REGISTERED APPRENTICESHIP & INFORMATION TECHNOLOGY (IT)

This document summarizes a call for state apprenticeship expansion grantees (State Apprenticeship Expansion [SAE], Apprenticeship State Expansion [ASE], and SAE 2020 grantees) held February 25, 2021. The call featured speakers from the Virginia Department of Labor and Industry, Lockheed Martin Corporation, Lake Region State College (LRSC), and the Computing Technology Industry Association (CompTIA) who discussed promising practices for expanding Registered Apprenticeship in the IT industry.

ABOUT THE SPEAKERS

- The Virginia Department of Labor and Industry is responsible for all Registered Apprenticeship Programs including program quality assurance and regulatory adherence to federal and state guidelines. Since July 2019, Virginia has registered 12 IT companies with 60 apprentices in 9 occupations. For more information, contact Shannon Crooks at shannon.crooks@doli.virginia.gov.

- Lockheed Martin Corporation sponsors 12 IT-focused Registered Apprenticeship Programs with more than 100 apprentices. This work is part of a larger commitment to apprenticeship across the company. For more information, contact Ami Motsenbocker at ami.motsenbocker@lmco.com.

- LRSC has created successful Registered Apprenticeship Programs in cybersecurity, IT support, network analysis, and more. For more information, contact Melana Howe at Melana.Howe@lrsc.edu.

- CompTIA is a new Industry Intermediary contracted with the U.S. Department of Labor to expand apprenticeships in tech occupations, promote diversity and inclusion in tech apprenticeships, and assist businesses and other intermediaries in developing Registered Apprenticeship Programs. For more information, contact Amy Kardel, J.D., at akardel@comptia.org.

WHY APPRENTICESHIP WORKS IN INFORMATION TECHNOLOGY

IT is among the fastest growing sectors in the American economy and an enormous opportunity for apprenticeship expansion. One notable aspect of the IT workforce is that nearly every business in every industry, from manufacturing to healthcare to retail, employs IT workers to manage their technology systems. In fact, according to CompTIA's most recent Cyberstates report, more than half of all tech professionals work outside the IT industry. Non-technology companies seeking technology professionals are challenged to compete with high-tech firms for a labor pool that is not keeping up with demand.

IT employment is expected to grow more than 15 percent by 2028, with certain occupations expected to increase even more. For example, cybersecurity analysts are projected to grow by 37 percent, software developers by 37 percent, and IT specialists by 18 percent. Although apprenticeships could be developed for most entry-level IT occupations, federal apprenticeship data (covering 25 states) shows that less than 1 percent of active apprentices are in IT occupations. IT businesses that have begun using Registered Apprenticeship, including some of the largest companies in the industry, have found it to be a valuable solution for their skill needs and for diversifying their workforce.

A LOOK AT REGISTERED APPRENTICESHIP IN INFORMATION TECHNOLOGY TODAY

Use of Registered Apprenticeship for IT occupations is small but increasing among employers and job seekers. Many large high-tech firms provide their own training, but smaller companies rely on colleges or private training providers for technical instruction with on-the-job project- and team-based work. The top occupations for apprenticeship within the IT sector are software and web developers, network architects and administrators, IT support, and systems and cybersecurity analysts. All are included in the U.S. Department of Labor's list of occupations for which apprenticeships could be developed.

CHALLENGES AND RECOMMENDATIONS

The pandemic has accelerated trends toward remote work, virtual meetings, and technology-supported customer interactions across all industries. Even as some industries have struggled, the demand for workers in IT support, network administration, and cybersecurity has never been greater. Employers are increasingly open to learning about, and interested in sponsoring, Registered Apprenticeship as a structured way to recruit, train, and retain skilled employees.

The IT industry is largely unfamiliar with Registered Apprenticeship but recognizes the value of the earn-and-learn model. Even employers that are experienced with Registered Apprenticeship may not have considered it as a solution for their workforce needs in IT. Many employers would benefit from proactive efforts to guide them through the process of creating a program and establishing the structure to support long-term success.

IT occupations provide excellent wages and plentiful opportunities for career growth, but the technical requirements, training, and certifications can be challenging for new workers to navigate. Registered Apprenticeship provides a clear entry point and pathway for nontraditional populations to start careers in IT. Partnerships among colleges, community-based organizations, associations, and workforce agencies can provide access to underserved populations but require intentional efforts to engage them in apprenticeship initiatives.

ADDITIONAL RESOURCES

- Apprenticeship.gov's IT page links to a toolkit, competency models, apprenticeship standards in high-demand IT occupations, and more.

- The Apprenticeship in IT page on Workforce GPS offers program examples, outreach materials, and other resources to help expand apprenticeship in the IT sector.