

“What Educators Need to Know About the California Cybersecurity Career Education Pipeline and Pathway Project” Presentation:

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California Cybersecurity Task Force, Workforce Development and Education Subcommittee

- The California Cybersecurity Task Force (CCTF) is Co-Chaired by the California Governor's Office of Emergency Services (Cal OES) and California Department of Technology (CDT).
- The CCTF is made up of several Subcommittees like Information Sharing, Critical Infrastructure Protection, and Risk Mitigation.
- Facilitates collaboration, engagement, and partnership with cybersecurity and IT Industry (Employers), the Public Sector, and Education/Higher Ed.
- Works with California Department of Education, California Community Colleges, California State Universities, and University of California on cybersecurity education and workforce development programs.
- Wrote 2 key California Cybersecurity Education/Workforce Development Strategies (discussed in the following slides)

California Cybersecurity Workforce Development and Education Strategy and Framework

- *The California Cybersecurity Workforce Development and Education Strategy and Framework* was released this week.
- The Strategy develops a framework through 15 recommendations to implement a cybersecurity **career education pipeline and pathway** to prepare 50,000 entry-level entry level professionals in California between 2020-2030.
- Some students (the top talent model) will complete STEM two-year/four-year degrees. Other students go into embedded stackable certificate programs linked with an 2000 hour On the Job Training (OJT) workforce development opportunities.

California Cybersecurity Career Education Pipelines and Pathways Include

- K-12 Education-- Career Technical Education (CTE) Industry Recognized Certification Programs; “A-G” Curriculum Integration (students meet academic and career education requirements); Dual enrollment, etc.
- 2 Year Associate Degree Programs and Certificates-
 - California Community Colleges
- 4 Year Degree Programs and Certificates-
 - California State University
 - University of California
- Professional Certifications and Training-

The California Cybersecurity Essential Workforce Pre- and Registered Apprenticeship Talent Pipeline

- As a supplement and appendix to the previously mentioned strategy document is this pipeline with the following components:
- Describes the obstacles, limitations, and challenges faced by the education community/industry/public sectors in Cyber workforce.
- Provides a vigorous case for apprenticeships to help solve the cyber workforce capability and skill crisis in California.
- This model includes the following phases: 1. Recruiting Phase- 2. Pre- Apprentice Phase- 3. Registered Apprenticeship Phase- 4. OJT Phase- 5. Prepared Workforce Phase! 😊
- Initial 2 Certs: Cybersec for Small/Medium Business & Life Sciences

Key Discussion Points:

- How do we engage with 90-100k students in IT-Networking-Cyber?
- How can we figure out a process by which students easily transfer/transition seamlessly across all levels of education state-wide in cybersecurity (and related fields?)
- How do we align and link K-12, 2 year, and 4 year education programs (degrees and certificates)?
- Accelerate CCC IT-Cybersecurity Transfer to 4 year education institutions.
- Credit for prior learning for completion of industry certifications.
- Other points for discussion?

Questions or Comments?
Like to see a copy of either Strategy Report?
Care to join the California Cybersecurity
Education Workgroup?

Please Contact: Dr. Keith Clement, Professor, Fresno State University
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