



UK CYBER REPORT 2024

THEIR NEXT JOB WAS IN CYBER

(the UK's fastest growing IT occupation)

A Socura ONS analysis of UK
cybersecurity employment data

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1 Introduction

The infamous UK government ballet ad in 2020 was a well-intentioned but poorly judged attempt to encourage more people working in the arts and other fields into the cybersecurity industry.

The government apologised for and backtracked on the ad, part of its CyberFirst Campaign, but it spoke to the urgent demand amongst UK businesses for more cybersecurity professionals. Threats such as ransomware were surging, and something needed to be done to address the growing skills gap and promote cyber security as a career choice.

Four years later, Socura's analysis of the Office of National Statistics (ONS) data shows that cybersecurity is now the fastest growing IT occupation in the UK.



Source: HM Government, 2020

2 Methodology

Socura's analysis is based on UK ONS annual population survey data, which tracks occupation figures based on 15 IT-related Standard Occupational Classification (SOC2020) codes such as 2135 cybersecurity professionals. The ONS annual population is a continuous survey that consists of 12 months of survey data, which is broken down and released on a quarterly basis.

See the Appendix for more information about the SOC2020 codes tracked.

Key findings of our ONS analysis

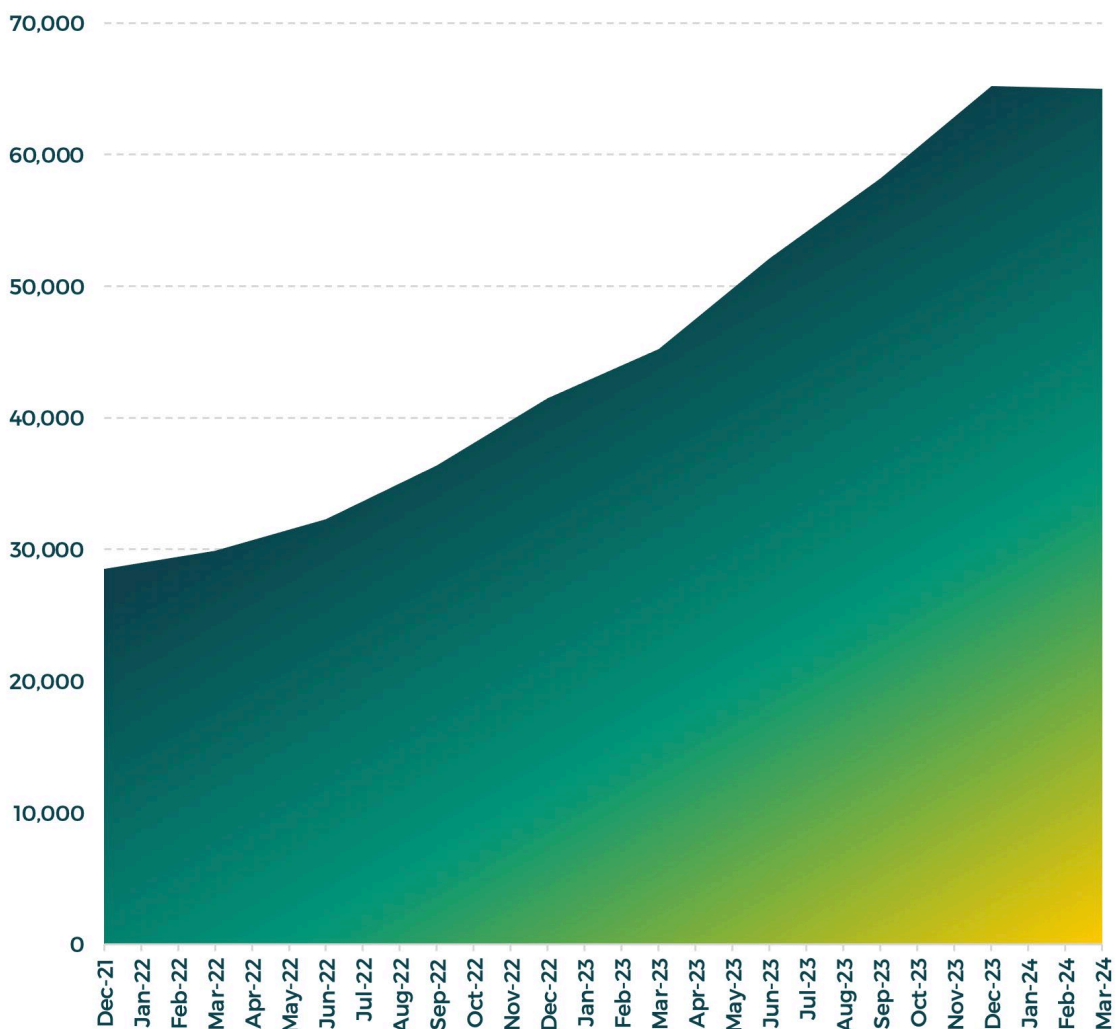
- 1 > The cybersecurity profession is the fastest-growing IT occupation in the UK (128% increase since 2021).
- 2 > Despite good progress addressing the cyber skills gap, there are still not enough cybersecurity professionals in the UK. There is only one security pro in the UK for every 86 businesses.
- 3 > There are 4,600 more women in cybersecurity roles today than in 2021. However, the percentage of women in cybersecurity roles has decreased, and is now just 17% (down from 24%).
- 4 > Cybersecurity is not as London-centric as other IT professions. 17% of all cyber workers are based in London, compared to 25% of all IT professionals.
- 5 > Northern Ireland and Wales are the countries in the UK with the fewest cybersecurity professionals.

3 Cyber is the UK's fastest growing IT occupation

The number of **cybersecurity professionals has more than doubled** since the Jan-Dec 2021 annual population survey, from 28,500 then to 65,000 in March 2024.

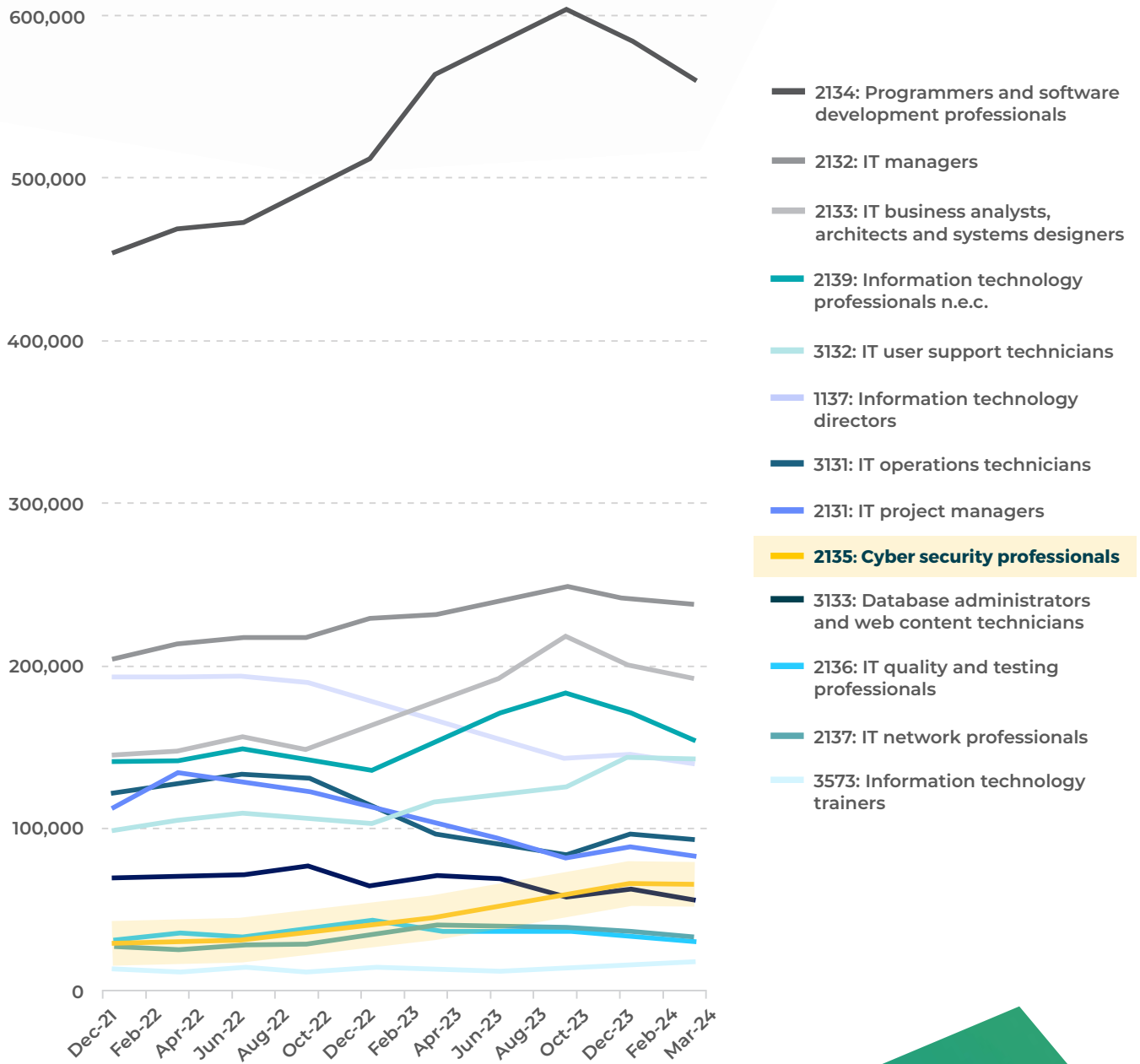
Percentage-wise, the increase in cybersecurity pros in the UK is the fastest among all IT occupations (128%) – followed by IT support (42%), IT trainers (33%) and IT business analysts, architects and systems designers (33%).

**Number of cybersecurity professionals in the UK
(December '21 - March '24)**



Despite the speed with which the cybersecurity industry is growing, it is doing so from an extremely low starting point. Compared to the rest of the IT industry, cybersecurity is still not a widely chosen career. For example, there are nearly 10x more programmers / software developers in the UK today than there are cybersecurity pros. Unfortunately, demand for cybersecurity professionals significantly outweighs supply. At a national level, this cybersecurity skills gap can lead to more breaches, more cost to businesses, and more harm to citizens.

Total number of people working in IT occupations in UK (December '21 - March '24)

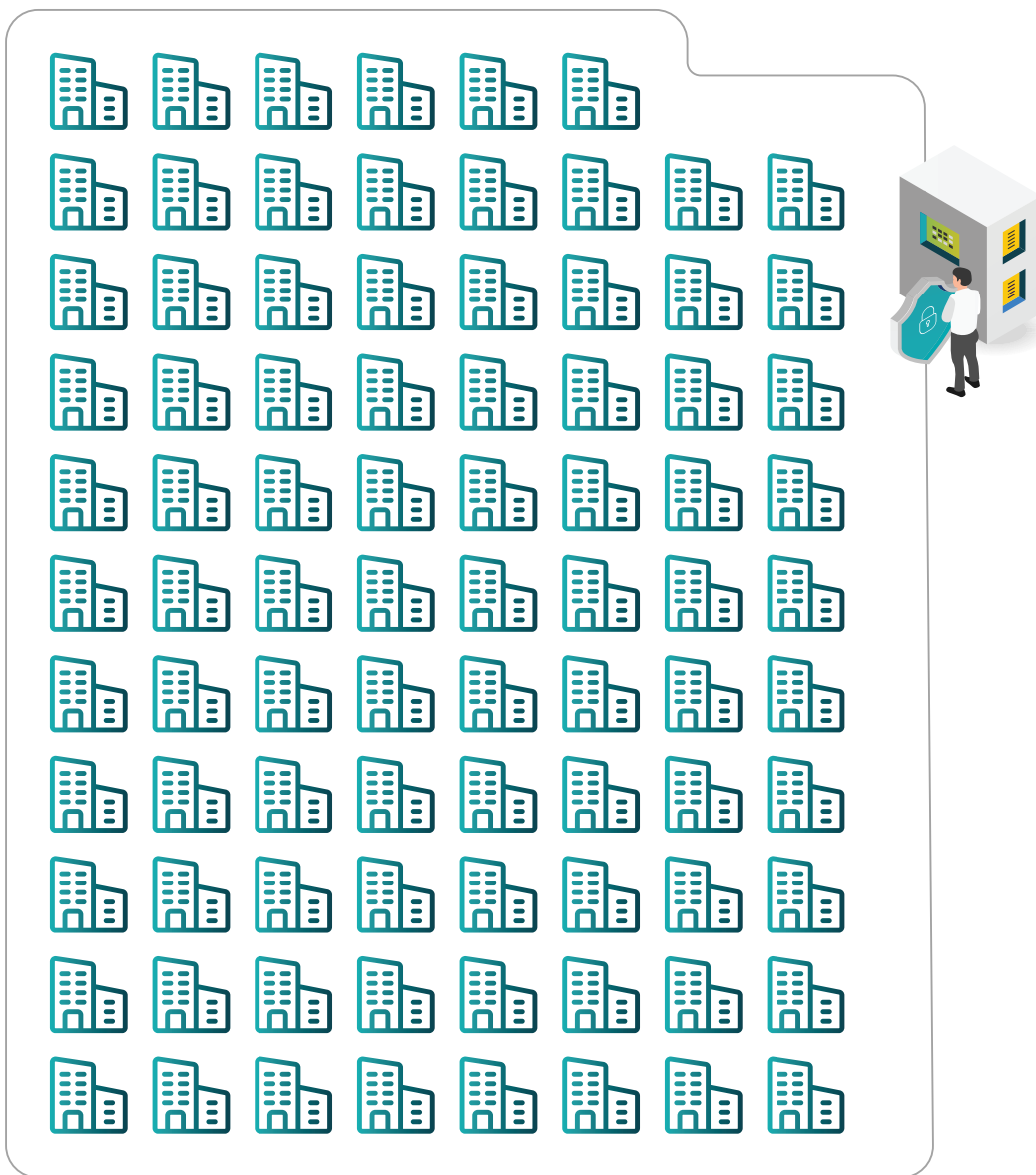


4 Visualising the cyber skills gap

Not every company needs a software developer, just as not every company needs a dedicated cybersecurity hire. However, it is worth noting how readily available other IT pros are compared to cybersecurity pros.

For every 86 companies in the UK*, there is just one security professional.

In many cases, this means that the security burden is falling to general IT teams. In most companies, the person responsible for managing networks is also responsible for defending them.

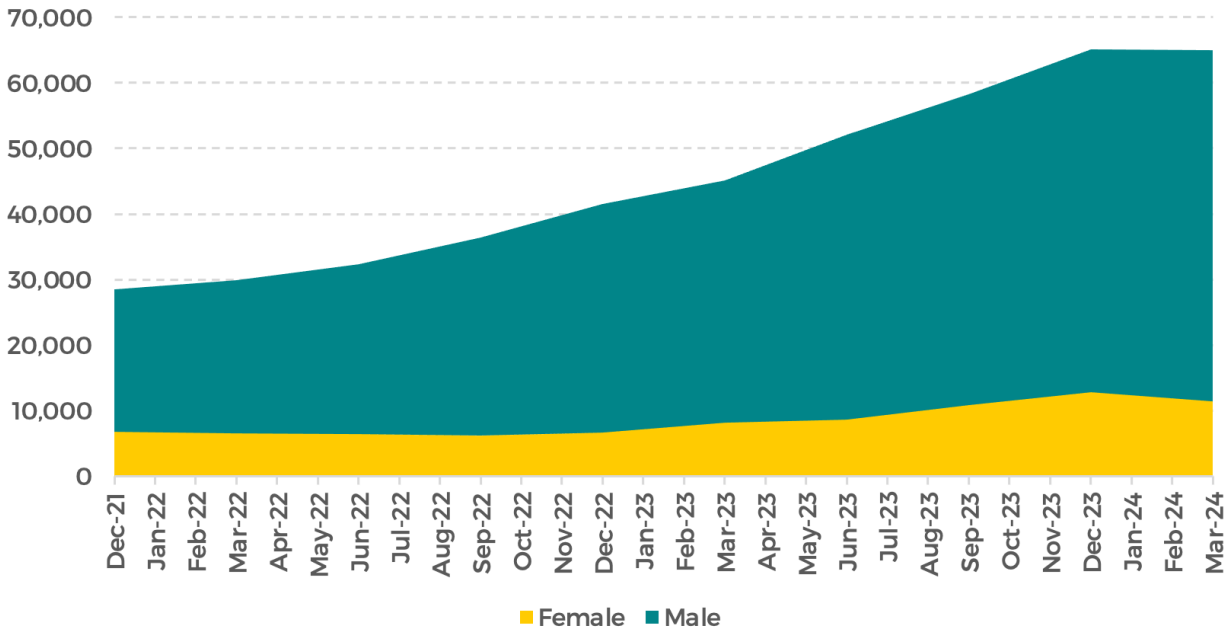


**There are 5.6m UK businesses according to the House of Commons business statistics report*

5 The cybersecurity gender imbalance

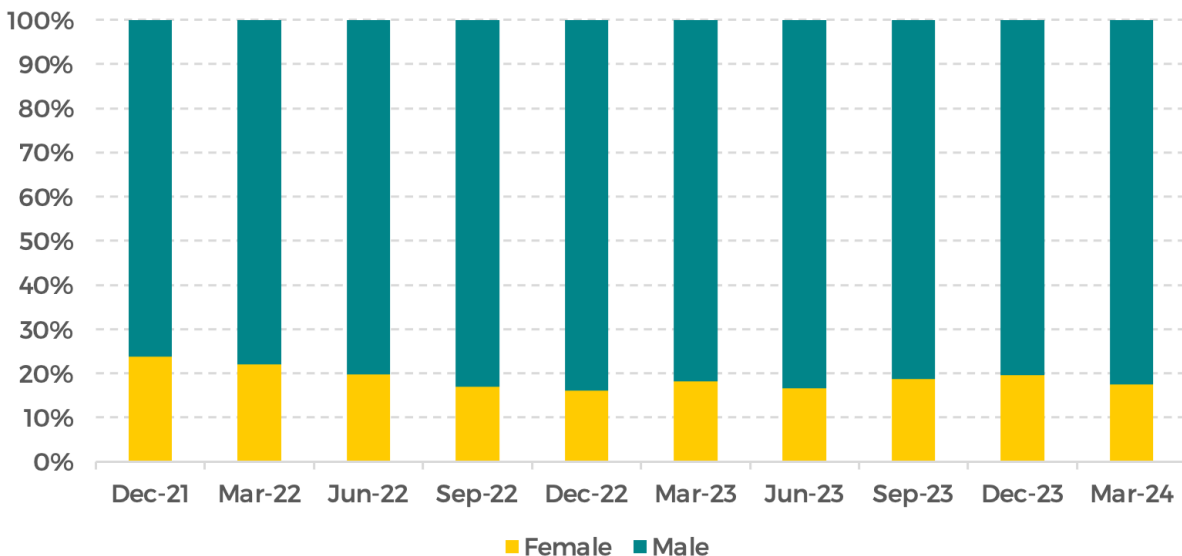
The number of **women in cybersecurity has increased rapidly since 2021, from 6,800 in December 2021 to 11,400 in March 2024 (68% increase)**. While this may indicate that cybersecurity has become a more appealing career for women, this isn't the full story.

Total UK cyber roles by gender



Examining cyber roles by gender reveals that women are now less represented in the cybersecurity industry than they were three years ago. In December 2021, **women comprised nearly a quarter (23.8%) of the cybersecurity workforce**. This figure has since trended backwards and slumped to 17.5% in March 2024. **53,600 out of 65,000 UK cybersecurity professionals today are men (82.5%)**.

UK cyber roles by gender (%)



6 IT and cyber roles around the UK

Our analysis of IT occupation data threw up several notable regional trends. We expected London and the South East of England to be major IT hubs, but not to such an extent. Indeed, 25% of all IT professionals are located in these two regions (this is a total IT professionals figure that includes cyber professionals).

It was also surprising to see the number of IT pros in Wales and Northern Ireland lagging so far behind Scotland and the North of England. Out of 1.8m IT professionals in the UK, 1.6m are in England, 127k in Scotland, 53k in Wales and 33k in Northern Ireland.

Number of IT pros in the UK



Interestingly, the cybersecurity sector is far less London-centric than general IT occupations. There are roughly 3x more cybersecurity professionals in the South East of England (15,400) and North West of England (14,000) vs London (5,300).

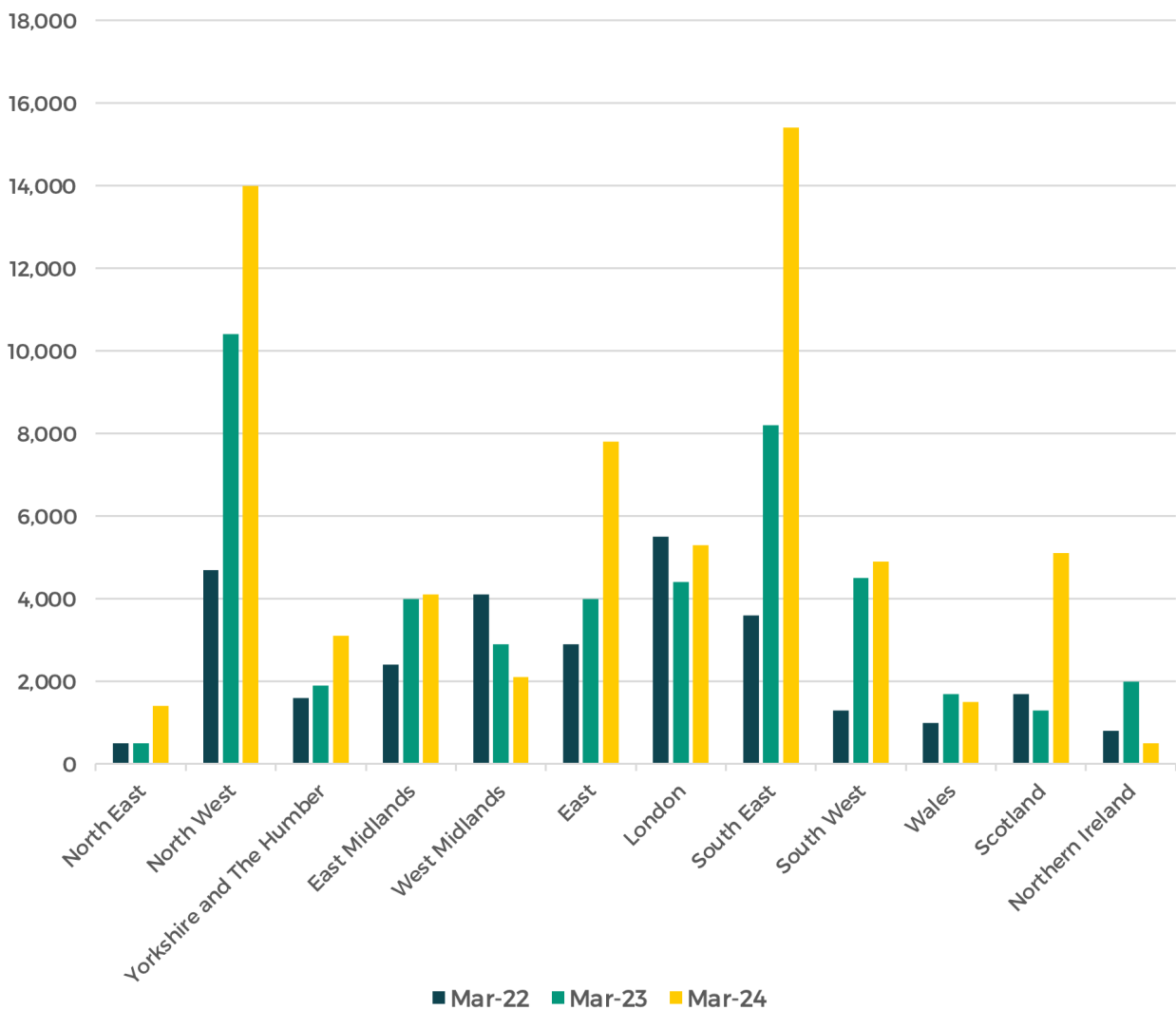
The rise of remote working means that geographic location is less of a factor than it once was for technical occupations like software development and cybersecurity. Regional accelerators and security hubs also play a role. Manchester and Liverpool are major cybersecurity centres, as are Oxford and the business parks located west of London such as Reading.

Number of cybersecurity pros in the UK



Wales and Northern Ireland are the slowest growing countries in the UK for cybersecurity occupations. There were only 500 new cybersecurity pros in Wales from 2021 to 2024, while NI saw a net loss in cybersecurity occupations. Compared to 4,400 in Scotland and 31,900 in England. Hopefully the new Cyber Innovation Hub in Cardiff and the Cyber Action Plan for Wales can recreate some of the success seen in regions like the South East, North West, East of England and Scotland.

Cybersecurity occupation growth by region (2022-2024)



7 Conclusion



“Socura’s report shows that the cybersecurity profession is now the fastest growing IT occupation in the UK. However, it’s clear that much more needs to be done to encourage people, especially women, to pursue a career in cybersecurity.”

“One cybersecurity professional for every 86 companies is a startling static that needs to be addressed if the UK is to be considered one of safest places to live and do business.”

“The new National Cyber Security Centre (NCSC)-backed Academic centres of excellence are a prime example of what is working to encourage new talent into the industry. By supporting UK universities to conduct world leading cyber security research, we enhance their reputation on the world stage, we increase course applications, and we create clusters of cybersecurity excellence across home nations. We need more initiatives like this, and more ways to reach even younger people so that they can discover the important role of cybersecurity and the wide range of career options in the industry.

“For businesses that are struggling to recruit and retrain cybersecurity talent, the critical importance of managed services providers as an option to bridge the skills gap is one again highlighted. Trusted providers that operate as an extension of in-house resources are a great option and ensure organisations have the expertise and capabilities they need to detect and respond to attacks.”

Andy Kays, CEO, Socura

8 Industry Reaction

“Cyber security is a fairly new, fast changing and rapidly growing field, and in this context, it is not surprising that the cyber security skills gap is a persistent problem in the UK and global job market, **Dr Yulia Cherdantseva, Reader, School of Computer Science & Informatics and Director Academic Centre of Excellence in Cyber Security Education at Cardiff University.**

“As the findings of Socura’s report highlight, qualified cyber security professionals are in short supply. Competition for talent is also fierce and many businesses are simply unable to attract the cyber security experts they need.

“To address the cyber skills gap, three key things need to happen. Firstly, organisations must make their requirements for cybersecurity roles more realistic. An analysis of job adverts shows that organisations often seek skills, knowledge, and certifications that are unlikely to be held by any one individual.

“Secondly, to increase attract and retain talent, leaders must ensure that the salaries they offer are commensurate with the skills and expertise of the roles they are recruiting for. Security professionals are not afraid to change jobs regularly or move to countries and other areas that offer higher pay.

“Finally, the education and training sectors should make their best effort to design and offer degree programmes and professional training in cyber security in line with industry expectations. At the same time, industry partners should be more proactive and closely with the education sector to engage with students during their studies and ensure they develop sought-after skills.

“The professionalisation of cyber security in the UK and globally is an active topic for discussion. While new cyber security degree programmes and boot camps designed to inspire more people into cyber are all great for fostering new talent, still much remains to be done to close the skills gap in cyber!”

“Attracting more workers, particularly women, into cyber remains a key challenge for the industry,” said **Dr Kathryn Jones, Senior Lecturer and Head of School, Computer Science and Informatics at Cardiff University.**

“However, gender imbalance and the low representation of women is a wider issue in the tech sector, not only cyber security. The number of women enrolled on computer science and software engineering courses, for example, is typically also low.

“Cybersecurity is an exciting and varied career choice but more initiatives like the NCSC’s Cyber First Girls competition are needed to raise awareness. In Wales, the Cardiff Capital Region (CCR) has supported 45 students from underrepresented and low-income backgrounds over the past three years, funding their master’s studies in Cyber Security & Technology.”

9 Appendix

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The Standard Occupational Classification was updated in January 2021, and Socura has tracked the following SOC2020 codes for this report:

1137: Information technology directors

213: Information Technology Professionals

2131: IT project managers

2132: IT managers

2133: IT business analysts, architects and systems designers

2134: Programmers and software development professionals

2135: Cyber security professionals

2136: IT quality and testing professionals

2137: IT network professionals

2139: Information technology professionals n.e.c.

313: Information Technology Technicians

3131: IT operations technicians

3132: IT user support technicians

3133: Database administrators and web content technicians

3573: Information technology trainers

Note that the ONS has only been tracking SOC2020 code (2135) 'cybersecurity professionals' since 2021. Before 2021, cybersecurity pros were not represented in the survey, and would have been registered in other IT occupations such as IT managers/technicians.

About Socura

Socura offers a 24/7 Threat Detection and Response managed service via its nationally distributed, UK-based SOC team. The service acts as a trusted extension of clients' in-house capabilities, delivering swift detection and containment of cyber threats.

Socura helps make the digital world a safer place for its clients and changes the way organisations think about cybersecurity. It blends technical expertise and industry experience with a people-centric approach to security. Socura has innovation in its DNA, and is pushing the boundaries to deliver high-value cybersecurity services for clients.

www.socura.co.uk

