



A Part of World Education, Inc.

Integrated Education and Training:

Implementing Programs in Diverse Contexts



Authors

Andy Nash, Director, New England Literacy Resource Center

Ellen Hewett, Director, National College Transition Network

Acknowledgments

Our thanks go out to the eight programs that generously contributed their time and creative thinking to this project.

- **Genesis Center (Providence, RI):** Tyla McCaffrey-Pimentel
- **Eastern Aroostook Adult and Community Education (Caribou, ME):**
Danny MacDonald and Lyn Michaud Smith
- **Asian-American Civic Association (Boston, MA):** Maureen Moreira
- **Community Action, Inc. of Central Texas (Austin, TX):** Jon Engel and
Francesca Ramirez
- **Johnson County Community College (Johnson County, KS):** Susan Johnson
- **LaGuardia Community College (Queens, NY):** Amy Dalsimer
- **Southwest Regional Adult and Continuing Education (Southwest VA):**
Linda Allen and Karen Gent
- **Northeast Mississippi Community College (Booneville, MS):** Pamela Meeks

September 2017

Table of Contents

Introduction.....	1
Health Care and Culinary Arts Programming in the Community.....	3
Addressing Cross-Industry Needs in a Rural Community.....	9
Building Maintenance Training: A Perfect Fit for a City.....	15
Entrepreneurship: Building on the Expertise of the Immigrant Community.....	21
Collaborative Curriculum Planning for an IET Program.....	27
Intensive Onboarding to Ensure Student Success in an IET Program.....	31
PluggedInVA: A Statewide IET Model.....	37
Building Capacity for a Rural IET Program.....	43
Conclusion.....	47
Resources.....	48

Introduction

The federal Workforce Investment and Innovation Act (WIOA) has changed the landscape of adult education, focusing the field squarely on workforce development outcomes and programming that supports the integration of education and training (IET) and career pathways. This guide emerged from efforts to learn how eight adult education programs around the country have been integrating education and training. Many of these programs have been around since long before WIOA and are making adjustments to conform to the new requirements; others are using WIOA as an opportunity to forge new workforce collaborations. Across the board, there is much to learn from what they are doing effectively, what hasn't worked well, and what they are thinking about going forward. (See also the webinar series about these programs: [*Building Integrated Education and Training Programs: Tested Strategies and New Endeavors*](#)).

Despite their wide range of contexts, all IET programs face some common realities. One is that the world of work is constantly evolving. New jobs require updated technological skills and a comfort with digital tools; employers are modernizing

with green technologies and practices; and industries may rise, fall, or relocate. IET programs need to be nimble in responding to these realities. Illustrated in this guide are programs that continue to revamp their services, employ sectoral approaches that focus on technical skills that transfer across job categories, or rotate their job trainings so that they don't over-saturate the market with workers who are then left without strong employment options.

Another universal reality for IET programs is that this integration of services requires building relationships with and engaging new partners, and collaborating in new ways. The expanded team involved in such a collaboration needs to figure out how to work together and best utilize the strengths of each partner. The profiles in this guide offer a wide array of approaches both in who the adult education programs partner with (CTE departments within a college, the vocational technical high school, WIOA-authorized training providers, or in-house technical training instructors) and how they collaborate in those partnerships to develop an integrated curriculum.

In some programs, basic education and technical training instructors are given dedicated time to co-develop an integrated curriculum, which may include team teaching. In others, the ABE instructor visits the technical classes to get a firm grounding in what's being taught and how to support students with the requisite language, math, and technology skills. In all cases, programs work to involve employers to the greatest extent possible. In addition to conferring with employers about the content and design of the curriculum, programs invite employer participation in mock interviews, evaluation of student presentations, worksite visits, internships, and on-the-job training programs. The closer the collaboration between educators and employers, the better students are prepared for the available jobs and the better employers understand the strengths and capacity of adult students.

Finally, several of the programs profiled here have developed a design element that enriches their IET programming and contributes to the collective knowledge of the field. For example, LaGuardia Community College's College and Career Readiness Institute's in-depth "Vestibule" process for onboarding students reinforces the importance of preparing students to succeed. At the other end of the IET process, PluggedInVA's capstone projects, where students demonstrate their ability to apply their skills to real technical problems, remind us how important it is to apply learning to independent problem-solving.

From this array of IET programs - new and well-established, rural and urban, ABE and ESOL - we hope to provide inspiration and models to adult educators as they plan or strengthen their own IET programs.

Health Care and Culinary Arts Programming in the Community

This program profile is based on an interview with Tyla McCaffrey-Pimentel, Adult Services Coordinator, Genesis Center, Providence, Rhode Island.

What is the community context you are working in?

Rhode Island has a large Latino population, many of whom are aging, so there is a need for bilingual, culturally sensitive healthcare workers. It's a good field for our learners because many of them have experience caring for others, and can therefore build on existing skills and knowledge. We offer job training in health care because it is also one of the job sectors with the highest labor market demand in the state. There are jobs available. Health care offers the benefits of a career ladder where participants can start working at the lower rungs, continue their education, and work their way up. We've found that employers who have a high demand are more willing to work closely with us to provide internship and employment opportunities because they know that we can help their businesses.

The second industry that we focus on is culinary arts. Providence is known for our

restaurants and our food scene. Like health care, cooking and food preparation is an area where our program participants have the personal experience that matches well with the local labor market.

What is your institutional context?

Genesis Center provides adult education, primarily English for Speakers of Other Languages (ESOL) and job training to around 700 adults every year. We serve a very diverse, mainly immigrant population. More than 70 percent of our participants are Latino and more than 70 percent are women. Our training participants are all documented immigrants because for them to enter employment with one of our partners they need documentation that allows them to work in the United States. Our goal is to help our learners "get their foot in the door" of an industry where they can start a good career.

Genesis Center
Culinary Arts
students



How did the IET program develop?

For years, we have offered [job training in culinary arts and health care](#), two of our state's three largest industries. We developed these WIOA eligible job training programs because we couldn't find many good training resources for the community that we serve. Many of our students lack the English proficiency or the credentials that they need to qualify for other available training programs (IT and advanced manufacturing, for example). To support our learners in entering the workforce, we developed training programs that match the needs of employers with the strengths and abilities of our learners. Our vocational instructors have always integrated basic skills and work readiness instruction into their classes to support learners with limited English proficiency, but in the last two years we have refined those components in order to better align with WIOA.

How do you recruit and onboard students?

We recruit training participants from our ESOL classes, friends and families of our graduates, and other low-income unemployed or underemployed residents in our community. We start with a thorough intake process where applicants are assessed and interviewed by our staff. If an applicant meets the criteria for employment in the field and has supports in place to complete the training, they are accepted and invited to attend an orientation. At the orientation, they complete activities with their vocational instructor, ABE/ASE instructor, financial coach, and job coach.

Participants are accepted into the Homemaker/Health Services program if they score 208 or higher on the CASAS reading assessment, can complete an interview in English with our enrollment and workforce staff, and have a clean background check. For the Culinary Arts program, applicants need a 215 CASAS reading score or higher. We do not require a high school credential for either program.

What is the design of your IET program?

Our Homemaker/Health Services program is an 11-week, full-time (30 hours/week that includes classroom and internship hours), entry-level training program that prepares participants for employment as a homemaker, or in housekeeping or food service in an institutional healthcare setting. Participants complete eight weeks of classroom training where they learn about infection control, professionalism, and financial literacy. Because the class is geared toward adults with learning difficulties and lower literacy skills, our instructor also spends a good amount of time building our participants' confidence and working on goal-setting for continued education. During training, learners earn certificates in First Aid and CPR as well as the basic ServSafe Food Handler Certificate. If they successfully complete the classroom component, then we arrange for an internship placement for each student with an employer partner. They finish after completing a three-week internship with a local health care provider, and we continue to work with them to help them find employment.

Our Culinary Arts program, on the other hand, is a 13-week, full-time training that prepares participants to enter the food industry. The curriculum is intensive and the class is taught by a professional chef. The class is mostly hands-on, with participants preparing daily meals for our students and childcare center; trainees also prepare food for events for Genesis Center or other local organizations. At the end of the classroom training, participants test for the ServSafe Food Safety Manager Certificate and complete an internship at a local restaurant.

How do you integrate education, training, and work readiness?

Participants in our training programs receive three integrated components – occupational training, contextualized adult basic education, and Financial Opportunity Center support services. Genesis Center offers all three of these components in-house, and through an integrated approach. The vocational instructors use occupational content to teach contextualized reading, writing, or math. For instance, the culinary instructor teaches fractions and proportional reasoning so that trainees learn how to measure and scale recipes, and the healthcare instructors teach units of measurement and measurement conversions so that trainees are familiar with handling medication dosages. There is daily common planning time available for the vocational and basic skills instructors to discuss the curriculum and the needs of the current class, and so that the instructor can incorporate authentic workplace materials into the lessons. In addition, the basic skills instructor has a scheduled time each week when she visits the vocational class to provide targeted instruction, particularly around industry-specific vocabulary development, foundational skills required to perform job tasks, using technology, and critical thinking. She also takes advantage of this time to talk with the class about what they're studying and where they feel that they need help. Finally, our Financial Opportunity Center staff, including our employment coach and financial coach, spend up to three hours each week working with the classes on developing a good resume, preparing for job interviews, and participating in financial literacy workshops and individualized financial coaching.

“Our employer partnerships often start with trying out an intern at a worksite. Sometimes a board member or staff member with an employer contact makes the initial connection. More frequently, it happens that a staff member is at a healthcare-related meeting or conference and makes a connection with someone who works in the healthcare field.”

The employment coach also coordinates the internship placements, develops and maintains employer partnerships, and communicates with employers regarding participant internship performance and the employer’s hiring needs.

How do you support English language learners to succeed?

Our ESOL lessons are developed to meet the needs of participants in each individual class, so the curriculum varies depending on the group of learners. Because our program is aligned to employment goals, students are engaged and immersed in learning English and using it all the time, which accelerates their learning. When an ESOL applicant does not achieve the minimum CASAS score required to enroll in a training program, they return to their ESOL class for continued instruction and are eligible to reapply for the next training cohort. In response to WIOA and our program’s strong focus on healthcare job training, we are considering the potential for an ESOL class with a focus on healthcare careers. A class such as this would create a bridge between our ESOL classes and the Homemaker/Health Services program, and allow ESOL learners to start preparing for a healthcare career while they acquire English proficiency. At present, they continue to acquire English in their general ESOL class until enrollment is opened for the next training cohort.

How do you develop employer partnerships?

We have developed employer partnerships in every way imaginable. Our employer partnerships often start with trying out an intern at a worksite and then building the relationship from there. Sometimes a board member or staff member with an employer contact makes the initial connection. More frequently, it happens that a staff member is at a healthcare-related meeting or conference and makes a connection with someone who works in the healthcare field. Many of our employed participants are hired at their internship site, so these relationships have been important to our learners’ success. We are constantly modifying the curriculum to address feedback from employers who are hosting interns so that our trainees are prepared to perform on the job. Partnerships have also positioned us well for new funding opportunities.

Last year, we found ourselves in a bind when we had more medical assistants in our class than our partner could accommodate for internships, so we made cold calls to local medical offices to ask if they’d be willing to host interns, and that yielded several new partnerships. It can be difficult to find the right person to talk with, and they are not always interested in partnering, but we often have luck if we can connect with the Human Resources Department or an office manager.

How do you assess the effectiveness of your program?

Areas where we have seen the most improvement are in student retention (near 90 percent) and starting wages, particularly for our healthcare graduates after we developed a relationship with a local hospital group (up 12 percent for Health Service trainees to \$10.76 and up 17 percent for Medical Assistants to \$13.51). The hospital pays higher wages than long-term care facilities, offers more full-time opportunities, and offers more benefits. In addition, our employment rates exceed 80 percent. This doesn't take into consideration the graduates who enrolled in a higher-level training or are in the process of preparing for the GED. We follow up with graduates every other month for a year following graduation to track outcomes, prevent backsliding, and provide any necessary support.

What's ahead for your IET programming?

We are looking at expanding our IET program offerings. Currently in the works we have a contextualized Certified Nursing Assistant training opportunity, and are working on the ESOL class I mentioned earlier for English language learners who want to prepare for employment in the healthcare field. We are also developing relationships with healthcare apprenticeship programs to extend and deepen our training. On a broader scale, Genesis Center is working with the city of Providence and several training and employer partners to improve the local healthcare workforce development system, including the development of career pathways, aligning programs with employer needs, and improving the intake and referral process on a broader scale.

How do you fund the IET program?

Securing funding for our programs has not been easy. We put a lot of time and effort into writing proposals. We are funded by several small foundation grants and by larger grants from state and federal sources that supplement our adult education funding: local Workforce Development Boards, the Rhode Island Department of Labor, TANF, and a federal Social Innovation Fund grant. We are able to attract the most support for our funding applications when we have strong employer buy-in. Our state offers multiple funding streams to support workforce development programs, so there have been good grant opportunities for our program in recent years.

Addressing Cross-Industry Needs in a Rural Community

This program profile is based on an interview with Danny MacDonald, Director, and Lyn Michaud Smith, Academic Coordinator, Eastern Aroostook Adult and Community Education, Caribou, Maine.

What is the community context you are working in?

Career pathways for rural programs like ours in northern Maine present multiple challenges, including the sheer distance between employment and academic opportunities, an aging or older population and a fluctuating economy. As well, the jobs available along career pathways require more complex skills than what's needed for entry-level jobs. Compounding these challenges, nearly ten percent of the region's population has limited literacy, and our unemployment rate is typically double the state average. These factors require programs to be agile enough to adapt to the changing employment and training needs, but still hold true to their mission of building basic academic skills.

What is your institutional context?

Eastern Aroostook Adult and Community Education has a long history of delivering

workforce trainings such as ServSafe, WorkReady, Business Office and various Career and Technical Education (CTE) programs, and working with other adult education programs in the county to provide virtual trainings for regional cohorts. The Health Careers program has collaborated closely with business partners and training providers for many years to offer workforce development training for Personal Support Specialists (aides who work with older adults and persons with disabilities); Certified Nursing Assistants (CNA) and CNAs certified for medication administration (CNA-M). This program evolved from a solely CNA-specific training to one that includes concurrent academic development, college transition, workplace skills, and now an extended on-the-job-training (OJT) component that goes beyond the traditional clinical internship, and is a model for our career pathways work.

Since 2012, all of our ABE/ASE coursework has been contextualized based on a learner's chosen career or has included career exploration. Our instruction is

“The majority of the existing boiler operators were nearing retirement and aging out of the workforce with no succession plan in place. Lacking coverage, plants were facing the likelihood of having to shut down shifts, jeopardizing the 3,500 workers who depend on that work. It was at this point that we set out to identify how adult education could support the effort to build the boiler operator workforce.”

centered on the College and Career Readiness Standards for Adult Education and uses trade-specific content to address them. We differentiate and individualize instruction for levels 1-6 at all times. Low levels start with career exploration and are eligible for job training at the intermediate level.

How did the IET program develop?

To address the workforce challenges in our rural community, the local Workforce Development Board convened a forestry-sector focus group which identified increased need and competition for boiler operators as a primary concern. The committee included three of the eleven local forestry manufacturing facilities (a pellet manufacturer, a lumber manufacturer, and a natural wood siding manufacturer) as well as adult education, higher education, and community service providers.

After we dug deeper, we found that the need for boiler operators was a much broader problem that included food processors and paper manufacturers, totaling 23 facilities. It involved 3,500 forestry industry workers and affected another 3,000 workers in related agriculture, wholesale, and transport. This workforce development need identified by the forestry industry was really a regional concern.

As is often the case in the highly competitive rural labor market, the increased demand created by two new plants coming online compounded an already existing labor shortage. Making matters worse, the majority of the existing boiler operators were nearing retirement and aging out of the workforce with no succession plan in place. Lacking coverage, plants were facing the likelihood of having to shut down shifts, jeopardizing the 3,500 workers who depend on that work. It was at this point that we set out to identify how adult education could support the effort to build the boiler operator workforce.

How did the partnership develop?

In rural communities, informal communication with partners is common. However, more formalized partnerships with businesses and service providers are essential to operate complex IET programs and to ensure success for participants with long-term goals for increased employability and advancement within an industry.

We convened a partnership consortium to bring the key players to the table and to formalize partner agreements. Representatives from across labor, industry, education, and community service formulated a shared plan for the implementation of a new multi-

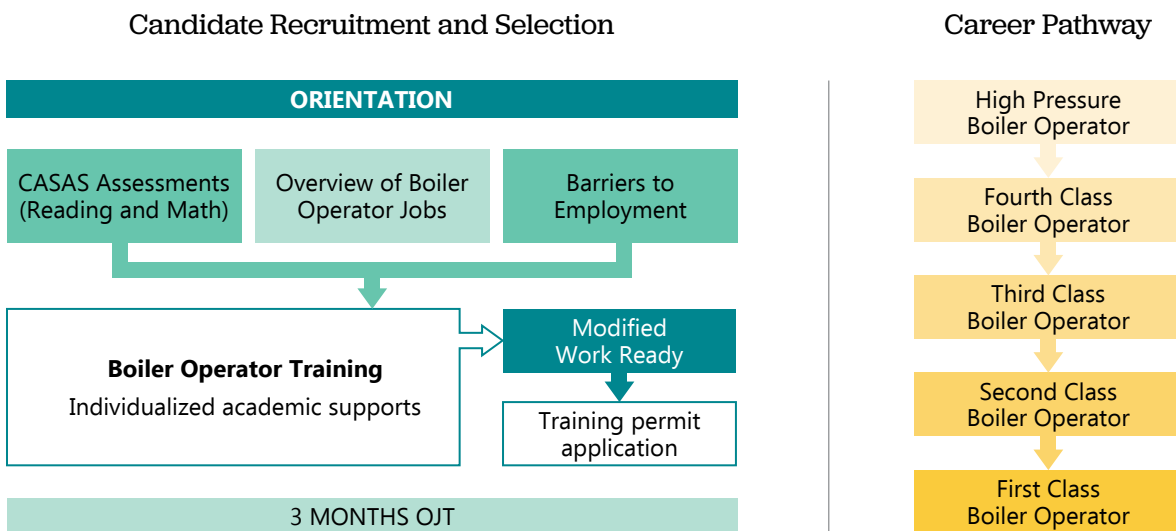
tiered training program. Together, we defined the initial steps along the boiler operator career pathway that would enable incumbent workers to move up the progression and create openings and opportunities for others downstream in the organization.

What is the design of your IET program?

Our model focuses on the boiler operator training and the academic and work readiness supports that enable students to complete the training and secure

employment. To develop the integrated curriculum, a team teaching approach (an adult educator partnered with a CTE instructor) was essential. The lesson plans we developed focused on applying an understanding of algebraic equations to boiler operation - for example, using the equation for discharge from a system we applied math proficiencies in measurement, geometry and conversion, as well as equations and functions to figure pipe size, temperature, pressure, and constants. We were also able to build in the skill of reading gauges for information necessary to fill in the variables in an equation.

The IET Experience for Participants



To advance along the boiler operator career pathway a participant must complete an approved boiler operator training course, followed by a three-month apprenticeship or OJT. The next step is applying for and taking the Boiler Operator Exam for state licensing certification. With this license, the initial step in the career pathway is considered complete. A person must hold the initial license and work in the industry for one year to be eligible to apply for a fourth class boiler operator training. Then each successive step requires three years of work before a boiler operator is eligible to take the next level exam in the continuum from high pressure boiler operator to first class boiler operator, which can take 12-15 years.

Boiler operator
employee mentors
and students



Our industry partners provided insight into the knowledge and skill requirements of the pathway, and also offered to provide worksite tours, job shadowing, and on-the-job training, building upon the mentoring that they already provide to incumbent workers. As we build this career pathway we, as the education provider, will continue to provide test-taking and study skills along with academic supports.

How did you recruit and onboard participants?

We set up the boiler operator training program as a blend of incumbent workers and those who were unemployed or underemployed and had barriers to employment. We had no trouble filling the cohort because we had a comprehensive marketing plan that included coverage in the local news and recruitment by our education and employment partners.

To orient participants, representatives from a local mill and from Northern Maine Community College, our training provider, joined us to talk about the skills and interests necessary for boiler operators. Together, we described the supports available to eligible participants for reducing their barriers to participation. These included covering the costs of travel to class each week. Ultimately, only three of 19 applicants were eligible for the available supports.

As well, we were surprised to find that the majority of our participants needed very little academic (math or reading) skill building and that their Integrated Individual Learning Plans identified only occasional tutoring needs during the boiler operator course. This was an indication that we needed to adjust our recruitment in the future.

What other program supports were needed?

Our business partners identified a need to provide training for the employees who would be mentoring throughout the on-the-job training portion of the program. We developed an OJT mentor training that included topics such as: understanding the needs of adult learners, how to create lesson plans, and how to train in difficult environments. To develop this training, we spent time in the facility to identify and experience the challenges the mentors would face. Then we prepared presentations and training materials, and provided a 16-hour training to eight employee mentors on how to effectively provide OJT for fellow employees.

- Tuition and travel costs for students
- Computers
- State-level application for licenses and testing, and
- Training support – development of the OJT, training of mentor engineers.

How did you fund this IET program?

Funding is always an issue when it comes to industry-specific training. Individuals often can't afford the training (or don't even know that it is available), and business is not always willing to invest in funding training even though they express a need. With the geographic distance between adult education programs and facilities it is often difficult to create a cohort large enough to cover the cost of training sustainably.

Our IET grant was established from carryover workforce training funds from the state Department of Labor and given to the state Department of Education to establish pilot programs for IET. From this funding source, we won a \$64,000 grant that paid for:

What lessons do you take away from your IET implementation?

In the past, one of our biggest obstacles to providing training was identifying an employer demand large enough to warrant putting together a training. The big takeaway is that bringing sector partners together makes it much easier to find needs in common, to work together to develop the training and workplace experiences that work for everyone, and to secure the necessary funding. This is a promising direction for career pathways in rural communities.

However, one thing we would do differently is to work with our partners to institute a more careful student selection process that would yield a higher trainee persistence rate. Several of the 19 participants dropped the class after touring a boiler room, deciding it was not right for them. Although eleven passed the course, and two successfully passed the HiSet high school equivalency exam, only six immediately applied for training permits after the course and started their OJT as boiler operators. Most of the others, however, are still working on their training, awaiting their turn for OJT with an engineer.

What's ahead for your IET programming?

We need to be sensitive to the balance between providing training to meet the needs of the current workforce and preparing for projected workforce needs. It would be easy to keep running a training even though it is no longer needed. But we don't want to saturate the workforce with trained individuals who will then have difficulty finding work corresponding to their training in the region. In the past, we flooded the market with truck drivers, which taught us that we need to work with the Workforce Development Board and employers to keep our finger on the pulse of the labor market. Interestingly, there is

now new demand for off-road truck drivers and a few of the larger manufacturers have offered their equipment if we can pull the training together!

Currently, there is no shortage of demand for our services because once partnerships are created and training is conducted, it doesn't take long for new training needs to be identified. As a result of the boiler operator training, the partners have come forward with all kinds of new training needs along with what they are prepared to bring to the table to make it happen. We have a lot of work ahead of us since our local Workforce Development Board has identified IT, health care, manufacturing, construction, and hospitality as high demand sectors.

Building Maintenance Training: A Perfect Fit for a City

This program profile is based on an interview with Maureen Moreira, Program Coordinator/Instructor, Building Energy Efficient Maintenance Skills (BEEMS), Asian-American Civic Association, Boston, Massachusetts.

What is the community context you are working in?

Boston is a city of tourism, universities and hospitals. These three industries alone provide ample opportunity for sustainable jobs in facilities maintenance. Our clients come from over 80 countries around the world including the U.S. Many of them have great technical backgrounds from their home country, where they worked in manufacturing or engineering as maintenance mechanics on industrial machinery and equipment. They were machinists, HVAC technicians, electrical engineers, and other related professionals. They range in education level from high school to college. Some have advanced technical backgrounds while others have handyman and or mechanical skills. But many now find it difficult to get a job using their skillset without credentials from the United States. They are often working two or three part-time jobs with no benefits, no opportunities for career advancement or growth, and at minimum wage.

What is your institutional context?

The [Asian American Civic Association](#) (AACA) is a community-based multi-service agency offering workforce development, adult basic education, and comprehensive social services (such as job counseling and placement) to help economically disadvantaged and limited English-speaking immigrants achieve enduring economic self-sufficiency. In 1984, in response to increasing demand for job and vocational training, AACA began building its workforce development programming. These services include training in building maintenance, training for careers in banking and finance, on-site workplace education classes, and the New Roots program that offers blended instruction and job search activities for immigrant professionals who want to reclaim their careers. The organization has deep roots in the community and strong relationships with many employers.

How did the IET program develop?

Our facilities maintenance training program grew out of a series of exploratory seminars for staff in the various construction trades about how to assist clients in finding jobs in those fields. Consequently, in 2006, we partnered with Boston's Madison Park Technical Vocational High School to provide basic training in facilities maintenance for our students. In 2008 funders were looking to support green programs, and buildings were being upgraded to meet new energy efficiency demands. We partnered with a green contractor, modified the curriculum we were using to include green standards of building and energy usage, and added a class on energy efficient standards and measures to create the **BEEMS** program.

Because this program can offer hard skills training in multiple areas, not just carpentry, electricity, or HVAC, as many other technical schools do, it meets the multi-skill demands of an industry where there is plenty of opportunity and little competition in training. It has proven to be a very adaptable program, providing basic hard skills that can be updated to fit the current green job market. It's also an industry that has seen changing demands, as energy costs are anticipated to soar in the future. These changes have created a new model of an industry that cannot get outsourced.

What is the design of your IET program?

BEEMs is a 22-week program to prepare people for entry-level positions as hotel building maintenance engineers, property maintenance technicians and, more recently, green building maintenance engineers. Our classes are taught at the technical vocational high school in the

afternoons and evenings. Many of the teachers there are licensed electricians, plumbers, or independent general contractors.

The curriculum is designed in collaboration with the vocational technical school based on what they can offer in their facility. The employer partners provide input based on what they consider relevant skills for the industry. The curriculum is in constant flux, with a fairly stable baseline, due to changes in technology and the industry.

We designed the program with 16 students in a cohort (a cap set by Boston Public Schools for safety). Students start by getting an industry-recognized certificate for ten hours of occupational safety and health training taught the first week before they start classes in the shop. Then they have 17 weeks of integrated education and training. During this time, they get twenty hours a week of hands-on training in carpentry, electricity, plumbing, and appliance repair along with contextualized English and math classes.

The basic skills instructor spends about an hour each day in the shop working with the vocational instructor and students, identifying vocabulary and math skills that need to be reinforced in the basic skills classes. A lot of technical vocabulary is learned by both native and non-native English speakers in class together, but we have determined a need to have a separate, supplementary ESOL class. Once a week, we also hold a job readiness class where students work on resumes, interviewing, job search skills, and filling out online job applications.

Finally, we organize site visits to some of our employer partners so that students can see how the high efficiency systems operate. The program also includes five-week internships (for a minimum of twenty hours a week) that enable students to get



A hands-on carpentry lesson for the Building Maintenance students of Asian-American Civic Association

on-the-job experience and employers to meet good job candidates. Students receive their certificates after completing the internship, and many internships lead directly to a job. Employer partners now contact our job developer when a position becomes available and ask for interns.

How do you identify and recruit employer partners?

We identify employer partners by identifying an industry that has a consistent need for facilities maintenance. It could be hospitals and universities, and indeed our clients find jobs there, but we have also partnered with hotels and property management companies. We look for larger companies that can provide

job stability, benefits, a livable wage, and a reputable name. Many of our hotel partners for example, fall under the Hilton umbrella, and the property management companies cover a large geographical area and are leading companies in the industry.

We started out with a small core of hotel and property management companies as an employer advisory board that we engaged to review curriculum and to provide mock interviews, internships, and job opportunities. Now, we have over thirty employer partners. Many new employer partners come to us by word of mouth or through having hired a client. Our graduates have been one of our best means of recruiting new employer partners—so good, in fact, that currently we are not actively seeking new employer partners.

“Because this program can offer hard skills training in multiple areas (not just carpentry, electricity, or HVAC, as many other technical schools do), it meets the multi-skill demands of an industry where there is plenty of opportunity and little competition in training. It has proven to be a very adaptable program... updated to fit the current green job market.”

How do you recruit and onboard students?

The selection process includes testing and an interview to determine students' readiness for the program. Most maintenance jobs require a minimum of a high school credential or equivalent, a driver's license, and in some cases a car. We are willing to take students who don't have a high school credential if they are enrolled in a HiSET program (they can be co-enrolled in both programs if scheduling permits). The issue is that the industry wants to hire people with that minimum credential.

We have weekly testing and information sessions, where we test English reading comprehension and math skills and require a writing sample. We require an intermediate level of English because there's a lot of vocabulary to learn. Students need to be able to understand verbal directions and to communicate about work verbally and on a work order. Because math has been a barrier for many students, we recently received funding from the state to offer a four-week remedial math class to prepare students for the math topics covered in the training program.

We also look at the skills that students bring with them from education and work experience in their home countries. If they need transcripts translated, we can provide that service at a fee for documents written in Chinese (either Cantonese or Mandarin). For other languages or credential evaluation, we refer our clients elsewhere (such as [World Education Services](#)). In some cases, where clients have come from countries under civil war or other turmoil, they have not been able to get transcripts. In this case, we try to work with the employer to waive this requirement.

What student support services do you provide?

Qualified candidates work with the Intake Specialist/Case Manager to meet the Career Center criteria and to follow-up on any barriers they may have to completing the program and finding employment. The barriers include: a need for immediate income, scheduling conflicts, child care needs, lack of transportation, or open cases in the criminal justice system that can be resolved. If there is an immediate need for income, our Job Developer helps them find a job (usually part-time) that fits the schedule of the training program.

Our multi-service center helps participants who need it to apply for food stamps, fuel assistance, and subsidized housing, and we finance public transportation when we can. Then, after graduates are placed, they continue to work with a Retention Specialist who helps them onboard to their new job and works with both graduates and employers to seek opportunities for growth and development.

How do you assess the effectiveness of the program?

This has been a very successful program for our clients and in many ways our employer partners as well. Many employer partners no longer post jobs because they find enough qualified candidates through our program. Completion rates and job placement have been and continue to be high. In FY15 and FY16, over 90 percent of the participants completed the training. In FY15, 94 percent were placed in full-time, training-related jobs with benefits; of the FY16 cohort, 74 percent so far have been placed, with the anticipation that that number will increase, as some students are currently job searching. The average starting wage of \$15-16 an hour is much higher than the minimum wage many of our clients were earning.

How do you fund the IET program?

Our current pilot program is funded by the Massachusetts Department of Education through WIOA Title II funds. However, the training for most of our students is funded with WIOA Title I funds. After students are accepted to the program, they need to secure this funding through a Career Center voucher (not every student sent

to the Career Center receives funding). If they are not eligible for a publicly funded voucher, participants may also pay a fee for the program, but it is costly and we collect the money up front. Since the Career Centers alone do not provide enough to keep the program running, we are always looking for other sources of funding. Over the years, we have received additional grants from city and state programs, and from private foundations. But the inconsistency of this funding is one of the on-going challenges for our IET programs.

What's ahead for your IET programming?

We continue to revise the program as we partner with new employers and as work standards evolve. Students are facing advances in technology that many of them are not prepared for. Helping students acquire the necessary digital literacy is currently one of our greatest challenges, and is an area that we want to develop more fully in the future. We are also working on bringing our graduates back to provide them with some additional workshops and study groups aimed toward certification in HVAC Environmental Protection Agency regulations. And we are exploring options for applying their new credentials to postsecondary degree programs.

Entrepreneurship: Building on the Expertise of the Immigrant Community

This program profile is based on an interview with Jon Engel, Adult Education Director (retired), and Francesca Ramirez, Career Counselor, Community Action, Inc. of Central Texas, Austin, Texas.

What is the community context you are working in?

Texas is becoming a minority majority state, driven by Latino population growth. It has thousands of families of mixed legal status, whose U.S.-born children are our future workforce. Entrepreneurship is a valuable career pathway in this community because it is part of the immigrant tradition of family businesses. Between 2007 and 2014, 87 percent of new businesses in this country were started by immigrants. In addition, work authorization is not required to start a business and is therefore not a barrier. We feel a strong moral imperative to serve all immigrants in our IET program.

What is your institutional context?

Community Action, Inc. serves about 1,000 ESOL/IELCE students in nine suburban and rural counties surrounding Austin, Texas. Although Community Action has provided workforce trainings since

2009, our Career Pathways program has exploded since WIOA took effect in 2014. This year alone (2016-17) we served close to 300 students in our Career Pathways, IET, and Workplace Literacy programs. Our IETs have included Truck Driving, Office Occupations, Plumbing, Electrician, CNA, Telecommunications, HVAC, Bookkeeping and Entrepreneurship, all of which are on the Texas-approved list of high-demand occupations for the local community. Our workplace programs include ESOL for a golf course landscaping crew, ESOL for hotel housekeeping staff, digital literacy for the custodial staff of one school district and HiSET classes for another.

What is the design of the IET program?

Entrepreneurship is a new IET program that we have built by running a nine-week, three-hour/week Business Basics class (the training component) concurrently with the EL/Civics (now IELCE) classes that provide the basic ESOL instruction along

“Entrepreneurship is a valuable career pathway in this community because it is part of the immigrant tradition of family businesses, and work authorization is not required to start a business. Between 2007 and 2014, 87 percent of new businesses in this country were started by immigrants.”

with the digital literacy skills that help our students have the work readiness to own or run a business. Each cohort for the Entrepreneurship program has 10-15 students and, because of its popularity, we plan to run at least five cohorts this year. The course is designed for high-intermediate English language learners (NRS level 4 or above), although we do serve some at lower levels. We are also getting requests from ABE students who would like to participate.

In developing the content, we thought it important for those who complete to have a tool with which to continue to plan and run their own businesses. We chose Google Chromebook because it's only about \$250 and, with a good wifi connection, can be used as a computer. Students enroll, sign an attendance contract, and receive a Chromebook in the second class. If they don't miss more than one class and complete all requirements, they are able to keep the Chromebook. It's a nice incentive that has worked.

How did you work with partners to develop an integrated, contextualized curriculum?

We are fortunate to collaborate with knowledgeable partners in and around the Austin area and each semester seems to bring a new partnership. Everything about our curriculum is entirely formative;

we're building it with our partners as we go. You'll notice the involvement of our partners at every step of the Business Basics curriculum described below.

Myths & Realities: The course begins with a discussion of what it means to be an entrepreneur; ideas about whether there will be a boss when they start their business and who that will be; what kind of hours they will be working; and the reality that sometimes as a business owner they will have to work on projects or tasks that they don't find fun to do.

Finances & Budgets: This segment addresses how important it is to start saving now for their business, even if they don't think they will start up for another six months or year. We note that how they manage their personal finances will carry over to how they manage their business finances. We discuss the need to monitor everyday expenses and for homework they track everything they spend for seven days. These assignments have always been pretty eye-opening activities for the students.

Business Plan Basics: We then move into discussion of a business plan – what it is, its sections, and why the students will need one to start their business. Students learn what a mission statement and objectives are and the importance of creating them. They do online research into other businesses and then present their findings to their peers in class. A lawyer

from Legal Aid Services of Austin visits to provide information on how to formalize their business structures, whether it be a Sole Proprietorship or Limited Liability Company. The lawyer also shows them how to find out if their business name is already taken and how to register their name with the Secretary of State's office. The presentation also covers how to draw up contracts with customers and business owners.

Banking and Marketing: In this unit, two representatives from the Randolph Brooks Federal Credit Union, one from the personal side of banking and the other from the business side, come to discuss the difference between a credit union and a bank; opportunities for small business loans; how to build upon and improve one's credit scores; and the importance of separating personal and business banking accounts. The Lift Fund makes a presentation on low-interest loans available for documented and undocumented small business owners. And a CPA comes to talk about tax obligations, such as the difference between federal and quarterly taxes, and about allowable business deductions. Finally, we are visited by one of the first partners we began collaborating with, the nonprofit Service Corps of Retired Executives, also known as SCORE. They come in to discuss simple tips and strategies for how students can market their businesses.

The last week of class, staff from the local Chamber of Commerce visit and bring along one or two business owners to talk about how they first got started with their own businesses and lessons they learned along the way. They share what they wished they had known before they started their business, and emphasize that students should not quit their primary source of income anytime soon! Our guests stay for the student presentations of their business plans, and for our closing celebration.

Throughout the course, students are practicing with digital tools. They use the Chromebooks to download useful apps and learn to use Google Docs, Google Sheets, and Google Slides. Students create Gmail accounts specifically for their businesses, and are assigned various professional emails to write each week.

How do you fund the IET program?

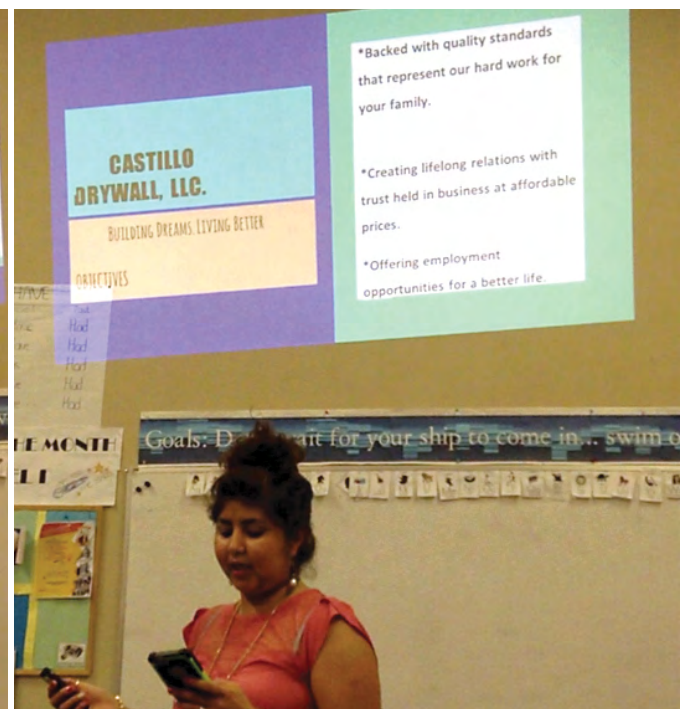
Currently, the program is funded 100 percent from the IELCE portion of our WIOA Title II Adult Education grant, for which we report participation and learning gains (my understanding is that self-employment does not count toward employment performance measures).

How do you assess the effectiveness of your program?

We have to pre- and post-test our students with the BEST Literacy and Best Plus (or other state-approved assessment), which we do in the context of the regular IELCE class. Our funder, the Texas Workforce Commission (TWC) pays a lot of attention to this measure and, particularly in the wake of WIOA, has introduced performance targets (# of completers) that we are accountable for. Given the popularity of this program—thirty students signed up right away for the first cohort — we feel confident that we will show continued strong performance. From the spring of 2016 through May 2017, 86 students completed the Business Basics class with 75 percent of them advancing one or more NRS levels using Texas-approved ESL oral and/or literacy assessment tools.

Although there is no state-authorized industry-recognized certificate in this field, the training is allowable under WIOA as a career pathway demonstration pilot. We

Community Action, Inc. Business Basics student presenting her business plan for a drywall company



currently provide a program-generated Certificate of Completion that has satisfied the TWC's requirements. However, TWC recently released guidance stating that all IETs must result in a recognized postsecondary credential, so we are searching for something that might fit that (or a partner to sponsor one). The TWC guidance goes on to say that for certain types of allowable career pathways training, such as Entrepreneurship or on-the-job training, such a credential may not be available or appropriate. In such cases, the guidance states that the program must document some form of career advancement for students. This is somewhat of a gray area that Community Action, TWC, and others will have to sort out together.

For now, we will keep the students' PowerPoints of their business plan presentations as evidence of progress on an Entrepreneurship pathway. They are the strongest indicators of the quality

of the business plans that each student must research, develop, and present to their peers. Their plans reflect the range of their interests, which so far include: the food industry, particularly food trucks; housecleaning; landscaping; and with the Latino tradition of quinceañeras, there's a market for party rentals, party décor, etc.

Finally, we are developing several mechanisms for staying in touch with class completers so that we may have the opportunity to report "real world outcomes" such as actually starting a business. We think starting a Level Two Business Basics class, which we're planning, will help a lot with this.

What's ahead for your IET programming?

This semester, the Business Basics instructors attended a series of small business workshops offered by Austin's

Economic Development Office in collaboration with the University of Texas's Center for Professional Development and received a Certificate in Business Success Skills. Based on this, they are developing a second, more advanced level of the Business Basics course, and a small number of regular ESOL teachers are being trained to teach the Level 1 course. The 5-6 week Business Basics Level Two class will focus on having the students develop a basic website, learn how to market their businesses on social media, and will include an introductory class on Quickbooks.

We are also working with SCORE and local businesses to help students pair up with mentors in their industry, and are developing ways for alumni to stay in touch so we can offer ongoing support, whether that be a Facebook page or quarterly get-together.

Our local Workforce Development Board, which governs Department of Labor Title I funding in our area, has supported and provided entrepreneurship training in the past and will have language in its local workforce development plan about supporting small business creation. We are watching to see if this presents future options for us.

What lessons do you take away from your IET implementation?

Our takeaway is that you need to know your community and context, and what's going on in local occupational sectors. In the past, we have tried to develop other pathways (office occupations, trucking), but they haven't taken off like this. You also need to understand WIOA in order to make those match ups between community need and funding requirements — so you need to both find your niche and understand the parameters of the law.

Collaborative Curriculum Planning for an IET Program

This program profile is based on an interview with Susan Johnson, Engineering Department Chair, Johnson County Community College, Johnson County, Kansas.

What is the community context you are working in?

Johnson County Community College (JCCC) is located in Overland Park, part of the Kansas City metropolitan area. This metropolitan area is experiencing continued growth with an estimated population of over two million. About 12 percent of the population lives below the poverty line. The service sector constitutes most of the local economy. Healthcare, retail trade, professional and technical services, finance and insurance, and information technology are the area's five largest industries.

What is your institutional context?

JCCC, part of the 26 community and technical college system, enrolls over 19,000 students in credit courses each semester and offers over 150 career degrees and certificates in 45 different areas of study. The governing body for higher education, the Kansas Board of

Regents, combined the Adult Education Program and the Career and Technical Education Program under the umbrella of Workforce Development. This arrangement allows funding to be combined from both sources to support an integrated model. We are fortunate that the Kansas Board of Regents fully supports the I-BEST model and provides grant funds to promote its use throughout the state.

Why did you initiate the IET math curriculum project?

Our students are very diverse, especially when it comes to their math competency. The math courses they took may have been years ago or perhaps they never really understood particular math concepts in the first place, or they just aren't able to apply the concept to practical problems. As an instructor of Career and Technical Education (CTE) courses, I would often have difficulty teaching to all the levels of math competency of my students.

Construction
Management
students of Johnson
County Community
College



How did partners work together to develop an integrated, contextualized curriculum?

This project started with a leadership grant from the state to improve student understanding of math concepts. With the leadership grant, adult education and CTE faculty used an I-BEST model to design and team teach a contextualized math curriculum in the Construction Management and Computer Aided Drafting and Design degree programs. Collaboration between the CTE and math faculty was key in developing these activities — CTE faculty brought knowledge of the industry and the math faculty brought knowledge of how to teach and incorporate the related math concepts.

The first item we tackled was to craft project goals that were narrow enough to be useful but broad enough so they could be applied to any CTE degree program here at our college. Our first two goals — targeting specific math concepts and contextualizing concepts in career-related problems — needed to be addressed by faculty. The last two goals — easy for students to use and sustainable — were student focused. We wanted to make sure that students would actually want to use the material and would benefit from it.

The curriculum development was done by faculty members: two from the Construction Management and Drafting programs and two from the Math Department. Such a collaboration would normally mean the four of us would meet

“We have moved on to extend these successful programs to many more students, not just those who are economically or educationally challenged. We realized that the integrated model helps all students, not just those with lower academic skills.”

and start brainstorming. But as the lead faculty member, I decided to do something a little different. Rather than having a meeting to come up with project goals and then move on to curriculum development, everyone worked by themselves for a month. By the end of that time, each member had developed their own list of project goals, what they thought to be the best way to deliver curriculum, a timeline, and ideas about how to assess the success of the project. So everyone came to the table with their own fully formed ideas.

I think this approach ended up being the key to our success. Group collaborative projects can be tough. If the group is full of members who are consensus builders and very open it works well. If the group has members who are very assertively pushing their ideas or are not assertive at all, independent work can help. That was our case.

At the first joint meeting, we reviewed our ideas. We ended up using many from the quietest faculty member, someone who wouldn't have offered those ideas in a group but had written them into her outline. For the first two goals, we targeted math concepts we knew students were struggling with and identified related types of problems students needed to be able to solve. For example, in construction management, employees need to be able to calculate the volume of soil to be excavated, so they need to understand how to calculate volumes of different shapes and apply that in a practical way so that they can determine the volume of soil.

To make the lessons easy for students to use, the faculty members developed YouTube videos and note sheets that students could use for homework. For each math concept, they developed videos to explain the concept and to show students how to apply the concept to a specific type of industry problem. The videos are short and to the point — one to three minutes. They are also captioned for students who need or prefer to read the text. We investigated using existing videos rather than creating our own, but thought it would be best for the students if the videos had the same look and feel across the board.

How did you incorporate team teaching?

The math instructors were an integral part of the entire project. During this first year, they were in the classroom team teaching with the CTE program instructors for 2-3 weeks of each course. Having the math instructor in the classes has helped me become a better CTE teacher — I learned several techniques from them that will help me in future classes. The math instructors also co-taught with us on our online learning management system, so going forward we can continue to refer to the materials they contributed. One thing to note is how much time it takes to implement this model: planning for team teaching takes about an hour of preparation for every hour we are in the classroom.

How did you assess the effectiveness of the new curriculum?

We wanted to measure the success of the new curriculum by assessing students' competence in certain tasks. All four instructors agreed to use a pre- and post-test to measure students' understanding of math concepts and ability to apply them to solve industry-related problems. We wanted to know both the instructor's assessment and the student's own self-assessment of competence. The instructors used a rubric to judge a completed set of problems. To obtain the student's perspective, we asked each student to rate themselves (1-5) on their understanding of math concepts and on the helpfulness of the new curricula and videos in learning the material. We saw positive outcomes from both points of view.

For the five courses involved in the initial trial of this project, the pre- versus post-testing showed a 21 percent increase in students' mastery of the material. This indicates strong evidence that the team teaching and learning modules improved academic performance. Sixty-eight percent of the students either agreed or strongly agreed that the new curricula improved their knowledge on the subject; 85 percent felt the videos were relevant, easy to navigate, and helped them improve their knowledge of the subject.

How did you fund this IET work?

In Kansas, help for integrating and contextualizing material in CTE came initially from the national Accelerating Opportunity initiative. That grant helped us design and implement programs for adults who were economically or educationally challenged. When the grant ended, the Kansas legislature designated \$500,000 statewide per year for tuition for these students.

We have moved on to extend these successful programs to many more students, not just those who are economically or educationally challenged. We realized that the integrated model helps all students, not just those with lower academic skills. This includes using Carl Perkins Federal Career Education dollars to promote I-BEST strategies in our community and technical colleges. Kansas is innovative in how we administer these types of projects at the system level.

Intensive Onboarding to Ensure Student Success in an IET Program

This program profile is based on an interview with Amy Dalsimer, Executive Director, College and Career Pathways Institute at LaGuardia Community College, Queens, New York.

What is the community context you are working in?

[LaGuardia Community College](#) (LaGCC), part of the City University of New York, is a very large and diverse urban two-year college located in the borough of Queens, New York. Queens is the most ethnically diverse urban area in the world. According to Data USA, as of 2015, 47 percent of Queens' 2.34 million residents are foreign-born, 138 languages are spoken in the borough, and 13.8 percent of the population lives below the poverty line. In addition, Queens has the most diversified economy of New York's five boroughs, with occupations spread across the health care, retail trade, manufacturing, construction, transportation, and film and television production sectors.

What is your institutional context?

LaGCC has 30,000 ESOL, High School Equivalency, and Adult Basic Education students attending classes annually, either

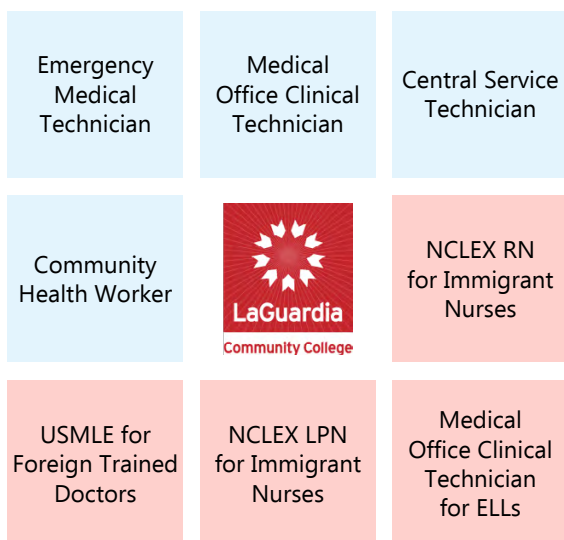
pursuing degrees or enrolled in non-credit workforce training. A majority of LaGuardia students are low-income and minority, and approximately 40 percent are immigrant and first generation Americans. The [NY-BEST \(New York Basic Education and Skills Training\)](#) programs are offered through the Division of Adult and Continuing Education and are non-credit.

How did the IET program develop?

LaGuardia has a long history of offering professional and technical education. However, these programs have generally not been available to our basic education and ESOL students. Washington State's I-BEST model inspired us to rethink our training and set new access and acceleration goals, and to include the practice of co-teaching. In an effort to better serve the large number of basic education and ESOL students who come to our campus seeking career and postsecondary education, LaGCC piloted the first NY-BEST program in 2007. We

customized the model to fit our specific institutional structure, resources and funding sources, local labor market realities, and the particular needs of our students and community. Over the years, we expanded the model to include eight integrated workforce certificate programs. The graphic shows our basic skills integrated training tracks in blue and our ESOL integrated training programs in pink.

LaGuardia Community College NY - BEST



How do you intake and onboard students?

Students interested in applying participate in a robust, three-day intake process that helps them determine if the career choice and program are a good fit for them. This process also gives our staff a chance to assess students' eligibility, suitability, and aptitude for the program. Over the three days, students participate in an orientation to the profession; complete an application; are tested on the TABE reading test;

complete a career interest inventory; respond to a number of contextualized, scenario-based work questions in writing; submit whatever documents are required to meet the minimum requirements (such as a driver's license); and complete an individual interview.

Once students are conditionally accepted into the program they start the Vestibule which is a rigorous, contextualized class taught mainly by the basic skills teacher with some assistance from the professional/technical instructor. The Vestibule is a chance for students to be re-introduced to the classroom and to some of the more difficult technical content that they'll encounter during their training. In this transitional space, they are developing habits and routines necessary for success in school (such as being on time, participating in group work, doing homework) as well as being introduced to critical content and vocabulary that is both new and challenging. In the Vestibule, students are also working out the kinks of returning to school (balancing life and school work). The Vestibule can vary in length depending upon the training program and the level at which the students start. For example, for the EMT program, our Vestibule is only three weeks long, and the training is three months long. In our Registered Nursing for Immigrant Nurses prep program, the Vestibule is eight weeks long. In that program we prepare foreign-trained nurses to pass the nursing exam so they can reclaim their careers in this country.

We know from our experience that the first few weeks of the program is a critical point when a lot of students drop out or stop out whether they're in basic education or vocational training, or a "traditional" college classroom. They're excited the first day, and then reality hits. The Vestibule is by design this transitional space. We accept more people into the Vestibule than we have training spaces for in the IET

“The Vestibule is a chance for students to be re-introduced to the classroom and to the more difficult technical content that they’ll encounter during their training. In this transitional space, they develop habits and routines necessary for success in school (such as being on time, participating in group work, doing homework) and are introduced to critical content and vocabulary... In the Vestibule, they also work out the kinks of returning to school (balancing life and school work).”

program. Most of the students self-select out if they are not ready. The reasons vary. For example, they may realize that the career track is not for them, and/or they realize that their home life and work life prevent them from pursuing a rigorous training at this time.

There are generally very few students who get to the end of the Vestibule and are not admitted. Interestingly, it has nothing to do with their entering literacy levels or English language skills. Often times it has more to do with their absenteeism, and in some cases their aptitude for the profession. For example, to be an EMT they have to be team players in the ambulance and have to be great communicators. In the Vestibule we have a lot of group activities, so students who are not able to communicate well, or are loners, can figure out whether they are a good fit for that profession. That is one of the ways that we’re assessing their aptitude and readiness.

What is the design of your NY-BEST program?

While each of the comprehensive training tracks is somewhat unique in terms of the specific population it serves, the length of the program, the co-teaching structure,

and other program features; the goals of all our redesigned IET programs are the same. Our first aim is to open access to in-demand professional training for basic skills and ESOL students, and our second aim is to improve our retention, credentialing, and job placement rates in order to accelerate student progress to meaningful and better paid work. Part of this involves picking certification programs that prepare students for a viable workforce credential with local labor market demand and immediate employment opportunity. We also look for careers with stackable credentials (pathways) so students can enter a career that has potential for growth, such as an EMT to Paramedic degree program.

All of LaGuardia’s integrated trainings share the same key program redesign components, including the robust intake and onboarding process I described above, team teaching, and integrated job readiness activities.

Team Teaching: Like I-BEST, a foundational feature of the NY-BEST model is to have two teachers. One is the professional/technical instructor and one is a trained, contextualized basic skills/ESOL instructor. Important elements of effective team-teaching are:

- Well-defined roles and responsibilities

Students getting oriented to the training options available to them



INTENSIVE ONBOARDING TO ENSURE STUDENT SUCCESS IN AN IET PROGRAM

- Shared classroom 15-50 percent of the time, depending on program
- Intentional joint planning and team approach
- Clearly-defined, shared mission, and
- Shared grading systems.

Team teaching has increased our career and technical faculty's ability to understand the abilities and competence of our basic skills and ESOL students, and to see them as students who can meet very rigorous standards with some support. There has been a transformation from an approach that says, "No you can't come in because you're not ready" to an access approach that says "Wow, look at all these tremendously able and excited and persistent students who are on our campus who want this opportunity! How

do we as educators redesign our program to move forward faster?"

Team teachers have learned a lot about pedagogy and teaching strategies. For example, vocational instructors have a fuller bag of tricks for how to help students unpack dense technical reading in a way that helps students read for comprehension and apply their understanding. Also, team teaching has been a catalyst for a big shift for our faculty around assessing students' learning. In most higher education we have high-stakes exams, mid-terms, and finals. Through this process the instructors have learned that lower-stakes, more informal and frequent assessment really help to move students forward, get them more prepared, and achieve the same learning outcomes.

Job Readiness Activities: We integrate one hour into class each week to develop job-specific resumes and interviewing skills so students are poised upon completion to successfully compete for a job that corresponds to their new credential. In many IET programs, students are also required to complete practicum hours in partnership with employers. Our Educational Case Manager provides these job readiness activities in addition to helping with intake, serving as an attendance monitor, providing referrals to resources (child care, housing), and setting up hiring visits with potential employers.

Data Informed, Team-Based Retention and Student Success Services: The NY-BEST team relies on actionable data to inform our case management and team meeting decisions, and to determine how to best integrate activities into the schedule. For example, student and group academic performance and attendance data is reviewed routinely to see what interventions or additional services may be needed to keep the students and class on track.

How do you assess the effectiveness of the NY-BEST program?

The NY-BEST program outcomes have been truly incredible with regard to student retention, certification, and job placement. A great example is our EMT class, which is our largest and longest running NY-BEST program. Out of ten cohorts of about 300 students, the retention/completion rate is approximately 85 percent, certification pass rate is close to 98 percent, and the job placement rate in three months following program graduation is 80 percent.

PluggedInVA: A Statewide IET Model

This program profile is based on an interview with Linda Allen, Regional Program Manager, and Karen Gent, Lead Teacher, Southwest Regional Adult and Continuing Education, Virginia.

What is the community context you are working in?

A major decline in the coal industry has negatively impacted the southwest region of Virginia, leaving service and retail industries and health care as the largest job markets in the area. We are also experiencing population loss, high poverty levels, and an unemployment rate ranging from about 6-10 percent. The workplace is being fundamentally transformed as economic developers explore tourism, advanced manufacturing, and cybersecurity as industries to boost the economy. PluggedInVA will have a significant role to play as the region begins to retrain, retool, and reengineer its workforce.

What is your institutional context?

PluggedInVA was created by the Virginia Adult Learning Resource Center, a division of The Literacy Institute at Virginia Commonwealth University, in close collaboration with the Virginia Department

of Education, Office of Adult Education and Literacy, and the Virginia Community College System.

It operates primarily within adult education programs that are delivered regionally through the local public school system with the community college as a full-fledged partner in curriculum development and service delivery. Southwest Regional Adult Education is one of these 22 regional adult education programs.

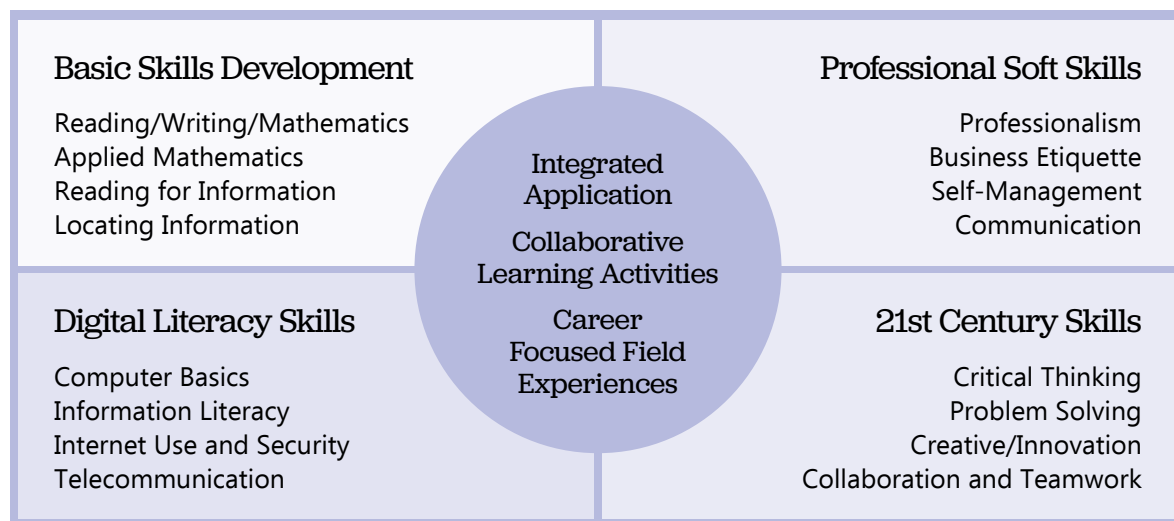
What is the design of your IET program?

PluggedInVA is a career pathways bridge program that prepares adult learners with the knowledge, skills, and credentials they need to succeed in postsecondary education, training, and high-demand, high-wage careers in the 21st century. While improving their basic skills, participants earn workforce credentials leading to employment or continued studies at the postsecondary level. Most cohorts have been geared

toward 9-12 grade levels, but we are now piloting pathways at the lower levels. Student cohorts range in size from 8-22 students. The health care and advanced manufacturing cohorts have had the largest enrollments.

- Each student completes a capstone project which may include a public presentation about the project.

The contextualized adult education curriculum focuses on four content areas:



The **key elements** of PluggedInVA are:

- Accelerated programs that run from six to eight months with a rigorous curriculum consisting of approximately twenty or more hours per week. The model integrates industry-contextualized basic skills instruction with postsecondary training.
- Adults co-enroll in adult education and postsecondary education or training and receive career coaching and supportive services, including supplemental tutoring.
- Industry-recognized certification combined with job experience leads to employment opportunities and stackable credentials and/or transferable college credits.
- Each cohort strives to have an active employer partner who offers guaranteed job interviews to program completers.

basic skills development, professional soft skills, digital literacy skills, and 21st century skills.

In **basic skills development**, we contextualize reading, writing, and mathematics for the specific field of study and, when we partner with a community college, students may earn college credit for these areas of instruction. For each cohort, we develop a schedule of courses utilizing a block scheduling format with team teaching.

For basic skills reading, students study *The 7 Habits of Highly Effective People* by Stephen Covey and *100 Things Every Adult College Student Should Know*, a book on college survival skills. Students who do not have a high school credential also work in an online GED preparation program which encompasses both reading and writing. Since writing is critical to success in the workplace, students study both the technical and creative aspects of writing and complete a variety of work-related



Students of Plugged-InVA participating in training in mechatronics

writing projects. The math component is also contextualized for the field of study (for example, math for carpentry, math for welding, or math for pharmacy tech). This math course prepares students to take the Applied Mathematics WorkKeys Assessment and the Mathematical Reasoning GED Test (if needed).

To address **digital literacy skills**, we integrate the Microsoft Digital Literacy program which allows students to complete a series of lessons that cover computer basics, information literacy, Internet use and security, and telecommunication. After completing the lessons, students take an assessment to earn a Microsoft Digital Literacy Certificate.

To develop **professional soft skills**, students learn to be successful employees by practicing professionalism, using proper etiquette, exercising self-management, and becoming effective communicators through listening, verbal, and written skills. Students practice these skills when professionals in various fields of study come to speak to the classes, and when they go on field trips to tour worksites. These field trips have in many cases resulted in employment for students. Students also work toward earning a Career Readiness Certificate that provides recognition of their work readiness skills.

“In all areas of the curriculum, instructional practices involve integrated applications, collaborative learning activities, and career-focused field experiences. Students are given many opportunities to practice these skills, and to exercise their creativity through problem-solving activities.”

In all areas of the curriculum, instructional practices involve integrated applications, collaborative learning activities, and career focused field experiences. Students are given many opportunities to practice these skills and to exercise their creativity through problem-solving activities. Throughout the program, students are placed in learning situations where they must work in teams and collaborate to come up with solutions to problems.

In addition, a significant amount of time is spent on preparing for a job interview, culminating in a mock job interview conducted by a panel that includes industry employers. These **21st century skills** are practiced further through the development of a capstone project in which students use the knowledge and skills they have gained throughout the program.

How do you recruit and onboard students?

We do extensive recruitment, including sending postcards to students on our mailing list, placing ads in local newspapers, recruiting from existing basic skills classes and at public events, and partnering with community college recruiters to approach the Employment Commission and local employers.

The intake process includes basic skills assessment to determine academic preparedness, a face-to-face interview to gauge learner interest and career fit, and other measures as appropriate for the context (such as writing samples, WorkKeys assessment of work readiness, or career interest surveys). The subsequent orientation introduces the program expectations and supports, and focuses on navigating the systems (financial aid, course registration, etc.) of our postsecondary institution partners.

How do you assess the effectiveness of your IET programs?

We place the most value on our completion rate, and on credentials and college credits earned. In the four coalfield counties of southwest Virginia, between 2009 and 2016, PluggedInVA trained 381 students in 34 cohorts in the following career tracks:

IT Readiness (5)	Pharmacy Tech
Construction (3)	Welding (5)
Entrepreneurship	Crime Scene Technician
Electronic Medical Records (2)	Paraoptometric
Electrician Helper	Certified Nursing Assistant +(4)
Customer Care	Precision Machining (3)
Software Quality Assurance	Mechatronics (2)
Phlebotomy (2)	Medical Billing and Coding

Statewide, PluggedInVA served more than 810 students who have completed nearly 88 training programs.

- 79 percent have received a Microsoft Digital Literacy Certificate.
- 71 percent have received the WorkKeys Career Readiness Certificate.
- 90 percent have received 12 to 24 college credits.
- In the Advanced Manufacturing cohorts, 74 percent have earned at least one industry-recognized credential.

- In the Certified Nursing Assistant with Enhanced Skills cohorts, 95 percent were Board Certified.
-

How do you fund PluggedInVA?

PluggedInVA was initially funded by an Innovation Grant from the Governor's cabinet and a grant from the Virginia Department of Education to create a career pathways program for the IT sector in rural southwest Virginia. Success in southwest Virginia led to PluggedInVA being added as a line item in the Governor's budget and propelled the model to spread across the Commonwealth. The Workforce Development Board, a core partner, continues to identify funding sources for tuitions that cannot be fully paid through Pell Grants.

What lessons do you take away from your IET implementation?

A cultural shift begins when the partners in a community take the time to deepen their understanding of one another and the work each does. Very importantly, training and employer partners become more comfortable collaborating with local adult education programs. Developing these relationships requires an investment of time and a long view about benefits that hopefully pay off down the road.

Capstone Projects

All students participate in a capstone project developed around the specific industry focus of the cohort. The capstone project is often a service project that addresses a real need in the community and provides a solution to that need. Students prepare for the capstone project during the second semester of the PluggedInVA program under the guidance of instructors. The project usually includes a public presentation that provides an opportunity to introduce the cohort to potential employers.

Notable capstone projects:

- Developed playground and landscaping designs for a local church (IT)
- Designed a website for a local business (IT)
- Built a computer and donated it to an educational facility (IT)
- Designed marketing materials for an educational facility (IT)
- Weatherized low-income homes (Construction & Weatherization)
- Built restroom facilities for a local park (Carpentry)
- Built and wired a mock house (Electrician Helper)
- Developed individual small business plans (Entrepreneurship)
- Created a video about job interview skills (Customer Care Representative)
- Tested software on programs developed by a programming class (Software Quality Assurance)
- Volunteered at a Remote Area Medical clinic (Paraoptometric)
- Volunteered at a local nursing home (Certified Nursing Assistant+)

Building Capacity for a Rural IET Program

This program profile is based on an interview with Pamela Meeks, Director, Adult Education Program, Northeast Mississippi Community College, Booneville, Mississippi

What is the community context that you are working in?

Northeast Mississippi Community College (NEMCC) is a small community college located in the far northeast corner of Mississippi. The college serves five counties with Prentiss County being its home. The median household income in Prentiss County was \$32,945 in 2015 with 9,559 working residents. This represented less than one percent employment growth from the previous year. The county's poverty rate is 21 percent. Northeast Mississippi labor market information for the next ten years suggests a 27 percent increase in industrial information technology (IT) jobs, a 34 percent increase in healthcare IT jobs, and a 26 percent increase in computer IT jobs.

What is your institutional context?

The Adult Education Department of NEMCC is located within its Division of Workforce Training and Economic

Development. The college typically enrolls almost 3,000 students about a third of which are served by the basic education program. Our road to career pathways and contextualized learning began in 2012 with our piloting of the I-BEST model through the Accelerating Opportunity (AO) Initiative. After one year in AO, NEMCC and eight other community colleges received a Department of Labor grant to expand and develop customized I-BEST career pathways in Mississippi and Louisiana. This initiative was called Retraining the Gulf Coast Workforce through IT Pathways Consortium (GCIT). Subsequently, the Mississippi Community College Board received a grant from the Kellogg Foundation to further implement this model, known as MI-BEST, at all fifteen Mississippi community colleges. The MI-BEST program at NEMCC offers industry-recognized certifications through the Career Pathways Program called Tiger Workforce Opportunities through Resources, Knowledge, and Skills (Tiger WORKS).

Pathway students
working together
in their cohort



What is the design of your IET program?

Tiger WORKS offers skills-contextualized training and employment opportunities in three sectors: Health IT, Industrial Maintenance, and Microcomputer/Information Systems. These pathways share a common IT foundation. Classes are free and follow a new, accelerated model which integrates basic skills instruction with technical training allowing students to complete certification in as little as 6-8 months depending on each student's availability.

Smart Start: Students begin the program with a four-week work ethics class called Smart Start. The class provides contextualized instruction informed by local industry employers' advice on the workplace skills employers look for in their employees. Topics include team work and communication skills. In the Smart Start

class we see if students are actually going to stick with the program, and we ease them back into school. This course is team-taught by ABE instructors and uses the ACT® Career Ready 101 curriculum.

Upon completion of the Smart Start class, students take the following exams: ACT WorkKeys, Skills USA Employability, Skills USA Customer Service, and a prior learning assessment challenge exam to allow them to potentially earn college-level credit for their training and experience. Our goal is that they enter a college program for an associate's degree building on the certificate earned through the IET program.

Students develop a resume and job application letter as part of the employment portfolio that they learn to create in the course. The One Stop Career Center's WIOA case manager comes to the class to do mock interviews and students present their portfolios to pitch themselves for employment.

One of the positive things we have learned is that students form strong bonds in their cohort. They all start at the same time, take the TABE test to determine their basic skill levels during their first week, and start participating in career counseling sessions as a cohort. These experiences quickly help them to begin to support and hold each other accountable. If someone is missing, they call each other to see where they are.

Basic Education and Career Pathways:

After completing Smart Start, students go into a basic education program to continue working on their High School Equivalency diploma (HSE) concurrently with Employability Skills classes that prepare them for the available career pathways. If they take Applied Business Math, Computer Applications, and Word Processing, they can also receive a locally-recognized Employability Certificate.

Our Pathway classes are 50 percent team-taught and instructors meet regularly for on-going planning. We developed our contextualized curriculum working with our CTE instructors, but it was not easy. At first we were challenged to fill cohorts for our MI-BEST Programs. We realized that students didn't want to take extra classes. Therefore, we added the Applied Math class and English Comp I and Psychology to our regular basic education classes. When we counsel our students, we explain to them that English is English and that they can earn three college credits while they are working toward passing English on the HSE. We explain math in the same fashion. For Psychology, we tie it into the reading and comprehension skills necessary to pass the Science and Social Studies parts of the HSE test. We promote the program by assuring students that they aren't taking extra classes, but are earning college credit while studying and preparing for the same skills on the HSE.

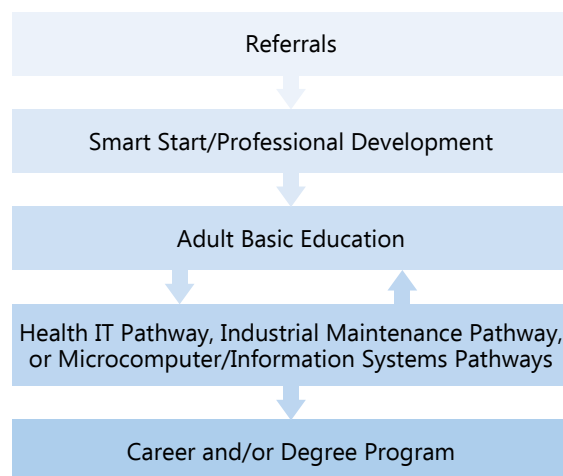
In addition, our program allows students to participate in Career Tryout, an opportunity for them to explore a career by taking several courses in a NEMCC [Workforce Career Certification program](#) without using their Pell Grant. When they complete these classes, students gain national and state certifications (e.g., Skills USA, WorkKeys, and other stackable credentials), and are eligible for internships. NEMCC pays for all fees associated with the class.

How did you create buy-in for the IET program?

Initially, the upper administration wasn't interested in dual enrolling ABE students into college unless they had earned their HSE. The former CTE Dean and the former VP of Instruction didn't want to participate because they didn't see the benefit to the college.

However, through the Gulf States grant, we have proven the benefit to the college and now everyone fully supports MI-BEST.

Tiger W.O.R.K.S. Program Flow



“Building allies internally and at the state level was important to our ability to develop IET programs. We had to build connections across departments and programs to make sure that all partners saw the benefits of this collaboration. And to be successful, we had to be persistent, creative, and not take no for a final answer.”

With our CTE colleagues within the GCT initiative, we figured out that together we had the necessary knowledge in the key areas: ABE, CTE, and workforce readiness to design the IET career pathways, and to strategize how to implement the change in our respective colleges. As a cross-state team, we met for hours each week to get the kinks out of our systems and to develop workarounds.

This effort was strengthened by the WIOA state plan, which mandates that ABE, Department of Human Services, Vocational Rehabilitation, and the One Stop Career Centers collaborate. We now refer clients to each other within a streamlined process.

In addition, being part of the statewide MI-BEST initiative helped because our college could see that other Mississippi colleges were designing IET programs. The college was already doing dual enrollment with the local high school; now they could take it one step further.

Building allies internally and at the state level was important to our ability to develop IET programs. We had to focus on building connections across departments and programs to make sure that all partners saw the benefits of this collaboration. And to be successful, we had to be persistent, resourceful, creative, and not take no for a final answer.

Conclusion

The profiles in this guide point to the importance of designing programming that fits the particular context of a local community – both its opportunities and constraints. There are ongoing challenges, not the least of which is the need for resources to support the time it takes to build a strong collaboration and to fund the comprehensive supports required for student success. It is incumbent on the field to advocate for those resources to ensure access to career pathway and IET programs for all adult students.

In these program profiles, we see many ways forward to address these challenges and strengthen programming. IET programs are finding creative ways to reduce barriers for students by: creating blended and distance learning programs that improve access; helping immigrant students get their foreign credentials recognized; educating employers about unnecessary high school credential requirements that disqualify potential job candidates; and building on-ramp or bridge programming for students not quite ready for IET coursework. Programs

are also tackling the resource dilemma by building stakeholders' awareness about the fundamental contribution that adult education makes to workforce development.

In addition to improving the design of and access to career pathways, efforts to increase the economic security of the entry-level workforce must also include making the minimum wage a living wage. Without that foundation, adult students are more likely to be pulled off their career pathways by any number of destabilizing forces. Adults at every skill level deserve a wage that enables them to work toward their next steps.

While there is much work to be done to make sure that all jobs are living-wage jobs, the profiles in this guide point to ways that programs can effectively build ladders to middle-skill work that increases the economic security and work satisfaction of adult students. We look forward to supporting a creative expansion of IET and career pathways into more options that increase the economic security and agency of workers.

Resources

Designing Instruction for IET Programs

Adelson-Goldstein, Jayme. (2016). *Preparing English Learners for Work and Career Pathways: Companion Learning Resource*. https://lincs.ed.gov/sites/default/files/Deliv3K_LINCSESL_CLR1_508.pdf

Adult Basic Education Teaching and Learning Advancement System (ATLAS). (2013). *Transitions Integration Framework*. Hamline University: MN. atlasabe.org/professional/transitions

Chernus, Kathy & Donna Fowler. (2010). *Integrating Curriculum: Lessons for Adult Education from Career and Technical Education*. <http://lincs.ed.gov/publications/pdf/IntegratingCurriculum2010.pdf>

Clymer, Carol & Blair Wilson-Toso. (2017). *Developing Basic Skills Curriculum for an IET: A Guide for the Pathways to Employment Program*. Institute for the Study of Adult Literacy. Penn State University: PA. https://sites.psu.edu/pathwaystoemployment/files/2017/02/IET-Guide_FINAL_U.ED-EDU-17-48-no-page-on-tools-p0kbvf.pdf

Goodman, Sandy. (2015). *Texas Counseling to Careers Toolkit Career Pathways for Adult Learners*. <http://docplayer.net/9776293-Texas-counseling-to-careers-toolkit.html>

Oesch, Martha & Carol Bower. (2010). *Integrating Career Awareness into the ABE & ESOL Classroom Curriculum*. National College Transition Network at World Education: MA. <http://www.collegetransition.org/publications.icacurriculum.html>

Southern Illinois Professional Development Center. (2016). *Contextualized Bridge Class Curriculum*. <http://www.siu.edu/SIPDC/Transitioning/Curriculum.htm>

U.S. Department of Labor. *Skills Commons Repository*. <https://www.skillscommons.org/>

World Education E-Learning PD. *Integrating Career Awareness into the ABE & ESOL Classroom*. Facilitated online course. <http://elearningpd.worlded.org/integrating-career-awareness>

World Education E-Learning PD. *Contextualized Instruction*. Facilitated online course. <http://elearningpd.worlded.org/contextualized-instruction>

World Education E-Learning PD. *Team Teaching an Integrated Curriculum*. Facilitated online course. <http://elearningpd.worlded.org/team-teaching-an-integrated-curriculum>

Wrigley, Heide. (2016). *Preparing English Learners for Work and Career Pathways*. https://lincs.ed.gov/sites/default/files/ELL_Context_Instruction_508.pdf

IET Program Models and Outcomes

Anderson, Theresa, Eyster, Lauren, Lerman, Robert, Conway, Maureen, O'Brien, Carolyn, Jain, Ranita & Marcela Montes. (2015). *The Second Year of Accelerating Opportunity: Implementation Findings from the States and Colleges*. Urban Institute and The Aspen Institute. <http://www.urban.org/research/publication/second-year-accelerating-opportunity-implementation-findings-states-and-colleges>

Jenkins, Davis, Matthew Zeidenberg, Matthew & Gregory Kienzl. (2009). *Educational Outcomes of I-BEST: Washington State Community and Technical College System's Integrated Basic Education and Skills Training Program: Findings from a Multivariate Analysis*. Community College Research Center. New York: NY. <http://ccrc.tc.columbia.edu/publications/i-best-multivariate-analysis.html>

Jobs for the Future. *The Virtual Academy*. <http://acceleratingopportunity.org/virtualacademy/about>

MDRC. (2017). *The Power of Career – and Employer Focused Training and Education*. New York: NY. http://www.mdrc.org/sites/default/files/LookingForward_SectorStrategies_rev.pdf

MDRC. (2013). *Enhancing GED Instruction to Prepare Students for College and Careers: Early Success in LaGuardia Community College's Bridge to Health and Business Program*. New York: NY. <http://www.mdrc.org/publication/enhancing-ged-instruction-prepare-students-college-and-careers>

Mortrude, Judy. (2016). *Defining On-Ramps to Adult Career Pathways*. Center for Law and Social Policy. Washington, DC. <http://www.clasp.org/resources-and-publications/publication-1/Minnesota-Career-Pathways-On-Ramps.pdf>

U.S. Department of Labor. (2015). *Career Pathways Toolkit: A Guide for System Development*. https://www.doleta.gov/usworkforce/pdf/career_pathways_toolkit.pdf

State-level IET Policy Guidance

Bergson-Shilcock, Amanda. (2016). *Integrated Education and Training Policy Toolkit*. National Skills Coalition. Washington, DC. <http://www.nationalskillscoalition.org/resources/publications/file/Integrated-Education-and-Training-Policy-Toolkit.pdf>

Bergson-Shilcock, Amanda. (2016). *Integrated Education and Training Policy 50-State Scan*. National Skills Coalition. Washington, DC. <http://www.nationalskillscoalition.org/resources/publications/file/Integrated-Education-Training-Scan.pdf>

DeRenzis, Brooke & Bryan Wilson. (2015). *Sector Partnership Policy Toolkit*. National Skills Coalition. Washington, DC. <http://www.nationalskillscoalition.org/resources/publications/file/Final-Sector-Partnership-Policy-Toolkit-1.pdf>

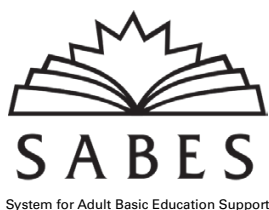
Mortrude, Judy. (2017). *Integrated Education and Training: A Career Pathways Policy and Practice*. Center for Law and Social Policy. Washington, DC. <http://www.clasp.org/resources-and-publications/publication-1/Integrated-Education-and-Training-A-Career-Pathways-Policy-Practice.pdf>



Founded in 1951, World Education, Inc. is a nonprofit organization dedicated to improving the lives of the poor through education, and economic and social development. World Education works in 20 countries to open educational opportunities for adults, youth, and children. We improve the quality of programs through professional development, curriculum and leadership development, and technology solutions. We focus on college and career readiness

and pathways to good jobs; support for AIDS orphans and vulnerable children; refugee training; elimination of child labor and human trafficking; maternal and child health; micro-enterprise development; and more. We work in partnership with non-profit and government organizations.

World Education/U.S. strengthens the effectiveness of educators, organizations, and systems to support adults, older youth, and communities to thrive. In the U.S, you may know us through



worlded.org/us • @worlddedus • literacy@worlded.org • 44 Farnsworth Street, Boston, MA 02210

