



NCSA'S Parent Primer for Guiding Kids to Careers in **Cybersecurity**

In the recent [Securing Our Future: Cybersecurity and the Millennial Workforce](#) survey conducted by Raytheon, Forcepoint and the National Cyber Security Alliance (NCSA), 40 percent of millennials (18- to 26-year-olds) internationally indicated that parents were a primary source of career advice, yet only 27 percent stated they were “very confident” that their parents could help guide them on pursuing careers in cybersecurity. It’s not surprising that parents might not be knowledgeable about careers in cybersecurity, since it’s a relatively new profession, and most probably have not met or known someone in this line of work. With this in mind, NCSA has gathered user-friendly resources parents can tap to educate themselves and have conversations with their children about the many rewarding opportunities in the cybersecurity workforce.

Cyber Challenges

More than a third of young people (36%) report that they are interested in jobs in which they think they could do well. How do they determine if cybersecurity might be a good fit? Cyber challenges (sometimes called Capture the Flag exercises or cyber competitions) are great ways to expose kids to the field. These challenges take a variety of forms but are usually online or computer-based exercises (often conducted in teams) that engage participants in protecting networks and systems. There are challenges for middle- and high school students as well as college competitions. [CyberCompEx](#) is a great resource for learning more about cyber challenges. The [GenCyber](#) program provides summer cybersecurity camp experiences for K-12 students and teachers. The program aims to help all students understand safe online behavior, grow diversity and interest in the cybersecurity field and careers in the nation’s cyber workforce and improve teaching methods for delivering cybersecurity content in K-12 computer science curricula. [CyberPatriot](#) is the national youth cyber education program. There are three main programs within CyberPatriot: the National Youth Cyber Defense Competition, AFA CyberCamps and the Elementary School Cyber Education Initiative. The Air Force Association developed CyberPatriot to inspire students toward careers in cybersecurity and other science, technology, engineering and mathematics (STEM) disciplines critical to our nation’s future.

What kinds of jobs are there in cybersecurity?

There is no single job title in cybersecurity. It is a fast-growing industry with numerous opportunities that require different educational backgrounds and skills. The good news is that there are a variety of jobs available and that young people have many exciting options from which to choose. [The National Initiative for Cybersecurity Careers and Studies](#) provides an easy-to-use framework – in simple language that addresses roles, actual positions and personal attributes – to help you get started. Check out the Cyber Seek cybersecurity supply/demand heat map to see where the cybersecurity jobs are near you: <http://cyberseek.org/heatmap.html>.



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Academic Institutions

Many colleges and universities offer both two- and four-year degrees in cybersecurity. More than 200 top institutions of higher learning across 44 states, the District of Columbia and the Commonwealth of Puerto Rico are designated Centers for Academic Excellence (CAEs) for cyber-related degree programs. The federal government maintains a list of CAEs at <https://niccs.us-cert.gov/>. [CyberCorps®: Scholarship for Service](#) is a program designed to grow and strengthen the cadre of federal information assurance professionals who protect the government's critical information infrastructure. The program provides scholarships and stipends to undergraduate and graduate students attending participating institutions. The scholarships are funded through grants awarded by the National Science Foundation.

Additional Information and Resources

The U.S. Department of Homeland Security – in partnership with the Cybersecurity Innovation Center – has developed free middle- and high school [cybersecurity curricula](#). The curricula and workshops are free for middle and high school teachers nationwide. The programs help encourage greater interest in the STEM fields at all ages and enable students to learn the necessary fundamentals in high school that will provide the foundation for pursuing cybersecurity studies or careers. [The National Cyber Watch Center](#) is a consortium of higher education institutions, businesses and government agencies focused on collaborative efforts to advance information security education and research and strengthen the national cybersecurity workforce. The National Institute of Standards and Technology operates the [National Initiative for Cybersecurity Education \(NICE\)](#), which has a broad array of career-focused resources and K-12 education materials. Although not required in all cybersecurity professions, learning how to write computer code can be a great gateway to a career in cybersecurity or technology. There are many sites that can get people started on coding. [Code.org](#) is a good place to start.