can get free help with their education and employment goals in a technology-enabled, welcoming environment, is an example of this approach. Through its Peer2Peer University* Learning Circles, RIFLI provides internet-based learning for students on waitlists. Learners work independently with a tutor and in support of each other, until a place opens for them in class (Sharma, 2017). Flexible onboarding helps reach learners who may not have otherwise found ACP learning opportunities.

In California, the California Labor Federation's Mobile Up Project[17] brings basic skills instruction and career education coaching services to approximately 400 underserved Limited English Proficient service workers entirely by cell phone. Cell-Ed's[18] interactive text and audio phone lines are used to teach English and basic skills to hundreds of low-wage janitors, long-term care, and other low-wage service workers who may have no to low digital literacy and internet access. This anytime, anywhere learning makes learning accessible to a demographic that cannot attend regular classes as they juggle multiple responsibilities and irregular work-shifts. These 'non-traditional' students are supported by bilingual, mobile coaches who track their progress, provide motivation, make referrals to next-step programs or wrap-around services, and coach students on reaching their career or life goals. Tech innovations like Cell-Ed and "out of the box" program design such as Mobile Up are needed if the workforce

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14  www.mnliteracy.org/educators/better-together-strengthening-adult-learning-communities

15  http://www.rifli.org/

16  http://www.provlib.org/learning-lounge-ppl

17  http://mobileupproject.weebly.com/

18  https://www.cell-ed.com/adult-education/

development system will ever reach, train, and offer career advancement coaching to the more than 89 percent of lower-skilled adults left behind by traditional education service models.

## CONCLUSION

From the Adult Literacy XPrize testing apps for adult basic education, to companies competing to develop algorithms to assess skills and match potential employees with employers, there is increased attention on both the need and the potential of technology to prepare lower skilled adults for higher education and employment. At the same time, conversations on the "Future of Work" underscore the need to help our current and future workforce develop coding and other higher technology and critical thinking skills to remain relevant and employable. For ACP programs to sustain their relevance in this work, ABE leaders and other ACP stakeholders must take seriously the need to ensure the use of relevant technologies in programming. By doing so, they will better ensure that the programming adequately prepares the broadest range of possible learners for employment all along their chosen pathway. ⌘

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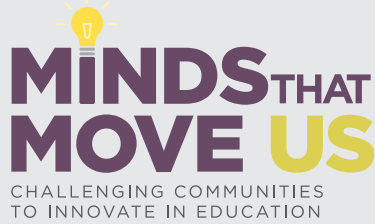
# The Adult Career Pathway Challenge: Fact Sheet

**MINDS** THAT **MOVE US**
CHALLENGING COMMUNITIES TO INNOVATE IN EDUCATION

## WHAT IS MINDS THAT MOVE US?

We believe that to collaborate is to innovate—and great innovation takes diverse minds to solve complex community issues. This is the founding philosophy behind the Minds that Move Us initiative, a challenge to communities to design innovative education and training models that create social equity and economic mobility for all. Driven by the market demands of business and industry as well as the needs of learners, these challenges engage the bright minds of public/private partners to examine the current education and training gaps within their communities and then create models that can be scaled and replicated within various industries.

## WHAT IS THE ADULT CAREER PATHWAY CHALLENGE?

The first Minds that Move Us challenge is to design career pathway innovations for adult learners who do not have any formal postsecondary training or education and lack the skills necessary to put themselves on a career path, especially those with disabilities. Open to communities across the United States, this challenge encourages creativity, collaboration and out-of-the-box ideas as solutions to pressing employment challenges and includes a design camp, festival, and coaching to assist in the development and implementation of promising practices. Applications for this challenge are due Friday, June 29, 2018. Attend our webinar on Friday, June 8th at 2pm EST to learn more.

## WHAT ARE COMPONENTS OF THIS CHALLENGE?

Ten selected community teams will participate, at no cost, in the following:

**Design Camp** – A two-and-a-half day experience to hear from subject matter experts about next generation career pathway design features and approaches that: 1) stack and aggregate learning experiences at various levels of education and industry credentials; 2) use prior learning assessments, competency-based assessments and/or micro-credentials; 3) provide academic and wrap-around supports; and 4) incorporate universal design principles to ensure adult learners with visible and invisible disabilities can benefit from programs.

**Ongoing Coaching** – Teams are slated to receive 24 hours of coaching over three years to assist in designing their programs.

**Career Pathways Festival** – A two-day Festival where teams will pitch their programs to a distinguished panel of judges and a live, virtual audience including funders that may consider offering pre-commitments to provide implementation funding for ideas they want to support.

To download an application or for more details go to:
**MindsthatMoveUs.org**

# MINDS THAT MOVE US
## CHALLENGING COMMUNITIES TO INNOVATE IN EDUCATION

### ADULT CAREER PATHWAY CHALLENGE KEY DATES:

**6/8/18**
Webinar

**6/29/18**
Application Deadline

**Week of July 16th**
Winners Notified

**Week of July 23rd**
Submit Travel Plans

**Week of August 6th**
Design Camp

To download an application or for more details go to:
**MindsthatMoveUs.org**

## WHY SHOULD COMMUNITIES PARTICIPATE?

Three winners will be selected for a $100K prize each for the first Minds that Move Us challenge which focuses on adult career pathway innovations. Why this particular challenge? Too many adults in the United States do not have the foundational skills necessary to further their education, pursue training opportunities, and improve their skill development. As a result, they are unable to obtain and/or further pursue meaningful and financially viable careers. If you know these challenges exist in your community, this is your opportunity to bring together a diverse team of stakeholders to spark innovation in education, gain national recognition, learn from coaches and subject matter experts, and garner funding for your work. All teams who submit an application will be invited to our Virtual Community of Practice to participate in briefings and convenings to highlight best practices and lessons learned.

## WHO PARTICIPATES IN THE ADULT CAREER PATHWAY CHALLENGE?

There are multiple stakeholders within a community that are passionate about solving workforce and education issues, and the Minds that Move Us initiative engages a wide range of public/private partners to collaborate around any given challenge including:

**Educators**
(Postsecondary, adult)

**Community-Based Organizations**

**Workforce Development Boards**

**Business & Industry**

**Governmental Agencies**

**Adult Students**

### HOW DO I LEARN MORE ABOUT THE CHALLENGES?
To download an application or for more details go to
**MindsthatMoveUs.org**

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Engage – Educate – Excel

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