



2018 Annual Report



The Honorable Larry Hogan, Governor
The Honorable Delores Kelley, Chair, Senate Finance Committee
The Honorable Dereck E. Davis, Chair, House Economic Matters Committee

Re: MSAR 9663

Dear Governor Hogan and Chairmen Kelley and Davis:

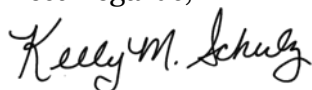
I am pleased to present you the 2018 annual report for the Employment Advancement Right Now (EARN) Maryland program. Over the last four years, EARN has been recognized as a national best practice for its innovation and implementation of sector strategies. Most recently, EARN was named one of the Top 25 programs in the *2018 Innovations in American Government Award* competition by The Ash Center for Democratic Governance and Innovation, a leading research center at the John F. Kennedy School of Government at Harvard University.

The success of EARN is seeded in its innovative model, which tasks business and industry partners with program design. Employers are challenged to look both within and beyond their individual organization to identify the specific skill needs for their workforce. Intimate involvement in program design breeds confidence that those participating in EARN training will have the relevant, in-demand skills to help grow their business. I am pleased to report that since program inception, EARN has engaged more than 1,000 employer and industry partners.

Due to targeted investments in key industries, 2018 was a year of marked growth for EARN. Over the last year, the Department awarded funding to 27 new Strategic Industry Partnerships, including 12 initiatives targeting the Information Technology and Cybersecurity industries. As of October 2018, more than 2,900 unemployed and underemployed participants, many of whom have multiple barriers to employment, have obtained employment. Over 5,600 incumbent workers have participated in training, leading to improved business outcomes for employers, including increased cost savings, productivity and retention. Finally, EARN continues to be a sound investment of State resources. A recent study on the economic impact of the program shows that for every dollar the State invests, an additional \$18.50 in economic activity is created.

In short, EARN continues to have a profound impact on the business community and jobseekers in Maryland. The Department is proud to support this program and looks forward to sharing its successes in the years to come.

Best Regards,



Kelly M. Schulz
Secretary

Table of Contents

| | |
|--|-----------|
| Maryland's Nationally Recognized Workforce Solution | 6 |
| Continued Growth | 7 |
| Collaboration with Sister Agencies | 8 |
| Multi-Faceted Impacts of EARN Maryland | 10 |
| Impact on Maryland's Economy | 10 |
| Improved Business Outcomes | 10 |
| Serving All Marylanders | 11 |
| Increasing Opportunity via Registered Apprenticeship | 14 |
| Identification of Statewide Training Needs | 15 |
| Job Readiness and Essential Skills | 16 |
| Information Technology/Cybersecurity | 16 |
| Healthcare | 17 |
| Skilled Trades | 18 |
| Tracking Success, Accountability, and Participants | 19 |
| Third Party Evaluation | 20 |
| 2018 EARN Maryland Strategic Industry Partnerships | 21 |
| Information Technology/Cybersecurity | 22 |
| Biotechnology | 29 |
| Transportation and Logistics | 30 |
| Green | 32 |
| Hospitality | 36 |
| Manufacturing | 37 |
| Healthcare | 41 |
| Construction | 46 |
| Automotive Repair | 50 |
| Natural Resources | 51 |
| Childcare | 51 |
| Utilizing Data | 52 |
| Conclusion | 52 |
| Appendix A | 53 |
| Appendix B | 57 |

Commonly Used Abbreviations

| | |
|------------------------|--|
| BACH | Baltimore Alliance for Careers in Healthcare |
| BEACON | Business, Economic, and Community Outreach Network |
| CNA | Certified Nursing Assistant |
| CNC | Computer Numerical Control |
| DoD | Department of Defense |
| DNR | Department of Natural Resources |
| DHS | Department of Human Services |
| DSP | Direct Support Professional |
| DLLR, “the Department” | Department of Labor, Licensing and Regulation, the Department |
| EARN | Employment Advancement Right Now |
| FSET | Food Supplement Employment Training |
| FY | Fiscal Year |
| GIAC | Global Information Assurance Certification |
| GNA | Geriatric Nursing Assistant |
| HVAC-R | Heating, Ventilation, Air Conditioning, and Refrigeration |
| ICE-T | Intrusion and Countermeasures Education and Training |
| JARC | Jane Addams Resource Corporation |
| JOTF | Job Opportunities Task Force |
| MATP - | Maryland Apprenticeship and Training Program |
| Maryland MEP | Maryland Manufacturing Extension Partnership |
| MTA | Maryland Transit Administration |
| MEA | Maryland Energy Administration |
| MVA | Motor Vehicle Association |
| MOU | Memorandum of Understanding |
| NABCEP | North American Board of Certified Energy Practitioners Certification |
| PCT | Patient Care Technician |
| RA | Registered Apprenticeship |
| ROI | Return on Investment |
| SEWDP | Sustainable Energy Workforce Development Partnership |
| SIP | Strategic Industry Partnership |
| WTP | Workforce Training Plan |

Maryland's Nationally Recognized Workforce Solution

Employment Advancement Right Now (EARN) Maryland is the State's nationally recognized workforce solution. EARN is industry-led, designed with the flexibility to ensure that Maryland's businesses have the talent they need to compete and grow. The program provides targeted education and skills training to Maryland's workforce, including support for individuals with specific barriers to employment and career advancement strategies for incumbent workers.

EARN represents an important paradigm shift in workforce development, encouraging collaboration between a diverse group of partners to develop innovative strategies to meet industry demand. These partners, including employer and industry representatives, non-profit and community based organizations, and workforce, economic development, and higher education partners, make up Strategic Industry Partnerships (SIPs).

While traditional workforce programs often look to training entities or higher education to determine training needs and develop curriculum, EARN's innovative model tasks business and industry partners with designing the programs. Employers are challenged to identify the specific skill gaps for their workforce as well as the broader range of skills needed within their industry sector. By anticipating the changing landscape of training needs, curriculum can be designed flexibly to perform over time as an effective workforce strategy.

Since the program began in 2014, EARN has been recognized by numerous organizations, including the National Skills Coalition and the Urban Institute for its unique program design and progress in implementing sector strategies. Most recently, EARN was named one of the Top 25 programs in the 2018 Innovations in American Government Award competition by The Ash Center for Democratic Governance and Innovation, a leading research center at the John F. Kennedy School of Government at Harvard University. The Innovations in American Government Awards is the nation's preeminent program devoted to recognizing and promoting excellence and creativity in the public sector. The program highlights exemplary models of government innovation and advances efforts to address the nation's most pressing public concerns.

EARN was also invited to apply for the Pioneer Institute's Better Government Competition. Though not awarded, the invitation highlights EARN's growing national reputation as a best practice in sector strategies. Furthermore, EARN staff has provided technical assistance to other States looking to implement similar initiatives.

In response to employer demand, the program continues to primarily focus on 2 distinct subsets of the workforce: unemployed/underemployed and incumbent workers. Employers identify incumbent worker training as a costly yet indispensable tool that is critical for expansion, retention, and increased competitiveness. As of October 2018, more than 5,600 incumbent workers have received training, attaining new credentials, certifications, and/or skills. As a direct result, employer partners report improved productivity, cost savings, wages, and job retention.

Additionally, regardless of industry or region of the State, employers identify challenges around recruitment, especially for entry level positions. Thus, EARN SIPs seek to grow the pipeline of qualified workers with the appropriate skillsets who are ready and able to work.

As of October 2018, 3,573 EARN participants completed entry level training programs. Of those, 2,971, (83%) obtained employment. As a result of their participation in EARN, employers have a steady pipeline of candidates with relevant skills to consider for hire, thus decreasing screening, interviewing, and training costs and reducing worker turnover.

Continued Growth

Given the program's success in effectively reaching both businesses and jobseekers, Governor Hogan invested in EARN through appropriations in Fiscal Years (FYs) 2018, 2019, and 2020. In addition to the \$4 million historically appropriated for the program, Governor Hogan invested \$3 million to promote training in Information Technology and Cybersecurity in FY 2018 and FY 2019, for a total added investment of \$6 million.

“Investing in and expanding this nationally recognized initiative is a common sense way to ensure Maryland employers have the talent they need to thrive, while providing meaningful training opportunities for our citizens.”

-Governor Larry Hogan

Additionally, in FY18, FY19, and FY20, \$1 million has been earmarked for green jobs training. These investments by Governor Hogan have doubled the program budget for FY18 and FY19, and will ensure that Maryland employers have the talent they need to compete and grow in a global economy.

In response to the increased budget, the Department of Labor, Licensing and Regulation (“the Department”) released a Solicitation for Implementation Grants in April of 2018. The Department received 28 proposals in response to the Solicitation. EARN proposals are thoroughly vetted through a process designed to ensure that industry-led, in-demand SIPs are awarded funding. Once received, each proposal undergoes a technical, fiscal, and programmatic review by EARN staff.

Next, teams of industry and workforce experts review each proposal. Review teams are comprised of staff from the Maryland Energy Administration (MEA), Department of Commerce (Commerce), Department of Human Services (DHS), the Governor's Grants Office, Governor's Workforce Development Board, and internal Department staff. Review teams consider whether the proposal meets program requirements, examines the innovation being proposed, gauges industry engagement and commitment, and vet the partnership's plan for sustainability in the absence of EARN funding. Scores are compiled, and a recommendation is made for the secretary's review. This proven process ensures that quality partnerships, which are truly employer driven, receive EARN funding.

In September 2018, the Department awarded funding to 15 SIPs in a variety of industries, including Cybersecurity and Information Technology, Construction, and Healthcare. Every region of the State will benefit from these new SIPs, which are comprised of more than 80 employer partners and will train nearly 1,600 Marylanders. The partnerships awarded funding are listed below and a summary of each can be found in the section entitled *2018 EARN Maryland Strategic Industry Partnerships*.

| Partnership | Lead Applicant |
|--|--|
| Herbert J. Hoelter Vocational Training Partnership | Herbert J. Hoelter Vocational Training Center |
| Highway to a Healthcare Career | Independence Now |
| FoodWorks Culinary Training Program | Maryland Food Bank |
| Construction Workforce Partnership for Southern Maryland | College of Southern Maryland |
| PharmaTech Connect | Goodwill Industries of the Chesapeake |
| Global Resource for Academic & Career Excellence (GRACE) | Virginia L. Grant Foundation |
| Jobs in the Transportation Industry: A Road to Success | Anne Arundel Workforce Development Corporation |
| Community Health Workers Training Partnership | Asian American Center of Frederick |
| Susquehanna HVACR Partnership | Cecil College |
| Montgomery Alliance for Childhood Education | Montgomery College |
| Automated Facilities and Logistics Technician Program | Community College of Baltimore County |
| Maryland Cyber Skills Alliance | CompTIA |
| Certified Cyber Analyst Operator Partnership | UMBC Training Centers |
| Baltimore Cybersecurity Partnership | I'm Still Standing Community Corporation |
| Advancing Careers in IT | Community College of Baltimore County |

Since Governor Hogan's investment into EARN in FY2018, the program has nearly doubled the number of SIPs, expanding from 40 to 79¹ funded programs. The focus on growing the number of qualified workers for the Cybersecurity and Information Technology industries is evidenced by a 280% increase in the number of partnerships dedicated to training in those sectors. Similarly, the number of SIPs targeting green jobs training has grown from 2 to 7, broadening the geographic reach around the State.

Collaboration with Sister Agencies

As prescribed in the Labor and Employment Article § 11-706(a)(1) of the Maryland Annotated Code, EARN should collaborate with sister agencies to ensure a highly trained and qualified state workforce. As such, the Department spent much of 2018 strengthening relationships with sister agencies.

As part of his 2017 Environmental Package, Governor Hogan made a \$3 million target investment into the EARN program to train individuals for careers in solar, wind, hydroelectric and other Tier 1 renewable industries. The funding is provided through the Maryland Strategic Energy Investment Fund, managed by the **MEA**, as a result of the Constellation-Exelon merger. The Department executed a Memorandum of Understanding (MOU) with MEA, which allows for up to \$1 million per year for 3 years to fund EARN SIPs. EARN staff has worked in close consultation with MEA personnel who are subject matter experts on Tier 1 renewable energy. MEA staff also assisted with proposal evaluation. In 2018, 4 SIPs received funding under the MOU. Fifty unemployed or

¹A total of 79 EARN Partnerships have been funded since the program began in 2014. As of this report, there are 74 funded partnerships.

underemployed individuals completed training, of which, 48 (96%) obtained employment. Additionally, 10 incumbent workers received training. In 2019, these partnerships will continue to utilize EARN funding to provide industry-led, in demand training.

The EARN statute also states that the program should “identify positions in State Government in need of skilled employees and mechanisms to provide incumbent state employees with access to skills training.” When the Department became aware of critical training needs at the **Department of Natural Resources (DNR)**, the two agencies recognized EARN funding could be a solution. After submitting a comprehensive proposal that was thoroughly evaluated, the Work2Live WELL program was funded, marking EARN’s first direct investment into the public sector. Work2Live WELL is a skills accelerator program meant to grow the pipeline of qualified workers for the environment and natural resources industries. Detailed field training plus classroom sessions, mentoring opportunities, and essential skills training is included. The pilot program featured cohorts on the Eastern Shore and in Baltimore City, leading to employment for 14 individuals. Work2Live WELL also provides the opportunity for incumbent workers to participate in leadership training. Given the success of the pilot project, the Work2Live WELL program will receive additional funding in 2019 to continue programming.

“I am pleased to support the partnership between the Maryland Department of Transportation Maryland Transit Administration (MDOT MTA) and Maryland New Directions. Maryland New Directions’ mission of providing no-cost, industry specific training ensures a quality pool of prospective employees throughout the Baltimore region. MDOT MTA has found success in hiring graduates of the program and we look forward to continuing our partnership in the future.”

-Kevin Quinn, Administrator,
Maryland Transit Administration

In 2018, the Department continued its partnership with **DHS**, leveraging the Food Supplement Employment Training (FSET) Program as a means to train more Marylanders. Funded by the United States Department of Agriculture, the program connects people who receive monthly food supplement benefits (SNAP, food stamps) to industry led, job-driven training programs. The program requires a cost-match with non-federal funding. Participating programs are reimbursed up to 50% of allowable program costs, thus increasing the State and other non-federal funders’ investment.

Because EARN is a state-funded program, SIPs have the means to provide the cost match utilizing EARN funding. To date, 6 EARN grantees have taken advantage of the program, including the Jane Addams Resource Corporation (JARC), Civic Works, Humanim, Job Opportunities Task Force (JOTF), Per Scholas and Vehicles for Change. Leveraging FSET funding increases the number of Marylanders able to receive in-demand skills training. It is anticipated that as the program expands across the State, additional EARN grantees will participate.

In addition to the EARN partnerships that utilize FSET funding, other grantees have forged relationships with DHS to develop a recruitment pipeline. For example, the Maryland Manufacturing Extension Partnership (Maryland MEP) held a boot camp on the Eastern Shore in January of 2018. All of the trainees were clients of DHS’s Non-Custodial Parent Employment Program, which helps Maryland citizens to find employment to assist with child support compliance. Additionally, each trainee was long-term unemployed with

barriers to employment, such as limited work history and criminal backgrounds. Upon completion of training, 100% of the graduates obtained employment in positions with full benefits, including healthcare, vacation, and a 401(k). The impact of serving individuals



MTA Administrator Kevin Quinn poses with EARN graduate now employed at the Maryland Transit Authority

receiving public assistance often have multi-layered impacts and the Department looks forward to continued partnership with DHS.

EARN grantees have also engaged State Agencies as employer partners on their projects. For example, the Maritime Transportation and Logistics Partnership, led by Maryland New Directions, recently launched the Commercial Transportation Career program, which includes certification in CDL-B. Skilled drivers are in high demand at the **Maryland Transit Administration (MTA)**. After visiting Maryland New Directions and observing the training in action, Administrator Kevin Quinn praised the curriculum and trainees. The MTA has since hired graduates of the program.

Multi-Faceted Impacts of EARN Maryland

Impact on Maryland's Economy

The overarching goal of EARN is to provide a more highly skilled workforce for Maryland employers. As has been highlighted in the

preceding pages of this report, this means providing in-demand training to unemployed or underemployed Maryland residents. Additionally, incumbent workers receive training to increase their skillsets, which may lead to increased wages. Overall, the program is increasing the earning potential for Maryland's workforce, which directly impacts the State's economy.

On an annual basis, the Business, Economic, and Community Outreach Network (BEACON) of Salisbury University performs an economic impact study to calculate the Return on Investment (ROI) for EARN Maryland. The ROI is utilized to determine the effectiveness and efficiency of the public funding invested into the program. The calculations, which are standardized across a wide variety of geographic and industry sectors, utilize large amounts of data supplied by each grantee. The ROI calculation uses two inputs: the EARN funds invested by the Department in the current year and the dollar value of leveraged resources invested by SIPs. The outputs tracked include changes in participant earnings, the value of retained jobs, and multiplier impacts of new jobs and increased wages (i.e. how additional earnings trickle down to the economy due to increased disposable income). The calculation also takes into account the number of participants placed into jobs, net new jobs created, and net new wages created per \$100,000

investment. The analysis for FY2018 shows that for each dollar the State invests in EARN, an additional \$18.50 is created in economic impact.

Improved Business Outcomes

Over the last four years, EARN SIPs have implemented demand-driven skills training programs for unemployed and underemployed Maryland residents and provided invaluable opportunities to incumbent workers. Employers express satisfaction with the program, with 95% indicating that participation in EARN has had a positive impact on their business. A highly skilled workforce in and of itself benefits employers, but secondary benefits have been identified as a result of participation in EARN, including increased revenue, cost savings and improved processes.

Increased Revenue

Employers partners identify increased productivity as a direct result of their participation in EARN. For instance, an employer partner from the mHealth Partnership reports growing their sales by five times due to support from an EARN-trained employee.

Additionally, industry partners from the Suburban Maryland Construction Initiative state

“The skills and knowledge gained through these programs have enabled our staff to not only perform at a higher level in their day-to-day jobs, but, in some cases, allowed us to perform a job duty in-house versus having to outsource it due to a lack of available talent in the area. This is keeping jobs in Maryland.”

that its contractors are benefiting from a pipeline of qualified workers as this increases their capability to apply for and receive contracts.

Cost Savings

One of the largest benefits expressed by employers is the cost savings experienced as a result of participating in EARN. Many employers indicate that because EARN training is tailored to meet their needs, the hiring process has become much less time intensive and tedious. Specifically, participation in EARN has resulted in lowered expenses in screening and interviewing job applicants. Because EARN trainees receive industry-specific training, there is less cost associated with the onboarding and training of new employees. Additionally, employers identify increased retention, which can be attributed to the investment into incumbent worker training. This has significantly decreased all costs associated with screening, interviewing and onboarding.

Improved Processes

Employers identify that internal processes have improved because of EARN-funded training for their employees. For example, the Total Recordable Incident Rate for one employer from the Curtis Bay Industrial Partnership reached 295 days without a recordable injury, which is a record for the site. Management attribute this milestone in part to EARN-funded safety training.

Serving All Marylanders

Maryland is experiencing record low unemployment at a time of significant anticipated growth in many of EARN’s target industries. As a result, the potential pool of applicants is limited and often have barriers which make it difficult to obtain and retain employment.

Some of these barriers include lack of transportation, homelessness, addiction, childcare needs, and involvement with the criminal justice system.

EARN was created in the spirit of collaboration, requiring a variety of organizations to work together to meet the needs of a given industry. Non-profit and community based organizations often play a large role in EARN partnerships that provide entry level training, as they are especially adept at removing any barriers that may hinder success in the workplace. To provide holistic services, partners work individually with trainees to ensure all barriers to employment are removed before entering the workforce, maximizing the odds for success. Examples of barrier removal services provided to EARN trainees include record expungement, transportation assistance (bus tokens or assistance in procuring a vehicle), providing bridge instruction in math and reading, GED courses, stipends for training, and more.

A lack of transportation and interaction with the criminal justice system are two of the most recurring barriers faced by EARN trainees. EARN partnerships are engaging with new organizations and utilizing creative methods to overcome these barriers to employment. Some best practices are described below.

Transportation

In addition to the Automotive Technicians for Change initiative, Vehicles for Change has a car award program that provides vehicles to low-income families. The organization has forged partnerships with a number of EARN grantees, including JARC, JOTF, Civic Works, and the Baltimore Alliance for Careers in Healthcare (BACH). Through the car award program, EARN trainees have been awarded cars at a low cost with low interest loans, allowing trainees to build credit and providing reliable transportation to and from work.

Recognizing that access to reliable transportation is one of the most significant systemic barriers preventing Marylanders from accessing quality jobs, Civic Works launched a car match savings in 2016. Civic Works provides a one-to-one match to the savings participants are able to accrue while they are in paid on-the-job training, up to \$1,000. Soon after purchase, Civic Works takes the vehicle to a trusted mechanic to ensure the vehicle does not require extensive repairs. Case managers assist participants in navigating the process of purchasing car insurance, registering their vehicle, and addressing any Motor Vehicle Association (MVA) flags that may prevent them from registering the car in their name. To date, 39 EARN participants have acquired vehicles through the match program, ensuring that reliable transportation is no longer a barrier to work for these graduates.

Interaction with the Criminal Justice System

Since the program began in 2015, the Careers in Manufacturing Program, led by JARC, has admitted nearly 140 individuals with criminal backgrounds. Because this can often hinder one's employment options, the partnership has formed a collaboration with the Maryland Volunteer Lawyer Service, a non-profit legal services provider dedicated to meeting the need for pro bono civil legal services for low income individuals. Since this partnership began, it is estimated that well over 100 cases have been expunged.

Through extensive job readiness and essential skills training, the Maritime Transportation and Logistics Partnership teaches trainees techniques on how to address any interaction with the criminal justice system during the interview process. Participants then have the opportunity to practice these techniques through mock interviews with actual employers. Feedback is provided, allowing trainees to further hone responses in preparation for real-world interviews.

“Under a year ago, Camillo was under home detention, unsure of his next step. After completing training at the Jane Addams Resource Corporation, he is working as a CNC Operator, rebuilding his financial health and seeking additional education to take him further in his career. During training, Camillo worked hard to juggle training and a weekend job. He persevered and before completing the program, he had two job offers from two different companies. ‘I’d never turned down a job before, so that felt good,’ said Camillo.”

Over the last four years, EARN has transformed countless lives, providing opportunities that otherwise may have not been available. Below is a small sampling of EARN participants who have overcome barriers to employment and successfully entered the workforce.

While living at Helping Up Mission, Joseph heard about JARC’s training program. He scored well on the aptitude test and entered the program. Joseph worked hard and finished training in just 8 weeks. “When I walked in to get my job, I had a felony theft on my record and it was only 5 years old. [JARC] had a lot of influence,” Joseph said. Since completing the program, JARC has helped Joseph obtain a scholarship to receive a car through Vehicles for Change, and have his license reinstated. He has already earned 2 pay raises, and has passed the probationary period. He now has a 401k and vacation time. – **Careers in Manufacturing Program**

Larry came to Vehicles for Change after 12 years of incarceration in 2015. With his previous experience in diesel automotive, he excelled in furthering his automotive knowledge. After 2 months in the automotive internship program, he was hired full time as a bus mechanic with Reliable Transportation. Larry was married in 2017, which is also the year he made his first 6-figure salary. Larry has also hired 2 graduates of the automotive internship program at Vehicles for Change. – **Automotive Technicians for Change**

When Terrance began training, he had been recently released from prison in West Virginia. Once he completed the Sustainable Energy Workforce Development Partnership (SEWDP) training, he was placed in an internship which helped him to build his resume and further refine his skills. Upon completion of the internship, he was hired with the Local 26 Union earning \$13.54. Terrance is on a path to increase his earnings and enhance his skills through this apprenticeship. – **Sustainable Energy Workforce Development Partnership**

Regine is a 20-year-old single mother who was experiencing homelessness when she enrolled in Healthcare Mentorship Baltimore. In a needs assessment, Regine shared details of her housing and employment needs; subsequently, the case manager developed a plan that helped Regine acquire affordable housing and stable employment to support her through the training. Despite her obstacles, Regine graduated with her nursing assistant certification on time with 100% attendance and a glowing recommendation from her clinical instructor. Regine is now using her new skills to seek advanced employment opportunities in a hospital setting, where she will receive increased wages and enhanced medical benefits. – **Healthcare Mentorship Baltimore**

Rich had been unemployed for more than 2 months when he began the Facilities Management program in April of 2018. He completed training, including an internship where he was able to hone his technical skills. Soon after, he obtained full-time employment earning \$40 per hour. – **Creating a Pipeline of Green Jobs**

Andre came to Civic Works because he was unable to find steady work due to his criminal background. When he began the program, Andre's driver's license was suspended for 4 different traffic citations and he did not have a vehicle. With help from Civic Works staff, Andre was able to attend a driver improvement course, pay off the money he owed for the traffic citations, and obtain a valid driver's license. While in the program, Andre discovered that he had an open warrant caused by accidentally missing a mandatory court appearance for his child support case. With support and advocacy from his case manager, Andre was able to resolve the court case. Within less than a week of completing the program, Andre had gained full-time employment in the Brownfields industry at a starting wage of \$18.75 per hour. He is currently building savings toward the purchase of a vehicle. – **Remediation Construction Industry Partnership**

Davontay was raised in Baltimore City. Prior to joining NPower's Tech Fundamentals program, Davontay was struggling with financial instability and homelessness off and on for over a year. He was in desperate need of a change and looking for a better way of life. His biggest inspiration for joining NPower was his family, particularly his son for whom he wanted to be a provider and positive role model. In July, Baltimore based PortNetworks brought Davontay on full-time as a Network Technician Specialist. This position allowed him to gain financial stability and better deal with the obstacles that comes along with being a single father. He is currently building his experience at PortNetworks while preparing to test for his CompTIA Network+ certification. – **NPower Tech Fundamentals**

Increasing Opportunity via Registered Apprenticeship

Given that both models rely heavily on employer engagement, many EARN grantees have begun to explore Registered Apprenticeship (RA) as a logical next step in their workforce development efforts, thus growing the number of options within the workforce system. EARN staff works closely with the Maryland Apprenticeship and Training Program (MATP) team, also housed at the Department, to connect with grantees. These efforts have proved fruitful in growing RA in Maryland. For instance, the Maryland MEP utilized EARN

funding to help four companies reactivate Computer Numerical Control (CNC) Machinist and Industrial Maintenance Technician occupations. Additionally, in July, 2018, EARN grantee Berry Plastics expanded their occupational offerings through RA to include the occupation of Maintenance Technician.

“It’s no secret that there is a gap between the manufacturing talent needed and the talent that is available today. [EARN] is closing that gap by providing not only financial support, but also a proven process for training development tailored specifically for manufacturing. The MEP’s help to move our traditional in-house apprenticeship program to one that is skills-based will allow us to attract, train, and retain our future workforce.”

Progress has been made in expanding RA into non-traditional industries as well. For example, utilizing funding from ApprenticeshipUSA, BACH was approved to sponsor the occupation of environmental care supervisor, surgical technologist and licensed practical nurse, representing Maryland’s first competency-based RA programs. Newly awarded EARN grantee, University of Maryland Baltimore County Training Centers, recently became a RA sponsor and will leverage EARN funding to grow the number of apprentices enrolled in their programming. Other EARN grantees have expressed interest in RA, especially in the Cybersecurity, Information

Technology and BioTechnology industries. EARN staff will continue to work in close collaboration with the MATP team to facilitate connections and grow RA in the State.

Identification of Statewide Training Needs

The Labor and Employment Article § 11-709(b)(4) of the Maryland Annotated Code requires EARN SIPs to identify workforce shortages and develop Workforce Training Plans that will efficiently and effectively bridge those gaps. EARN continues to invest in a variety of industries, including Information Technology, Healthcare, Manufacturing, Skilled Trades, and Green. While the training needs and implementation may vary by industry or region, there are some commonalities.

In response to feedback from employer partners, EARN is providing training to three subsets of the workforce, including to (1) unemployed/underemployed individuals, (2) incumbent workers, and (3) individuals that require preparatory training. These three subsets are described below.

(1) Unemployed/Underemployed: Employers continue to identify a need for a qualified pipeline of skilled workers. As such, a majority of EARN partnerships are targeting unemployed and underemployed participants.

(2) Incumbent: An incumbent worker is an individual who is already employed in the target industry. Employer partners identify incumbent worker training as an indispensable, yet often cost prohibitive conduit for growth, expansion, and retention. As such, many partnerships are utilizing EARN funding to upskill the existing workforce. This is important as industries struggle to keep pace with increasingly sophisticated technology and the imminent gaps in leadership roles caused by retirements.

(3) Preparatory: Preparatory training serves individuals who are not ready to enter the workforce, but would benefit from training and education. For instance, many

employers indicate that even entry level positions require some level of experience. Thus, some partnerships, like the IT Center for Excellence, are providing shadowing and internship opportunities for students who are still completing educational requirements. These vital experiences are allowing students to further hone their technical skills, while simultaneously forging relationships with local employers and highlighting job opportunities that exist in Western Maryland that they may have otherwise overlooked.

While the number of partnerships offering preparatory training is small, these opportunities are an important step towards full employment and are having positive impacts on the industries they target.

Job Readiness and Essential Skills

As mentioned above, a majority of EARN partnerships are targeting persons who are unemployed or underemployed. A key component of curriculum for these partnerships includes job readiness training, defined as training for the purpose of assisting and supporting low-skilled workers in overcoming individual barriers to employment and developing the skills required to maintain employment. Job readiness training may include professional skills, literacy advancement, and financial coaching.

Employers resoundingly identify a need for essential skills training. In fact, employer partners identify essential skills training as equally, if not more important than technical skills in evaluating a potential candidate. Essential skills, also known as soft skills, include professionalism, communication, timeliness, and customer service. Essential skills training is implemented in the classroom and modeled on on-the-job work experiences. Some partnerships utilize a simulated work environment that enables trainees to hone their essential skills in preparation for the workplace.

Information Technology/Cybersecurity

The Information Technology and Cybersecurity industries in Maryland continue to grow at a rapid pace, amplifying the demand for a skilled workforce. In fact, over the last year, Maryland employers posted 7,200 jobs for information technology positions.² Despite this growth, industry partners express difficulty in finding a workforce that possesses the necessary training and skills to fill these open positions. Recognizing the skills gap that exists within these industries, Governor Hogan made a targeted investment of \$6 million over two years to bridge that disparity.

“When Yesi left the Marine Corps in 2014, he found employment making \$12 an hour. He was accepted into the SANS Cyber Workforce Academy in April of 2018. During his time in the program, he earned the Global Cyber Security Essentials and GIAC Certified Incident Handler certifications. Due to his natural talent, professionalism and passion for learning, Yesi secured employment as a SOC Analyst, with a salary nearly triple his previous income.”

² <https://www.dllr.state.md.us/lmi/>

Industry-Recognized Certifications

Overwhelmingly, employers cite a need for a highly skilled workforce with industry-recognized certifications. These certifications range from more rudimentary certifications like A+, Network+, and Security+ to more middle-level certifications, like Certified Information Systems Security Professional, Certified Ethical Hacker, and the Global Information Assurance Certification. EARN SIPs are providing training that prepares participants to test for these certifications. Many partnerships utilize EARN funds to cover the fee for the certification exam, which are often costly.

Hands-On Experience

Employers also state that hands-on experience is appealing when considering candidates for employment. As such, many partnerships' training for entry-level positions offer some type of internship or hands-on experience. For instance, the NPower Tech Fundamentals Partnership offers each trainee a seven week paid internship. This is an opportunity to refine the technical skills learned in the classroom and practice job readiness and essential skills. Additionally, the Advanced Cybersecurity Training Partnership is providing students completing community college programs an 8-hour training session, where they are exposed to real-life cyber threats. The hands-on training is meant to increase the employability of these candidates. Employer partners often attend training to observe students in action and identify candidates they would like to interview.

Healthcare

Career Advancement for Frontline Workers

As the number of Marylanders accessing healthcare has significantly increased, so too has the need for entry-level front line workers. Employers express difficulty attracting and retaining talent for these positions, which tend to be physically demanding, emotionally challenging, and often come with low pay. The high turnover rate for these frontline positions result in a constant cycle of recruitment, screening, interviewing, and onboarding. This can negatively impact patient care and increases costs for the employer.

As such, EARN healthcare partnerships have shifted their focus to developing creative retention strategies for entry-level front line positions. For example, Healthcare Mentorship Baltimore is offering Patient Care Technician (PCT) training to participants who graduate from their Certified Nursing Assistant (CNA) and Geriatric Nursing Assistant (GNA) program after 6 months of work experience. The idea behind this approach is that the opportunity to partake in free training to become a PCT and earn higher wages will incentivize participants to stay with that employer.

Additionally, the industry of supporting people with intellectual and developmental disabilities has an estimated direct support professional (DSP) turnover rate of nearly 50% nationally, the average varies from 24% to 69% across states.³ The Maryland DSP Training Consortium is working to decrease the unsustainably high rate of turnover by developing industry standards for the training and development of DSPs that can be utilized by the Maryland Developmental Disabilities Administration. The competency based training leads directly to increased wages that are commensurate with competency level and creates opportunities for specialization in specific populations. The partnership is also developing

³ <https://www.nationalcoreindicators.org/>

a mentorship track in an effort to provide improved support on the job to incoming staff, thus leading to increased retention.

Skilled Trades

A recent study published by Deloitte projected that the skills gap in manufacturing “may leave an estimated 2.4 million positions unfilled between 2018 and 2028, with a potential economic impact of 2.5 trillion.”⁴ Other industries that fall within the skilled trades are reporting similar numbers. Employers generally identify 3 main challenges that are contributing to the widening skills gap in the skilled trades: misperceptions of the industry,



Participant from the Architectural Metal and Glass Initiative in training

retirement of baby boomers, and shifting skill sets due to the introduction of advanced technologies. EARN SIPs are utilizing the flexibility of the program to implement innovative strategies to address these challenges.

Misperceptions of the Skilled Trades

There are many misperceptions about the skilled trades, but perhaps the most pervasive is that the jobs are low-skill and low paying with limited opportunity for advancement. In order to overcome these stigmas, EARN partnerships are engaging new

stakeholders, primarily K-12 and higher education partners, that can help educate the potential workforce on the opportunities within the industry. For instance, the Maryland Advanced Manufacturing and Plastics Partnership partners with Baltimore County Public Schools to educate teachers, school counselors, and administrators about the industry. The opportunity has led directly to high school students obtaining internships in local manufacturing plants, which will in turn strengthen the pipeline of potential applicants.

Additionally, the Rapid Advanced Manufacturing Partnership is offering internship opportunities to college students, which is a demographic the industry typically has trouble reaching. The goal of this program is to expose students to manufacturing and to get them excited and prepared for careers in the industry upon graduation. Not only is this initiative changing the perception of manufacturing for millennials, but participating companies report over 1 million dollars in cost savings due to the work of their interns.

Retirement of Baby Boomers

It is anticipated that anywhere between 30 to 50% of the skilled trades workforce will retire over the next few years. This estimate exasperates the skills gap and increases the urgency in developing a pipeline of skilled workers. To meet this need, the Finishing Trades Institute has partnered with local school systems, including Prince George's, Anne Arundel, and Calvert Counties, to develop a pre-apprenticeship program that targets

⁴ <https://www2.deloitte.com/us/en/pages/manufacturing/articles/future-of-manufacturing-skills-gap-study.html>

students enrolled in Career and Technical Education programs. The program will provide a clear pathway to RA upon high school graduation. The retirement of baby boomers also brings about a critical need to train the current workforce to fill leadership positions of those set to retire. The Maryland MEP is providing leadership training for manufacturers across the State.

Shifting Skillsets due to Advanced Technologies

As the skilled trades change due to advancing technology, so must the skillsets of the current workforce. Overwhelmingly, employers in the skilled trades industry identify a need to upskill their current workforce. For instance, responding to the needs expressed by their 70 employer partners, the Marine Trades Industry Partnership has provided training to nearly 170 incumbent workers, resulting in more than 200 certifications earned. This training has been identified as a conduit for growth, expansion, and increased business outcomes, and has resulted in improved productivity, wages, and job retention.

Tracking Success, Accountability, and Participants

EARN staff work closely with each SIP to develop goals and measures of success for their individual partnerships. To ensure these goals are met, EARN staff provide specific support and technical assistance to each partnership. This support includes but is not limited to site visits, regular meetings with grantees, and facilitating connections with peers or outside organizations to help further program success. EARN staff strive to develop strong working relationships with each grantee in an effort to better understand the challenges and successes of each partnership. Working collaboratively with grantees creates an environment of trust and support, allowing for continuous improvement and innovation. Through these relationships, staff are able to implement technical assistance plans if outcomes are not being met.

Due to the flexible composition of EARN, each partnership is unique in its goals and there are different means to measure success. Many elements are considered when developing goals, including cost per participant, average industry training costs, level of services provided, length of training and the number of participants to be served.

Similarly, there are a variety of different means utilized to evaluate SIP success. Quantitatively, EARN partnerships are evaluated based upon the number of unemployed or underemployed participants who complete training and are placed into employment or the number of incumbent workers trained.

Program staff review the ROI, as calculated by BEACON, along with indicators such as new employers engaged and leveraged funding. Success can also be measured qualitatively. EARN staff take into consideration employer feedback, systems change brought forth as a result of the partnership, and participant success stories.

To further evaluate partnership progress and success, grantees are required to submit the following reports to the Department:

- Quarterly Narrative Report – tracks all programmatic activity, including project activities, program highlights, challenges and success stories
- Quarterly Financial Report – tracks projected versus actual expenditures and leveraged resources
- Entry Report – captures all required demographic data

- Exit Report – captures all required outcome data

Programmatic oversight is provided to ensure that the partnership is on track to meet timelines, outcomes, and other deliverables outlined in the Grant Agreement and that data is complete and accurate. Fiscal oversight is provided by at least three staff at the Department to confirm expenditures are allowable and reasonable.

Per the Labor and Employment Article § 11-709(b)(4) of the Maryland Annotated Code, EARN Partnerships are required to collect and track certain demographic data for all participants taking part in EARN funded training, including sex, race, national origin, income, county of residence and education attainment. Following the completion of training, partnerships must track certain outcome data, including whether or not each participant obtained a new credential or certification, identifiable skill, a new employment position or a title or wage promotion. The required metrics covering July 1, 2017 through June 30, 2018 are included as **Appendix A** to this report.

On December 7, 2018, the Department hosted the fourth EARN Annual Meeting. This convening provided the opportunity for grantees to come together, learn about changes to the program, brainstorm solutions to challenges and share best practices. EARN staff provided programmatic updates and solicited feedback from grantees regarding potential changes that could improve the program. BEACON presented an update on program evaluation. This was the first EARN Annual Meeting for newly-funded EARN grantees and provided an invaluable opportunity to learn about best practices and meet their colleagues as they begin program implementation.

Third Party Evaluation

The EARN program continues to partner with BEACON at the Perdue School of Business at Salisbury University to evaluate the effectiveness of the program. The broad areas for evaluation include assessment of the value to trainees, the value to employers, the quality and effectiveness of the partnership and systems change among, and within the industry and partner institution.

While one could surmise that the utilization of the industry-led model leads to positive outcomes for employers, the Department often seeks employer feedback to further understand the impact EARN has on employer and industry partners. In 2018, BEACON developed an Employer Satisfaction Survey to ascertain the program's progress and effectiveness in serving these stakeholders. The survey asked employers to rate the competitive advantage EARN participants have over other candidates, the impact participation in the program has had on their business, and whether or not they believed EARN Maryland is a worthy investment of their time.

Two-thirds of employers surveyed indicated that EARN participants have a significant advantage over their peers, with 33% indicating there is some advantage. Ninety-seven percent of respondents indicated that the investment into EARN was worth their time, and 95% stated that EARN has had a positive impact on their business. Employer and industry partners also had the opportunity to provide suggestions on how the Department could improve the program to further increase impact. The results of this survey further solidify



Maryland Energy Administration Director Marybeth Tung presents the Jane Addams Resource Corporation with a Governor's Citation recognizing their exemplary work

the effectiveness of EARN in providing positive benefits to employer and industry partners around the State.

The staff at BEACON work closely with representatives from each SIP to understand the challenges and successes of the individual programs. These interactions frame the report that BEACON submits to the Department on an annual basis. This report, which includes all interview, case study, reporting, evaluation and accountability documents and tools, provides an independent evaluation of EARN's impact.

In this report, BEACON highlights the economic impact study completed in 2018. As highlighted above, for every dollar the State invests, an additional \$18.50 in economic activity is created. The nationwide average ROI for workforce development programs is \$3.41. This further illustrates the value of the industry-led model and EARN's impact on economic and workforce development in Maryland.

2018 EARN Maryland Strategic Industry Partnerships

In 2018, EARN Maryland provided funding for 71 SIPs, with 4 additional partnerships scheduled to begin projects in January 2019. The following section lists the SIPs that received or were awarded funding in 2018, accompanied by a programmatic update. The primary jurisdiction in which each partnership is operating is identified, though it should be noted that EARN SIPs are intended to be regional, both in make-up and reach. Twenty-seven new SIPs were awarded funding in 2018, an increase of 68% over 2017. These partnerships are italicized.

Information Technology/Cybersecurity

IT Center for Excellence

Region: *Western Maryland*

Description: In 2018, the IT Center for Excellence continued to have a high impact on the information technology industry in Western Maryland. Employers in the region have identified the need to upskill their current workforce. As such, the partnership has offered in demand training to incumbent workers such as Certified Ethical Hacker, Network+, Security+ and Certified Information Systems Security Professional. More than 250 incumbent workers have participated in training since program inception. In October 2018, the partnership hosted the third annual *Tech at the Gap*, a professional development and networking opportunity meant to highlight Western Maryland as a thriving region for tech companies. This year boasted the conference's highest attendance, with more than 200 professionals participating.

Additionally, over the last 12 months, the partnership has increased its focus on growing the pipeline of entry level workers in the region. To date, 35 interns have been placed with local employers in an effort to garner real-life workplace experience. Of those, 40% have been retained upon completion of their internship. In September 2018, the Center launched EXCELeRate, a short-term program that prepares students for entry level employment. The IT Center for Excellence has received additional funding to continue its work in 2019.

“Our teams have made changes to our internal protocol based upon learnings of courses. These changes have been a game changer for our company. We plan to double in size over the next five years – we know the talent we need to grow will be in this region as a result of the IT Center.”

Industry Feedback: “The largest shift has been in regards to the extended certifications and training via the IT Center for Excellence. Prior to the IT Center, we paid to send our developers and operations team to other areas of the country for training. Today, we typically do that training at Allegany College of Maryland via the IT Center for Excellence.

mHealth

Region: *Central Maryland*

Description: Over the last year, mHealth continued its mission of preparing students for careers in the mobile health industry. Two trainees completed internships in the beginning of 2018. Both secured employment as Business Analysts with mobile health companies, earning \$32 and \$40 per hour, respectively. Employer partners expressed satisfaction with the program, attributing the newly acquired talent to company growth. One business received a \$5.2 million investment, with another growing its sales by five times. The partnership spent the second half of the year convening employers to understand emerging training needs in preparation for training in 2019.

Participant Feedback: “This program has enabled me to secure a job in the health analytics field, where I can merge data analysis and digital tools to improve health. I am

grateful for the opportunity – it would have been difficult to break into healthcare without EARN.”

Tech Frederick

Region: *Western Maryland*

Description: Employers participating in Tech Frederick experienced employee growth at a rate of 18% over the last year. In order to keep pace with the ever-changing demand, Tech Frederick focused on training incumbent workers in 2018. More than 150 participants have received training on topics such as Cooper UX, Neuromarketing, project management and service design. The partnership recently established an Industry Advisory Council to help

“Without this program, I do not think this level of expert training would have financially been within reach for our small business. It’s made us better providers and expanded our revenue generating opportunities.”

steer program activity and is working closely with the Frederick County Government and the Frederick Innovative Technology Center. In 2019, Tech Frederick aims to train nearly 100 additional incumbent workers in skills relating to Altium Designer, Search Query Language Optimization and Photoshop.

Participant Feedback: “By guiding us through several rapid prototyping exercises for a fictitious client, the theory was put into action in meaningful ways. Since the training, we have revisited our exercises to improve the journey clients take with us and infused the techniques into our strategic work on behalf of our clients.

CyberWorks

Region: *Central Maryland*

Description: In 2018, CyberWorks implemented an important programmatic change. Industry feedback indicated a growing focus on a candidate’s ability to complete hands-on work, rather than looking strictly at the highest level of education or certifications as a prerequisite for employment. In response to this shift, CyberWorks implemented a hands-on hybrid training model that combines online, virtual-live and in-person sessions. To further support learning and development, participants are provided with industry expert mentors to work through technical questions, improve on weaknesses identified during assessments and receive career coaching. Since implementing this change, nine participants, many of whom were long-term unemployed, have been placed into employment earning an average of \$26 per hour. Eleven additional students are at various points in training and will be placed in 2019.

Participant Success Story: The participant was long-term unemployed when she enrolled into the CyberWorks program to cultivate her cyber skills and abilities. After successfully completing numerous learning modules, she was able to communicate her new knowledge during an interview with a large government contractor. She received a job offer and accepted the position, making \$14.50 an hour with full benefits. She will receive mentorship on how to continue to grow with the company into increasingly more complex cyber-focused positions.

Intrusion and Countermeasures Education and Training (ICE-T)

Region: *Baltimore*

Description: On November 2, 2017, Governor Hogan issued an Executive Order⁵ commissioning the Governor’s Workforce Development Board’s *Cybersecurity and Information Technology Taskforce* to look at innovative ways to address the racial and gender disparities that exist in the the industry. The ICE-T partnership, led by the Baltimore Cyber Range, is working to meet this call by collaborating with community based organizations and the Women's Institute of Torah Studies in Baltimore. ICE-T provides a blend of classroom and hands-on simulation to ensure students have the right blend of skills to be successful in the industry. The partnership has significantly grown its industry representation, with 30 employers now participating, and has placed 20 participants into employment.

Participant Feedback: “Getting involved in the grant training not only allowed me formal technical training, but it exposed me to employers that I would not have met otherwise. Now that one of the consortium members hired me, I find the work so interesting that I am highly motivated to do well. In fact, since I have been hired, I have received two more raises in pay that not only gives me personal satisfaction, but also has offered me a greater quality of life for me and my family.”

Committee to Expand UAS Employment

Region: *Eastern Shore*

Description: In 2018, the Committee to Expand UAS Employment continued to provide training to unemployed, underemployed and incumbent workers. The Unmanned Aerial Systems (UAS) Generalist Course, which lasts for four weeks, consists of a blend of classroom and hands-on training. The industry- designed curriculum includes training in communications, aerodynamics and airport ground operations. The partnership has incorporated job readiness and essential skills training, and in 2018, began to offer a voucher for the Part 107 certification test. Employers have identified this certification as integral to obtaining employment in the field, but participants identified it as cost-prohibitive. Additionally, the partnership has provided training to 46 first responders. This training provides participants with an overview of FAA Part 107 regulations and the incorporation of UAS into their work.

Industry Feedback: “With the exponential growth in the use and application of UAS within the commercial, civic and government markets, a demand for trained and certified pilots remains high in Maryland. This, coupled with the signing of the 2018 FAA Authorization Act, demonstrates the utility of a professional and structured course that leads to UAS Pilots earning their FAA Part 107 license, allowing them to market their unique skills. In particular, the tailored First Responder Course has had a tremendous impact on the use of these new assets to protect and save lives in their service. The UAS course continues to be the benchmark for professional training, and has allowed those

⁵ <http://www.gwdb.maryland.gov/board/bdmeet/dec132017execorderit.pdf>

students with the skills, drive and dedication the opportunity to succeed in this growing field of work and enhance Maryland employment and economic development.”

Partnership for Tech Talent

Region: Capital

Description: In 2018, this partnership continued to provide in-demand training to unemployed and underemployed Marylanders. Students receive comprehensive training, which leads to credentialing in CompTIA+, Network+ and Security+ certifications. Industry partners participate in mock interviews and provide internships and professional coaching. To date, 92% of students who completed training have been placed into employment, making an average wage of more than \$18.50 an hour. In July 2018, Per Scholas expanded its programming into Baltimore City through a partnership with TekSystems and Living Classrooms Foundation.

Participant Success Story: “Before being accepted to Per Scholas, I was a 23 year old who had no direction in life. Per Scholas gave me a very firm technical foundation and taught me about professionalism in the workplace. After graduating from Per Scholas and successfully passing my A+ exam, I was able to land a job with the Department of State Help Desk. While working for DoS, I was able to take advantage of Per Scholas' continued education path, obtaining both the Network+ and Security+ certifications with vouchers provided by the organization. I am currently making a six-figure salary. I would have never thought or believed that I would be in the position that I am now.”

Susquehanna IT/Cyber Partnership

Region: Susquehanna

Description: Led by the Susquehanna Workforce Network in collaboration with twelve employers, the Susquehanna IT/Cyber Partnership seeks to build the talent pipeline in the region. Cecil College and Harford Community College provide foundational training that prepares students to test for industry-recognized credentials, such as CompTIA A+, Network+ and Security+. To date, 100% of the students who completed training have obtained employment. The partnership initially budgeted for incumbent worker training. Due to declining interest from employers in the region, the partnership will continue to focus on preparing unemployed and underemployed participants for careers in the industry.

Participant Success Story: The participant was laid off from a management position he held with a prominent retailer. He felt he was tech savvy, but had no certifications or work experience in the field. He enrolled in training, completed the classes and obtained certifications in A+, Network+, and Security+. After interviewing with several companies, he has accepted a position with a large technical firm pending completion of the clearance process.

SANS Cyber Workforce Academy

Region: *Statewide, with a focus on the Capital and Central Regions*

Description: Participants in the SANS Cyber Workforce Academy receive advanced technical training, industry-recognized Global Information Assurance Certification (GIAC) certifications and hands-on cyber defense and incident handling skills sought by Maryland employers. The program, which has provided training to forty participants to date, is working to diversify the industry's workforce through its partnership with the Women's Society of Cyberjutsu. The Academy also works closely with the USO of Metropolitan Washington-Baltimore to recruit veterans to the program. Graduates of the program are being placed into employment with an average starting wage of more than \$43 an hour.

Participant Success Story: Prior to attending the SANS Cyber Workforce Academy, Amy spent 12 years as a stay-at-home mom with various part time jobs. Her last job was as a substitute teacher, earning \$13 an hour. She enrolled in the SANS Cyber Workforce Academy, where she was able to update her skillset and prepare for a career in cybersecurity. She is now employed full-time, earning triple her previous hourly wage.

MILVETS Cyber Incubator Partnership

Region: *Capital*

Description: The MILVETS Cyber Incubator Partnership is working to establish a talent pipeline of cybersecurity professionals to help meet the growing demand for cyber skills in Maryland. Based upon the nature of the employer partners, the training and industry-recognized credentials offered are in line with the Department of Defense (DoD) baseline requirements mandated in DoD 8570/8140, including A+, Network+ and Security+, Certified Ethical Hacker, and Certified Information Systems Security Professional. The MILVETS Cyber Incubator Partnership is also providing comprehensive essential skills training, mentoring and internship opportunities to all students. The partnership is currently working with students on job placement.

Participant Feedback: Since completing my internship with MILVETS, I was able to land a Systems Administrator position. The hands-on experience I gained with MILVETS directly related to the questions in interviews and every day scenarios I now face at work. All in all, my experience with MILVETS has skyrocketed my career in no time."

Code Partners

Region: *Capital*

Description: The Bureau of Labor Statistics predicts a shortage of 1 million software engineers by the year 2020. In response to this pending gap, Code Partners is providing training to unemployed and underemployed participants. The partnership offers a tiered learning program that includes web development, front and back end programming and data analysis over 720 hours of instruction. As of this report, students are in the midst of training and on track for completion in 2019.

Advanced Cybersecurity Training Consortium

Region: *Statewide*

Description: The Advanced Cybersecurity Training Consortium is a collaboration between the Baltimore Cyber Range and all 16 Maryland Community Colleges. The training is meant to increase the student's employability by providing advanced training via hands-on, real-world scenarios. To date, the partnership has trained 35 students. Twenty-six students obtained employment upon completion of the training, averaging over \$20 an hour. Six students decided to continue their education. Additionally, fifteen professors received 40 hours of training at the Baltimore Cyber Range, gaining the ability to use the range to conduct cyber threat training using realistic scenarios. The partnership received funding to continue its work through EARN in 2019 and will train an additional eighty students and fifteen staff members.

Industry Feedback: "Our company was particularly impressed with the vocational capabilities of these trainees. Their level of operational knowledge in cybersecurity is much higher than the average candidate we see applying for an introductory level position. In addition, the inputs we provided to the training program were evident in the answers that these applicants provided during the interviewing process. This was a large reason we decided to hire two of these trainees."

Cybersecurity Education and Certification (CEC) Program

Region: *Baltimore*

Description: The Cybersecurity Education and Certification Program, led by the Community College of Baltimore County, is providing training to Marylanders interested in obtaining and furthering employment in the cybersecurity field. The DoD 8570 certification track will provide the certifications necessary to work on government networks. Students in this 16-week course will earn Network +, Security +, Operating Systems Security and Ethical Hacking Systems Security. One cohort completed training and is in the process of testing for their certifications. Once students receive certifications, the partnership will begin job placement.

Education Partnership for IT Careers (EPIC)

Region: *Prince George's County*

Description: The Education Partnership for IT Careers, led by Byte Back, is providing training and certification to unemployed and underemployed participants. Under the leadership of the Sector Advisory Panel, comprised of private, public and non-profit leaders, the partnership spent the first half of the year in the planning phase, finalizing curriculum and recruiting for the program. The first group of students completed training in October and are working with the Byte Back Career Services team on job placement. The partnership is on track to meet all program deliverables.

NPower Tech Fundamentals Program

Region: *Baltimore*

Description: The NPower Tech Fundamentals Program is providing foundational training that prepares candidates for a variety of jobs, including desktop analyst, business analyst and junior network administrator. The program consists of 22 weeks of classroom instruction in preparation for the CompTIA A+ certification. Responding to employer demand for candidates with hands on experience, students then participate in a paid internship where they are able to hone the skills learned in the classroom. Additionally, NPower is revising curriculum to include training in Network Fundamentals, Server Fundamentals, Cloud Fundamentals, and ITIL, skills that are attractive to employer partners. To date, nineteen students have been placed into employment at an average hourly wage of \$18 an hour.

Participant Success Story: Soon after graduating high school, Tyler left Baltimore City, hoping to start a new life in Florida away from the trials and tribulations he was experiencing. In Florida, he found a job as a construction worker and things were looking up for him, until a Category 5 hurricane forced

“The program allowed him to learn the basics of Information Technology and obtain his CompTIA A+ certification. Tyler went on to secure full-time employment at T. Rowe Price as a Business Data Processor.”

him and his family to move back to Baltimore. He returned to the city as 19-year-old father of a 4-month-old daughter, with no foundation to secure his family's future. It was then, he discovered NPower's IT Fundamentals program. The program allowed him to learn the basics of Information Technology and obtain his CompTIA A+ certification. Tyler went on to secure full-time employment at T. Rowe Price as a Business Data Processor.

Certified Cyber Analyst Operator

Region: *Central Maryland*

Description: Led by UMBC Training Centers, this partnership will address the cyber workforce training needs of the military, the intelligence community, federal civilian agencies and the commercial sector through a blend of classroom and hands-on technical training. Graduates of this program earn a plethora of industry recognized certifications, including A+, Network+, Security+, CCENT, Certified Ethical Hacker, and certificates in Cyber Foundations and Cyber Security & Cyber Operations. The partnership, which began training in October 2018, is comprised of seven employer partners and will train 30 individuals.

Baltimore Cybersecurity Partnership

Region: *Baltimore City*

Description: The Baltimore Cybersecurity Partnership will provide underemployed and underemployed persons with in-demand cybersecurity training developed by Cisco Network and CompTIA Academy that lead to industry recognized certifications such as A+ and Security+, Cisco CCENT and CCNA Security. Trainees will receive hands-on, real-life mission scenarios to enhance lab work and technical knowledge. Additionally, intensive

wraparound services and job readiness training will be provided. This partnership was awarded funding in October of 2018.

Advancing Careers in IT

Region: *Baltimore*

Description: Employers participating in this partnership have identified a need for streamlined and practical training within the IT sector for incumbent workers who need to add to their occupational skills. As such, Advancing Careers in IT will provide training to 75 incumbent workers in employer-identified topics including Java, Agile Project Management and IT Security. This training will allow employees to increase their skill set for more robust assignments and career advancement. The partnership is scheduled to begin project activity in January of 2019.

Maryland Cyber Skills Alliance

Region: *Statewide*

Description: The Maryland Cyber Skills Alliance is seeking to address Maryland's shortage of skilled cybersecurity professionals by providing training that leads to industry recognized certifications and maps directly to IT jobs. CompTIA and Transmoss collaborate to lead the Alliance, and will provide training to unemployed, underemployed and incumbent workers. Participants will have the opportunity to earn a wide array of certifications, including A+, Network+, Security+ and Cybersecurity Analyst+. The partnership is in the planning stages and anticipates training 20 individuals over the next two years.



Trainees from the Baltimore BioWorks SIP receive technical instruction

Biotechnology

Baltimore Biotechnology Strategic Industry Partnership

Region: *Baltimore City*

Description: Responding to the call of the partnerships near fifty employer partners, the Baltimore BioTechnology SIP is working to grow the pipeline of workers for the industry. In 2018, the partnership provided customized training in a variety of topics, ranging from basic lab skills to biomanufacturing and genetics. Over the last year, the partnership has trained nearly 80 individuals, placing close to

100% into employment with employers like Johns Hopkins University, AstraZeneca and University of Maryland. In addition, many students continue to further their education in the field. The Baltimore Biotechnology SIP has received additional EARN funds to continue its work in 2019.

Industry Feedback: “[The trainee] has contributed enormously to the research and development team. He has assisted with several tests that have pioneered important decisions in the company.”

Baltimore BioPrep

Region: *Baltimore City*

Description: In 2018, this partnership continued to utilize EARN funding to provide intensive training to unemployed and underemployed Baltimore City residents. Led by the BioTechnical Institute of Maryland, trainees complete a bridge program designed to advance their skills and knowledge in basic math, communication, and professional development as it relates to the biotech industry. The second part of training is focused on academics and practice in critical industry-related and bench skills. The total program is at least six months and includes a required 100-hour internship. During the latest grant period, 29 students completed training, of which, 23 were placed into employment earning an average of \$14.19 an hour.

“As a biotech company, we have a need to bring in employees that have some skills in life science. Having people with those skills is a huge advantage to the company. BTI is providing that training to Baltimore City residents and that provides a pipeline of people we can hire from.”

BioTrain

Region: *Montgomery County*

Description: In 2018, BioTrain continued to meet the needs of its employer partners by providing in-demand training in a variety of areas, including drug development, protein purification, quality and bioinformatics. Given the industry's current and anticipated continued growth, BioTrain also provided preparatory training and industry workshops to grow awareness for the industry in an effort to attract a pipeline of interested workers. Over the last year, the partnership trained more than 100 incumbent and preparatory workers. The partnership was stagnant in the second half of 2018 due to a transition in leadership, but it is anticipated training activity will ramp up in early 2019.

Transportation and Logistics

Western Maryland MOVE

Region: Western Maryland

Description: Demand remains high for skilled workers in the transportation and logistics industry in the State, especially in Western Maryland. This partnership works to meet the employer need by providing CDL and forklift training. Western Maryland MOVE continues to place upwards of 80% of completers into employment making family-sustaining wages as high as \$25 an hour. In 2018, the partnership began collaborating with the Washington County Detention Center, Western Maryland Consortium and various community based organizations to provide forklift training coupled with supportive services to returning citizens. Additionally, the partnership is exploring the development of a diesel mechanic RA program.

Participant Feedback: “The grant money has been a life saver for me. Because of it, I was able to graduate and takes all of my tests on time and in turn, I was licensed just in

time to get a great job with great wages and benefits, which will allow me to take care of my family.”

Susquehanna Transportation and Logistics Partnership

Region: *Susquehanna*

Description: Job growth in the trucking industry is expected to grow in Cecil County by 21% through the year 2020. Therefore, it is imperative that employers in region have the skilled workforce to meet that growth. The Susquehanna Transportation and Logistics Partnership provides comprehensive, sequential training on advanced techniques and procedures, which is enhanced by the use of a simulator that mimics real-life experiences. Employers remain engaged, attending job fairs on a quarterly basis to meet prospective candidates. Eighty percent of students who complete the program have obtained employment. In 2019, the partnership will continue to offer training to support the needs of local employers.

Participant Success Story: Christina, a single mom living in Harford County, was unemployed and looking for employment that would help her to take care of her child. Christina was able to overcome many obstacles, including a lack of transportation, and complete training, earning her CDL B and passenger endorsement. Upon graduating, she received a job offer from a local employer.

Maritime Transportation and Logistics Partnership

Region: *Baltimore*

Description: Led by Maryland New Directions, the Maritime Transportation and Logistics Partnership has continued to meet the demand of its nineteen employer partners by providing relevant occupational skills training to unemployed and underemployed Marylanders. The Maritime Transportation Logistics and Distribution track provides clients training on industry specifics, such as warehousing and freight forwarding. The Commercial Transportation Career program, launched in late 2017, provides industry-specific instruction, the CDL B permitting exam and behind-the-wheel training. Trainees also receive essential skills training with an emphasis on customer service. To date, more than 320 participants have obtained employment earning an average hourly wage of \$14.79.

“Since beginning his job, he has received two promotions and is now earning \$19.50 per hour. After working in the transportation industry for just 3 months, he took his mother and girlfriend on vacation to the Caribbean. This was the first time Anthony had ever taken a vacation.”

Participant Success Story: Anthony, 23, was unemployed when he entered the Commercial Transportation Career (CTC) training in January of 2018. As a result of his training, he was able to earn a CDL B license and obtained employment making \$17.65 an hour plus union benefits.

Mid-Maryland MOVE

Region: *Montgomery County*

Description: In 2018, Montgomery College continued to partner with major employers, such as the Washington Metropolitan Area Transit Authority, Montgomery County Public Schools and Greyhound Bus to train qualified candidates in CDL B and Diesel Mechanic. The Diesel Mechanic program is a new training implemented in 2018, a direct response to employer demand. The partnership has also instituted training curriculum around maintaining a healthy lifestyle while driving, another development implemented as a result of employer demand. Montgomery College is working closely with graduates of recent classes on placement with employer partners and expects to place at least 80% of students into employment.

Participant Success Story: Minweyelet was underemployed when he began training, making less than \$10 an hour. He successfully completed the program and earned his CDL-B in April of 2018. When he accepted a full-time position with Ride On, he was able to nearly double his income and is now earning \$19.50 per hour.

A Road to Success

Region: *Anne Arundel County*

Description: The Baltimore region's transportation industries are in dire need of a pipeline of dedicated drivers across all sectors, including construction, logistics, and passenger transport. This partnership will focus on preparing individuals to obtain a CDL to support a career in coach and bus, commercial truck, and tractor-trailer driving. The program encourages participants to work at an individualized pace to allow them to succeed more readily. Job readiness instruction includes one-on-one training, case management and weekly classes to emphasize topics around interview skills and resume writing. The partnership will train 30 individuals over the next two years.

Automated Facilities and Logistics Technician Program

Region: *Baltimore*

Description: With the rise of advanced technology that enables automation and direct-to-consumer supply chain solutions, the skills needed for a supply chain professional have changed significantly. Currently, supply chain technicians need to have skills that include technology and mechatronics to ensure continued employability and a steady career path. This partnership will provide training to meet those needs. Transferable certifications will be offered, including Certified Logistics Technician and OSHA 10. Students will also receive job readiness and financial literacy training. It is anticipated that 24 students will be trained over the next two years.

Solar Installation Training Partnership

Region: Baltimore City

Description: In 2018, EARN Grantee Civic Works was able to expand its portfolio into solar training. Based upon feedback from the partnership's twenty employer partners, the Solar Installation Training Partnership is providing in-demand training to unemployed, underemployed and incumbent workers. Participants in the entry level training receive safety training, hands-on practicum and 320 hours of on-the-job training. To date, nine participants have completed training, with seven obtaining employment. Additional cohorts are ongoing and it is anticipated that at least nineteen participants will obtain employment.

Employer partners identified a need to upskill their current workforce, but had insufficient funds to do so. The Solar Installation Training Partnership provides incumbent workers with training on leadership, project management, energy analysis, and sales skills. Participants also have the opportunity to test for a North American Board of Certified Energy Practitioners Certification (NABCEP) credential. To date, sixteen incumbent workers have received training.

Participant Success Story: Kevin, who historically worked in minimum wage and temporary positions, found himself unable to access sustainable employment that would enable him to support his family and develop financial stability. Kevin enrolled in the training offered by the Solar Installation Training Partnership and excelled. With the help of Civic Works, he was able to expunge his legal record and buy a car to secure reliable transportation to work. Upon graduating, he immediately obtained employment with a starting wage of \$14 an hour. Since then, he has advanced within the company and currently earns \$18 an hour. He plans to continue climbing the career ladder and start his own business on the side.

Clean Energy Training Partnership – Baltimore

Region: Baltimore City

Description: Led by Living Classrooms Foundation in collaboration with Power52, this partnership is implementing its needs based employment training meant to prepare unemployed and underemployed individuals for employment in the renewable energy industry. The comprehensive program blends classroom training, hands-on experience, job coaching and essential skills training. Following training, participants sit for the NABCEP, a highly regarded industry-recognized certification. To date, twenty-nine participants have completed training with twenty-five obtaining employment. The partnership is working with recent graduates on job placement and it is anticipated that the partnership will meet all deliverables.

Participant Success Story: After serving four years in the Army, Dennis struggled to acclimate back to civilian life. He worked a few different jobs, but struggled to find a career that ignited his passion. He enrolled in Power52's program and excelled. He is now employed as Lead Solar Technician and is enjoying his new work.

Sustainable Energy Workforce Development Partnership

Region: *Prince George's County*

Description: In an effort to meet the growing demand for qualified workers, the Sustainable Energy Workforce Development Partnership is providing comprehensive training to unemployed and underemployed Prince George's County residents. The Industry Advisory Council established by Employ Prince George's has been integral in shaping curriculum and program activity. The *Get Into Energy Bootcamp* provides basic literacy skills, work readiness and general utility construction trades skills. Participants have the opportunity to earn industry-recognized credentials, including NCCER Core, OSHA 10 and CPR/First Aid. To date, 100% of graduates have been placed into employment. It is anticipated that 70 participants will be served over the life of the grant.

Participant Success Story: Ryan, 20, learned about the Sustainable Energy Workforce Development Partnership while employed at Goodwill. His manager saw such promise that he was able to adjust his schedule to allow him to work evenings and weekends so that he could attend the SEWDP Construction and Energy class. Ryan successfully completed the Construction and Energy program, with a certification in First Aid/CPR, OSHA 10 and NCCER Core. Ryan secured employment with NPL starting at over \$36,000 a year within one month of completing the program.

Energy Efficiency Strategic Industry Partnership

Region: *Baltimore*

Description: Based upon feedback from its nearly thirty employer partners, the Energy Efficiency Strategic Industry Partnership is providing training to unemployed, underemployed and incumbent workers. Unemployed and underemployed participants receive relevant technical training and earn certifications including the Department of Energy (DOE) 56-hour Weatherization Installer Fundamentals certification, OSHA 30-hour Construction Safety, EPA 8-hour Lead Renovation, Repair, and Painting, and OSHA 4-hour Mold and Asbestos Awareness certification. Incumbent workers receive training in leadership, project management, energy analysis, and sales skills. Employers have identified these skills as those that are necessary to advance to higher-skill positions within the workforce and that will prepare participants to pass the Building Performance Institute (BPI) Building Analyst and Envelope Professional exams. To date, over 100 participants have been placed into employment.

“Acoyea was accepted into the weatherization class based on his motivation to build a career. He flew through the class with ease, while attending driver's education. He obtained his license and purchased a car utilizing the savings he built during his on-the-job training. Acoyea was immediately recognized by employers for his proficient use of weatherization terminology and hands-on skills, and was hired upon graduation at a starting wage of \$15 an hour.”

Clean Energy Training Partnership - Howard

Region: Central Maryland

Description: Led by Power52 and in consultation with twelve employers, this partnership is providing training to unemployed and underemployed persons in preparation for careers in the solar industry. Each cohort is eleven weeks and includes 320 clock-hours of training, which includes classroom instruction, hands-on lab exercises, job readiness and paid on-the-job training. All fifteen students who graduated from the inaugural cohort obtained employment earning an average hourly wage of nearly \$16.50 per hour. Graduates had the opportunity to build the nation's first resiliency hub, located in East Baltimore.

Participant Success Story: Shawn came to Power52 as a college dropout who was severely underemployed and in search of a new beginning. He was working multiple dead end jobs just to survive. Shawn learned about the opportunities provided by Power52 and enrolled in training. He graduated in April of 2018, earning OSHA 10, NCCER and NABCEP credentials. Shawn interviewed with an employer partner and accepted a position earning more than \$20 an hour. His employer is thrilled with the professionalism and reliability Shawn brings to the team.

Water and Wastewater Career Development Partnership

Region: Statewide

Description: The Water and Wastewater Career Development Partnership, led by the College of Southern Maryland, fulfilled the goals of its Workforce Training Plan (WTP) in 2018. The partnership was formed in response to a mandate requiring all Water and Wastewater Operators to become fully certified. Curriculum was developed to help prepare incumbent workers for the certification exam. Twenty-five employers, ranging from the Town of Trappe to the Washington Suburban Sanitary Commission, sent over 300 incumbent workers to training. The partnership determined that the industry need has been satisfied and did not request additional EARN funding.

Solar Installation and Training Examination (SITE) Partnership

Region: Western Maryland

Description: In response to the demonstrated need from its five employer partners, the Solar Installation and Training Examination Partnership is providing training to unemployed, underemployed and incumbent workers. The partnership spent the first half of the year planning, developing curriculum and advertising the courses. In June, SITE launched its first incumbent worker cohort in partnership with the Independent Electrical Contractors and Associated Builders and Contractors. Seven students completed training and had the opportunity to sit for the NABCEP Photovoltaic Installation certification. The partnership is preparing to launch its first entry-level training cohort in early 2019.

Hospitality

Building Employer-led Alliances for Careers in Hospitality – Eastern Shore

Region: *Eastern Shore*

Description: Given the importance of the hospitality and tourism industries to the economic prosperity of the Eastern Shore, it is imperative that employers have a highly skilled workforce. To meet this need, BEACHES is providing customized training to unemployed, underemployed and incumbent workers. Employers continue to express demand for customer service training and frontline management training. Nearly 300 incumbent workers have been trained to date. The partnership also collaborated with the newly opened Ocean Downs Casino to ensure a pipeline of qualified workers. Twenty-four participants completed training and were approved through the Maryland Lottery and Gaming Commission to receive their dealer license. Each of these trainees were subsequently hired by Ocean Downs Casino.

Baltimore Regional Culinary/Hospitality Strategic Industry Partnership

Region: *Baltimore*

Description: In 2018, this partnership continued to deliver culinary arts training to unemployed and underemployed Baltimore City residents. The collaboration between Humanim and Moveable Feast provides participants basic culinary and safety skills, hands-on experience and customer service training. The partnership has significantly grown over the last year, adding twenty new employer partners and is incorporating a focus on entrepreneurship into the program. To date, 98 students have completed training, of which, 82 (84%) have been placed into employment. Given the partnership's success, the National Retail Federation invited Humanim to participate in a training pilot called *RiseUp*.

Participant Success Story: Khadjah was a very focused and determined student during her time in training. She was diagnosed with a chronic illness and faced eviction from her home, but she did not let that stop her. She was referred to Mercy Supportive Housing and was able to keep her home. She completed training, earned her certifications and is now working in a supervisory role with her new employer.

FoodWorks Culinary Training Program

Region: *Baltimore*

Description: In partnership with the Community College of Baltimore County, Goodwill Industries, and five regional hospitality employers, the Maryland Food Bank's FoodWorks Culinary Training Program provides training to low income Baltimore residents. Through a blend of tactile and heuristic hospitality training, FoodWorks reinforces professional culinary standards in hospitality, kitchen etiquette, and employability lessons which transverse into a career conducive to each individual's technical skill set. During the course of their training, students prepare meals for food-insecure communities. Students work mainly with food that has been donated to the food bank, turning perishable donations that might otherwise go to waste into nutritious homemade meals. The FoodWorks Culinary Training Program is projected to train 48 individuals within the next two years.

Manufacturing

Careers in Manufacturing Partnership

Region: Baltimore City

Description: JARC continues to provide in demand training in welding and computer numerical control to Baltimore City residents. To date, the partnership has placed over 100 trainees into employment at a starting hourly wage of more than \$16 per hour. In 2018, the Careers in Manufacturing Partnership strengthened its relationship with organizations like the Maryland Volunteer Lawyer Services, Central Scholarships and Vehicles for Change who help provide barrier removal for trainees. Additionally, JARC continued to

grow its incumbent worker programming, training nearly 80 incumbent workers in 2018.

“ I have never had credit before. Because of this schooling and because of the job that I now have, I have established outstanding credit. I pay all my bills on time. After three months, I purchased a brand new car. This school has been a platform for me. I don't think I would be where I am in my life right now if it weren't for me attending JARC.”

Participant Success Story: Mark had just been released from prison after 13 years of incarceration. While incarcerated, he received CNC training. JARC allowed Mark to build on that training and he earned a CNC certification. Mark interviewed with an engineering firm who were impressed with his poise and knowledge. When he received his job offer, they stated that he was one of the best candidates they had ever interviewed. The stable

work environment has allowed Mark to work towards goals in other areas of his life.

Susquehanna Manufacturing Coalition

Region: Susquehanna

Description: Led by the Susquehanna Workforce Network, the Susquehanna Manufacturing Coalition is providing training to unemployed, underemployed and incumbent workers. Employers in the region report difficulty attracting new talent interested in working in manufacturing. To alleviate this, the partnership is providing a foundation course that blends classroom and hands on learning. More than 50 participants have obtained employment. Manufacturers also identify a need to upskill their current workforce. As such, the partnership is providing customized training in areas such as LEAN, VG Studio, and EDDY Current Testing. The partnership continues to grow, with fifteen employer partners now participating.

Industry Feedback: “The hybrid manufacturing training and incumbent worker training provided our employees with the knowledge to have a better understanding of our machining output and increased the efficiencies in our production. We are very appreciative of this opportunity through the Susquehanna EARN Manufacturing program.”



The Careers in Manufacturing Partnership provides in-demand welding training which leads to family-sustaining wages

Wor-Wic Welding Partnership

Region: Eastern Shore

Description: Over the next ten years, EMSI projects 13.6% growth in welding jobs on the Eastern Shore. This partnership is responding to that need by providing relevant, in demand training for entry level positions. Based on employer feedback, the partnership has updated the curriculum, incorporating additional math instruction and blueprint reading, making candidates more marketable. Graduates obtain American Welding Society certifications and continue to obtain employment with companies such as Chesapeake Shipbuilding, Cambridge International, Delaware Elevator and Crystal Steel. The partnership will expand its programming to include metal fabrication training in 2019.

Industry Feedback: “As we have all seen, the construction industry is growing day by day. In our case in particular, we have doubled our production over the last three years. Because of this, Delaware Elevator is always looking for knowledgeable welders and fabricators. Delaware Elevator has hired many employees who were students. With the training and coaching they receive, we can then mold them into a great employee for our workforce. This is not only good for the employee and their family, but the local community as well.”

Maryland Manufacturing Bootcamp and Incumbent Worker Training Program

Region: *Statewide*

Description: Led by the Maryland MEP, the goal of this project is to strengthen Maryland manufacturers by growing their workforce, increasing profits and improving processes. In order to meet this goal, the partnership has worked with over 100 employers to identify areas of opportunity. Overwhelmingly, employers identify a need to recruit new talent and upskill their current workforce.

Employers express great difficulty in attracting and retaining entry level talent. The Manufacturing Bootcamp is meant to help alleviate this challenge by providing basic training in a simulated work environment. In 2018, the partnership held boot camps across the State, from Baltimore City to the Eastern Shore. Despite nearly all of the graduates having a criminal background and limited work history, 100% were placed into employment.

The partnership also continued to provide training to incumbent workers. In 2018, the partnership trained over 120 incumbent workers in a variety of skills, including basic electricity, boiler systems, soldering, quality management systems and root cause analysis. Among the most utilized training was leadership and organizational development training. Over the next few years, employers anticipate up to 50% of their current workforce will retire, leaving a large gap in mid-level management positions. The training provided by this partnership is growing the pipeline of leaders for the coming months and years.

Participant Success Story: When Donte enrolled in the boot camp, he was a new father of twins and had trouble finding a job due to his criminal background. The boot camp gave Donte the structure, skills and opportunity he needed to secure a full-time job with benefits for his new family. Donte accepted a job as a machine operator making a family-sustaining wage.

PrintSIP

Region: *Statewide*

Description: Led by the Printing and Graphics Association MidAtlantic, PrintSIP is providing training to meet the needs of one of Maryland's largest industries. To keep pace with changing technology, the partnership's 25 industry partners have identified incumbent worker training as the biggest training need. As such, PrintSIP has provided training to 70 participants. Training modules include Offset Press Operations, Binding and Finishing, Introduction to Graphic Communications and Digital File Preparation and Output. In 2018, the partnership expanded its operation into Southern Maryland, providing training in Calvert County. The work of PrintSIP is being discussed on a national level among industry leaders as a best practice.

Industry Feedback: "We want to thank PrintSIP for bringing the Workforce Training Program to Southern Maryland. Not only was the training relevant, it was held in our backyard, and it was free! Our employees took full advantage of the opportunity, attending one or both of the PrintSIP classes offered. We would like to recognize PrintSIP for their

support of our workforce training this past year. We have seen positive gains in our communication, productivity, efficiency and company culture. I can say with confidence that our partnership with PrintSIP will continue. We will be investing even more in our staff development in 2019 and beyond based on this year's positive results."

Washington County Manufacturing Partnership

Region: *Western Maryland*

Description: Under the leadership of the Maryland MEP, the Washington County Manufacturing Partnership is providing in demand training to incumbent workers in Western Maryland. Since taking over the convener role in 2017, Maryland MEP has engaged twenty new employers and provided training to more than 150 employees in areas such as LEAN, Six Sigma Green Belt and Computer Numerical Control programming. The partnership is also helping employers to understand, develop, and in some cases, redevelop Registered Apprenticeship programs. The partnership has received funding to continue its work in Western Maryland in 2019.

"These kinds of programs are invaluable to manufacturers like us and showcase the reasons why we chose to base our business in Maryland."

Industry Feedback: "We were able to bring in one of the top sensory experts in the world to Maryland to provide training for the Maryland Distillers Guild thanks to the MDMEP EARN Partnership. Without their help, we never could have brought her in and it has already shown to elevate the entire industry in the state and promote the growth of Maryland-made spirits.

Maryland Advanced Manufacturing and Plastics Partnership

Region: *Baltimore*

Description: Led by Berry Plastics, the Maryland Advanced Manufacturing and Plastics Partnership is working to alleviate two common workforce challenges in the industry. A universal challenge in manufacturing is the aging workforce. Given the stigmas of manufacturing, employers have found it difficult to attract a younger workforce. As such, the partnership is collaborating with Baltimore County Public Schools to raise awareness for the industry, dispel the myths and highlight the opportunities that working in manufacturing presents. Employers in the partnership also hosted high school interns in 2018 in an effort to grow the pipeline.

The partnership also continued to train incumbent workers in a variety of skills, including safety, first aid/CPR, plastics testing and welding. In 2018, more than 100 incumbent

workers benefitted from training. Finally, recognizing the value of Registered Apprenticeship in attracting and retaining talent, Berry Plastics worked with the Department to include the occupation of Maintenance Technician to their occupational offerings.

Industry Feedback: "The EARN program has allowed us to deliver valuable incumbent worker

"Due to the support of DLLR and our SIP, our employees are better skilled, safer, and more productive. Likewise, our business is more competitive and able to sustain and grow in Maryland. Our workers are more secure and our communities are stronger."

training to upskill employees at every level in our organization. The EARN funding has been the key to our ability to train entry and mid level manufacturing workers to operate and maintain advanced manufacturing equipment; deliver critical safety and quality training to sustain our business, and provide much needed leadership and soft skills to our team.

Rapid Advanced Manufacturing Skills Partnership

Region: *Statewide*

Description: The Rapid Advanced Manufacturing Skills Partnership is working to grow the talent pipeline for manufacturers, while providing in demand training to incumbent workers. In 2018, the partnership provided training to nearly 130 incumbent workers in LEAN processes, Six Sigma Green Belt and Machinist training. The partnership also provided internship opportunities to nearly twenty college students at six different manufacturing plants across the State. This is an effort to educate the incoming workforce on the opportunities in an industry that is not typically considered by college graduates.

Industry Feedback: “The Manufacturing Internship Program, which is a program under the EARN Advanced Manufacturing Partnership, has been a huge success for Maryland manufacturers who have reported over 1.5 million in cost savings and other impacts due to the work of their interns.”

Curtis Bay Industrial Training Partnership

Region: *Baltimore*

Description: The Curtis Bay Industrial Training Partnership is implementing a customized training program for a consortium of chemical and process manufacturing employer partners in the Curtis Bay area of Baltimore. The curriculum is geared towards process operators and industrial maintenance mechanics who earn certifications from the Society of Chemical Manufacturers and Associates. To date, nearly 200 incumbent workers have received training. Employers are reaping the benefits of this training, with one employer partner reporting a 285 injury-free workplace, which is the longest trend in company history.

Healthcare

Baltimore Healthcare Partnership

Region: *Baltimore*

Description: In 2018, the Baltimore Healthcare Partnership continued to work the seven major hospitals in Baltimore City, along with a plethora of community based partners, to train unemployed and underemployed City residents. The partnership provided training in a variety of areas, including Certified Medicine Aide, CNA, GNA, PCT and Phlebotomy. All participants are required to complete extensive essential skills training prior to entering occupational skills training. To date, the partnership has placed nearly 500 unemployed and underemployed residents into employment.

Participant Success Story: “Upon graduation, T. was hired by MedStar to do Patient Transport. Through EARN, she was able to take and complete the Phlebotomy training.

Upon completion, she was promoted to a position in the clinical lab, which came with an increased salary. We are very proud of her success and thrilled to have T. as a MedStar employee.”

Health IT Strategic Industry Partnership

Region: *Baltimore*

Description: Led by the Community College of Baltimore County, this partnership collaborates with employers such as University of Maryland Medical System, LifeBridge Health and Upper Chesapeake Health, to provide in-demand training for incumbent workers in Health IT. Courses include Project Management, Instructional Design and Training, and IT Security. To date, over 100 incumbent workers have completed training, with many identifying increased salaries, roles and responsibilities as a result of their participation in training.

Participant Feedback: “The course helped me conceptualize my role in a different way. I see this course as the beginning of taking on new responsibilities within my current organization. I was recently asked to be lead project manager on a primary care practice onboarding initiative for the Maryland Primary Care Program.”

Ready to Care: An Eastern Shore Healthcare Partnership to Train Healthcare Workers

Region: *Eastern Shore*

Description: Ready to Care leverages strong relationships with higher education partners to provide CNA and GNA training that spans the entire Eastern Shore. In the most recent iteration of funding, Ready to Care trained 52 students, of which, 50 were placed into employment. This demonstrates the continued high demand for these positions on the Eastern Shore. As such, the partnership has received funding to continue their work in 2019. In response to employer demand, additional stackable credentials including Pharmacy Technician, Dialysis Technician and Medical Administrative Aid. The partnership feels that these added credentials make candidates more attractive to employers, thus increasing starting hourly wages and decreasing the high attrition rate of entry level frontline workers.

Participant Success Story: One participant began training while she was pregnant. Her husband was the only source of income for her and her unborn child. During training, the young woman lost her husband unexpectedly. Through EARN, she became a Certified Nursing Assistant and obtained a job that would help support her and her child.

BSN Workforce Pipeline

Region: *Montgomery County*

Description: The Bureau of Labor Statistics predicts a 26% increase in the number of nursing jobs in the coming years. To meet this growing demand, Worksource Montgomery and the Healthcare Initiative Foundation are partnering with six employers and two higher education partners on an innovative hybrid nursing credential program. In addition to technical healthcare training, students have access to supplemental learning opportunities,

including financial literacy and essential skills training. To date, 35 scholarships have been awarded. Due to the length of the program, no students have completed training, but it is anticipated the first students will graduate in 2019.

Welcome Back Behavioral Partnership

Region: *Montgomery*

Description: Given the diversity in Montgomery County, a strong bilingual behavioral healthcare workforce is vital. In 2018, the Welcome Back Behavioral Partnership continued its work with internationally trained, yet underemployed health professionals. Program participants receive individual coaching and guidance to assist with the United States licensure process. To date, sixteen participants have been placed into healthcare employment. The partnership continues to work closely with professional licensing boards, including the Maryland Board of Professional Counselors and Therapists, Maryland Board of Social Work Examiners, and the Maryland Board of Psychologists to assuage and expedite the process for its clients.

Participant Success Story: “My name is Lorena. I am a Psychologist and Speech-Language Therapist from Bolivia, where I worked in both professions for 17 years. When I moved to the United States almost 5 years ago, I noticed that there was a huge need for my professional services in my community, but I quickly realized that I needed assistance to achieve this goal. In addition to the language barrier, there was the complexity of the licensure and certification processes, and I was working long hours at several jobs in different locations in Maryland and Virginia earning at most \$10 per hour. From the Center, I have received guidance and financial assistance with evaluation of my academic credentials, substance abuse trainee certification from the Board of Professional Counselors and Therapists, employment preparation, and English courses. Currently, I am a full-time employee as a State Care Coordinator, earning \$22.75 per hour. I am very proud to work at this organization and contribute my share to the well-being of the community and the accomplishment of my American dream.”

Healthcare Partnership of Prince George’s and Charles Counties

Region: *Southern Maryland*

Description: The Healthcare Partnership of Prince George’s and Charles Counties spent much of 2018 planning and developing new programming. Based upon employer demand, the partnership is preparing to deliver PCT training. This training is in an effort to assist with the continuum of support for entry level workers wishing to advance their careers. Training topics include wound care, sterile technique and respiratory care. The partnership will also provide CNA and GNA training. Additionally, the partnership is incorporating behavioral competencies into training, which is designed as a supplement to help employers with onboarding. This training includes five essential areas of competencies: professionalism, dependability, flexibility, accountability and courtesy.

Specialized Nursing Bridge Program

Region: *Montgomery County*

Description: The Specialized Nursing Bridge Program continues to serve as a key strategy in increasing retention at Montgomery County Hospitals, such as Adventist Behavioral Health, Shady Grove Medical Center and Washington Adventist Health. The RN Work Project estimates that about 34% of nurses leave direct care within their first two years. To combat this problem, the Specialized Nursing Bridge Program provides structured learning and individualized precept time. To date, 152 nurses have completed training. Outcome surveys indicate growth and improvement in professional support, professional satisfaction, organization and leadership. The nurse residents report a decrease in work-related stress and increased efficacy in autonomy and patient advocacy. Since receiving funding in 2015, the turnover rate with one employer partner has decreased from 31.5% to 18.5%.

Healthcare Mentorship Baltimore

Region: *Baltimore*

Description: In response to the region's high demand for entry level healthcare workers, this partnership is providing training for unemployed and underemployed participants to become CNA and GNA. The partnership works closely with twelve employer partners, mostly home healthcare agencies. In 2018, the partnership expanded its portfolio to include PCT training, which includes phlebotomy and electrocardiogram certifications. These additional credentials increase skillsets of graduates and make them more employable with the option to choose from specialized positions in the healthcare and hospital settings. Since inception, 84 students have completed programming, of which, 81 (96%) have obtained employment. In 2019, the partnership will expand its work into Western Maryland.

Participant Success Story: Ana is a recent high school graduate, an immigrant without work experience and limited English proficiency. Ana entered Healthcare Mentorship Maryland program as a shy, unsure student. She quickly gained confidence through job readiness training, where she learned how to communicate professionally in English and further developed a passion for healthcare. Upon completion of readiness training, Ana excelled in technical training and later obtained her certified nursing assistant license. Following graduation, Ana received multiple employment offers and is now working over 50 hours a week as a private nursing assistant who takes great pride in her job. She looks forward to advancing her nursing skills and is currently saving up to attend nursing school within the next few years.

Maryland Direct Support Professional Training Consortium

Region: *Montgomery County*

Description: In Maryland, the industry of supporting people with intellectual and developmental disabilities is a 1.5-billion-dollar industry, which employs over 11,000 DPSs. These professionals provide vital employment, recreational and residential supports to a vulnerable population. However, the industry has a turnover rate near 50% due to low

wages and a limited career pathway. This partnership is providing training to frontline workers in an effort to increase the retention rate among employees. The competency based training and certification leads to increased wages and opportunities for specialization. Over the last year, 61 incumbent workers have participated in training, many receiving wage increase and title promotions. Employer partners remain engaged and are analyzing program success to understand best practices and implementing changes based upon lessons learned. The partnership was awarded additional funding to build in a mentorship component to training, which will further increase retention.

Industry Feedback: “[The employee] was appointed to Acting House Manager and her pay went from \$12.25 to \$18.60 per hour.”

Baltimore Regional Healthcare/Higher Education SIP

Region: *Baltimore*

Description: This partnership collaborates with large employers, such as Johns Hopkins Health Systems, Towson University and Mercy Medical System, to ensure there is a solid pipeline of qualified entry-level workers in high-demand administrative occupations in the industry sectors of healthcare and higher education. Through a partnership with the Community College of Baltimore County, trainees earn industry-recognized credentials, such as Microsoft Office Skills Certificate and the Professional Administrative Certificate of Excellence. Participants also receive intensive essential skills training. To date, 100% of program graduates have been placed into employment in roles such as Executive Assistant, Certified Medical Administrative Assistant and Unit Secretary.

Participant Success Story: Fatumah excelled at the top of her class. Before even graduating, multiple employer partners were eager to hire her. She obtained a non-entry level position with Johns Hopkins Health System in the Human Resources Department as a Staff Assistant.

Highway to a Healthcare Career

Region: *Prince George’s County*

Description: Residential service agencies in Prince George’s County have continually expressed how difficult it is to find qualified employees. This, paired with the fact that the unemployment rate of people with disabilities is disproportionately high, is the impetus for the Highway to a Healthcare Career Partnership. Independence Now, in partnership with the Maryland State Department of Education’s Division of Rehabilitation Services and Employ Prince George’s will recruit individuals, and technical training will be provided by Prince George’s Community College or Fomen Nursing Assistant Training Academy. The partnership aims to train 30 individuals over the next two years.

PharmaTech Connect

Region: *Baltimore City*

Description: According to the Bureau of Labor Statistics, approximately 47,600 new pharmacy technician positions will be added to the labor force over the next decade. PharmaTech Connect, led by Goodwill Industries of the Chesapeake, will be facilitated

through a robust partnership with CVS Health and Baltimore City Community College. The intensive pre-certification training program includes Pharmacy Calculation, CPR training and Pharmacy Theory. Following the classroom training, students begin a 5 week Pharmacy Technician Clinical, provided by CVSHealth. Students will also receive intensive essential and work readiness skills.

Community Health Workers Training Partnership

Region: *Western Maryland*

Description: With Maryland's recent adoption of criteria for Community Health Workers, this partnership will work to strengthen and expand the pipeline of credentialed workers. Community Health Workers play an integral an integral role in healthcare delivery, serving as an intermediary between health and social services and the local community. This Partnership targets both entry level and incumbent workers. The training will encompass five training modules and incorporate ten nationally and state recognized core competencies for Community Health Workers.

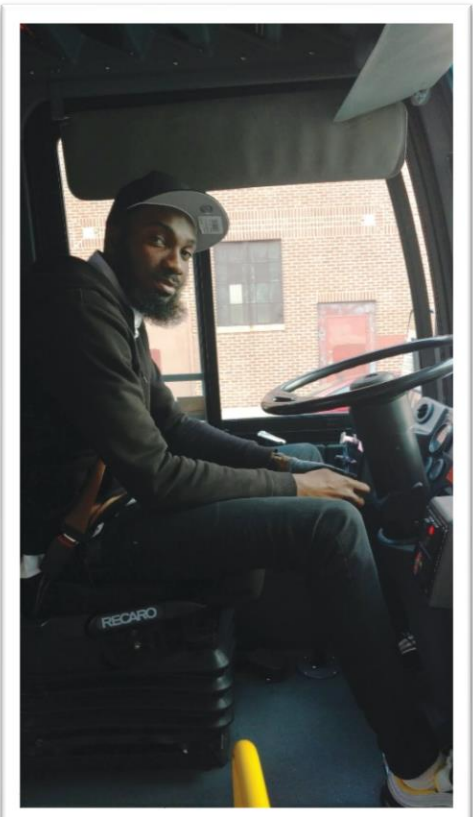
Construction

Project JumpStart

Region: *Baltimore City*

Description: Since 2014, 42 different employer partners have hired graduates funded through EARN. Project JumpStart is an 11 week pre-apprenticeship program that provides participants with basic plumbing, carpentry and electrical skills. Students also receive safety training and financial coaching. To date, 69 students have completed training, with 54 (78%) obtaining employment. While Project JumpStart receives funding from a plethora of other funders, EARN has been pivotal in providing supportive services for trainees. Given the program's flexibility, EARN has funded driver's education and paid MVA fines that were instrumental in removing transportation barriers for participants. Nearly a third of program graduates have begun formal RA programs. In May of 2019, three will complete their final year, becoming licensed tradespeople.

Participant Success Story: EJ was in Habicorp (a partnership between Habitat for Humanity and Americorps), when he enrolled in Project Jumpstart. At the time he enrolled in Project JumpStart, he was receiving Social Security Disability. EJ struggled with math but worked hard in the classroom and on the job site. Upon completion of the program, Project JumpStart connected EJ with an employer, who was very impressed by his attitude and energy. EJ was hired on the spot.



Graduate of the Maritime Transportation and Logistics Partnership, Anthony, on the job.

Suburban Maryland Construction Initiative

Region: *Southern Maryland*

Description: Like many of the skilled trades, the Finishing Trades Institute is struggling to recruit new talent. As such, the Suburban Maryland Construction Initiative spent much of 2018 formulating a new partnership with local school systems. The program targets students enrolled in Career Technical Education programs and places them on a path to RA. The pilot cohort completed in the Summer of 2018 and placements are ongoing. In 2018, the partnership also continued to train incumbent workers in a variety of skills, including Architectural Coating and Confined Space. More than 700 incumbent workers have been trained since the program began in 2014.

Marine Trades Industry Partnership

Region: *Statewide*

Description: The Marine Trades Industry Partnership is working to eliminate recruitment challenges that plague the industry. In an effort to raise more awareness for the industry and its opportunity, the partnership continued its internship program. Students learn technical skills and receive hands-on experience with industry employers. The partnership, which includes more than 70 employers, is also providing training to incumbent workers, in topics including Yamaha Outboard Repair, Travelift and Hydraulic Trailer Operation, and Marine Systems. To date, nearly 170 incumbent workers have received training, earning more than 200 certifications. The lead applicant, Marine Trades Association of Maryland, is actively exploring becoming a Registered Apprenticeship sponsor.

Industry Feedback: “In today’s challenging labor market, we are thankful to be working with MTAM to find talented and hardworking apprentices. We are excited to share in the success of the program and future accomplishments of our new hires.”

Architectural Metal and Glass Initiative

Region: *Statewide*

Description: Led by the Finishing Trades Institute, the Architectural Metal and Glass Initiative is providing pre-apprenticeship training to help build the pipeline of qualified workers in the industry. Since program inception, the partnership has placed more than 90% of those who complete training into Registered Apprenticeship programs. Additionally, the partnership is helping its participants to complete the North American Contractor Certification Program for Architectural Glass and Metal Contractors. This will greatly increase skills and earning potential. In 2018, AMGI was honored by the Washington DC Department of Employment Services for their innovative work around training unemployed and underemployed persons.

Industry Feedback: “Over the past 4 years, EARN Maryland has provided the opportunity for the industry partnership to continue to advance the industry. Whether it

be assistance to provide pre-apprenticeship training to Maryland residents to be placed into the construction industry and into registered apprenticeship, incumbent worker training, or out of box initiatives for the industry partners, EARN Maryland has been there to support our growing partnership. The process of working with the EARN staff has enabled us to partner with local workforce development partners to continue the programs that EARN has started.”

Project JumpStart

Region: Prince George’s

Description: In 2018, JOTF completed its pilot expansion project in Prince George’s County. Thirty-four students completed training, of which, 26 (77%) obtained employment at an average starting wage of \$15.57 per hour. Transportation barriers are often insurmountable in construction where job sites frequently change and may not be accessible by public transportation. In partnership with Vehicles for Change, five students were awarded scholarships to obtain vehicles and four students completed driver’s education. The partnership did not request additional funding for this location and plans to reconvene its employers in 2019 to understand industry demand in the region.

Participant Success Story: After completing training, Denny obtained employment earning \$16 per hour. Denny learned that he would be sponsored for electrical apprenticeship by his employer, but he would need to pay for the schooling. EARN assisted Denny with this fee and he is now a registered apprentice attending electrical classes. Also with help from EARN, JOTF assisted Denny pay off his MVA Insurance Lapse fines which were making it impossible for him to obtain personal transportation and requiring him to rely on rides from friends and family to get to work. Recently, Denny was able to purchase a 2015 Chevy Impala. He is managing the car payments well and really appreciates the independence and freedom a car has given him. Denny is becoming more financially stable and able to think about long term goals.

Remediation and Construction Industry Partnership

Region: Baltimore City

Description: Given the feedback from its 70 employer partners, the Remediation and Construction Industry Partnership is providing in demand training to grow the pipeline of qualified workers to be Brownfields Remediation and Stormwater Management Technicians. Participants earn a plethora of certifications, including EPA Asbestos Supervisor; Lead Abatement Worker; OSHA 40 Hour Hazardous Site Worker Protection and Emergency Response, OSHA Confined Space Operations; OSHA Bloodborne Pathogens; and OSHA Fall Protection. To date, 64 participants have completed training, of which, 57 (89%) have obtained employment. In 2018, the RCIP received a \$200,000 grant from the Environmental Protection Agency to support the brownfields remediation training module.

Participant Success Story: Shakia first heard about RCIP through a family member who graduated from the program. At the time, she was struggling to support her two children while working a job she did not find personally fulfilling. Despite facing personal obstacles, Shakia worked hard and completed the program. She was elected by her

classmates to speak at graduation. An employer attending graduation invited her to apply for a position. She was hired immediately earning \$16 per hour. Currently, Shakia is working as a scientist in-training in the industrial hygiene department. She recently received her asbestos inspector license and is now making \$20 per hour.

Creating a Pipeline of Green Jobs

Region: *Anne Arundel County*

Description: This partnership consists of employer partners who seek employees with basic construction skills, essential skills, some experience and knowledge of the environmental aspects of the industry. In response, this initiative provides training that includes industry-recognized credentials, supportive services, and real work experience through work and learn opportunities. The training, which targets unemployed and underemployed participants, includes First Aid, CPR and OSHA 10. To date, the partnership has launched two cohorts. The Lighthouse Shelter in Annapolis has joined the partnership, and will help recruit for a cohort in early 2019.

Participant Success Story: Melissa had been unemployed for more than two months when she began training. During her internship, she performed so well that she was offered a full-time position before the work and learn was complete. Since beginning in a permanent capacity, Melissa has already received a pay raise, making \$16 per hour.

Eastern Shore Construction Alliance

Region: *Eastern Shore*

Description: The construction industry on the Lower Eastern Shore is poised for growth, but hampered by the lack of a skilled workforce. In response to feedback from its eight employer partners, this program provides a comprehensive, holistic curriculum that addresses the multi-faceted challenges to retaining a highly qualified workforce, including specific skills training in carpentry and job readiness skills. Students also partake in hands on projects, including drywall and cabinet installation. Initially, the partnership struggled with recruitment. However, the efforts of partners, such as the Lower Shore Workforce Alliance, Quality Staffing Services and the Maryland Building Industry Association resulted in a full cohort currently enrolled in training.

Industry Feedback: “The Wor-Wic construction [partnership] has made a difference already across the board with our local National Association of Home Builder’s Chapter, titled the Maryland Building Industry Association (MBIA) Eastern Shore Chapter. Not only are the members getting a pool of potential employees, they are becoming part of the solution.”

Herbert J. Hoelter Vocational Training Partnership

Region: *Baltimore City*

Description: This partnership addresses the need for vocational training programs for unemployed and underemployed Baltimore City residents. Scholarships will be offered for training in the following areas: Automotive Repair and Refinish, Commercial Driving, and Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC-R). The 13-week training

program includes theory-oriented, hands-on curriculum that provides students with the skills necessary to thrive in these careers. Credentialing such as ASE certifications, CDL-B, and EPA Universal Certifications are offered. It is anticipated that 15 individuals will be trained with this funding.

Global Resource for Academic & Career Excellence (GRACE) Partnership

Region: *Central and Capital Regions*

Description: This partnership is offering a pre-apprenticeship construction training that serves the Central and Capitol regions. Trainees will benefit from a trauma-informed integrated service workforce development delivery model that includes construction skills training and intense supportive and wrap-around services. Participants receive safety training, including First Aid/CPR and OSHA 10. Upon completion, trainees are connected with Registered Apprenticeship opportunities. This project began in October of 2018 and it is anticipated that 10 students will be trained.

Construction Workforce Partnership for Southern Maryland

Region: *Southern Maryland*

Description: This partnership is providing training that targets unemployed, underemployed and incumbent workers in the construction industries. Pre-apprenticeship training enables participants to enter a career pathway that includes apprenticeship, craft training, and/or other post-secondary certificates and degrees while overcoming employment challenges. The partnership also works to improve the safety of our workforce through expanded construction safety training for incumbent workers and supervisors. Industry recognized credentials are offered through training, including First Aid/CPR, Flagger and OSHA 10.

Susquehanna HVACR Partnership

Region: *Susquehanna*

Description: In response to the current shortage of highly skilled HVAC-R entry level and installation technicians, this partnership is providing HVAC-R pre-apprenticeship training to unemployed and underemployed individuals. In addition to the fundamental concepts regarding HVAC-R installation, repair, and maintenance, individuals receive supplemental math, reading, comprehension, and essential skills training. Mentoring and job shadowing with experienced contractors provide a valuable opportunity to strengthen an individual's practical and professional skills.

Automotive Repair

Automotive Technicians for Change

Region: *Baltimore*

Description: Led by Vehicles for Change, this partnership continues to prepare returning citizens for careers in the automotive industry. The program, which is up to six months in length, operates as a simulated work environment and provides technical instruction and intensive essential skills, preparing interns to earn Automotive Service Excellence certifications. To date, more than 80 interns have been placed into employment making an

average wage of \$16.25 per hour. The partnership is especially proud of the recidivism rate for program graduates, which is less than 2%. Comparatively, the National Institute of Justice estimates that 42% of returning citizens recidivate in within one year. The exceptionally low recidivism rate is a testament to the comprehensive program offered by Vehicles for Change. In 2018, the partnership expanded its operations to the Waverly neighborhood of Baltimore City. This expansion will target unemployed and underemployed citizens for entry level positions in the automotive field.

Participant Success Story: Anthony enrolled in Automotive Technicians for Change in 2016 following 11 years of incarceration. Upon completing the program, he obtained employment with FleetPro, where he has worked for nearly two years. In that time, he has excelled and was recently promoted to Shop Foreman. Anthony is engaged to be married in the Spring of 2019 and recently purchased his first home.

Natural Resources

Work2Live WELL

Region: *Baltimore and Eastern Shore*

Description: Led by the Maryland DNR, this partnership is the first EARN SIP managed by a sister agency. Working in partnership with private businesses, nonprofits, universities and others, the Work2Live WELL program is designed to offer exposure, opportunity and training in several emerging fields and sectors. Detailed field training plus classroom sessions, one-on-one mentoring and assistance is followed by opportunities to interview for employment with a private or public employer. Participants will gain important life and technical skills necessary to succeed and thrive in any field. To date, nineteen participants have completed training, of which, 14 (74%) have been placed into employment. The partnership is also providing leadership training to incumbent workers.

Participant Success Story: When Andre began training, he was struggling to find enough money to purchase food or pay for housing, much less obtain a car that would allow him to find work with family-sustaining wages. He was homeless and staying with a family member. During his time in Work2Live WELL, Andre received assistance to obtain a working vehicle and make the repairs he needed to have reliable transportation to work. After completing the program, he was hired by Ecological Restoration and Management as a Stormwater laborer.

Childcare

Montgomery Alliance for Early Childhood Education

Region: *Montgomery County*

Description: A reliable childcare workforce supports strong families and a strong Maryland. To address this shortage, this partnership will offer Child Development Associate, an industry recognized certification. Job training, English language skills development, basic education and workforce readiness are part of this structured curriculum. Employment prospects for those with a CDA range from positions as education providers at childcare centers, parent resource centers, family support programs, to employment in Head Start and Early Head Start programs. The project is scheduled to begin in January 2019.

Utilizing Data

Because EARN is an industry-led program, SIPs are required to develop data-driven WTPs that will that meet employers' workforce needs, advance the skills of Maryland workers, grow the State's economy, and increase sustainable employment for working families. The requirements outlined in the Solicitation for Implementation Grant Proposals closely mirror the enabling statute's requirement which states a proposal must include:

- **Data driven quantitative evidence** of shortages in skilled employment within the target industry over a sustained period of time. Quantitative labor market and industry-specific data should be included. Consideration may be given to such issues as understanding high demand occupations in industry, projected job growth by occupation, analysis of gaps between supply and demand of employees, understanding the root causes of these gaps, and characterizing the needed skills to close any gaps
- **Qualitative data** based upon real experiences from target industry employers regarding actual and projected gaps in skills training and job readiness. SIPs are encouraged to consider utilizing interviews, surveys, focus groups, roundtable discussions to understand workforce needs.

The partnerships awarded funding in 2018 developed their WTP based upon feedback from industry partners in concert with a variety of workforce studies, plans or research. A listing of the data sources utilized is provided in **Appendix B** of this report.

Conclusion

As is evident throughout the pages of this report, EARN is transforming the lives of Marylanders on a daily basis, while positively impacting the State's business climate. The Department is proud to support the program and looks forward to continued growth and success in 2019 and beyond.



Secretary Schulz delivers keynote address at Tech at the Gap

Appendix A

In order to ensure accountability, EARN Maryland SIPs are required to comply with specific reporting requirements. These measures are meant to track the metrics set forth in the Labor and Employment Article § 11-709(b)(4) of the Maryland Annotated Code. Statutorily-required data is presented below and covers the period July 1, 2017 through June 30, 2018. Totals include participants who entered training in the previous year but exited the EARN program in the current 2017-2018 fiscal year.

By Sex

| Sex | # of Participants | Percentage of Whole |
|---------------|-------------------|---------------------|
| Male | 2,591 | 66% |
| Female | 1,316 | 34% |
| Not specified | 13 | <1% |

By Race

| Race | # of Participants | Percentage of Whole |
|---------------------------------|-------------------|---------------------|
| White | 1,703 | 43% |
| Black/African American | 1,759 | 45% |
| Asian | 155 | 4% |
| Native American/American Indian | 18 | 0% |
| Hawaiian/Pacific Islander | 5 | 0% |
| Hispanic/Latino | 117 | 3% |
| Two or More Races | 47 | 1% |
| Other | 50 | 1% |
| Not Specified | 66 | 2% |

By Income

| Income Level | # of Participants | Percentage of Whole |
|----------------------------|-------------------|---------------------|
| Less than \$10,000 | 1,370 | 35% |
| \$10,000 to \$14,999 | 129 | 3% |
| \$15,000 to \$24,999 | 288 | 7% |
| \$25,000 to \$34,999 | 373 | 10% |
| \$35,000 to \$49,999 | 448 | 11% |
| \$50,000 to \$74,999 | 942 | 24% |
| \$75,000 to \$99,999 | 138 | 4% |
| \$100,000 to \$149,999 | 101 | 3% |
| \$150,000 to \$199,999 | 13 | 0% |
| \$200,000 or more | 10 | 0% |
| Unreported or Incalculable | 108 | 3% |

By National Origin

| National Origin | # of Participants | Percentage of Whole |
|--------------------------------|-------------------|---------------------|
| American | 2,920 | 74% |
| North American (excluding USA) | 71 | 2% |
| Central and Latin America | 69 | 2% |
| European | 105 | 3% |
| African | 175 | 4% |
| Middle Eastern | 17 | 0% |
| Asian | 97 | 2% |
| Oceania | - | 0% |
| Two or More Identified | 23 | 1% |
| Other | 32 | 1% |
| Not reported | 411 | 10% |

By County of Residence

| County of Residence | # of Participants | Percentage of Whole |
|------------------------|-------------------|---------------------|
| Allegany County | 82 | 2.1% |
| Anne Arundel County | 303 | 7.7% |
| Baltimore City | 1,136 | 29.0% |
| Baltimore County | 587 | 15.0% |
| Calvert County | 29 | 0.7% |
| Caroline County | 28 | 0.7% |
| Carroll County | 73 | 1.9% |
| Cecil County | 80 | 2.0% |
| Charles County | 46 | 1.2% |
| Dorchester County | 42 | 1.1% |
| Frederick County | 93 | 2.4% |
| Garrett County | 8 | 0.2% |
| Harford County | 149 | 3.8% |
| Howard County | 61 | 1.6% |
| Kent County | 38 | 1.0% |
| Montgomery County | 389 | 9.9% |
| Prince George's County | 204 | 5.2% |
| Queen Anne's County | 65 | 1.7% |
| Somerset County | 9 | 0.2% |
| St. Mary's County | 10 | 0.3% |
| Talbot County | 28 | 0.7% |
| Washington County | 118 | 3.0% |
| Wicomico County | 28 | 0.7% |
| Worcester County | 80 | 2.0% |
| Outside of Maryland | 116 | 3% |
| Not reported | 80 | 2% |

By Educational Attainment

| Education Level | # of Participants | Percentage of Whole |
|--|-------------------|---------------------|
| Some High School or Less | 125 | 3% |
| High School Diploma/GED/Equivalent | 1,674 | 43% |
| Some College | 751 | 19% |
| Associate's Degree | 232 | 6% |
| Bachelor's Degree | 640 | 16% |
| Advanced Degree (Master's, PhD, other) | 262 | 7% |
| Trade School | 84 | 2% |
| Other/Undisclosed | 152 | 4% |

Credential or Certification – 1618

Identifiable Skill - 2342

A new Employment Position - 979

A Title Promotion - 331

A Wage Promotion - 806

Appendix B

The following is a sampling of data sources used by EARN Maryland SIPs in the identification of training and skills needs.

Anderson, K. (2016, October). Resolving the Cybersecurity Workforce Shortage. Retrieved from <http://c.ymcdn.com/sites/www.issa.org/resource/resmgr/journalpdfs/feature1016.pdf>

Baltimore County Government. (2018). Workforce development statistics. Retrieved from <https://www.baltimorecountymd.gov/Agencies/economicdev/meet-baltimore-county/stats-and-figures/workforce-statistics.html>

Baltimore Metropolitan Council. (2014). Barriers to employment opportunities in the Baltimore region. Retrieved from <http://baltometro.org/phdownload/Publications/OpportunityCollaborative>

Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, Nursing Assistants and Orderlies, on the Internet at <https://www.bls.gov/ooh/healthcare/nursing-assistants.htm> (visited June 01, 2018)

Community Foundation of the National Capital Area, (2016) Greater Washington Works-IT and Health Careers with Promise, <https://thecommunityfoundation.org/wp-content/uploads/2016/12/Greater-Washington-Works.pdf>

CompTIA. Assessing the Skills Gap. May 2017

CompTIA. IT Industry Outlook 2018. January 2018

Department of Economic and Workforce Development. (n.d.). Jobs of the future: Trends in occupational employment 2015-2024. Retrieved from <http://www.jacob-france-institute.org/wp>

Duwe, G. (2015). The benefits of keeping idle hands busy: An outcome evaluation of a prisoner reentry employment program. *Crime and Delinquency*, 61(4), 559-586. Doi: 10.1177/001128711

Famiglietti, A., & Daugherty, H.G. (2018). Longitudinal research survey report for reentry employment. St. Mary's College of Maryland Sociology Department, 1-17. NOTE: Unpublished source. Independent survey research from St. Mary's College of Maryland

Freudenberg, N., Daniels, J., Crum, M., Perkins, T., & Richie, B.E. (2005). Coming home from jail: The social and health consequences of community reentry for women, male adolescents, and their families and communities. *American Journal of Public Health*, 95(10), 1725-1736.

Greater Baltimore Committee Coalition for a Second Chance (GBC), Opening Doors to Second Chance, 2016 available at: <https://gbc.org/wp-content/uploads/2016/12/GBC-Coalition-for-a-Second-Chance-report.pdf>

Hathaway, Melissa. "Cyber Readiness Index 2.0 a Plan for Cyber Readiness: A Baseline and an Index". Potomac Institute for Policy Studies, 2015.

Health Care for the Homeless Inc. (2011). Employment among Baltimore's homeless population: Hit hard by a struggling economy. Retrieved from <https://www.hchmd.org/sites/default/wysiwyg>

ISACA and RSA Conference. (2016). State of Cybersecurity - Implications for 2016. Retrieved from https://www.isaca.org/cyber/Documents/state-of-cybersecurity_res_eng_0316.pdf

Justice Policy Institute, & Prison Policy Initiative (2015). Introduction: Mapping Baltimore's corrections and community challenges. Retrieved from <https://www.prisonpolicy.org/origin.md>

Justice Policy Institute, & Prison Policy Initiative. (2015). The right investment. Retrieved from http://www.justicepolicy.org/uploads/justicepolicy/documents/rightinvestment_design_2.23.15_final.pdf

Maryland Alliance for the Poor. (2018). Maryland poverty profile. Retrieved from http://mapadvocacy.org/wp-content/uploads/2018/01/Maryland-Poverty-Profiles_2018_1-15-2018_T.pdf

Mirabella, L. (2015, October 10). Under Armour's vision for future manufacturing: Make local for local. The Baltimore Sun. Retrieved from <http://www.baltimoresun.com/business/bs-bz-under-armour-local-manufacturing-20151010-story.html>

National Association of Manufacturers, State Data Reports: <http://www.nam.org/Data-and-Reports/State-Manufacturing-Data/State-Manufacturing-Data/October-2016/Manufacturing-Facts--Maryland/>

National Coalition for Homeless Veterans. (n.d.). FAQ about homeless veterans. Retrieved from https://www.va.gov/HOMELESS/ssvf/docs/SSVF_FY2016_Annual_Report_508c.pdf

R Freeman. (2015, February 5). Why have CompTIA qualifications become so important? [Blog]. Retrieved from <https://www.itgovernance.co.uk/blog/why-have-comptia-qualifications-become-so-important/>

United States Department of Labor, Bureau of Labor Statistics. Occupational Outlook Handbook. "Solar Photovoltaic Installers." Viewed at <https://www.bls.gov/ooh/construction-and-extraction/solar-photovoltaic-installers.htm#tab-6> on April 20, 2018

Weiser, Matt. "A good job if you can get it: America's solar workforce is heating up." The Guardian, 2 July 2016.

Workforce Collaborative: An Initiative of the Community Foundation. Greater Washington Works: IT and Health Careers with Promise. Community Foundation, 2016.

Workforce Innovation and Opportunity Act. (2017). Baltimore City's local workforce plan 2017-2010. Retrieved from http://moed.baltimorecity.gov/site/default/files/Local_Workforce_Plan.pdf