Federal Government Steps Up Recruiting Efforts For Cyber Security Workers

Cyberspace is the new frontier for government security efforts, making cyber security workers a priority for defense and security agencies

By Curtis Ross

Jobs for Cyber Security Degree Holders

In the 1950s, the U.S. government boosted mathematics and science education to help win the space race.

Now, the government is racing to build a line of defense against attacks in cyberspace.

The recent cyberspace attack by the United States against the Iranian uranium enrichment facilities – code-named "Olympic Games" – indicates how important cyber security and knowledge has become for the U.S. government.

The Comprehensive National Cybersecurity Initiative, launched in 2008, is the government's multi-part program to protect its computers as well as those in the private sector.

Cybersecurity experts are in high demand with the federal government; so much so that representatives from the Department of Defense and the National Security Agency went recruiting last year at Defcom, an annual conference for computer hackers.

Richard George, technical director of the NSA's Information Assurance Directorate, was among the attendees.

"Today it's cyber warriors that we're looking for, not rocket scientists," he said, according to an article in The Huffington Post.

STEM Education A Key Part of Cyber Security Plan

Part of the government plan echoes the 1950s: boost mathematics and science education, according to an October 2011 article on the Department of Defense Web site.

Gen. Keith B. Alexander is the director of the National Security Agency and commander of U.S. Cyber Command. He wants to see more students pursuing degrees in STEM – science, technology, engineering and mathematics.

Only 4% of U.S. students earn STEM degrees, compared to 47% in China, 38% in South Korea and 28% in Germany.

USA Today reported in February that the NSA was planning to hire 3,000 additional cybersecurity experts while the Department of Homeland Security planned 1,000 new hires.

A Cyber Security Degree Can Lead to a Government Job

With the federal government clamoring for their talents, STEM graduates, particularly those with the right computer stuff, could find themselves in a government position.

If they can wait that long, that is.

In 2009, DHS announced plans to hire 1,000 cybersecurity experts. But, as reported on National Defense Magazine's Web site, Philip R. Reitinger, deputy undersecretary for the National Protection and Programs Directorate, told a House Homeland Security Committee hearing last year that the department so far had hired only 260. A new and more modest goal was revealed: 400 hires by October.

National Defense places the blame on the federal government's "infamously long, laborious hiring process." Cybersecurity positions have the added procedural burden of requiring a security clearance.

Also, working for the government can seem dead boring to those used to unlimited cyber freedom.

"Many of the government organizations in this field are gigantic, top-down, and super-hierarchical," blogs hacker Mike Subelsky, a former Navy officer and government contractor. "You will made to turn as a soulless cog in a giant machine."

"Cyber defense is often the opposite of a creative activity," Subelsky writes, blaming that on the layers of regulations and bureaucracy endemic to most government organizations.

Government Cyber Jobs Offer Security, Cutting Edge Technology

Subelsky's points may be valid, says William Jackson on the Government Computer News Web site, but they are countered by some equally valid arguments.

For one, government "power users … such as NASA, the National Oceanic and Atmospheric Administration and the Energy Department's national labs often are at the cutting edge of science and technology," Jackson wrote on the Website. So security in those departments can mean handling some of the newest, fastest and most powerful technology.

Also, Jackson writes, there is "a wealth of sensitive and critical data to protect. State secrets. Military plans. Things that spies from other nations are dying to get their hands on. These stakes add some interest to the game."

Plus, there's the bottom line. Government employment most often means job security. For job seekers less interested in the thrills of cyberspace trailblazing and more attracted to a solid and dependable position, the federal government's commitment to growing its cybersecurity ranks is welcome news.

The University of Maryland University College launched an online Cyber Security degree program in 2010 and other schools have followed suit. In addition to the bachelor's program, a two-year master's program also is available.