APPRENTICESHIP

Apprenticeship Model is the Cybersecurity Education and Workforce Development Pathway in California

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As we near 2020's end, what is the direction of apprenticeships in California? What are key steps to accelerate the onboarding of greater numbers of apprentices statewide in the next few years? Excellent questions given tremendous economic change, diversification in society, and rapid advances in technology. The COVID-19 pandemic response has moved many workers online and increased a need for prepared and skilled IT-cybersecurity workforce for many employers. California has 67,741 currently available cybersecurity positions to fill (Cyber Seek, 2020). The cybersecurity workforce sectors needs are many, including transportation, education, small/medium sized business, health/medical/lab sciences, emergency response/public services and public/private security operations. In the modern era, all companies, government agencies, and individuals have much work to do to secure their data and privileged information.

So how does cybersecurity fit into the future of California apprenticeships? Many IT-cybersecurity sectors and occupations are fields in which the apprenticeship model may assist with training large numbers of skilled positions. One key to substantial apprenticeship growth is to shift to occupations in high demand areas and work with employers to update current skillsets and workforce competencies in these fields. Towards a cybersecurity career pathway, we collaborate with industry—employers, government agencies, and education partners—through the California Cybersecurity Task Force, Workforce Development and Education Subcommittee. The objective is to develop and implement statewide cybersecurity pathways linking and aligning education programs with workforce development to meet the needs and social equity of all 39 million state residents.

“Hands-on training” is essential for IT-Cybersecurity positions and one important reason why apprenticeship On the Job Training (OJT) is a key part of this successful workforce-training model. Cybersecurity pathway steps begin with recruiting and outreach for workforce participants needing to “up-skill, re-skill, or begin to skill.” We include strategies to support diverse and inclusive populations preparing for cybersecurity professions. Once we assess skills, aptitudes, and career interests of potential apprentices, we place them in cybersecurity career pathway education programs that link with workforce development opportunities and 2,000 hour OJT training to learn the tools of the trade. Major partners and key stakeholders include private industry, Silicon Valley, government agencies and organizations and educational/higher education partners from the California Department of Education, California Community Colleges, California State University and University of California campuses.

Working together with key partners and major stakeholders, California cybersecurity workforce development needs and capacity-skill gaps will be met through increased numbers of pathway apprentices, skill based competencies/OJT training, and supportive mechanisms to transition apprentices into the workforce with high-paying skilled cybersecurity positions. In this way, we can take effective steps to help secure the Golden State, the cyberspace, our economy and working families in 2021 and future years through an apprenticeship pipeline.