



for the Built Environment



ABC 2021 Workforce Development Survey

April 2021

External

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Management Summary

ABC member contractors invested \$1.3 billion in workforce development in 2020 to educate more than 500,000 employees.

- ABC contractors invested an average of 8.4% of payroll on workforce development compared to 7.9% in 2019.
- Safety education accounts for the greatest share (71%) of total workforce investment and has the highest per-person investment (\$2,369).
- The percentage of contractors reporting a severe labor shortage declined 3% between 2019 and 2020, while those reporting a moderate labor shortage increased 5%.
- Compared to 2019, general and construction management contractors have increased their share of the total workforce development investment, growing to 58% in 2020 from 21% in 2019.
- Women in management/supervisory roles ticked up to 17% in 2020 from 16% in 2019.
- **The COVID-19 pandemic has elevated the focus on education, safety and total human health.**

ABC member contractors invest an average of \$94,495 annually on workforce development and education.

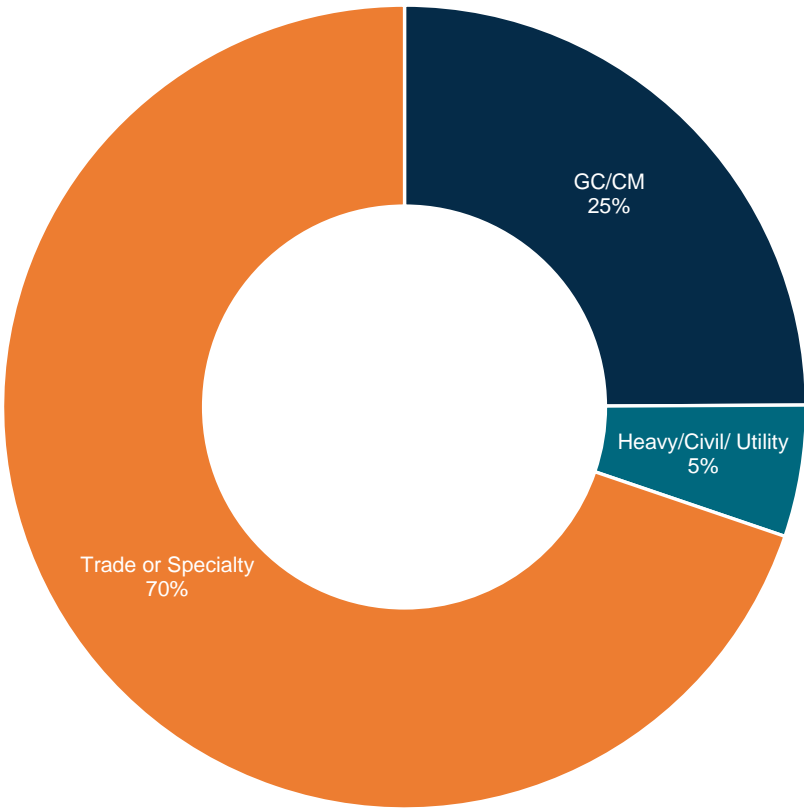
	GC/CM	Heavy/Civil/Utility	Trade or Specialty	Overall
ABC members by type (number of firms)	3,462	680	9,766	13,908
Total education investment (\$)	\$789,969,546	\$57,180,520	\$511,523,548	\$1,358,673,614
Number of personnel educated in each course type	Leadership: 25,965 Safety: 121,170 Craft/trade: 27,696	Leadership: 2,040 Safety: 23,800 Craft/trade: 13,600	Leadership: 29,298 Safety: 175,788 Craft/trade: 97,660	Leadership: 57,303 Safety: 320,758 Craft/trade: 138,956
Per-person investment (\$)	Leadership: \$1,477 Safety: \$2,721 Craft/trade: \$1,533	Leadership: \$1,629 Safety: \$1,782 Craft/trade: \$953	Leadership: \$1,358 Safety: \$2,341 Craft/trade: \$1,930	Leadership: \$1,405 Safety: \$2,369 Craft/trade: \$1,779
Student distribution by role	Senior leader: 6% Project manager: 13% Field manager: 24% Craft/trade: 57%	Senior leader: 3% Project manager: 6% Field manager: 12% Craft/trade: 79%	Senior leader: 5% Project manager: 6% Field manager: 7% Craft/trade: 82%	Senior leader: 5% Project manager: 6% Field manager: 8% Craft/trade: 81%

While the number of personnel educated by ABC member contractors dropped significantly in 2020, general and construction management contractors more than doubled their education investment from 2019.

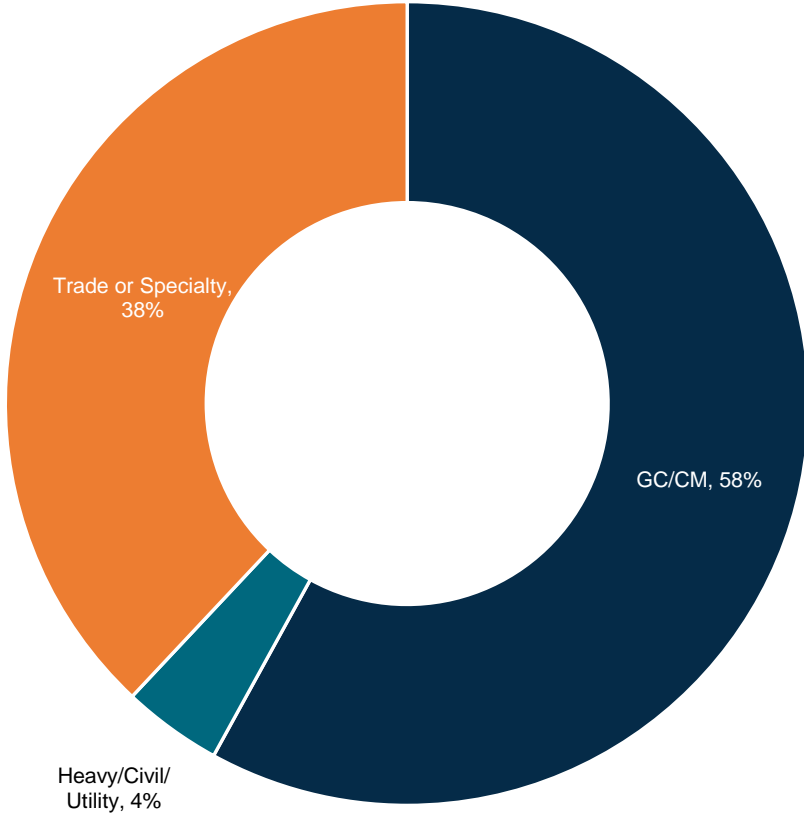
		2020	2019
Number of Personnel Educated	Leadership	57,303	106,024
	Safety	320,758	645,474
	Craft/Trade	138,956	337,623
	Total	517,017	1,089,121
Average Investment Per Person	Leadership	\$1,405	\$1,432
	Safety	\$2,369	\$1,104
	Craft/Trade	\$1,779	\$1,904
Total Investment by Contractor Type	GC/CM	\$789,969,546	\$320,529,891
	Heavy/Civil/Utility	\$57,180,520	\$125,384,271
	Trade of Specialty	\$511,523,548	\$1,061,632,836
	Total	\$1,358,673,614	\$1,507,546,997
Average Investment by Contractor Type	GC/CM	\$228,183	\$126,492
	Heavy/Civil/Utility	\$84,089	\$172,231
	Trade or Specialty	\$52,378	\$101,611

Compared to 2019, general and construction management contractors have significantly increased their investment in workforce development and education.

Estimated ABC membership by contractor type

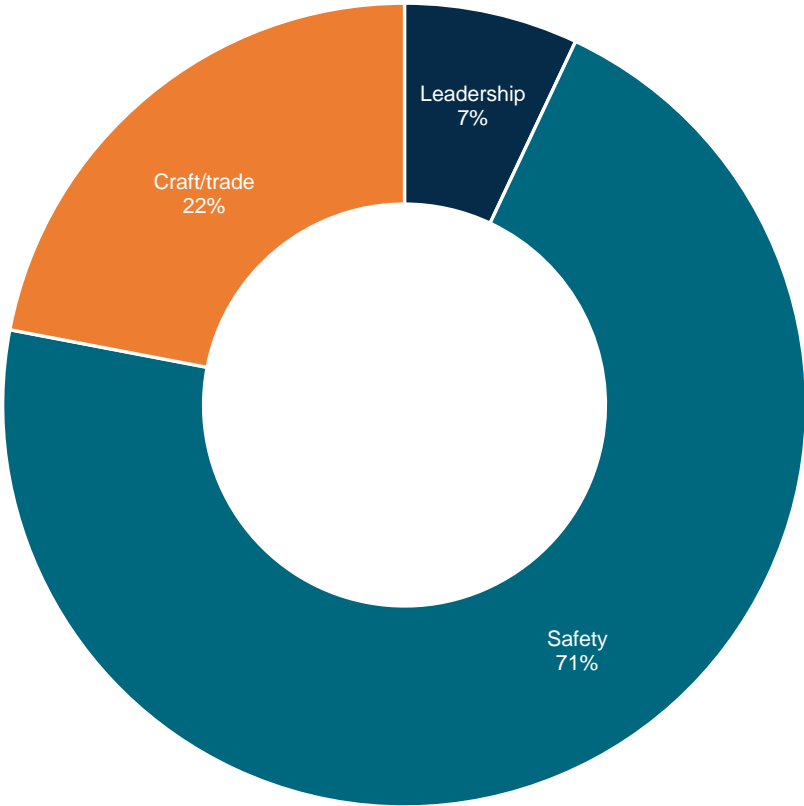


Total educating investment by contractor type

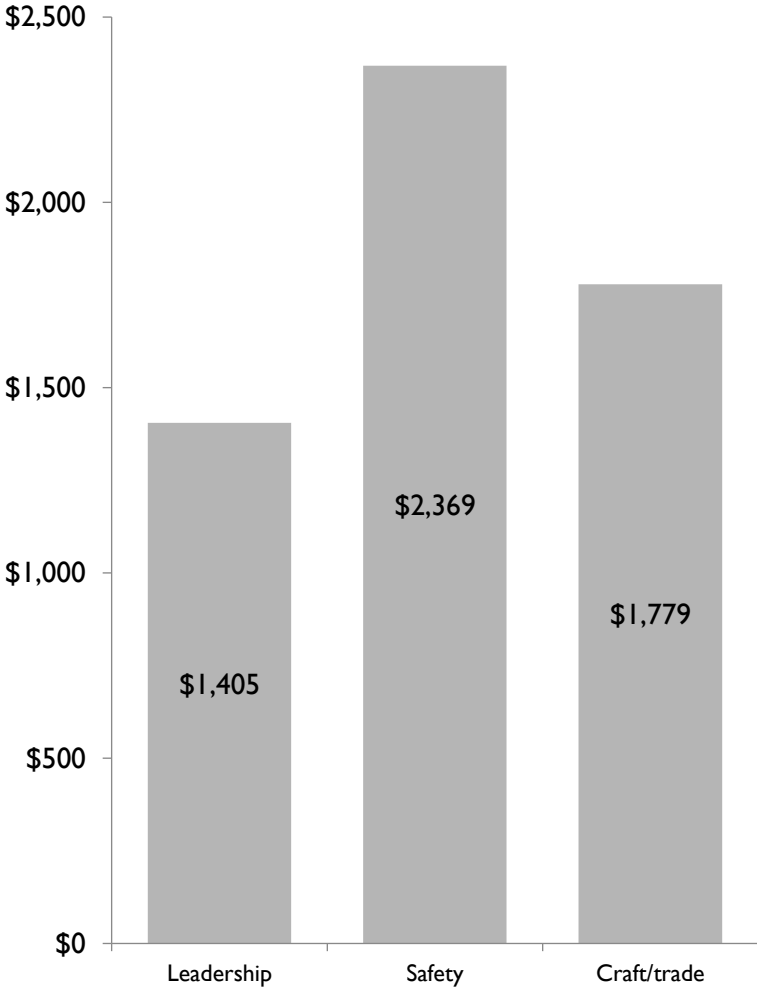


Safety education accounts for the greatest share (71%) of total workforce investment.

Educating investment by educating type

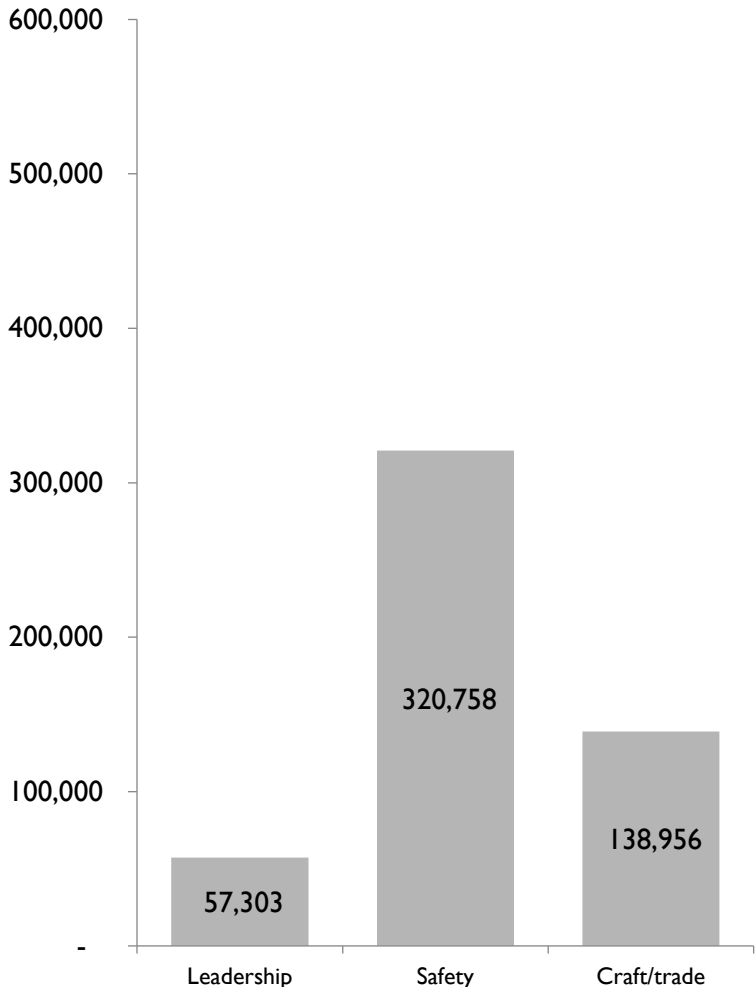


Educating investment per person by educating type

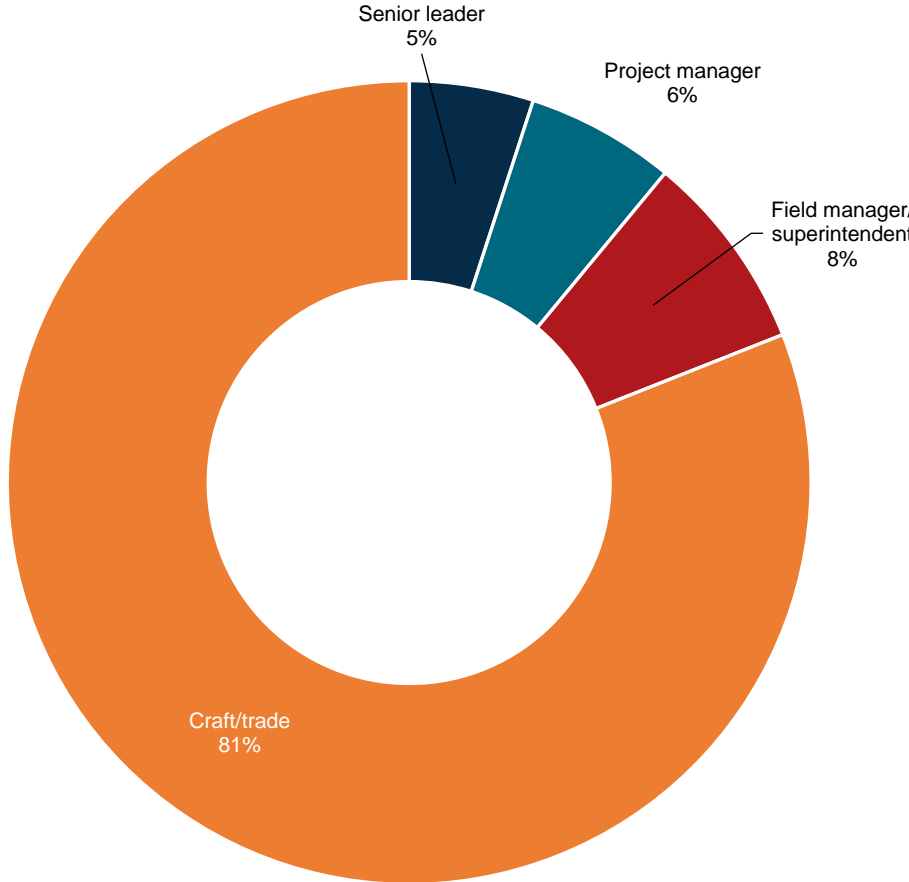


In 2020, ABC member contractors provided safety education to more than 320,000 course attendees.

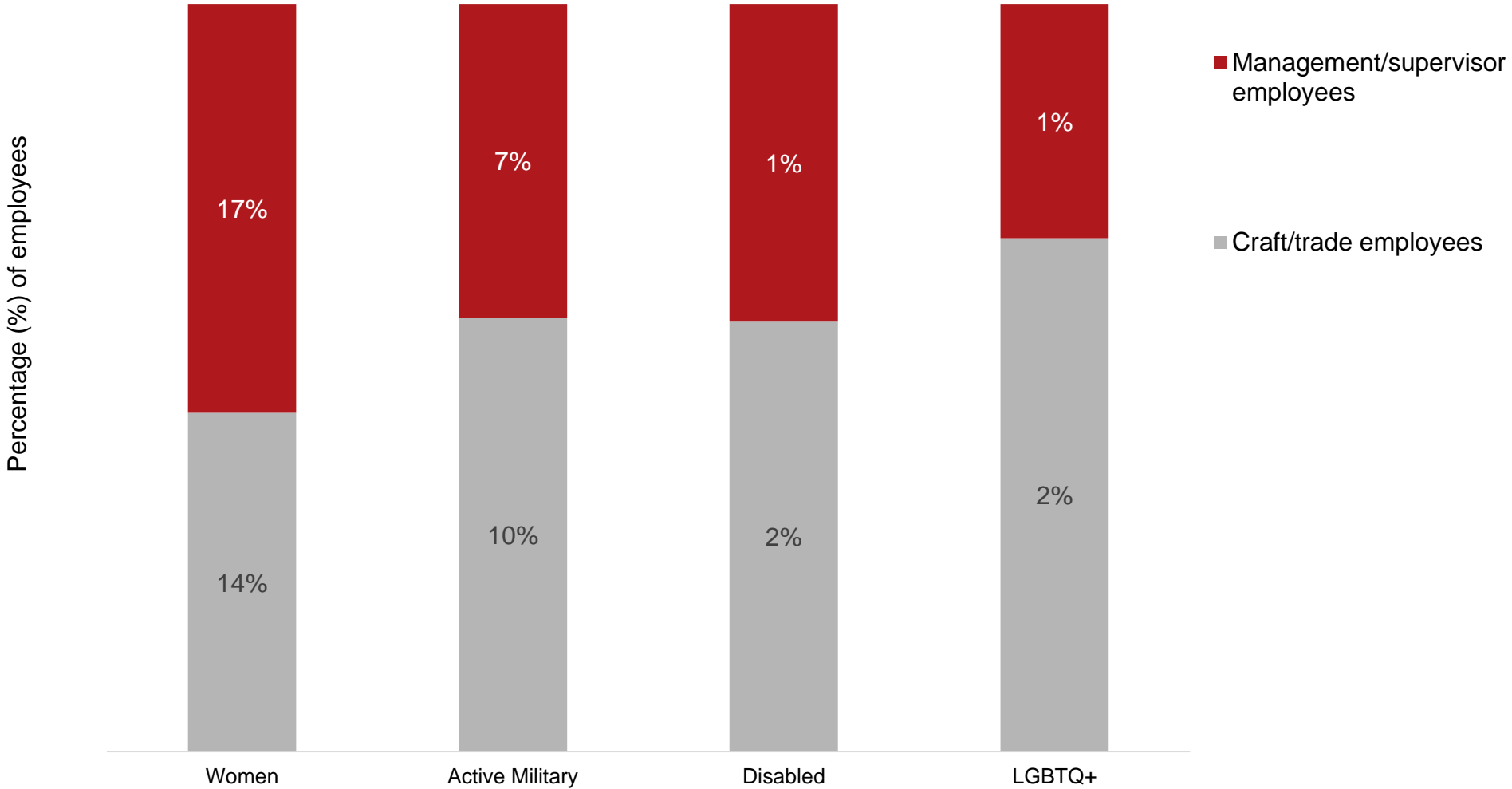
Personnel educated by educating type



Personnel educated by role



Women in management/supervisory roles ticked up to 17% in 2020 from 16% in 2019, and women in craft/trade roles increased from 13% to 14% year over year.





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Key Findings



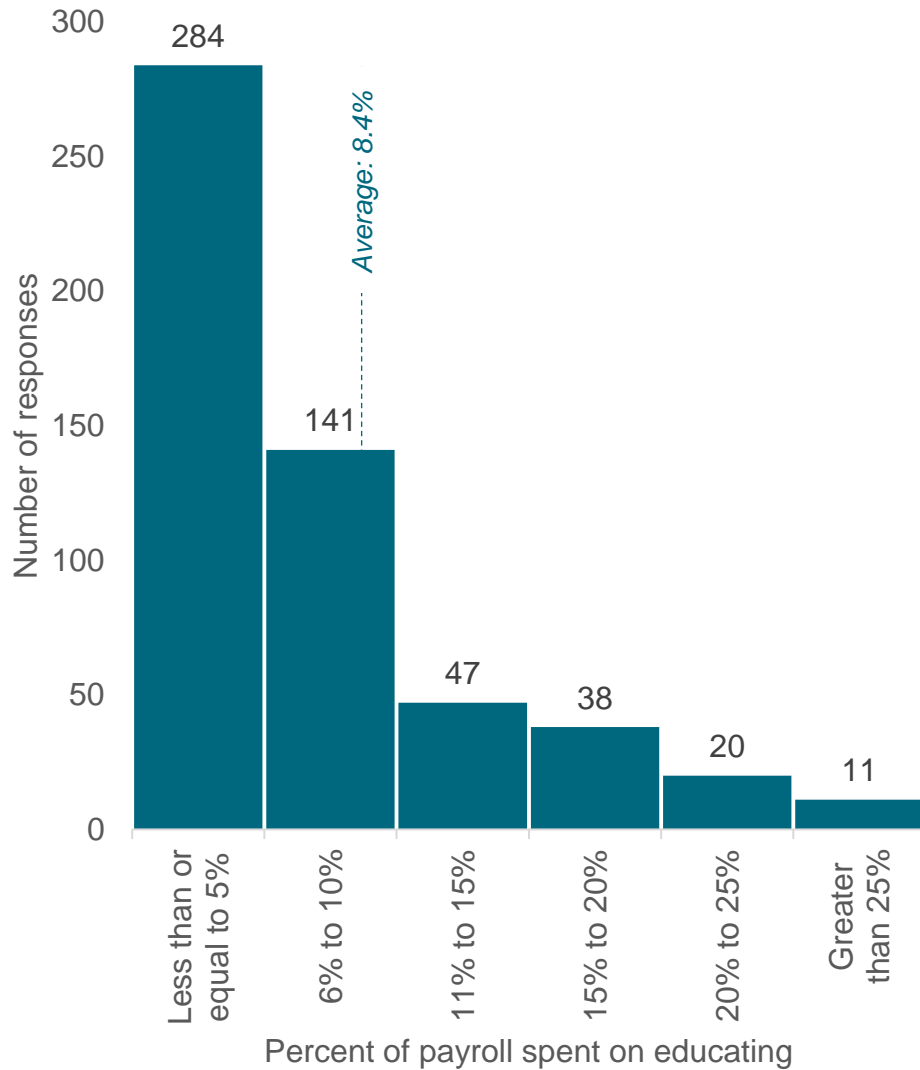
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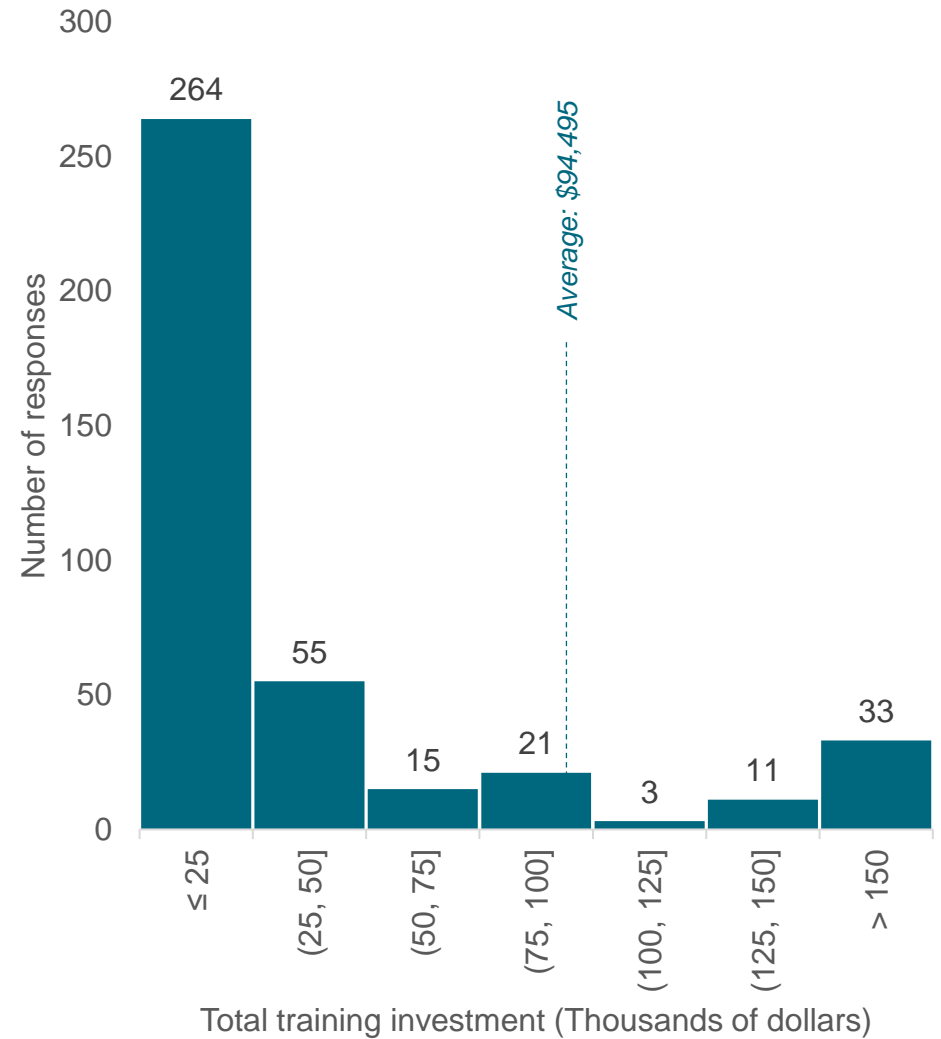
Workforce Development

ABC member contractors invest an average of 8.4% of payroll on workforce development compared to 7.9% in 2019.

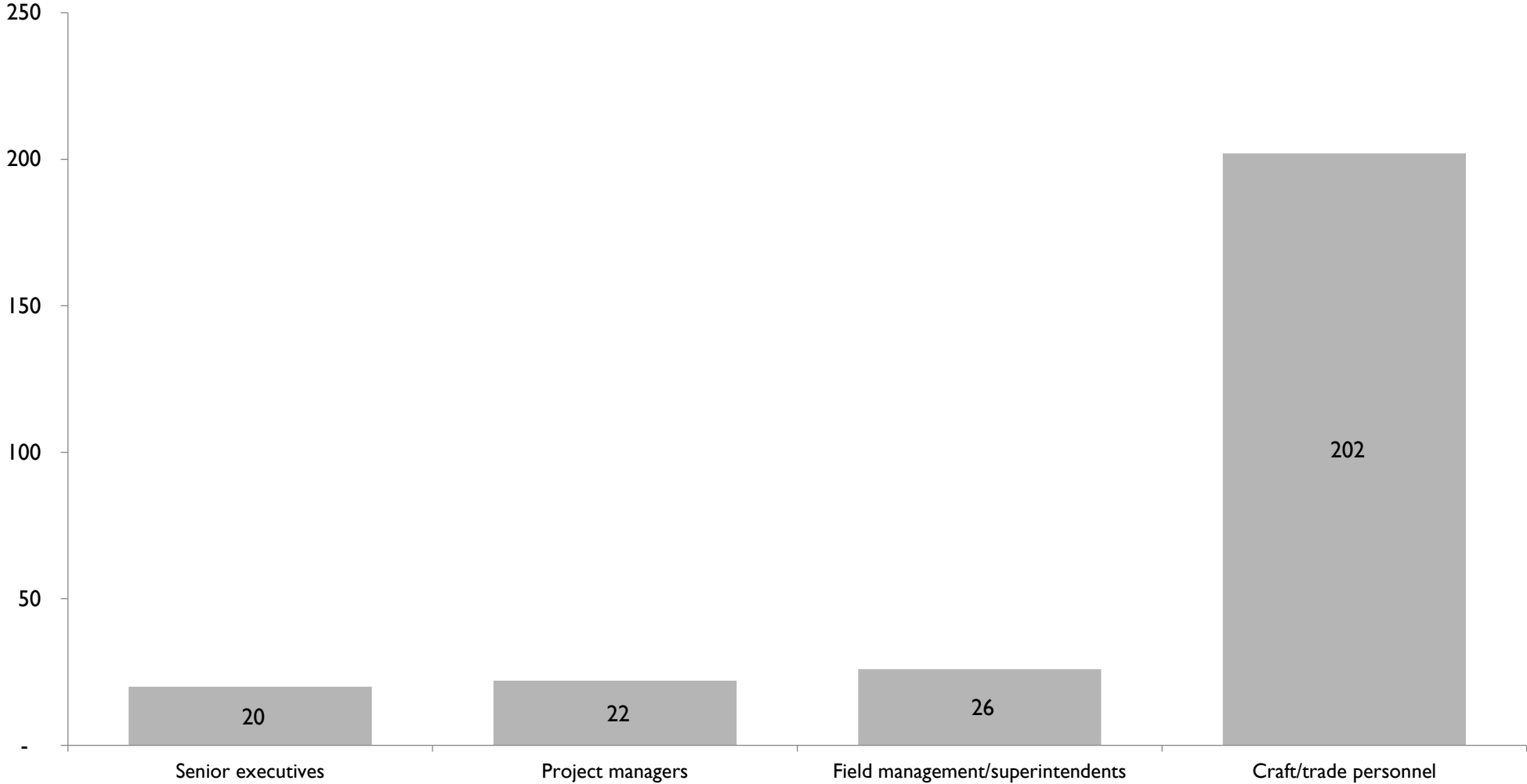
What percentage of your company's payroll is spent on education?



What is your total investment for educating personnel (in dollars)?

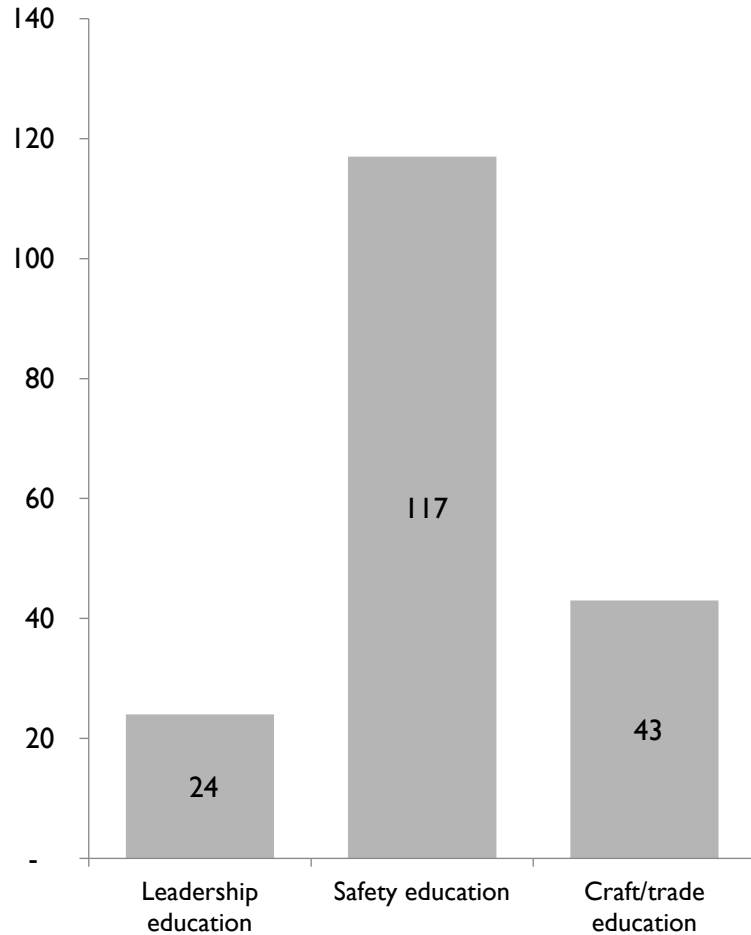


The number of craft/trade personnel educated on average by ABC member contractors is significantly higher than any other group.

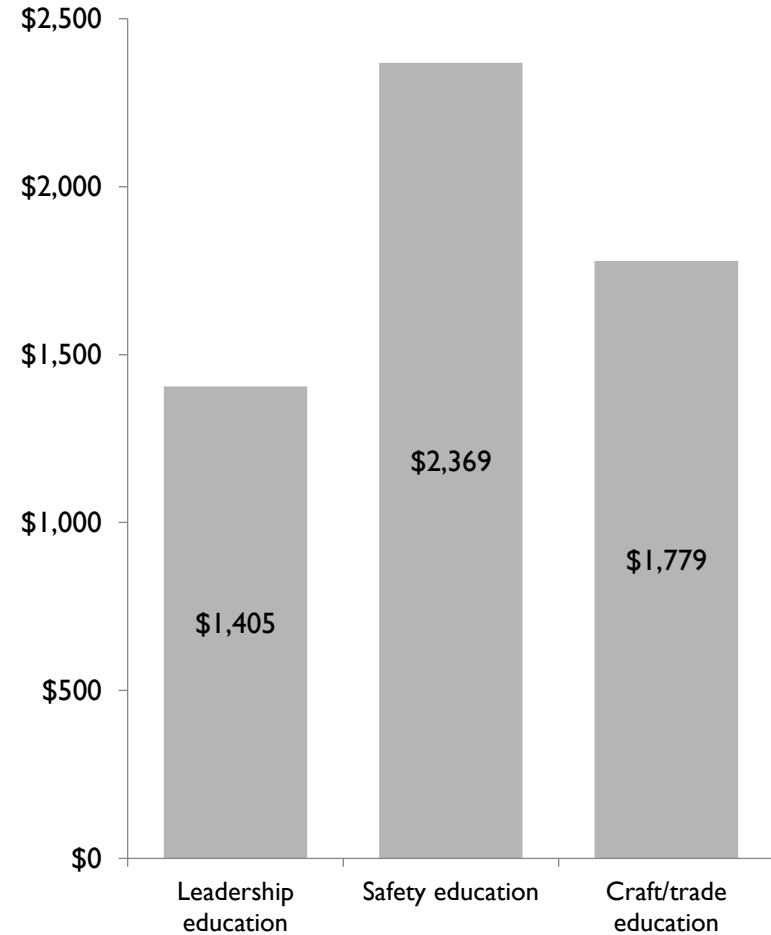


In 2020, construction firms on average invested in safety education for 117 employees.

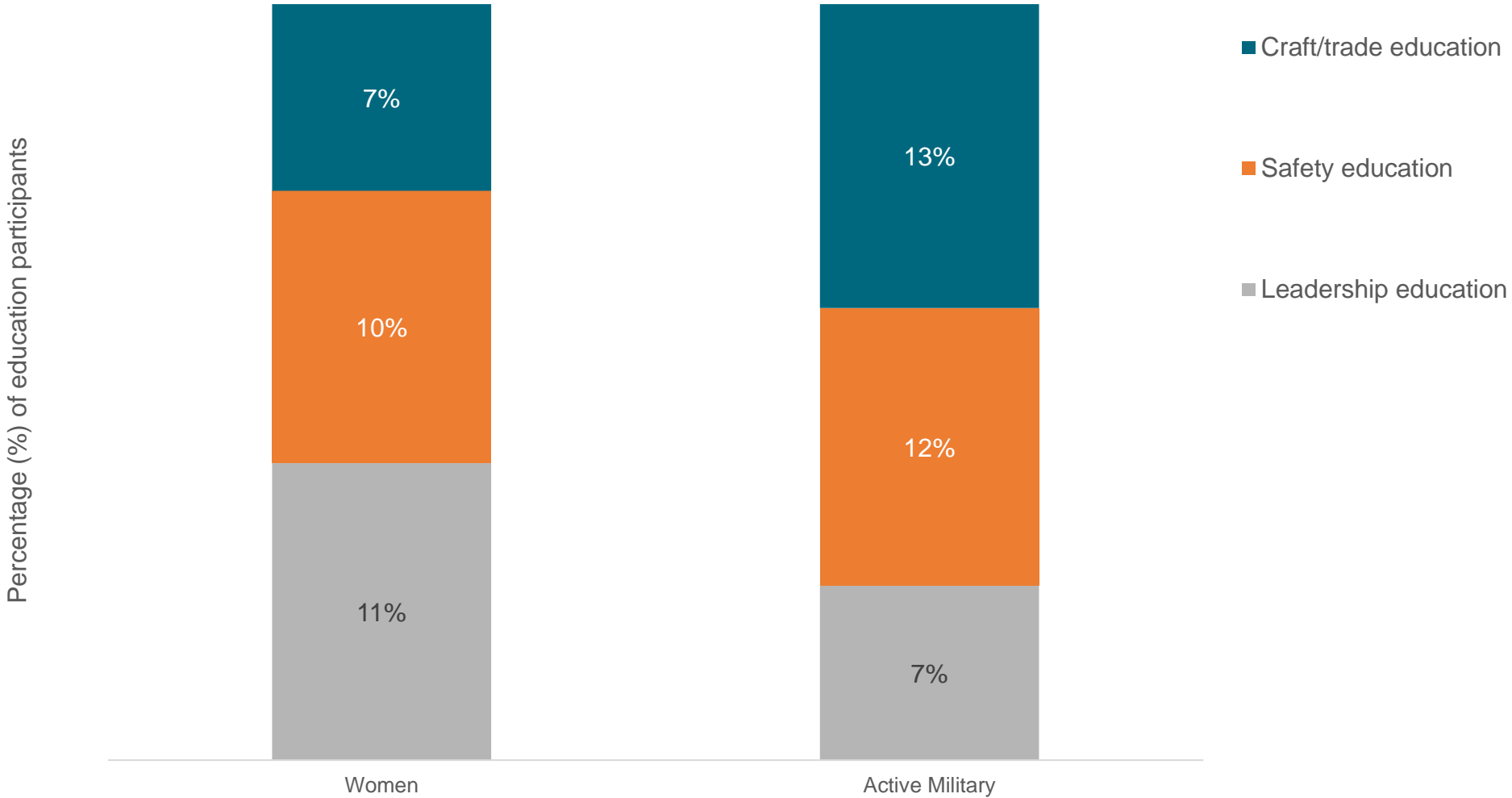
How many personnel receive education in the following categories annually?



How much does your organization invest annually per person on each of the following types of education?



On average, 4% more women are involved in leadership education than active military or veterans, whereas 6% more active military or veterans are involved in craft/trade education than women.





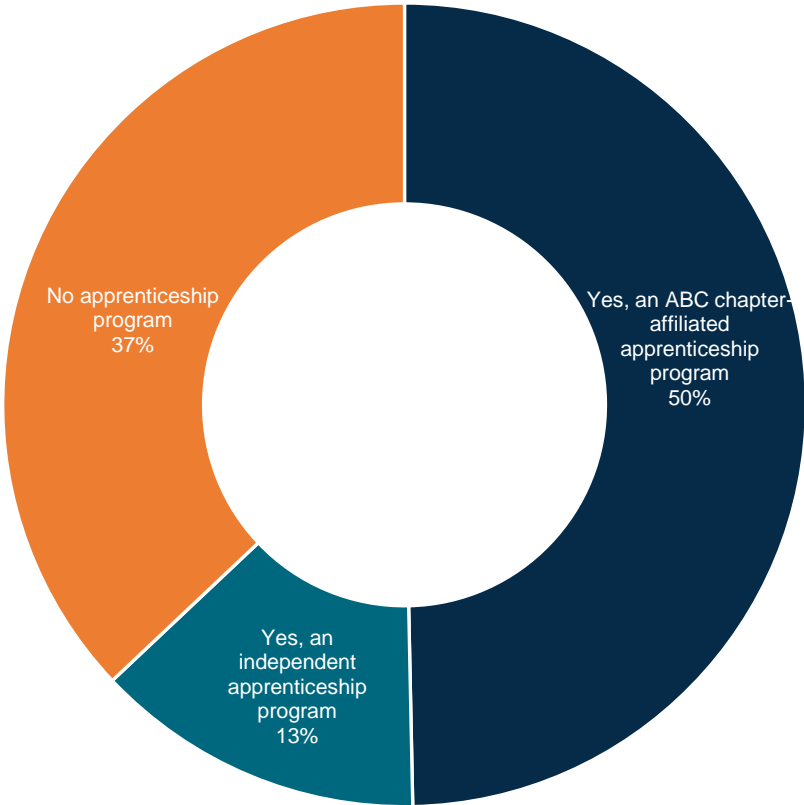
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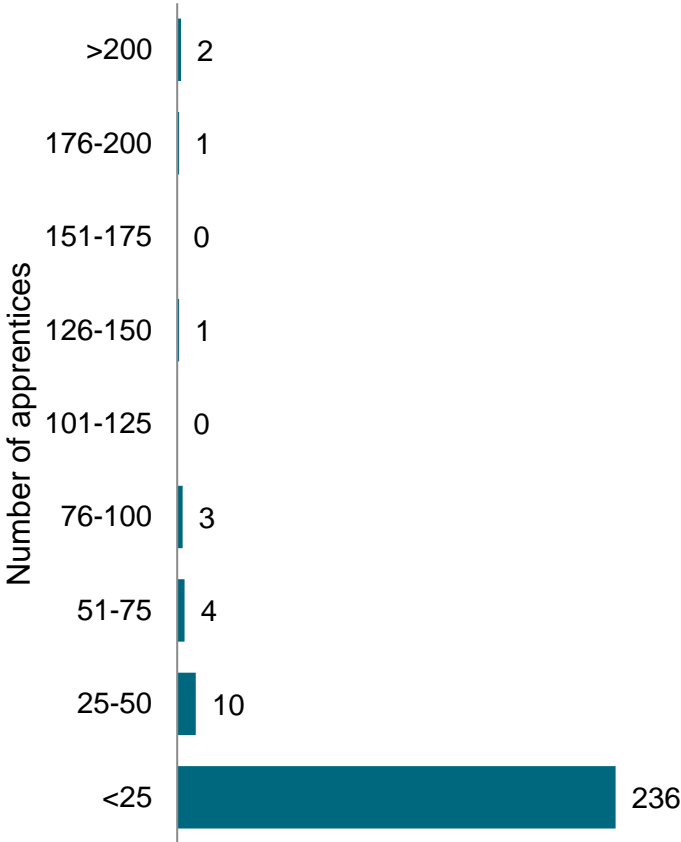
Development Practices

The use of independent apprenticeship programs stayed at 13% in 2020. The usage of ABC chapter-affiliated programs increased by 3%.

Does your company have an apprenticeship program that is registered with the state or federal Department of Labor? Select all that apply.

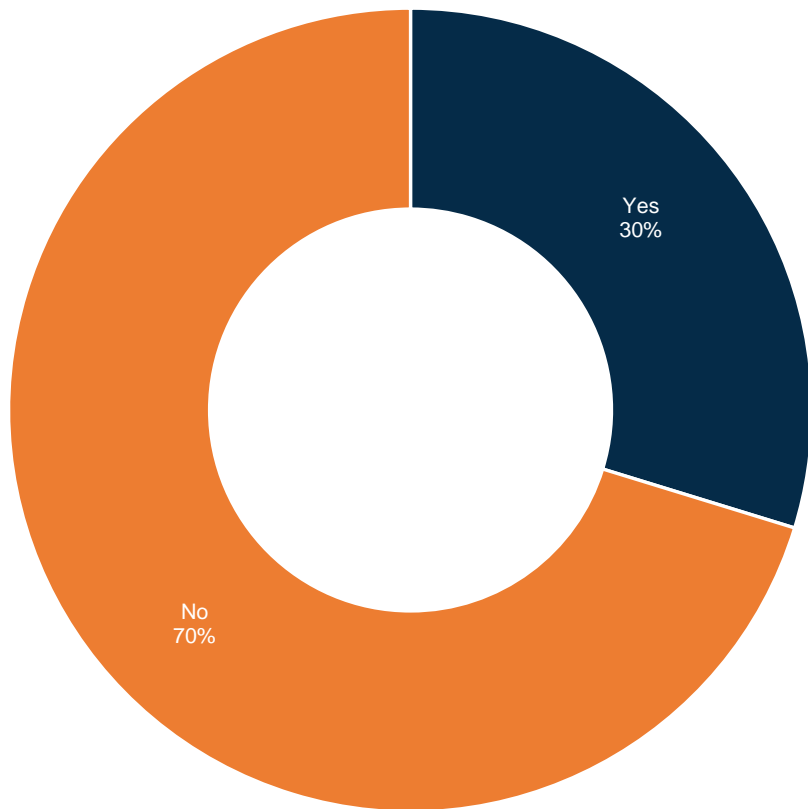


How many apprentices are currently involved in your program?

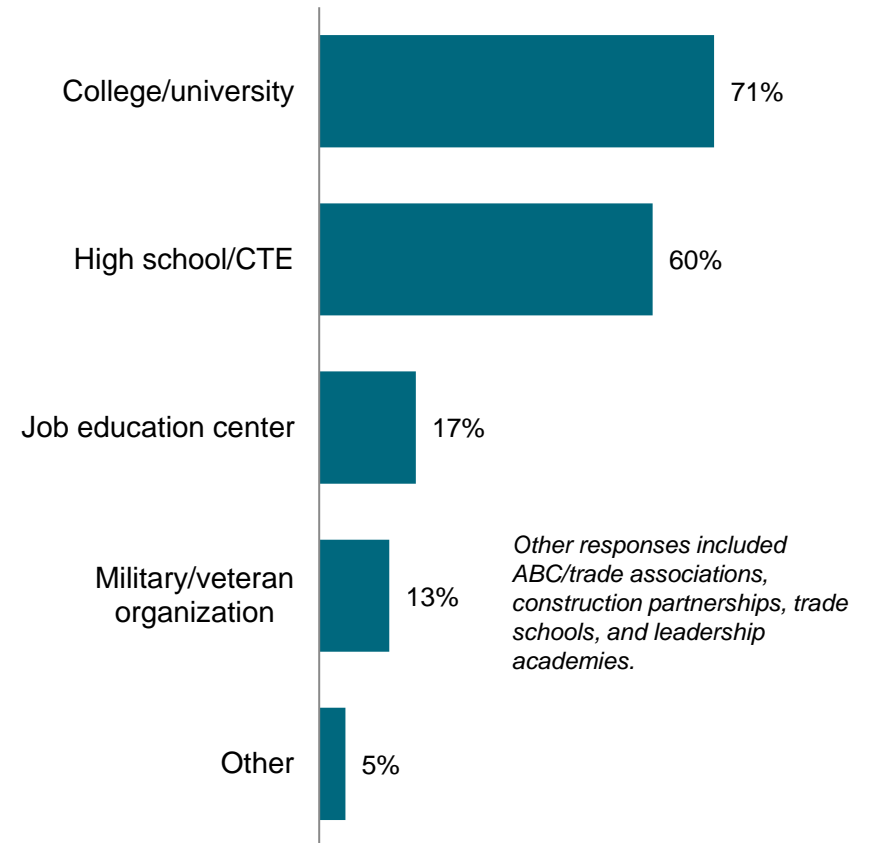


30% of ABC member organizations participate in internship programs.

Does your organization participate in internships programs in the United States?

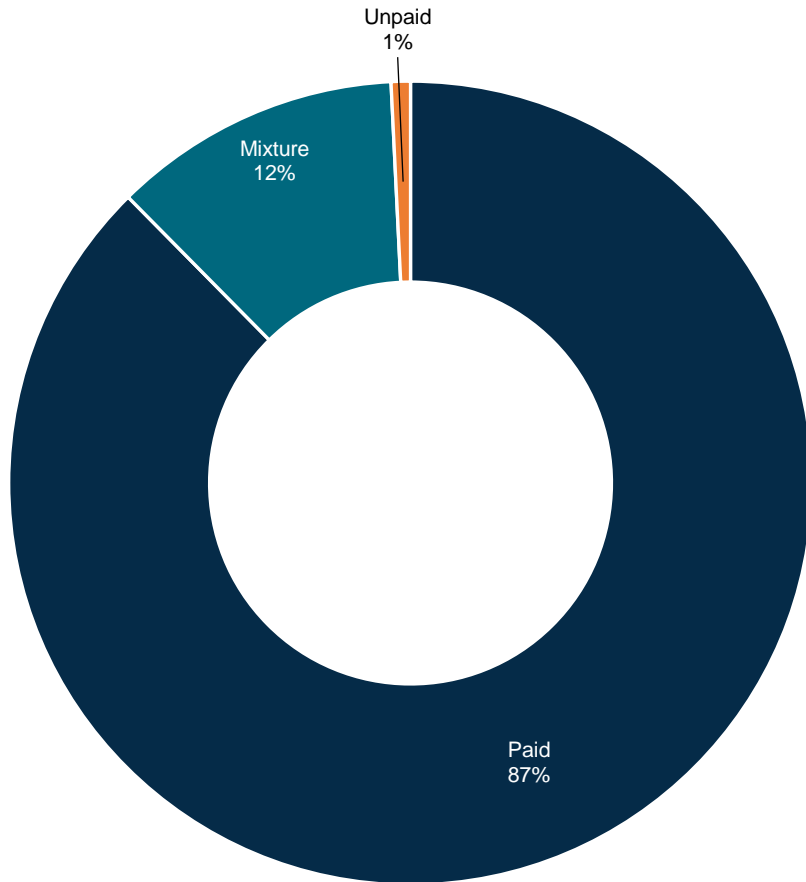


What types of entities do you partner with for your internship program? Select all that apply.

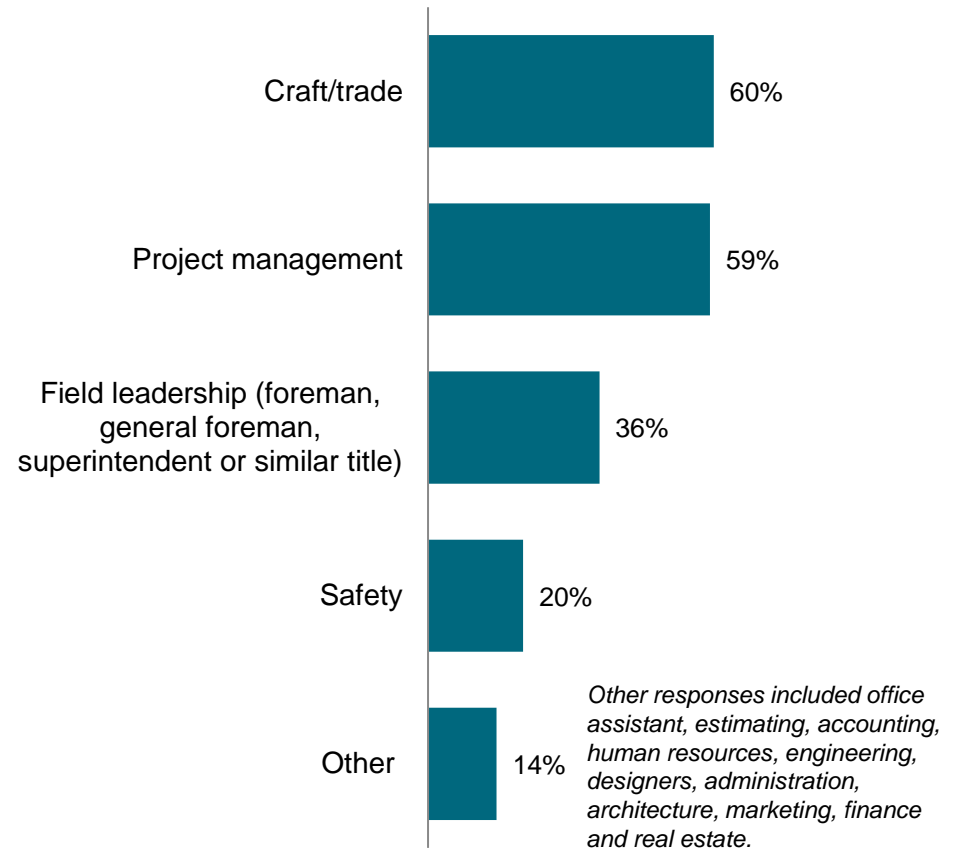


60% of contractors participate in internships for craft/trade job classifications, while 59% participate in internships for project management.

Are your interns paid or unpaid?

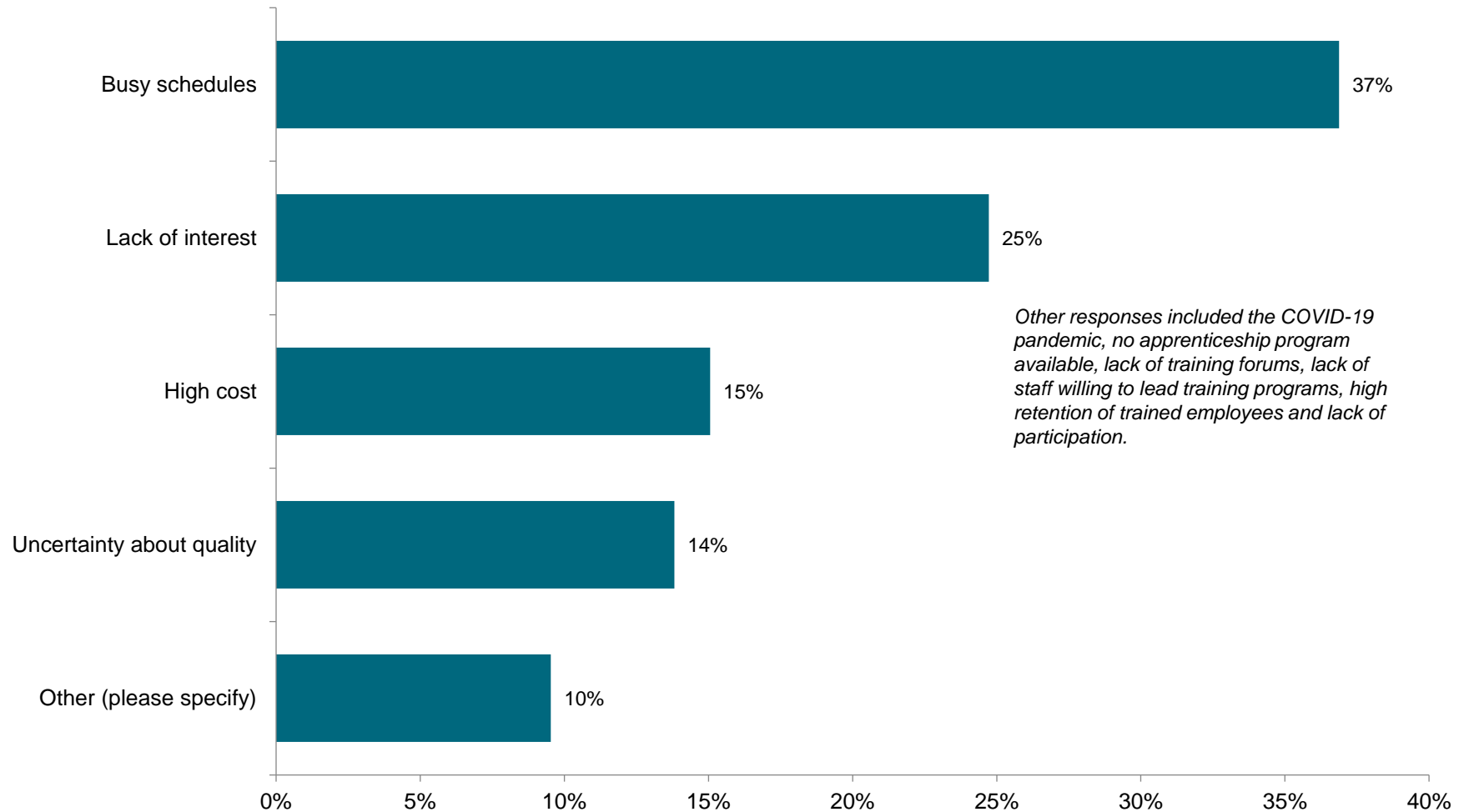


For which job classifications do you provide internships?

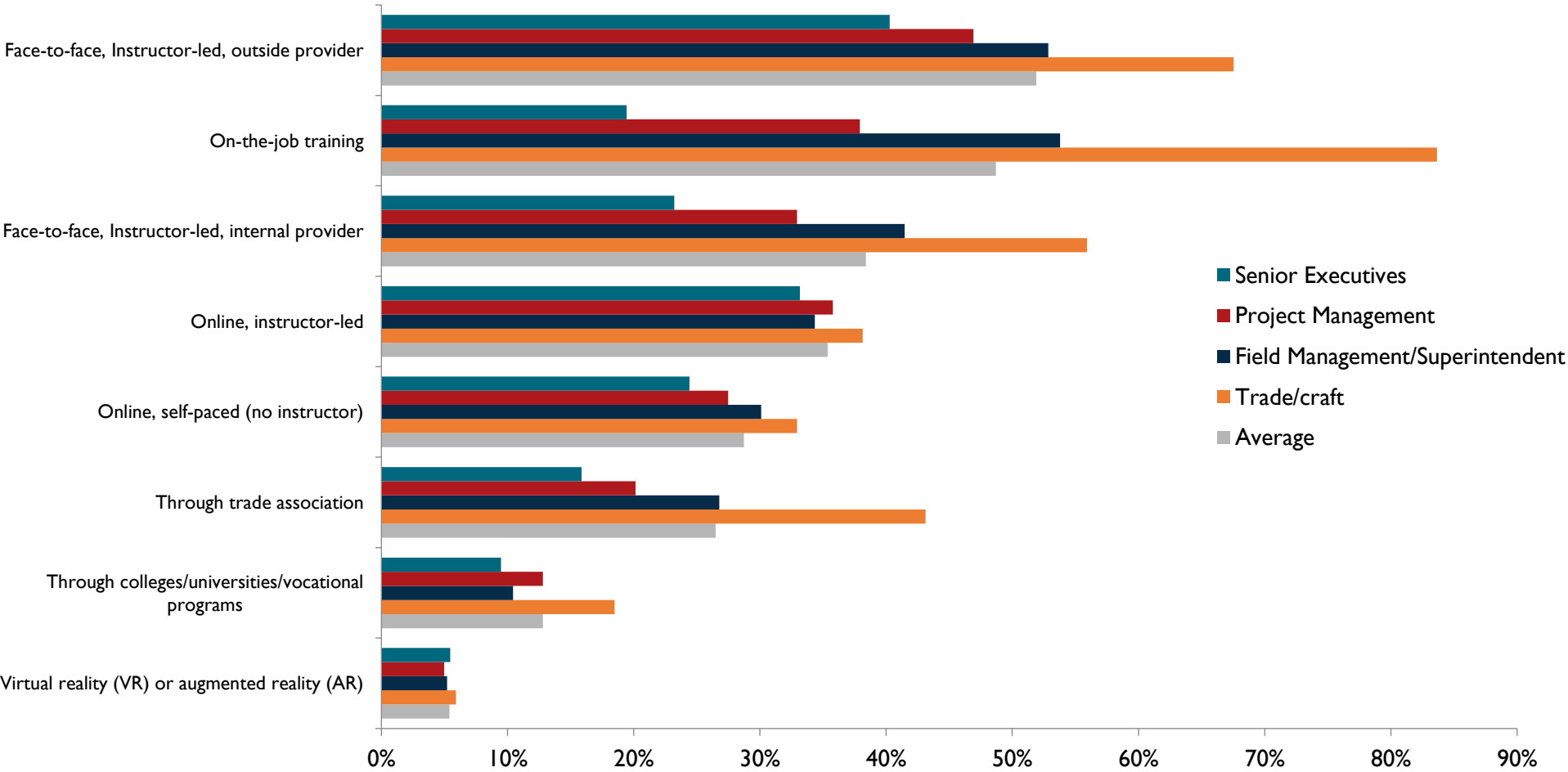


More than a third (37%) cited busy schedules as the main obstacle to workforce development.

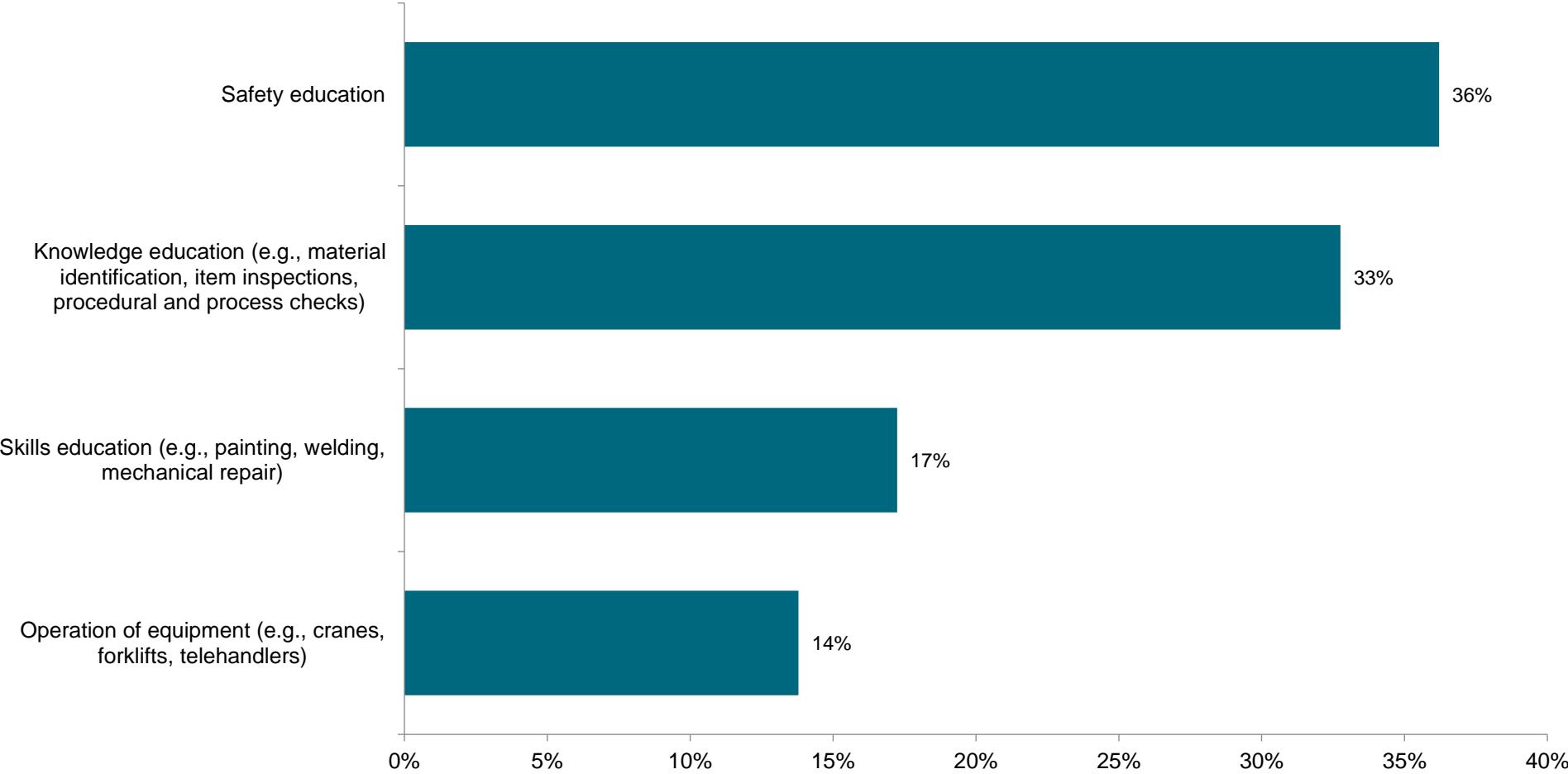
Which of the following obstacles are limiting your ability to deliver education and/or participate in outreach (career fairs, awareness events, education boards, etc.)? Select up to three.



The use of online instructor-led educating increased from 23% in 2019 to 35% in 2020.



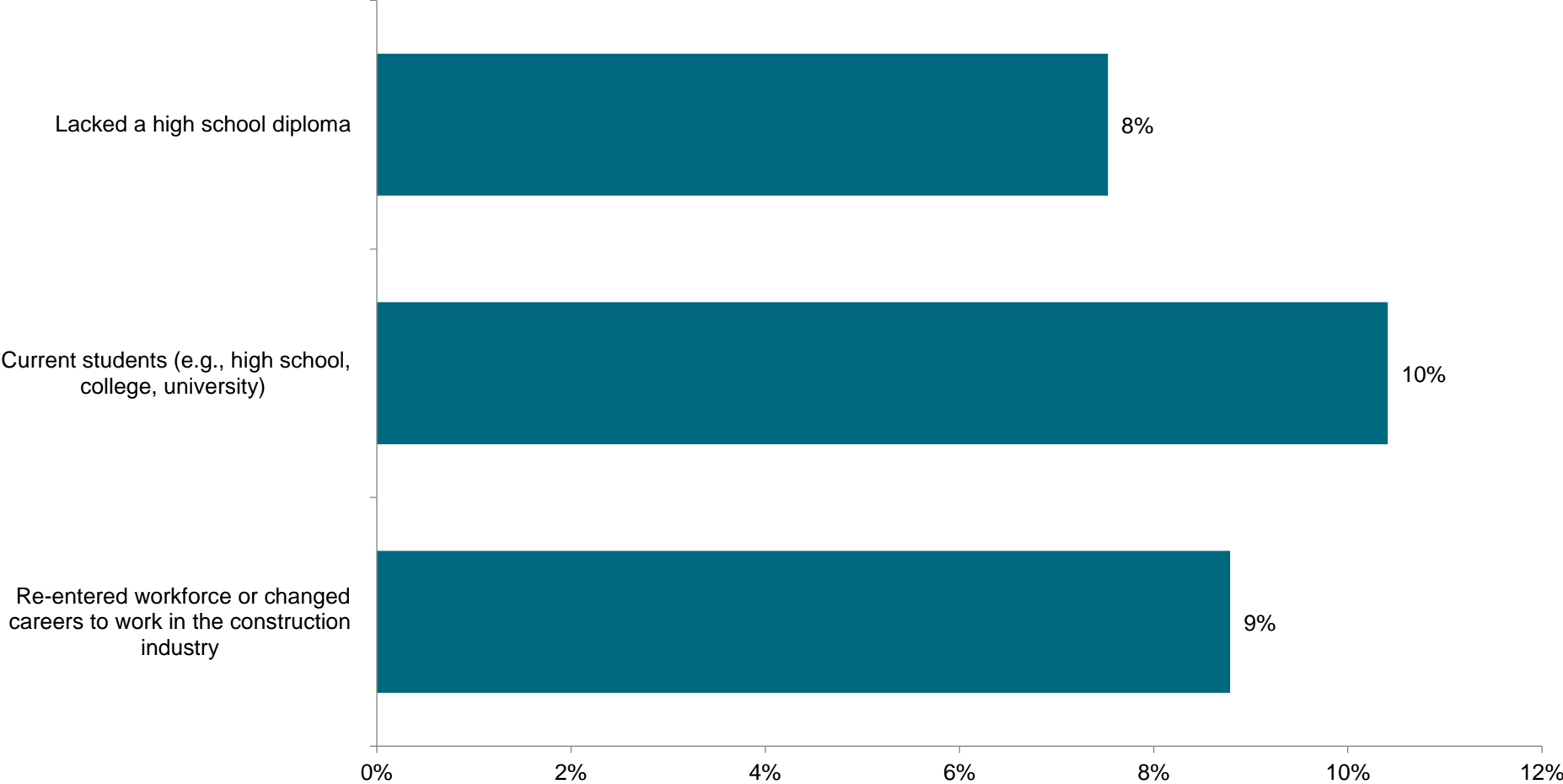
More than two-thirds (69%) of ABC member contractors that have utilized virtual reality or augmented reality use it for education platforms.



Easy, affordable, flexible and convenient are among the top words used to describe virtual reality and/or augmented reality for education.



On average, 27% of personnel receiving education in the past year met the below criteria.





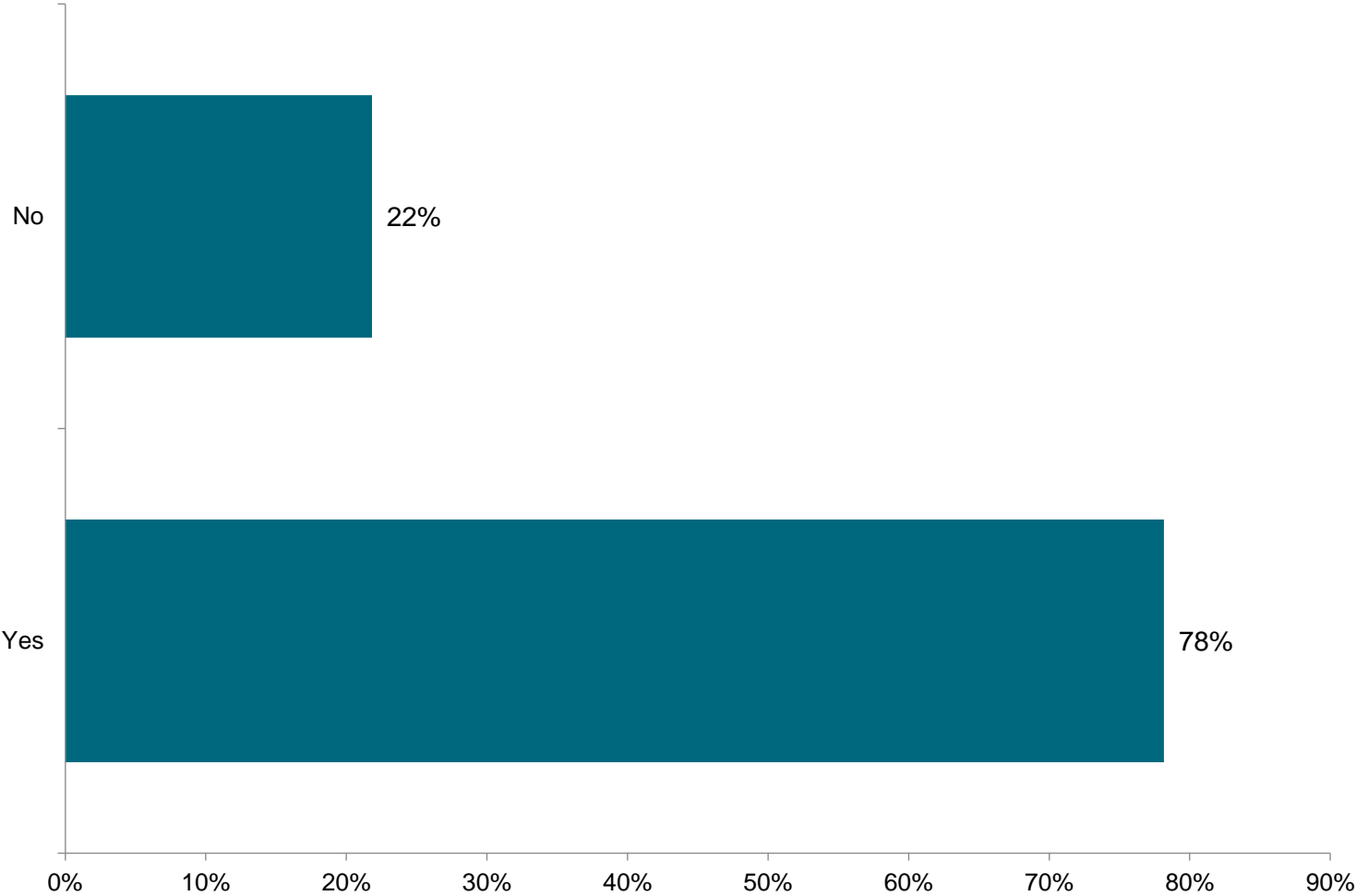
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Safety Education

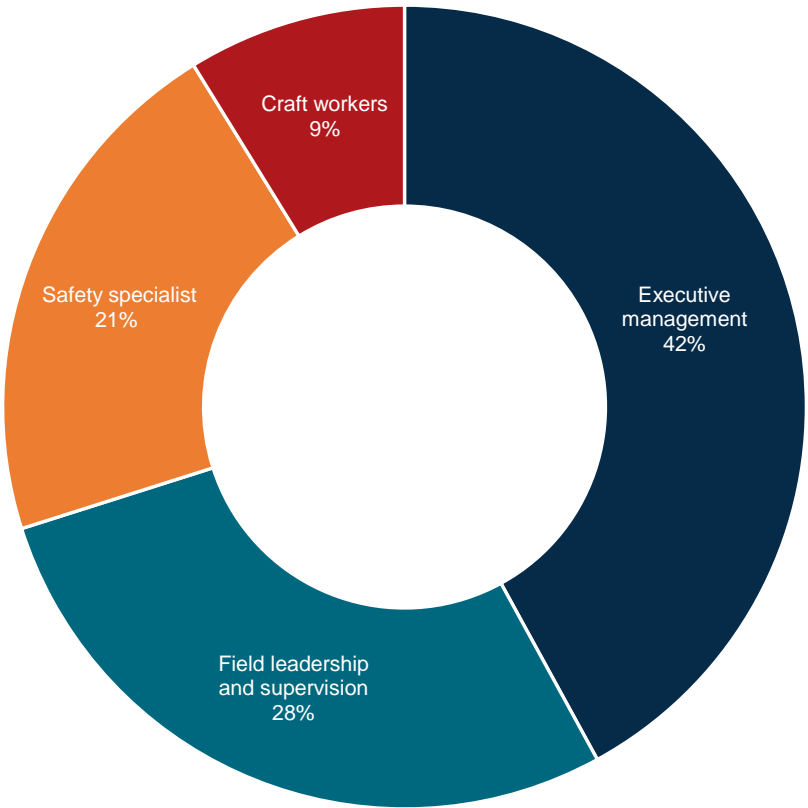
Almost 80% of respondents currently use or plan to use safety technology.

Do you use or are you planning to use safety technology within your organization (artificial intelligence, virtual reality, safety information management system, etc.)?

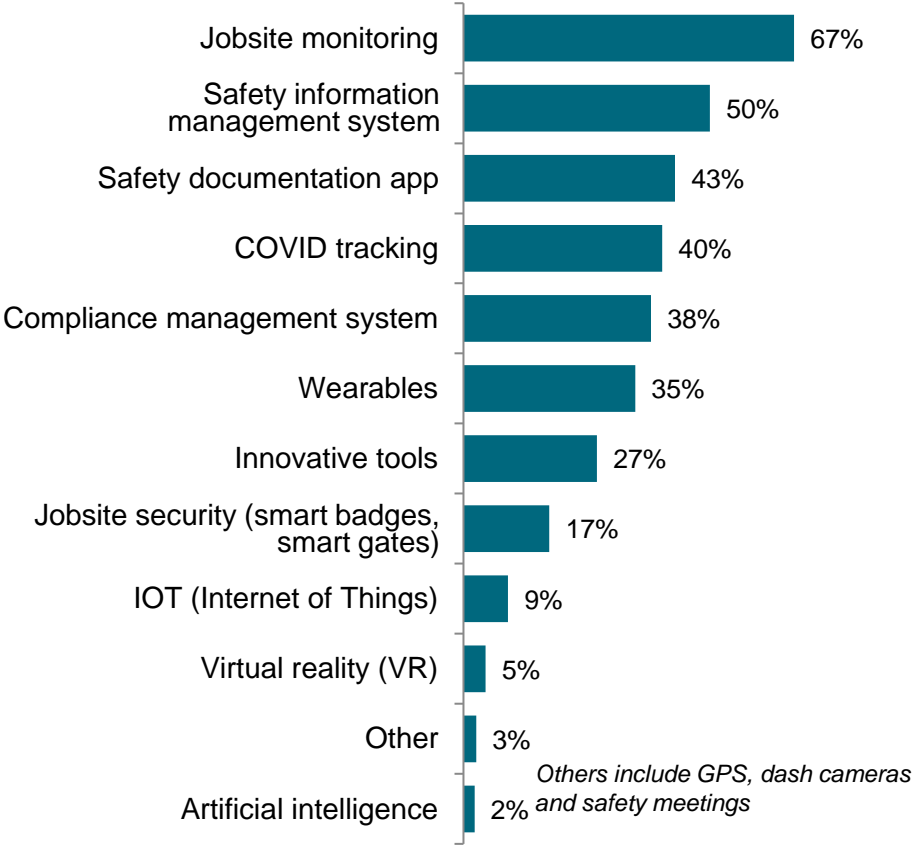


Executive management (42%) is most often involved in the purchasing and deployment of safety technology, followed by field leadership and supervision (28%).

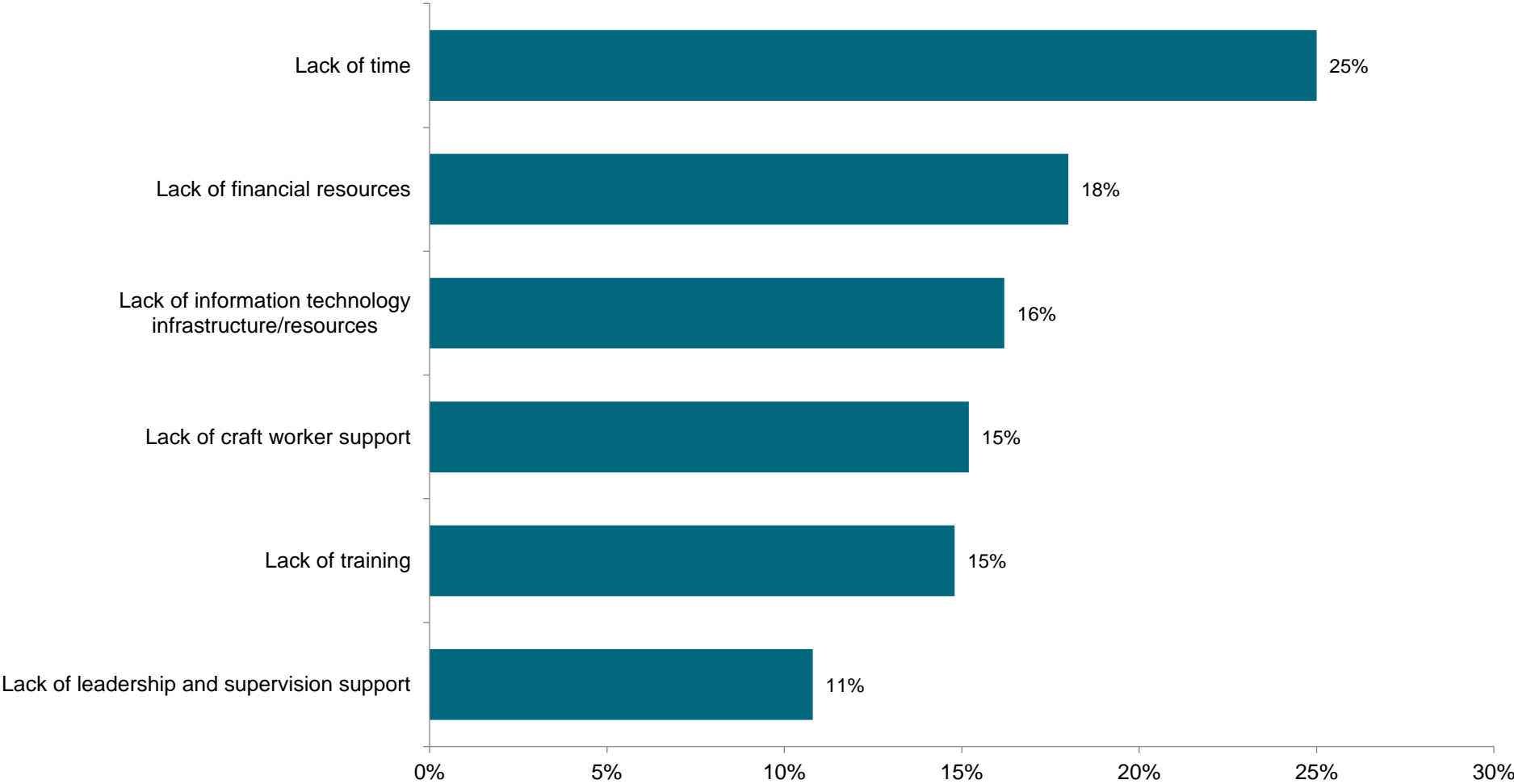
Who is involved in the identification and decision to purchase and deploy safety technology?



What safety technology are you using today or planning to use in the future? Check all that apply.

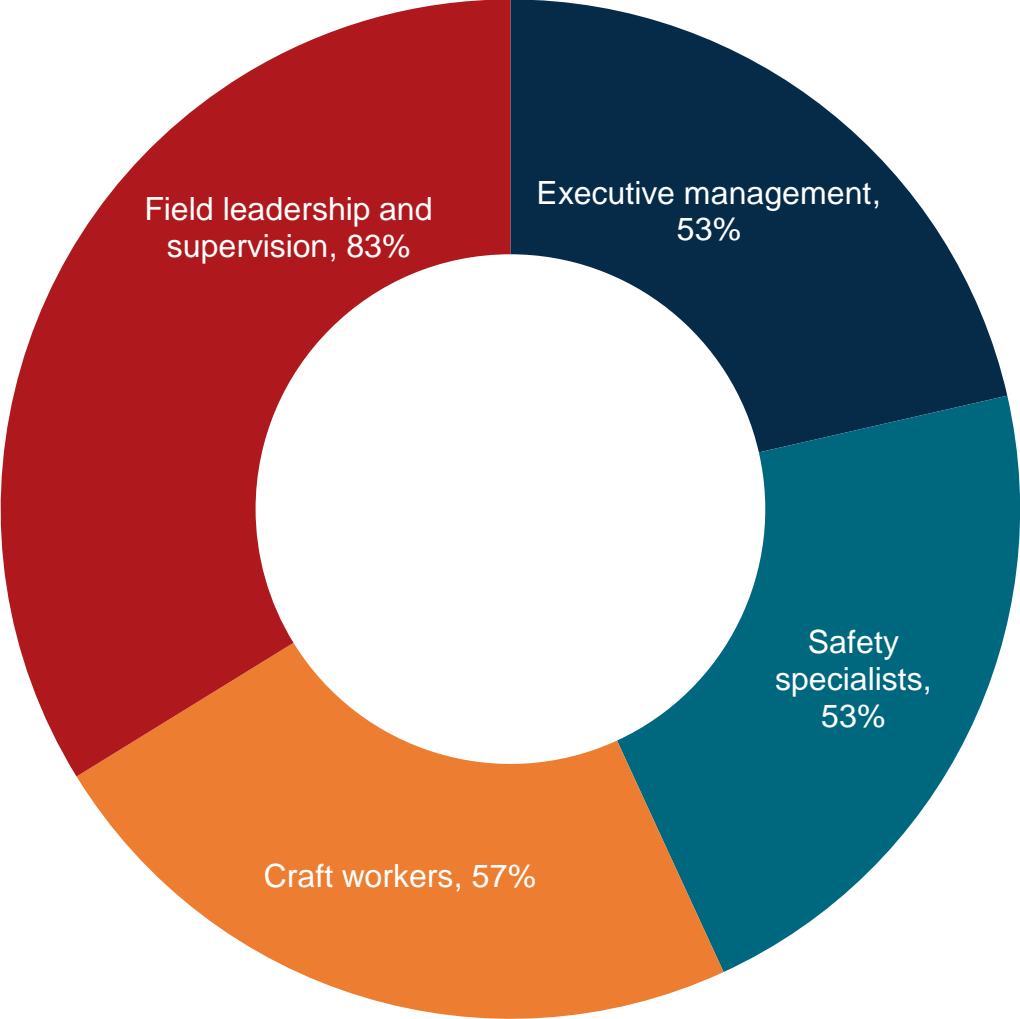


Lack of time, financial resources and IT infrastructure were stated as the top three barriers to adopting and deploying safety technology.



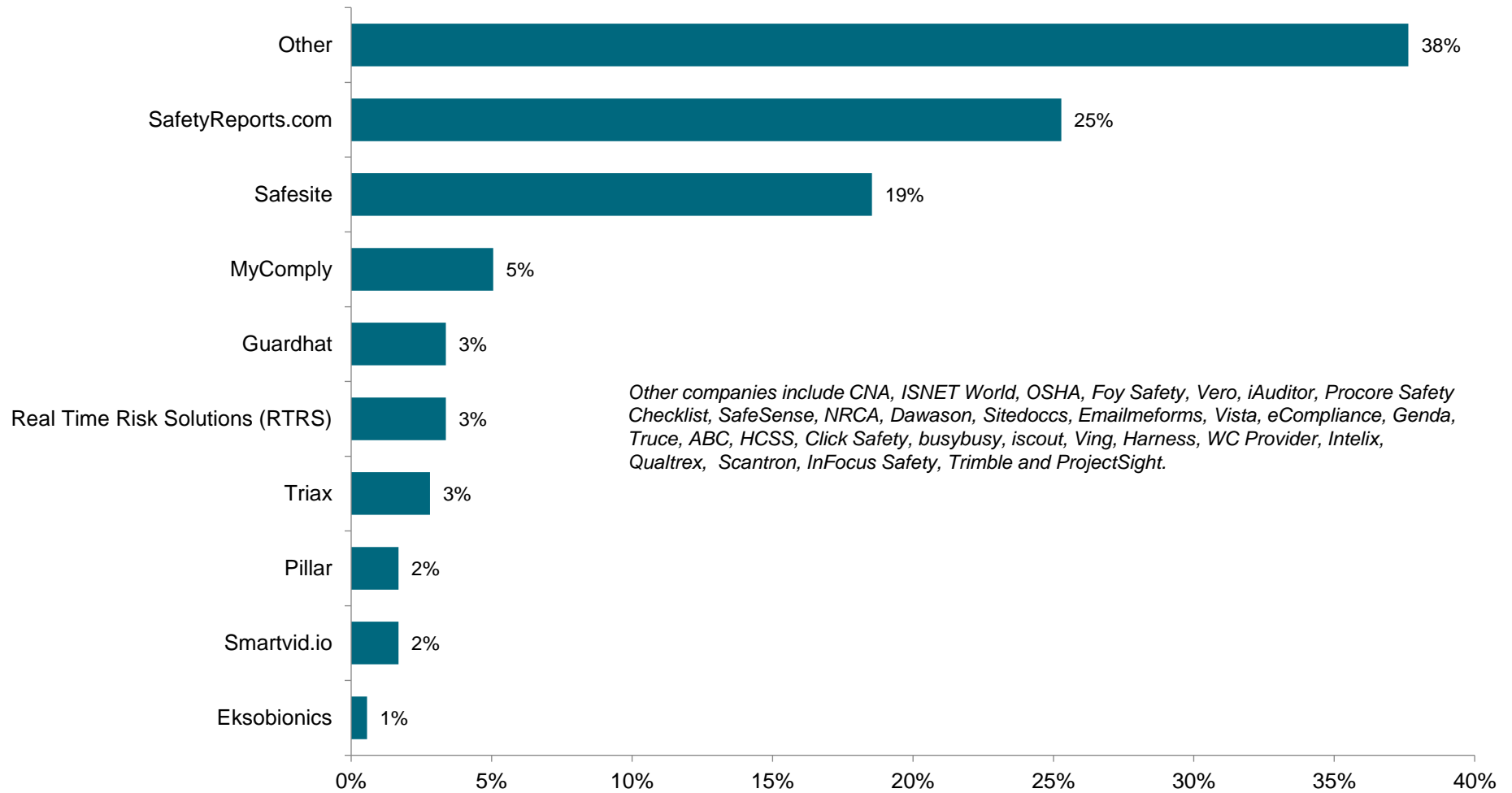
According to respondents, 83% of field leadership and supervisors utilize safety technologies.

Within your company, who utilizes deployed safety technologies? Check all that apply.



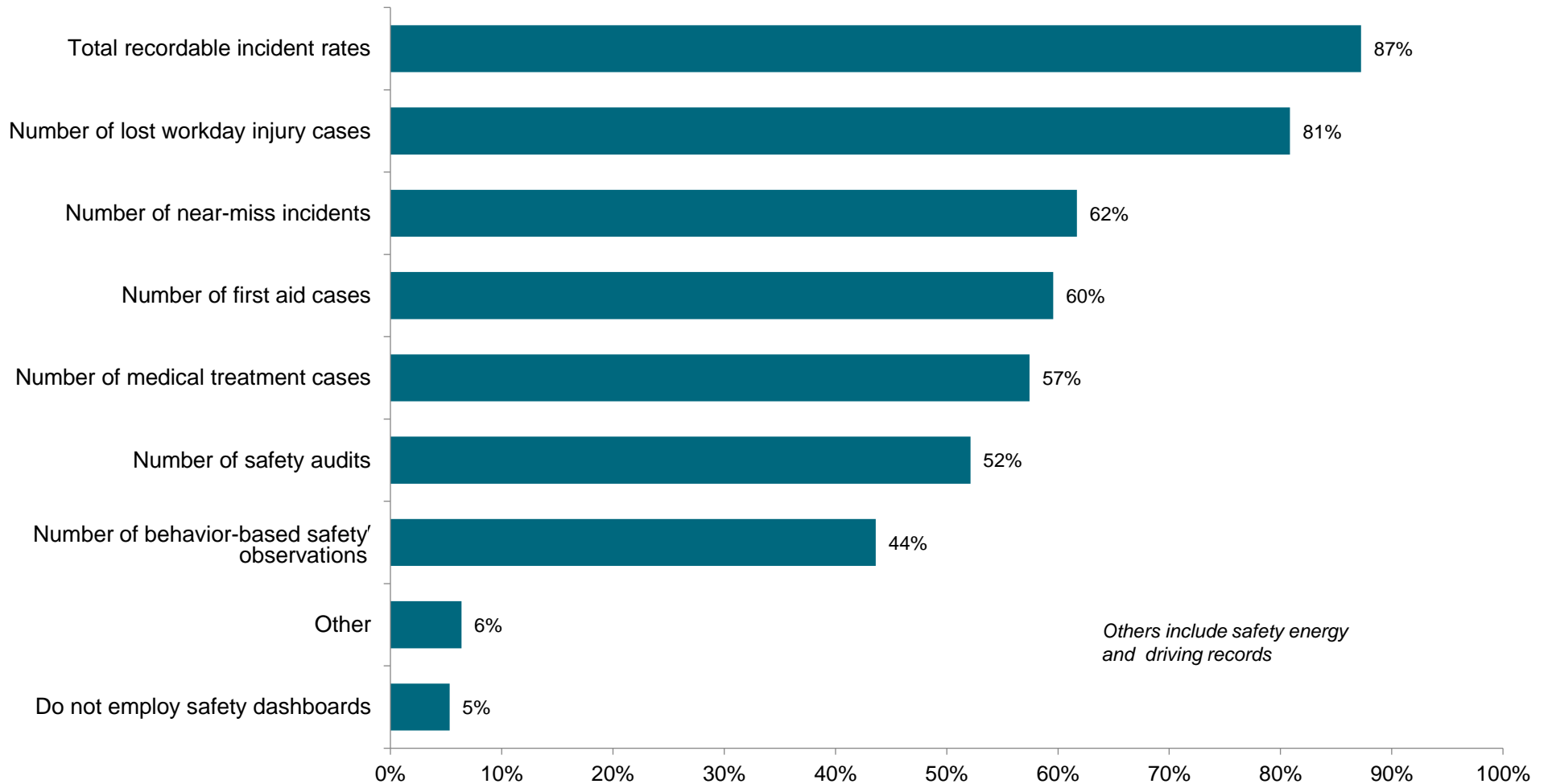
44% of respondents utilize SafetyReports.com and Safesite to research, purchase or deploy safety technology.

What technology companies do you use, or have you used to research, purchase or deploy safety technology?

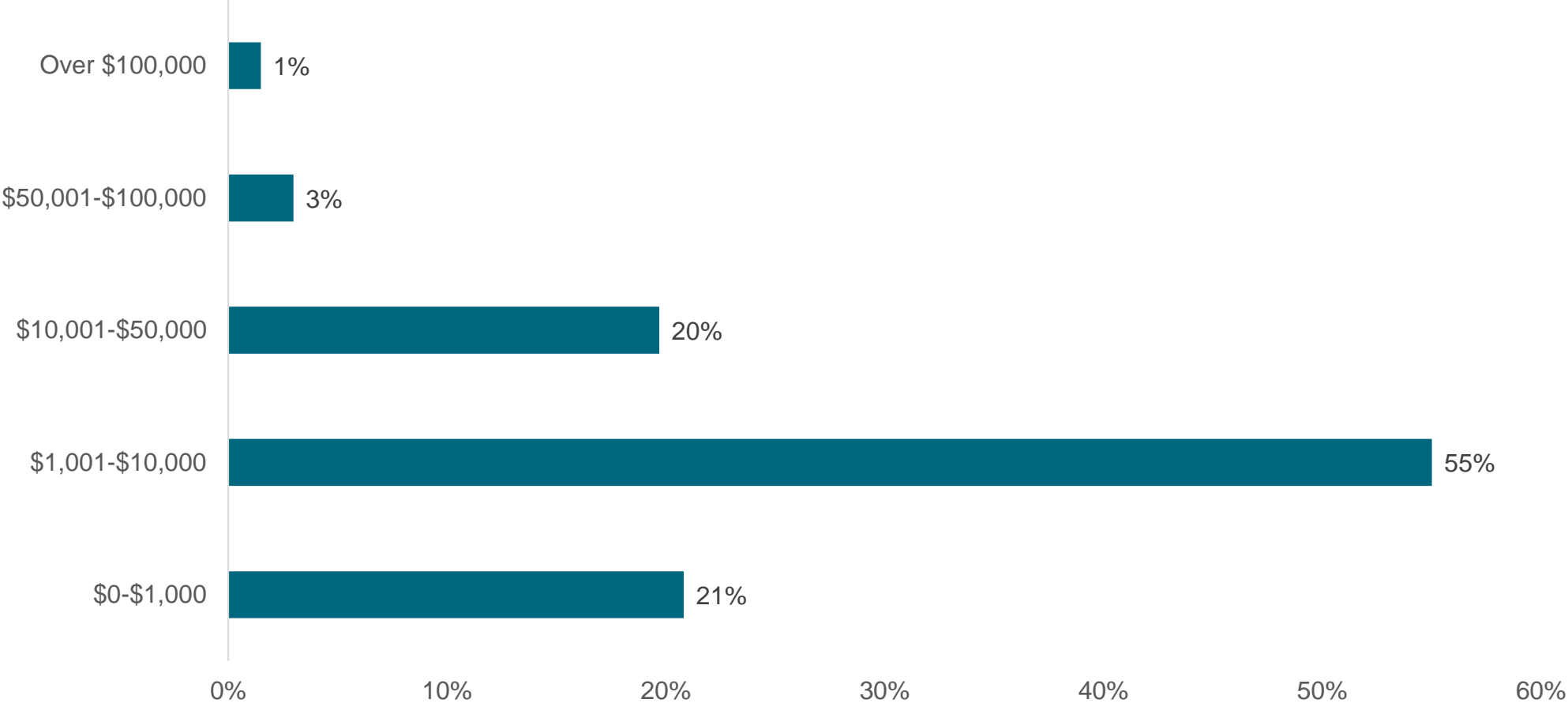


More than 80% of respondents utilize safety reports to track total recordable incident rates and lost workday injury cases.

What metrics do you capture, track and report on your safety report? Check all that apply.

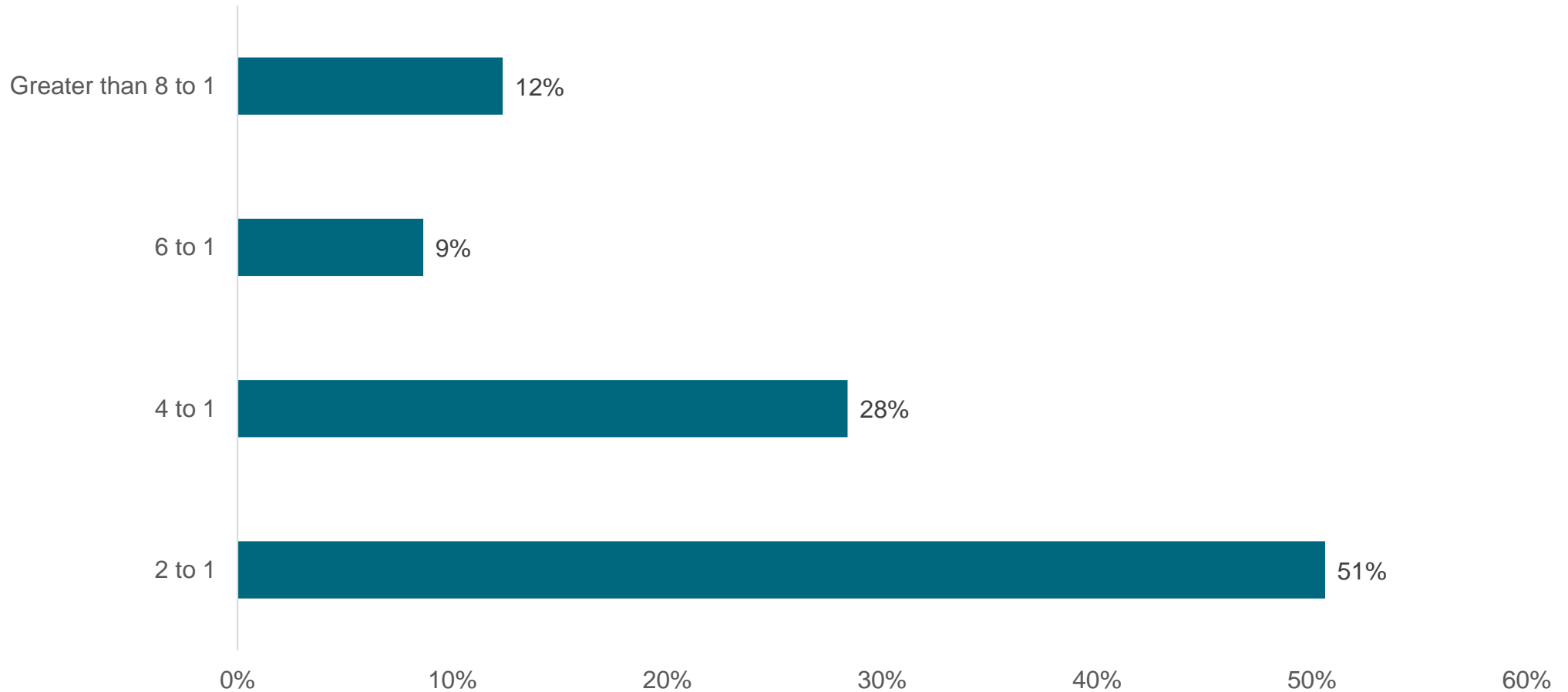


More than half of respondents dedicate between \$1,000 and \$10,000 to safety technology.



More than half of respondents (51%) stated that the estimated factor of ROI versus the actual investment in safety technology is 2 to 1.

What is the estimated factor of ROI versus the actual investment based on the implementation of safety technology?





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Appendix



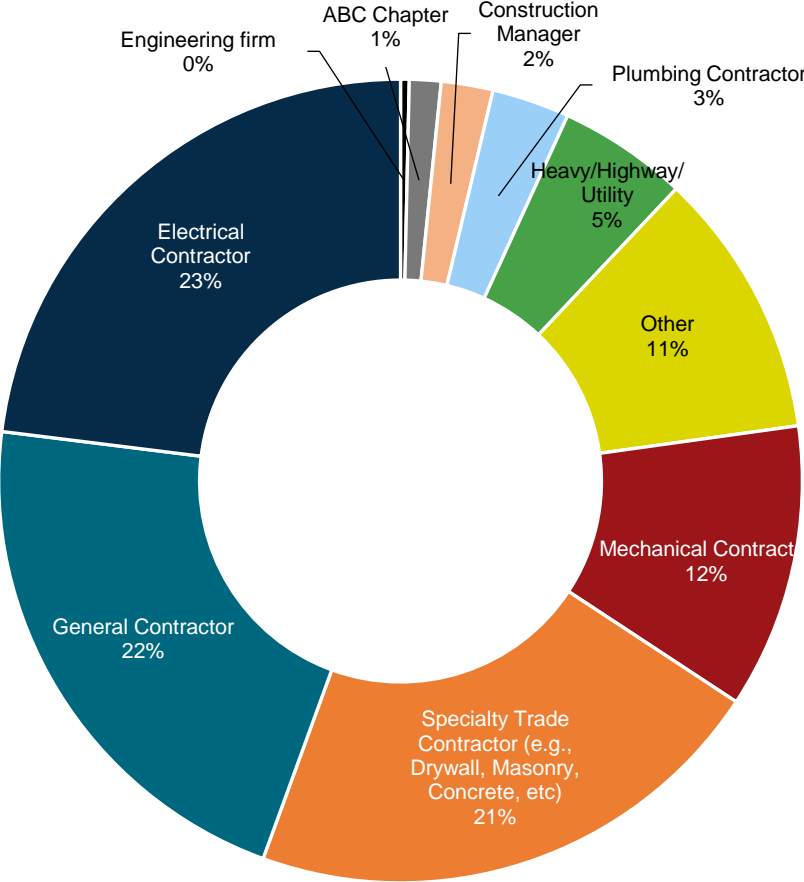
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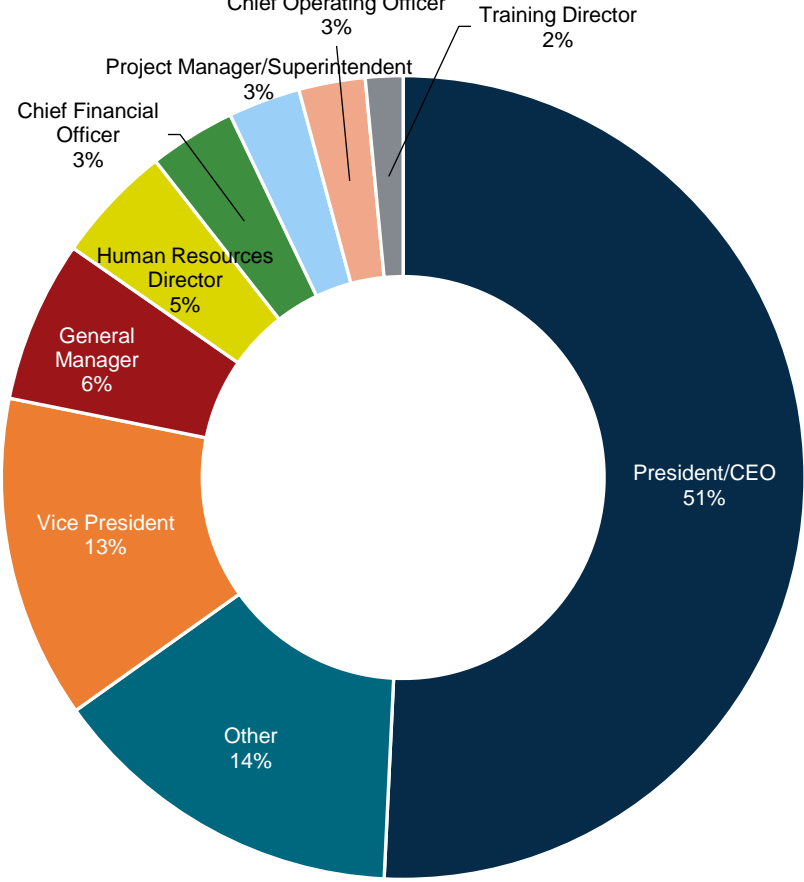
Contractor Survey Demographics

Trade contractors (e.g., electrical, mechanical, plumbing or other specialty) accounted for 59% of survey respondents.

Which of the following best describes your company or organization?



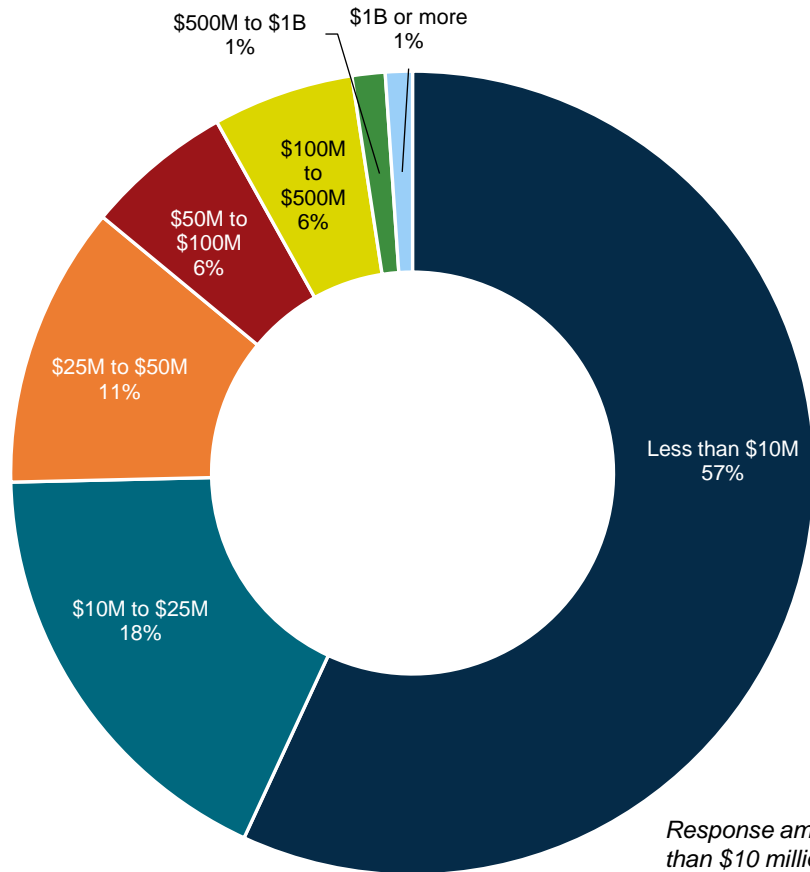
Which of the following best describes your role?



Other includes Owner, Division Manager, Controller, Director of Safety, Safety Manager, Office Manager, Marketing Manager, Operations Manager, Business Development/Operations, Sales, Payroll, Preconstruction, Executive Assistant and Project Administrator.

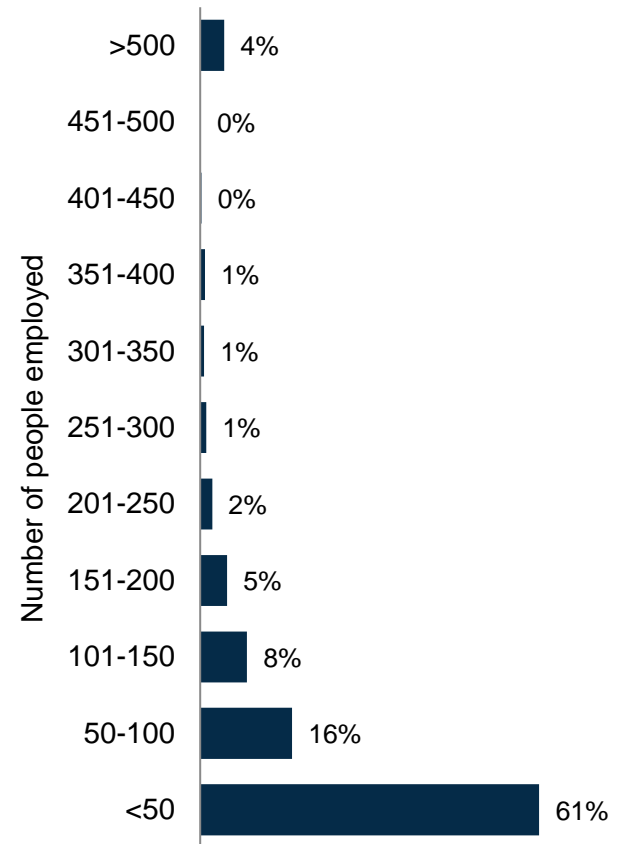
More than half (57%) of the survey sample is from firms with less than \$10 million in revenue or employing fewer than 50 people.

Which of the following best describes your company's annual construction revenue?



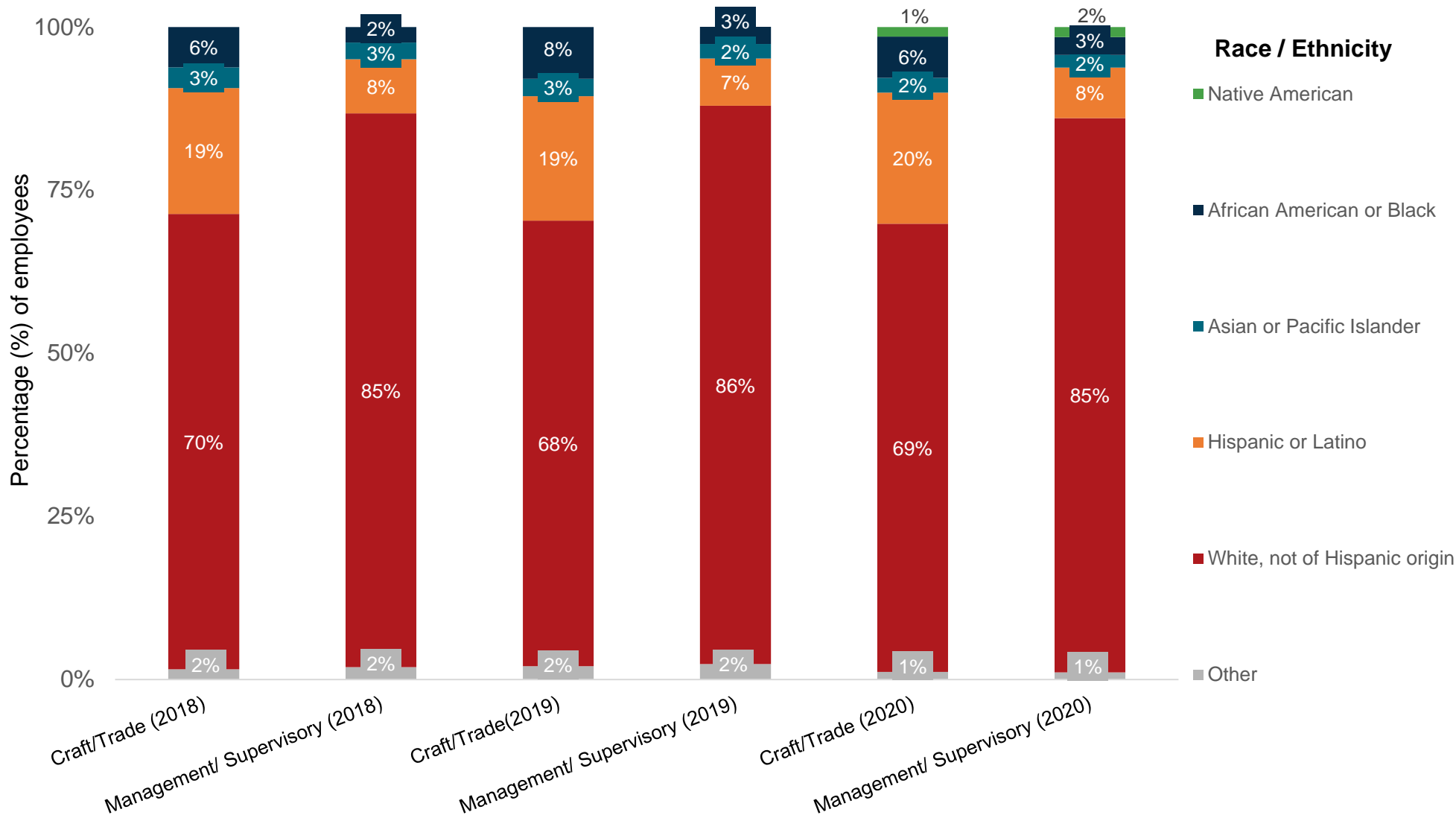
Response among contractors with less than \$10 million in revenue was down compared to 2019, when they accounted for 59% of the sample.

How many people are employed (both craft and salary) by your company at its seasonal peak?



Since 2018, the percentage of employees in both craft/trade and management/supervisory roles has stayed relatively consistent across all race/ethnic groups.

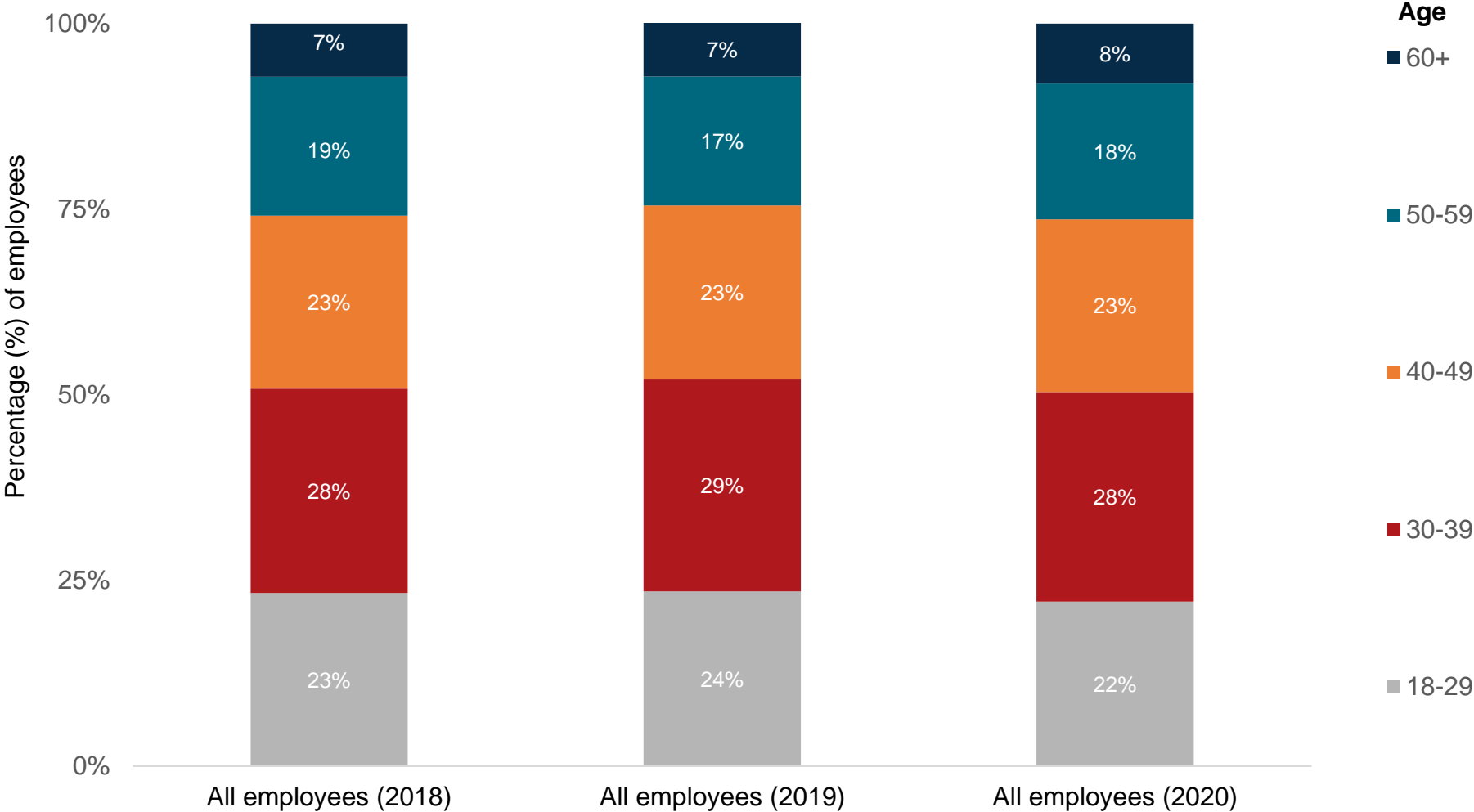
In your company, what percentage (%) of employees are of the following race/ethnic groups?



*2020 was the first year respondents were asked to provide information for Native American employees

A 3% decrease in the share of employees under 40 years from 2019 to 2020 suggests the industry is struggling to attract the younger demographic to the industry.

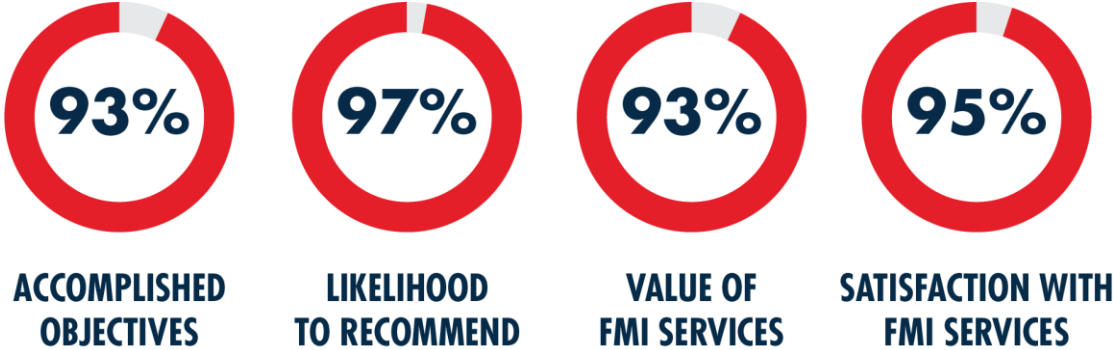
In your company, what percentage (%) of your company's workforce falls into the following age groups?



QUALITY ASSURANCE

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Summary of our client feedback:





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