



Advancing Opportunities for Women through Apprenticeship

A CASE-BASED RESOURCE GUIDE



WOMEN'S BUREAU
UNITED STATES DEPARTMENT OF LABOR



Women's Bureau Case-Based Resource Guide Advancing Opportunities for Women through Apprenticeship

For 100 years, the Women's Bureau (WB) has fulfilled its mission to help women across the country have access to the resources to thrive in the workforce. When the WB was established in 1920, women comprised 21 percent of the workforce. Today, women make up nearly half of the workforce.

The impact of women on our economy is real, especially in the face of the historic coronavirus pandemic. For every woman on the front lines of this crisis, working as a doctor, nurse or other medical professional, there is another woman working in childcare, the service industry, or the restaurant and hospitality industry that is depended on to keep our nation moving.

As we face our current realities, the nature of work has and will continue to evolve, but what has been made very clear, is that addressing the needs of working women ultimately addresses the needs of our critical infrastructure.

Right now, over half a million women in the United States work as the childcare providers that other working women and job seekers depend on both during a crisis and while carrying on their daily lives. It is also one of the many career pathways that are being improved by President Donald Trump's 2017 Executive Order expanding apprenticeships.

As our economy works to recover from the recent effects of the coronavirus and women across a diverse range of industries return to work and seek out emerging opportunities, new initiatives must be developed and traditional career pathways redesigned to best capture the full spectrum of creative talent available in America's workforce.

Whether in childcare or coding, apprenticeships—demand-driven education models—provide the opportunity for Americans to train for market-needed skills at any point in life, often regardless of education or previous work experience. Apprenticeships are a growing solution for employers struggling with the skills gap, allowing employers to create their own pipeline of talent and fill open jobs, but they also expand opportunities for women to grow professionally in their chosen fields.

The WB initiated a focused effort to expand women's access to these apprenticeships, including in fields where women are traditionally underrepresented, such as science, technology, engineering, and math (STEM), by developing this case-based resource guide. This guide provides a roadmap for replicating apprenticeship and pre-apprenticeship models for recruiting and retaining women in high-demand careers across a range of industries. These promising programs reflect the changing nature of work, and the professional and personal obligations that work demands of our nation's workforce and their families.

American families are the center of President Trump's agenda. WB hopes this guide will provide readers with insights and practical strategies for improving women's access to and retention in apprenticeship programs. Our nation will recover from this pandemic, and with new, 21st century models of work and work training, we will again reach full employment, and women will not be left behind.

Laurie Todd-Smith, Ph.D.
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EXECUTIVE SUMMARY

Introduction

On June 15, 2017, President Trump issued an Executive Order that called for expanding apprenticeships in America.¹ The Executive Order promotes apprenticeships to help more Americans develop employer-valued skills, obtain high-paying jobs, and enter low-cost pathways to careers through paid, relevant workplace experiences. While apprenticeship is a proven training model that helps individuals develop the skills for a career, it has not been fully accessed by a key segment of our nation's workforce—women.

Women's Participation in Apprenticeship

In 2019, approximately 13 percent of apprentices were women—although women comprised 47 percent of the overall U.S. workforce.² Women's participation in apprenticeship programs differs from men's participation in three key ways:³

- Women participate at much lower levels than men, as noted above.
- Female apprentices train in different occupations and are far more concentrated in social services occupations.
- Women have lower completion rates in construction and other skilled trade apprenticeships, which comprises the vast majority of apprenticeship programs in the United States.

Consistent with the Executive Order's focus on increasing access to apprenticeship for all workers, the U.S. Department of Labor (USDOL) Women's Bureau (WB) recently launched a focused effort to expand women's access to quality career pathways through increased participation in apprenticeships. A vital part of the effort is this *Advancing Opportunities for Women through Apprenticeship* case-based resource guide, which provides a framework for meaningful expansion of apprenticeship programs for women. The guide includes [case studies](#) on four high-quality, women-inclusive pre-apprenticeship and apprenticeship programs in a range of industry sectors. Before the case studies, the guide identifies common [strategies](#) across the four programs to help others learn how to create programs that successfully open pathways to in-demand jobs for women through apprenticeships. Following the case studies, the guide includes the list of [sources](#) cited.

This guide focuses on Registered Apprenticeship Programs. In March 2020, the Department of Labor published a final rule on Industry-Recognized Apprenticeship Programs (IRAPs) which establishes a new pathway for expansion of apprenticeships. The rule describes how Industry Programs may operate in parallel with the existing registered apprenticeship system. The new industry-led, market-driven approach will provide the flexibility necessary to scale the apprenticeship model where it is needed most and help address America's skills gap. With this exciting new change, the strategies utilized by the four programs in this guide will be relevant and useful to expand the representation of women in apprenticeships.

Women's Bureau

The WB was established as part of USDOL in 1920 to promote the welfare of wage-earning women and advance their opportunities for profitable employment. Nearly 100 years later, the WB continues to advocate for women in the workforce by identifying, researching, and analyzing the topics working women care about most; pioneering innovative policies and programs to address these topics; and enhancing public education and outreach efforts to raise awareness on key issues and developments affecting women in the workforce.⁴

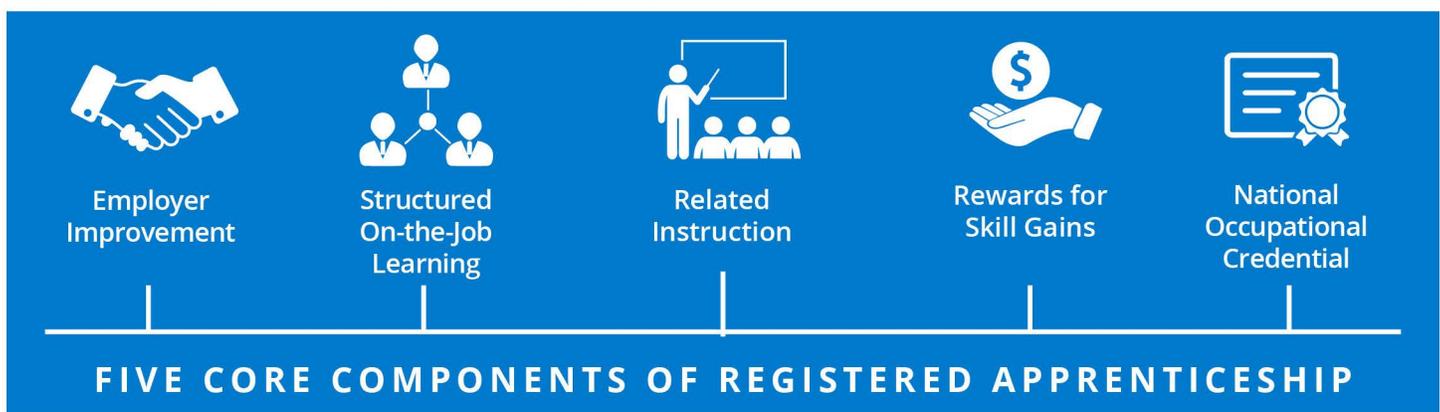
The WB recognizes that equal opportunity in the labor market positively impacts not only the individual woman's financial stability, but also the broader economic security of her family and, ultimately, the economic well-being of the nation.⁵ Enhancing economic security and career opportunities for women through pre-apprenticeship and apprenticeship programs is an important strategy for supporting this equality in the workforce.

Registered Apprenticeship and Pre-Apprenticeship Programs

Apprenticeship is an industry-driven, high-quality career pathway where employers can develop and prepare their future workforce, and individuals can participate in paid, relevant workplace experiences to acquire the skills and credentials that employers value. The apprenticeship model has several key elements:

- Apprenticeships are jobs, and employers pay apprentices during training;
- Apprenticeship programs provide on-the-job learning and job-related classroom training;
- On-the-job learning is conducted in the work setting under the direction of a mentor;
- Apprentices receive increases in wages as they gain higher level skills; and
- Training results in an industry-recognized and nationally portable credential.

Figure 1: Components of Apprenticeship Programs



The length of an apprenticeship program can vary depending on the employer, occupation, industry, and program type. The growth in apprenticeship programs can be attributed to several factors that create a return on investment for employers:⁶

- Apprenticeship programs make it easier to find workers with the skills employers are looking for in the current labor market.
- Apprenticeships may also reduce hiring costs by providing a streamlined channel to bring on new workers.
- Apprenticeships may reduce attrition by building a bond of loyalty between company and employee or by providing an opportunity for motivated young people to stay rooted in their communities.

- Apprenticeships often lead to faster advancement in the company, helping companies develop their future leaders.

Apprenticeship programs can be registered by the USDOL's Office of Apprenticeship or a DOL-recognized State Apprenticeship Agency. Registration of an apprenticeship program means "the acceptance and recording of such a program by the Office of Apprenticeship, or registration and/or approval by a recognized State Apprenticeship Agency, as meeting the basic standards and requirements of the Department for approval of such program for Federal purposes" (29 CFR § 29.2). Recognition of successful completion of a Registered Apprenticeship program is evidenced by a certificate issued by the Office of Apprenticeship or a DOL-recognized State Apprenticeship Agency (29 CFR § 29.5 (b)(15)). To register, businesses, labor organizations, intermediary organizations, and others that sponsor apprenticeships provide a set of program standards describing the program and compliance with regulatory requirements to USDOL or a State Apprenticeship Agency for review and approval.

Pre-apprenticeship programs are designed to prepare individuals to succeed in apprenticeship programs. The USDOL's framework for pre-apprenticeship programs outlines that quality pre-apprenticeships incorporate approved training and curriculum, strategies for long-term success, access to appropriate support services, and facilitated entry.⁷ Within these elements, the pre-apprenticeship model can be adapted to meet the needs of the population being trained, the workforce needs of businesses, and the employment opportunities available within the local labor market. Community-based organizations and other workforce intermediaries are frequently the providers of pre-apprenticeship services. Pre-apprenticeship programs work closely with industry partners to ensure successful completers are qualified to enter apprenticeships. Pre-apprenticeships often include strategies that increase apprenticeship opportunities for underrepresented, disadvantaged, or lower-skilled individuals.

Description of the Case Study Programs

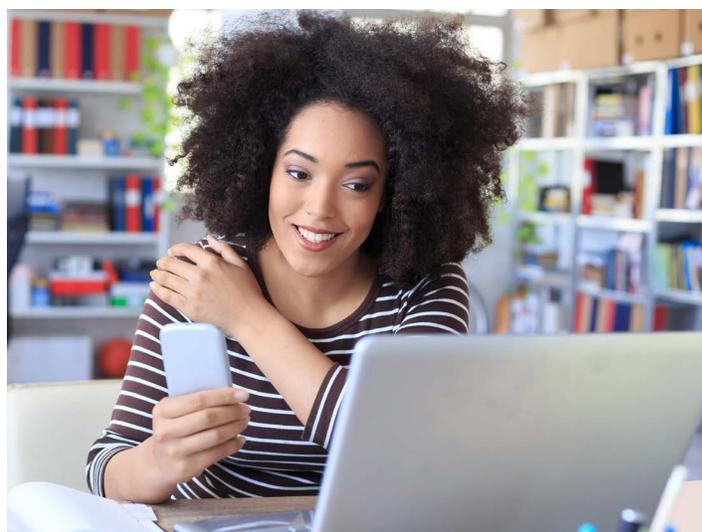
This guide provides readers with an understanding of how four organizations are fostering success for women through pre-apprenticeship and apprenticeship programs. The case studies were developed through on-site visits to the program locations; interviews with program staff, partners, and current and former participants; and a review of program materials and data. They provide information and insights related to partnership development, program design, and outcomes that outline how pre-apprenticeship and apprenticeship programs can help women access family-sustaining jobs and quality career pathways. Businesses and partner organizations can look to these four programs that have successfully implemented replicable elements for attracting, retaining, and training women in a variety of industry sectors.

Techtonic – Software Developer Apprenticeship. A woman-owned software development company in Boulder, Colorado that taps into an under-utilized workforce that includes women, youth, veterans, and people of multicultural backgrounds, while also removing the barriers to employment that exist within the technology industry—especially for women. Breaking away from the standard IT boot camp training model and requirement for entry-level IT employees to have degrees, Techtonic empowers apprentices with hands-on development of real client projects. Learn more at techtonic.com/apprenticeships/overview.

Moore Community House – Women in Construction Pre-Apprenticeship. A pre-apprenticeship program in Biloxi, Mississippi that prepares economically disadvantaged women, primarily single mothers, to enter careers in the skilled trades—a field not traditionally pursued by women. The pre-apprenticeship also provides the area's construction industry with qualified, entry-level workers. The program is an innovative training model with built-in comprehensive supportive services, such as individualized case management and funding for child care and transportation. Learn more at moorecommunityhouse.org/winc.

District 1199C Training & Upgrading Fund – Early Childhood Education Apprenticeship. An apprenticeship program in the Philadelphia region with a focus on improving the educational and employment outcomes for the early childhood education workforce—a field almost entirely comprised of women. District 1199C Training & Upgrading Fund (Training Fund) is changing the trajectory of the lives of ECE workers by providing debt-free access to accelerated pathways to higher education degrees and wage increases. The apprenticeship is also creating a higher-skilled workforce with strong retention to address the demand for early childhood education teachers in the region. Learn more at 1199ctraining.org.

NRAEF and AHLA – Hospitality Sector Registered Apprenticeship (HSRA). A national apprenticeship program that offers a direct path to upper management and credential attainment in the hospitality industry and is administered by the National Restaurant Association Educational Foundation (NRAEF) and the American Hotel & Lodging Association (AHLA). Through formalized instruction and training that equips individuals with the knowledge, skills, and confidence to advance in hospitality-focused careers, this program is filling a gap in the industry by putting women on a path to upper-level management positions. Learn more at chooseresaurants.org/Apprenticeship and <https://www.ahlafoundation.org/apprenticeship>.



STRATEGIES FOR ENHANCING OPPORTUNITIES FOR WOMEN IN APPRENTICESHIPS

While apprenticeship programs offer women a pathway to careers with higher skills and increased pay, several challenges can stand in the way of women pursuing and succeeding in apprenticeships. Some common challenges for women include securing consistent and affordable child care, lack of pay during the classroom training component of the apprenticeship, incomplete information about the career path, and harassment and exclusion at male-dominated construction and skilled trades worksites.⁸ The four case studies presented in this guide address these challenges by providing comprehensive services and support and implementing other effective program strategies such as building strong strategic partnerships, implementing robust recruitment and screening systems, and aligning the workplace and occupational skills training to industry needs. As apprenticeships continue to expand, businesses and partner organizations can look to these four programs that have successfully implemented replicable elements for attracting, retaining, and training women in a variety of industry sectors.

Participant Success Strategies

The case studies highlighted several common strategies that organizations can take to promote success for women in apprenticeship.

- **Personalized support for women during and after completion of the program.** Although the structure of support can vary by program, support from mentors, case managers, peer apprentices, and others; frequent touchpoints and communication to provide individual feedback; and a culture that encourages women to ask for help when needed are critical. In all case study programs, individual barriers to success are identified early and participants are connected to community partners who provide resources and services to address these needs. The unique circumstances of the participants are addressed through flexible training plans that challenge them to grow professionally and personally. This holistic approach also fosters a relationship built on trust and respect that carries women through the rigor of the program—and creates a sense of loyalty once they complete the program.
- **Role models who share their experiences and encourage participants to persist through difficulties along the way.** Women value having women in leadership positions as role models.⁹ The participants in the case study programs communicated that the admiration and respect they have for these women motivate them to be successful. Moore Community House invites successful females in the construction industry to interact with participants; Tectonic matches female mentors to female participants; and all programs include female instructors for the classroom training component of the apprenticeship. These practices make female role models consistently visible and available to participants.
- **Financial assistance that enables women to begin and successfully complete the program.** Removing financial barriers is a strong success factor for women to enter and complete apprenticeship programs. The case study programs strategically partner with government agencies, workforce centers, community-based organizations, and others to provide this assistance to participants. For example, Moore Community House provides funding for child care and transportation through partners; the Training Fund leverages federal student financial aid and other educational programs to cover the cost of the classroom training at community colleges; and Tectonic taps into multiple federal, state, foundation, and non-profit programs so that there is no cost for apprentices. This financial assistance enables women to overcome barriers that could limit their success.¹⁰

- **Strategies that increase the self-confidence of participants.** Leaders in the case study programs identify self-confidence as an essential component of success as women move up the career ladder—especially in male-dominated industries like information technology or construction. While the methods for increasing self-confidence may vary, the support system and hands-on learning of all four programs foster personal growth. The structured mentoring and evaluation built into the programs serve as mechanisms for participants to value both encouragement and criticism and understand that growth comes not only from having successful experiences but also from learning from mistakes. On-the-job learning provides women with the opportunity to feel the pressure and satisfaction of producing real results while under the guidance of experienced professionals.

Program Success Strategies

Leaders in apprenticeship and pre-apprenticeship share a common goal—to recruit, train, and retain skilled workers. Common strategies identified across the programs in this guide demonstrate how programs can be successful in a variety of industry sectors.

- **Strategic partnerships that enable effective design, implementation, and sustainability.** Successful apprenticeship programs require high-quality training as well as support systems for apprentices. Each partner that supports the apprenticeship programs featured in this guide contributes in their own way, bringing resources, experience, and knowledge to ensure a comprehensive program design. Strategic partners in these apprenticeship programs include the following:
 - Businesses that help understand and incorporate the skills they need into the program;
 - Community colleges that provide classroom-based training;
 - Workforce and non-profit organizations that help recruit and screen candidates;
 - Businesses that provide on-the-job learning or hire the program graduates; and
 - Government and community-based organizations that provide support for specific populations—like women—and help build sustainability within host communities.

The success of all these multi-partner approaches stems from an articulated and shared understanding of program goals, partner roles and responsibilities, and ongoing communication.

- **Rigorous selection processes to find the best candidates for the program.** A robust, multi-step selection process ensures that the best candidates are selected for the program and increases the likelihood that the participants will complete the program and advance after graduation. While the exact structure and process can vary, a few examples of effective selection strategies include the following:
 - Techtonic’s multi-step process that provides numerous ways for program staff to assess candidates;
 - Opportunities for hands-on work so candidates get a feel for the work in the field and confirm their interest; and
 - The HSRA program’s recruitment of current employees that starts with strong recommendations from their managers.

The high retention rates of each program attest to the impact of these rigorous vetting processes.

- **Alignment of training to the in-demand skills and credentials required by employers.**

Apprenticeship training is designed to prepare workers with the skills in demand by employers in the industry sector. Through close partnerships with businesses and industry organizations, these programs not only align to current workforce skills, but are flexible enough to respond to changing industry needs. Strategies that these programs utilize include developing classroom and on-the-job learning based on national curriculum and competencies identified for the occupation by employers, utilizing industry associations to validate that the programs are in alignment with industry needs, aligning training to attainment of industry-recognized credentials, and maintaining ongoing communication with businesses to discuss their skill needs. For example, NRAEF and AHLA, through their position as industry associations, look to their members for information on skill needs; Techtonic's business model of designing software for multiple clients provides insight into hiring needs and competencies the industry is requiring; and the Training Fund has an established employer-led Apprenticeship Committee that makes decisions about the apprenticeship program.

- **The role of intermediaries in launching and growing apprenticeship programs.** By reducing the resources employers need to design and manage apprenticeship programs, intermediary organizations can impact the success and growth of apprenticeships. NRAEF and AHLA fulfill the management and reporting requirements of a USDOL-registered apprenticeship program for the HSRA, while the Training Fund prepares, submits, and monitors procedures and required documentation for the early childhood education apprenticeship registered with the Commonwealth of Pennsylvania. In both cases, the centralized administrative role serves to minimize paperwork and management for the employers and serves as an important incentive for bringing new employers into the program. These intermediaries also play a role in the design of the classroom and on-the-job learning for the apprenticeship, facilitating the development of a program that can be adopted by multiple employers. This role also allows the intermediary to ensure that the program components are implemented consistently and with high quality at each participating worksite.



SOFTWARE DEVELOPER APPRENTICESHIP
Tectonic

SOFTWARE DEVELOPER APPRENTICESHIP

Techtonic

Software developers in the technology industry are in high demand. With an expected job growth of 24 percent between 2016 and 2026, this demand is likely to continue.¹¹ Techtonic is a software development company that is using apprenticeship to tap into an underrepresented workforce that includes women, youth, veterans, and people of multicultural backgrounds to meet this workforce challenge. This small, woman-owned company is removing the barriers to employment that exist within the technology industry—especially for women. Techtonic’s apprenticeship program is both opening career pathways for women in technology and addressing the company’s need for diverse and high-skilled talent.

Background

While the need for software developers continues to grow, women’s participation in the technology industry has steadily declined. For example, from 2000 to 2019, the percentage of women employed as software engineers decreased from 24 percent to 19 percent.¹² With women comprising more than 30 percent of graduates from Techtonic’s apprenticeship program, the company is reversing this trend by increasing the number of women entering the industry.

Techtonic’s program started in 2014 as a non-registered apprenticeship training program. The CEO partnered with [Workforce Boulder County](#), a local government organization that focuses on those who are unemployed or underemployed, with the goal of recruiting from an underutilized population. After operating the program for three years, the CEO decided to register it as an apprenticeship program through USDOL. While there were only a few apprenticeship programs in the IT sector at the time, she felt this approach would enable the company to scale its training program to reach an even larger, more diverse population and leverage federal and state resources to make it sustainable.

In collaboration with the USDOL Office of Apprenticeship, Techtonic staff began the registration process. Designing the program for an industry that didn’t fit the traditional apprenticeship model brought challenges, such as outdated terminology and time requirements for the classroom and on-the-job learning. Through effective employer-government collaboration, the required apprenticeship program application forms were adapted to reflect terminology that aligned with the industry, and time requirements were adjusted to fit Techtonic’s needs while staying within required federal guidelines. With the program registered with USDOL, in February 2016, the company launched Techtonic Academy, the first software developer apprenticeship program in the country, paving the way for others to follow.

PROGRAM SNAPSHOT

Organization: Techtonic

Industry Focus: Information Technology

Location: Boulder, Colorado

Program Type: Registered Apprenticeship Program

Wages at Start and End of Program: \$15/hour to \$30.64/hour

Cost to Participants: No cost

Program Length: 12 months

Participants: 65 apprentices currently in the program, with 20 female participants

Program Graduates: 33 completed the program—11 female, 22 male

Key Partners: [Adams County Workforce & Business Center](#); [CrossPurpose](#); [Cielo Foundation](#); [Denver Office of Economic Development](#); [Emily Griffith Foundation](#); [Jefferson County Business & Workforce Center](#); [Larimer County Economic and Workforce Development](#); [Employment Services of Weld County](#); [Workforce Boulder County](#); and [WorkLife Partnerships](#)

Impact: With more than 30 percent female graduates, Techtonic is creating opportunities for women in technology and changing the image of the industry

Program Description

TECHTONIC ACADEMY APPRENTICES RECEIVE THE FOLLOWING:

- A starting wage of \$15/hour beginning the first day of the apprenticeship;
- 12 weeks of instructor-led classroom training;
- 40 weeks of on-the-job learning working on projects for Tectonic customers;
- Ongoing training and mentorship from senior developers; and
- Development in professional skills, such as teamwork and communication.

Tectonic's apprenticeship program is a competency-based apprenticeship for software developers. Partnerships with the USDOL Office of Apprenticeship and the Colorado workforce centers in the Boulder region, provide invaluable knowledge and resources as staff work collaboratively with Tectonic to operate and enhance the program. The relationships that Tectonic has built with these partners has resulted in a valuable recruiting stream, candidate support systems, and access to funding—all of which foster success for the program and the apprentices who participate.

The program has two phases: (1) 12 weeks of rigorous classroom learning as a student apprentice, followed by (2) 40 weeks of on-the-job learning doing real projects with real clients. Through both phases, apprentices experience a corporate environment through a mix of coding, culture, and collaboration.

Tectonic has incorporated strategies that contribute to apprentices' learning and development, while also influencing their future success as full-time employees:

- Apprentices work in groups as part of their classroom and on-the-job learning, so they are quickly initiated into a culture of working with and supporting others;
- Apprentices are put into leadership positions, such as team captains, early in the program, so they experience what it feels like to be trusted in a leadership role;
- Apprentices have hands-on experiences and opportunities to lead diverse project teams, which empower women by teaching them what it feels like to be in leadership positions and respected in their profession; and
- Apprentices learn to value the diverse thinking that comes from groups that are made up of individuals with varying backgrounds and demographics.

Recruitment and Selection

Tectonic partners with workforce centers in the region and non-profit organizations to recruit applicants for the program. These organizations are able to reach women and other underrepresented populations and help support the diverse pipeline of possible candidates for the apprenticeship. As staff at these organizations work with job seekers to find training or employment, they recommend the Tectonic Academy to those who have the potential to be successful and assist them in the online [application](#) process.

Tectonic uses several other recruitment strategies that reach diverse populations, including women:

- The company [website](#) includes pictures, videos, and case studies that include successful women at the company. An overview of the program and an online form to request more information is easily accessible to women who are interested;

“Tectonic has created an environment that has great energy...It doesn't matter whether you're a female, male, or a minority...you're just a member of the team. If you could recreate that in other companies, we probably wouldn't have the issues with diversity at all.”

– Liz Ojeda, Denver Office of Economic Development

- Tectonic uses social media channels and job sites such as LinkedIn, Facebook, Craigslist, and Indeed to reach diverse populations;
- Two-hour informational sessions provide information on the apprenticeship, application process, and funding, and allow potential applicants to meet directly with Tectonic staff and ask questions about the program or a career in software development;
- Word-of-mouth through past apprentices or family members brings many applicants—especially women—to the program; and
- National and local media coverage of the program has also increased program interest and the number of applicants.

Tectonic has learned that finding a balance between a rigorous process of assessing candidates, while providing support for them in that process, leads to selecting candidates that have a greater chance of program completion. Applicants range from people who have never coded before to those who have completed college and already have industry certifications or experience. The selection process has changed over time—what started as a phone interview with prospective apprentices and contacting references has evolved to a much deeper screening process that can take anywhere from two to six weeks to complete.

DRIVER OF SUCCESS

Rigorous Selection Process
By including pre-work assignments, an in-person interview, and hands-on work in the selection process, Tectonic not only assesses technical skills, but also the attitude and passion each candidate has for the work.

Interested candidates access information about the steps to becoming an apprentice by filling out an online [form](#) found on the company's website. A form submission automatically prompts Tectonic Academy's recruitment manager—a female with software development experience and a passion for supporting women in the industry—to reach out to the individual and introduce them to the selection process.

Figure 2: Tectonic Academy Selection Process



Techtonic receives between 250 and 500 applications for each 20-person class offered twice per quarter. Through this process, Techtonic can determine a candidate's technical ability and passion for the work as well as identify essential professional skills like communication, collaboration, persistence, critical thinking, and problem-solving ability. These qualities contribute to a candidate being a successful apprentice, and a successful software developer after completion. The real-time work that is part of the process gives candidates a true sense of what it takes to do the job before they start the program, increasing the chances of them persisting and completing once admitted.

Participant Supports

Techtonic leverages the services and resources of partners to ensure every apprentice in the program gets the support needed to be successful. The cost of the apprenticeship is \$10,000, but grants are available through non-profits, foundations, and federal, state, and county agencies to cover the cost. If the applicant does not qualify for an external grant, Techtonic will provide funding from the company's scholarship fund, so that there is no cost to the apprentice for participation in the program.

In addition to financial support, partner organizations provide interpersonal supports to apprentices as well. Every applicant meets with a job seeker support specialist at one of the local workforce centers to discuss barriers the individual faces to be successful in the program. For barriers identified, including childcare and transportation, individuals are connected with resources to help address them.

Techtonic employees also provide support to participants throughout the apprenticeship program. This support begins by addressing concerns and questions from prospective applicants and continues with mentoring during the classroom and on-the-job learning. Apprentices become part of the "Techtonic family" from the day they accept the offer to join the program. Mentorship is embedded in the company culture: senior developers mentor mid-level developers, and mid-level developers mentor new hires or apprentices. Within six months, apprentices who become Techtonic employees are matched with apprentices to mentor. In addition, strong communication channels among employees at all levels create an environment that enables staff to address issues or concerns before they escalate. Apprentices know there is always someone they can go to for support, and they can be open and honest about the areas where they may be struggling or could use additional help.

"Over time we identified that one of the keys to success is giving people exposure to a day in the life of a software developer."

- Chris Magyar, Techtonic Chief Academy Officer

DRIVER OF SUCCESS

Financial Support from Partners

By partnering with workforce centers and non-profit organizations, the company has been able to eliminate two of the largest barriers of entry into the technology field—the high cost of entry-level training and the need to earn an income—and provides access to child care resources or career counseling when needed.

DRIVER OF SUCCESS

Personal Support

An element of success identified by both staff and female apprentices is a supportive environment where women feel comfortable asking for help. This culture makes a difference to apprentices who are first entering the program and may initially lack the confidence to be successful.

Classroom Learning

During the initial 12 weeks of the apprenticeship, the student apprentices attend classes Monday through Friday from 8:30 a.m. to 5:00 p.m. Apprentices are paid \$15 per hour the day they start classes and are given an increase to \$17 per hour after the first two months. The 20-person classes are taught by five instructors, including one female, who are experienced software developers or Tectonic Academy graduates with a passion for helping others.

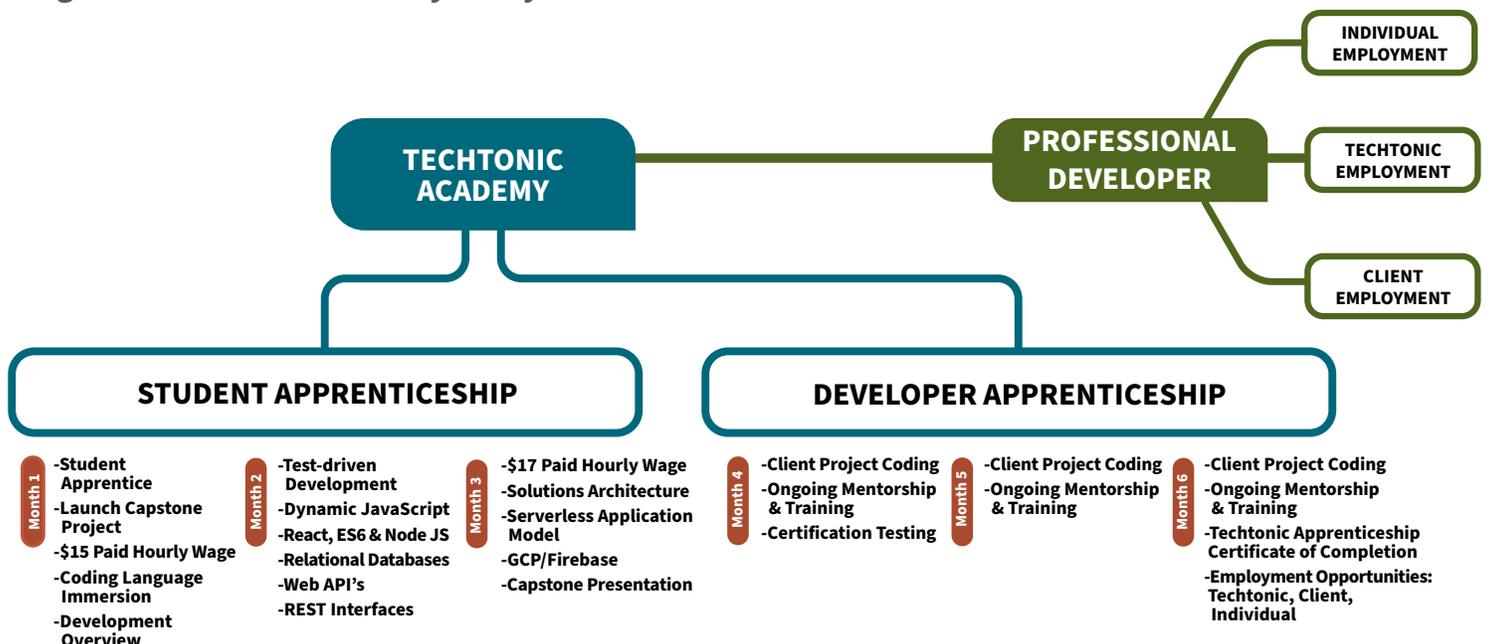
The curriculum for the classroom learning was developed by Tectonic based on the competencies and skills necessary in the industry. Classroom activities include writing software code, participating in individual and group projects, and making presentations about their assignments. Apprentices also work on a group capstone project that they present to the company leadership and staff. At the end of the 12 weeks, the Tectonic Academy instructors carefully review each apprentice's portfolio of work and determine if the apprentice is ready for the next stage of the apprenticeship—on-the-job learning. Each apprentice earns a Tectonic Certificate of Class Completion after successfully finishing this phase of the apprenticeship.

On-the-Job Learning

After apprentices complete the classroom training, they become developer apprentices and participate in on-the-job learning. Developer apprentices earn \$17 per hour. They work side-by-side with an experienced developer on real projects for Tectonic clients. As part of a project team, apprentices learn valuable teamwork and communication skills that are necessary for success as a software developer.

Once developer apprentices complete 1,000 hours of on-the-job learning and master the required competencies, they are promoted to professional developers. They complete their remaining 1,000 hours as professional developers in one of the following ways: (1) as an employee at Tectonic, (2) through employment with a Tectonic client, or (3) through employment with another IT company that signs a formal agreement to fulfill the remainder of the apprenticeship program. After completing the 2,000 hours required in the apprenticeship, apprentices are awarded a USDOL Certificate of Completion of Apprenticeship and promoted to permanent full-time employment. In addition, apprentices can obtain industry certifications in HTML/CSS and JavaScript during the apprenticeship program.

Figure 2: Tectonic Academy Lifecycle



Techtonic uses several approaches to bridge the transition when apprentices move from the classroom learning (student apprentices) to on-the-job learning (developer apprentices).

- A Standardization and Integration Taskforce fosters communication between staff who support apprentices during each phase;
- Senior developers are invited to be guest speakers in each class, which allows apprentices to meet and learn from senior developers and for senior developers to meet apprentices before they transition to on-the-job learning;
- Developer apprentices continue to have access to instructors from the classroom training after they transition to on-the-job learning; and
- Apprentices are assessed using a similar evaluation form during classroom and on-the-job learning. This approach enables a consistent way of evaluating competencies and gathering feedback in both phases of the apprenticeship.

Program Impact

Techtonic is an anomaly in an industry that has seen a steady decline in female participation. The Techtonic Academy has had 39 female participants since 2016, and more than 30 percent of the apprenticeship graduates are women. In addition, several women who have completed the apprenticeship have transitioned into leadership roles at Techtonic as Project Development Team Leads.

The Techtonic apprenticeship is not only making an impact on diversity in the IT industry, but it is also making a difference in the lives of the women who participate in the program. On average, women have experienced a 79 percent wage increase after being in the program. With a 70 percent completion rate, women earn \$30.94 per hour on average and are well-positioned in an industry that provides financial stability and opportunity for growth.

DRIVER OF SUCCESS

Continuous Improvement

Techtonic has a continuous improvement approach that is closely intertwined in the assessment process of the individual apprentices. The continuous feedback that staff receive from apprentices through routine meetings and online surveys helps improve the program and the process in real time.

DRIVER OF SUCCESS

Female Role Models

The female CEO of Techtonic has become a role model for the industry and an influence on women who are interested in the apprenticeship program. The company also has women in key roles in Techtonic Academy, including an instructor and the recruiting manager. In addition, the women who have completed Techtonic's apprenticeship program have now become role models for those who wish to pursue the program and careers in technology.

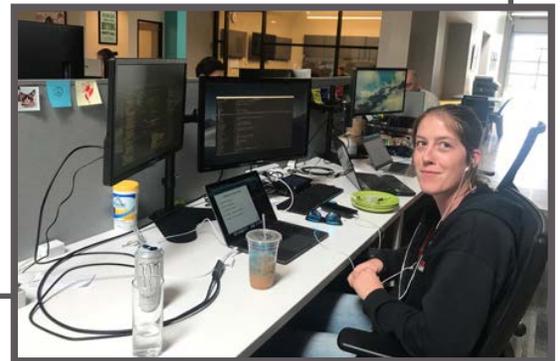


SUCCESS STORY – ALLY

Ally started as an apprentice at Techtonic Academy in February 2018. Before that, she was working as a pizza delivery driver. As a single mother raising two young children, her responsibilities limited her options to pursue an education, but the apprenticeship opened up a new opportunity. Ally was paid a good wage that enabled her to financially support her family and she was able to secure funds through the local workforce center to cover the training costs.

When Ally began the program, she had very little confidence. She learned how to work in a business setting, work as part of a team, communicate with others, and adapt to the environment. The people she met along the way made all the difference for Ally—classmates, instructors, software developers who became mentors, and many others.

Ally graduated in October 2018 and continues to work as a quality assurance engineer at Techtonic. Like so many who have had the opportunity to be an apprentice, she feels a sense of loyalty to the company. She loves Techtonic's mission and wants to continue to grow with the company. Her advice to other women is never give up, *"I just wish I had the right words for those who don't have the confidence, to let them know that they can do this."*

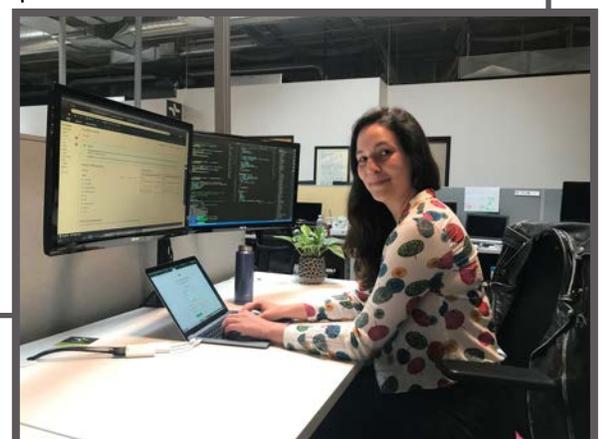


SUCCESS STORY – URSULA

Ursula moved to Boulder, Colorado in the summer of 2017 with a college degree in studio art and art history, but she was struggling to find her niche. She heard about the apprenticeship program from a hiring manager at another company and went to one of Techtonic's informational sessions. While there, she talked to a team lead who encouraged her to apply.

Ursula started the apprenticeship in September 2018 supported by funding through a state grant. Ursula has learned valuable interpersonal skills through being the team lead on a project. As a woman with no leadership experience, she had to learn how to bring a gender-diverse team together and take an idea through product completion. She was surprised at how important it is to have collaboration and problem-solving skills in an IT career.

Ursula likes coding and wants to move up the developer career ladder. Her goal is to graduate from the apprenticeship and become a full-time professional developer at Techtonic. Ursula's advice to other women is to, *"trust those around you and not be afraid to ask for help. Those that do not succeed are those that are afraid to ask for help and end up further and further behind."*



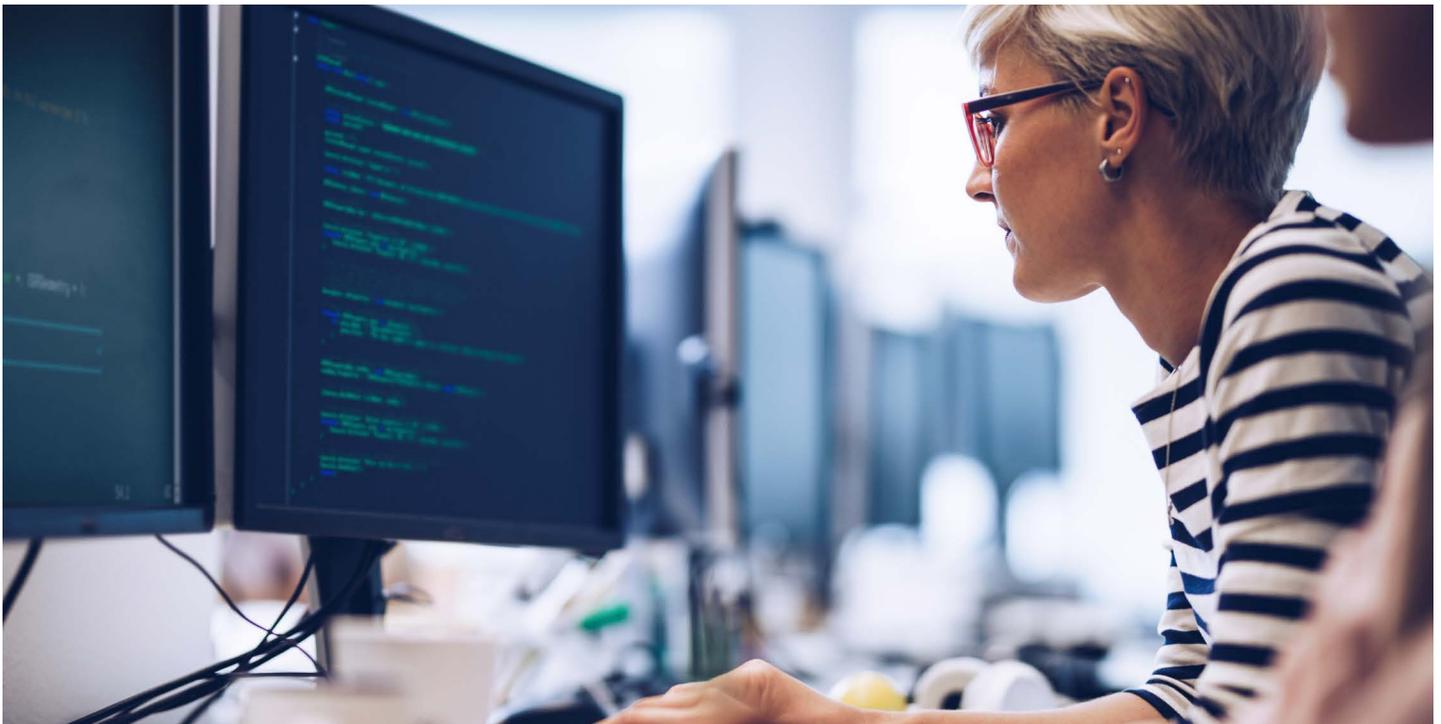
Looking Ahead

As with any growing business, change must be managed. With the increased level of interest in the apprenticeship, and the desire to provide opportunities for more people, Techtonic faces challenges like finding space to run multiple classes simultaneously and securing permanent employment for all the apprentices who successfully finish the program. Techtonic will continue building partnerships with organizations that share its vision and can help provide opportunities to women and other underrepresented populations in the technology sector.

The company's commitment to this work is evident. The software developer apprenticeship began as the vision of one female CEO who hired staff committed to the same vision and has grown exponentially over the past three years. Together, the Techtonic team has built a program that continues to create opportunity for people, especially women, who are often overlooked in the IT industry. By reducing barriers to employment, Techtonic no longer has to look for diversity—people from diverse backgrounds come to them. Techtonic Academy's success is being recognized by venture capitalists wanting to replicate the model in other parts of the country. The future challenge for Techtonic lies in meeting the expectations of those investors while continuing its own success in training a diverse workforce and maintaining the program's intensive level of support for its apprentices.

“It all comes down to hard work. Be the smartest person in the room, willing to take a lot of risks, and believe in your vision.”

– Heather Terenzio, Techtonic CEO



Interested in Learning More?

To learn more about Techtonic and the Techtonic apprenticeship program:

- Visit Techtonic at www.techtonic.com and the Techtonic apprenticeship program at <https://www.techtonic.com/apprenticeships/overview>

CONSTRUCTION PRE-APPRENTICESHIP
Moore Community House

CONSTRUCTION PRE-APPRENTICESHIP

Moore Community House

The Moore Community House (MCH) Women in Construction (WinC) program in Biloxi, Mississippi provides a pathway to better-paying careers for economically-disadvantaged women, primarily single mothers. WinC is an innovative pre-apprenticeship training program that includes individualized case management and funding for childcare and transportation. The program prepares women to enter apprenticeships and careers in the skilled trades—a field not traditionally pursued by women—while also providing the area’s construction and advanced manufacturing industries with qualified, entry-level workers.

Background

MCH was founded in 1924 as a women’s mission site of the United Methodist Church. Since its inception, MCH has focused on comprehensive family services, providing food and school readiness for children, services for expectant mothers, and referrals to employment and training.

In August 2005, Hurricane Katrina devastated the Gulf Coast, including Biloxi, Mississippi, and there was a tremendous need for skilled tradespeople to rebuild communities on the Mississippi Gulf Coast. MCH launched the WinC program in 2008 to prepare disadvantaged women to enter apprenticeships and entry-level positions in the skilled trades much in demand on the Gulf Coast. Eleven years later, the WinC program has 16 staff members, including graduates of the program who now serve as instructors and program coordinators.

Women comprise only two percent of construction workers in Mississippi, yet jobs in the skilled trades can provide significantly higher earnings than occupations traditionally filled by women.¹³ The WinC model is unique in coupling supports, particularly childcare and transportation, with industry-vetted training, case management, and post-program support to help women succeed in the skilled trades.

In addition to helping women start new careers in a non-traditional field with higher earning potential, the WinC program helps the construction and advanced manufacturing industries access a new

PROGRAM SNAPSHOT

Organization: Moore Community House

Industry Focus: Construction and Advanced Manufacturing

Location: Biloxi, Mississippi

Program Type: Pre-Apprenticeship Program

Entry-level Wages Upon Completion of Program: \$14 – \$19 per hour

Cost to Participants: No cost

Program Length: Eight Weeks

Participants: About 180 per year, low-income women

Program Graduates: More than 750 since 2008

Key Partners: [Ingalls Shipbuilding](#); [Mississippi Low Income Child Care Initiative](#); [Mississippi Department of Human Services](#); and [Mississippi Gulf Coast Community College](#)

Impact: Approximately 75 percent of program graduates have attained training-related employment, and the WinC program provides area businesses with well-prepared entry-level workers for skilled trades and manufacturing jobs



“Chipping away at culture change [in the construction industry] – one woman at a time.”

– Julie Kuklinski, WinC Program Director

pipeline of qualified workers. WinC also serves as a resource for federal contractors and commercial construction companies to help meet their minority and female hiring targets. Businesses working with MCH strongly endorse the program, citing the high quality of the workers hired from the program. Employers also value the fact that WinC graduates continue to receive childcare support for a period of time, once employed, as this increases the retention of these employees.

Program Description

As a pre-apprenticeship program, WinC is a short-term workforce strategy that familiarizes participants with the basic skills and knowledge required to successfully enter non-traditional apprenticeship programs or entry-level jobs in the skilled trades.

The program is provided at no cost to participants. While they are not paid during training, participants receive funds for childcare, transportation, and the tools they need for the program. WinC holds at least five training cycles per year, with 30 to 40 participants per cycle.

THE KEY ELEMENTS OF WINC ARE AS FOLLOWS:

- A thorough recruitment and selection process;
- Wrap-around support services;
- An industry-approved curriculum; and
- Holistic coaching to address the needs of participants and their families.

Recruitment and Selection

The WinC program accepts low-income mothers of all ages—from recent high-school graduates to women already in the workforce wanting to transition to better-paying careers. While word of mouth from program graduates has become the best source for participant recruitment, MCH uses multiple methods for outreach:

- Recruitment through the area's American Job Centers;
- Flyers in partner agencies serving underrepresented and lower-income women;
- Social media, particularly Facebook, as well as television and radio spots; and
- Staff and program graduates who travel throughout the Gulf Coast promoting the program.

“The WinC program does a great job of screening applicants and provides its participants with excellent work-ready skills. They also provide a realistic preview of our jobs, which means their graduates enter our program prepared for the challenges of the shipbuilding industry. The extended childcare support WinC provides to its graduates contributes to their work success and job retention at Ingalls.”

**– Garry Mercer, Ingalls Shipbuilding
Apprenticeship Coordinator**

Women interested in the program are taken through an extensive pre-enrollment process which includes three progressive steps:

1. An information session (1.5 hours long, typically offered bi-weekly), during which applicants learn about the program and the types of jobs for which graduates will be prepared, tour the MCH facility, meet program graduates, and ask questions about the program's activities and supports;
2. A trial workday, overseen by WinC instructors, that takes applicants through basic hands-on tasks and simple construction projects; and
3. A one-on-one interview, which includes an in-depth discussion of each individual's work history, barriers to employment, and current childcare arrangements.

DRIVER OF SUCCESS

Thorough Selection Process

WinC staff take applicants through a rigorous pre-enrollment process. By setting realistic expectations for participants and by selecting participants who are likely to succeed, the program has attained completion rates above 70 percent.

Participant Supports

WinC takes a holistic approach to participant support throughout the program and beyond. Supports range from a thorough assessment of needs at the start of the program, to addressing barriers by leveraging services and resources from multiple community partners during the program, to continuing support for graduates after completing the program. This comprehensive approach, comprising the elements outlined below, enables the program to address obstacles that would limit participants' success, as well as build trusting and long-term relationships with program participants.

Case Management. Each participant has a designated case manager. As soon as they enter the program, case managers work with participants to assess their needs, including childcare, housing, transportation, legal issues, and other challenges. The case management staff then identifies services and resources from community partners to address these needs. Case managers work with participants throughout the program, to ensure the women have the support they need to succeed. Confidence-building is another key role of the case management staff. Several members of the staff are former participants or tradeswomen who are well positioned to encourage participants that, with perseverance and mastery of key skills, they can succeed in the skilled trades. Case managers also support participants with the job search process and continue their contact with program graduates to help ensure success in their new careers.

“The WinC program helps women gain confidence and know that it is OK to make mistakes as you learn. You discover that you are not alone in your challenges through the support of other women in your same situation. WinC has excellent resources—I wish this program was everywhere.”

– Ethel, program graduate and current WinC program trainer

Childcare and Transportation Supports. MCH has a strong partnership with the Mississippi Department of Human Services, which provides MCH with an annual grant for childcare and transportation support. Each participant works with her case manager to choose the licensed childcare facility in the area that is best for her children. This childcare assistance enables participants to attend the unpaid eight-week training program, and participants know that their children are well cared for as they pursue their career goals. The Mississippi Department of Human Services grant also allows MCH to provide WinC participants with weekly transportation payments of \$100. Funding participants' travel is an important financial support during the unpaid eight-week program and helps ensure they have reliable transportation to attend training.

DRIVER OF SUCCESS

Long-term Child Care Support

WinC program graduates who are working, as well as those who are seeking work, enrolled in advanced training, or volunteering, qualify for continued childcare support for up to one full year from program enrollment. Continuing the availability of childcare support provides a family with economic stability while promoting graduates' success.

Work Readiness and Job Search. From the beginning of the program, case managers employ a career coaching approach to help participants develop résumés, begin discussions about non-traditional job opportunities, and prepare for employment. All participants are registered with the state's American Job Center system, which broadens their access to relevant job openings. Tours of businesses and on-site visits by apprenticeship coordinators introduce participants to businesses with apprenticeship programs and entry-level positions in the skilled trades during the program.

Ongoing Support for Graduates. Case managers continue to connect with WinC graduates in person and via email or text every month. This contact serves multiple purposes:

- To identify any additional supports needed;
- Provide job leads for those graduates who have not already secured employment; and
- Ensure the women are looking for a job, volunteering, in advanced training, or working.

Additionally, WinC holds monthly graduate meetings and invites them to attend program graduations. Many of the graduates return to mentor new participants and encourage new graduates as they embark on additional training or relevant employment.

Classroom Learning

WinC offers participants introductory training in general construction skills, work readiness skills, and other areas to prepare them to successfully enter the non-traditional fields of construction and advanced manufacturing. Participants are engaged in classroom training, hands-on learning experiences, and job readiness training from 8:00 a.m. to 5:00 p.m., Monday through Friday, primarily on-site at MCH. When possible, the program is offered in the evening to accommodate working women. As a pre-apprenticeship program, the training does not include a specific on-the-job learning element, but WinC does include hands-on instruction and some of the training takes place at local job sites within the region.

DRIVER OF SUCCESS

Confidence-Building

The program empowers participants to take the giant step into non-traditional employment through:

- Posters and slogans reflecting women's success throughout the training facility;
- Training that includes the history of women in the workforce, including information on the earnings gap between traditional and non-traditional employment for women; and
- Hands-on learning projects that provide the opportunity to practice skills learned in the classroom.

The 320-hour skills training curriculum is based on the National Center for Construction Education and Research (NCCER) curriculum. Local industry partners have also vetted the WinC curriculum. MCH meets with industry partners to identify their workforce needs and incorporates this feedback into the WinC training to ensure the program is training participants in the skills currently needed by area employers. Upon request, the program will add customized training components to meet specific employers' needs. For instance, the program held a credential-bearing heavy equipment class at the request of local construction contractors.

Training consists of the following components:

- Industry-recognized trades skills (such as measurement, safety, working with power tools, and blueprint reading) that are taught by instructors with industry experience, most of whom are women;
- Hands-on work projects overseen by the instructors;
- Understanding the history of women in the workforce, including the earnings gap between the fields dominated by female workers and those in which women are underrepresented;
- Financial and career planning guidance;
- How to address and overcome gender stereotypes in the workplace and equipping participants with the knowledge and tools to self-advocate;
- Work readiness skills that reflect what employers will expect in the workplace, including consistent attendance, communication, critical thinking, and teamwork;
- Community partners, such as the local domestic violence organization, housing and healthcare agencies, and staff of the Equal Employment Opportunity Commission, speak on other topics, including valuable resources in the community, recognizing leadership qualities, and sexual harassment in the workplace;
- Preparation for Work Keys and other skills-based tests required by industry partners in the area; and
- Tours of local industry sites and presentations from businesses in the trades, which help participants clarify which specific career path they wish to pursue and provide a strategic way for participants to build relationships with prospective employers.

Upon successful completion of the program, participants receive NCCER credentials for each completed module and a general construction industry certificate. They also receive an Occupational Safety and Health Administration (OSHA) 10-hour General Industry Completion card.

MCH also supports graduates of the program who want to continue on with more advanced training and is generally able to fund this additional skill attainment through its Strengthening Working Families Initiative training grant. WinC refers its program graduates interested in obtaining advanced welding and other trade skills to the Mississippi Gulf Coast Community College.

DRIVER OF SUCCESS

Meeting the Skill Needs of Employers

Ingalls Shipbuilding is WinC's major industry partner. Ingalls is the largest advanced manufacturing employer in Mississippi, a major federal contractor, and a Registered Apprenticeship sponsor. Approximately 10 percent of Ingalls' Pascagoula, Mississippi workforce is comprised of apprentices, and the company has instituted policies that reflect its commitment to diversity and inclusion.

The Ingalls Shipbuilding Apprenticeship Coordinator in Pascagoula considers WinC a critical partner in recruiting women who are typically hired as helper apprentices (starting at \$17.19 per hour) or apprentices (starting at \$19.80 per hour). WinC graduates are encouraged to apply to Ingalls and have obtained positions in welding, pipefitting, and shipfitting. Several WinC graduates have completed Ingalls' apprenticeship program. In 2018, four of Ingalls' ten apprenticeship graduates were women, including Ingalls Shipbuilding's Apprentice of the Year.

Program Impact

Since the program's inception in 2008, more than 750 women have graduated from the WinC pre-apprenticeship program and approximately 75 percent of the graduates have been placed in apprenticeships or other employment in related skilled trades. Graduates have landed jobs and apprenticeships in the advanced manufacturing and construction industries with beginning wages from \$14 to \$19 per hour, with the potential to earn higher wages as their skills increase and careers progress.

All participants in the WinC program are from low-income backgrounds. Nearly half (46.7 percent) of the women served to date are African-American, 17 percent are Hispanic/Latina, and six percent are multi-racial. This focus on low-income and diverse women, when coupled with the 75 percent success rate of graduates entering training-related employment, shows the positive impact the program has had on improving the career outlook for economically disadvantaged single mothers in the Biloxi area.

By targeting economically disadvantaged single mothers to receive services, WinC is providing the training, childcare, wrap-around support, and encouragement participants need to lift themselves out of poverty and into family-sustaining careers. The program even has an intergenerational impact—WinC has enrolled daughters of women who previously graduated from the program and moved into employment or advanced training.

WinC has provided the area's large employers in construction and advanced manufacturing with the workforce they need to succeed. WinC also places graduates with commercial contractors and apprenticeship training programs in the area. By focusing primarily on federal contractors, the program has been very successful in placing women in non-traditional construction and related skilled trades positions.

“Don't limit your dreams. If you really want to be in the skilled trades, WinC will help you succeed.”

– Iris, WinC graduate and current program instructor



SUCCESS STORY – BRIANNA

Before entering the WinC program, Brianna worked in the casino industry. As a single parent of an infant and a toddler, she knew she needed a more meaningful career path that would sustain her family. In April 2018, she heard about WinC from a cousin and they both enrolled in the program the following month. The staff and “can-do” attitude of WinC built her confidence that she could succeed in the skilled trades. An additional benefit of the program was that her children transitioned from home-based care to a licensed childcare facility.

During the program, the International Brotherhood of Electrical Workers (IBEW) Local 903 spoke to her training class and Brianna immediately knew that she wanted to become an electrician. Upon graduation, she applied for and was accepted into the IBEW electrical apprenticeship program.

She and another WinC graduate are the first women in the program, and she feels through dedication and hard work she is earning the respect of her male counterparts.

Her ultimate goal? To open her own electrical business and give other women the same opportunities she has had. Brianna says that enrolling in the WinC program is the best thing she has ever done. She is secure in the knowledge that she will be able to take care of her family financially and have a career she loves.



SUCCESS STORY – IRIS

Iris was unemployed and a stay-at-home mother of three. She wanted to work, but with limited skills she knew childcare costs would take most of her earnings from a low-wage job. She learned about the WinC program through Facebook. Once accepted into the program, Iris was introduced to different facets of the skilled trades. Upon graduating WinC with high recommendations, she was accepted at Ingalls Shipbuilding as a crane operator helper apprentice.

Iris later learned of the opportunity to return to WinC as an instructor for their Spanish-speaking class, which is where she now works. WinC has funded advanced leadership training to further develop her skills as an instructor. Iris reports that the best part of working with the WinC program is the satisfaction of helping disadvantaged women rise out of poverty and move into good-paying, non-traditional careers.



Looking Ahead

When asked about plans for the future, MCH leaders are committed to continuing the expansion of the program to serve even more women, sharing their successful program, and supporting other organizations in starting pre-apprenticeship and apprenticeship programs. To continue the expansion within Mississippi and beyond, the program is focusing on developing new partnership opportunities and ways to let interested organizations learn about their successful approach.

The WinC program has been featured in publications by the National Skills Coalition, Chicago Women in the Trades, the Institute for Women's Policy Research, and other organizations dedicated to replicating successful workforce strategies. The MCH director and WinC program director work extensively to promote the WinC program at the local, state, and national levels. WinC is providing a blueprint for others to establish strong workforce training programs leading to non-traditional, high-paying careers and advanced training and educational opportunities for women.

WinC staff plan to continue their advocacy in partnership with tradeswomen groups and to expand on relationships with workforce and industry partners to develop more opportunities for women in the advanced manufacturing and construction industries. Through expanded outreach and education, staff hope to help more employers in the industry understand the win-win nature of working with WinC, which offers motivated, job-ready, diverse women to meet their workforce needs.



Interested in Learning More?

To learn more about the Moore Community House Women in Construction (WinC) program:

- Visit the WinC webpage at www.moorecommunityhouse.org/winc
- Visit @MCH WomenInConstruction Facebook page
- Contact Carol Burnett, Moore Community House Director, at cburnett@moorecommunityhouse.org or Julie Kuklinski, WinC Director, at julie.winc@moorecommunityhouse.org

EARLY CHILDHOOD EDUCATION APPRENTICESHIP
District 1199C Training & Upgrading Fund

EARLY CHILDHOOD EDUCATION APPRENTICESHIP

District 1199C Training & Upgrading Fund

While a large body of research demonstrates high-quality early childhood education (ECE) as a positive contributor to a child's future academic and career success, not enough attention has been paid to the workers who provide these ECE services.¹⁴ District 1199C Training & Upgrading Fund (Training Fund) runs an ECE apprenticeship with a focus on improving the educational and financial outcomes for the ECE workforce—a field almost entirely comprised of women. The Training Fund improves the lives of ECE workers participating in the apprenticeship by providing debt-free access to higher education degrees and wage increases. The apprenticeship is also meeting the needs of ECE providers in the region for a higher-skilled workforce with strong retention.

Background

For most U.S. families, childcare is a major expense.¹⁵ Despite the high cost of childcare for parents, workers in the ECE field earn nearly 40 percent below the median hourly wage of workers in other occupations.¹⁶ Further, childcare workers are 95.6 percent female and are disproportionately women of color.¹⁷

The *2018 Early Childhood Workforce Index* provides other telling insights into the ECE workforce:¹⁸

- **High staff turnover.** The average annual turnover rate for childcare staff is 30 percent;¹⁹
- **More women of color.** Among the center and home-based childcare workforce, about 40 percent are people of color, compared to the K-12 teaching workforce which is more than 80 percent white teachers;²⁰ and
- **African-American women are disproportionately impacted.** Controlling for educational attainment, African-American center-based workers still earn lower wages than white workers (\$0.78 less per hour, or \$1,622.40 less per year, for a full-time, full-year worker).²¹

PROGRAM SNAPSHOT

Organization: District 1199C Training & Upgrading Fund

Industry Focus: Early Childhood Education

Location: Philadelphia, Delaware, and Chester Counties, Pennsylvania

Program Type: Registered Apprenticeship Program

Wages at Start and End of Program: Each employer determines the starting hourly rate and wage increases for its apprentices

Cost to Participants: No cost

Program Length: 3 years or less

Participants: 62 apprentices currently in the program—57 female and 5 male

Program Graduates: The initial cohort is still participating in the program (as of Summer 2019)

Key Partners: [Community College of Philadelphia](#); [Delaware County Community College](#); [First Up](#); [Pennsylvania Apprenticeship & Training Council](#); [Pennsylvania Child Care Association](#); [Southeast Pennsylvania Early Childhood Education Employers and Labor Unions](#)

Impact: Create a debt-free path to an associate degree in a field with a 96 percent female workforce

The Training Fund was founded in 1974 as a Philadelphia-based labor/management workforce development partnership in the healthcare field. It now offers educational programs in Pennsylvania and Delaware in a variety of industries that create career pathways through education, training, and work-based learning opportunities. Apprenticeships are a frequently-used approach for achieving the mission of the Training Fund, which has developed apprenticeships for 30 employers in diverse sectors, including behavioral health centers, childcare facilities, and community and home care agencies.²²

“I think that because the field is so heavily female dominated, the importance of this field is often overlooked...a program like this really does encourage women to go out and seek their degrees and provides them with the support that they need. It encourages them to get paid more and is really facilitating women to seek out an education that they might not have been afforded otherwise. It really makes people look at us as professionals as opposed to looking at us as glorified babysitters.”

– Meg, current Philadelphia ECE Coach

Since 1995, the Training Fund has offered coursework for Child Development Associate (CDA), which is a nationally-recognized credential required for employment in most licensed childcare centers.^{23,24} In the early 2000s, the Training Fund sponsored an apprenticeship throughout the Commonwealth of Pennsylvania, which led participants to earn a CDA. To extend the ECE career pathway, the Training Fund next created an accelerated pathway for experienced ECE teachers to earn an associate degree. An 18-month development process to create the ECE apprenticeship began in 2015.

Program Description

The Training Fund launched the ECE apprenticeship in Philadelphia in May 2017 and then expanded the program to Delaware and Chester Counties in September 2018. The ECE apprenticeship is designed for educators already working in the ECE field and offers an accelerated, debt-free path to an associate degree.

The apprenticeship combines classroom and on-the-job learning to raise the skills of the ECE workforce and the professionalism of the field. Apprentices complete academic courses at a community college to fulfill classroom learning requirements and work full-time at their ECE center under the guidance of an experienced mentor to fulfill the on-the-job learning component. The classroom and on-the-job learning occur concurrently throughout the apprenticeship, and participants typically complete the program in three years or less.

“Apprenticeship is...an incredibly important vehicle for addressing disparities in education, compensation, and authority in ECE and other fields in which women of color dominate the frontline workforce but are under-represented in the upper echelons of management.”

– Cheryl Feldman, Executive Director, the Training Fund

Apprentices must fulfill three components:

1. Demonstrate nationally standardized competencies created by the National Association for the Education of Young Children (NAEYC). The NAEYC competencies are the “essential body of knowledge, skills, dispositions, and practices required of all early childhood educators working with children from birth through age eight, across all early learning settings.”²⁵;
2. Pass courses at a partner community college to earn an associate degree (courses are aligned with the NAEYC competencies); and
3. Complete 4,000 hours of on-the-job learning.

Once these three components are completed, the apprentice graduates from the ECE apprenticeship with an Associate Degree in Early Child Education and a nationally-recognized ECE certificate. The Training Fund serves as the coordinating intermediary for the multi-partner, multi-employer ECE apprenticeship and collaborates with different partners for the Philadelphia, Delaware, and Chester County programs to offer the apprenticeship services. The organization's role as an intermediary has been essential to the success of the program and the ability for the program to grow beyond the initial Philadelphia cohort. The Training Fund provides the following services:

- Coordinates the apprenticeship across multiple employers, which ensures that the program—especially the on-the-job learning component—is implemented consistently and with high quality at each participating worksite;
- Submits documentation and monitors procedures for the ECE apprenticeship as a program registered with the Commonwealth of Pennsylvania. This centralized administrative role serves to minimize paperwork and management for the employers;
- Functions as both a support and a third-party for apprentices. Training Fund staff provides career counseling and advice to apprentices and helps apprentices navigate the program's multi-partner landscape by connecting them with needed resources or support from the appropriate partner; and
- Tracks apprentices' progression through the classroom learning and the on-the-job learning hours, competencies demonstration, and program completion requirements.

DRIVER OF SUCCESS

Clear Roles, Communication, and Goals Across Partners

The multi-partner ECE apprenticeship approach has worked successfully through an articulated and shared understanding of program goals, partner roles, and ongoing communication. To achieve this, the ECE apprenticeship partners serve these functions:

- Developing partner roles and responsibilities for all (existing and prospective) funded positions at all participating organizations;
- Negotiating and executing partner contracts that include detailed scopes of work; and
- Budgeting in a way that realistically reflects the discussed scope of work.

Recruitment and Selection

Apprenticeship is an employer-driven workforce strategy, so getting employers to buy into the apprenticeship goals and outcomes is a crucial first step.²⁶ The Training Fund conducts outreach to the ECE centers in Philadelphia, Delaware, and Chester Counties to discuss the apprenticeship and the value it can bring as a workforce development and retention tool. Once an ECE center is ready to participate in the apprenticeship, its leader signs an agreement with the Training Fund. The Training Fund works with partner ECE center leaders to recruit apprentices among current employees.

Candidates must meet a few initial criteria to be considered for the apprenticeship:

- Hold the CDA credential;
- Be employed at a participating ECE center; and
- Have completed at least one year of employment at the ECE center.

Partner employers identify candidates among their ECE employees that meet the participation criteria and have growth potential and encourage them to apply to the apprenticeship.

The Training Fund administers a written assessment to all apprentice candidates to measure what level the candidate would place into at the community college. If more preparation is needed to be able to begin college-level courses, the apprentice takes a “Bridge to Post-Secondary” course with the Training Fund. Following the bridge course, the apprentice takes the admissions test at the community college.

Once the assessment shows that the apprentice candidate is ready for college coursework, the Training Fund ECE Apprenticeship Program Coordinator interviews the applicant to screen for their commitment to the program. The program coordinator also reviews documentation submitted with the application, including academic transcripts. The program coordinator submits a summary of the information gathered in the application and interviews and shares it with the employers and union (if a labor union represents the applicant).

The employer then selects employees for the ECE apprenticeship program. Once the candidate accepts the offer to join the apprenticeship, the employer signs paperwork with the state, the Training Fund, and the apprentice to finalize the formal sponsorship agreement.

Participant Supports

Apprentices are balancing numerous obligations: full-time employment, coursework and related homework, and personal and family life.²⁷ Many ECE apprentices are the first member of their family to attend college.²⁸ Juggling these pressures can be overwhelming. Therefore, multiple forms of proactive support are offered from multiple sources to ensure apprentices successfully complete the program.²⁹

The ECE apprenticeship includes the following academic and interpersonal supports provided by the program partners:

- **Community Colleges:** Professors and counselors provide targeted and dedicated, cohort-based tutoring and advising;
- **Employers:** Apprentices are paired with a “coach” who is an experienced ECE educator and mentors the apprentice at the workplace; and
- **The Training Fund:** The ECE Apprenticeship Program Coordinator acts as a liaison between the apprentices and the various other program components. Apprentices develop a trusting relationship with the Training Fund—which is neither their employer nor their professor—and allows for interpersonal support and a safe space needed to deal with personal and academic obstacles. Training Fund staff also provides career counseling and advice to apprentices.

“The most important indicators of readiness for the ECE apprenticeship are:

- 1. For candidates to have a clear understanding of the challenges they will face;*
- 1. Have a plan to overcome those challenges; and*
- 3. Be able to articulate the support they will need from their coach, employer, and the Training Fund.”*

– **Ta’Mora Jackson**, Philadelphia ECE Apprenticeship Program Coordinator, the Training Fund

“I’ve been struggling with this math class requirement. I previously withdrew from the class because I was failing. Now I have a personal tutor that I meet with once a week. Having that support and having that tutoring to assist me has been a great help in getting through this semester.”

– **Jameelah**, current Philadelphia ECE Apprentice

The Training Fund also builds financial supports into its ECE apprenticeship model. It leverages federal and state programs so participants graduate with little or no debt. With these financial supports, apprentice employers pay a maximum of just five percent (currently \$200 per year) of college tuition costs.³⁰

To bring down tuition costs for the program and accelerate the path to the associate degree, the Training Fund worked with its community college partners to secure course credit for the CDA credential and on-the-job learning competencies. The community college partners award between seven to nine course credits for the CDA credential. Completion of on-the-job learning competencies are valued with nine course credits.

The Training Fund asks all apprentices to apply for federal student financial aid. The community college partner's financial aid office also helps to ensure that apprentices are accessing all scholarships and public funds available to them.

To cover the remaining costs of the classroom learning, the community college partners accept an ECE-specific higher education scholarship program called Teacher Education and Compensation Helps (T.E.A.C.H.). T.E.A.C.H. is a national program operating in more than 20 states. It provides tuition support, paid release time, and funding that can be used towards books and transportation. The community college partners accept the T.E.A.C.H. Scholarship as full payment for the ECE associate degree courses.

Apprentices receive three hours of paid release time for each community college course in which they are enrolled, up to a maximum of 6 hours per week. T.E.A.C.H. reimburses 10–50 percent of release time hours, depending on the scholarship model in which the student is enrolled. The release time pay rate is \$10 per hour, which is less than the apprentice's hourly wage, but still helps to cover income that is not earned while attending classes. Both coaches and apprentices are given paid release time for the weekly on-the-job learning observations and meetings. Coaches also receive paid release time for trainings with program partner First Up. T.E.A.C.H. provides funds to apprentices' employers to cover substitute teacher wages when apprentices and coaches use their paid release time.

The Training Fund provides a wage step worksheet that sets the schedule of wage increases for apprentices (at 3, 11, and 19 months, and program graduation), but does not establish the wage rate. The employer determines the wage steps, but agrees to offer the increases based on an agreed-upon schedule aligned with the completion of specified milestones for each stage.

Classroom Learning

The classroom learning component of the ECE apprenticeship is coursework at a community college that will result in attaining an associate degree. The Training Fund currently partners with two area community colleges, Community College of Philadelphia (CCP) and Delaware County Community College (DCCC). The community college partners provide general education coursework contextualized for ECE, which means that these classes are framed in the early childhood perspective and relevant to apprentices' professional experiences.

The ECE apprenticeship uses a cohort model to progress apprentices through the community college course curriculum and provide a peer and academic support network. Classes for the apprenticeship

“I think what we’re providing for the apprentices is scaffolding to advocate for yourself.”

– Ta’Mora Jackson, Philadelphia ECE Apprenticeship Program Coordinator, the Training Fund

“I think the [ECE] profession has been really grossly overlooked, not just in the state but nationally, and I think that the apprenticeship program was an opportunity just waiting to jump onto.”

– Amy Saia, CCP Assistant Professor and Education Program Coordinator

cohort are offered mostly outside of the standard 9:00 a.m. to 5:00 p.m. workday to accommodate the apprentices' work schedules. Classes are conducted in-person initially, with hybrid and fully-online options introduced once the apprentices have adjusted to the community college setting.

The Training Fund has found that apprentices are quick to share success, but sometimes don't ask for help with coursework until it is too late. To have a better picture of academic progress, the Training Fund and CCP request that all apprentices sign a Family Educational Rights and Privacy Act of 1974 (FERPA) waiver authorizing CCP to release the apprentice's grades to specified program staff at the Training Fund. This enables the Training Fund to track course completion and to provide the apprentices with tutoring and additional supports if the course is not completed.

DRIVER OF SUCCESS

Employer Engagement and Continuous Feedback

Employer feedback is critical to success of the ECE apprenticeship. The Training Fund wants employers to feel like they are investing in the individual apprentice and the program, and in return have a pipeline of better-trained staff and a mechanism for staff retention. As one way to ensure employer engagement and input, the Training Fund holds quarterly Apprenticeship Committee meetings between employers and partners to collectively make decisions about the program. The Apprenticeship Committee is comprised of participating employers and each non-profit partner. While facilitated by the Training Fund, the committee is led by the employer partners. Responsibilities of the Apprenticeship Committee include making recommendations for improvement or modification in coursework, training schedules, and other program activities; reviewing apprentices' progress; and discussing implementation challenges.

On-the-Job Learning

Apprentices work full-time at their ECE centers throughout the apprenticeship. Employers pair apprentices with a "coach" who is an experienced ECE educator at the apprentice's ECE center. Coaches hold weekly touch-base meetings with their apprentices to discuss classroom practices and check in on progress toward NAEYC competencies. Coaches are also responsible for tracking and verifying apprentice on-the-job learning hours.

The program partner First Up provides training and tools for the coaches through the following:

- Conducting an all-day, in-person training at the start of the apprenticeship cycle to ensure coaches apply rigorous, timely assessments of apprentices' on-the-job learning competencies;
- Providing on-the-job learning assessment forms and processes for coaches to use;
- Facilitating training, technical assistance, and mentorship for coaches; and
- Hosting monthly one-on-one phone calls and quarterly community of practice meetings.

DRIVER OF SUCCESS

Train the Trainers

Coaches have ECE job experience, but the training provided by First Up is professional development that gives coaches leadership and management skills. Coaches communicate the apprentice's progression with their employer and the Training Fund, which gives them an administrative and a leadership role at the center. One motivation for taking on the additional coaching responsibilities is to help their peers gain skills and improve their career opportunities, while accessing professional development for themselves. The coach role is not a paid position, but the Training Fund raised funds for a stipend to recognize their time and effort supporting the apprentices.

Program Impact

The Training Fund ECE apprenticeship in Philadelphia began in May 2017 with slots for 36 apprentices. Twenty-five of the original apprentices are still in the program, and seven of the other slots have been filled by new apprentices, for a total of 32 apprentices currently in the program. Five of the 32 apprentices have completed the milestone of graduating from CCP with an associate degree, but still have NAEYC competencies to demonstrate and on-the-job learning hours needed to complete the apprenticeship. The Training Fund is in the process of recruiting another 36 apprentices in Philadelphia to start the next cohort in July 2019. Another 30 apprentices began in Delaware and Chester Counties in September 2018.³¹

While the ECE apprenticeship is so new that the first cohort of apprentices has not completed the program, initial results are positive. The turnover rate in the ECE field is more than 30 percent, and apprenticeship has the potential to be an effective retention tool for employers. The children attending the ECE centers and their families also see a benefit in consistent and better-trained staff. The Training Fund leadership has indicated that the program is improving better practices on-the-ground and is fulfilling professional development needs. For example, the coaching role enables experienced ECE educators to take a leadership role as lead teachers while the apprentices work with them as assistant teachers. With the Philadelphia ECE apprenticeship about to start the second cohort, the Training Fund has seen an uptick in other ECE centers requesting information about the program and expressing interest in enrolling their current employees.

Philadelphia Health Management Corporation is evaluating 28 ECE apprentices using the Classroom Assessment Scoring System™ (CLASS™), which is an observational instrument to assess classroom quality in PK-12 classrooms.³² It describes multiple dimensions of teaching linked to student achievement, including the apprentice's ability to strengthen classroom and peer-to-peer interactions and demonstrate NAEYC competencies. The CLASS™ evaluations are conducted when the apprentice is six months into the program and again at 18 months to look for improvements or changes. There are also pre- and post-surveys and interviews with the employers and coaches. The end product will be an in-depth qualitative study—a quantitative study is not yet possible, because the overall number of participating apprentices is too small.

SUCCESS STORY – COACHES' PERSPECTIVES

Demita is a coach in the Philadelphia ECE apprenticeship. She reflected on her experience of getting an associate degree on her own without the supports built into the ECE apprenticeship program:

"I wish I had this program and these communities 14-15 years ago, because it would have been nice to have someone to talk to. I had children and was working full-time, and sometimes it could be stressful. I just dealt with it by myself as opposed to having someone out there that can relate to me. The apprentice I coach is fast-tracking her education; it took me seven years to get my associate, which is a two-year degree."

Meg is a coach in the Philadelphia ECE apprenticeship, and she agrees that the interpersonal and financial supports that the ECE apprentices receive would have changed her experience of pursuing postsecondary degrees:

"I worked full-time getting an associate degree and worked full-time while getting my bachelor degree, and didn't have the same kind of supports. It's nice to be able to provide that kind of support to other people. The monetary support [that the ECE apprentices have] of having classes paid for ... I am still paying off school forever, so to have that support would have been nice."

SUCCESS STORY – AMY

Amy is a mother of three. She met John Jason, who owns and runs the Creative Learning Environments ECE centers in Philadelphia, when her oldest son, then three years old, enrolled in the center's Head Start program in 2008. Throughout the years, Amy became more involved in the center as the parent-volunteer head of the policy committee, and she took a part-time job with the center working in the afterschool program. Amy then obtained a substitute teacher certificate to be able to substitute at the center, and eventually took a full-time position in the family engagement office. Mr. Jason encouraged Amy to apply for the ECE apprenticeship. As Amy pursues her ECE associate degree, she is transitioning from an office role back into the classroom.

Amy prioritizes her role as a mother and wife and was struggling to be there for her family with the night class schedule at the Community College of Philadelphia. With her three children now in elementary and middle schools, Amy felt like she was missing the window to be with her children after school and in the evening. Amy talked to Mr. Jason and the Training Fund and then was able to switch into daytime community college courses so that she could be at home with her family in the evenings. This flexibility enabled her to stick with the apprenticeship program without sacrificing what was most important to her.

Amy wants to continue her education, with the ultimate goal of having a master's degree in special education, and is committed to ECE and her employer. Amy said, *"I don't see myself leaving preschool like ever. I think this is it. Like I will be here forever. And I feel like I will be with Creative Learning probably until the end because it's just where I want to be."*

Looking Ahead

The Training Fund would like to expand the ECE apprenticeship beyond the Philadelphia area so that ECE workers statewide will have the opportunity to pursue a supported, no-cost route to associate degree attainment through an apprenticeship program. Philadelphia serves as the hub for three counties in Southeastern Pennsylvania, and the Training Fund would like to develop at least five additional regional hubs for a total of six regional hubs across the Commonwealth.

The regional hubs would create an umbrella apprenticeship with core standards, economies of service, and a statewide database and clearinghouse of online resources aligned to ECE competencies. Each regional hub could tailor the program for its area.

Each hub would identify an intermediary, such as the Training Fund in the Southeastern region, to serve as a link between employers, educators, and other partners. Each regional hub is at a different stage of development. The Training Fund's role is to get those hubs off the ground and provide technical assistance to support the intermediaries.

"It's a process. We didn't create the apprenticeship program and out of the gate it's like this perfect program. No, it's a work in progress. And it takes commitment: it takes the commitment of partners; it takes a commitment of the Training Fund; and of the employers. Everybody has to really be committed, because there are a lot of work-arounds and things that have to be done to make it work for everybody."

**– Cheryl Feldman, The Training Fund
Executive Director**

To fill in the gaps that exist before an apprentice enters the ECE apprenticeship, the Training Fund's partner, Philadelphia Academies, Inc., plans to apply for state approval of a pre-apprenticeship program for high school students. Students at Parkway West High School can take courses to prepare for the CDA certificate and participate in internships in child care centers. The Training Fund has organized an Early Childhood Education Career Day and three college visits for the high school students taking the ECE-focused courses. Once the state approves the program, the Training Fund would like to see high school pre-apprenticeship courses set up by the ECE apprenticeship regional hubs.

Further, the Training Fund wants to continue its mission to provide career pathways by expanding the ECE statewide apprenticeship to include a low-cost or free, accelerated path for ECE workers who have earned an associate degree to pursue a bachelor degree with teaching certification. While taking programs statewide and launching yet another apprenticeship program comes with challenges, the Training Fund has a track record of building and improving programs that serve women, people of color, and all members of the workforce.



Interested in Learning More?

- Visit the Training Fund at <https://www.1199ctraining.org>
- Read the Training Fund's written guidance on how to replicate the ECE apprenticeship – [*Program Replication Tool Kit: CDA to Associate's Degree Early Childhood Education Registered Apprenticeships*](#)
- Contact Cheryl Feldman, Executive Director, at cfeldman@1199ctraining.org or Ta'Mora Jackson, Philadelphia ECE Apprenticeship Program Coordinator, at tjackson@1199ctraining.org

HOSPITALITY SECTOR APPRENTICESHIP
*National Restaurant Association Educational Foundation
and American Hotel & Lodging Association*

HOSPITALITY SECTOR APPRENTICESHIP

National Restaurant Association Educational Foundation and American Hotel & Lodging Association

Although women make up over 50 percent of the workforce in the hospitality industry, only 12 percent of senior management positions are held by women.³³ The National Restaurant Association Educational Foundation (NRAEF) and the American Hotel & Lodging Association (AHLA) are addressing this gap through a nationally-recognized Hospitality Sector Registered Apprenticeship (HSRA), which provides training in lodging management and restaurant management. In the program's two years of operation, 57 percent of the 1,402 apprentices have been women. This program is putting women on a path to upper-level management in the hospitality industry.

Background

Hospitality is a major part of the U.S. economy. The lodging sector accounts for more than 8 million jobs in 54,000 locations across the country, while the restaurant sector accounts for 15.1 million jobs in more than 1 million locations.³⁴

AHLA represents all segments of the lodging industry, including hotel owners, real estate investment trusts, chains, franchisees, management companies, independent properties, bed and breakfast establishments, state hotel associations, and industry suppliers. With more than 24,000 members, AHLA focuses on strategic advocacy, communications support, and educational resources for the industry.³⁵ AHLA supports women through a Women in Lodging Council that promotes women into senior executive roles in the industry and hosts the annual ForWard: Women Advancing Hospitality conference.

The National Restaurant Association (NRA) serves more than 40,000 members in nearly 500,000 foodservice establishments and focuses on advancing and protecting America's restaurant and foodservice industry. As the philanthropic foundation of the NRA, NRAEF focuses on enhancing the industry's training and education, career development, and community engagement effort, and is dedicated to creating career pathways for women in the industry.³⁶

HSRA was established in November 2016 to respond to the workforce needs of the lodging and restaurant sectors. Both were facing a tightening labor market fueled by the low national employment rate and unprecedented job growth, high employee turnover rates, and a perception by the general public that the hospitality industry offers only low-paying jobs with little opportunity for advancement. Leadership at AHLA and NRAEF believed that integrating an apprenticeship into the hospitality industry would provide a way to professionalize the industry and meet expected demand.

PROGRAM SNAPSHOT

Organization: National Restaurant Association Educational Fund and American Hotel & Lodging Association

Industry Focus: Hospitality

Location: Multiple locations across the U.S.

Program Type: Registered Apprenticeship Program

Wages at Start and End of Program: Each employer determines the starting hourly rate and wage increases for its apprentices

Cost to Participants: No cost

Program Length: Between 1 and 2 years

Participants: 1,402 apprentices since 2017, with 57 percent female participants

Program Graduates: 255

Key Partners: Restaurant and lodging establishments

Impact: With a retention rate of 95 percent, this program is providing a skilled and committed management workforce for hospitality employers, and increasing the number of women entering management positions in the hospitality industry

"I think this model is one that every industry should adopt ... if an intermediary can take the administrative burden off employers, you are just making it easier for them to participate."

– Shelly Weir, AHLA Senior VP of Career Development

Since apprenticeships were new to the hospitality industry, NRAEF and AHLA worked closely with USDOL to adapt the traditional model of apprenticeship that existed in construction and other skilled trades occupations in order to register the program. This included changing traditional apprenticeship terminology used by USDOL to language that was appropriate for the industry and negotiating hours required for classroom training to match industry needs. With each challenge, NRAEF and AHLA worked collaboratively with USDOL to find a solution that met federal regulations and was supported by the industry. The result is an apprenticeship available to any employer in the restaurant and lodging sectors that seeks to implement a management training program, but may not have the resources to design and administer a program.

Program Description

This industry-created, competency-based apprenticeship program offers a direct path to upper management and credential attainment and can be implemented by any employer across the country. With options for restaurant manager or lodging manager apprenticeships, HSRA provides instruction and training that equips individuals with the knowledge, skills, and confidence to advance in hospitality-focused careers. Apprentices move through the program as they demonstrate competency in skills and knowledge through proficiency tests, but are not required to complete a specific number of hours of on-the-job learning.

The main objective in the design of the HSRA is to provide employers with aspects of implementation and administration without getting in the way of individual employers' hiring and training policies and practices. This flexibility enables employers to create a program that works best for the business and benefits the women apprentices. To leverage available funding and build sustainability within a community, NRAEF and AHLA staff encourage and assist employers in connecting to other government and community-based organizations who support specific populations—like women. As the industry intermediaries for the program, NRAEF and AHLA serve the following roles:

- Act as the apprenticeship sponsor responsible for overall program operation and reporting required for apprenticeship programs registered with USDOL. This role reduces the administrative burden on employers, especially small- to mid-sized businesses, to launch and operate an apprenticeship;
- Conduct industry engagement and outreach by marketing the HSRA to state associations and individual businesses. The existing relationships that NRAEF and AHLA have with the industry puts them in a unique position to scale the program much more quickly; and
- Build relationships with training providers to develop quality instruction, negotiate costs for related instruction, and foster opportunities for apprentices to receive industry certifications and college credit.

DRIVER OF SUCCESS

Flexibility in Implementation

The NRAEF and AHLA national apprenticeship allows companies to benefit from having a strong program model but also allows flexibility to fit the needs of their company. The national program works for a diverse set of employers ranging from small family-owned restaurants to large hotel chains that span multiple states.

“You’ve got to provide support either within the company or at the national association ... there has to be a support structure both for the employers and the apprentices.”

– John Shortt, NRAEF Director of Program Development

Recruitment and Selection

As a national apprenticeship program, recruitment for the HSRA involves two steps—recruitment of businesses and recruitment of apprentices.

1. AHLA and NRAEF recruit businesses to join the

apprenticeship. Starting an apprenticeship program in an industry with little exposure to the concept is a big task for NRAEF and AHLA. Both organizations utilize their existing membership network to recruit employer advocates among their members as well as make presentations to their leadership boards and councils. Staff from NRAEF and AHLA target businesses through presentations to state and local associations, individual meetings with employers, and various print, online, and television media. Information about the program can also be found on the organizations' websites. Staff is also available to address any questions and provide technical assistance directly to businesses as they learn about and adapt the apprenticeship to meet company needs. Employers are required to sign a formal agreement before they can implement the program and access administrative and financial support.

2. Individual businesses with formal agreements recruit

apprentices into their program. Most employers choose to place existing employees into the program as a mechanism to up-skill entry-level workers and foster retention and employee growth. Supervisors recommend employees that demonstrate leadership potential. These employees are encouraged to apply and are then interviewed by the companies' apprenticeship coordinators. If accepted into the program, the apprentices are supported by direct supervisors and designated staff who manage the apprenticeship at the company.

DRIVER OF SUCCESS

Employer Buy-in

Extensive communication on the value of apprenticeship, including press releases, a frequently asked questions (FAQ) document, and media statements all proved to be effective means of employer recruitment. During the first year of the program, staff intentionally targeted large multi-state employers to capitalize on their well-established training programs and the ability to support a higher number of apprentices. These early adopters are now able to speak to the return on investment and help influence other companies.

Classroom Learning and On-the-Job Learning

The competencies apprentices learn in the classroom and on the job are based on the key competencies the hospitality sector has identified. The apprenticeship is also designed to align with the career pathways within the lodging and restaurant industries.

For the Lodging Manager Apprenticeship, AHLA consulted with two of its key councils, comprised of representatives from major hotel companies, to ensure the apprenticeship program standards met with industry acceptance and approval. These two councils—the Human Resource Council (comprised of Chief Human Resources Officers) and the Certification & Training Council (comprised of Chief Learning Officers and Deans of hospitality universities)—guided AHLA in the creation of these standards. To design the apprenticeship, AHLA began with the competencies found in the Certified Hotel Administrator designation—the most prestigious certification available in the lodging industry. The competencies of the Certified Hospitality Supervisor designation were then considered, and the Certification & Training Council determined which of the competencies were the most important for an emerging leader in a Lodging Manager apprenticeship program. From there, the framework of the competency-based apprenticeship program for Lodging Manager was built.

Figure 6: Lodging Industry Career Path



For the restaurant manager apprenticeship, human resource professionals from the restaurant industry developed the competencies. These competencies, based on industry standards, were vetted by the NRA councils for Human Resources and Certification. Industry-recognized competencies for the positions of Certified Restaurant Professional (entry level), Certified Restaurant Supervisor (semi-skilled), and Certified Restaurant Manager (skilled) were integrated into different stages of the apprenticeship program. The ServSafe Food Handler and ServSafe Restaurant Manager credentials were also incorporated. The framework for the restaurant manager apprenticeship was completed once the councils reviewed and approved the apprenticeship competencies and standards.

Figure 7: Restaurant Industry Career Path



The story of two companies—Stonebridge Companies and Iron Hill Brewery—outlines how hospitality employers have adopted HSRA to recruit, train, and retain the skilled talent they need. These stories also provide more detail on how the program components described generally above—recruitment and selection, classroom learning, on-the-job learning, and participant supports—are implemented by employers.

STONEBRIDGE COMPANIES – LODGING MANAGER APPRENTICESHIP

Stonebridge Companies is an ownership, management, and hospitality development company. The company is headquartered in Denver, Colorado and has 60 hotels with more than 7,000 rooms nationwide.³⁷ Stonebridge launched the lodging manager apprenticeship in November 2017 in its 20 Denver locations. The company was facing challenges with meeting workforce needs and saw HSRA as a way to train existing workers for management positions.

- **Recruitment and Selection:** Twice per year, the director of training and talent development meets with the general managers (GMs) at the 20 locations throughout the Denver area who recommend candidates for the program. A candidate must be employed with Stonebridge for at least six months and demonstrate a passion for the industry, willingness to work hard, and potential for growth. Upon recommendation from the GMs, the director of training and talent development meets with the candidates and their supervisors and explains the competencies and expectations of the classroom and on-the-job learning in the apprenticeship. Candidates must commit to the rigor of the apprenticeship and managers must commit to supporting them as they progress through the program.
- **Participant Supports:** The apprentices are mentored by senior employees as well as the GM throughout the apprenticeship. Apprentices begin the program at the same wages they were earning before starting the apprenticeship. As they progress through the program and demonstrate mastery of competencies, apprentices receive incremental wage increases, and there is an expectation that when they complete the apprenticeship they will advance to a higher position with higher wages. In addition, the costs of the classroom training and fees for certifications are covered by a grant program through the Denver Office of Economic Development.
- **Classroom Learning:** All apprentices must complete 126 hours of classroom training. Sixty of those hours are held in a classroom setting for four consecutive Fridays and taught by experienced faculty from Johnson & Wales University. This class prepares them to sit for the Hospitality Supervisor Certification. The remainder of the hours are spent in classes that are part of Stonebridge’s company-focused training or online learning modules.

“This is helping advance women in leadership roles and creating opportunities for advancement. It provides exposure to all the aspects of hotel management so women can find their niche and move into that.”

– Lynda Campbell, Stonebridge Companies Director of Training and Development

DRIVER OF SUCCESS

Mentoring

The flexibility of HSRA allows each employer to design a mentoring model that reflects the number of staff and structure of the company-specific training model. A large establishment may choose to create a team of mentors to support the apprentice while a small employer may dedicate one staff member to support the apprentice through the apprenticeship experience.

“This program shows women that their employer wants to train and groom them for success... having strong women leads in the program also gives women a bigger boost.”

– Kim Tranter, Johnson & Wales University Instructor

- **On-the-Job Learning:** Apprentices participate in an on-the-job learning experience that includes rotating through the various departments in a hotel. Because the apprenticeship trains individuals to become managers in the company, the competencies require apprentices to be exposed to all facets of running the business. The direct supervisor of the apprentice coordinates the rotation among departments, while the mentor in each department determines when the apprentice has mastered the required competencies and documents that skills growth. Upon completion, apprentices receive a Certificate of Apprenticeship Completion from USDOL, and apprentices can also take the exam and obtain a Hospitality Supervisor Certification.

IRON HILL BREWERY – RESTAURANT MANAGER APPRENTICESHIP

Iron Hill Brewery is a craft brewery headquartered in Newark, Delaware with 16 locations in 4 states and approximately 1,650 employees.³⁸ The company is growing quickly and facing the challenge of finding qualified managers to manage new locations. The apprenticeship is allowing them to address workforce needs by training their entry-level restaurant workers for future management positions. HSRA provided a structure that enabled Iron Hill to quickly implement an apprenticeship program that fits the company's specific business model.

“It’s very difficult to fill our positions. When we have something unique to offer that truly adds value to the employees and the company, that’s a huge return on investment.”

– Lorraine Serva, Iron Hill Brewery
Director of Human Resources

- **Recruitment and Selection:** Iron Hill Brewery's Director of Human Resources coordinates the apprenticeship for the company and works with management and human resources (HR) staff at the 16 brewery locations to recruit candidates for the program. New employees are made aware of the apprenticeship as part of the new hire orientation, but must demonstrate ambition and management potential before they are invited to participate. The direct supervisor recommends candidates to HR staff, which coordinates the process of enrolling them in the apprenticeship.
- **Participant Supports:** Each apprentice has one designated mentor who supports the individual throughout the program. The mentor holds routine meetings with the apprentice. As part of these meetings, apprentices are encouraged to reflect on and document what was learned in the classroom training and discuss how they can apply it on the job. HR staff communicates regularly with both the apprentice and mentor and tracks progress in the companies' learning management system. A unique aspect of the Iron Hill apprenticeship is a company training program that teaches managers how to support apprentices effectively. This training has created a team of support for apprentices that extends beyond the one manager who is designated as a primary mentor. The apprentices are also supported financially through paid wages for on-the-job learning as well as attending classes.
- **Classroom Learning:** Courses are taken both online and in-person and facilitated by the Director of HR. Because the company has a strong training department, it adapted existing courses to reflect the competencies that individuals must learn through the apprenticeship. A portion of the classroom instruction is through in-person courses that apprentices attend along with other staff, which provides an opportunity for them to learn from and interact with more experienced staff. The remainder of the learning is through online modules that the apprentices take independently.
- **On-the-Job Learning:** The Iron Hill apprenticeship is a structured program where apprentices are expected to master specific competencies each month. Apprentices spend time working in all areas of the restaurant, from finance to culinary, and job-shadow with different managers as they rotate through the departments to learn the complexities of the restaurant business. Apprentices are evaluated by managers and mastery of competencies is documented using a process that aligns with the existing employee evaluation and professional development processes. Upon completion, apprentices receive a Certificate of Apprenticeship Completion from the USDOL and can test for a Restaurant Manager Certification.

Program Impact

The hospitality industry is thriving in the U.S. and must meet the need for a skilled workforce to ensure that the sector can continue to grow. HSRA is providing a way to professionalize the industry while developing “bench strength” for managerial positions. The high female participation rates demonstrate that, not only is HSRA meeting the needs of employers for diverse management teams, but also creating a pathway for women to advance in hospitality careers. Business leaders in the hospitality sector have responded to the apprenticeship model with enthusiasm, largely due to the benefits it yields in strengthening retention.

After two years of the program:

- HSRA has enrolled 1,402 participants, with 57 percent women.
- Fifty-three restaurant and lodging employers have adopted the apprenticeship program, including companies like Hilton, Hyatt, Red Robin, and Ted’s Montana Grill.
- AHLA has enrolled 639 apprentices in lodging manager apprenticeships and has a retention rate of 94 percent.
- NRAEF has enrolled 763 apprentices in restaurant manager apprenticeships and has a retention rate of 96 percent.

Iron Hill Brewery and Stonebridge Companies are just two examples of companies that are benefitting from the apprenticeship program by upskilling incumbent workers, including women, into management roles.

- At Iron Hill Brewery, 10 of the 13 apprentices in the program in the first year were promoted into management before they completed the program. Currently, there are 29 apprentices in the program—41 percent of them women.
- Stonebridge Companies has 22 people in the apprenticeship in the first year—50 percent are women. Many of the apprentices were promoted into higher-level positions before they completed the program.



SUCCESS STORY – CASSIDY

Cassidy began the program in Fall 2017 as the first apprentice at Iron Hill Brewery. At the time, she was part of the kitchen staff and was recommended for the program by the head chef. The apprenticeship program has enabled her to move through the various positions in the kitchen and reach the level of sous chef more quickly than her non-apprentice peers.

Although Cassidy still has classes to finish before she completes the apprenticeship, the experience has already made an impact on her level of self-confidence. She has been exposed to other female chefs and managers in the company who have helped her realize that hard work is what determines success—not gender. As a sous chef, she sometimes is the only female in the kitchen and expected to provide leadership to male staff. Cassidy has learned the communication skills that help her deal with people in any situation—both positively and constructively. She has also learned technical skills that surpass those of her peers—for example, she is often asked to help others maneuver the internal computer system.

Cassidy has a lot of experience in the industry—everything from a college degree to a job as a private chef—but she feels that the apprenticeship allows her to stand out from others. She has been with Iron Hill Brewery for 3.5 years and wants to stay with the company. She encourages other women to pursue a career in the culinary field, and to not feel hesitant because the culinary workforce is mostly male. In her words, *“there is no limit to what you can do if you work hard.”*

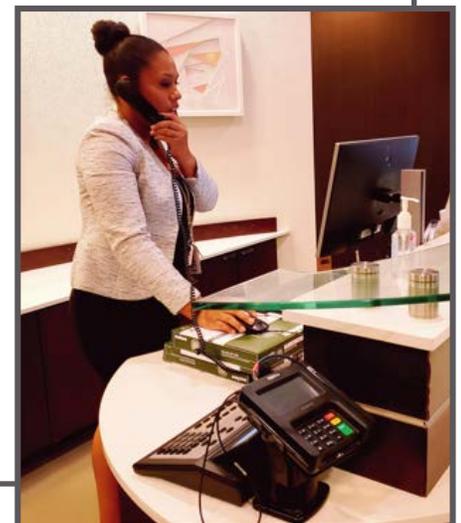


SUCCESS STORY – SHEILA

Sheila started as a banquet server/bartender in the food and beverage department at Stonebridge Companies a year before she began the apprenticeship. She heard about the program during her first year on the job, so when she was approached by her supervisor to join, she readily accepted. The apprenticeship gave her the opportunity to experience working in every department at the hotel—from finance to sales and marketing to housekeeping—and pick up new skills that will help her advance. The apprenticeship not only increased her confidence, but also opened her eyes to the many career opportunities available.

For Sheila, the program was not easy. The classroom courses were engaging, but sometimes challenging to attend while maintaining her full-time job. A critical success factor for Sheila was her support system. She relied on her mentor for professional guidance, leaned on her family to help with her kids, connected with other apprentices in the program for peer support, and looked to the female instructors in her courses.

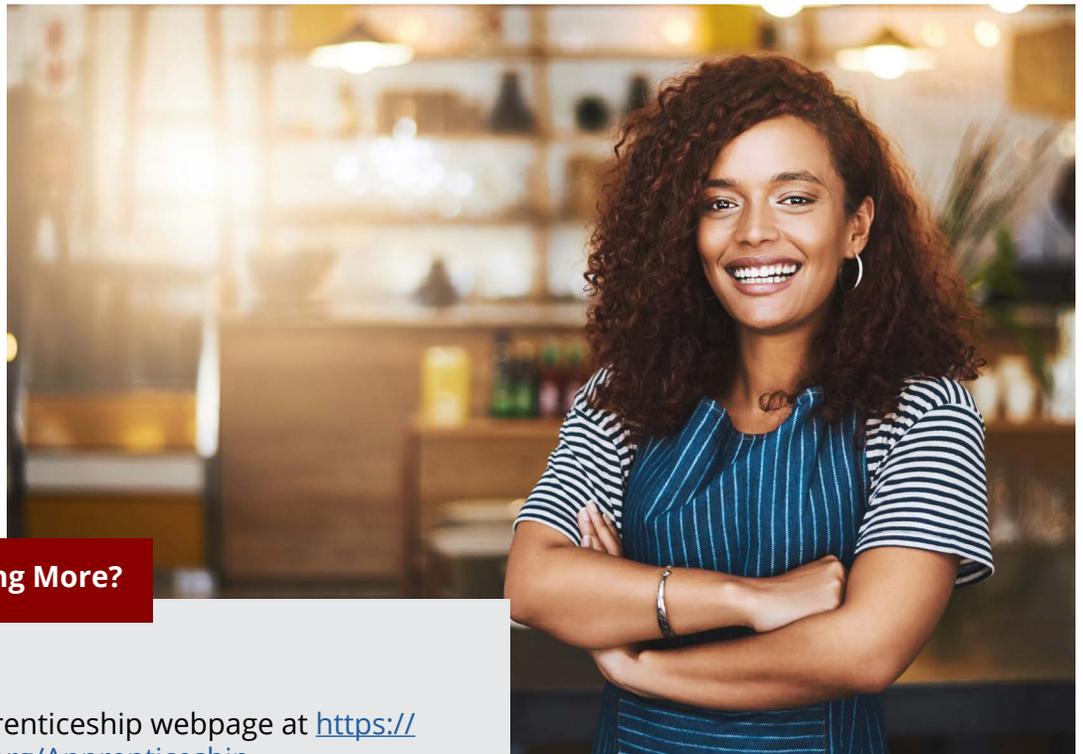
Sheila completed the program, earning her Registered Apprentice Certification as a Lodging Manager, and is now a guest services manager. Now that she has learned more about the business, Sheila wants to continue to advance. Sheila would tell other women never to back down regardless of what is put in front of you: *“If there is a will – there is a way.”*



Looking Ahead

The goal of NRAEF and AHLA is to have at least one apprentice in every lodging property and restaurant in the country. As more companies engage in the program, both organizations will need to find ways to support them. Both organizations will continue to work with employers who are currently running the HSRA to help them expand the program and will also seek new employers to adopt the program for lodging manager and restaurant manager.

NRAEF and AHLA members have identified other occupations that would benefit from the apprenticeship model such as sales manager and hotel engineer. Both organizations will work with human resources and other representatives from hospitality companies to identify competency requirements in each area as a first step to building national apprenticeship program standards that can be adopted by restaurant and lodging employers across the country.



Interested in Learning More?

Restaurant Manager:

- Visit the NRAEF apprenticeship webpage at <https://chooseresaurants.org/Apprenticeship>
- Contact John Shortt, NRAEF Director of Program Development, at jshortt@nraef.org

Lodging Manager:

- Visit the AHLA apprenticeship webpage at <https://www.ahlafoundation.org/apprenticeship>
- Contact Shelly Weir, AHLA Senior Vice President of Career Development, at sweir@ahla.com

CONCLUSION

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Apprenticeship programs open career pathways for women to stable employment, increased skills, higher wages, and opportunities for advancement. As businesses continue to look for talent, apprenticeship is an effective model for training a skilled and diverse workforce, including a way to recruit and retain female workers. This resource guide examines four high-quality, women-inclusive pre-apprenticeship and apprenticeship programs in the technology, construction, early childhood education, and hospitality industries. Interviews with program leaders and staff provide in-depth information related to how and why the program was designed, operational program details, unique elements of support for women, and partnerships that contribute to success and sustainability. The impact of the programs is captured through measurable outcomes as well as personal testimonials of women who have changed their lives by participating in a pre-apprenticeship or apprenticeship program.

Though each featured program serves a different industry, common strategies for participant and program success were found across all organizations:

- Personalized support for women during and after completion of the program;
- Role models who share their experiences and encourage participants to persist through difficulties along the way;
- Financial assistance that enables women to begin and successfully complete the program;
- Strategies that increase the self-confidence of participants;
- Strategic partnerships that enable effective design, implementation, and sustainability;
- Rigorous selection processes to find the best candidates for the program;
- Alignment of training to the in-demand skills and credentials required by employers; and
- The role of intermediaries in launching and growing apprenticeship programs.

Implementation of these strategies has resulted in sustainable training programs that are leading to new opportunities, stable employment with higher pay, and career advancement for women. This guide serves as a technical assistance tool that businesses and other organizations can adopt to create similar apprenticeship program models that increase women's employment outcomes and career success.

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Disclaimer

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