

INDUSTRY UPDATE: Information Technology

Introduction

There is little question that artificial intelligence (AI) is the main buzz word in information technology (IT) these days. One recent survey suggests that the number of US business leaders planning to invest at least \$10 million in AI is set to nearly double in the coming year from 16% to 30%. They are planning to invest for a broad array of potential benefits, including enhancing operational efficiency, increasing employee productivity, and improving customer satisfaction. The same survey highlighted a number of impediments or prerequisites to successful implementation of AI, notably talent attraction and retention. Some 83% of survey respondents underscored this priority: attracting employees who are knowledgeable about AI. [See [source](#).]

Not surprisingly, LinkedIn shows a significant increase in the number of executives citing AI in their profiles—37,000 in the US, Canada, UK, EU and Middle East, up 10% year on year (YOY) with major pockets of competence in London, New York, San Francisco, Washington DC, and the UAE. Still, finding qualified talent is only part of the solution.

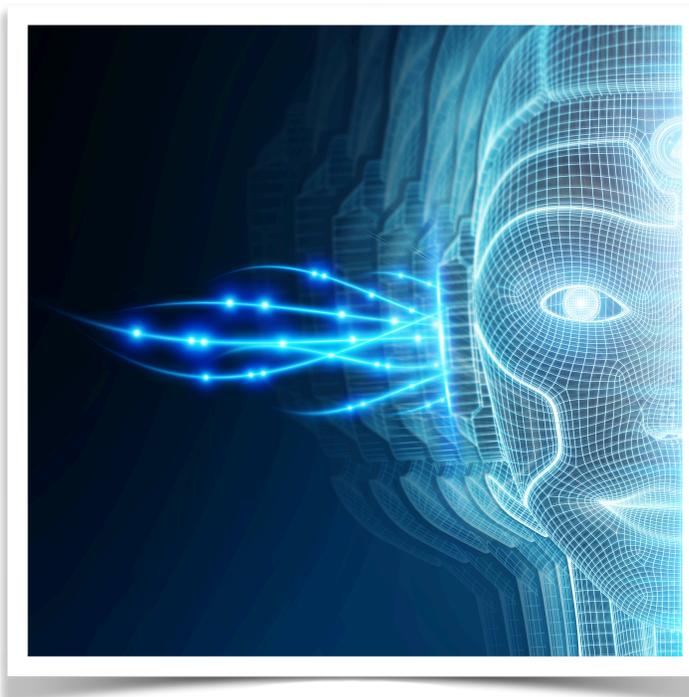
“As we move into the next phase of full-scale AI integration, leaders will need to develop a holistic strategy that completely reimagines the entire enterprise system to create an AI-centric business that best harnesses the transformative power of the technology.” [Traci Gusher, EY Americas AI, Data and Automation Leader; see [source](#).]

Concerns about the ethics of AI as well as having adequate technology infrastructure and data resources to truly benefit from AI also bubble up as major questions for businesses in this sector. However, interest is clearly growing as another source emphasizes: “Gen AI has seen a spike of almost 700 percent in Google searches from 2022 to 2023, along with a

notable jump in job postings and investments.” [See [source](#).]

Overall, technology investments actually appear to have fallen in 2023 by 30-40% to a total of \$570 billion—in spite of which innovation ramped up in three key areas according to McKinsey: “gen AI, applied AI, and industrializing machine learning.” [See [source](#)]. By way of explanation:

Gen AI creates new content from unstructured data (such as text and images), applied AI leverages machine learning models for analytical and predictive tasks, and industrializing machine learning accelerates and derisks the development of machine learning solutions. [See [source](#).]



The other major area of investment in technology encompasses energy:

Meanwhile, electrification and renewable-energy technologies continue to capture high interest, reflected in news mentions and web searches. Their popularity is fueled by a surge in global renewable capacity, their crucial roles in global decarbonization efforts, and heightened energy security needs amid geopolitical tensions and energy crises. [See [source](#).]

Concerns about the macroeconomic situation in the past year reportedly led to an apparent 17% decrease in global job postings but a 26% decline in those related to tech.

However, AI-related technology and renewables both demonstrated hiring gains despite the underlying negative trends, whereas certain other specializations suffered

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significant (minus 30% or more) declines in hiring across all organizational levels per this source: software development, digital trust and security, cloud and edge computing, industrializing machine learning, and immersive-reality technology. [See [source](#).]

More specifically, a recent survey uncovers the relative maturity of certain technologies by reviewing their investment statuses and categorizing these into “not investing,” “experimenting,” “piloting,” “scaling,” and “fully scaled.” On the most mature end of the spectrum, Cloud and edge computing came in at 48% “scaling” or “fully scaled,” while Generative AI and Applied AI came in at 25% and 26% “scaling” or “fully scaled” and only 26% of respondents said they were “not investing” in these two AI technologies. [See [source](#).]

Another source puts it quite simply: “Generative AI impacts everything.”

“We often see trends that affect a few parts of an organization, but generative AI has the potential to be a catalyst for change from back office to consumer products and everything in between,” says Mike Storiale, vice president of innovation development at financial services firm Synchrony. [See [source](#).]

The same source goes on to explain how Generative AI becomes a change agent forcing an organization to look under every stone with the result that prioritizing resources becomes a major challenge, as do speed and agility while still moving thoughtfully. In a related development, the data architecture required to support AI effectively may be quite different from existing models. This becomes particularly evident when deleting information. “Deleting data from an AI model is not like deleting an email or record from a database; it’s far more complex. [...] It will require new specialist skills to manage AI data models.” [See [source](#).]

A further source emphasizes the humanizing character of AI as the interface between man and machine evolves toward friendly “chat-bot” or voice-operative personalities, thereby encouraging more and more interaction. Many readers will have already interacted with Alexa, Siri, or Google Assistant, for example, all of whom are evolving rapidly thanks to AI. Ultimately, personas like these may well become

advisors and intelligent agents performing complex background tasks with real world consequences. [See [source](#).] Even direct neural connections to machines are gaining acceptance, particularly in the area of prosthetics. [Read [more](#).]

Let us not forget that AI servers also consume enormous amounts of energy. So much so that, for example, Microsoft is betting on bringing the Three Mile Island nuclear plant back out of mothballs to provide power for AI with debatable implications for the climate. [See [source](#).]

Fortunately, there are other hot topics in IT than AI. As is visible from the data above, the roll-out of Cloud computing is finally slowing down for at least two reasons. First, much of the immediate migration is now behind the companies that chose to migrate to the cloud, and, second, many of the companies that migrated have not necessarily seen the promised benefits yet. One source suggests why: “CIOs didn’t make the structural changes needed to unlock the full potential of the technologies they pursued.” [See [source](#).]

Zero-trust architecture solutions represent another IT trend attracting a lot of attention, essentially expediting threat assessment and remediation activities by automating many of the tasks involved in guarding against cyber threats. In a related development, systems that encourage “cyber-resilience” (rapid recovery from cyber attacks) are also gaining share of mind among CIOs. [See [source](#).]

Another intriguing area allegedly coming of age is so-called spatial computing, also known as virtual reality (VR):

Whereas desktop and mobile used screens as portals to the digital world, spatial will finally combine our disparate realities, fusing digital and physical together. Apps built for this medium will let people immerse themselves in digital worlds with a physical sense of space, or layer content on top of their physical surroundings. [See [source](#).]

The same source concludes: “The truth is that new mediums [like spatial computing] don’t come very often, and when they do, the uptake is slow. But the payoff for diving in early is nearly immeasurable.” This explains Meta or Apple VR immersion hardware.

In fact, the list of up-and-coming technologies quickly becomes

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mind-numbing [see yet another list here], but let us now turn our attention to the people who navigate this bewildering array of opportunities and threats—the executives in the Information Technology arena.

The Market for Executives

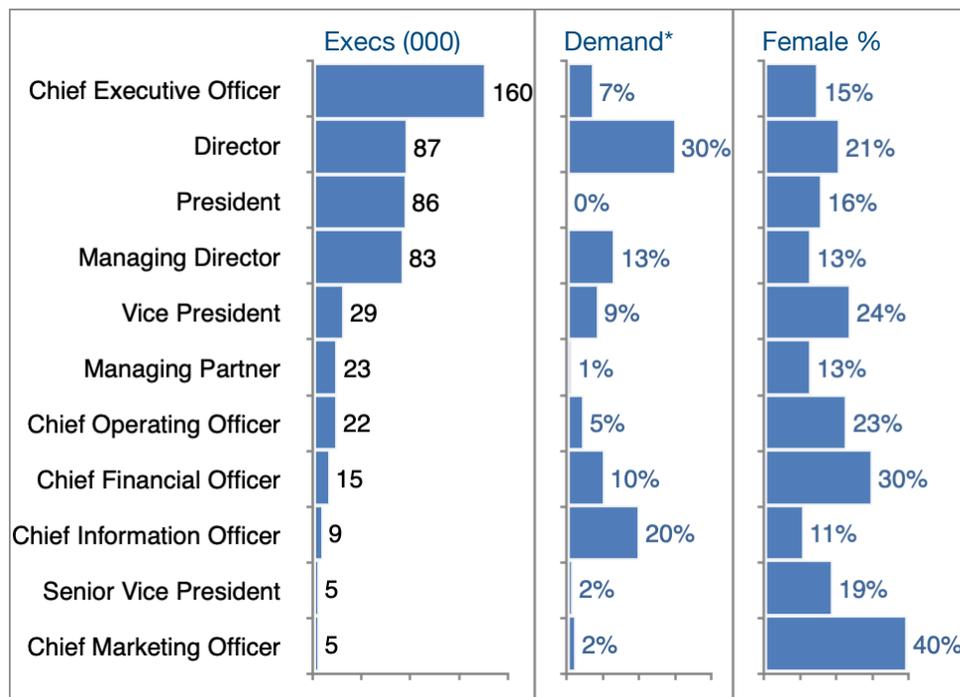
Almost 517,000 executives as we define them work in this industry across the geography targeted by our clients (see Editor’s Note). In the US and Canada they total about 242,000 (+8%) and precisely the same in the EU and UK (+5%), with another 35,000 (+4%) in the Middle East. Overall, the population has grown by 6% in the past year, and 20,000 also changed jobs, a relatively high “churn” of 4%. This means that the sector offered almost 50,000 executive opportunities in the last 12 months.

Most execs in this field are male with just 18% female executives on average, slightly higher in the US and Canada at 20%, 16% in the EU and UK, and 14% in the Middle East. In total, LinkedIn says these roles have a very high hiring demand.

In Chart 1, this Update examines the titles of this executive population which must be relatively unconcentrated (i.e., a high proportion of smaller firms versus some other industries) based on the ratio between CEOs and other titles, particularly Vice Presidents. (Only larger firms will have the VP level.) Clearly the major demand appears to have been at the Director level, though it is important to note that in The Barrett Group’s (TBG’s) experience, the vast majority of executive demand is sourced through unpublished channels and Chart 1 refers only to the published demand. CIO, Managing Director, CFO and VP round out the positions with the highest relative demand.

Female executives populated only the CMO (40%), CFO (30%), VP (24%), COO (23%), and Director (21%) roles to an over-proportional degree. While the participation of women in upper management increases steadily over time, a number of barriers also hold them back. The promotion gap, for example, seems important. One 2022 study found that women were promoted to management at the rate of

Chart 1: IT Executive Titles



*Relative demand based on help-wanted ads on LinkedIn.

Look Who’s Landing

In a recent blog post TBG examined our executive clients’ titles post-landing. Here is a small selection relevant for IT:

- Chief Commercial Officer
 - Chief Executive Officer
 - Strategy Consultant - Tech
 - Director of Revenue Operations
 - Director of Cybersecurity
 - Senior Account Executive,
 - Senior Product Marketing Consultant.
 - Business Operations Project Manager
 - Strategic Product Manager
 - Country Manager
 - Regional Sales Manager
 - Managing Director
 - Vice President of Accounting Shared Services
 - Regional Vice President
 - Vice President
- [Read More about Landings.](#)

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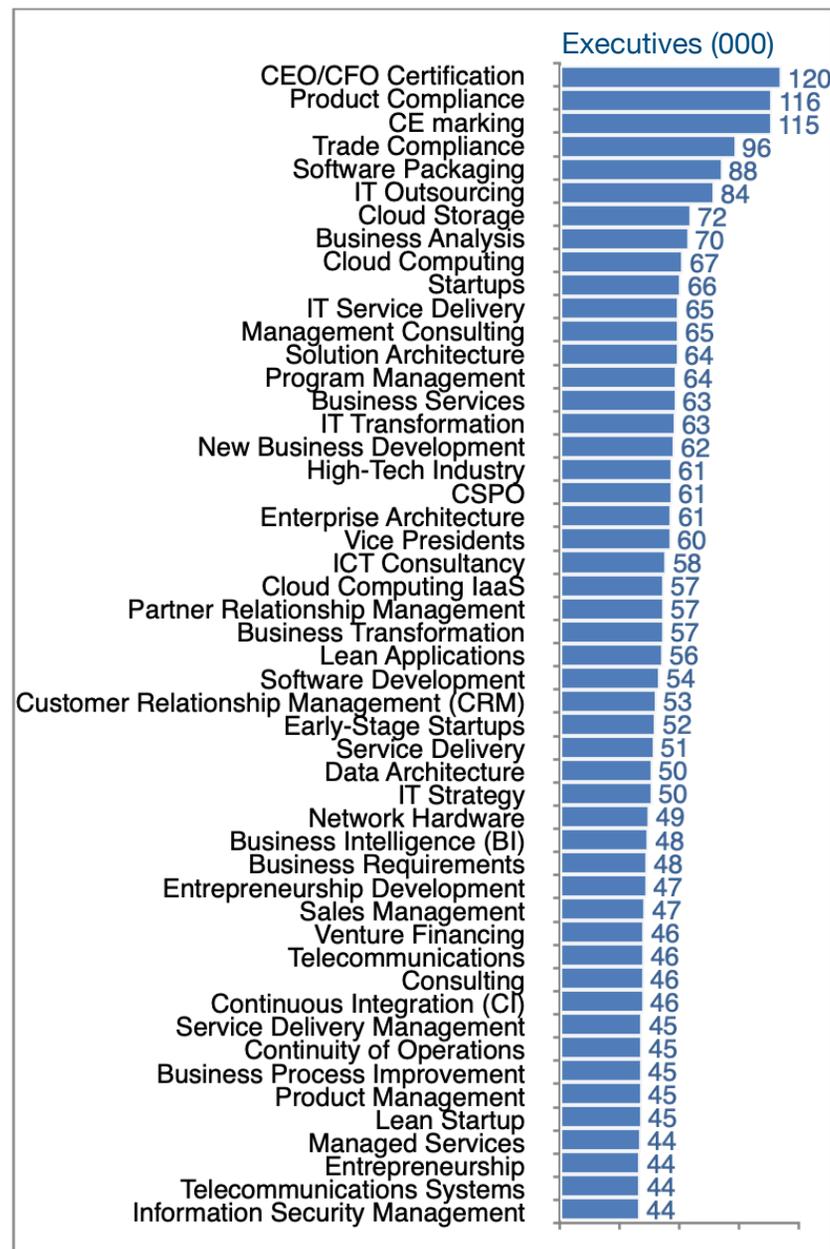
86 for every 100 men over all industries, but just 52 per 100 in IT.

In a rather extensive analysis of this latter issue, one source identifies a number of contributing factors including workplace culture (“50% of women said they had experienced gender discrimination at work, while only 19% of men said the same”), work-life balance (“46% of women said they do not feel supported by their employers to balance their work and home lives”), representation (“72% of women in tech report being outnumbered by men in business meetings by a ratio of at least 2:1”), compensation (“75% of men believe their employer offers equal pay while only 42% of women say the same”), and leadership (women are “more likely to experience microaggressions or to have their judgement questioned”). [See [source](#).]

The biases affecting women may also be entrenched beyond IT management: “[A] study from Women in Tech Network found that 65% of recruiters believe that bias is an “ongoing problem in technical recruitment,” noting that women are also 1.6 times more likely to be laid off than men. In 2022, during the mass tech layoffs, a staggering 69% of those laid off in the industry were women. [See [source](#).] In short, if the IT industry wishes to attract and retain female executives, proactive attention to these issues is urgently required.

Chart 2 summarizes the specializations or skills that IT executives have

Chart 2: IT Executives’ Specializations



Editor’s Note:

In this Update “executives” will generally refer to the Vice President, Senior Vice President, Chief Operating Officer, Chief Financial Officer, Managing Director, Chief Executive Officer, Chief Marketing Officer, Chief Information Officer, Managing Partner, General Counsel, Head, President and Director titles principally located in the US, Canada, Europe, the UK, and/or the Middle East. Unless otherwise noted, the data in this Update will largely come from LinkedIn and represents a snapshot of the market as it was at the time of the research. Is LinkedIn truly representative? Here’s a little data: LinkedIn has more than 1 billion users. (See [Source](#).) It is by far the largest and most robust business database in the world, now in its 20th year. LinkedIn Talent Insights data is derived by aggregating profile data voluntarily submitted by LinkedIn members. As such, LinkedIn cannot guarantee the accuracy of LinkedIn Talent Insights data.

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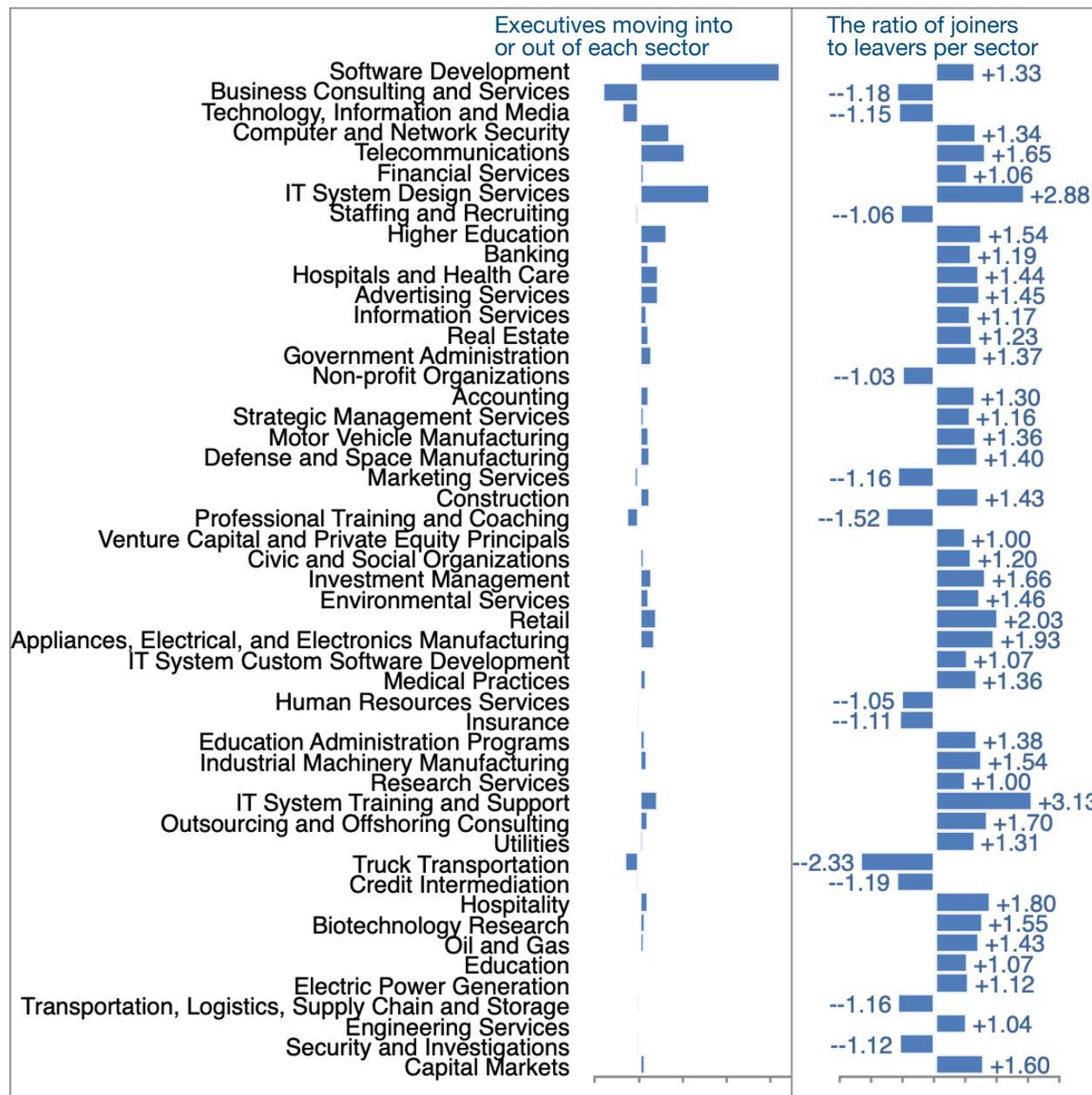
included in their LinkedIn profiles. Relative demand (i.e., help-wanted ads on LinkedIn) focused mainly on Management Consulting, Business Transformation, New Business Development, IT Strategy, and Business Process Improvement in the top 50. Farther down the list, Vendor Management, Infrastructure, and Mergers & Acquisitions crop up as being highly in demand.

In Chart 3 readers will find an overview of the industries to which or from which IT executives are moving in the past year. By way of explanation, a positive bar (projecting to the right of the center line) in the first half of the chart means that more executives moved *into* that industry or segment than moved *out* of it. The second half of the chart profiles the ratio of joiners to leavers per sector. For example, IT System Design Services enjoyed almost 3 (2.88) times more executives joining that business activity than those leaving it. Conversely, Business Consulting and Services saw 18% more executives leave this segment than those who joined it.

Because of the relatively small numbers per segment, TBG is not at liberty to divulge specific headcounts in this public document, however, our clients enjoy custom-tailored research on data bases comprising more than 10 million business contacts as they begin their initial career change industry screenings, or indeed, later, when they are preparing for key interviews and need more information, for example, about hiring executives.

Chart 4 turns to the subject of employers, where, again, because of the modest numbers per company, TBG is not permitted to reveal

Chart 3: IT Executive Movements between Industries



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specific executive headcounts per company publicly, however, readers can easily glean an understanding of their relative size due to the length of the bar.

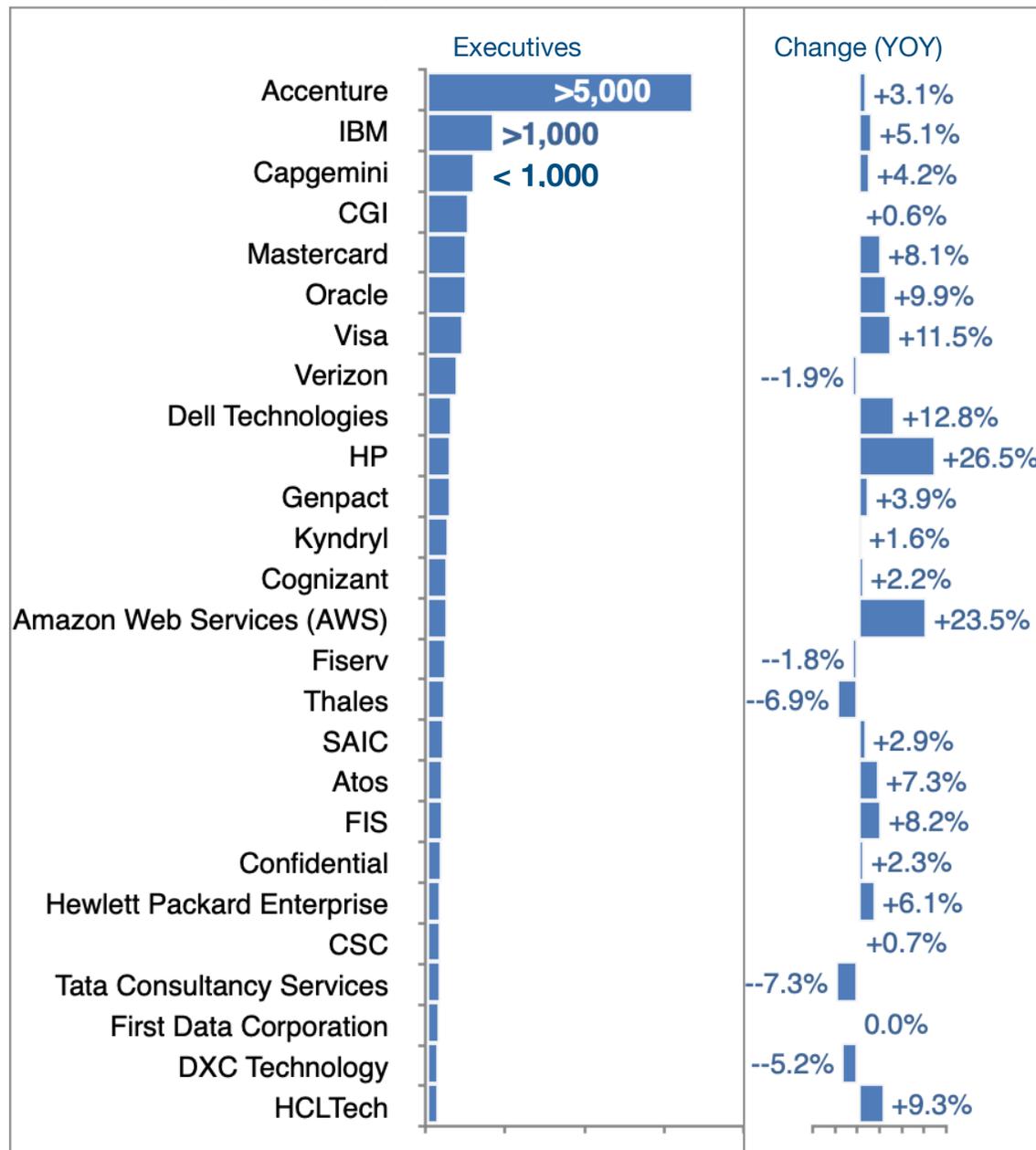
HP shows the highest YOY growth in Chart 4. The IT press announced this hiring drive in April 2024 as HP apparently wanted to refresh its executive ranks for organic growth in various regions. [See [source](#).]

Along with its heady growth in executive headcount, AWS saw plenty of changes in 2024. “From Amazon Web Services’ Adam Selipsky officially stepping down as CEO Monday [June 2024] to the recent hiring of Google Cloud’s former vice president of engineering, AWS is witnessing a major leadership shakeup. After three years of leading AWS, Selipsky officially left the company June 3, handing over the reins to longtime AWS veteran and new CEO Matt Garman.” [See [source](#).]

Dell’s 12.8% increase in executive headcount from its post-layoff levels in 2023 is likely to be reversed by new moves announced in August 2024: “According to a recent survey from CNBC and SurveyMonkey, 42% of U.S. workers are concerned about the impact AI will have on their jobs. For Dell employees, this nightmare has just become a reality as the tech company just revealed that it is boosting its investment in AI, and as a result, its workplace has just become “leaner.” An estimated 12,500 Dell employees, who worked in the sales division, have been laid off from their jobs on Aug. 5 as the company is planning to invest in a new group that will focus on AI products and services. “We are getting leaner. We’re streamlining layers of management and reprioritizing where we invest,” said Dell sales executives Bill Scannell and John Byrne in a memo to employees, according to a recent Bloomberg report.” [See [source](#).]

Thales sold its ground transportation business to Hitachi Rail in May 2024, which explains the decrease.

Chart 4: Top Employers of IT Executives



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According to a company statement in May 2024, “Hitachi will enhance its digital services by leveraging IT, OT, and products on an expanded installed base in the mobility arena, and solve global social challenges through co-creation with customers.” [See [source](#).]

For its part, Tata Consultancy has been a donor to several of the companies in a growth mode above, however, there has also been restructuring, for example, the recent end of the company’s contract with Transamerica in Iowa. [See [source](#).]

Lastly, headquarters location remains important even for an industry that supports so much virtual work as many executives still work at least in part from a company office. Chart 5 depicts the top locations for the execs in this industry with London and New York, as usual, vying for top honors, but Washington, DC unusually high in the ranking at third place. Los Angeles, San Francisco, and Paris round out the top six.

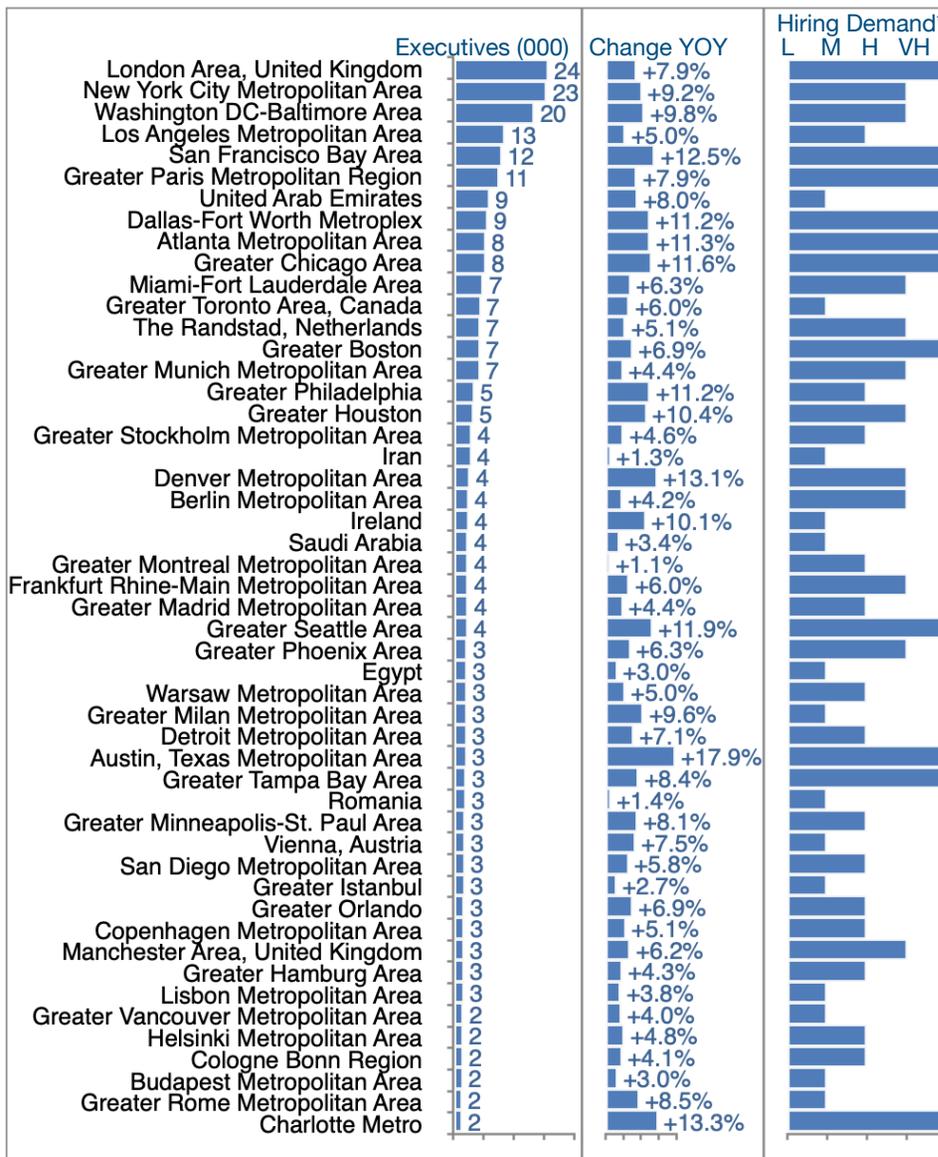
Austin (+17.9%) shows very high growth. Dell, Accenture, and Visa are the largest employers of executives there in the sector. Both in Denver (+13.1%) and in San Francisco (+12.5%), Visa, Accenture, and Oracle constitute the top three.

Historical growth is good, but projected future growth may be even more important for executives in the sector considering a change of location. In this regard, LinkedIn provides its perspective on hiring demand by describing a location as having low, moderate, high, or very high (forward-looking) hiring demand.

London, San Francisco, Paris, Dallas, Atlanta, Chicago, Boston, Seattle, Austin, Tampa, and Charlotte all evince expected very high hiring demand. New York, Washington, DC, Miami, The Randstad, Munich, Houston, Denver, Berlin, Frankfurt, and Manchester all come in at high on the hiring demand scale, too.

Clearly, in a general publication such as this one we cannot meet everyone’s data needs, however, as mentioned above, our clients receive the support of a team of experts, including a research specialist, who can make all the difference when an executive is looking for that needle-in-the-haystack, perfect position. Read [Research to the Rescue](#) for more information.

Chart 5: Executives’ Employment Locations



*Hiring demand per LinkedIn: Low, Moderate, High, Very High.