GALVANIZE

State of the Market

Overcoming Technical Talent Shortages to Accelerate Digital Transformation

2021 Edition

About this report

Companies today are challenged to innovate and transform their offerings and operations to better meet customer needs and strengthen competitiveness. But delivering innovation is complex, and today's historically tight labor market restricts access to the technical talent needed to drive innovation.

Forward-thinking leaders are using this moment to rethink new sources for technical talent, reimagine existing employees' roles, and invest in expanding skills to better position their organizations for long-term success.

This report shares the latest market challenges and solutions on how leaders are addressing the large and growing need for skilled technical talent in their workforces.

We surveyed **300 leaders** at companies with over 5,000 employees to uncover the **trends, challenges, and solutions in talent sourcing and development** to help learn and act on best practices.

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State of the Market: Overcoming Technical Talent Shortages to Accelerate Digital Transformation

Technical Talent Business Priorities

What senior executives face when pursuing transformation and innovation.

Data-driven innovation and transformation are top priorities

While numerous organizations have made strides on data-driven innovation, too many still face obstacles in *how far* and *how fast* they have been able to achieve their desired level of growth.
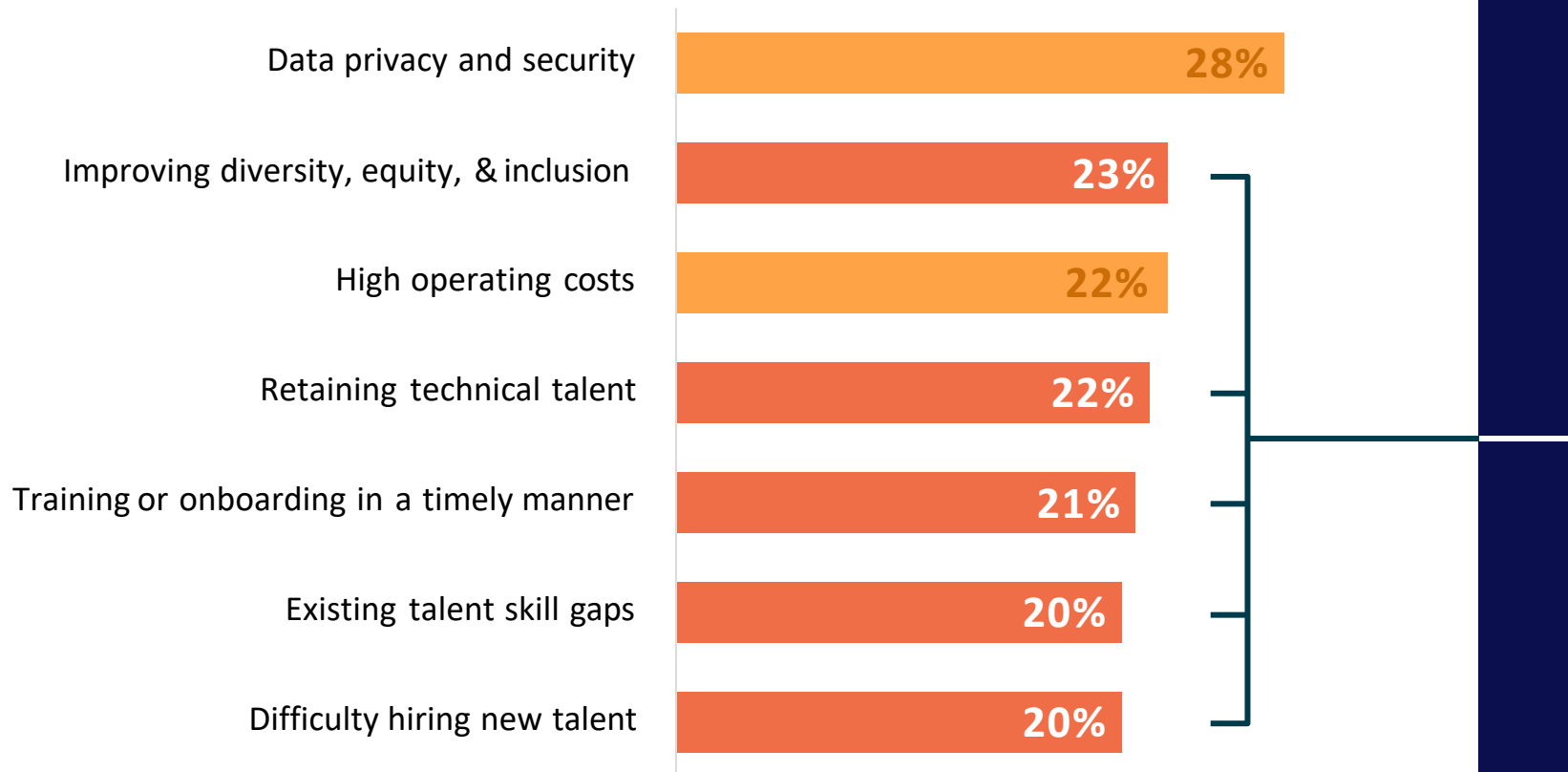
Successfully sourcing and training technical talent is key to unlocking that potential.

State of the Market: Overcoming Technical Talent Shortages to Accelerate Digital Transformation

95% of companies are actively seeking to tap into more value from their data scientists.

64% want to increase the amount of cloud-based IT processes in their organization.

Companies are facing talent obstacles on their journey to transformation

Top seven business challenges
by percent of respondents

Challenge	Percent
Data privacy and security	28%
Improving diversity, equity, & inclusion	23%
High operating costs	22%
Retaining technical talent	22%
Training or onboarding in a timely manner	21%
Existing talent skill gaps	20%
Difficulty hiring new talent	20%

Talent-related challenges make up 5 out of the 7 biggest challenges to business transformation.

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Leaders report a high level of urgency for hiring technical talent

Decision makers at enterprise-level companies agree that there is a large and growing need for skilled technical talent in their workforces.

Nearly two-thirds of respondents ranked the need for new technical talent as "very urgent" to "extremely urgent." Companies without the right talent in place today risk falling behind in an increasingly data-driven economy.

Level of urgency for new technical talent
by percent of respondents

64%

Urgency	Percent
1	0%
2	1%
3	1%
4	1%
5	9%
6	23%
7	21%
8	24%
9	15%
10	4%

Not At All Urgent

Extremely Urgent
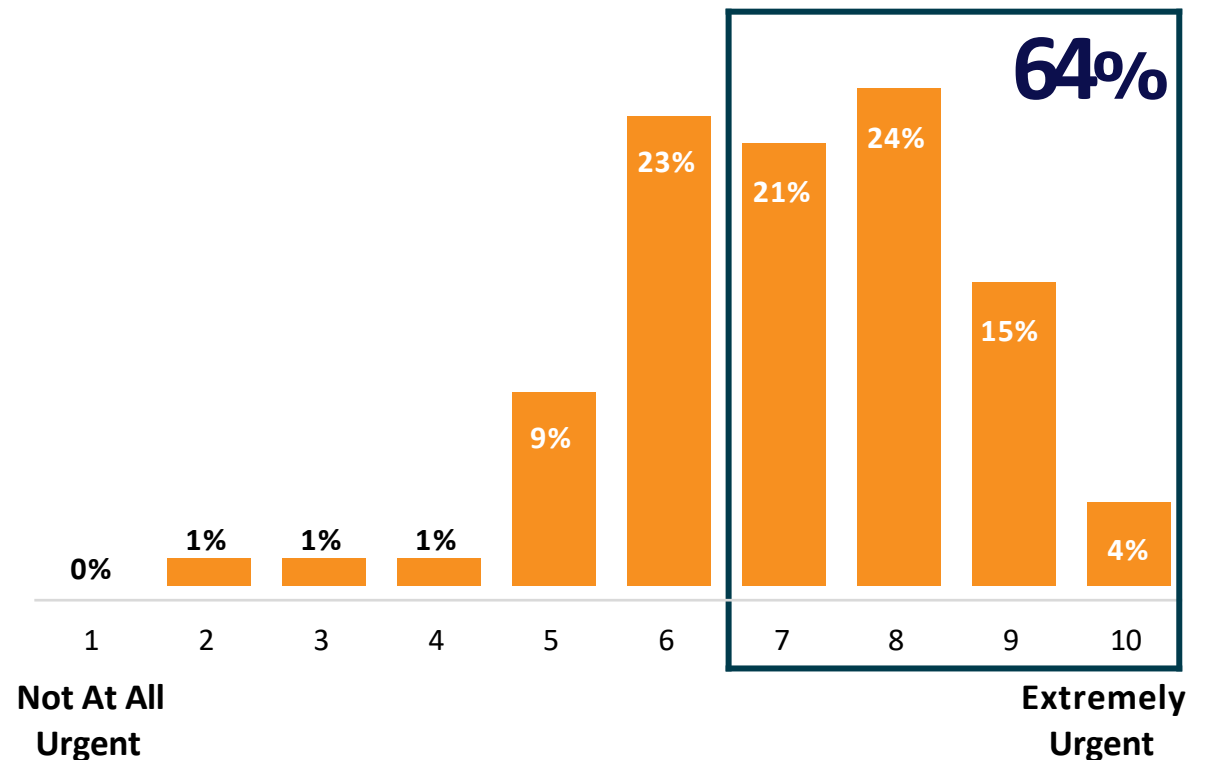
Talent Sourcing & Development Challenges

How organizations are recognizing and solving talent challenges.

Companies struggle with finding and retaining talent

Hiring leads face mounting difficulties around sourcing and retaining talent (technical and non-technical). Traditional recruiting efforts appear to be lacking in satisfying the strong demand for expanding an enterprise's skilled workforce.

Most pressing talent development challenges
by percent of respondents

51%	**47%**	**36%**	**33%**	**32%**
Qualified talent is not applying at the company	Retaining technical talent	Effectively recruiting talent	Finding qualified talent	Qualified talent is not interested in the company

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When looking at *hiring* skilled talent specifically, organizations are challenged with finding the right candidates and competing on salary.

Top 5 talent hiring challenges

52% Hard to find qualified candidates

47% Candidates are too expensive

34% We don't have the ability to hire right now

28% We are losing candidates to competitors

21% Recruiting takes too much time

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84% of companies say it's difficult to hire technical talent.

83% of companies indicate it's difficult to retain technical talent.

Once hired, companies face multiple challenges retaining talent, usually caused by insufficient employee growth opportunities, job complexity, and competition.

Top 5 talent retention challenges

48% Employees do not have enough growth opportunities

41% The job is too challenging or complex

40% Competition is paying higher signing bonuses

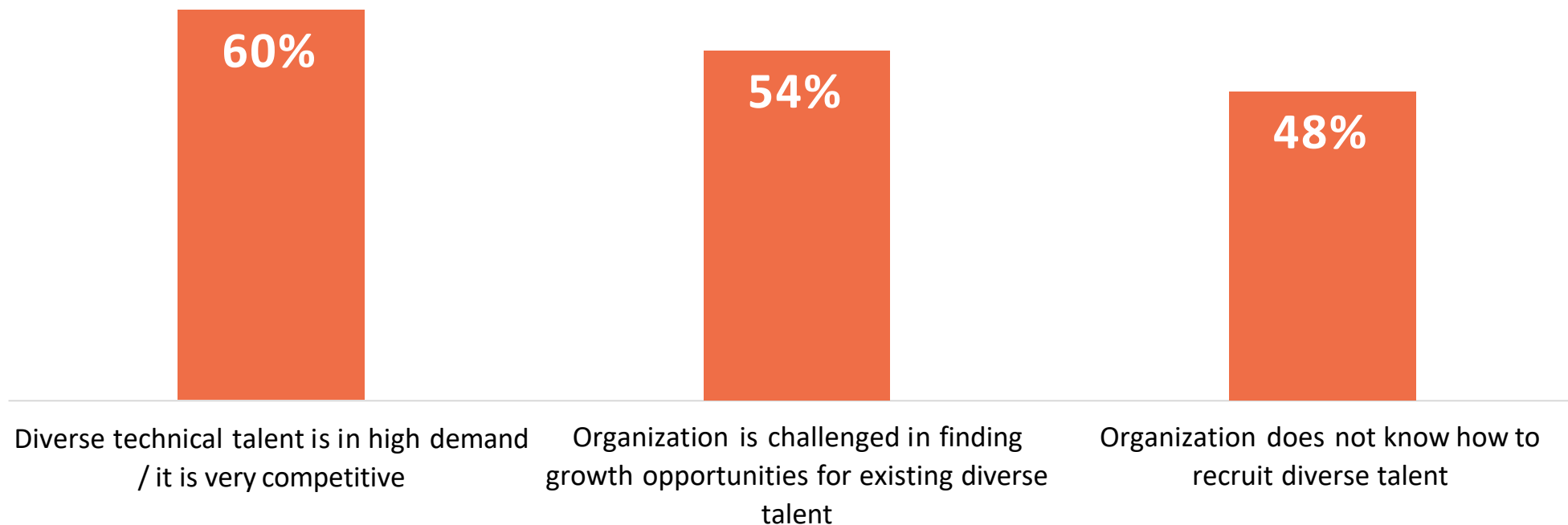**35%** Employees are not being challenged enough

26% Competition is paying higher salaries

Talent challenges are impeding DE&I growth

Organizations are having a difficult time both recruiting new diverse talent and growing existing diverse talent. In fact, 70% have difficulty finding diverse technical talent for reasons including high demand and lack of recruitment expertise.

Most pressing challenges finding and developing diverse technical talent
by percent of respondents

60%	**54%**	**48%**
Diverse technical talent is in high demand / it is very competitive	Organization is challenged in finding growth opportunities for existing diverse talent	Organization does not know how to recruit diverse talent

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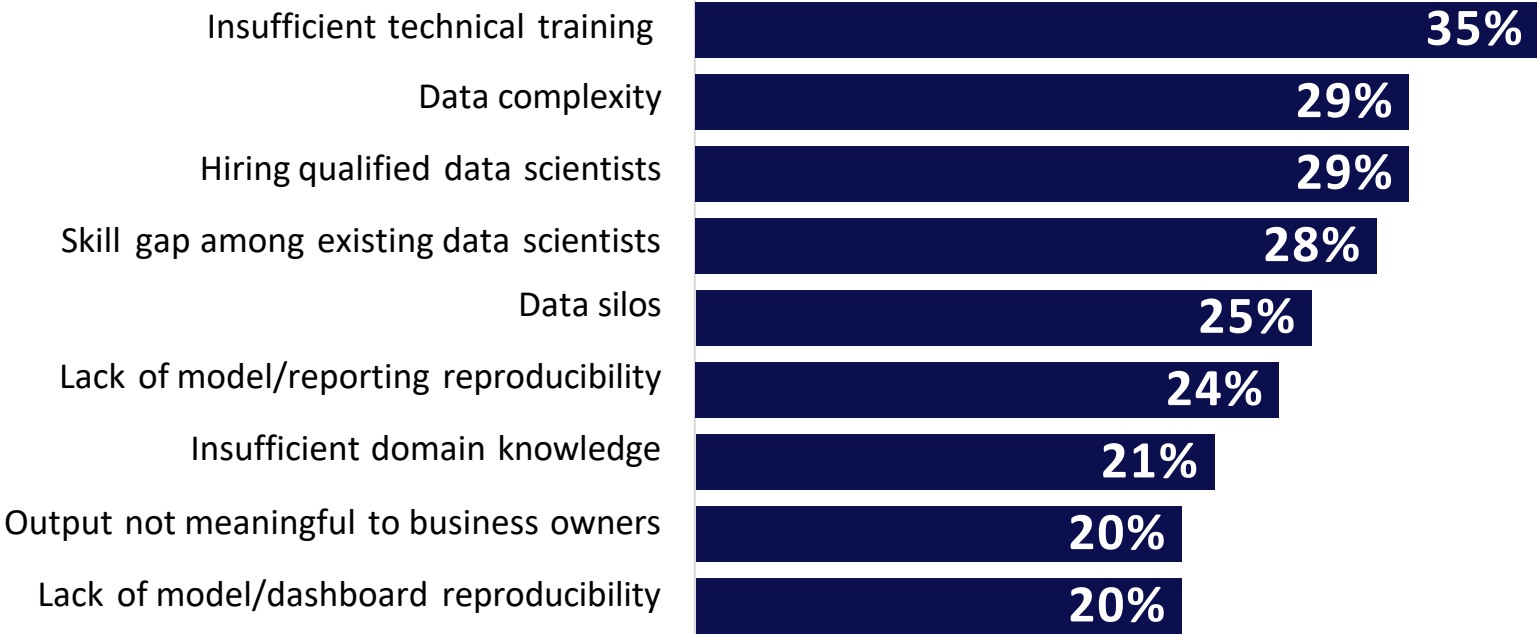
For data science specifically, numerous challenges limit progress and innovation

Talent challenges, such as insufficient training, hiring difficulties, and skill gaps, are leading barriers to data science advancement and contribute to organizational challenges like not having the skillsets to handle complex data.

Top data science challenges
by percent of respondents

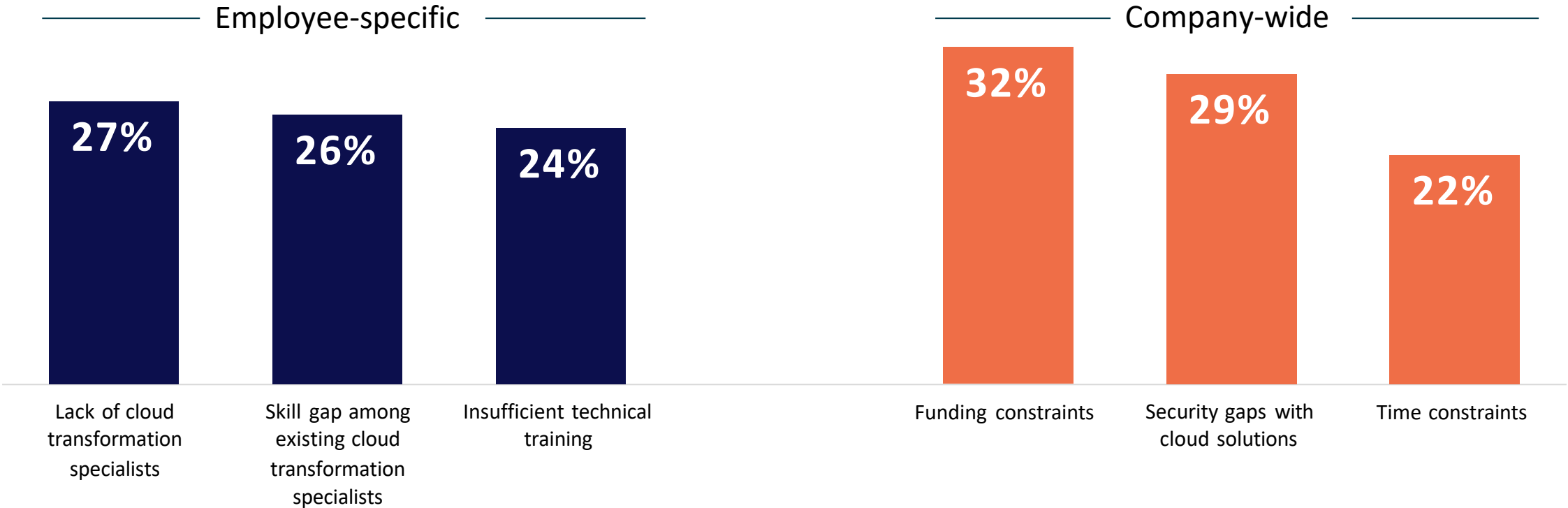| Challenge	Percent
Insufficient technical training	35%
Data complexity	29%
Hiring qualified data scientists	29%
Skill gap among existing data scientists	28%
Data silos	25%
Lack of model/reporting reproducibility	24%
Insufficient domain knowledge	21%
Output not meaningful to business owners	20%
Lack of model/dashboard reproducibility	20%

Talent challenges are also impeding the journey to cloud transformation

Insufficient talent and training can be seen at the employee level and have firm-wide implications—like security gaps with cloud solutions and staff time constraints.

Top cloud transformation challenges
by percent of respondents

Employee-specific

27% — Lack of cloud transformation specialists

26% — Skill gap among existing cloud transformation specialists

24% — Insufficient technical training

Company-wide

32% — Funding constraints

29% — Security gaps with cloud solutions

22% — Time constraints

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Hiring and retention challenges are creating a greater need for talent development

Transformation and innovation goals are posing challenges organizations are struggling to overcome. Many indicated that training gaps are impeding them from resolving these challenges.

Operational needs
ranked by respondents

49% Adequate funding for training

40% Management buy-in on importance of training

36% Adequate funding for recruitment

Talent needs
ranked by respondents

45% A robust technical training program

41% Domain/business knowledge training

24% A robust onboarding program

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Faced with technical talent shortages, companies turn to outsourcing, but with mixed feelings


One way that companies are trying to plug the talent gap of highly skilled technical employees is by outsourcing. Enterprise-level companies report over half (56%) of their technical talent is currently outsourced.

However, decision makers are looking to reduce this reliance on persistent outsourcing of talent. As companies increasingly realize the value of in-house staff driving innovation, this desire is likely to continue.

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Most companies are attempting to in-source previously outsourced talent.

Organizations actively trying to in-source talent
by percent of respondents

13%

87%
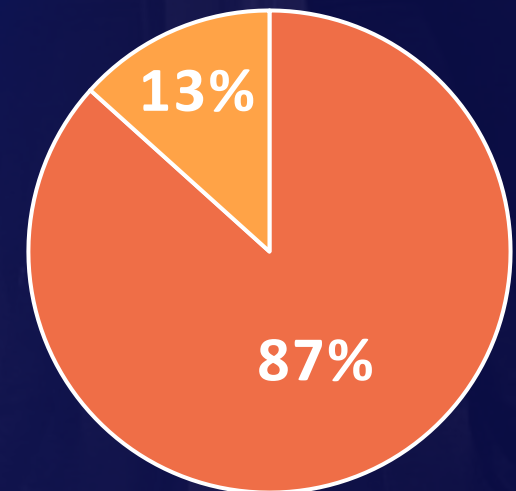
■ Yes ■ No

Talent Management Best Practices

How organizations are approaching talent development to support transformation and innovation.

Approaches to resolving talent challenges

Organizations are partnering with training and recruiting partners, hiring non-technical talent then intentionally upskilling them, and strengthening internal recruitment and training programs to better meet skilled talent demand.

Major improvement initiatives
by percent of respondents

43% Hiring a *training* vendor/partner

43% Hiring a *recruiting* agency/partner

39% Ramping up recruitment efforts

29% Hiring non-technical talent and upskilling them

24% Developing in-house technical training programs

State of the Market: Accelerating Cloud
Transformation through Talent Development

Successful companies are expanding their approach to meet the demand for technical talent

Source
i.e., hire experienced talent

+

Upskill
i.e., train existing talent

+

Grow
i.e., hire promising non-technical talent and train them

Innovative companies are **leveraging all three tactics** to overcome skill gaps and talent pipeline challenges.

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Prioritizing DE&I has a great impact on organizations

Business growth and innovation requires leaders to explore diversity, equity, and inclusion – providing more opportunities to historically-underrepresented populations while adding unique perspectives to organizations.

How DE&I efforts help organizations

83%

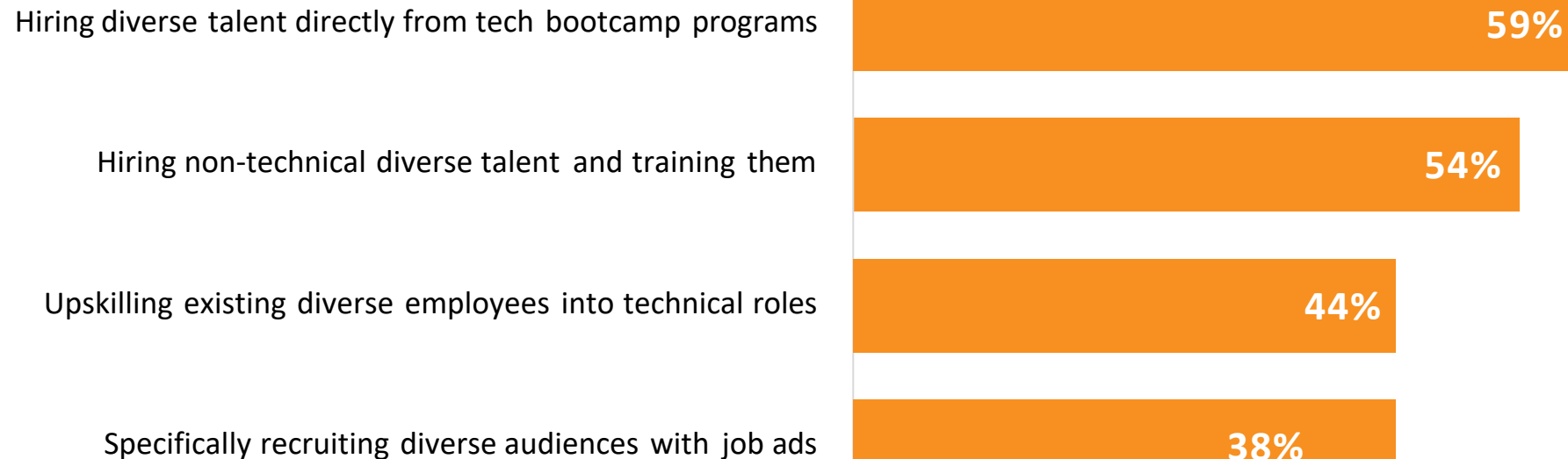Indicate DE&I efforts enable them to better meet the needs of customers

69%

Indicate they realize financial benefits from engaging in DE&I efforts

By engaging in DE&I initiatives, companies are better able to meet the needs of their customers and realize financial benefits.

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To overcome diversity challenges, organizations are turning to non-traditional methods

Organizations are increasing DE&I by recruiting through tech bootcamps and by *hiring non-technical talent and training them.* Many are also upskilling existing employees into technical roles.
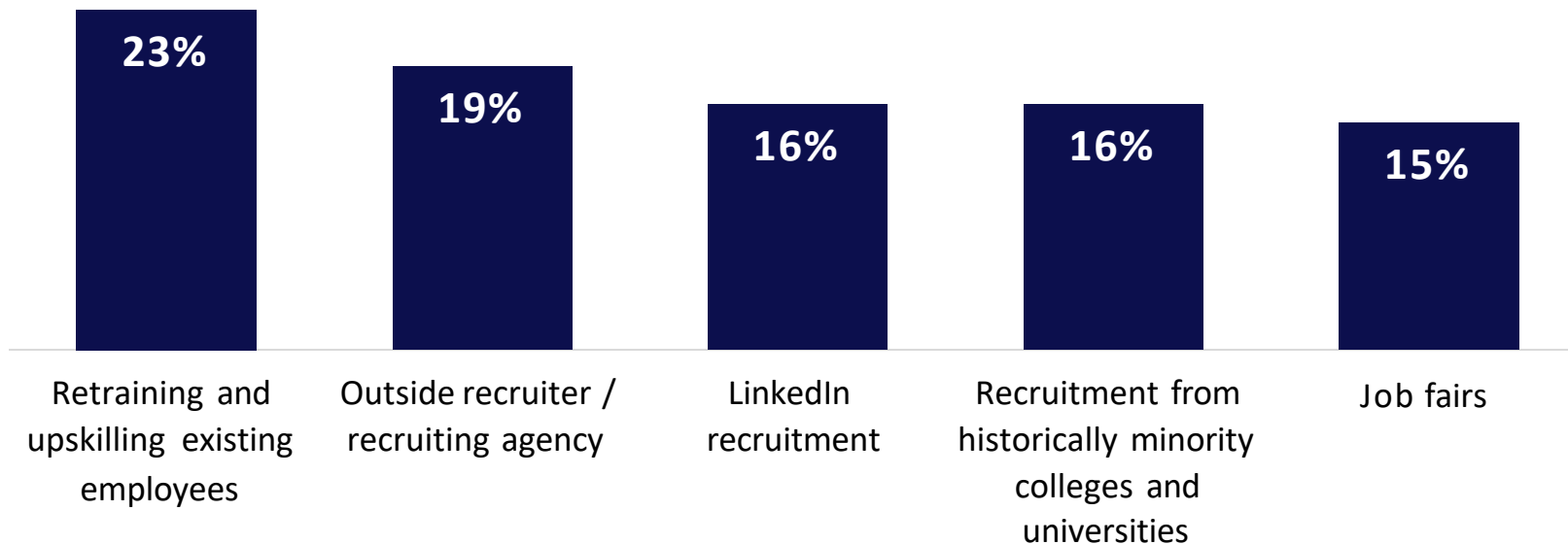
Tactics currently used to increase DE&I in technical talent

Tactic	Percentage
Hiring diverse talent directly from tech bootcamp programs	59%
Hiring non-technical diverse talent and training them	54%
Upskilling existing diverse employees into technical roles	44%
Specifically recruiting diverse audiences with job ads	38%

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Companies also find upskilling more effective than any recruitment tactic to diversify talent

As hiring becomes more challenging, many organizations are no longer relying on just recruitment tactics. Many believe the most effective way to source diverse technical talent is by upskilling existing employees.

Most effective ways to obtain DE&I talent

23%	Retraining and upskilling existing employees
19%	Outside recruiter / recruiting agency
16%	LinkedIn recruitment
16%	Recruitment from historically minority colleges and universities
15%	Job fairs

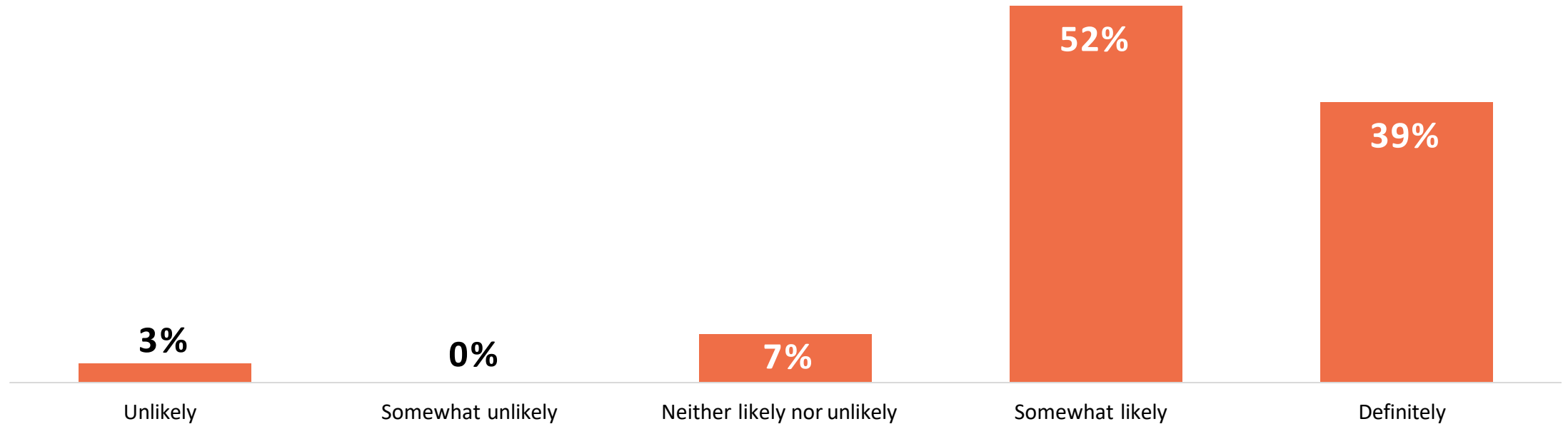State of the Market: Overcoming Technical Talent Shortages to Accelerate Digital Transformation

Leaders believe in the potential of *growing* new technical talent

Over 90% believe non-technical employees can become technically proficient with the right training. Nearly 40% believe this to be a definite fact. This underscores how upskilling is a powerful tool to help solve today's technical talent scarcity.

Belief that non-technical talent can become technically skilled with proper training
by percent of respondents

Unlikely	3%
Somewhat unlikely	0%
Neither likely nor unlikely	7%
Somewhat likely	52%
Definitely	39%

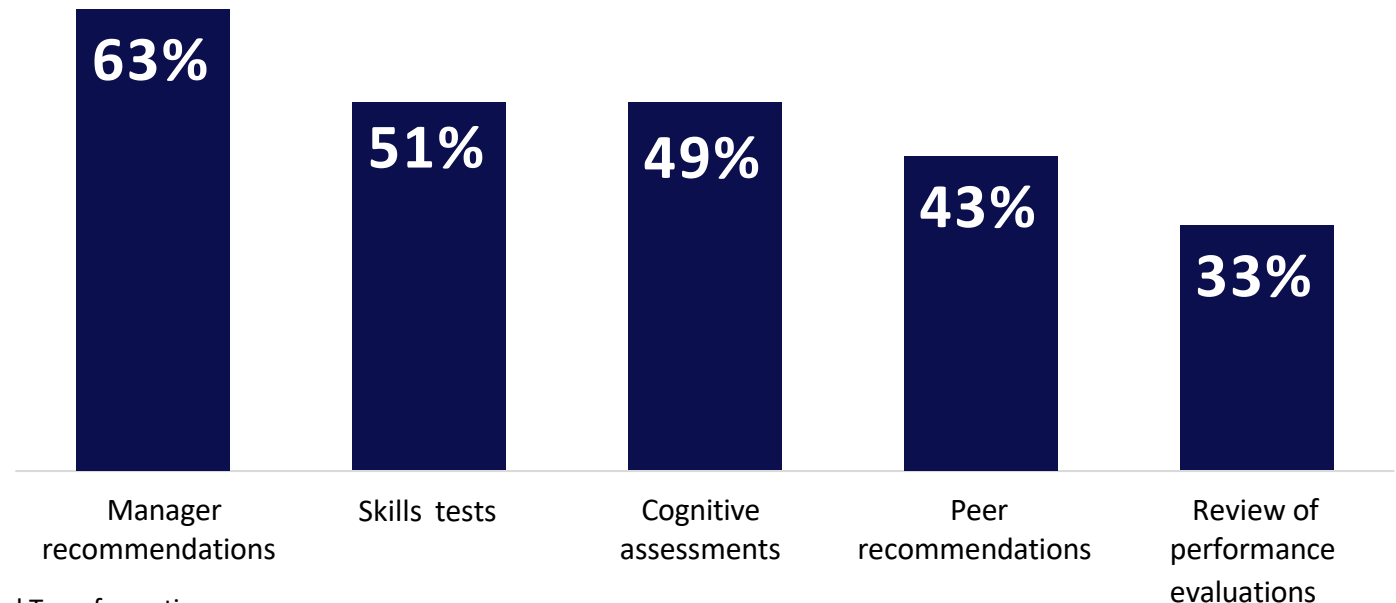State of the Market: Overcoming Technical Talent Shortages to Accelerate Digital Transformation

Recommendations and assessments are key to finding high-potential staff to upskill and grow

Manager recommendations are the leading way respondents identify high-potential employees to upskill at 63%.

Half of respondents also indicated skill tests and cognitive assessments are good ways to identify the right candidates that can best grow into technical roles.
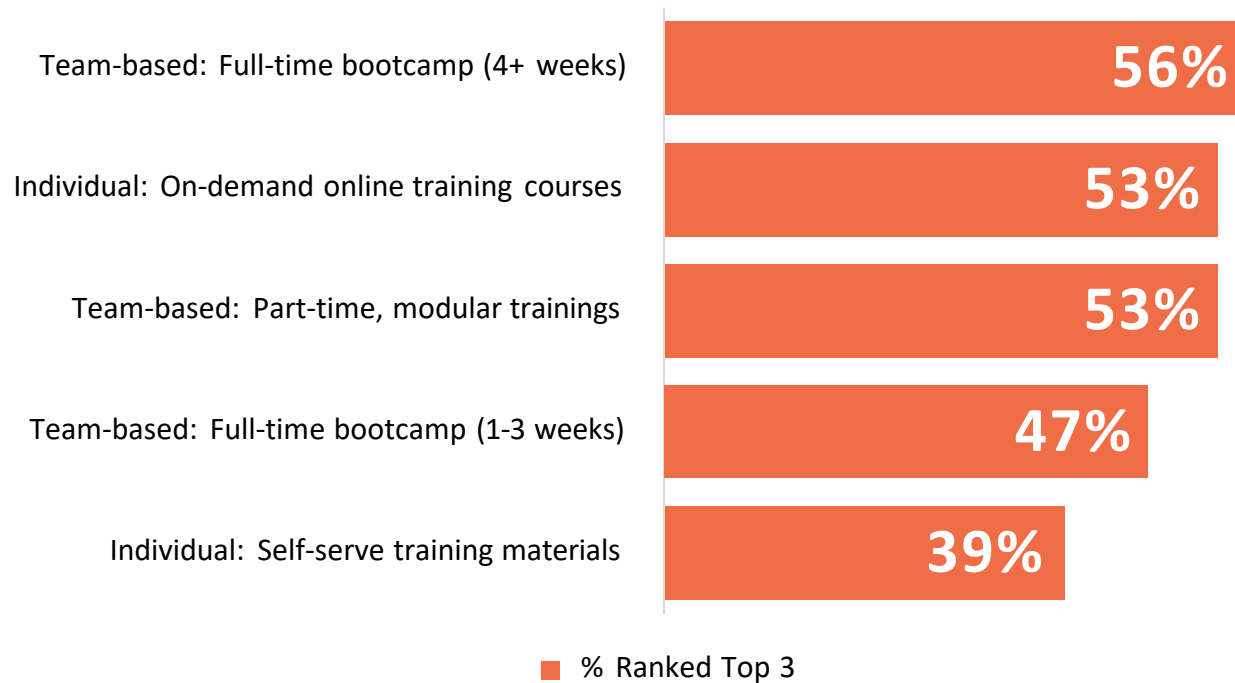
How to identify employees with high upskill potential
by percent of respondents

Manager recommendations	Skills tests	Cognitive assessments	Peer recommendations	Review of performance evaluations
63%	51%	49%	43%	33%

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Top 5 training methods

Team-based bootcamps, individual led online trainings, and part-time modular trainings are all leading methods for upskilling and growing new talent.
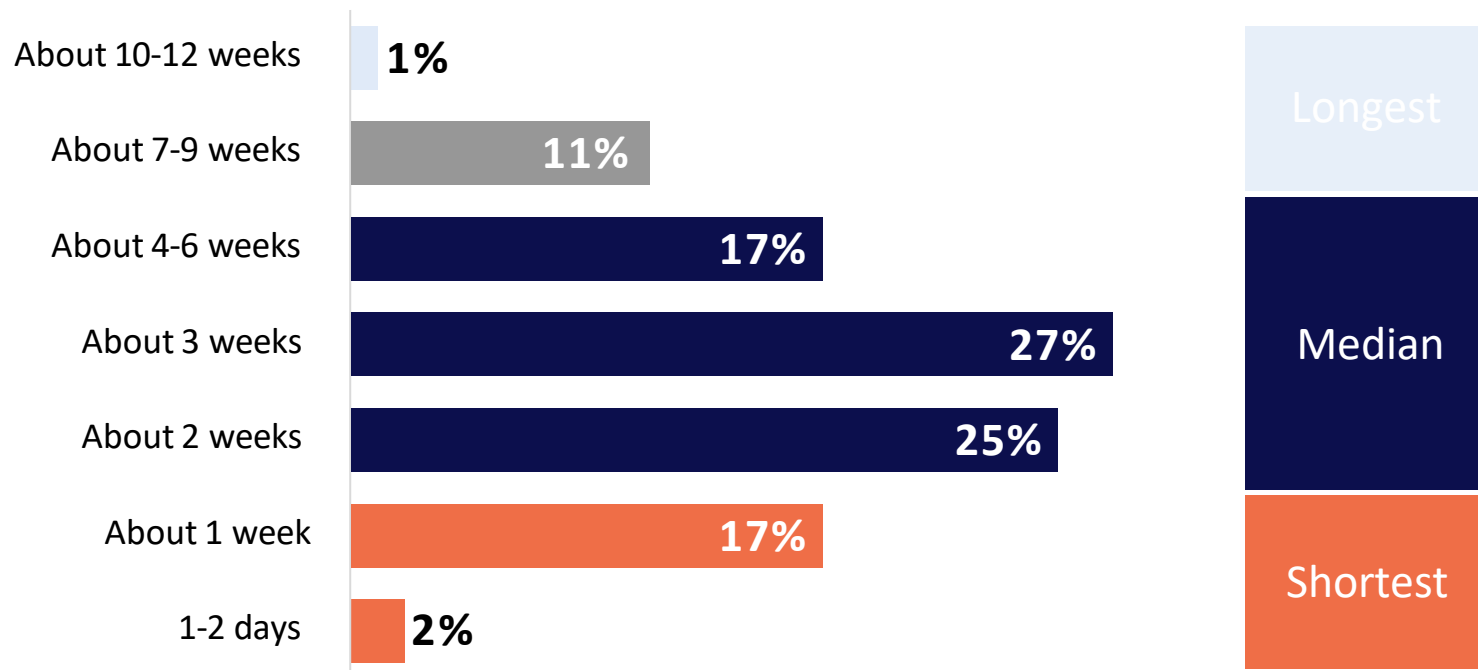
Top 5 preferred methods to upskill employees

Team-based: Full-time bootcamp (4+ weeks)	**56%**
Individual: On-demand online training courses	**53%**
Team-based: Part-time, modular trainings	**53%**
Team-based: Full-time bootcamp (1-3 weeks)	**47%**
Individual: Self-serve training materials	**39%**

■ % Ranked Top 3

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Team-based bootcamps are the preferred method for technical upskilling and talent development.

70%

of companies devote four hours or more per day to these training programs.

When organizations do host bootcamps or other important technical training programs, 81% said that employees commit at least two weeks, with almost 30% saying four weeks or more.

Consecutive time dedicated to technical training

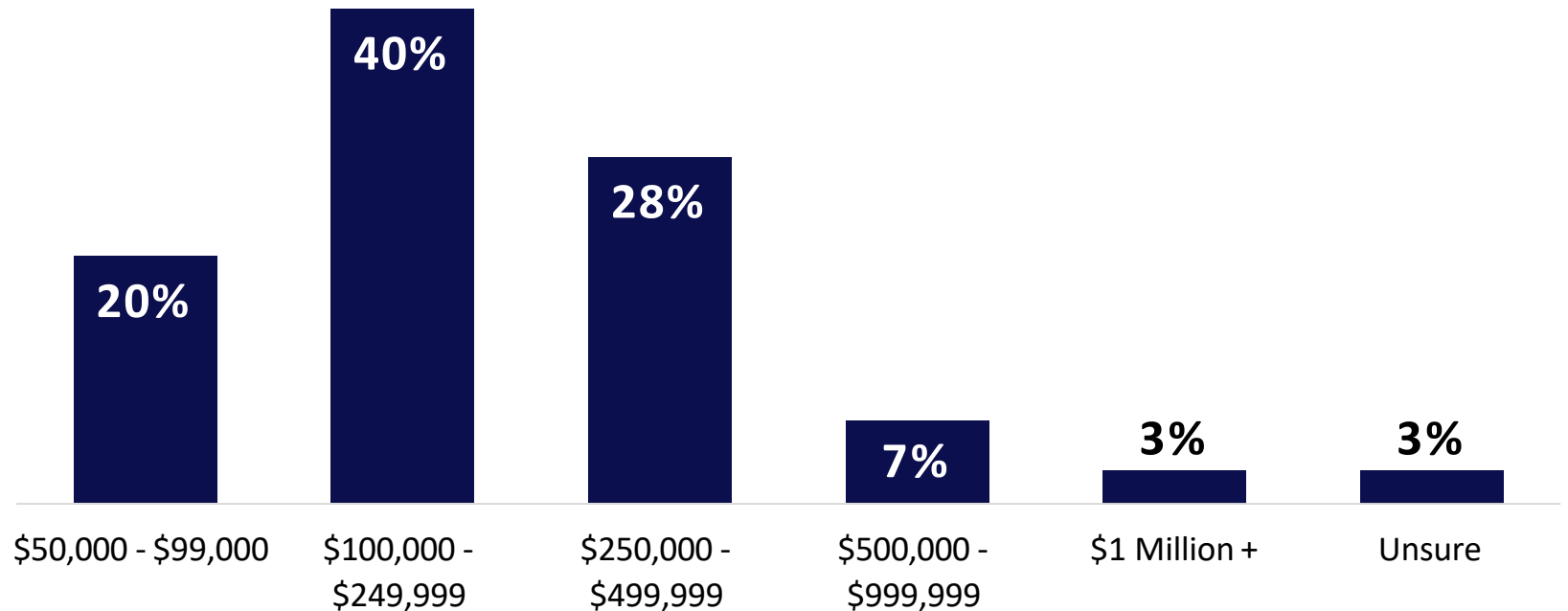| Category	Percentage
About 10-12 weeks	1%
About 7-9 weeks	11%
About 4-6 weeks	17%
About 3 weeks	27%
About 2 weeks	25%
About 1 week	17%
1-2 days	2%

Longest

Median

Shortest

Investing in technical talent training is the norm—and a best practice

Recognizing the importance of technical skills to drive transformation, organizations are investing in training and development. 80% of companies are allocating over $100K a year and 40% report spending more than $250K.

Yearly funding for technical talent training and development
by percent of respondents

20%	40%	28%	7%	3%	3%
$50,000 - $99,000	$100,000 - $249,999	$250,000 - $499,999	$500,000 - $999,999	$1 Million +	Unsure

To increase the knowledge and skills of technical talent, companies are expanding beyond traditional methods like self-led programs, mentor/mentee training, and on-the-job training, and are leveraging third-party programs to support training goals.

79%

of companies indicate that they realize better outcomes when utilizing third-party trainings versus in-house trainings.

Conclusion

The state of the market is clear. Talent development is a critical key to unlocking innovation and transformation. Sourcing new technical talent, especially in today's tight labor market, and continually upskilling that talent on modern techniques and applications is crucial to meet evolving customer needs and strengthen long-term competitiveness.

Forward-thinking leaders are embracing new ways of recruiting, upskilling, and in-sourcing technical talent to reach their organization's full potential. By capitalizing on creative, modern, and effective talent development programs, market leaders are reimagining – and realizing – what their employees can deliver.

Partnering with Galvanize

Who we are

Galvanize is your full service, holistic partner for developing technical talent to meet your most pressing business needs.

With experts in curriculum development, technical training, and onboarding, Galvanize is where leaders turn for lasting results. If your organization is ready to take the next step in talent development and future-proofing your workforce, we are here to help!

Interested in learning more? Contact us at: info@galvanize.com | 720-627-6862

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