INSPIRING A SAFE AND SECURE CYBER WORLD.
Inspiring A Safe and Secure Cyber World

David Shearer, CEO
Global Information Security Workforce Study

19,600
Global Responses

3,300
Asia-Pacific Responses

170
Countries Represented

www.iamcybersafe.org
Global Information Security Workforce Study

» Global workforce shortage to reach **1.8 million by 2020** – representing a **20% increase since 2015 study**

» Currently **90% of the workforce is male** with the majority having technical backgrounds

» **87% of cybersecurity workers globally** did not start in cybersecurity, yet **94% of hiring managers** indicate that existing experience in the field is an important consideration

» **33% of executives and C-suite professionals** began in non-technical careers
Mind the Gap

By 2022, there will be a shortage of 1.8 million information security workers.

Surpassing Baby Boomers (45+ years old) as the largest living generation, Millennials (29 years old or below) will be critical for filling the employment gap.
Reasons for the Shortage

- Qualified personnel difficult to find
  - Global: 49%
  - North America: 52%
  - Latin America: 35%
  - Europe: 48%
  - Middle East & Africa: 40%
  - Asia Pacific: 47%

- Requirements not understood by leadership
  - Global: 42%
  - North America: 42%
  - Latin America: 45%
  - Europe: 41%
  - Middle East & Africa: 50%
  - Asia Pacific: 40%

- Business conditions can't support additional personnel
  - Global: 41%
  - North America: 41%
  - Latin America: 46%
  - Europe: 39%
  - Middle East & Africa: 45%
  - Asia Pacific: 39%

- Security workers difficult to retain
  - Global: 31%
  - North America: 34%
  - Latin America: 21%
  - Europe: 27%
  - Middle East & Africa: 30%
  - Asia Pacific: 33%

- No clear information security career path
  - Global: 31%
  - North America: 28%
  - Latin America: 39%
  - Europe: 31%
  - Middle East & Africa: 39%
  - Asia Pacific: 37%

Source: 2017 Global Information Security Workforce Study, (n = 12,709)
Asia-Pacific is only slightly better off than the rest of the world when it comes to having the right number of information security workers.
Non-IT/Engineering Background by Region

- Global: 30%
- North America: 35%
- Latin America: 18%
- Europe: 24%
- Middle East & Africa: 29%
- Asia Pacific: 22%

Source: 2017 Global Information Security Workforce Study, (n = 16,210)
Jobs in High Demand

- C-Level executives
- Risk Analysts & Management
- Research
- Policy Makers & Strategists
- Operations & Security Management
- Law, legal, regulatory expertise
- Engineering, Architecture & Design
- Enduser Awareness Education and Training
- Forensics, Incident & Threat Management

Source: (ISC)² 2017 GISWS
Japan: Experienced, Overworked Workforce

35% 15+ Years Experience

44% 40 - 49 Years Old

48% Work 50+ Hours Per Week

68% Too Few Security Workers

65% Don’t Expect Better Performance if Breached

48% Organization Security is Stronger
Japanese Workforce Focus Areas

- Governance, risk management, and compliance (GRC)
- Security leadership
- Security management
- Security operations
- Incident response
- Provide advice on security to customers
- Researching new technologies
Skills Needed Within the Japanese Workforce

- Analytical skills
- Communications skills
- Data/information centric approaches to security
- Governance, risk management, and compliance (GRC)
- Incident investigation and response
- InfoSystems and security operations management
- Risk assessment and management
- Cloud Computing and Security
- Virtualization
- Service level agreement skills
- Industrial Control Systems
Workforce Age Composition in APAC

Millennials (below 29 years old) comprise the majority of the workforce and will continue to grow.

Note: Assumes the full population in a particular age group is all counted in the working population (Age 15-64)


Source: CBRE GLOBAL RESEARCH
Hiring Manager Disconnect

Top Skills Prioritized By Millennials
- Cloud Computing and Security: 54%
- Risk assessment and management: 45%
- GRC: 39%
- InfoSystems and security operations management: 35%
- Incident investigation and response: 34%
- Data centric approaches: 31%
- Communications skills: 31%
- Analytical Skills: 28%

Top Skills Prioritized By Hiring Managers
- Communications skills: 66%
- Analytical Skills: 59%
- Risk assessment and management: 46%
- Cloud Computing and Security: 38%
- InfoSystems and security operations management: 37%
- Platform or technology specific skills: 35%
- GRC: 34%
- Data centric approaches: 30%
Understanding Millennial Perspectives

What did we learn about Millennials?
Millennials Value Diversity

% Who Say Role Diversity is Very Important

- **MILLENNIALS** (Up to 29 years old): 46%
- **GEN X** (30-44 years old): 38%
- **BOOMERS** (45+ years old): 31%
Millennials Place Value on Mentorship and Leadership Programs

% Who Believe Mentorship Programs are Very Important

- Millennials: 46%
- Gen X: 38%
- Boomers: 31%

% Who Believe Executive Leadership Programs are Very Important

- Millennials: 36%
- Gen X: 28%
- Boomers: 22%
What Attracts Millennials?

- Improving compensation packages
- Training programs
- Encouraging and paying for attendance at industry events
- Mentorship & executive leadership programs
- Paying for professional memberships
- Role diversity
(ISC)² APAC Membership Counts

Australia (2160 Members; 41 Associates)
New Zealand (239 Members; 7 Associates)
India (1988 Members; 49 Associates)
UK (6495 Members; 212 Associates)
Indonesia (112 Members; 2 Associates)
Thailand (214 Members; 3 Associates)
Japan (1918 Members; 75 Associates)
Singapore (1689 Members; 55 Associates)
Korea, South (2828 Members; 304 Associates)
China (1510 Members; 81 Associates)
Hong Kong (1513 Members; 43 Associates)
Philippines (114 Members; 2 Associates)
Malaysia (303 Members; 5 Associates)