

The Tech Jobs Conundrum: Tools for Bridging the Confidence Gap

The challenge of unfilled tech jobs has exposed an economic disconnect in the United States. Many Americans are worried about their jobs and future – especially if they don't have a college degree. Yet, we can't seem to find enough people to fill all the tech jobs we need. By 2024, there will be 1.8 million unfilled tech jobs, and a healthy number of those jobs likely will not require a four-year college degree. That's according to the annual [Cyberstates](#) report, a guide to national, state, and metropolitan area tech sector and tech workforce analytics produced by the non-profit trade association [CompTIA](#). As state legislators consider new economic policies for our fast-moving digital economy, it is important to understand the magnitude of the problem created by unfilled tech jobs and to have resources that can help find the best way to train, re-train and ensure Americans have the right skills to participate in tech jobs.

In addition to Cyberstates, CompTIA has invested serious time and energy to researching and understanding both the confidence gap that is affecting the tech sector, and they have a number of resources that may be of interest to policymakers:

- CompTIA is the leading global provider of vendor-neutral [IT workforce certifications](#). Industry recognized certifications are a crucial tool to validating an individual's specific technology skill sets — certifications that employers trust; that students can use to create a job-ready resume and find a good paying job; and that tech pros use to find employment and advance their careers. CompTIA also works extensively [with federal and state governments](#) to ensure that the government workforce is skilled and able to meet IT needs, and in particular, cybersecurity and information assurance.
- Just announced in July, CompTIA has launched [CompTIA AITP](#), an IT professional association for tech professionals. The technology industry is a primary contributor to economic growth and AITP provides resources from resume to retirement to support students, teachers and tech professionals so that we can fill the pipeline with next-gen workers.
- With the advent of the Internet of Things, AI and other tech advancements, there is no doubt that demand for cybersecurity professionals will increase. To help identify cybersecurity workforce supply and demand, CompTIA partnered with data analytics firm Burning Glass Technologies, through a NIST grant, to create [Cyberseek.org](#) which covers all 50 states and major metropolitan areas. The data compiled on Cyberseek.org shows that there were 112,000 openings for Information Security Analysts in 2016, but only 96,870 workers employed in those positions. That annual talent shortfall of over 15,000 cybersecurity workers is a clear indication that we have a dangerous shortage of cybersecurity workers in the United States, which could leave our digital privacy and infrastructure at risk.
- CompTIA's philanthropic arm, [Creating IT Futures](#), is implementing programs to reach underserved populations (women, minorities, veterans and the working poor) and create on-ramps for more people to prepare for, secure, and succeed in IT careers. Through its [IT Ready Program](#), [Early College STEM programs](#), [NextUp](#) mentoring program, and more, CompTIA is hoping to blaze a trail that will lead to replicable and scalable models that will lead to more people obtaining good paying jobs regardless of their educational attainment or socio-economic background.
- Lastly, CompTIA has been a supporter of legislation in [Congress called the Championing New Careers and Employees in Technology \(CHANCE in Tech\) Act](#). The proposal expands on work being done by industry and intermediaries focused on employer hiring needs, assessing and training workers, and mitigating some costs to the employer by allowing them to pay reasonable salaries to their apprentices while they acquire the skills today's economy demands. This presents an interesting model for expanding apprenticeships in the United States.

There is a lot at stake. We are on the cusp of some major tech advances: from AI to IoT to cybersecurity. Anything less than a full, well-skilled workforce could hinder our economic competitiveness, and the tools and ideas outlined here will be useful as state legislators consider policies and programs to help close the confidence gap and get more Americans into a meaningful tech career.