### Cybersecurity Workforce Demand

**GLOBALLY,** the shortage of cybersecurity professionals is estimated to be **3.12 Million**

Source: (ISC)² Cybersecurity Workforce Study, 2020

The most commonly used cybersecurity skills:

- **40%** Cloud Computing Security
- **28%** Security Analysis
- **28%** Risk Assessment, Analysis and Management

Source: (ISC)² Hiring and Retaining Top Cybersecurity Talent, 2020

**464,420** total cybersecurity job openings

**956,341** total employed cybersecurity workforce

Source: CyberSeek, April 2021

**On average,** cybersecurity workers make **23%** more in the private sector than in the federal government—although pay is comparable at the entry level.

Source: Securing a Nation: Improving Federal Cybersecurity Hiring in the United States, 2021

**16%** Of respondents state that on average it takes **6** or more months to fill a new cybersecurity position

Source: ISACA State of Cybersecurity 2021: Part 1: Global Update on Workforce Efforts, Resources, and Budgets

**Top cybersecurity job titles:**
- Cybersecurity Analyst
- Cybersecurity Consultant
- Cybersecurity Manager
- Software Developer
- Systems Engineer
- Network Engineer
- Penetration & Vulnerability Tester
- Cybersecurity Specialist
- Incident & Intrusion Analyst

Source: CyberSeek, April 2021

**Skills that are in demand:**
- Cloud Computing Security
- Risk Assessment, Analysis and Management
- Governance, Risk Management and Compliance (GRC)
- Threat Intelligence Analysis
- Application Security
- Security Engineering
- Security Administration
- Penetration Testing
- Data Management Protection

Source: (ISC)² Cybersecurity Workforce Study, 2020

Computer and mathematical occupations will grow much faster than the average job during 2016–2026

**13.5%** Growth


On average, **50%** of hiring managers surveyed generally do not believe their applicants are well qualified and an additional **16%** are either unable or uncomfortable making the determination.

Source: ISACA State of Cybersecurity 2021: Part 1: Global Update on Workforce Efforts, Resources, and Budgets

Cybersecurity personnel are becoming much more specialized

- **37%** Slightly More Specialization
- **48%** Significantly More Specialization
- **5%** No Change, Using Generalists
- **9%** No Change, Already Specialized

Source: CompTIA, State of Cybersecurity 2020

**NICE**

[www.nist.gov/nice](http://www.nist.gov/nice)