Global Demand for Cybersecurity Talent Continues to Cool Bright Spots Remain in Australia, Mexico and Germany

Key Takeaways

- In a previous <u>report</u> from April 2024, we shared that the demand cybersecurity talent had decreased in the United States. This trend continues not only in the US but in most of the countries included in our research with the United States (-5.4% YoY), Singapore (-4.9% YoY), and France (-4.5% YoY) experiencing the greatest decline in demand between May 2023 and 2024.
- The share of professionals working in cybersecurity jobs has increased the fastest in Spain (+5.5% YoY), Germany (+4.7% YoY), and Brazil (4.5% YoY) indicating bright spots of growing demand amidst a globally cooling climate for cybersecurity professionals.
- There is an opportunity to promote skills-first hiring in cybersecurity. Over 90% of cybersecurity jobs in the countries that we analyzed require 4-year degrees. The United States has the highest share of cybersecurity jobs not requiring a degree (5.6%).
- Cybersecurity continues to be a male-dominated area of the workforce. Women make up less than 1/3rd of cybersecurity professionals in all countries we have analyzed. Italy (26.7%), Singapore (26.2%), and Canada (21.2%) have the highest share of female cybersecurity professionals.

Akash Kaura

Staff Data Scientist Economic Graph Research Institute <u>akaura@linkedin.com</u>

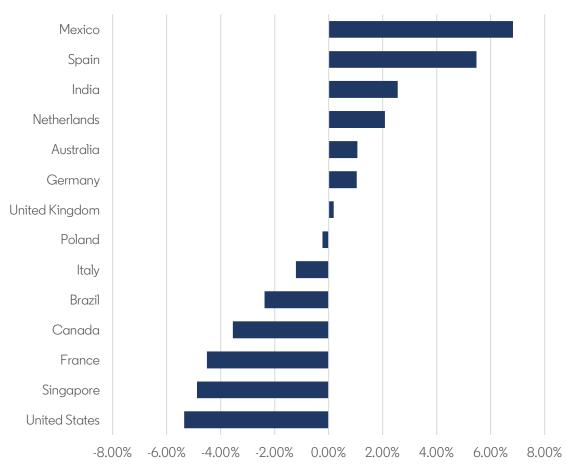
Caroline Liongosari

Data Scientist Economic Graph Research Institute <u>cliongosari@linkedin.com</u>

Demand for cybersecurity talent has continued to decline

Latest data from LinkedIn's Economic Graph Research Institute shows that the demand for cybersecurity talent has cooled. As of May 2024, the share of cybersecurity related jobs has declined significantly in both year over year terms and since 2021.

YoY (2023-2024) Change in Share of Cybersecurity Job Postings as of May 2024



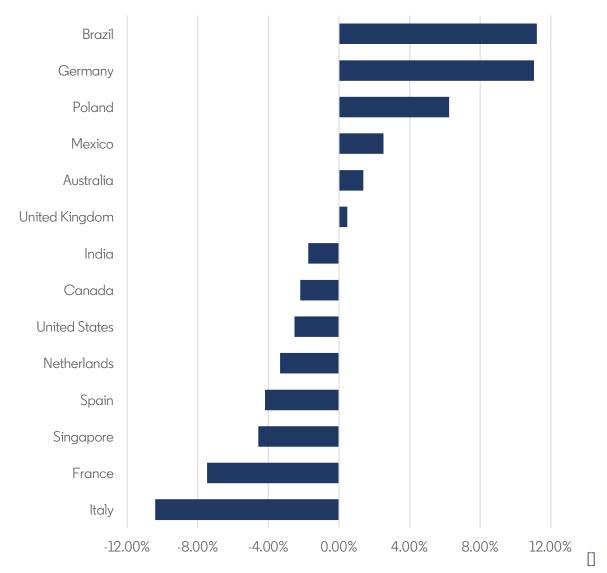
Source: LinkedIn Economic Graph

Compared to May 2023, the United States (-5.4%), Singapore (-4.9%), and France (-4.5%) have recorded the greatest decline in cybersecurity related job postings. Compared to 2021¹, the share of these job postings has decreased the most in Italy (-10.4%), France (-7.5%), and Singapore (-4.6%).

¹ Comparison is made using the Compounded Annual Growth Rate (CAGR) from 2021 to 2024.

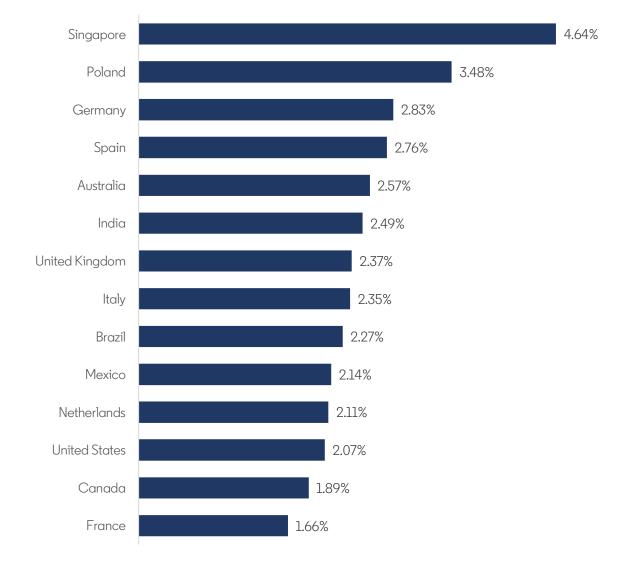
There remain bright spots however, with Mexico (+6.8%), Spain (+5.5%), and India (+2.6%) recording the largest year over year increase in the share of cybersecurity job postings. Between 2021 and 2024, the share of these job postings has grown the most in Brazil (+11.2%), Germany (+11%), and Poland (+6.2%).

Change in Share of Cybersecurity Job Postings from 2021 to 2024 (CAGR)



Source: LinkedIn Economic Graph

Singapore (4.6%), Poland (3.5%), and Germany (2.8%) have the highest concentration of demand for cybersecurity talent based on the share of job postings.

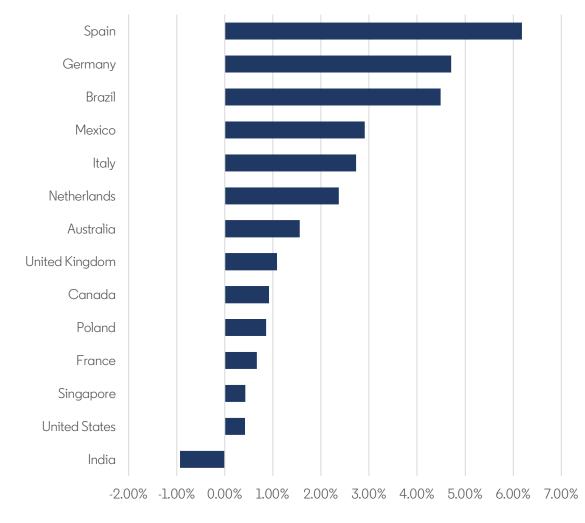


Share of Cybersecurity Job Postings (May 2024)

Cybersecurity workforce continuing to grow

On the other side of the talent marketplace, the share of professionals working in cybersecurity jobs has continued to grow steadily. While there seems to be a modest decline in the share of cybersecurity talent in India, we expect this to be temporary given the strong increase in demand mentioned previously (+2.6% year over year). India continues to have one of the highest concentrations of cybersecurity talent amongst the countries we have analyzed with 1.15% of LinkedIn members in the country holding a cybersecurity job.

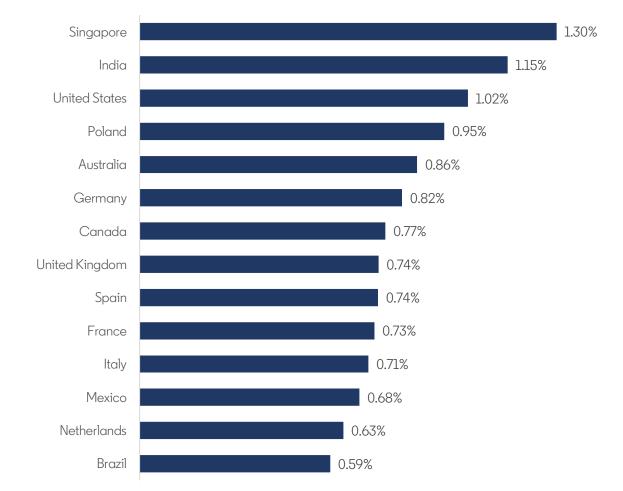
YoY (2023-2024) Change in Share of Cybersecurity Professionals as of May 2024



Source: LinkedIn Economic Graph

Singapore (1.3%) has the highest concentration of cybersecurity talent followed by India (1.15%) and the United States (1.02%).

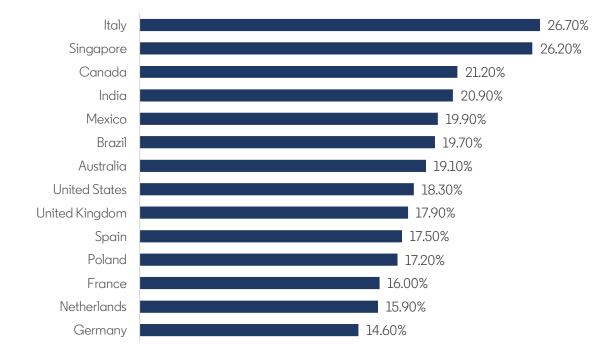
In line with growing demand for this talent between May 2023 and 2024, Brazil (+4.5%), and Germany (+4.7%) have recorded some of the largest increases in their active cybersecurity workforce. Spain (6.2%), Mexico (2.9%), and Italy (2.7%) round out the top 5 countries with the highest year over year growth for this talent.



Share of Cybersecurity Professionals as of May 2024

Gender gaps in the cybersecurity workforce

Cybersecurity continues to be a male-dominated area of the workforce. Women make up less than 1/3rd of cybersecurity professionals in all countries we have analyzed. Italy (26.7%), Singapore (26.2%), and Canada (21.2%) have the highest share of female cybersecurity professionals. In most countries, there has only been a modest increase in the share of women compared to the same time last year. Closing the gender gap will require a multi-pronged approach including educational reforms to promote inclusive access to cybersecurity (and STEM) education, targeted training programs for women, highlighting female role models in cybersecurity, and more. We offer some of these suggestions in our white paper on International STEM gender representation.²

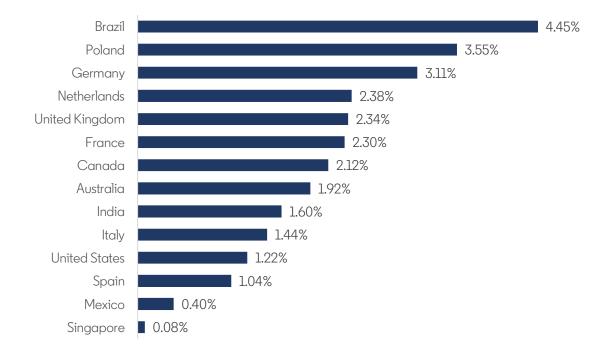


Share of Women in the Cybersecurity Workforce

Source: LinkedIn Economic Graph

² International gender representation in STEM employment and skills, Economic Graph Research Institute 2023

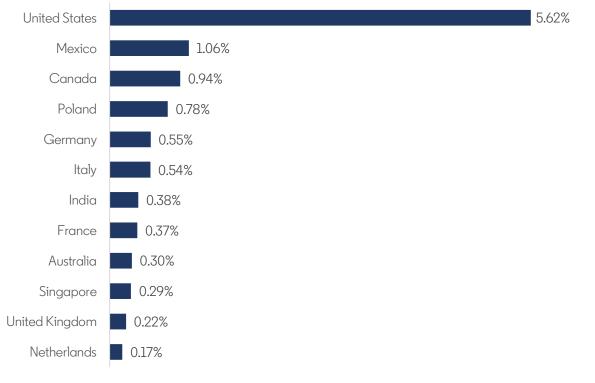
YoY Change in the Share of Women in the Cybersecurity Workforce



Degree requirements for cybersecurity careers and promoting skills-first hiring

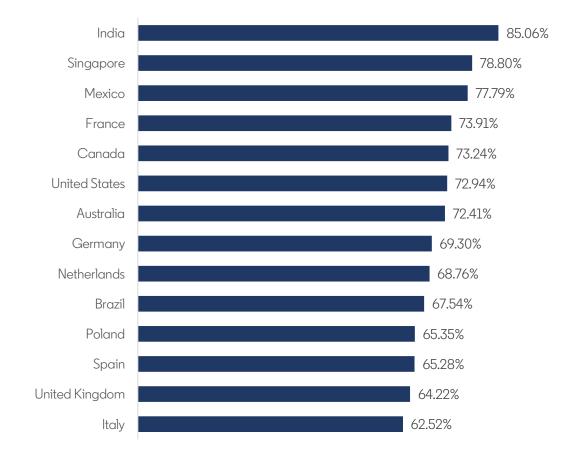
Jobs without 4-year degree requirements remain a minority in cybersecurity. The United States (5.6%) has the highest share of cybersecurity job postings with no degree requirements followed by Mexico (1.1%), and Canada (0.9%).

Share of Cybersecurity Job Postings Not Requiring 4-Year Degrees

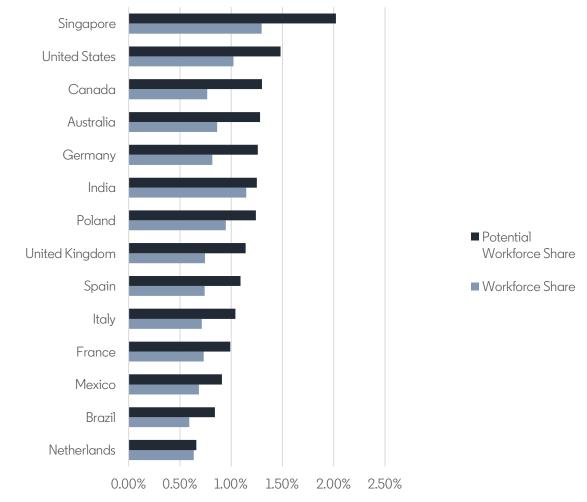


Further, most job transitions into cybersecurity are being made by members with Bachelors or higher degrees.

Share of Transitions into Cybersecurity Jobs by Bachelors or Higher Degree Holders



It must be noted that approaching hiring without the constraints of degree requirements has significant upside when it comes to addressing talent shortages. The share of members with at least one cybersecurity skill or a related certification is larger than the active cybersecurity workforce in all countries we analyzed.

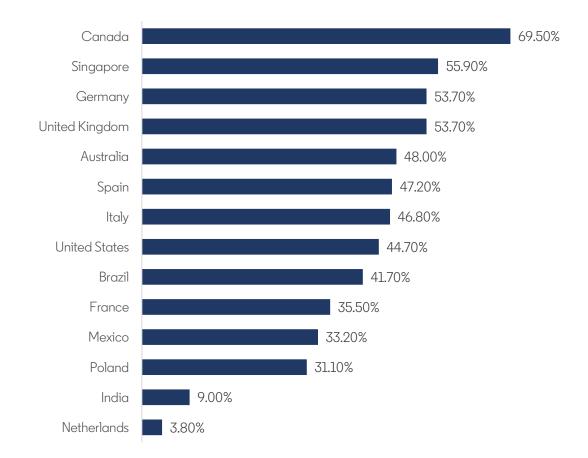


Comparing Active and Potential Cybersecurity Workforce

Source: LinkedIn Economic Graph

Under a skills-first hiring paradigm, the expansion in the cybersecurity workforce would be the largest in Canada (70%), Singapore (56%), and the United Kingdom (54%).

% Expansion in the Cybersecurity Workforce (Active vs Potential)



Source: LinkedIn Economic Graph

Final Thoughts

While the demand for cybersecurity talent has subsided in the past few years, the importance of cybersecurity cannot be understated. Amidst a cooling demand landscape, multiple countries are still experiencing growth in cybersecurity job postings including Spain, Germany, and Brazil. There also remain opportunities to grow and diversify the cybersecurity workforce by promoting skills-first hiring and encouraging women to take on cybersecurity as a career. As cyber threats continue to grow and become more sophisticated, it is vital to continue to invest in cyber talent to bolster our digital defenses.

Methodology

- Our work represents the world seen through LinkedIn data, drawn from the anonymized and aggregated profile information of LinkedIn's 1 billion members around the world. As such, it is influenced by how members choose to use the platform, which can vary based on professional, social, and regional culture, as well as overall site availability and accessibility. In publishing these insights from LinkedIn's Economic Graph, we want to provide accurate statistics while ensuring our members' privacy. As a result, all data show aggregated information for the corresponding period following strict data quality thresholds that prevent disclosing any information about specific individuals.
- Data in this report includes the following countries:
 - o Australia
 - o Brazil
 - o Canada
 - o France
 - o Germany
 - o India
 - o Italy

- o Mexico
- o Netherlands
- o Poland
- o Singapore
- o Spain
- o United Kingdom
- o United States
- We have included data from 2021 onwards in this analysis.
- Similarly, jobs are considered 'Cybersecurity Jobs' if the standardized occupation assigned to them is one of the selected occupations. Further, a job explicitly not requiring a 4-year degree is defined as a paid job containing the keywords like "no degree", "GED", "high school degree", or "associate's degree" in the job description.
- Members are considered 'Cybersecurity Professionals' if they hold one of the <u>NICE</u> aligned LinkedIn Occupations that we have identified as being Cybersecurity related. Further, if a member does not currently hold one of these selected occupations, and has >= 1 cybersecurity skill or certification completed, they are considered 'Potential Cybersecurity Professionals' for the purposes of this analysis.