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Exabeam 2020

Cybersecurity Professionals Salary, Skills and Stress Survey

Compensation, Job Satisfaction, Education and Technology Outlook

Overview

REPORT **THE EXABEAM 2020 CYBERSECURITY** Professionals Salary, Skills and Stress Survey is based on a global survey of 351 security professionals conducted in August 2020. Similar to last year's survey, the goal of the study was to gain insights into trends in security professionals' salaries, their education levels, job satisfaction, attitudes towards new emerging technologies, and workplace stress. This year, three trends stood out — high levels of job satisfaction and job security, the importance of education for both new and existing workers, and diversity in the workplace.

Note: All salaries were converted to U.S. dollars after answering survey questions about salary. The resulting income numbers do not represent regional differences in income and cost of living, which can be a significant factor when evaluating salary.

Contents

Key Insights

HIGH LEVELS OF JOB SATISFACTION

An overwhelming majority (96%) of cybersecurity professionals are happy with their role and responsibilities and 87% reported they are pleased with their salaries and earnings, which re-enforces the notion that security is a lifestyle.

DESPITE THE CURRENT ENVIRONMENT, MOST RESPONDENTS ARE SECURE IN THEIR JOBS.

Only 1% report feeling insecure about their positions despite the challenges of a dynamic threat landscape.

GREATER DIVERSITY WITH MORE WOMEN ENTERING THE FIELD, BUT EARN LOWER WAGES

This year 21% of respondents were women, compared to 9% in 2019. Despite median salary ranges being equal for men and women in Germany, individually women reported making less than their male counterparts, with the exception of Singapore. With more remote workers, greater diversity in the future is likely to occur within the cybersecurity industry, which opens up opportunities for new approaches and innovation.

CYBERSECURITY PROFESSIONALS ARE HIGHLY EDUCATED

Respondents overwhelmingly have college degrees and consider continuing education critical to their jobs. Forty-three percent report having a master's degree, perhaps indicating the increasing need for cybersecurity professionals to better align with business initiatives.

AUTOMATION MAKES JOBS EASIER, BUT VIEWED AS A THREAT

Forty-seven percent of cybersecurity professionals view automation as a threat to their jobs. Automation provides workers with the opportunity to continue to invest in their education and training.

96%

of those surveyed feel satisfied or very satisfied with their positions and responsibilities.

53%

of professionals cite they are stressed or very stressed by their jobs.

48%

of respondents believe threat intelligence can help them improve the ability to do their jobs in the future.

89%

of respondents reported feeling secure or very secure in their jobs.

50%

of respondents believe threat intelligence can help them do their jobs.

ADDITIONAL INSIGHTS

- **STRESS LEVELS ARE HIGH DESPITE HIGH JOB SATISFACTION AND JOB SECURITY.** Fifty-three percent of respondents indicated their job stress levels were high, highlighting the need for leadership to take better care of employees to avoid burnout.
- **ON THE JOB TRAINING IS THE MOST SIGNIFICANT** challenge facing young professionals entering the cybersecurity industry.
- **WORK/LIFE BALANCE WAS CITED AS ONE OF THE MOST SATISFYING** of cybersecurity professional jobs.
- **FIFTY PERCENT BELIEVE THREAT INTELLIGENCE WOULD IMPROVE** their ability to do their jobs in the future.
- **CLOUD AND APPLICATION SECURITY** are emerging areas of responsibilities likely driven by digital transformation.

Salary Trends in The Security Profession

SURVEY PARTICIPANT PROFILES

Seventy-eight percent of respondents identified as male compared to 91% in 2019, indicating an increase in the number of women entering the cybersecurity industry. Forty-four percent of all respondents were between the ages of 35-44, and only 6% were over 55 — perhaps an indication that cybersecurity professionals move into other roles within the IT organization. Twenty-one percent have been with their current employer for more than ten years.

87%

of respondents are satisfied with their salaries.

96%

of cybersecurity professionals have some college or hold a degree.

78%

of security professionals are male.

90%

of professionals reported having at least one security professional certificate.

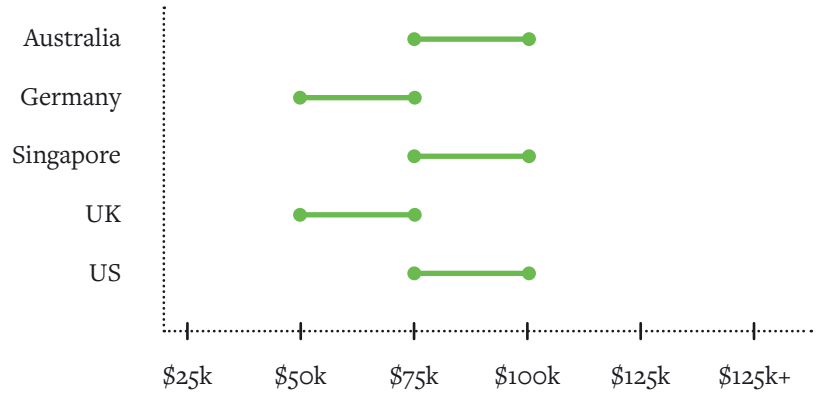
MEDIAN SALARY

The median salary for respondents was between $75,000 - $100,000 per year. Median salaries for the U.S. and Singapore were the highest at $92,000 per year. The U.K. reported the lowest median salary at $64,000 per year.

COUNTRY AND MEDIAN SALARY

Professionals in Australia, Singapore, and the United States reported the highest median salaries with ranges of $75,000-$100,000. Cybersecurity experts in Germany and the United Kingdom reported median salaries with ranges of $50,000-$75,000.

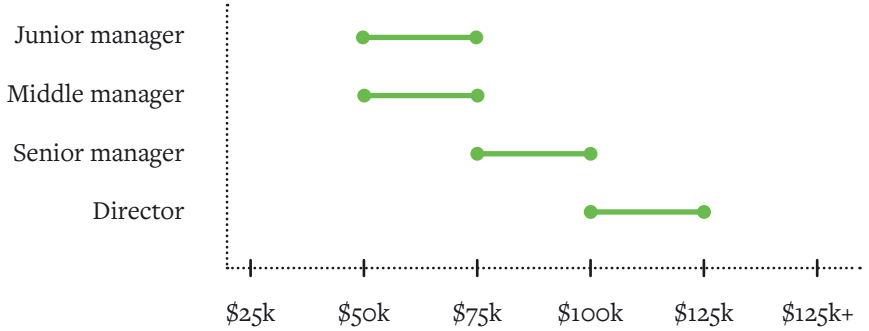
MEDIAN SALARY BY COUNTRY



MEDIAN SALARY BY JOB LEVEL

Based on our survey results, junior managers reported a median salary of $61,000, followed by middle managers median salaries of $71,000. Senior managers and directors cited median salaries of $88,000 and $102,000, respectively.

MEDIAN SALARY BY JOB LEVEL



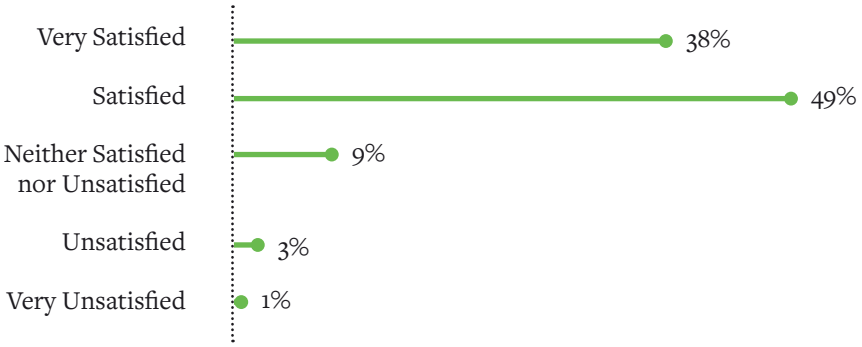
MEDIAN SALARY BY GENDER

Individually, women in all countries except Singapore reported earning less than their male counterparts. On a positive note, median salaries for men and women were equitable in the U.K. and German at $64,000 and $77,000, respectively.

SECURITY PROFESSIONALS AND SALARY SATISFACTION

Eighty-seven percent of cybersecurity professionals report satisfaction with their current salaries. Salary satisfaction was generally similar, regardless of gender, industry, company size, or title. The one notable difference was a lower salary satisfaction reported by respondents without a college degree.

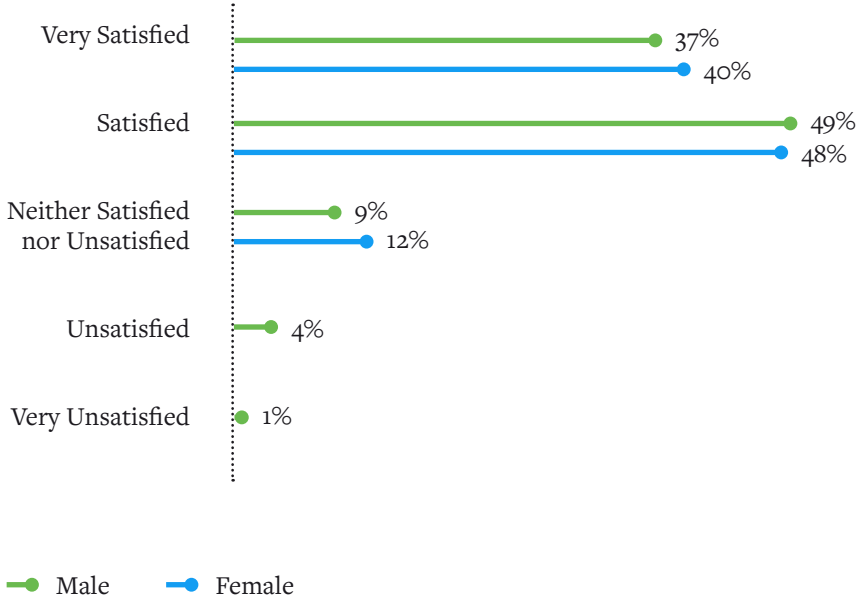
SALARY SATISFACTION



SALARY SATISFACTION BY GENDER

The majority of men and women both reported they were satisfied with their salaries. Eighty-eight percent of women cited being “very satisfied” or “satisfied.”

SALARY SATISFACTION BY GENDER



Trends in Security Profession Roles, Certifications and Education

Professionals in the cybersecurity industry continue to carry multiple responsibilities. New emerging areas of responsibilities include cloud and application.

33%

of participants responded as working with the title information security manager.

9%

of respondents fell outside our general list of positions reported.

6%

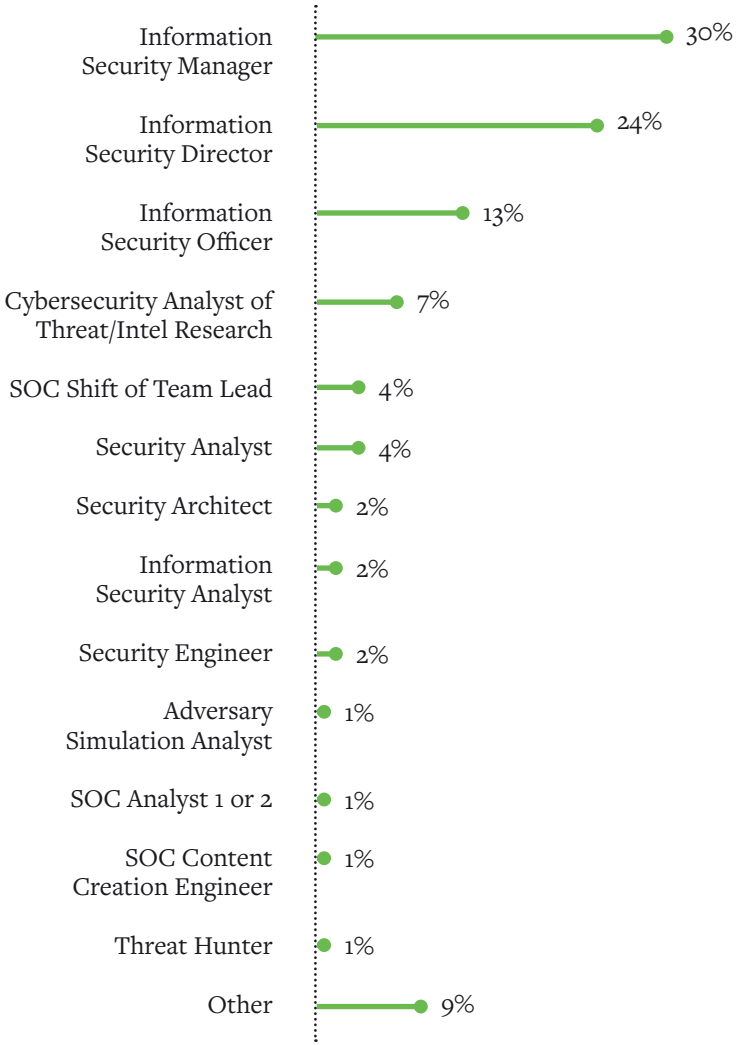
of participants responded as having SOC in their titles.

1%

of respondents noted working with the title of threat hunter

JOB TITLES IN THE INDUSTRY

The top job titles for respondents were information security managers (30%), information security directors (24%), and information security officers (13%).



JOB RESPONSIBILITIES

As in prior surveys, participants carry multiple responsibilities. Of note are emerging duties related to cloud and applications as companies continue their digital transformation journey. Top responsibilities included network security (40%), cloud app security (33%), and leadership (23%) as their principal responsibilities. Packet analysis received the lowest response at 2%.

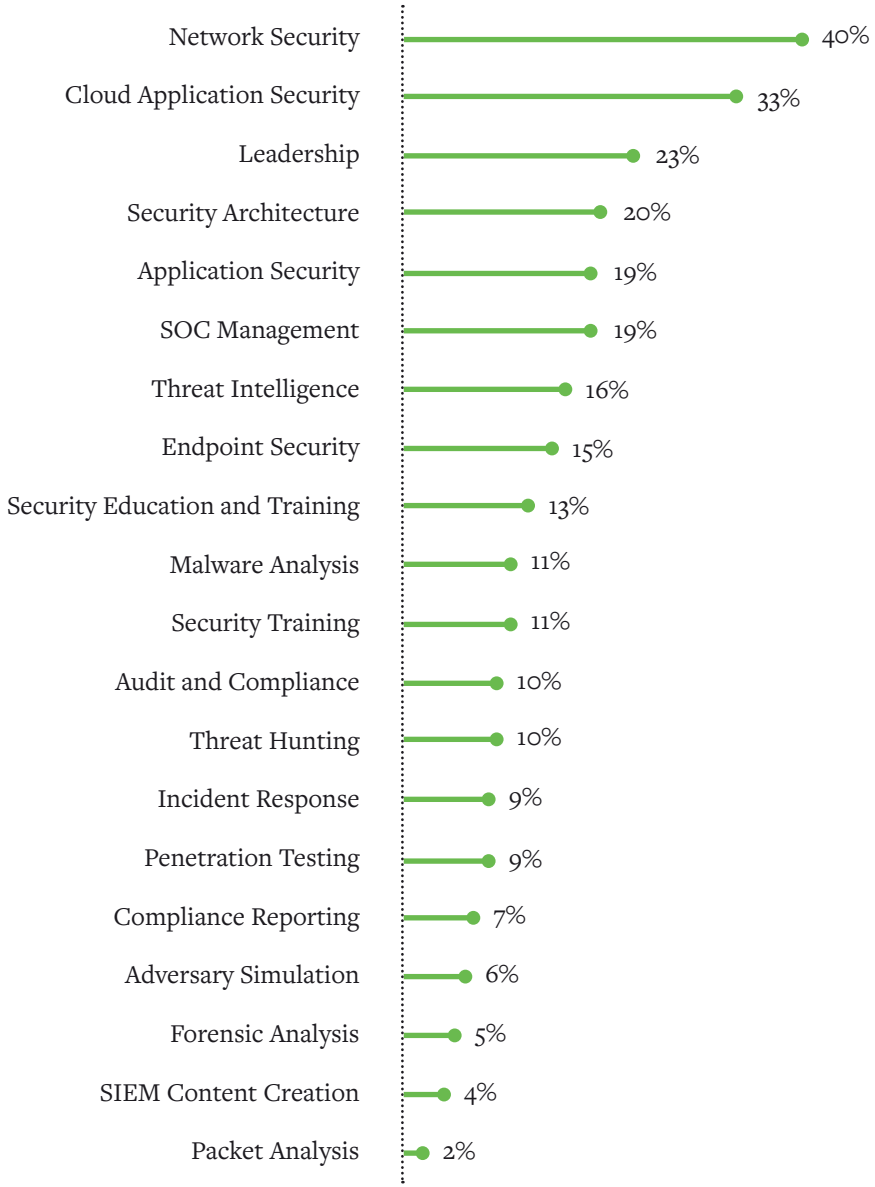
33%

of respondents are responsible for cloud app security.

40%

of professionals citing having responsibility for network security.

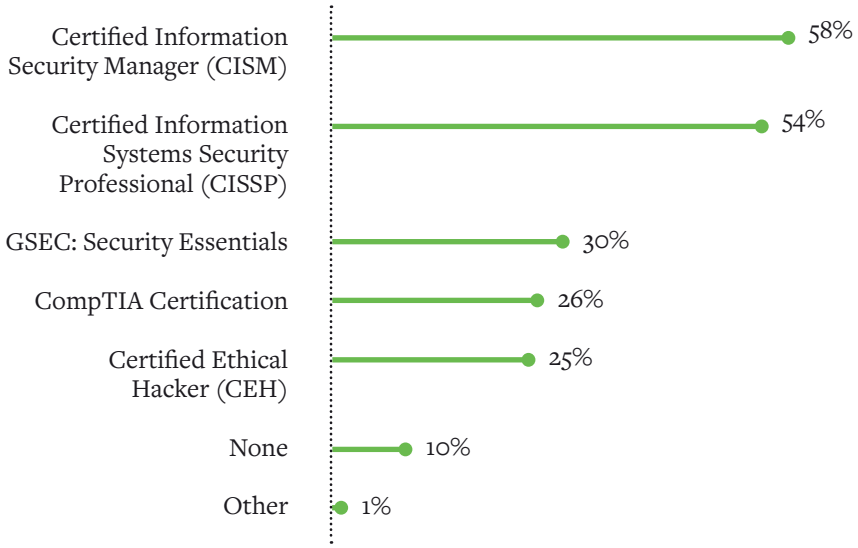
JOB RESPONSIBILITIES



CERTIFICATIONS

Fifty-eight percent of participants reported having the Certified Information Systems Security Manager (CISM), 54% also carry a Certified Information Security (Professional (CISSP) certification. And 26% earned their CompTIA certification. The third most popular accreditation (30%) was Security Essentials (GSEC). Only 10% do not have a professional certificate in cybersecurity.

CERTIFICATIONS



ON-SITE EDUCATION AND TRAINING

Eighty-five percent of participants (85%) reported that they took part in on-site training during their college education or outside of it. Of those who responded, 53% stated that they were in, or had taken, work-related training or professional programs.

Thirty-four percent are participating in some form of continuing education, with most paying for their education with funds from their employers and augmented with their funds. Thirty-three percent fund their education on their own. Sixty-six percent consider themselves self-educated as it relates to cybersecurity.

HOW CONTINUING EDUCATION GETS PAID

EDUCATION & DEGREE PROGRAMS

Respondents overwhelmingly have college degrees, with 38% reporting a bachelor's degree earned and 43% saying a master's degree. The lowest-reported education came from those with high school degrees (4%).

43%

of respondents have a master's degree.

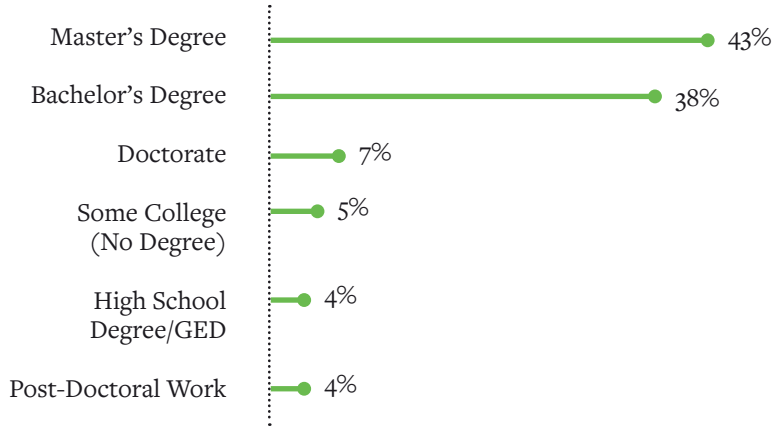
66%

of those surveyed consider themselves self-educated.

33%

of cybersecurity professionals are paying for their continuing education with their funds.

EDUCATION LEVEL



Security Professionals and Career Satisfaction

Compared to security professionals who participated in our 2019 survey, 2020 survey respondents reported higher levels of job satisfaction. Ninety-six percent of cybersecurity professionals indicated they were satisfied with their current positions and responsibilities. There was little variability in career satisfaction based on education, role, industry, company size, or region.

Work/life balance was cited as the most satisfying aspect of their jobs. Conversely, working long hours was the least enjoyable aspect. Ninety-six percent of respondents noted salary is a crucial contributor to job satisfaction, particularly for U.S. cybersecurity professionals.

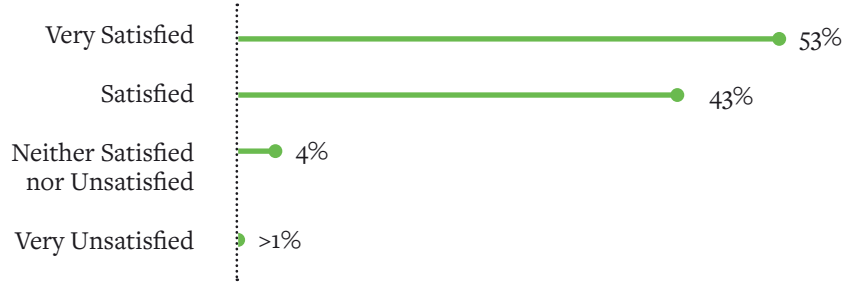
96%

of participating cybersecurity professionals reported they are satisfied with their jobs.

35%

of respondents cited long working hours as the least satisfying aspect of their jobs.

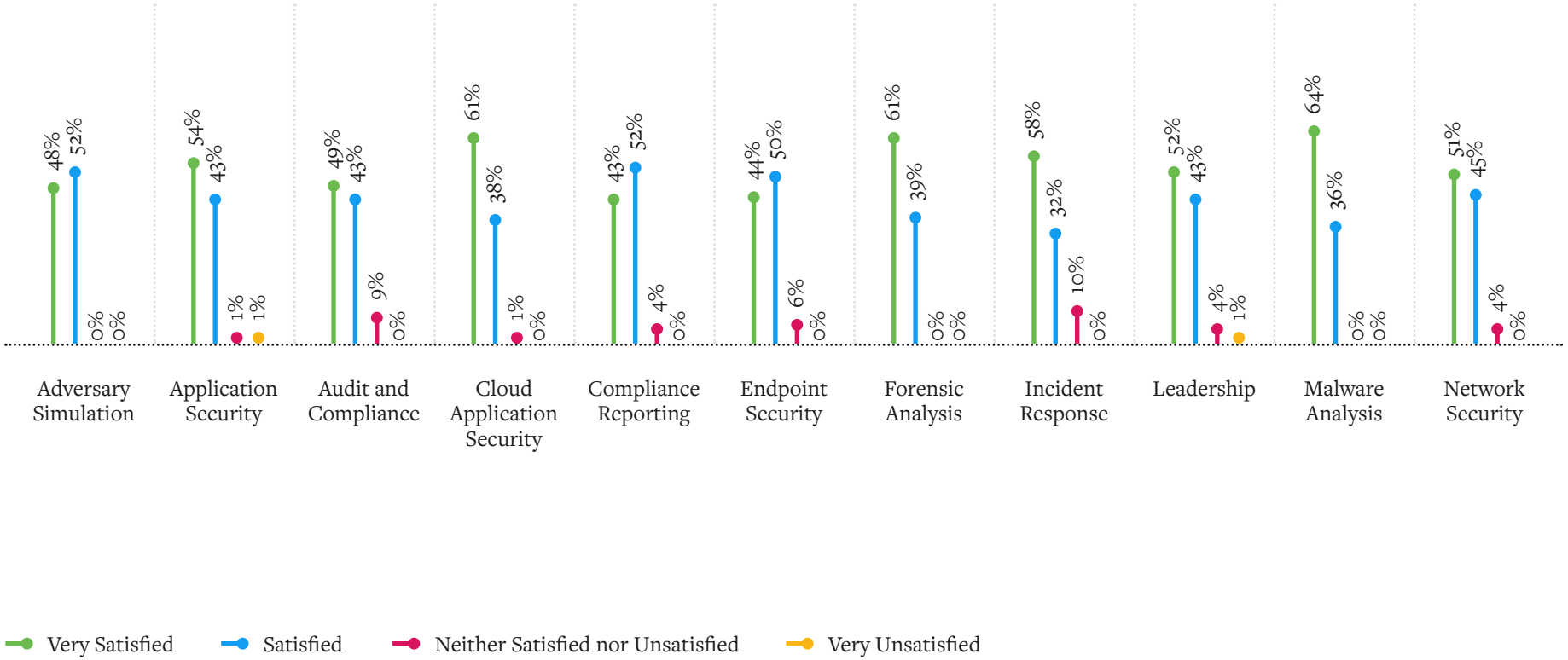
JOB SATISFACTION



JOB SATISFACTION AND RESPONSIBILITY

While most professionals were generally satisfied with their jobs, those responsible for malware analysis and SOC management were very satisfied with their current jobs and responsibilities.

JOB SATISFACTION BY RESPONSIBILITY



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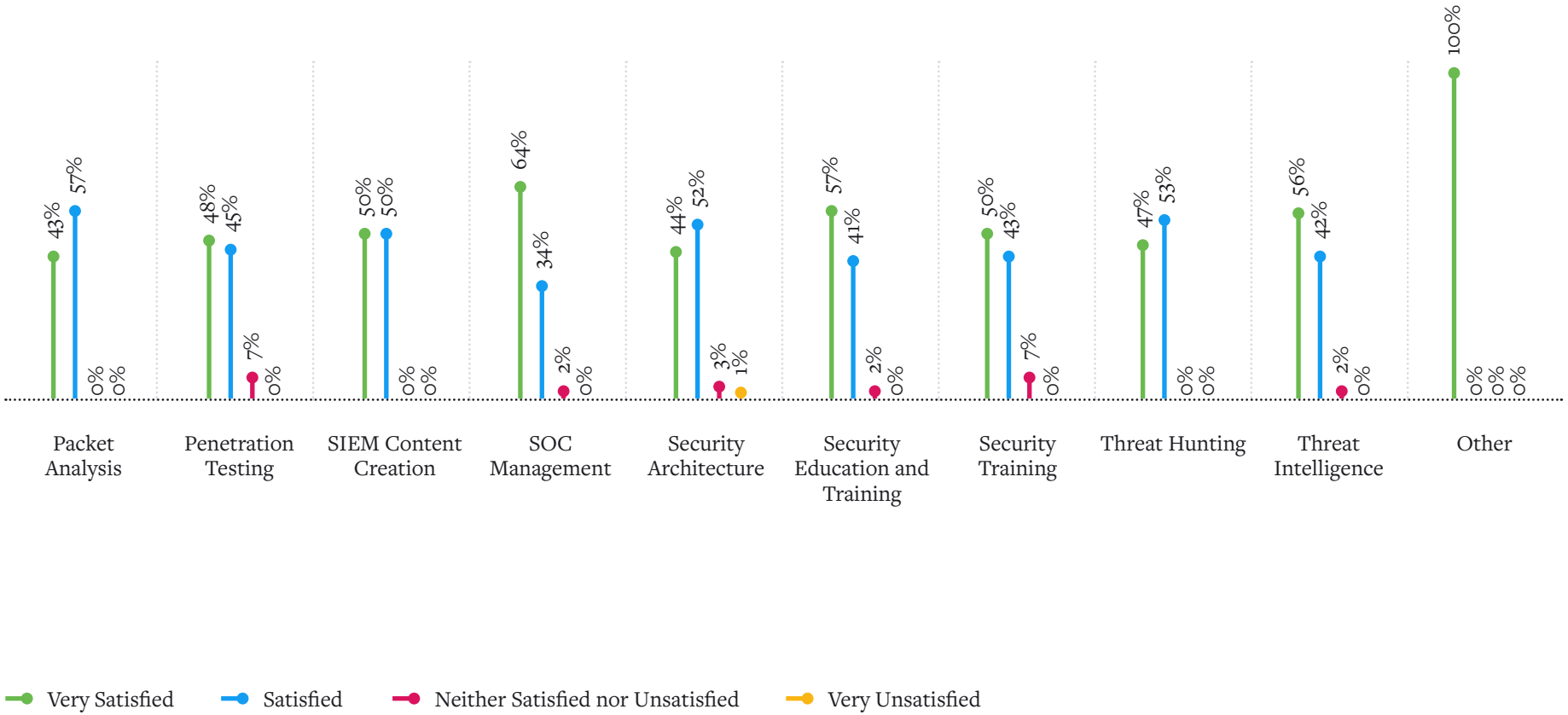
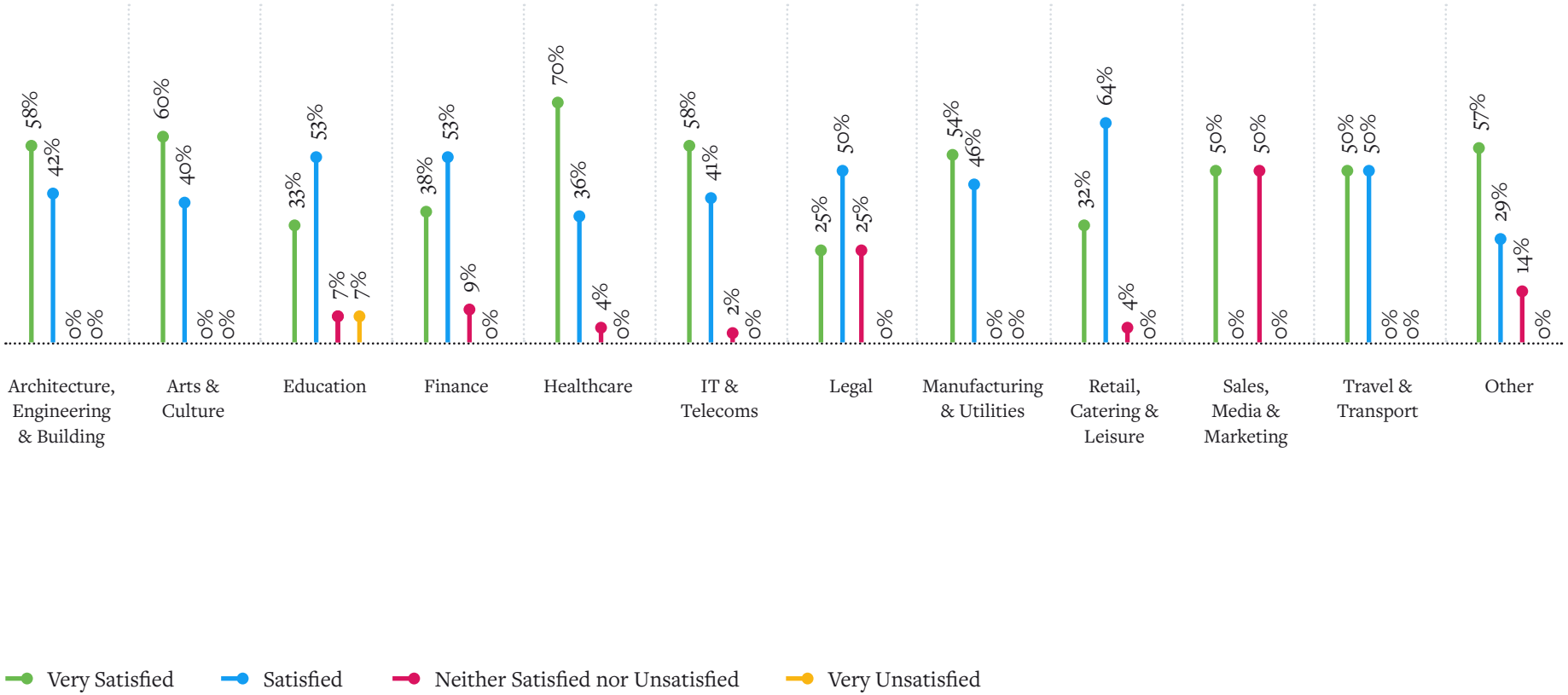
JOB SATISFACTION BY RESPONSIBILITY



JOB SATISFACTION AND INDUSTRY

Job satisfaction based on the industry was similar, with the notable exception of 70% of healthcare professionals noting they were delighted.

JOB SATISFACTION BY INDUSTRY



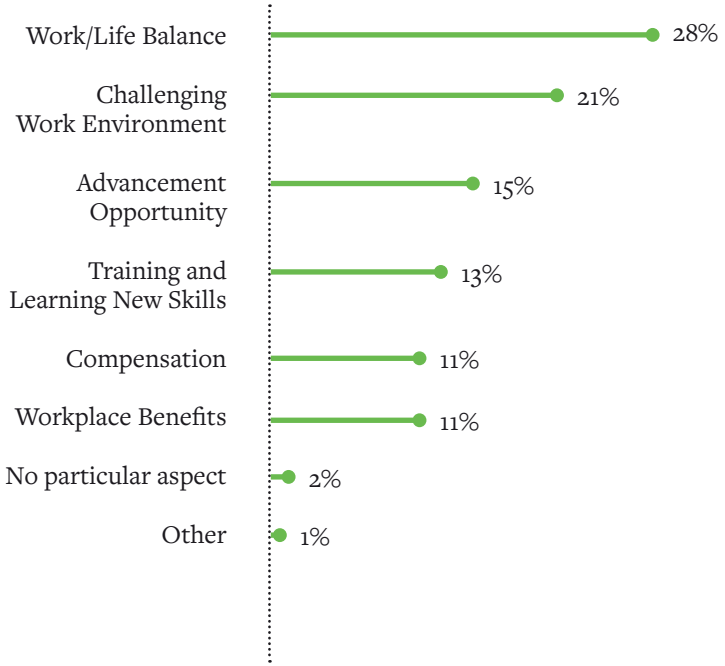
MOST SATISFYING ASPECT OF JOB

Twenty-eight percent of participants claimed work/life balance was their favorite aspect of their jobs. In comparison, 2019 respondents noted a challenging work environment was the most satisfying aspect.

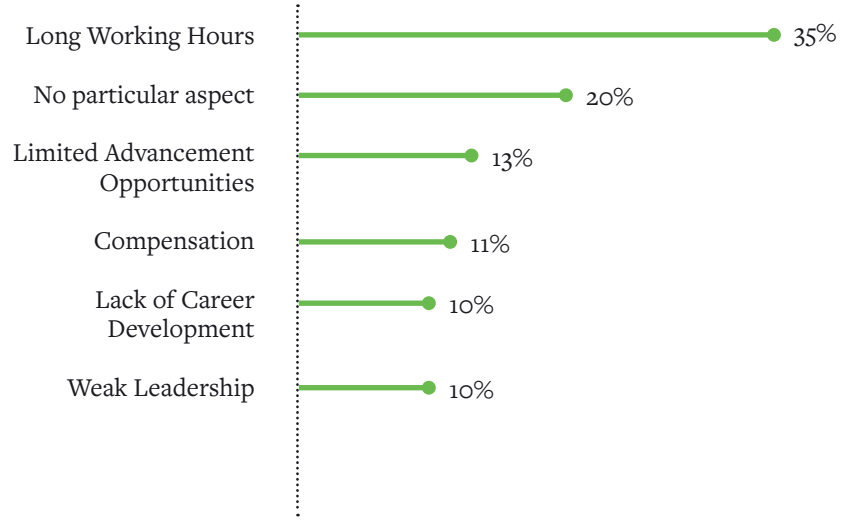
LEAST SATISFYING ASPECT OF JOB

Except for Germany, respondents in all regions noted long working hours as the least satisfying aspect of their job. German respondents cited limited advancement opportunities as the least favorite.

MOST SATISFYING ASPECT OF JOB



LEAST SATISFYING ASPECT OF JOB



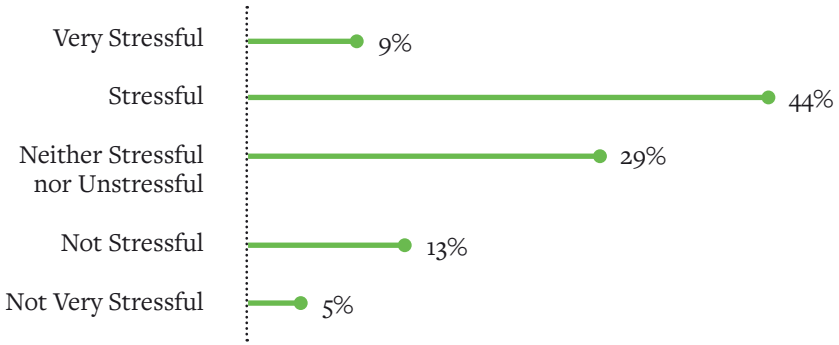
WORK/LIFE BALANCE

Seventy-seven percent of respondents reported a balanced work/life ratio. Six percent said they felt unbalanced, and 1% reported they felt "very unbalanced."

HOW STRESSFUL IS YOUR CURRENT JOB?

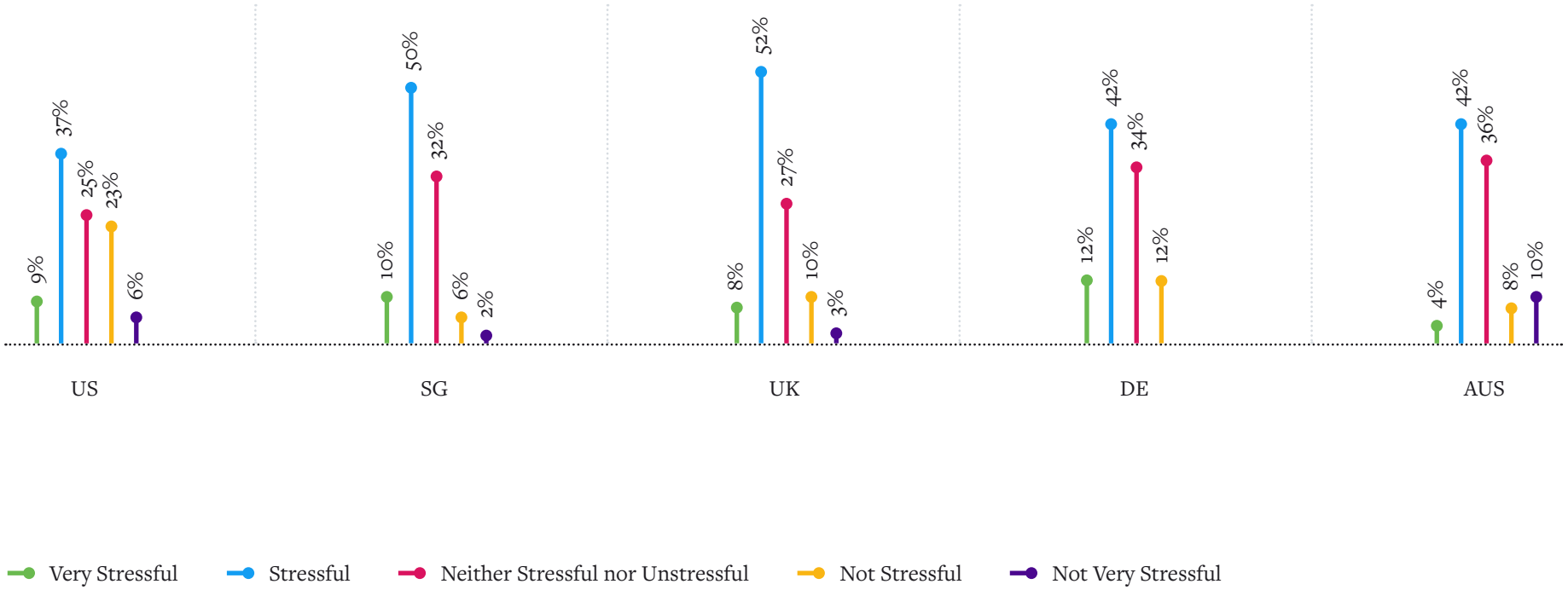
Participants reported significant stress at their jobs, with 53% reporting that they felt their jobs were "stressful" or "very stressful." Eighteen percent reported feeling not stressed.

JOB STRESS LEVEL



JOB STRESS BY REGION

Job stress levels for respondents in U.S. were the lowest at 29% in comparison to other regions.



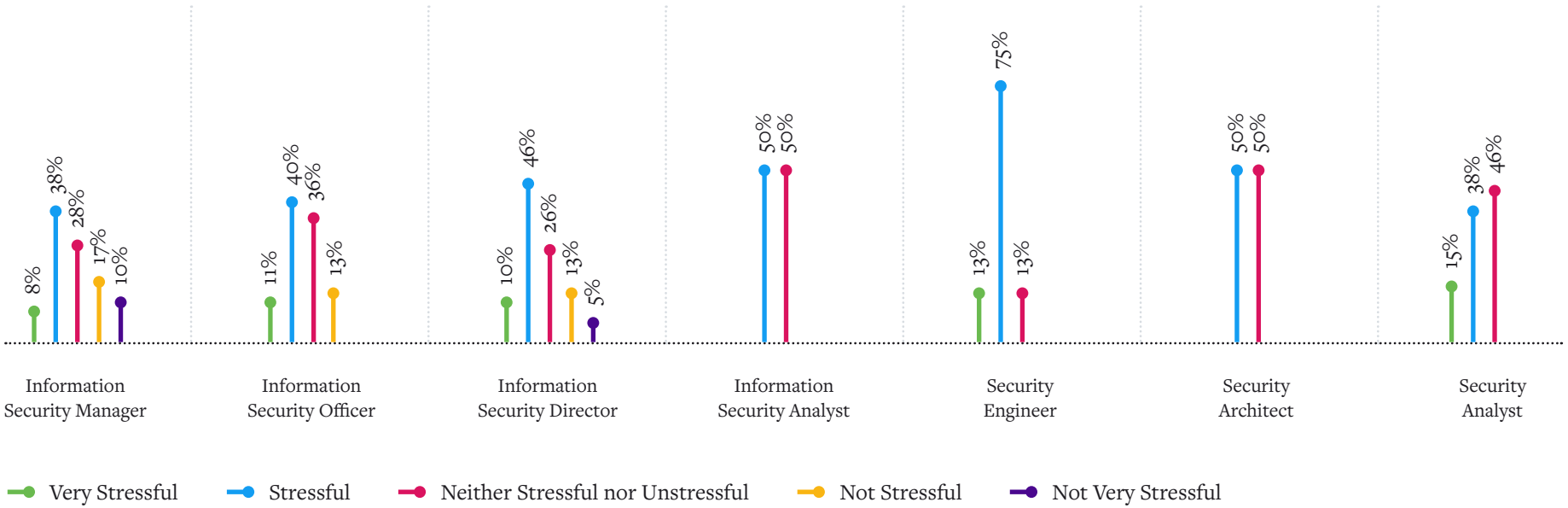
JOB STRESS AND COMPANY SIZE

Professionals in companies with 251-500 employees cited the highest levels of job stress (57%). In comparison, 29% of participants in companies with less than ten employees reported their jobs were not stressed level.

JOB STRESS BY TITLE

SOC Creation Engineers and Security Engineers reported the highest levels of stress (at 80% and 75%, respectively).

JOB STRESS BY TITLE



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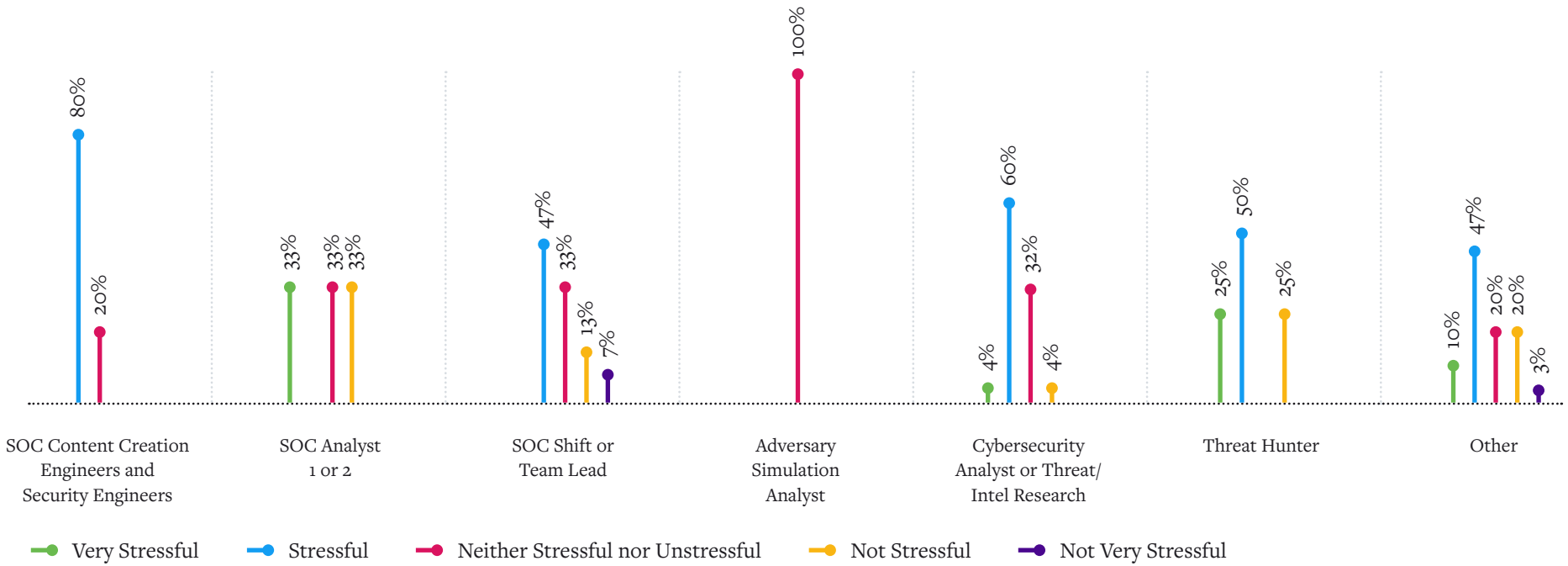
JOB STRESS BY TITLE



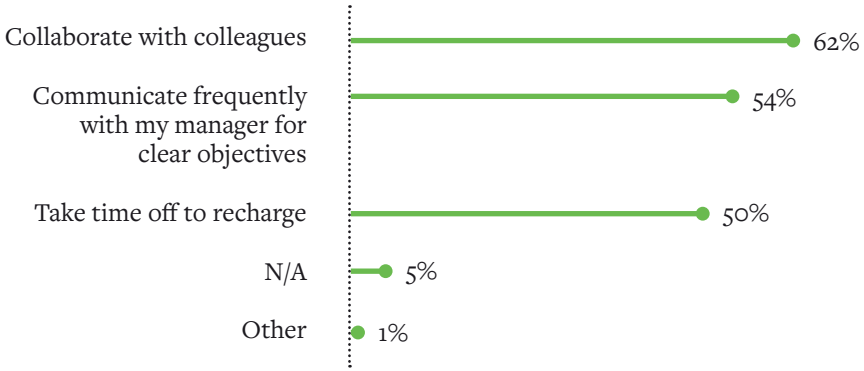
JOB STRESS BY JOB TITLES

Participants with packet analysis, penetration testing and threat hunting titles reported the highest levels of stress.

DEALING WITH HEAVY WORKLOADS

Collaborating with colleagues was noted as the most common method for dealing with heavy workloads, along with communicating with managers and taking time off.

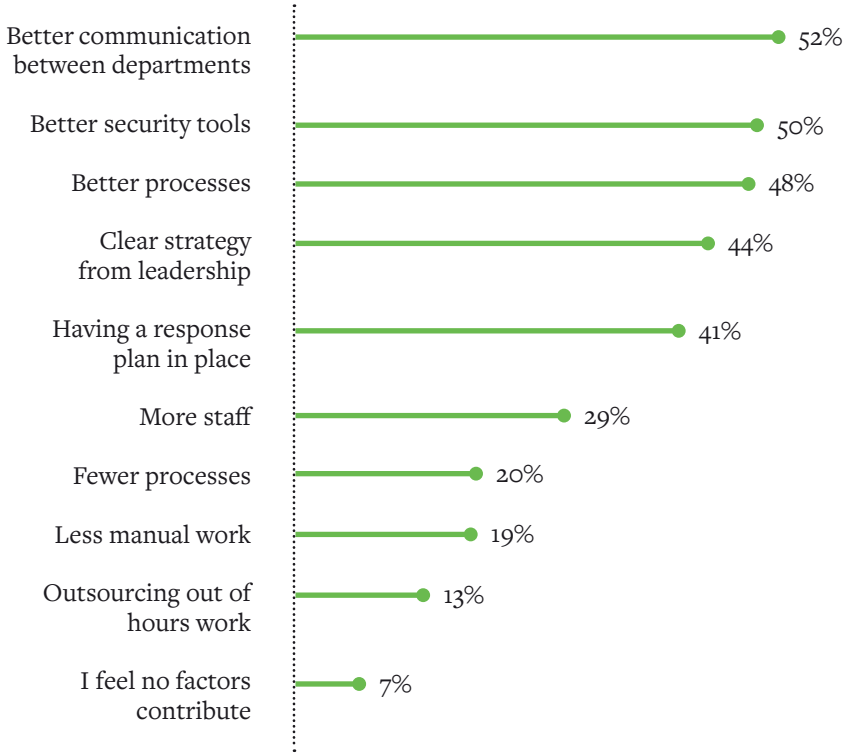
DEALING WITH HEAVY WORKLOADS



FACTORS CONTRIBUTING TO WORK-LIFE BALANCE

Better communication between departments, better security tools, and better processes are factors that either contributed to the balance or lack thereof between work and non-work.

FACTORS CONTRIBUTING TO WORK-LIFE BALANCE



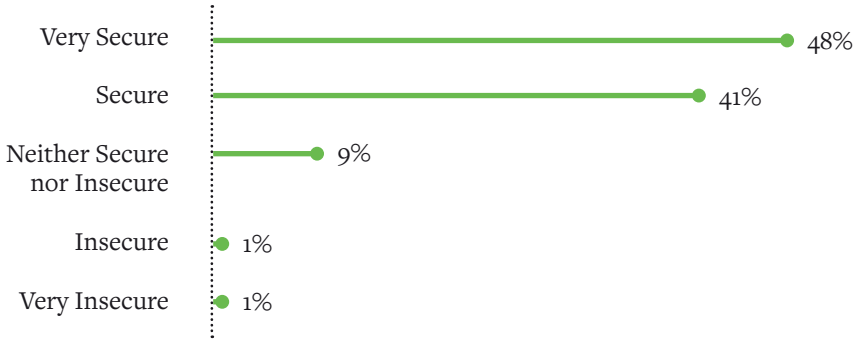
FRUSTRATION WITH CO-WORKERS

Thirty-seven percent of respondents cited being frustrated with co-workers very often or often. Cybersecurity professionals from Australia are the least frustrated with co-workers.

OVERALL JOB SECURITY

Eighty-nine percent of respondents stated they felt very secure or secure" in their current role. Only 2% said they felt insecure or very insecure. Participants in the U.S. reported feeling the most secure.

JOB SECURITY



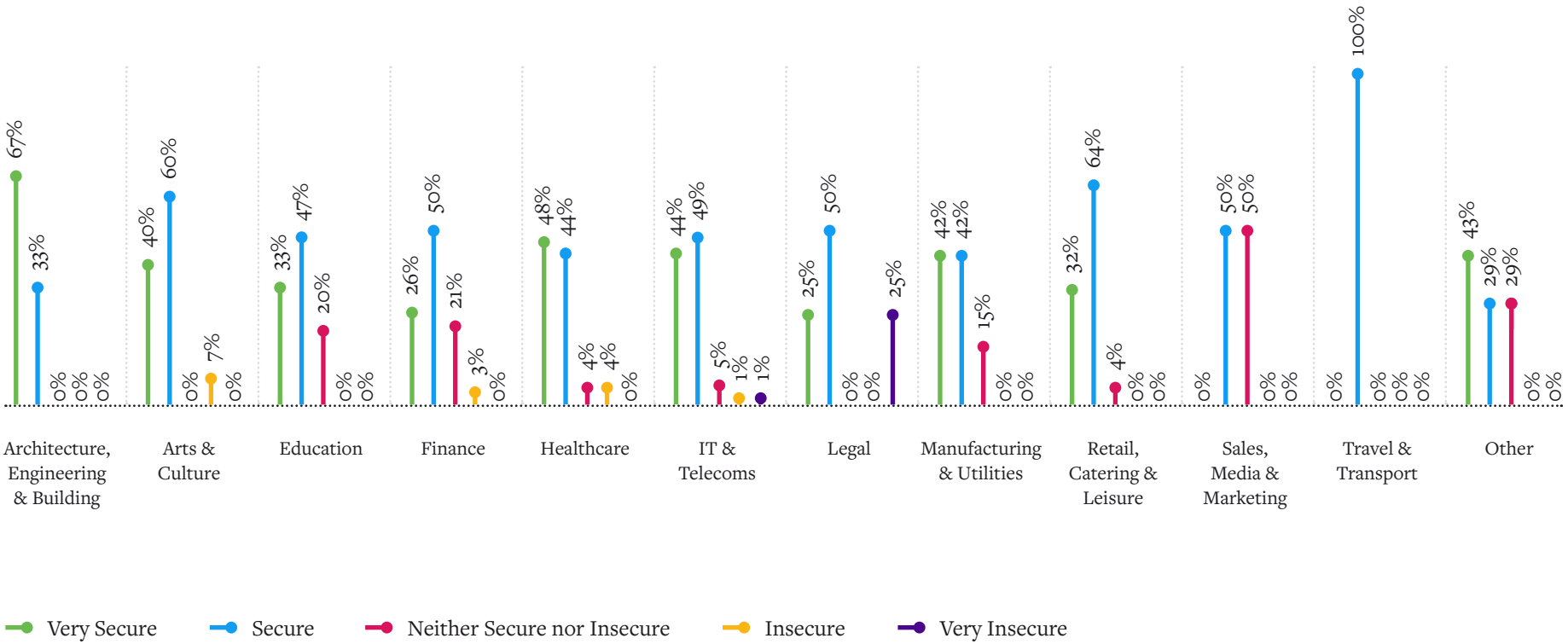
JOB SECURITY AND INDUSTRY

For the most part, respondents felt secure in their jobs regardless of their industry, except for participants in Legal. Professionals in this area were less confident about their jobs and futures with their current employers.

JOB SECURITY AND COMPANY SIZE

Regardless of the size of their company, most participants felt very secure in their current job. Although not surprising, respondents in organizations with fewer than nine employees were less confident.

JOB SECURITY BY INDUSTRY



Automation, AI, Machine Learning & Other New Technologies

Results show that many cybersecurity professionals are ready for AI and automation tools. Most professionals (86%) said that automation would improve cybersecurity, and 86% agree that SOAR solutions would help their SOC response times. Eighty-eight percent stated automation would make their job easier. However, 47% believe AI and automation are a threat to their job.

AUTOMATION SOFTWARE

Ninety percent of respondents are either currently using or plan to use automation software. Only 10% have no plans to use automation solutions.

SOAR SOLUTIONS

Forty-two percent of respondents are currently using a SOAR solution. Only 19% have no plans for SOAR.

AI AND MACHINE LEARNING ARE A THREAT

Forty-seven percent of participants reported they agree or strongly agree with the idea that AI or machine learning is a threat to their jobs.

88%

report automation makes their job easier

47%

of respondents reported AI and automation are threats to their jobs.

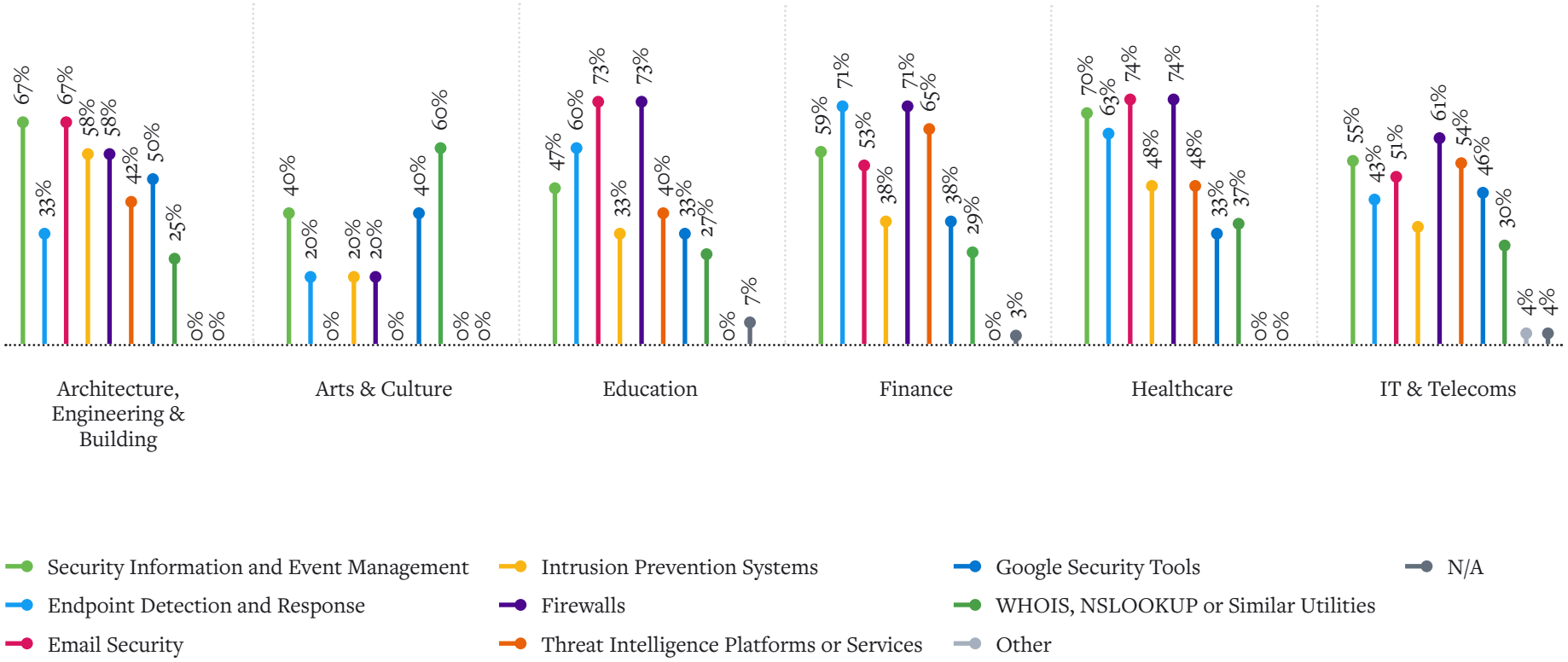
86%

of professionals agree SOAR would improve SOC response times.

TOOLS USED BY SOC ANALYSTS

Of the total 79% of participants who say they work in a SOC, 62% used a firewall, and 56% used SIEM solutions, with the U.S. region reporting the highest use of SIEM compared to the other areas.

TOOLS USED BY SOC ANALYSTS BY INDUSTRY



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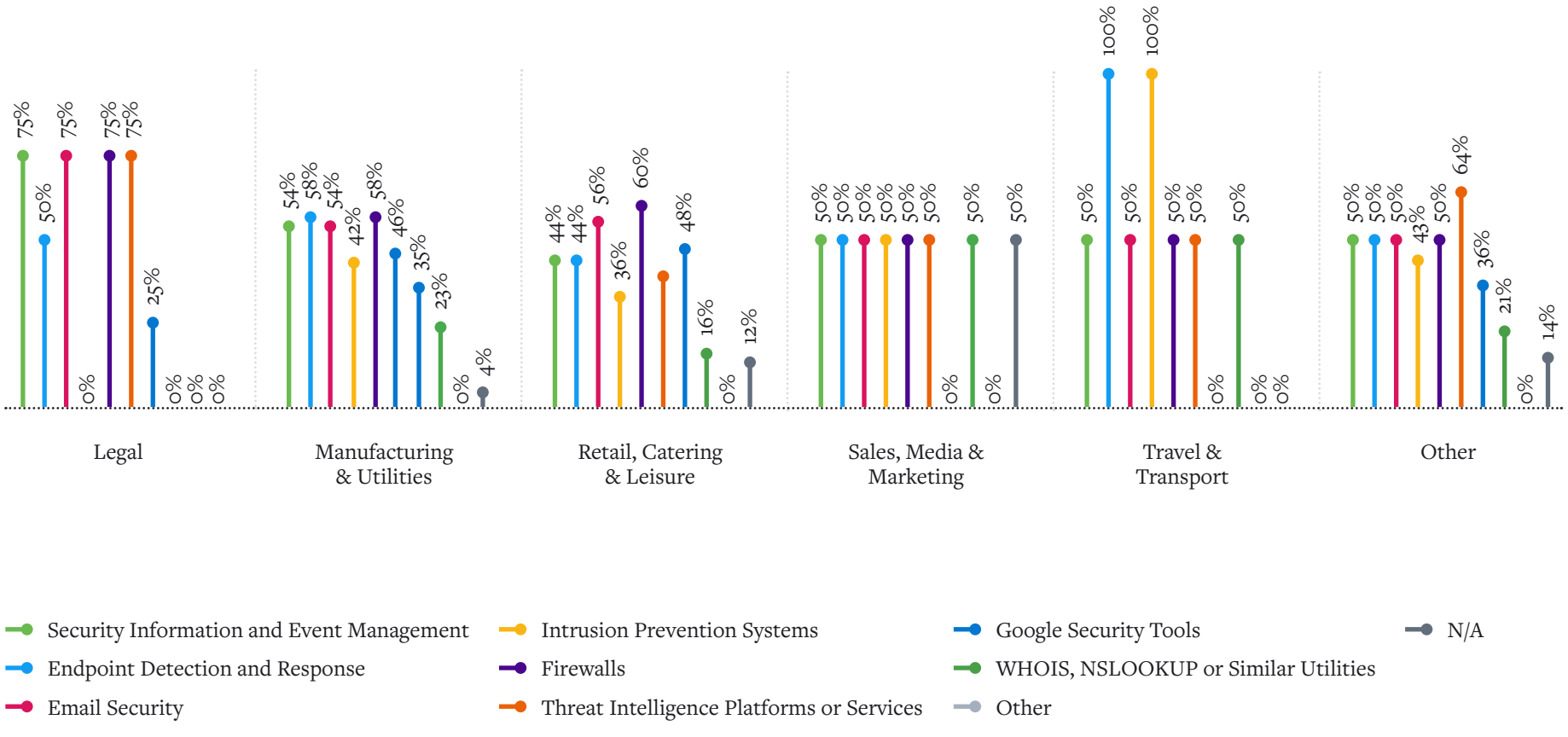
TOOLS USED BY SOC ANALYSTS BY INDUSTRY



AI OR MACHINE LEARNING UTILIZATION

Forty percent of participants reported that they were already using AI or machine learning as part of their job. Thirty-five percent said they planned on using it, while 25% reported having no plans to implement either AI or machine learning.

AI OR MACHINE LEARNING USAGE

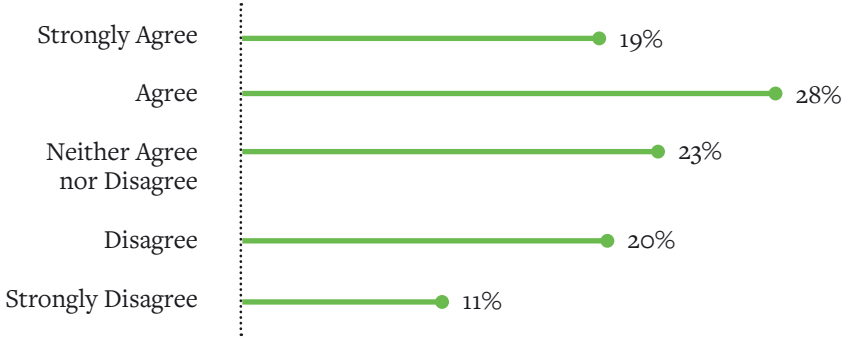
AI AND MACHINE LEARNING UTILIZATION BY INDUSTRY

Respondents in the financial industry reported the highest current usage of AI and ML at 68%, followed by arts and culture at 60% and manufacturing at 59%.

AI AND MACHINE LEARNING ARE A THREAT

Forty-seven percent of participants reported they agree or strongly agree with the idea that AI or machine learning is a threat to their jobs. In comparison, 31% disagree or strongly disagree that AI or machine learning is a threat. Respondents in the manufacturing and telecommunications industries were the largest groups that said AI and machine learning are threats to their jobs.

AI AND ML CONSIDERED A THREAT



SOAR TECHNOLOGY IMPROVES SOC RESPONSE TIMES

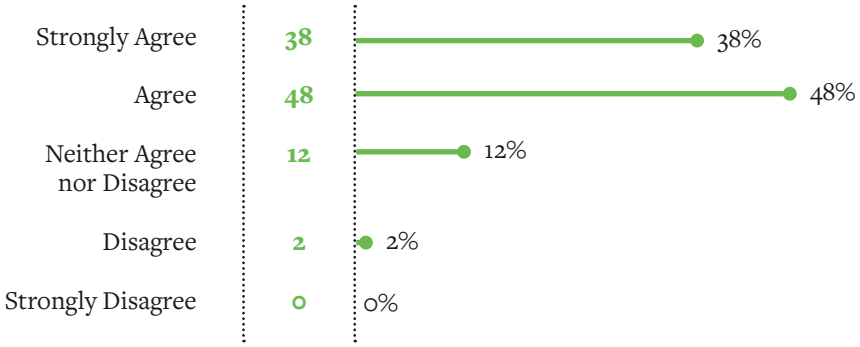
Eighty-six percent of participants felt SOAR would improve SOC response times, while only 2% felt that SOAR would not improve SOC response times.

86%

of participating cybersecurity professionals reported SOAR would improve SOC response times.

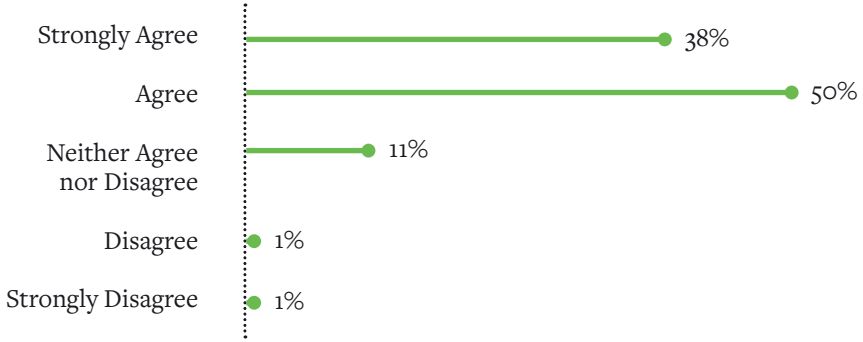
2%

of respondents cited SOAR would NOT improve SOC response times.



AUTOMATION MAKES MY JOB EASIER AND IMPROVES SECURITY

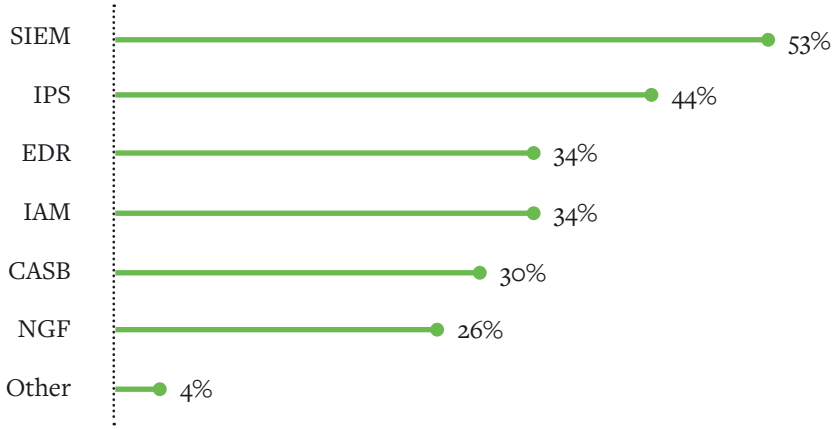
Eight-eight percent of participants strongly agree or agree that automation makes their jobs easier, versus 2% who disagree or strongly disagree



SECURITY TOOLS CURRENTLY BEING USED

Most respondents (53%) noted SIEM, more than other security tools, was currently being used for their job.

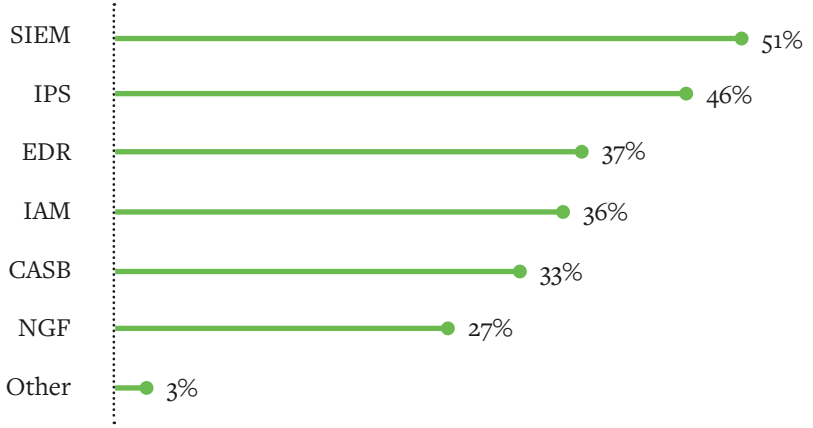
SECURITY TECHNOLOGIES THAT HELP YOU GET YOUR JOB DONE



TOOLS INTEGRAL TO YOUR SUCCESS IN YOUR CURRENT POSITION

Of the various technologies, most respondents (51%) cited SIEM tools are essential to the success in their current role. One notable difference by region – 70% of SG respondents noted that IPS, more than any other tool, was critical to their success.

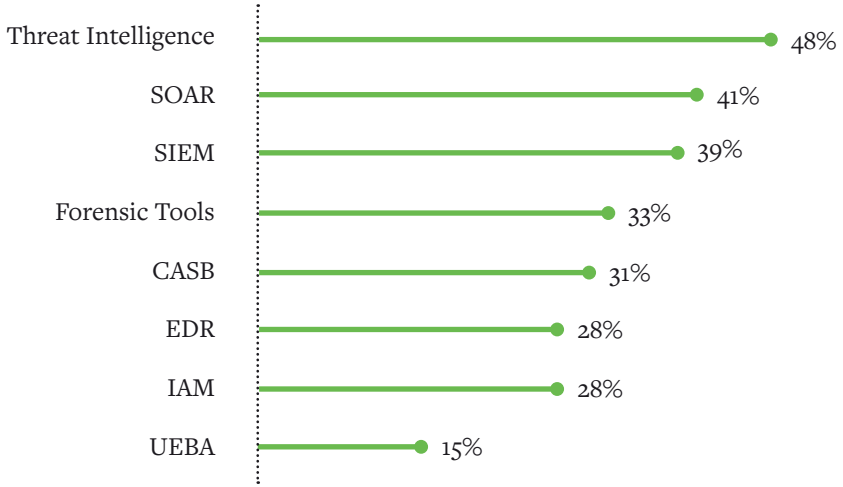
SECURITY TECHNOLOGIES IMPORTANT TO SUCCEED IN YOUR CURRENT ROLE



TOOLS INTEGRAL TO YOUR SUCCESS IN THE FUTURE

Of the various technologies, 48% of respondents cited threat intelligence, along with SOAR (41%) and SIEM (39%), are tools that will help them do their jobs in the future.

SECURITY TECHNOLOGIES IMPORTANT TO YOUR SUCCESS IN THE FUTURE



Career Advice in Cybersecurity

CAREER ADVICE IN CYBERSECURITY

Most professionals surveyed would recommend cybersecurity as a career. This is not surprising given 96% of professionals had reported they were satisfied or very satisfied with their current positions, and 77% cited they had balanced or very balanced work/life. Respondents in manufacturing and education compared to their peers in other industries were less likely to recommend cybersecurity as a career.

85%

of respondents across all industries cited they would recommend cybersecurity as a career.

50%

of professionals in manufacturing and education reported they would recommend cybersecurity as a career.

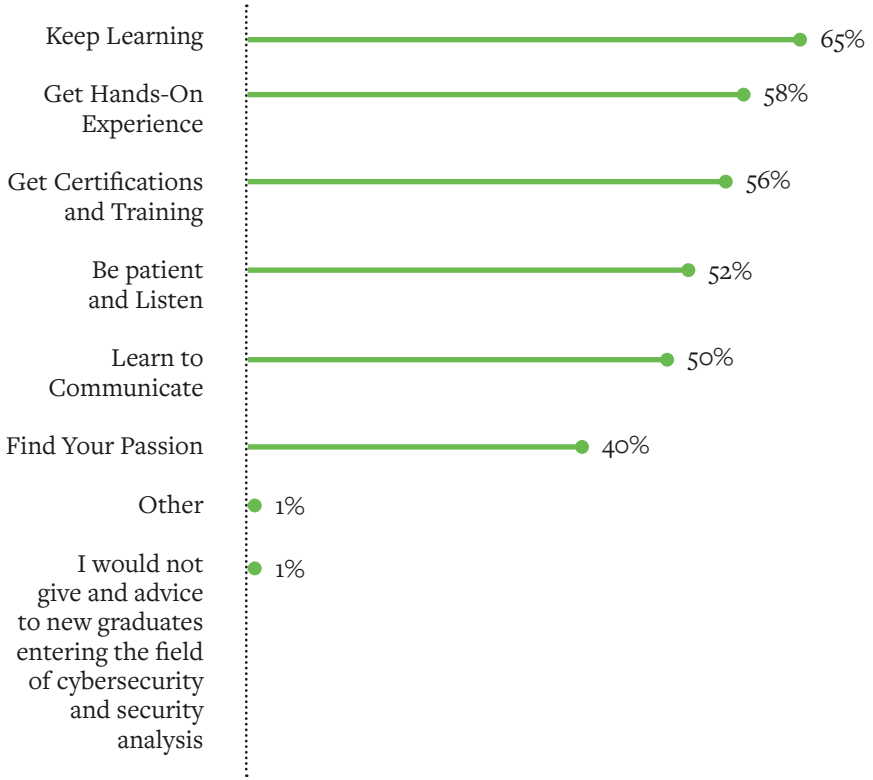
RECOMMENDING CYBERSECURITY AS A CAREER

Participants overwhelmingly would recommend cybersecurity as a career for new professionals and graduates, with 85% responding "yes" to guiding a cybersecurity job.

WHAT ADVICE WOULD YOU GIVE NEW GRADUATES?

By far, the most frequent advice given to graduates was to “keep learning” (65%), with a related piece of advice to “get hands-on training (58%) and “get certifications and training”), getting 56%.

ADVICE TO GRADUATES



Exabeam is the Smarter SIEM™ company. We help security operations and insider threat teams work smarter, allowing them to detect, investigate and respond to cyberattacks in 51 percent less time. Security organizations no longer have to live with missed distributed attacks, unknown threats, and manual investigations and remediation. With the modular Exabeam Security Management Platform, analysts can use behavioral analytics to detect attacks, automate investigation and incident response, and reduce storage costs. Exabeam Smart Timelines, sequences of user and device behavior created using machine learning, further reduce the time and specialization required to detect attacker tactics, techniques and procedures. For more information, visit **www.exabeam.com**.

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