

IT Fundamentals Program Creates a More Diverse Cybersecurity Workforce



The California Community Colleges is the largest higher-education school system in the nation, encompassing 114 colleges and 2.1 million students. The institution has long supported programs that prepare individuals for careers in IT, but an approach was needed that would create interest in younger students to fill the demands for a skilled cybersecurity workforce. To supply a cohesive organizational structure for the initiative, a collaborative effort known as California Cyberhub was launched. This program brings together K-12 schools, public higher education, and businesses, as well as government and military agencies in a collective effort to promote diversity in cybersecurity and other technical fields. California Cyberhub partners with CompTIA to offer cutting-edge educational resources and industry-leading certifications to participating students.



The evolution of technology has created a huge demand for skilled cybersecurity professionals. California schools are challenged with developing programs that will prepare young students for an expanding IT job market, particularly in cybersecurity where top talent is lacking and sorely needed. To ensure they are adequately readying students, California Cyberhub needed a trusted partnership that could supply students with the most up-to-date education and industry-leading certifications.



To help prepare students for a future in cybersecurity, California Cyberhub sought a solution that would target middle and high schoolers. The organization was awarded grant money to develop a program that would promote interest in technical careers among a younger student population. Through a partnership with CompTIA, California Cyberhub offers qualifying students free access to curriculum and training, as well an opportunity to take CompTIA's IT Fundamentals certification exam. This approach teaches hands-on IT skills at an early age, creating a more diverse and skilled cybersecurity workforce.



- More than 300 students have accessed CompTIA's IT Fundamentals training materials and certification exams
- 98% pass rate on the first try for adults and college students
- 87% pass rate for middle- and high-school students
- Combined pass rate of 89%

BY THE NUMBERS



California Community Colleges funded the purchase of training content and 1,000 vouchers for CompTIA's certification exams



55 adult learners and college students have utilized vouchers to receive CompTIA's IT Fundamentals, an industry-leading certification



266 middle school and high school students have used vouchers to access training and certification exams



So spent by participating students on training and certification exams

LESSONS LEARNED

- ▶ The evolution of technology has created a need for talented cybersecurity professionals.
- ▶ Certifications are necessary for a successful career in cybersecurity and other technical fields.
- ▶ In order to supply a more diverse workforce, we need to target students in middle school and high school to promote interest in IT security.

THE FULL STORY

IT Fundamentals Voucher Program Helps Pave the Way for a Skilled and Diverse Cybersecurity Workforce

With the rapid expansion of IT, schools are continually seeking programs that will prepare students for an ever-changing technical job market. Because technology is consistently evolving to become more sophisticated, there is a rise in the demand for cybersecurity professionals who will be able to combat advanced attacks. The need for qualified cybersecurity professionals represents a particularly underrepresented field and California Community Colleges has set their sights on developing a solution. Steve Linthicum, Deputy Sector Navigator for the Orange County Region of California Community Colleges has been working as an IT educator since the late 1990s. As students kept passing through his higher education programs, Linthicum observed a lack of talent entering the cybersecurity field. “We are trying to get more people who can help us with the challenges we face and that means we need more people in cybersecurity,” Linthicum said.

In addition to the shortage of a talented workforce, Linthicum noticed a lack of diversity in the higher-education cybersecurity programs. To encourage

participation by underrepresented groups, the system has been working to develop programs which will target students as young as middle school. Linthicum noted, “Our area is heavily Hispanic, but you see very little Hispanics in IT. Women are over 50 percent of our population, but women are very underrepresented in cybersecurity. It’s all about developing a more diverse workforce.” To ensure students were receiving the latest in IT trends and educational training, California Cyberhub partnered with CompTIA to launch the IT Fundamentals Program. California Cyberhub purchased 1,000 vouchers for the IT Fundamentals certification exam from CompTIA to help middle-school, high-school, and adult students develop the necessary skills and attain the requisite knowledge to succeed in attaining the CompTIA IT Fundamentals certification. In addition, CompTIA furnished the textbook that the students use to develop their cybersecurity skillsets. Linthicum said, “CompTIA does a great job of creating value in regard to their certifications. Certifications are meaningful and becoming more and more meaningful as time goes on.”

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— Steve Linthicum, Deputy Sector Navigator for the Orange County Region of California Community Colleges

The partnership with CompTIA enables the students to take exams at no cost which has allowed students the unique opportunity to access industry-recognized IT certifications without accruing large amounts of student debt. “Imagine a high-school kid getting out of school with certs. They can earn enough money to help support their college education...reducing student debt,” said Linthicum.

STUDENT INSIGHTS



Eliana Lee, High School Student: “Having the IT Fundamentals certification is proof of my knowledge of basic IT as well as willingness to go forward in IT.”



Christian Pinkston, High School Student: “All your fear goes away and, for me personally, I felt accomplished with my senior year. It has brought me a new outlook on the IT/security industry and an even higher outlook at what I can achieve.”