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Hearing Voices: The Cybersecurity Pro's View of the Profession

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Project Overview

- Third annual project

- 267 completed online surveys from ISSA member list +

- Small, mid-market, and enterprise organizations
  - 34% small, 6% mid-market, 60% enterprise
  - 90% North America, 10% ROW

- Multiple industries including information technology, financial, government, business services...
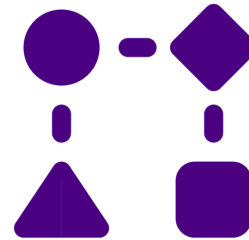
Cybersecurity Skills Shortage

74% of organizations have been impacted by the cybersecurity skills shortage

| Category	Percentage
Increasing workload on existing staff	66%
Inability to fully learn or utilize some of our security technologies to their full potential	47%
My organization has had to hire and train junior employees rather than hire people with the appropriate level of cybersecurity skills needed	41%
Cybersecurity staff has limited time to work with business units to align cybersecurity with business processes	40%

Balance of Power

- **60%** — In general, cyber-adversaries have a big advantage over cyber-defenders
- **34%** — In general, cyber-adversaries have a marginal advantage over cyber-defenders
- **2%** — In general, cyber-adversaries have no advantage over cyber-defenders
- **4%** — In general, cyber-defenders have a marginal advantage over cyber-adversaries

New Responsibility: Data Privacy

40%

45%

8%

7%
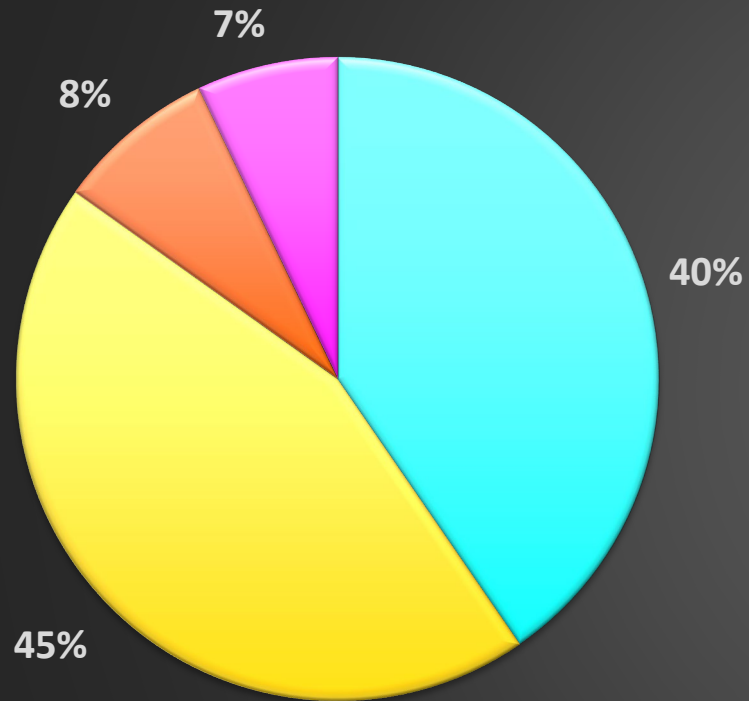
21% of cybersecurity professionals do not believe they have been given clear direction on data privacy

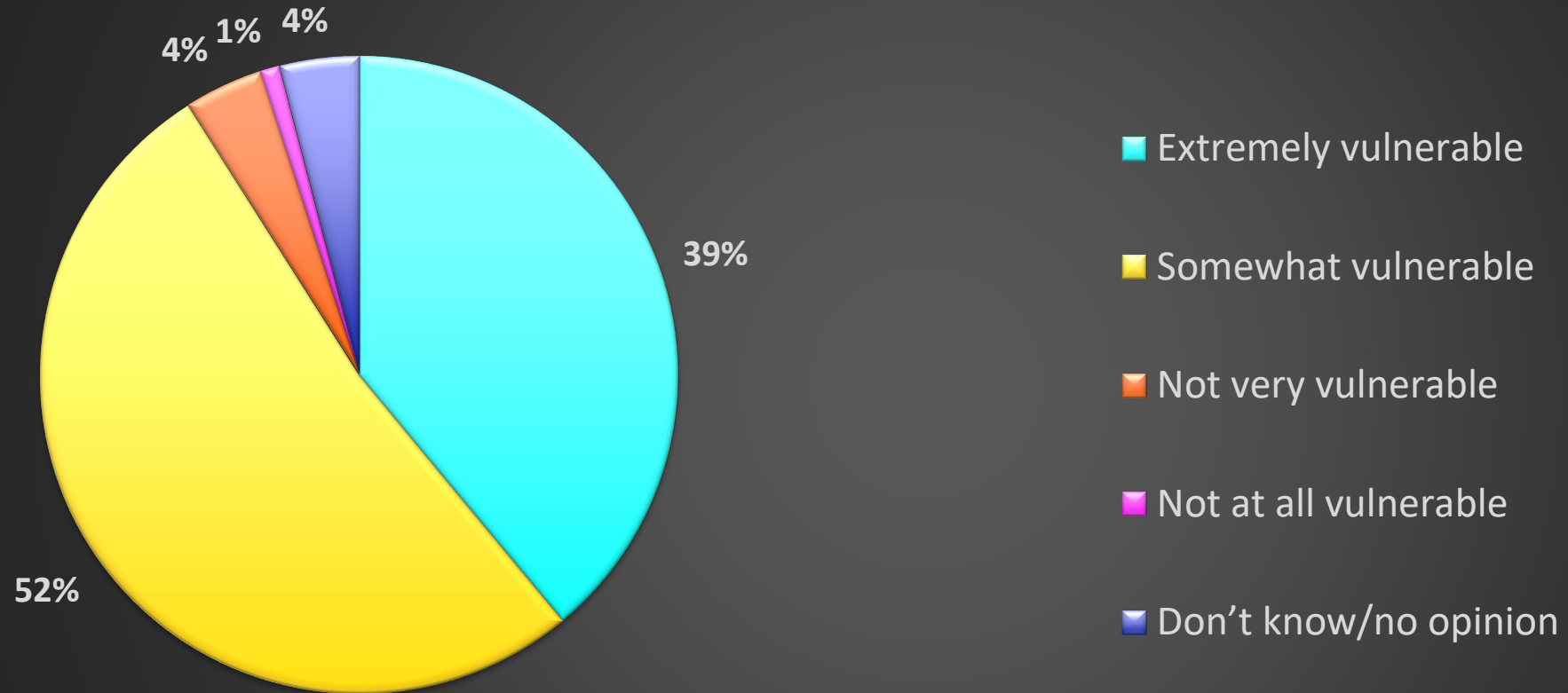- Yes, significantly
- Yes, somewhat
- No, but we will be asked to do so in the near future
- No

23% of cybersecurity professionals do not believe they have been given right level of training on data privacy

Widespread Vulnerabilities

Cybersecurity Professional's Opinions

93% agree
Cybersecurity professionals must keep up with their skills or the organizations they work for are at a significant disadvantage against today's cyber-adversaries

66% agree
A cybersecurity career can be taxing on the balance between one's professional and personal life

66% agree
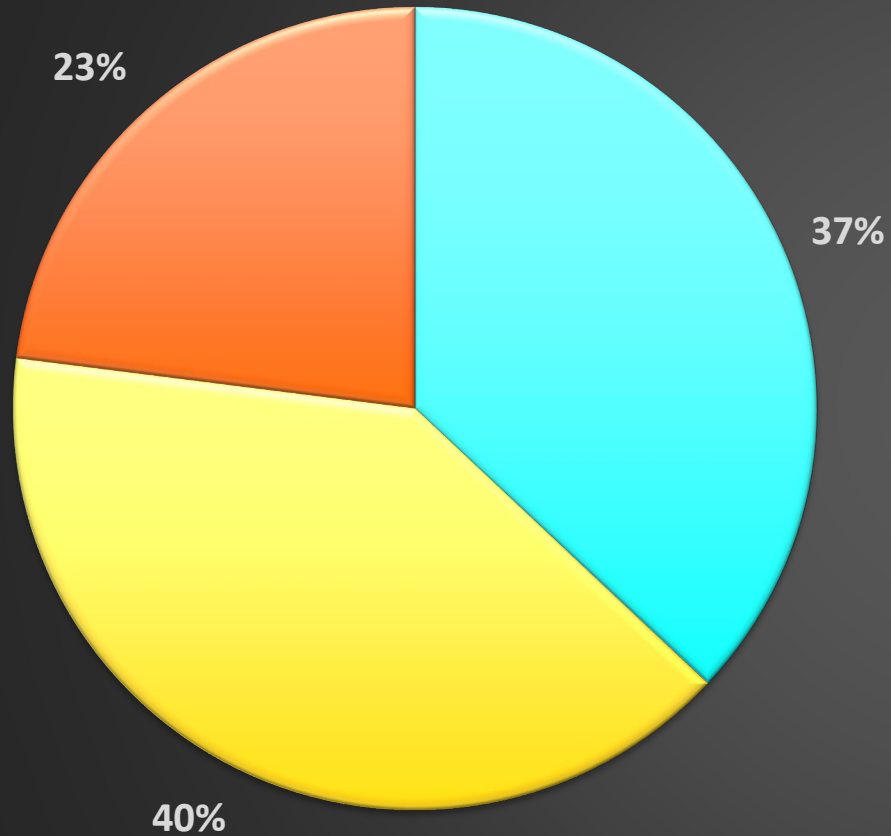While I try to keep up on cybersecurity skills, it is hard to do so given the demands of my job

57% agree
Security certifications are far more useful for getting a job than they are for doing a job

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Training Levels

Pie chart:
- Yes — 37%
- No, my organization should provide a bit more training so the cybersecurity team can keep up with business and IT risk — 40%
- No, my organization should provide significantly more training so the cybersecurity team can keep up with business and IT risk — 23%

Job Satisfaction

40%: Organization provides support and financial incentives enabling cybersecurity staff to advance their careers

38%: Competitive or industry leading financial compensation

34%: Business management's commitment to strong cybersecurity

34%: The ability to work with a highly-skilled and talented cybersecurity staff

30%: Organization provides opportunities for career advancements and promotions

Stressful Aspects of a Cybersecurity Career

40%: Keeping up with the security needs of new IT initiatives

39%: Finding out about IT initiatives/projects that were started by other teams within my organization with no security oversight

38%: Trying to get end-users to understand cybersecurity risks and change their behavior accordingly
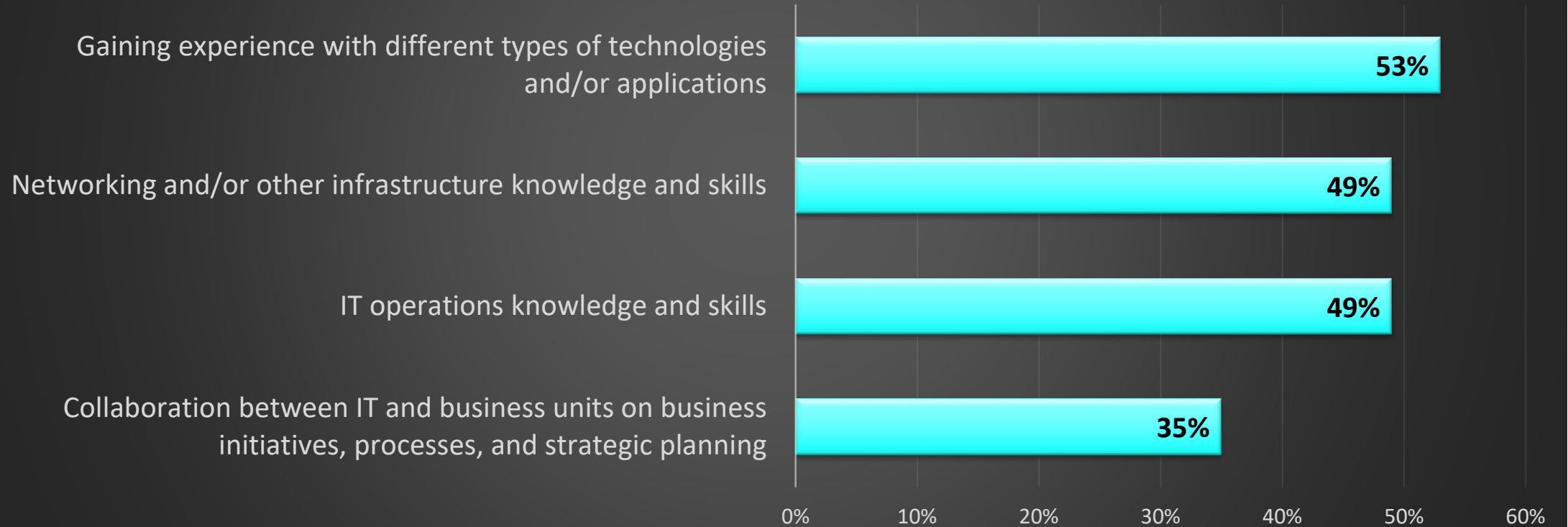
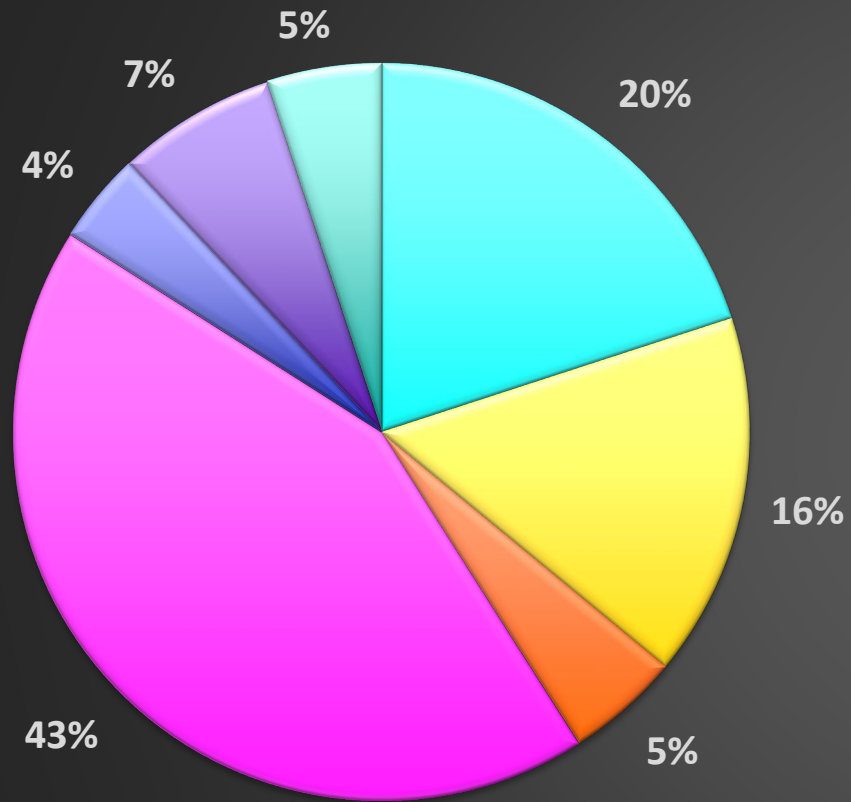**37%:** Trying to get the business to better understand cyber-risks

36%: The overwhelming workload

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Career Success Factors

As a former IT professional, which of the following were most helpful when you moved on to a career as a cybersecurity professional? (Percent of respondents, N=211, three responses accepted)

Gaining experience with different types of technologies and/or applications	53%
Networking and/or other infrastructure knowledge and skills	49%
IT operations knowledge and skills	49%
Collaboration between IT and business units on business initiatives, processes, and strategic planning	35%

0%   10%   20%   30%   40%   50%   60%

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Career Advancement

- 20% — A mentor or a career coach to help me define a uniquely personal path
- 16% — A standardized career map with progressive training, education, certifications outlined according to job titles or responsibilities
- 5% — Technical training curriculum map
- 43% — Combination of the above
- 4% — Other
- 7% — None of the above
- 5% — Don't know

KSAs
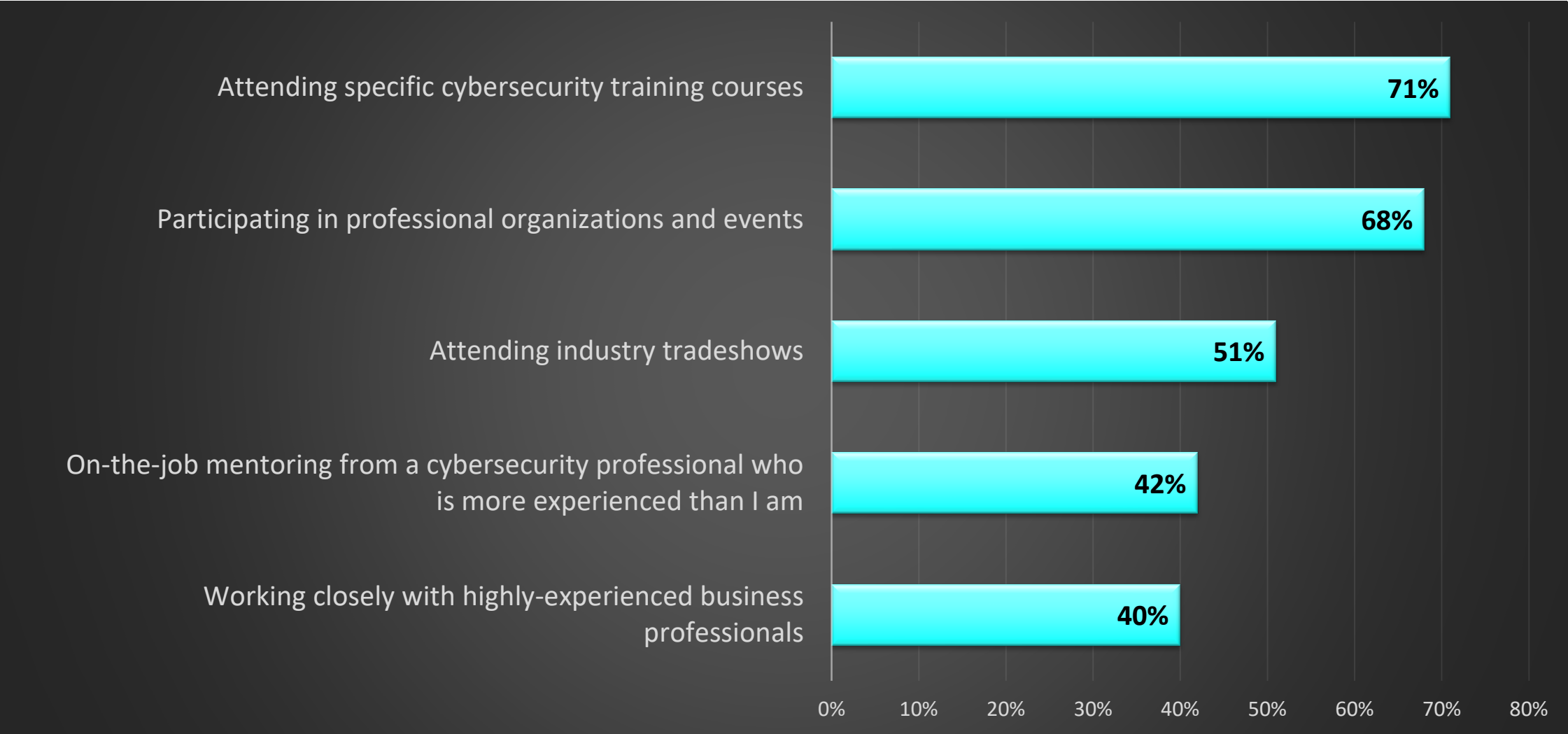
Certification Value

CISSP

CISM

CompTIA Security+

CISA

CEH

Other

Skills Shortage and Opportunities

33%: Cloud computing security

32%: Application security

30%: Security analysis and investigations

21%: Risk and/or compliance administration

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Future Actions

42%: Add cybersecurity goals as metrics to IT and business managers

42%: Provide more cybersecurity training to the cybersecurity team

41%: Increase cybersecurity budgets

40%: Provide more cybersecurity training to non-technical employees

39%: Hire more cybersecurity professionals

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