WORKING TOGETHER: APPRENTICESHIP & IT

This document summarizes a January 2020 call for State Apprenticeship Expansion grantees. The call featured speakers from Apprenti, the State of Alabama, and the Arkansas Center for Data Sciences, who discussed resources and promising practices in using Registered Apprenticeship in the information technology (IT) sector.

ABOUT THE SPEAKERS

- Affiliated with the Washington Technology Industry Association Workforce Institute, Apprenti is an industry intermediary operating an industry-driven model of apprenticeship in 15 cities across 13 states. Apprenti is also funded by the U.S. Department of Labor (USDOL) to help expand apprenticeship in the IT sector. For assistance, contact Jennifer Carlson, Apprenti Executive Director, at jcarlson@washingtontechnology.org.
- Alabama's governor has committed to increasing apprenticeship as a talent and workforce development tool across several sectors, including technology. The State is working to build a strong IT apprenticeship infrastructure for high-tech firms as well as any other company with IT employment needs. For more information, contact Josh Laney, Director for the Alabama Office of Apprenticeship, at josh.laney@commerce.alabama.gov.
- The Arkansas Center for Data Sciences (ACDS) is working to scale IT apprenticeships statewide by focusing on understanding the needs of their audience, creating an inventory of training providers, and increasing the quality and quantity of business outreach. To learn more about ACDS, contact Lonnie Emard, Apprenticeship Director at ACDS, at lemard@acds.co.

WHY APPRENTICESHIP WORKS IN INFORMATION TECHNOLOGY

IT is one of the fastest growing sectors in the American economy, due not only to the large, high-tech firms that call the U.S. home, but also because every business, from finance to healthcare to retail, relies on some form of technology to conduct business. In fact, according to CompTIA Cyberstates 2019, more than half of all IT jobs are within non-high-tech businesses. Between 2018 and 2026, the IT labor market is expected to grow by 260,000 jobs, and tech-based jobs account for 7.6 percent of the overall U.S. workforce. Non-technology companies seeking technology professionals are challenged to compete with high-tech firms for a labor diverse pool that is simply not keeping up with demand.

Registered Apprenticeship's flexibility, especially in terms of building competency-based programs, is a natural fit for a sector that moves as quickly as IT. Not only do tech employers need to stay nimble to keep up with accelerating changes to technology, but job seekers interested in tech jobs often want to move quickly in gaining skills required to get started in their careers. The businesses that have started using apprenticeships to cultivate their own talent pools have found it to be a solution that meets both their talent needs and their desire to move rapidly.

A LOOK AT APPRENTICESHIP IN INFORMATION TECHNOLOGY TODAY

IT apprenticeship programs make up only 1 percent of all Registered Apprenticeship Programs (RAPs), but that number is growing as more companies are seeing the value of apprenticeship programs and are

finding creative ways to establish them. Large, high-tech firms are often providing their own classroom learning, but smaller and non-tech businesses are building consortia to provide the required related technical instruction, often accessing the plethora of education providers that can deliver the intensive technical training with on-the-job project- and team-based work that produces the competencies employers are seeking.

The top occupations within the IT sector are software and web developers; network architects, admins, and support; and systems and cybersecurity analysts. All are included in USDOL's list of available occupations for RAPs.

CHALLENGES AND RECOMMENDATIONS

More state and federal investment is needed to show the value of apprenticeship to businesses. In a fast-paced industry like tech, results are often required before a large investment is made. That is why industry intermediaries working in the IT sector, such as Apprenti and ACDS, use short-term state and federal grants to help fund new programs. Once a company understands the value of an apprenticeship program and that it is a sustainable business model, ACDS believes companies will begin to see it as a standard part of their talent acquisition, development, and retention strategy.

It can be challenging in rural settings to bring apprentices together. When potential apprentices are spread out over many hundreds of miles in rural settings, sponsors need to think of creative solutions, such as combining in-person and virtual training. IT jobs are often performed remotely, but they also often require teamwork and communication skills. ACDS recently stood up a cybersecurity RAP involving 20 apprentices, 10 of whom are based in Little Rock and 10 of whom are based in rural northwest Arkansas. The instructor will spend half the time teaching in person in each location while using a remote video chat to reach apprentices in the other location simultaneously. Due to the nature of many IT jobs, many employers in this space may be more comfortable with this arrangement than other industries.

IT occupations in non-high-tech firms can be difficult to fill. Job seekers interested in working in IT are often drawn to large, well-known high-tech firms. Apprenticeship offers non-tech employers in need of IT personnel a path to find the talent they need more effectively by circumventing the need for them to compete for talent against high-tech companies. Also, non-tech companies may find that they can join with other companies outside the tech industry to build partnerships that allow them to cut costs and train only the number of people they need for the tech positions they have.

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.