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IT Labor

# Trends Report

Maruf's Take

# LET'S TALK AI... EVERYONE ELSE IS, BUT HOW WILL IT IMPACT TECH EMPLOYMENT?

The future of tech employment for the remainder of 2023 looks promising with numerous opportunities and growth in various sectors amid a continuing tight talent market. The IT unemployment rate dropped to 2.4% in Q2 2023, well below the unemployment rate of 3.6% of the overall workforce and what is considered full employment, so the supply of IT talent remains a short one.

Further growth and expansion of the IT sector may very well be fueled by artificial intelligence (AI). There are many debates surrounding AI and its impact on the future of work, and I would like to address two of the most pervasive and that will directly impact tech employment – first, whether it will erase jobs or add them in the long run, and second, the ethical and governance aspects of the technology.

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The reality is companies across industries are increasingly leveraging AI to automate processes, improve efficiency, and gain valuable insights from data. According to a report by Gartner, by 2025, 75% of organizations will have an AI project underway, and the market for AI will reach $190 billion by 2025. This surge in AI adoption indicates a growing demand for skilled professionals who can develop, implement, and manage AI systems.

Consider that although employer job postings for future hiring declined modestly in June to just under 236,000, about 21,000 job postings were related to AI. In fact, employer job postings for AI reached a new high point as a percentage of emerging tech postings (38%) and overall tech job postings (9%), according to CompTIA analysis in June.

Additionally, the World Economic Forum concluded that while AI would likely take away 85 million jobs globally by 2025, it would also generate 97 million new jobs in fields including big data, ML, and information security.

Perhaps most encouraging is the impact AI and ML will have on shoring up the short supply of IT skills that has plagued companies for the past many years. A recent LinkedIn Workforce Confidence survey found that 40% of people surveyed believe that gaining AI skills will help advance their careers and that 27% of U.S. professionals say they are interested in learning AI skills in the next year.

When it comes to the debate surrounding the ethics and governance of AI, it will likely be one for years to come and evolve over time. However, the impact it will have on IT skills is less murky. As echoed recently by UNESCO, "in no other field is the ethical compass more relevant than in artificial intelligence. These technologies are re-shaping the way we work, interact, and live. The world is set to change at a pace not seen since the deployment of the printing press six centuries ago."

That is why I foresee an increasing demand for professionals specializing in AI and ML ethics and governance. Companies will seek experts who can navigate these complex ethical considerations, design fair and transparent AI algorithms, and ensure compliance with local and global regulations. Roles such as AI ethics officers, privacy consultants, and AI policy analysts will become critical in addressing these challenges and shaping the responsible development and deployment of AI and ML technologies.

As a valued partner, I hope you find these insights and our IT Labor Trends Report helpful in navigating the labor market and informing your hiring and retention efforts.

**Maruf Ahmed, President and COO**

# Key National Figures for IT Employment

**MONTHLY IT JOB GAINS – YOY**
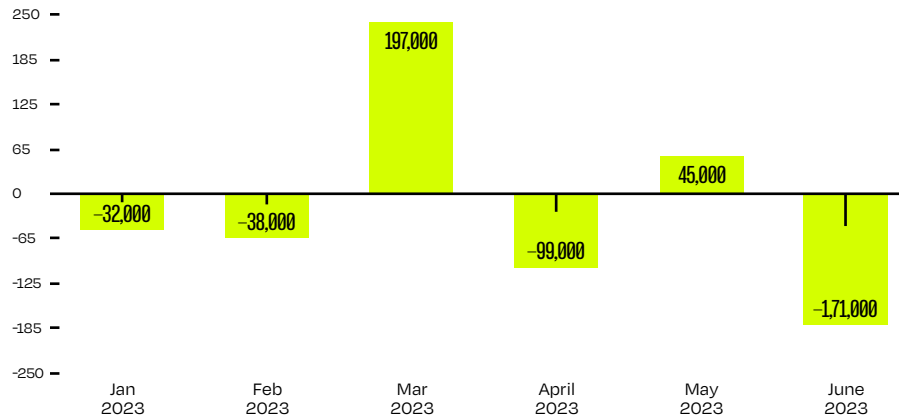


Technology employment across all industry sectors declined by an estimated 171,000 positions in June 2023, according to CompTIA's analysis of the U.S. Bureau of Labor Statistics' June 2023 jobs report.  Among the six top level tech occupation categories, three show positive gains through the first half of 2023 – IT and custom software services and systems design; PC, semiconductor and components manufacturing; and cloud infrastructure, data processing and hosting. In addition, employment by technology companies increased by 5,348 jobs in June 2023.

Sources: CompTIA

**IT & NATIONAL UNEMPLOYMENT RATES**



Unemployment Rate (National)

Unemployment Rate (Computer Occupations)
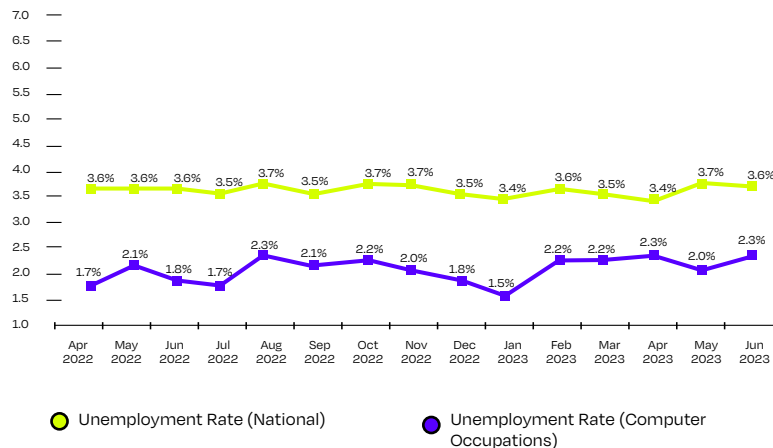
The U.S. unemployment rate dropped to 3.6% in June 2023, after rising slightly the previous month to 3.7% from a low this quarter of 3.4%. Meanwhile, the IT unemployment rate rose from 2.0% in May 2023 to 2.3% in June 2023. However, it remains well below the level considered full employment and 1.3 percentage points below that of the national unemployment rate.

Sources: BLS, CompTIA

# Remote Work, and The Skills Needed To Keep It Running, Here To Stay.

Remote work spiked during the pandemic, from about 6% of full workdays in the U.S. to more than 50% in the spring of 2020. Since then, it's steadily decreased and since early 2023 has hovered around 28%, according to Harvard Business Review. While many corporate executives believe it is time for employees to come back to the office, recent research suggests remote and/or hybrid work will be here to stay. A July 2023 Survey of Business Uncertainty found that executives across 500 businesses and industries project both fully remote and hybrid work to continue to grow in the next 5 years.

Of the nearly 236,000 tech job postings CompTIA reported in June 2023, just under 49,000 tech job postings offered remote work or hybrid work arrangements as an option. As remote work becomes more common and accepted, there will be a greater demand for tech professionals with expertise in remote collaboration tools and virtual communication platforms. As companies adopt hybrid work models and rely on remote teams, professionals who can effectively navigate and utilize these technologies will be highly sought after. Additionally, the increased focus on data privacy and compliance will drive the need for experts in data governance and privacy regulations, ensuring that organizations meet legal requirements and protect sensitive information.

**IT STAFFING EMPLOYMENT**

| June 2023 | TechServe Alliance IT Employment Index | Computer systems and design services | Management and technical consulting services | Data processing, hosting and related services |
|---|---|---|---|---|
| Number of jobs | 5,328,700 | 2,506,600 | 1,886,500 | 492,900 |
| Change from previous month | -0.03% | +0.1% | +0.6% | +0.3% |
| Change from June 2022 | -2.25% | +1.8% | +5.8% | +6.0% |

IT employment was essentially flat dipping only 0.03% month-over-month in June, according to TechServe Alliance, the national trade association for the Technology Staffing and Solutions Industry. On a year-over-year basis, IT employment was down 2.25% from June 2022, a net loss of 122,400 jobs.

Source: TechServe Alliance

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## IT SKILLS MOST IN DEMAND

|  | Q1 2023 | Q2 2023 |
|---|---|---|
| 1 | .Net Developer | Project Manager – Non Tech |
| 2 | Java Developer | Java Developer |
| 3 | Data Analyst | System Engineer |
| 4 | Application Production Support | Data Architect |
| 5 | Desktop Support | Data Analyst |
| 6 | Business Analyst (Non-Technical) | Business Analyst (Non-Technical) |
| 7 | Business Analyst (Technical) | Application Production Support |
| 8 | Cable Technician | Scrum Master |
| 9 | Project Manager (Infrastructure) | .Net Developer |
| 10 | Data Architect | Project Manager (App Dev) |

A recent CompTIA report noted that of the six top level tech occupation categories, three saw positive gains through the first half of 2023, including IT and custom software services and systems design and cloud infrastructure, data processing and hosting. Our own data mirrors this trend. Java developers, system engineers, data architects and data analysts claimed four of the top five most needed skills by our clients in 2Q 2023.

Sources: Dexian

## FASTEST/LONGEST TIME-TO-FILL SKILL SETS

| Fastest | Slowest |
|---|---|
| C++ Developer | Mobile App Developer |
| Workday | Application Security |
| Telephony | DevOps Engineer |
| Windows Engineer | Cloud Engineer |
| Technical Writer | Info Security Administrator |
| Project Coordinator | Windows Administrator |
| Azure | Cybersecurity Analyst |
| Systems Analyst | Front End (UI) Developer |
| Infrastructure Security | Java Architect |
| Power BI | .Net Developer |

According to CIO.com, 86% of technology managers say it's challenging to find skilled professionals in software and applications development, technology process automation, and cloud architecture and operations. In fact, many of the skills landing on our "slowest to fill" list are also listed among CIO.com's top 10 most in demand positions to fill, including cloud engineer, DevOps engineer, software developers, and security administrators.

Sources: Dexian

TREND REPORT

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| UNIQUE JOB POSTINGS, TECH & COMPUTER-RELATED OCCUPATIONS | | |
|---|---|---|
| **Occupation** | **Unique Job Postings – Q2 2023** | **Change from Q1 2023** |
| Software Developer | 202,247 | -14% |
| Software Quality Assurance Analyst and Tester | 23,342 | -12% |
| Computer Occupations, All Other | 386,032 | +19% |
| Computer Systems Analyst | 53,799 | -9% |
| Network and Computer System Administrator | 28,760 | -13% |
| Information Security Analyst | 36,110 | -5% |
| Computer and Information Systems Manager | 9,202 | -7% |
| Computer Programmer | 14,857 | -12% |
| Database Administrator | 27,473 | -12% |
| Computer Hardware Engineer | 3,323 | -32% |
| Computer Network Architect | 67,210 | +30% |
| **Total/Average Change** | **852,355** | **-6%** |

Employer hiring intent spans job roles across disciplines including software developers and engineers (64,957 June job postings), IT project managers, data analysts and related occupations (42,105), IT support specialists (22,898), systems analysts and engineers (17,029, and data scientists (15,131), according to CompTIA. While most of the job categories tracked by Dexian declined quarter-over-quarter, Computer Network Architect and Computer Occupations, all Others both increased significantly in 3rd quarter 2023. In total, the average change for all occupations tracked was a 6 percentage point decline from last quarter.

Sources: Lightcast, Signature Consultants analysis

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**TIME-TO-FILL RANGES BY JOB FUNCTION**
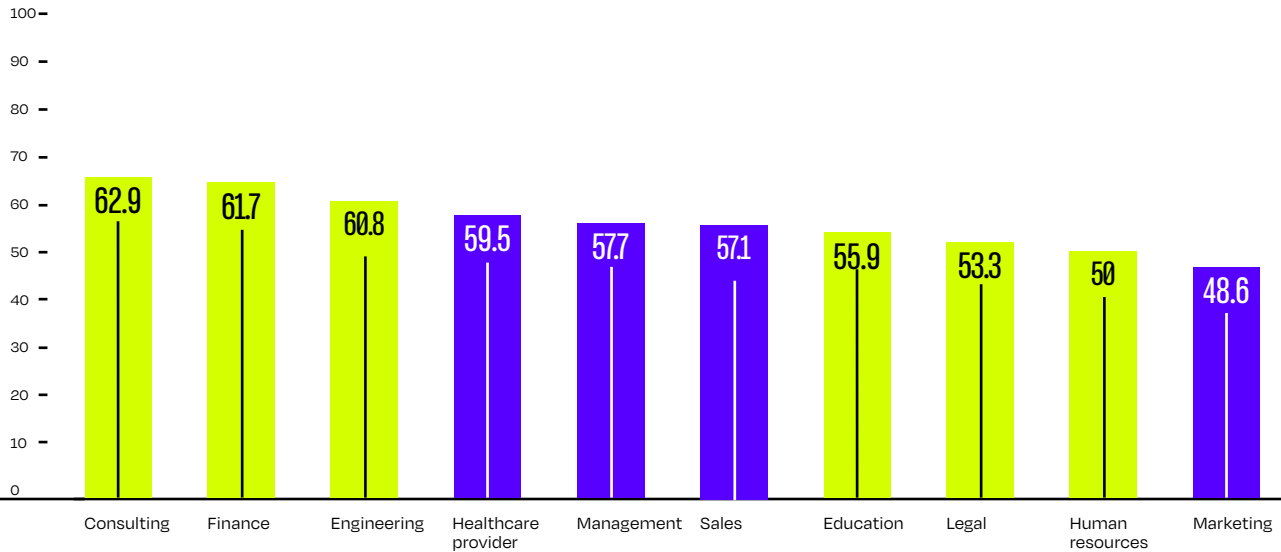


A recent LinkedIn Economic Graph identified the top 10 fastest and slowest to fill jobs according to job function. As the chart above shows, finance has the second-longest time to hire among 10 major job functions, taking an average of 61.7 days from the time that a finance job is posted on LinkedIn to the moment when the hirer reports it as filled. Consulting has the longest time to hire at 62.9 days while Marketing is at the other end of the spectrum at 48.6 days. Human resources (50.0 days) and legal (53.3 days) are two other fields with relatively short hiring pathways, according to LinkedIn data.

Source: LinkedIn Economic Graph, August 2023