

RSA[®]Conference2019

San Francisco | March 4–8 | Moscone Center



BETTER.

SESSION ID: AST1-W02

Results of the (ISC)² Workforce Survey

John McCumber

Director of Cybersecurity Advocacy, North America

(ISC)²

@johnmccumber



#RSAC

Agenda

- Fresh Insights
- Workforce Gap
- Challenges & Opportunities
- Benchmarks

New Focus. Fresh Perspective.

- All new methodology
- Challenging old assumptions
- Revealing new opportunities

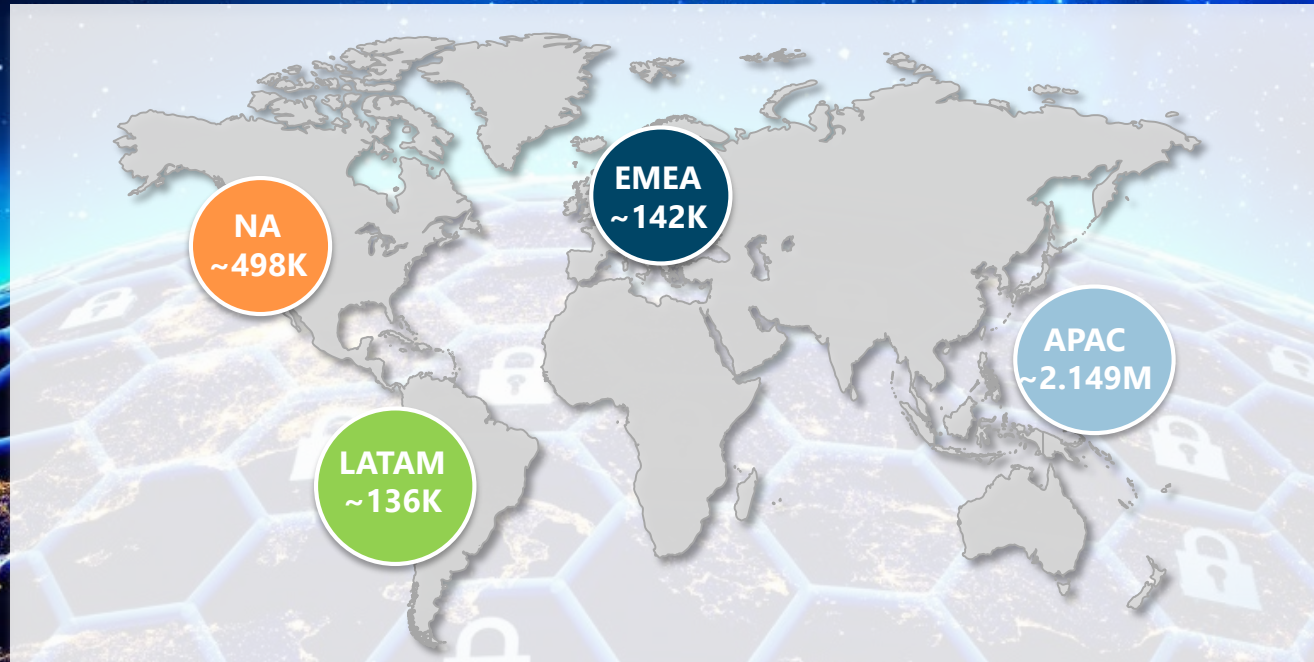
An overhead view of a large wooden conference table with several people seated around it. The people are using various mobile devices: smartphones, tablets, and a laptop. One tablet displays a 'Statistical Analysis' chart. Another tablet shows a 'Progress' chart. A person is also holding a small white box. The scene suggests a collaborative meeting or workshop.

What did we learn?

That's A Big[ger] Gap

2.93
Million

That's A Big[ger] Gap



How Do We Calculate the Gap?

HIRING ORGS

Percent of organizations with open positions (Q22, Q23, Q25)

*

DEMAND

Cybersecurity openings (Q22)
Staff next 12 mo. (Q25)

Balanced by general expectations for cybersecurity staff changes (Q24)

*

LINK TO FULL MARKET

Calculate estimated growth for each company size
Volume of co. by size

—

SUPPLY*

Estimates for academic entrants
Estimates for non-academic entrants
Estimates for training IT pros

=

GAP

Gap in Cybersecurity Professionals

Geo: US	Median Cybersecurity Hires (Current market + future need, balanced)	Total Hiring Entities (link to full market)	Total Hiring Demand (link to full market)	Supply
Small (1-50)	7.26	8,001	58,084	
Small (51-100)	12.98	8,988	116,666	
Mid-market (101-250)	13.76	15,088	207,612	
Mid-market (251-500)	26.09	3,866	100,872	
Enterprise (501-1,000)	43.39	2,492	108,137	
Enterprise (1K+)	38.35	3,516	134,849	
				New Academic Entrants: 19,000 New Non-Academic Entrants: 164,763 Training IT Pros: 87,656
			726,219	271,419
Geo: Rest of World	Median Cybersecurity Hires (Current market + future need, balanced)	Total Hiring Entities (link to full market)	Total Hiring Demand (link to full market)	Supply
Small (1-99)	4.00	214,886	844,963	
Mid-market (100-499)	8.00	383,995	2,692,984	
Enterprise (500+)	12.00	19,561	273,573	
				Training IT Pros: 1,341,498
			3,811,520	1,341,498

**US
GAP:**

454,800

**ROW
GAP:**

2,470,022

Global Gap in Cybersecurity Professionals: 2,924,822

That's A Big[ger] Gap

59%

say their org is at extreme or moderate risk due to staff shortage

McCumber Take #1

- The gap is more than a **BIG** number
- What does it mean?
- Time to focus



Just Hire More

A group of diverse business professionals, including men and women of various ethnicities, are standing in an office environment. They are dressed in business casual attire. A semi-transparent white rectangular box is overlaid on the center of the image, containing the text '48%' in large orange font and 'expect cybersecurity staffing to increase in the next year' in smaller black font.

48%

*expect cybersecurity staffing to increase in
the next year*

More Women!

24%

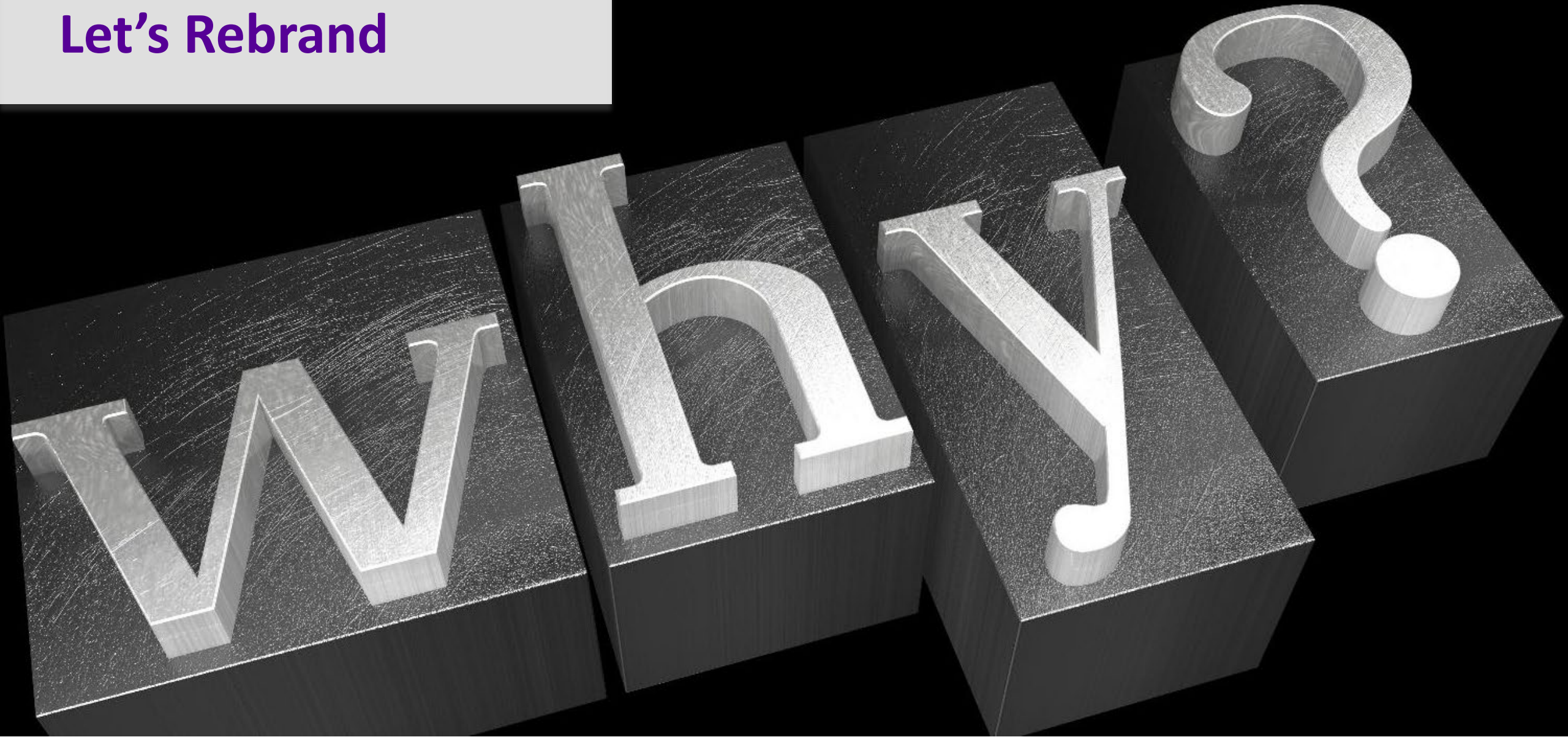
of cybersecurity pros are women

More Millennials

35%

of cybersecurity pros are Millennials or Gen Y

Let's Rebrand



McCumber Take #2

- It's all of the above
- Better understanding
- Clearer picture of real challenges you face



It's a Good Job

68%

of cybersecurity pros are very or somewhat satisfied



The Right Spending

55%

expect cybersecurity spending
to increase

70%

satisfied with current
cybersecurity spending

Help Wanted!

49%

*relevant cybersecurity
work experience*

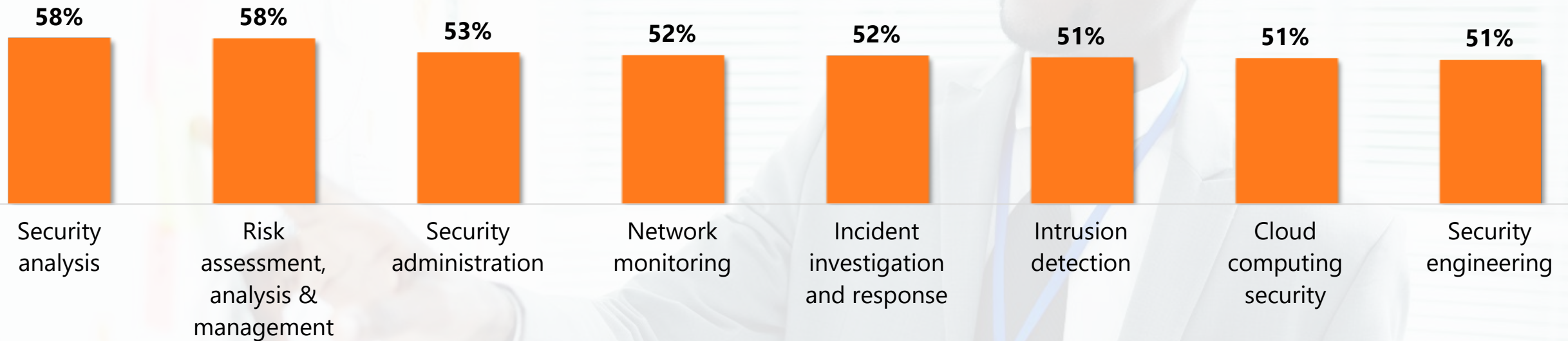
47%

*knowledge of
advanced
cybersecurity concepts*

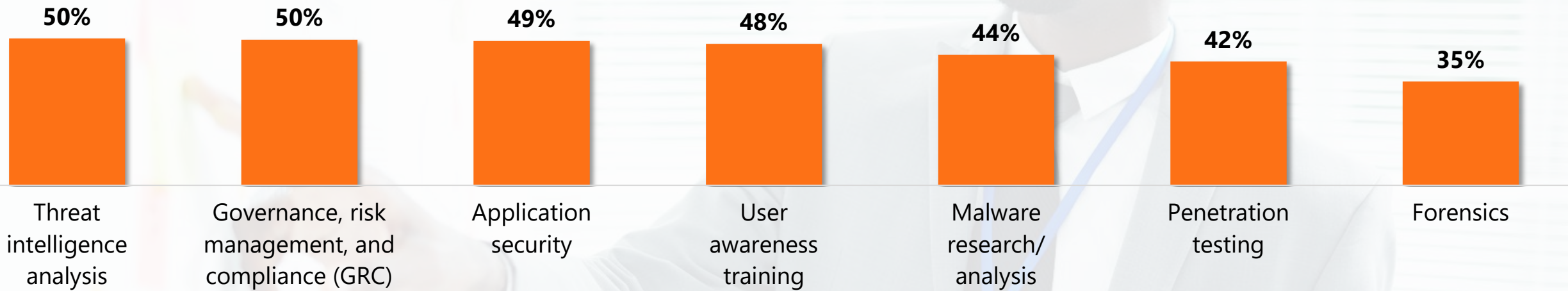
43%

*cybersecurity
certifications*

Help Wanted!



Help Wanted!



Top Challenges

25%

*low security awareness
among users*

23%

*too much data
to analyze*

21%

*lack of management
support or awareness*

Career Blockers

34%

*unclear career path for
cybersecurity roles*

32%

*lack of organizational
knowledge of cybersecurity
skills*

28%

*cost of education to
prepare for cybersecurity
career*

McCumber Take #3

- Focus.Focus.Focus.
- Invest in your talent
- Invest in yourselves



Staying Sharp

Certifications Most Important

Beginning Your Career 38%

Advancing Your Career 56%

Maintaining Your Career 54%



Staying Sharp

Training Most Important

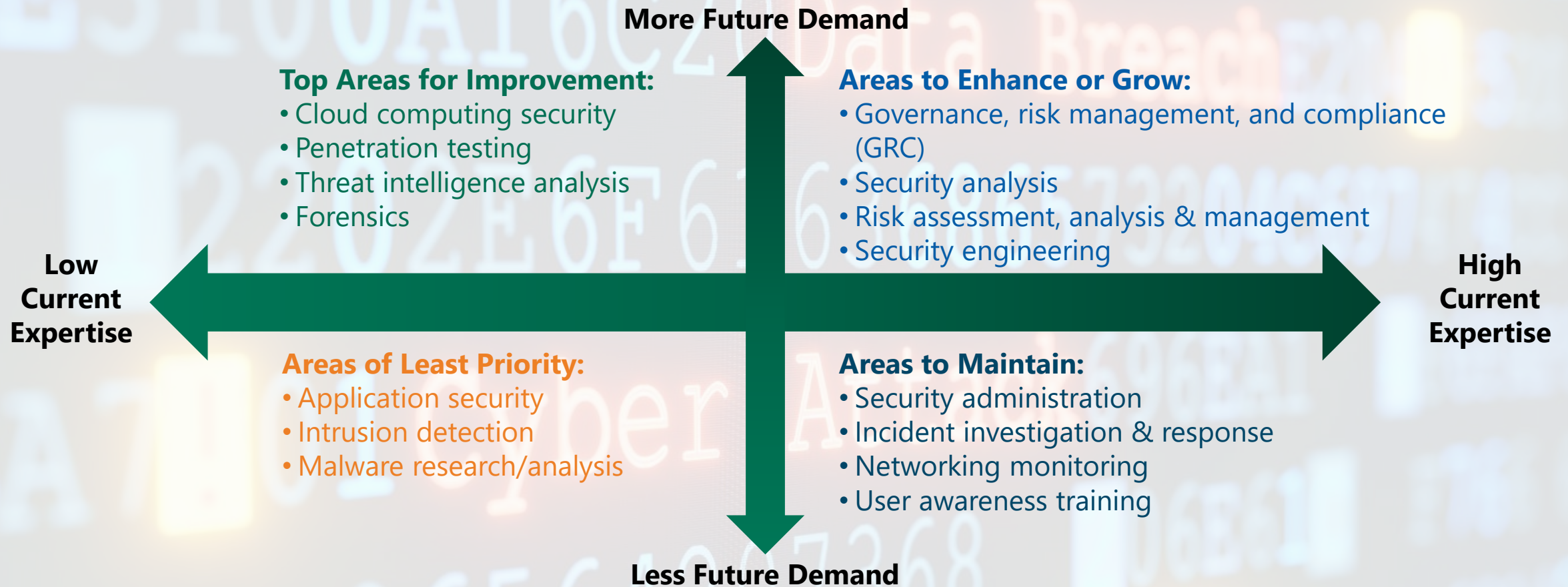
Beginning Your Career 51%

Advancing Your Career 66%

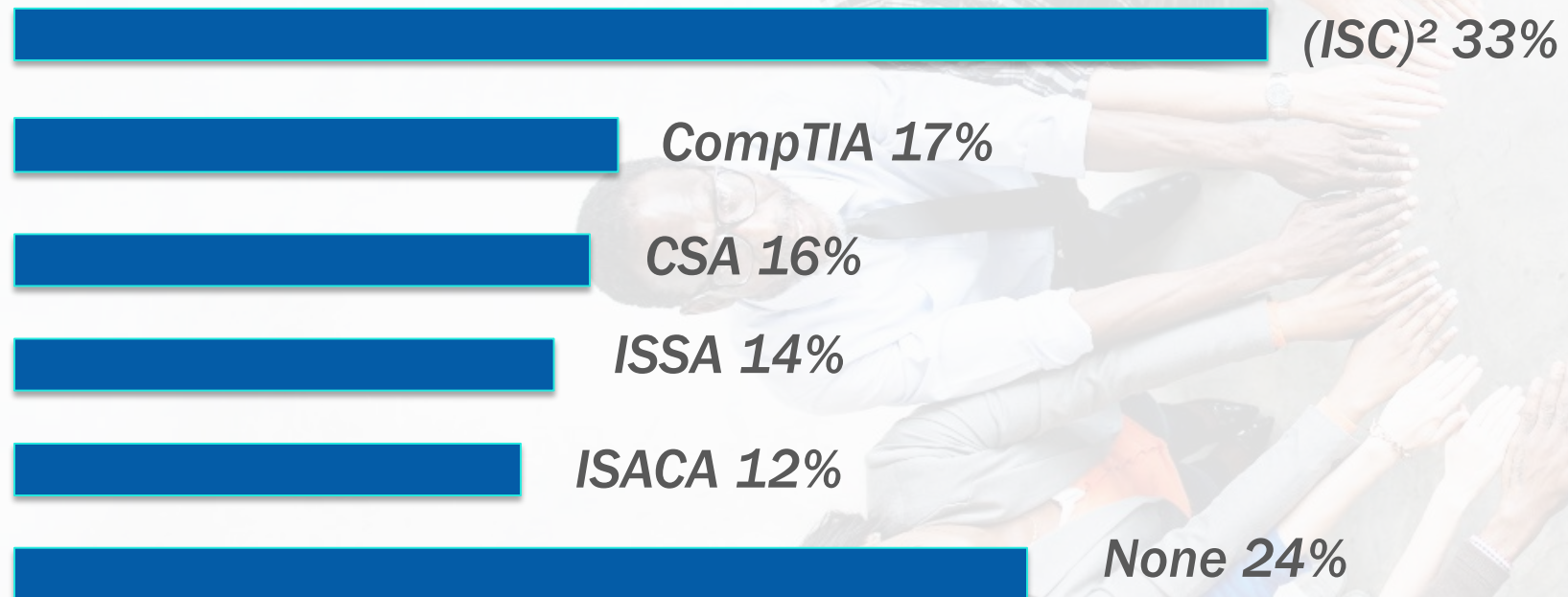
Maintaining Your Career 65%



Priorities Straight?



In Good Company



Top Certifications Being Pursued



17%



15%



13%



11%



11%

CCNA Security – Cisco Certified Network Associate Security – 10%

CCNA Cyber Ops – Cisco Certified Network Associate Cyber Ops – 10%

CCNP Security – Cisco Certified Network Professional Security – 9%

CEH – Certified Ethical Hacker – 7%

SCYBER – Cisco Cyber Security Specialist Program – 7%

CISM – Certified Information Security Manager – 6%

CIW – Certified Internet Webmaster Security Analyst -6%

CompTIA Security+ - 5%

Development Trends

54%

*pursuing certification within
the next year*

35%

*face-to-face training is the
most valuable*

51%

*satisfied with employer's
training*

Development Trends

42%

*need more time for training
and development*

31%

*want more cross-training with
other departments*

31%

*want more follow-up after
training to ensure it aligns
with career goals*

Applying What We've Learned Today

- People aspect is critical
- Some data is ambivalent
- Focus, Study, Invest
- Great job, good pay
- Key is the right employer





Thank You!

(ISC)² Cybersecurity Workforce Study, 2018

www.isc2.org/research