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DATA REPORT

Operators struggle to overcome ongoing staff and skills shortage

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To reduce the impact of staff shortages, data centers operators often use short-term tactics, such as spending more on employee retention and poaching trained candidates from other data centers. In many cases, these strategies will fail to offset the inevitable aging out of experienced staff. Despite the urgency, many companies are neither investing the resources to increase longer-term retention of current staff and development of new staff, nor are they expanding their search to include under-utilized talent pools. Regions with a more mature workforce will likely be hit hardest by staffing shortages.

The Uptime Institute Data Center Staffing Survey 2023, conducted online in August and September 2023, had more than 400 end-user respondents. This report highlights some of the findings.

KEY POINTS

- Data center operators are spending more to attract and keep staff — but these funds are often not targeted on areas where most skills and staff are needed.

- Companies are investing insufficiently in training and development programs for newer employees. There is an overall shortage of new entrants to the industry.

- Poaching of employees from competitor organizations, which is currently at a high level, is failing to resolve staff shortage issues.

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Data centers compete for staff in a limited talent pool

Most operators say they are having difficulty sourcing candidates to fill open positions (**Figure 1**). This is due to the strong demand for skills outstripping supply and is exacerbated by companies competing for a small pool of experienced employees — and failing to train and retain new recruits. There is a significant increase (20 percentage points, n=621) in respondents reporting that staff are being hired away, compared with results from Uptime Institute's 2023 global data center survey. Although the participant groups from these two surveys are distinct, this data reveals that staff poaching by competitors is particularly high.

Figure 1

Regarding staff retention in your organization, please choose any of the following statements that apply. (n=211)

58%
We are having difficulty finding qualified candidates for open jobs

55%
We are having difficulty retaining staff

40%
Staff being hired away by competitors (doing data center work)

15%
Staff being hired away by non-competitors (doing non-data center work)

19%
None of the above

(Responses for "Don't know" are not included.)

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A third of companies lack hiring and training initiatives

Despite 58% of companies reporting difficulty in sourcing qualified candidates to fill vacancies (see **Figure 1**), more than one-third (34%) of respondents do not have programs in place to hire new recruits from outside the industry (**Figure 2**). Without enough operational staff, companies are less likely to have the resources to organize training initiatives. Employers are more likely to allocate any additional funds for salaries to retain current staff, rather than invest in training new staff. This is consistent with reports from the US Bureau of Labor Statistics in 2022, which revealed that younger employees have a significantly shorter tenure than senior employees and are more likely to be hired away.

Figure 2

Does your organization have initiatives or programs in place to hire new entrants into the job market (e.g., recent college graduates or training program graduates)? (n=402)

YES
66%

NO
34%

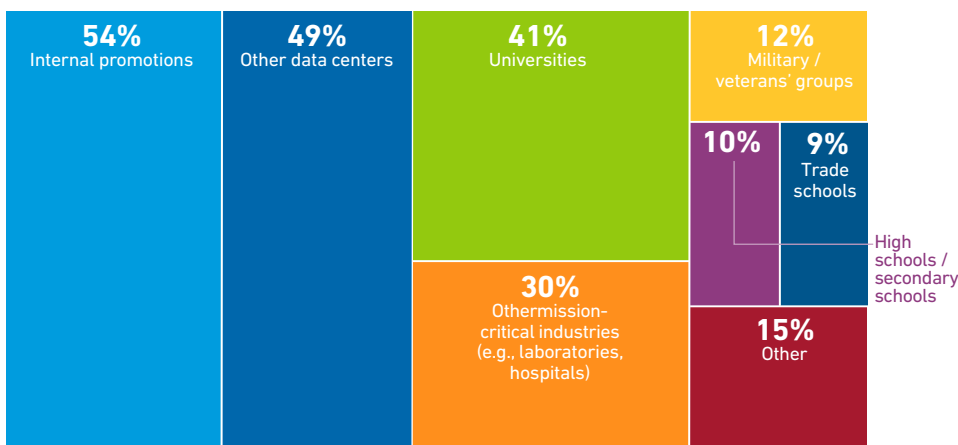UPTIME INSTITUTE DATA CENTER STAFFING SURVEY 2023

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Many companies only use obvious recruitment methods

While resourcing and promoting internally is clearly the preferred and least expensive path for most, managers commonly hire from other data centers operators (**Figure 3**). Although university hires account for the third highest source of recruits (41%), the relatively short tenure of this group compared with older employees (discussed above) signals a need for data center organizations to incentivize longer-term retention of this group — or else recruit from an alternative source. Almost half of all respondents who selected "other" acquire talent through agencies, indicating a lack of ground-level knowledge on how to engage effectively with possible talent pools.

Figure 3

Where has your organization recently recruited from for open data center positions? Choose all that apply. (n=226)

54% Internal promotions	49% Other data centers	41% Universities	12% Military / veterans' groups	
			10%	9% Trade schools
		30% Othermission-critical industries (e.g., laboratories, hospitals)	High schools / secondary schools	
			15% Other	

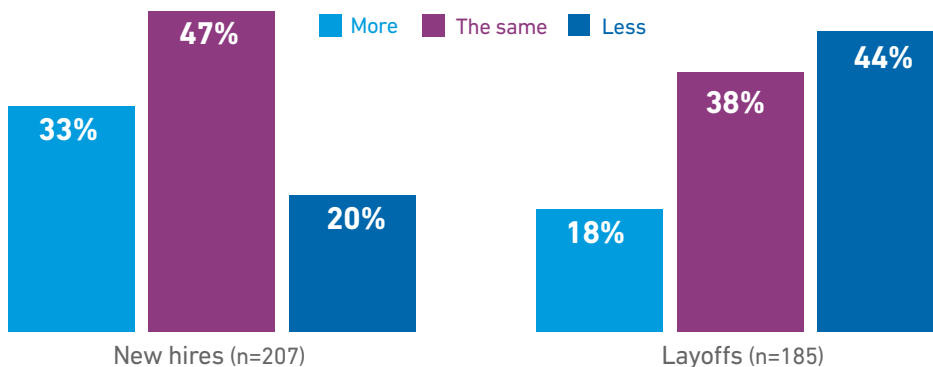UPTIME INSTITUTE DATA CENTER STAFFING SURVEY 2023

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Recruitment outstrips layoffs

As might be expected in an industry that is expanding, most operators say they have recruited more staff than they have laid off in the past year. Four of five respondents say that the number of new hires has either been maintained or increased in the past year; and a similarly high proportion say they have laid off the same or fewer staff in the past year. Previous Uptime Institute research has shown strong global demand for many roles in the data center sector — but there is less data to show how successful recruitment for these roles has been.

Figure 4

How would you characterize the number of new hires (full- or part-time) and layoffs in your company at this point in 2023, compared with the same point last year (2022)?

Legend: ■ More ■ The same ■ Less

New hires (n=207): More 33%, The same 47%, Less 20%

Layoffs (n=185): More 18%, The same 38%, Less 44%

Data center owners and operators only

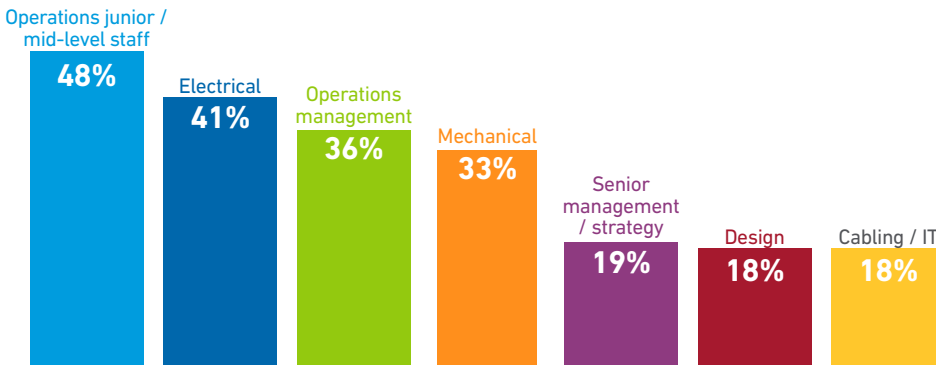UPTIME INSTITUTE DATA CENTER STAFFING SURVEY 2023

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Staff shortages are mostly in junior positions

Most staff shortages over the past year have occurred in mid- or junior-level operations positions (**Figure 5**). Only 19% and 18% of respondents reported staff shortages in the senior management / strategy and design categories, respectively. While 41% of respondents are recruiting recent university graduates to fill vacancies (**see Figure 3**), many in this category will be seeking higher positions with a clear path to more responsibility and higher salaries. It may be challenging for data center organizations to retain well-qualified candidates in entry-level positions over the long term.

Figure 5

In which of the following areas has your organization experienced data center staffing shortages during 2023? Choose all that apply. (n=210)

(Responses for "Other" not included.)

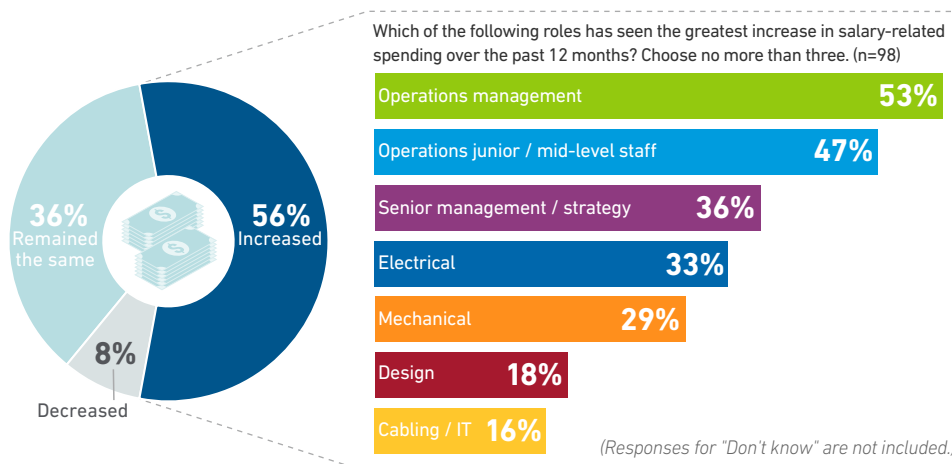UPTIME INSTITUTE DATA CENTER STAFFING SURVEY 2023

Salary rises concentrated on operations roles

Most respondents (56%) report increases in salary-related spending: a majority of these salary increases apply to operations management (53%), followed by junior / mid-level operations staff (47%) (**Figure 6**). These findings confirm that competition for existing qualified employees is causing data center executives to increase salaries to retain (and recruit) staff. Counterintuitively, the data also suggests that salary increases do not correspond to the areas where staffing shortages are more severe, such as mechanical and electrical roles. Furthermore, despite respondents reporting only a 19% shortage in senior management / strategy roles (see **Figure 5**), 36% of respondents report increased salary spending for this group.

Figure 6

Has your organization's overall salary-related spending increased, decreased or remained the same over the past 12 months? (n=176)

Which of the following roles has seen the greatest increase in salary-related spending over the past 12 months? Choose no more than three. (n=98)

(Responses for "Don't know" are not included.)

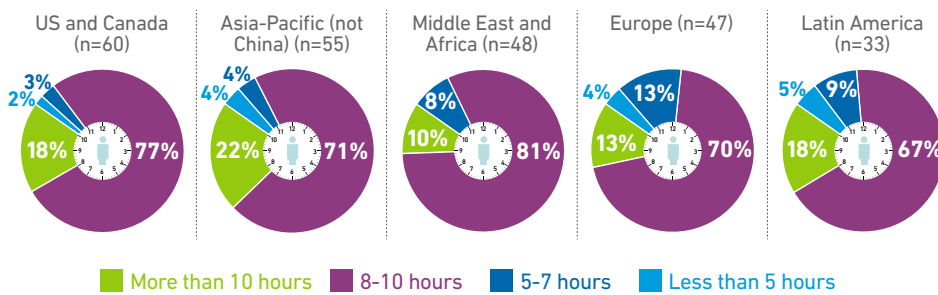UPTIME INSTITUTE DATA CENTER STAFFING SURVEY 2023

European workers have shortest shifts

Most data center employees work 8-hour to 10-hour shifts, but there are significant regional differences for those working more than 10 hours per shift (**Figure 7**). Asia-Pacific respondents are almost twice as likely to work more than 10 hours per shift than their counterparts in Europe. US staff also work longer shifts than those in Europe. There is some evidence, however, that those working longer shifts are more likely to cause errors, potentially resulting in outages. European companies — whose shift hours tend to be more tightly controlled — may be circumventing the need for longer shift coverage by hiring more part-time employees.

Figure 7

How long is a typical single-day shift for employees working in your organization's data centers?

US and Canada (n=60)	Asia-Pacific (not China) (n=55)	Middle East and Africa (n=48)	Europe (n=47)	Latin America (n=33)
3% / 2% / 18% / 77%	4% / 4% / 22% / 71%	8% / 10% / 81%	4% / 13% / 13% / 70%	5% / 9% / 18% / 67%

🟩 More than 10 hours   🟪 8-10 hours   🟦 5-7 hours   🟦 Less than 5 hours

(All figures rounded.)
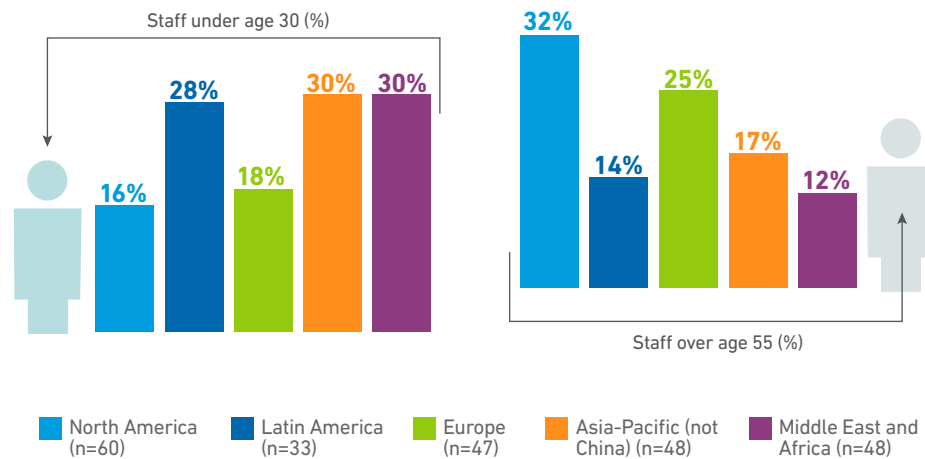
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Mature market operators face talent loss due to retirement

North America and Europe are the only regions where employees over 55 outnumber employees under 30 (**Figure 8**). The data center market in these regions is more mature than others and, as discussed earlier, workers are less likely to leave for other industries once they have gained experience or progressed into higher salaried roles. This longer-term job commitment means that these regions stand to lose most from employees retiring from the workforce, since it may not be easy to replace this level of experience.

Figure 8

What percentage of your organization's data center staff is under the age of 30 and what percentage is over the age of 55?

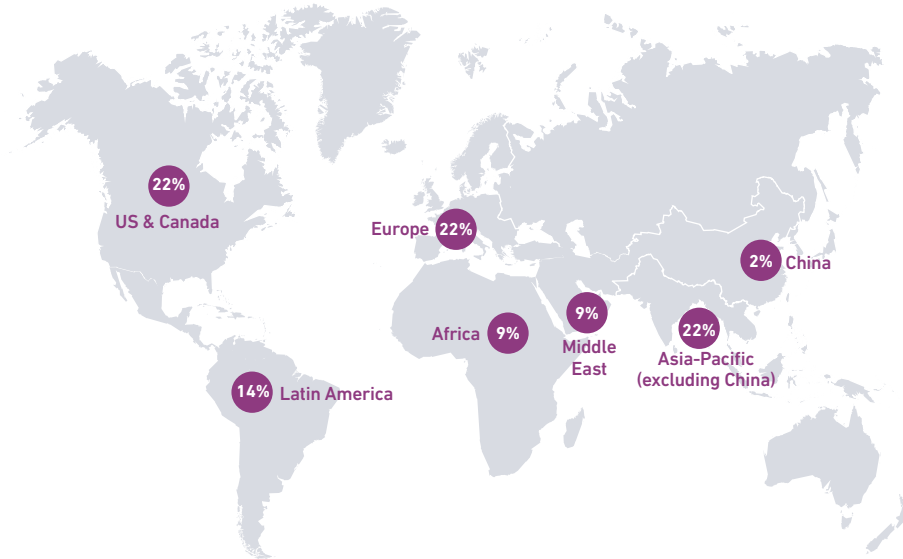Staff under age 30 (%): 16%, 28%, 18%, 30%, 30%
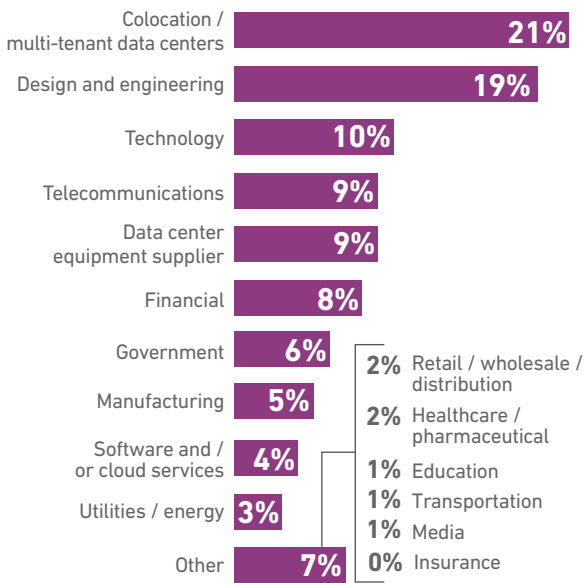
Staff over age 55 (%): 32%, 14%, 25%, 17%, 12%

🟦 North America (n=60)   🟦 Latin America (n=33)   🟩 Europe (n=47)   🟧 Asia-Pacific (not China) (n=48)   🟪 Middle East and Africa (n=48)

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Uptime Institute Data Center Staffing Survey 2023: demographics

Company location (n=423)

Location	%
US & Canada	22%
Europe	22%
China	2%
Africa	9%
Middle East	9%
Asia-Pacific (excluding China)	22%
Latin America	14%

Verticals (n=361)

Vertical	%
Colocation / multi-tenant data centers	21%
Design and engineering	19%
Technology	10%
Telecommunications	9%
Data center equipment supplier	9%
Financial	8%
Government	6%
Manufacturing	5%
Software and / or cloud services	4%
Utilities / energy	3%
Other	7%
Retail / wholesale / distribution	2%
Healthcare / pharmaceutical	2%
Education	1%
Transportation	1%
Media	1%
Insurance	0%

Job function (n=426)

Function	%
Critical facilities manager	43%
Consultant	16%
Senior executive (VP or C-level)	15%
Design engineer	14%
Critical facilities operations staff	8%
IT manager	8%
IT operations staff	4%
Other	16%

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All general queries

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About Uptime Institute

Uptime Institute is the Global Digital Infrastructure Authority. Its Tier Standard is the IT industry's most trusted and adopted global standard for the proper design, construction, and operation of data centers – the backbone of the digital economy. For over 25 years, the company has served as the standard for data center reliability, sustainability, and efficiency, providing customers assurance that their digital infrastructure can perform at a level that is consistent with their business needs across a wide array of operating conditions.

With its data center Tier Standard & Certifications, Management & Operations reviews, broad range of related risk and performance assessments, and accredited educational curriculum completed by over 10,000 data center professionals, Uptime Institute has helped thousands of companies, in over 100 countries to optimize critical IT assets while managing costs, resources, and efficiency.

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