



Industry Focus. Powerful Results.™



ABC Workforce Development Survey

April 2019



Table of contents

- Management Summary – p. 4
- Key Findings
 - Workforce Investment – p.14
 - Development Practices – p.20
- Appendix
 - Contractor Survey Demographics – p. 30
 - ABC Chapter Survey Findings – p. 33



Methodology

- ABC distributed the survey to the membership list beginning on January 8th, 2019. The survey was closed on February 19th, 2019.
- After removing duplicate and incomplete responses, the sample response rate was 7% of all ABC contractor members. The large sample size and the distribution of responses across categories was sufficient for FMI to be confident in modeling the total investment of ABC contractor members.
- FMI's model of total workforce development and education investment was built from 21 distinct categories based on contractor type and annual revenue.
 - Using the survey data, FMI assigned each of these categories a unique number of employees receiving each of the three training types (Leadership, Safety, Trade/Craft) and per-employee investment for each training type.
 - FMI multiplied the number of employees trained by the amount spent per employee to calculate the amount investment per firm in each of the categories.
 - The amount per firm was multiplied by the number of ABC member contractors in each of those categories, based on ABC and survey data.
 - The final sum (\$1.6 billion) is intended as a conservative estimate of total workforce development investment made by ABC member contractors as the largest ABC member contractors were assumed to have revenues no greater than \$2 billion.



Industry Focus. Powerful Results.™



Management Summary



ABC member contractors invest an estimated total of \$1.6 billion per year in workforce development.

- ABC member contractors invest an average of \$117,679 annually on workforce development and education.
- The \$528 million annual investment in workforce development made by firms with revenue below \$10 million represents nearly a third (33%) of the total workforce investment by ABC members.
- Trade and specialty contractors account for 83% (\$1.3 billion) of all workforce development investments made by ABC member contractors.
- ABC member contractors invest an average of 8.3% of payroll on workforce development, which is well above FMI construction industry benchmark of 5.8%.
- More than two-thirds of ABC chapters responded to the survey. The South Atlantic region provided the greatest number of ABC chapter responses.

NOTE: FMI CONSTRUCTION INDUSTRY BENCHMARK FOR WORKFORCE DEVELOPMENT INVESTMENT IS BASED ON A 2013 SURVEY OF OVER 3,600 US CONSTRUCTION FIRMS.



Investments in safety education drive the bulk of workforce development.

- In 2018 ABC member contractors provided safety education to nearly 600,000 course attendees and they skilled or upskilled nearly 400,000 course attendees.
- Safety education accounts for the greatest share (48%) of total workforce investment.
- Across all contractor types, trade/craft personnel accounted for more than two-thirds (68%) of those receiving education.



The war for talent is changing the ways contractors invest in developing and educating their workforce.

- Nearly all contractors (92%) reported a skilled labor shortage, an 11% increase since 2013. One quarter (25%) of all contractors characterized the skilled labor shortage as “very severe.”
- Nearly all (96%) of ABC chapters reported that the industry is facing a moderate to very severe skilled labor shortage, driven primarily by the exodus of baby boomers.
- Since 2013, contractors have shifted the focus of their workforce development program to include more senior leaders, project managers and field managers/superintendents.
- ABC member contractors increased their average workforce development investment by \$100 per person from 2013 to 2018.
- The use of online education (both with and without an instructor) doubled from less than 10% in 2013 to more than 20% in 2018.
- More than three quarters (77%) cited busy schedules as the main obstacle to workforce development.



Shifting demographics within the industry will require additional investment in all types of workforce development.

- Despite less than half of firms reporting having targeted women for development, their share of trade/craft employment grew from 3% in 2013 to 12% in 2018.
- One quarter of U.S. personnel receiving workforce development and education in the past year lacked a high school diploma or were current students.
- The average number of people enrolled in registered and non-registered craft apprenticeship programs doubled from 2013 to 2018.
- A 3% increase in the share of employees over 50 years of age highlights the industry's need to attract younger employees.

ABC member contractors invest an average of \$117,679 annually on workforce development and education.

Model summary

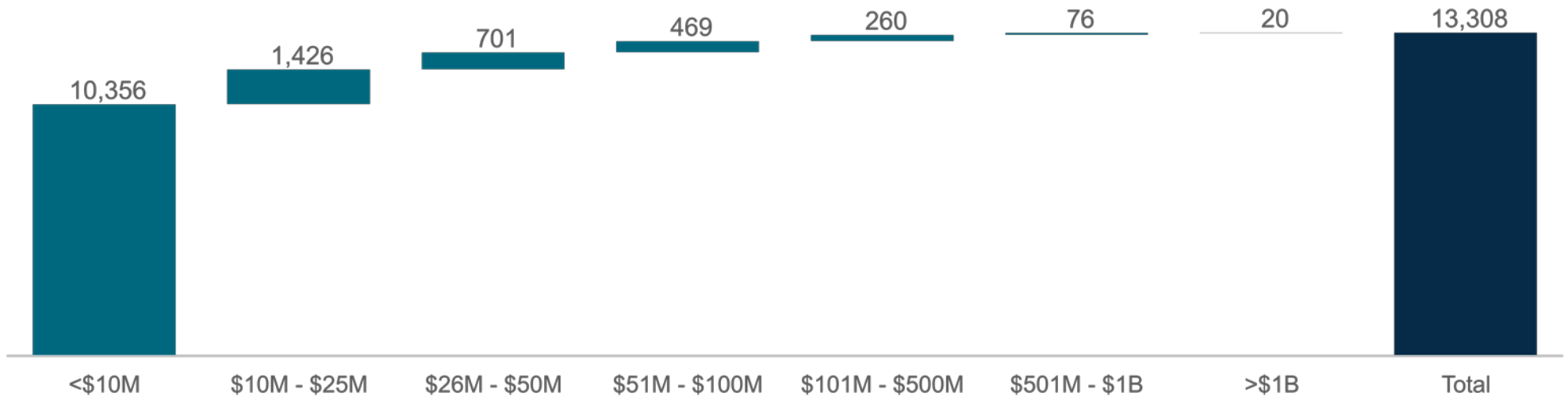
Source: FMI

	GC/CM	Heavy/Civil/Utility	Trade or Specialty	Overall
Estimated ABC membership (number of firms)	2,248	620	10,440	13,308
Total training investment (\$)	\$190,640,904	\$85,661,026	\$1,323,385,225	\$1,599,687,156
Number of personnel trained in each training type	Leadership: 29,530 Safety: 93,295 Craft/trade: 33,820	Leadership: 6,891 Safety: 51,929 Craft/trade: 23,775	Leadership: 57,711 Safety: 439,714 Craft/trade: 246,473	Leadership: 94,131 Safety: 584,938 Craft/trade: 304,068
Per-person investment (\$)	Leadership: \$2,000 Safety: \$850 Craft/trade: \$1,546	Leadership: \$671 Safety: \$1,042 Craft/trade: \$1,133	Leadership: \$1,333 Safety: \$1,433 Craft/trade: \$2,500	Leadership: \$1,494 Safety: \$1,306 Craft/trade: \$2,287
Trainee distribution by role	Senior leader: 6% Project manager: 13% Field manager: 24% Craft/trade: 58%	Senior leader: 3% Project manager: 5% Field manager: 13% Craft/trade: 78%	Senior leader: 5% Project manager: 9% Field manager: 16% Craft/trade: 69%	Senior leader: 5% Project manager: 9% Field manager: 17% Craft/trade: 68%

The \$528 million annual investment in workforce development made by firms with revenue below \$10 million represents nearly a third (33%) of the total workforce investment by ABC members.

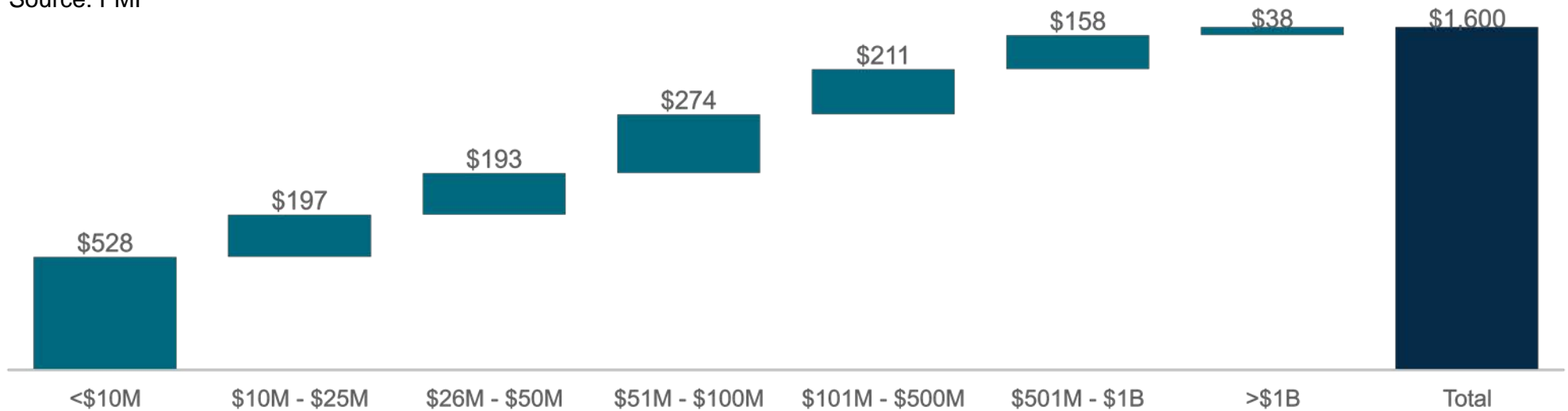
Estimated ABC membership by annual revenue

Source: FMI



Training investment (\$M) by annual revenue

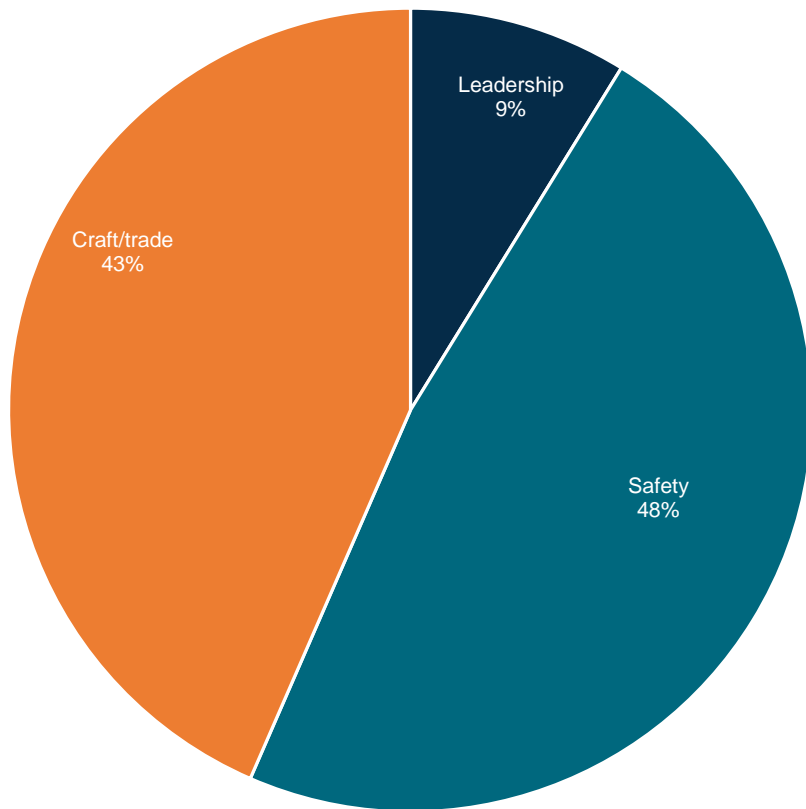
Source: FMI



Safety education accounts for the greatest share (48%) of total workforce investment.

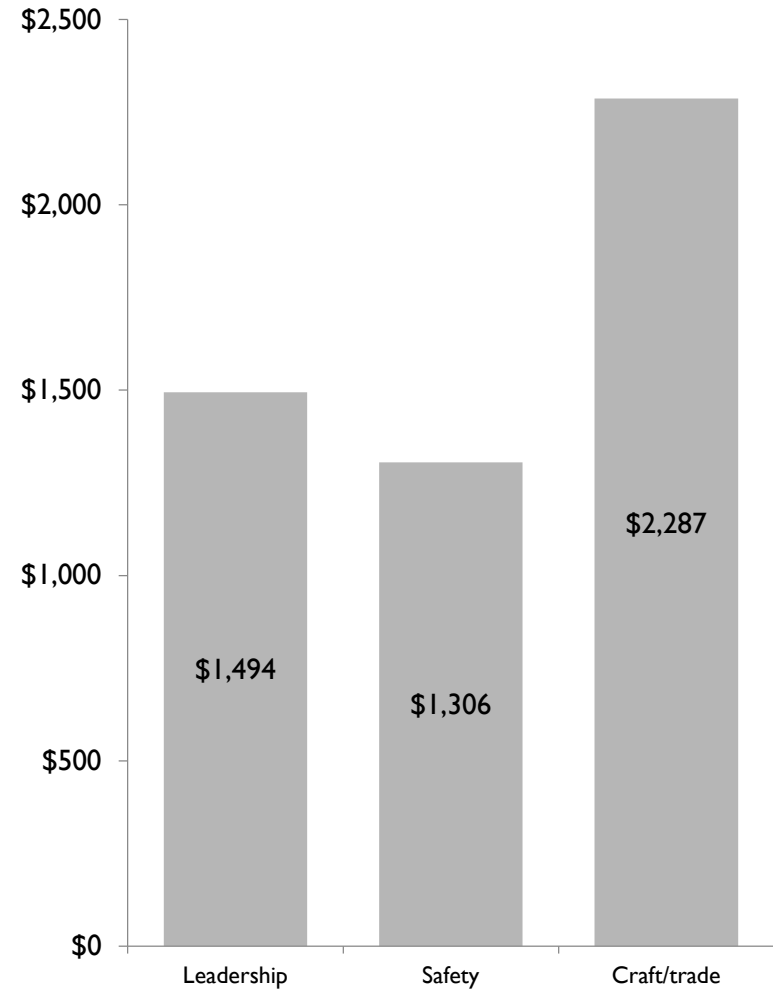
Training investment by training type

Source: FMI



Training investment per person by training type

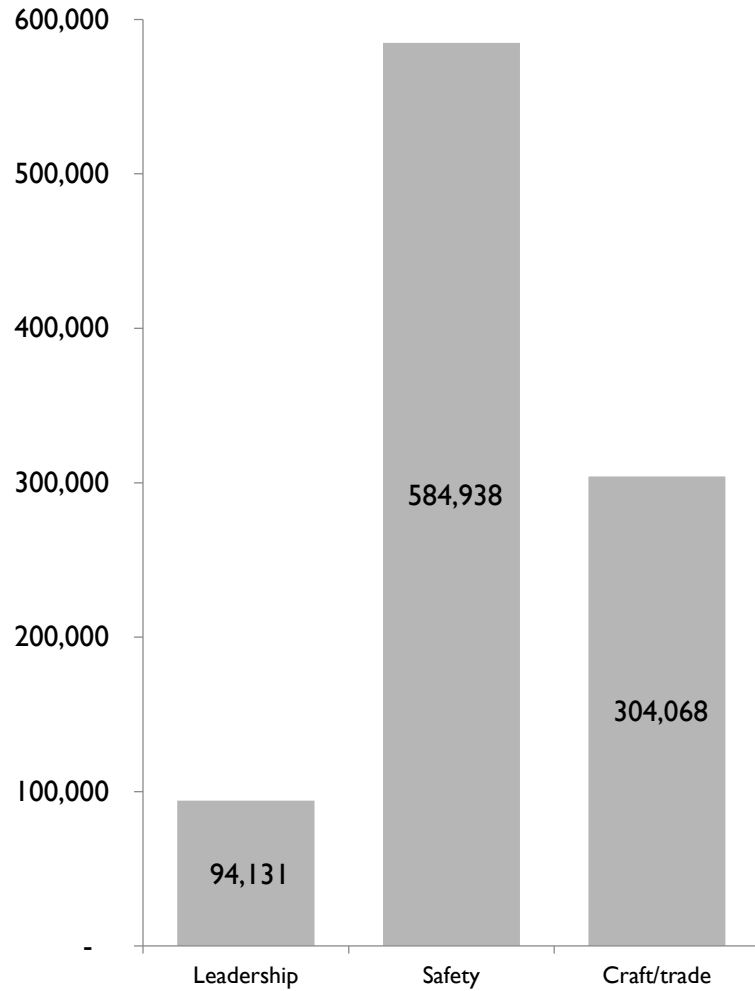
Source: FMI



In 2018 ABC member contractors provided safety education to nearly 600,000 course attendees and they skilled or upskilled nearly 400,000 course attendees.

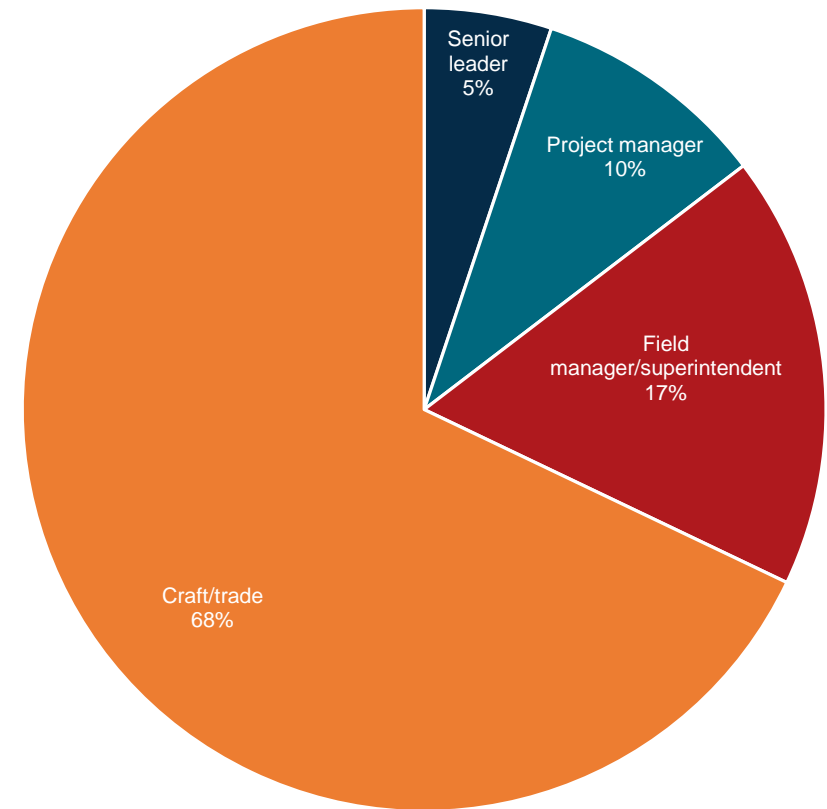
Personnel trained by training type

Source: FMI



Personnel trained by role

Source: FMI





Industry Focus. Powerful Results.™



Key Findings



Industry Focus. Powerful Results.™

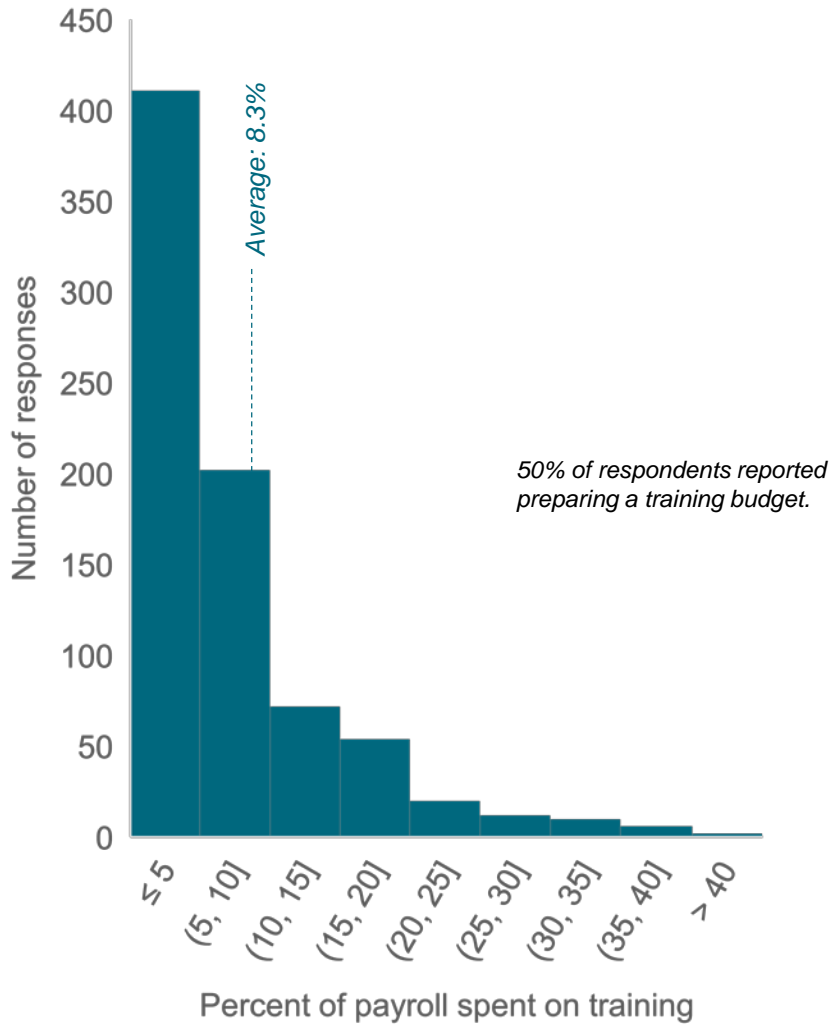


Workforce Investment

ABC member contractors invest an average of 8.3% of payroll on workforce development, which is well above FMI construction industry benchmark of 5.8%.

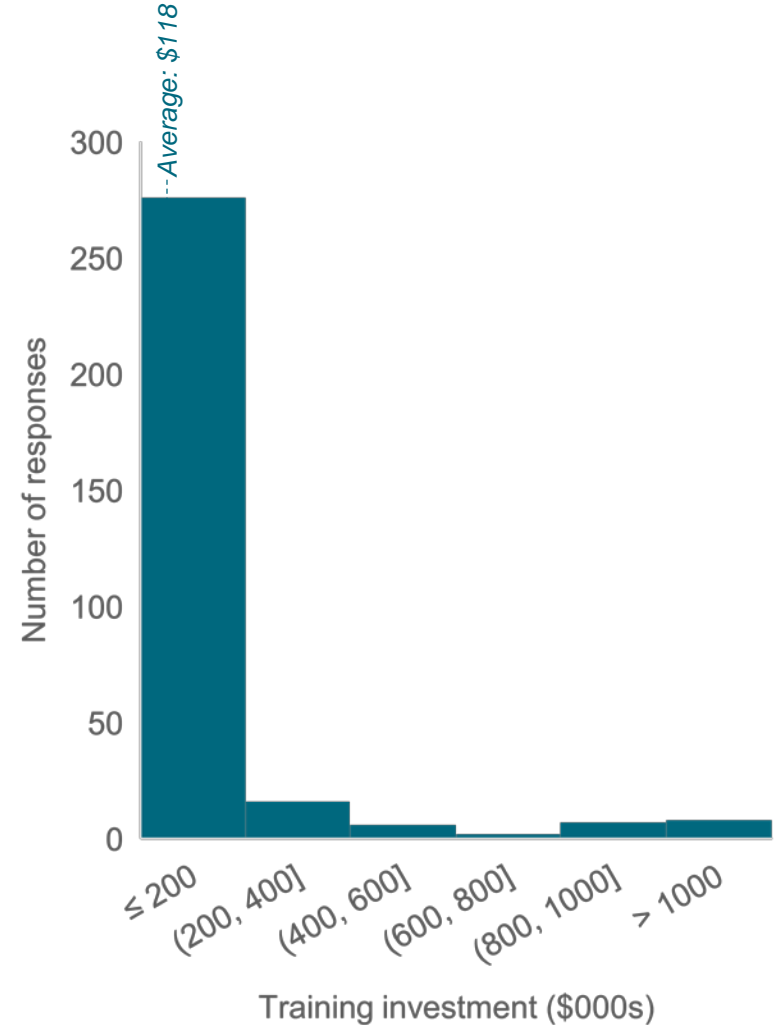
What percentage of your company's payroll is spent on training? (n=789)

Source: FMI



What is your total investment (in thousands of dollars) for training U.S. personnel? (n=474)

Source: FMI



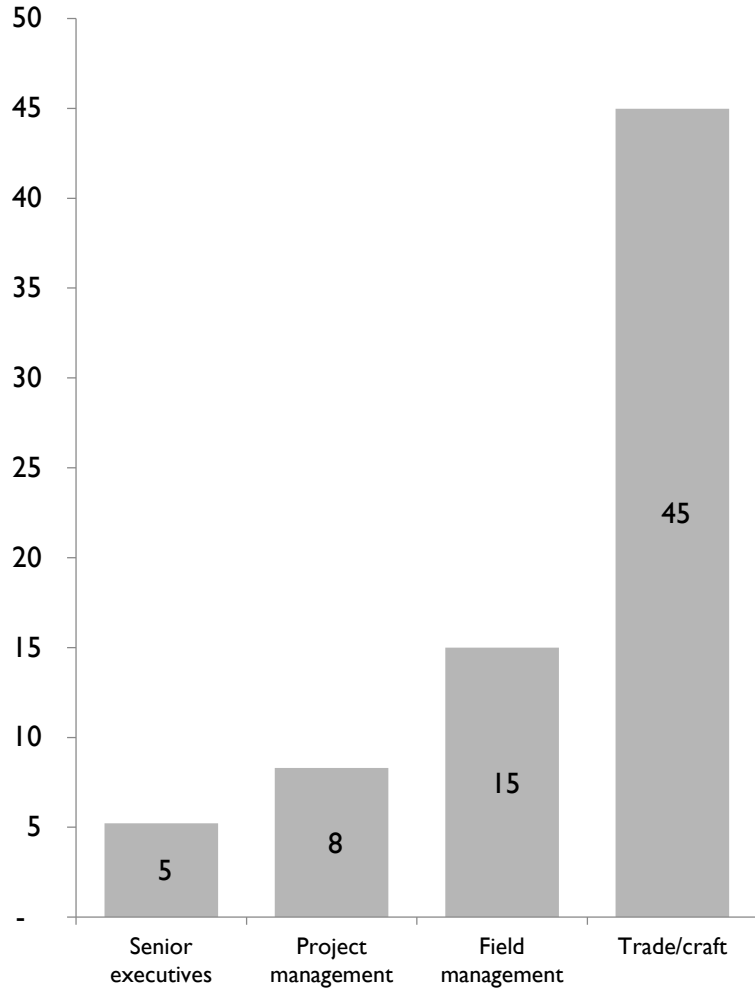
NOTE: FMI CONSTRUCTION INDUSTRY BENCHMARK FOR WORKFORCE DEVELOPMENT INVESTMENT IS BASED ON A 2013 SURVEY OF OVER 3,600 US CONSTRUCTION FIRMS.

ABC member contractors increased their average workforce development investment by \$100 per person from 2013 to 2018.

In the United States, how many personnel in each of the following employee groups receive training in a year?

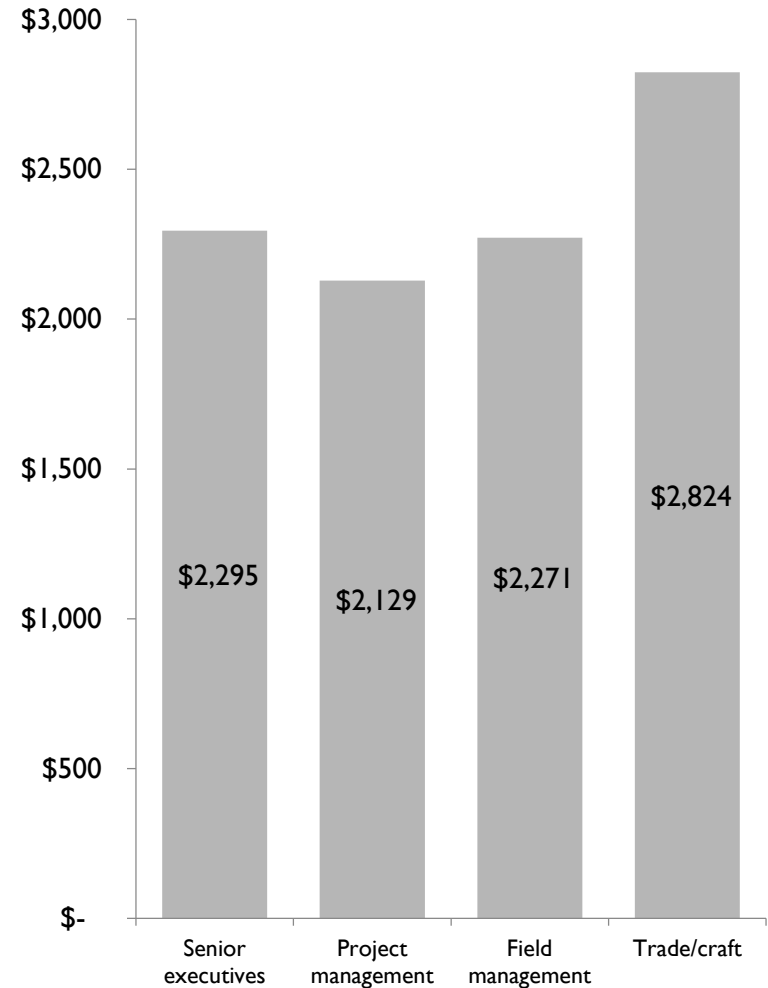
(n=517-708)

Source: FMI



In the United States, how much does your company or organization invest annually PER PERSON on training for each of the following employee groups? (n=317-431)

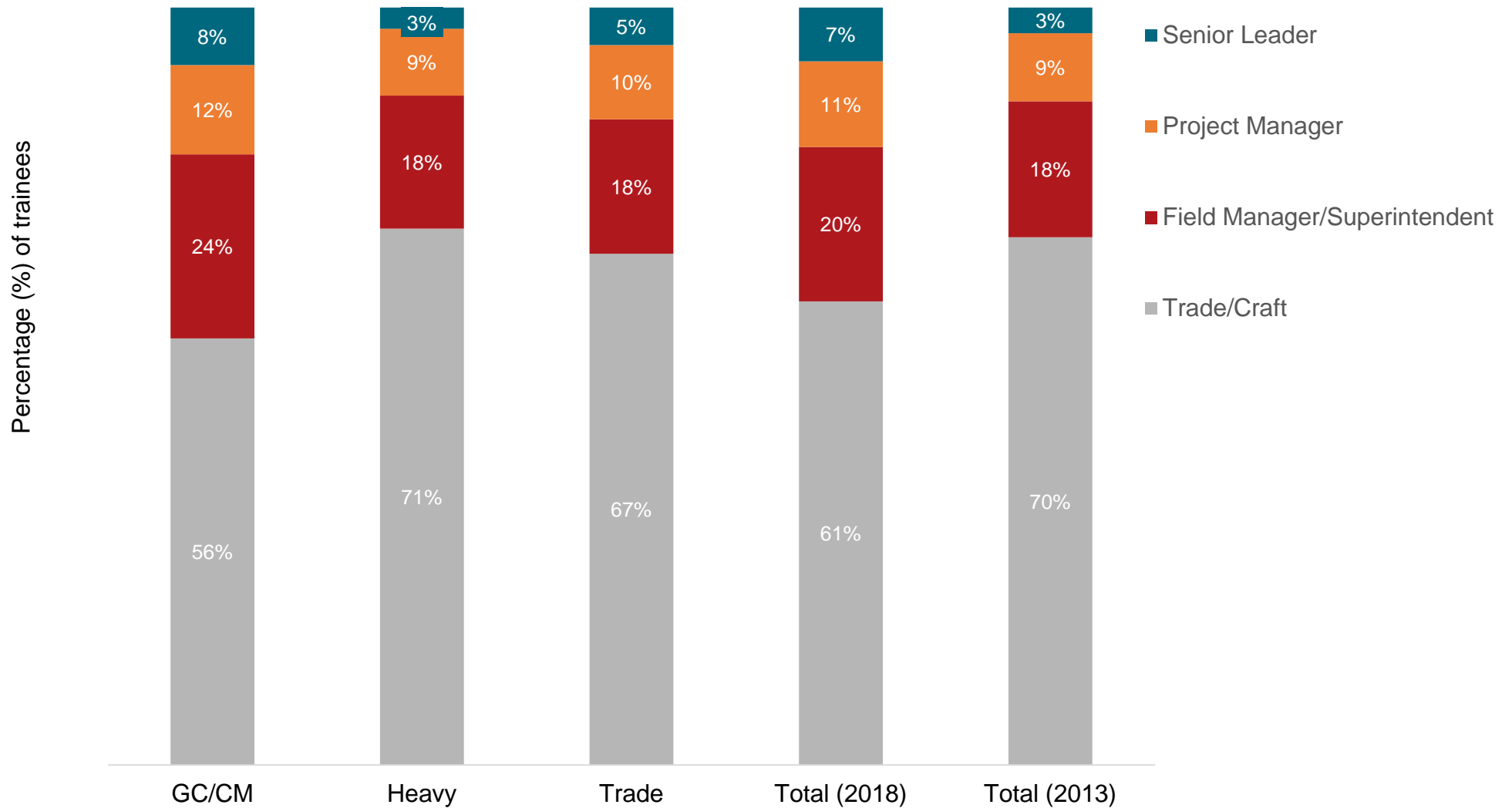
Source: FMI



Since 2013, contractors have shifted the focus of their workforce development program to include more senior leaders, project managers and field managers/superintendents.

Role training by contractor type

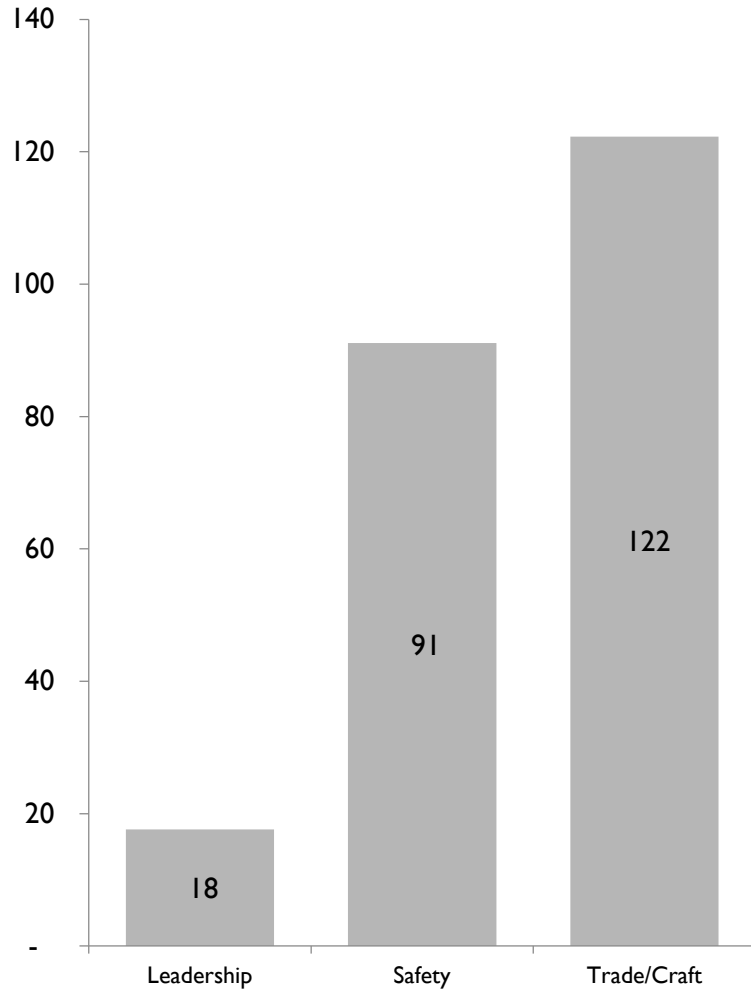
Source: FMI



On average, construction firms invest in trade/craft education for 122 employees per year at an average per-person cost of \$2,377.

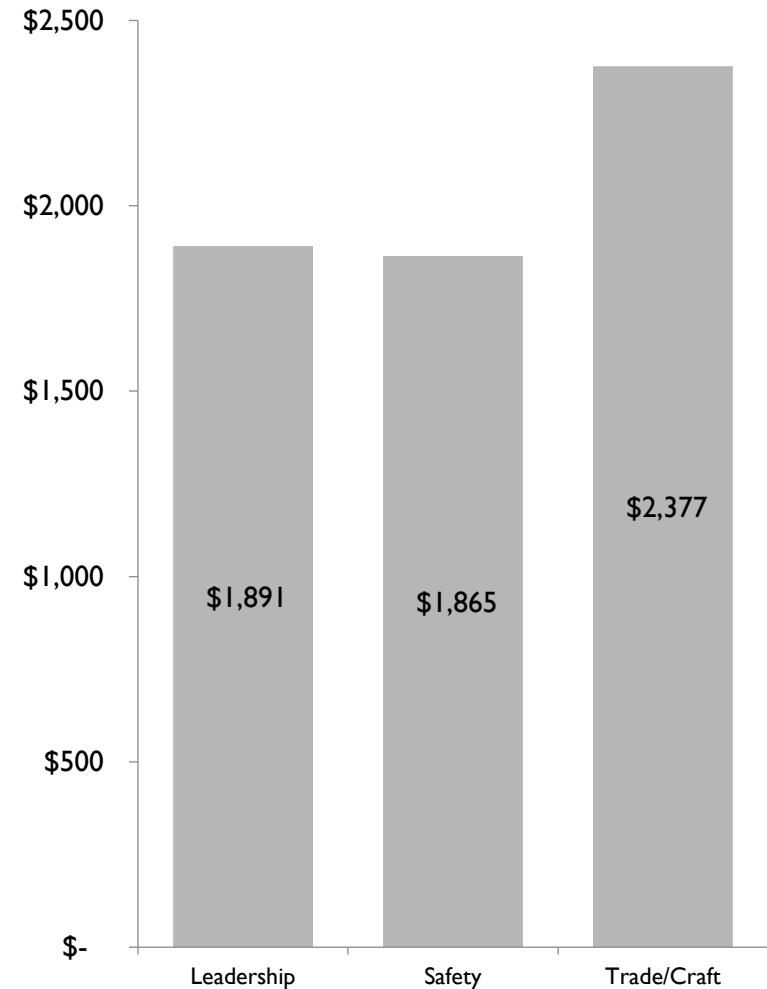
In the United States, how many personnel receive each of the following training types in a year? (n=500-678)

Source: FMI



In the United States, how much does your company or organization invest annually PER PERSON on training for each of the following types of training? (n=264-403)

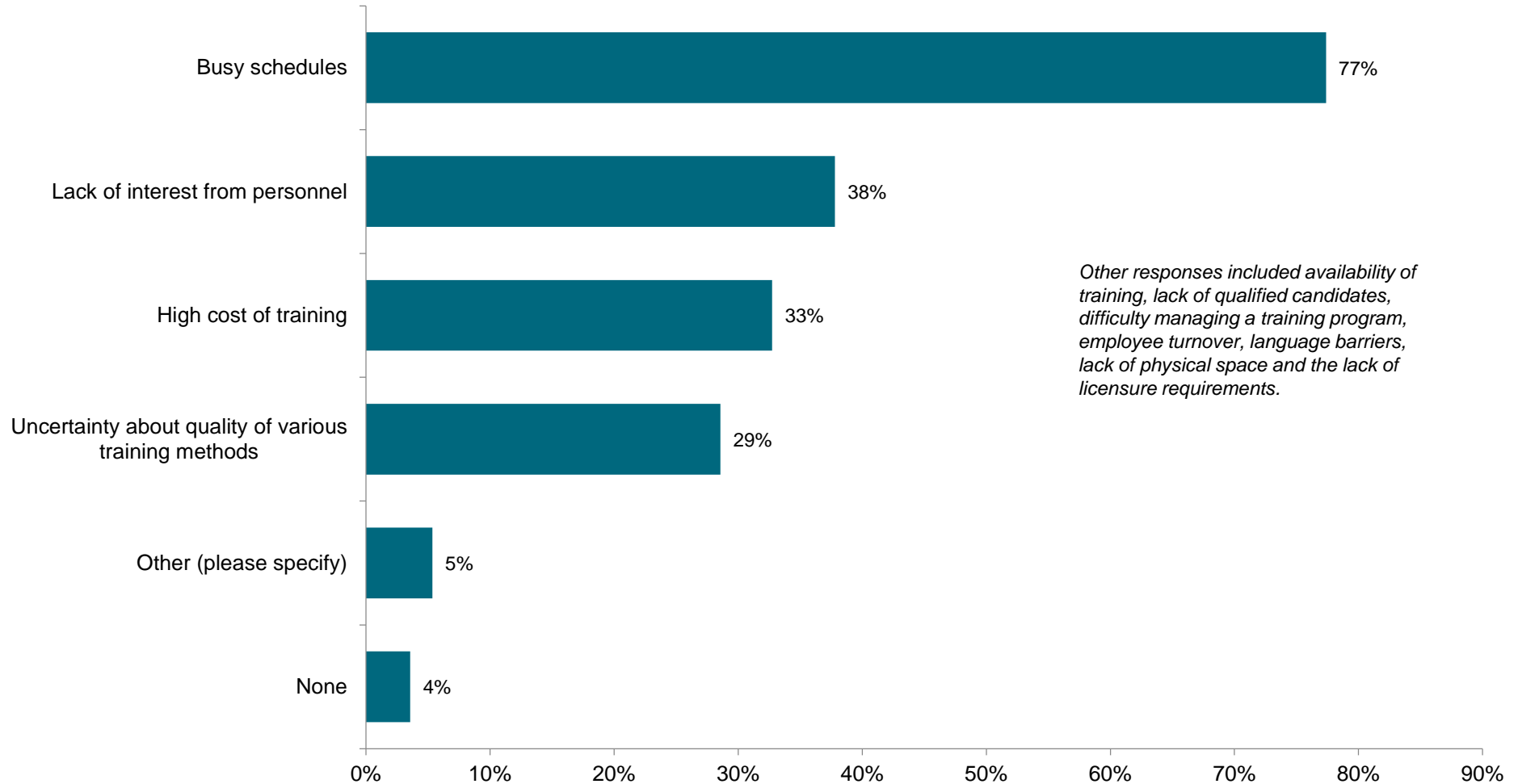
Source: FMI



More than three quarters (77%) cited busy schedules as the main obstacle to workforce development, so contractors may continue to seek programs that are self-paced and available remotely.

Which of the following obstacles are limiting your ability to conduct staff training and development? (n=673)

Source: FMI





Industry Focus. Powerful Results.™

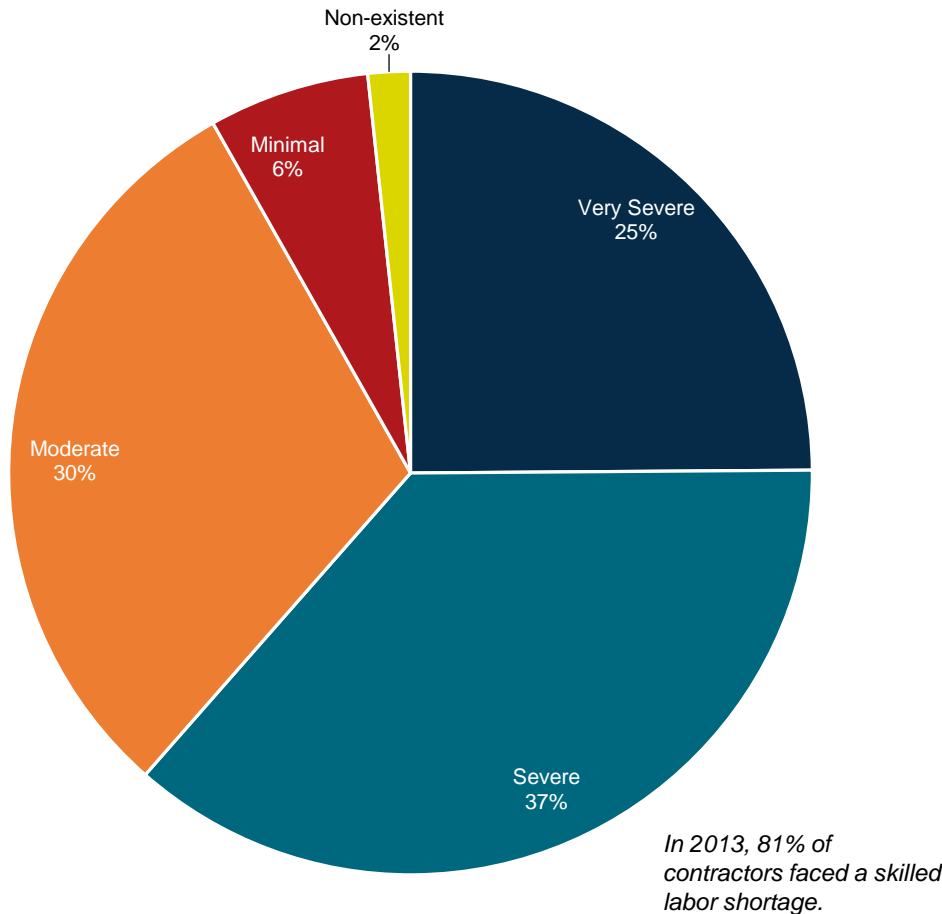


Development Practices

Nearly all contractors (92%) reported at least a moderate skilled labor shortage, an 11% increase since 2013. One quarter (25%) of all contractors characterized the skilled labor shortage as “very severe.”

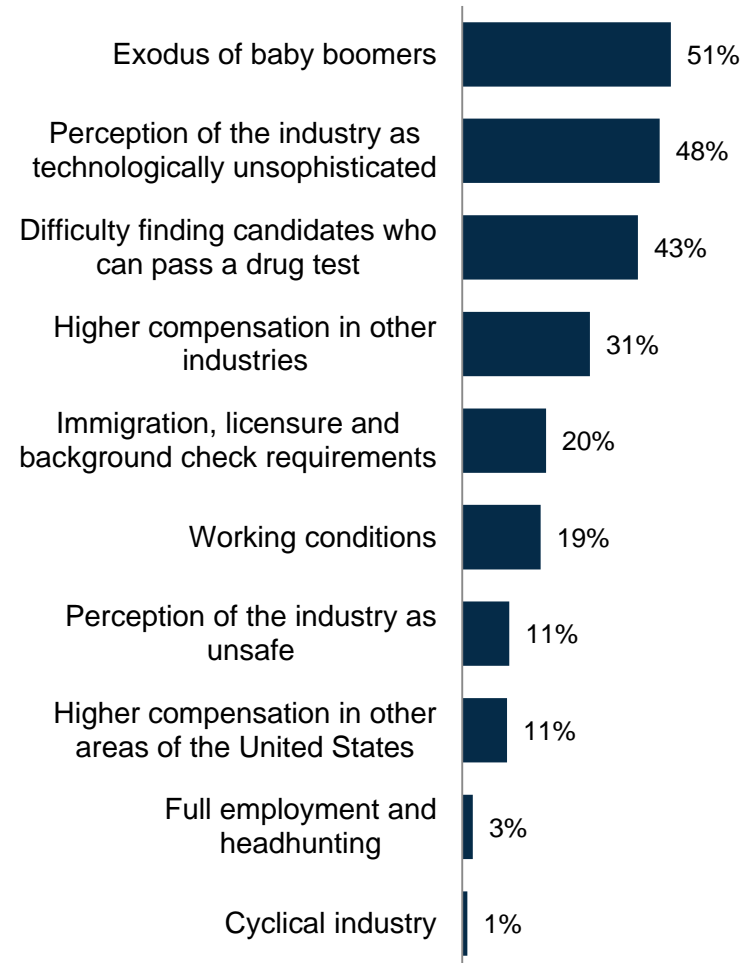
How severe is the skilled labor shortage facing your company or organization? (n=880, % of responses)

Source: FMI



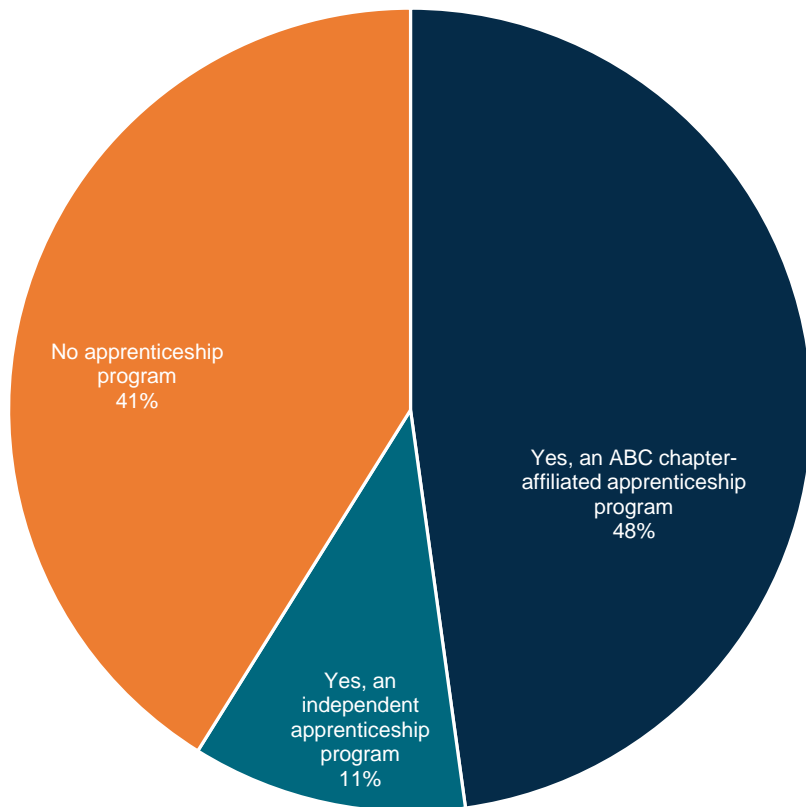
Which of the following factors have increased the severity of the skilled labor shortage facing your company or organization? (n=764 % of respondents)

Source: FMI

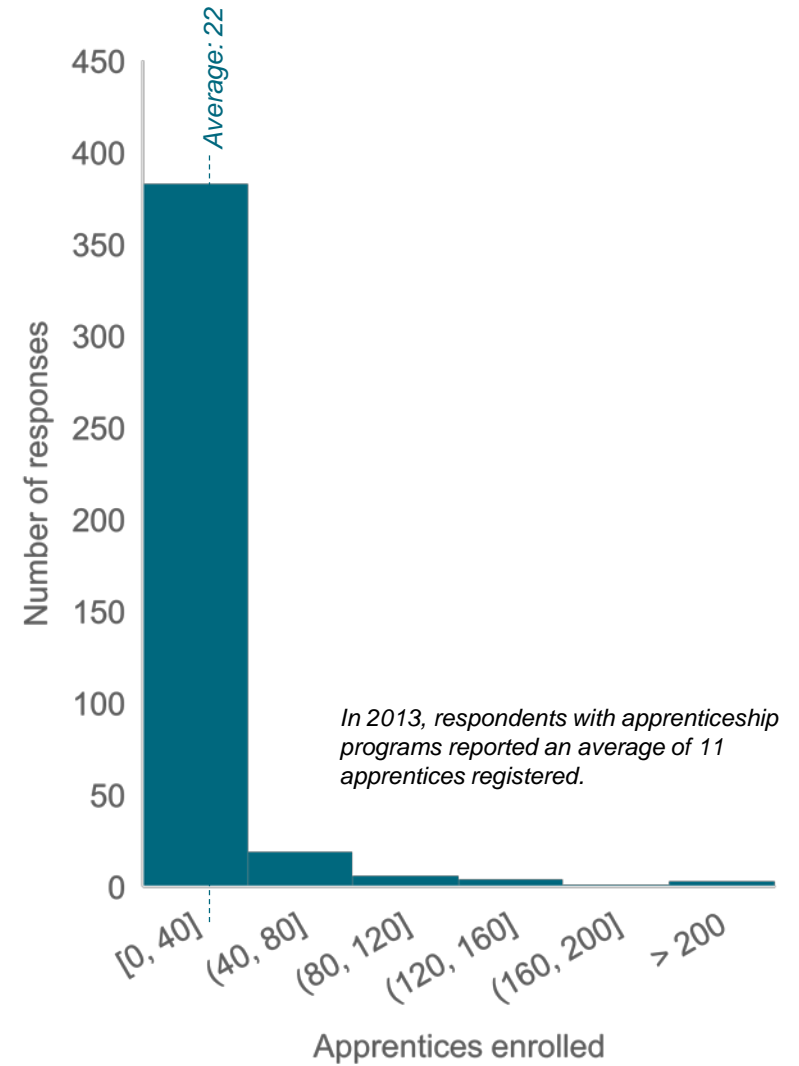


The average number of people enrolled in registered and non-registered craft apprenticeship programs doubled from 2013 to 2018.

Does your company have an apprenticeship program that is registered with the State or Federal Department of Labor? (n=732)
Source: FMI



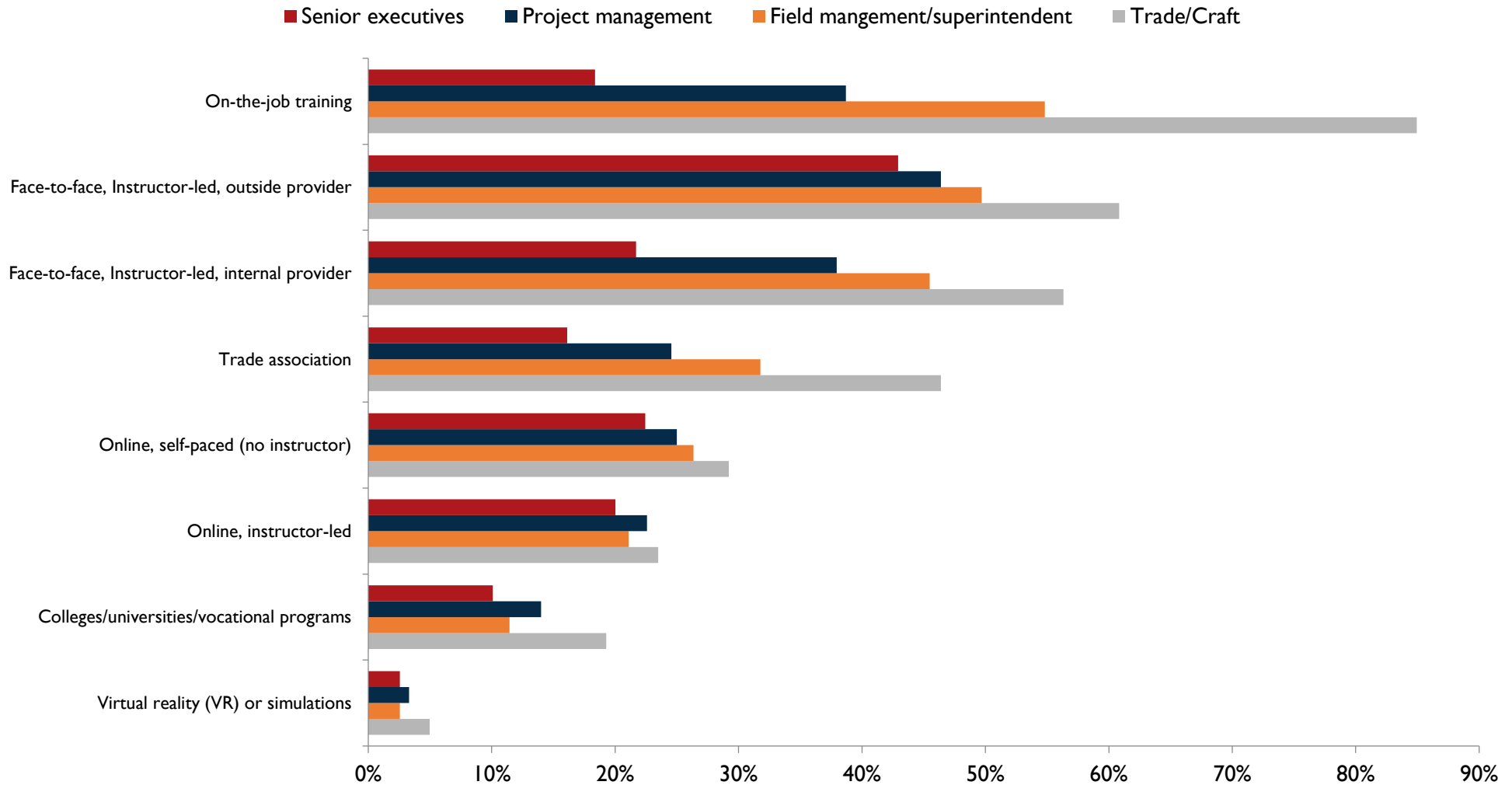
In the United States, how many apprentices or trainees are currently involved in your program? (n=416)
Source: FMI



The use of online education (both with and without an instructor) doubled from less than 10% in 2013 to more than 20% in 2018.

Which of the following training methods do you use to train each type of employee? (n=664)

Source: FMI

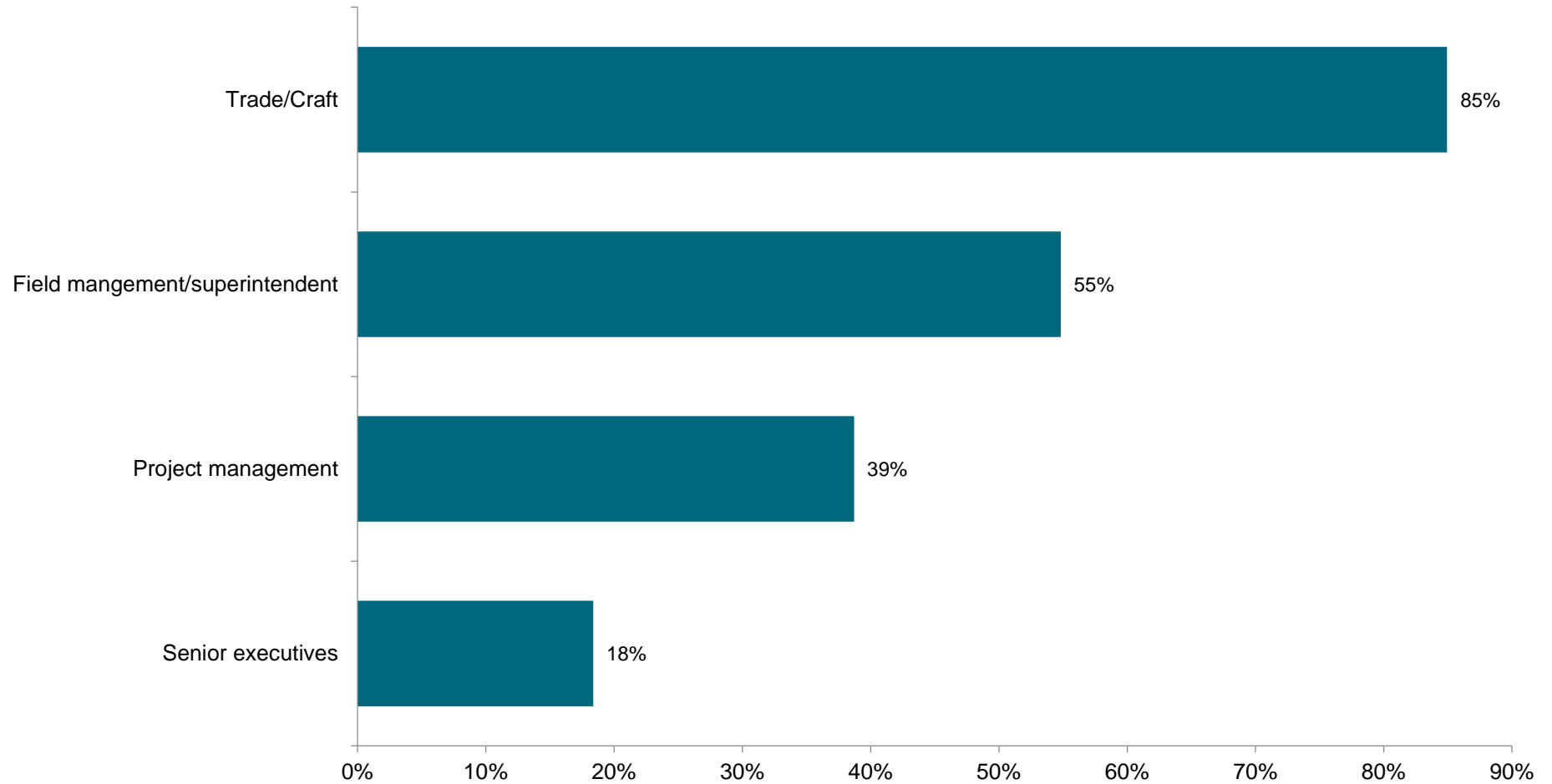


NOTE: ANALYSIS LIMITED TO THOSE RESPONDENTS WHO SELECTED AT LEAST ONE TYPE OF TRAINING USED. METHODS SORTED BY PERCENTAGE OF CRAFT/TRADE.

The vast majority (85%) of ABC member contractors use on-the-job training as part of their workforce development program for trade/craft employees.

Which of the following employee types (if any) receive on-the-job training? (n=664)

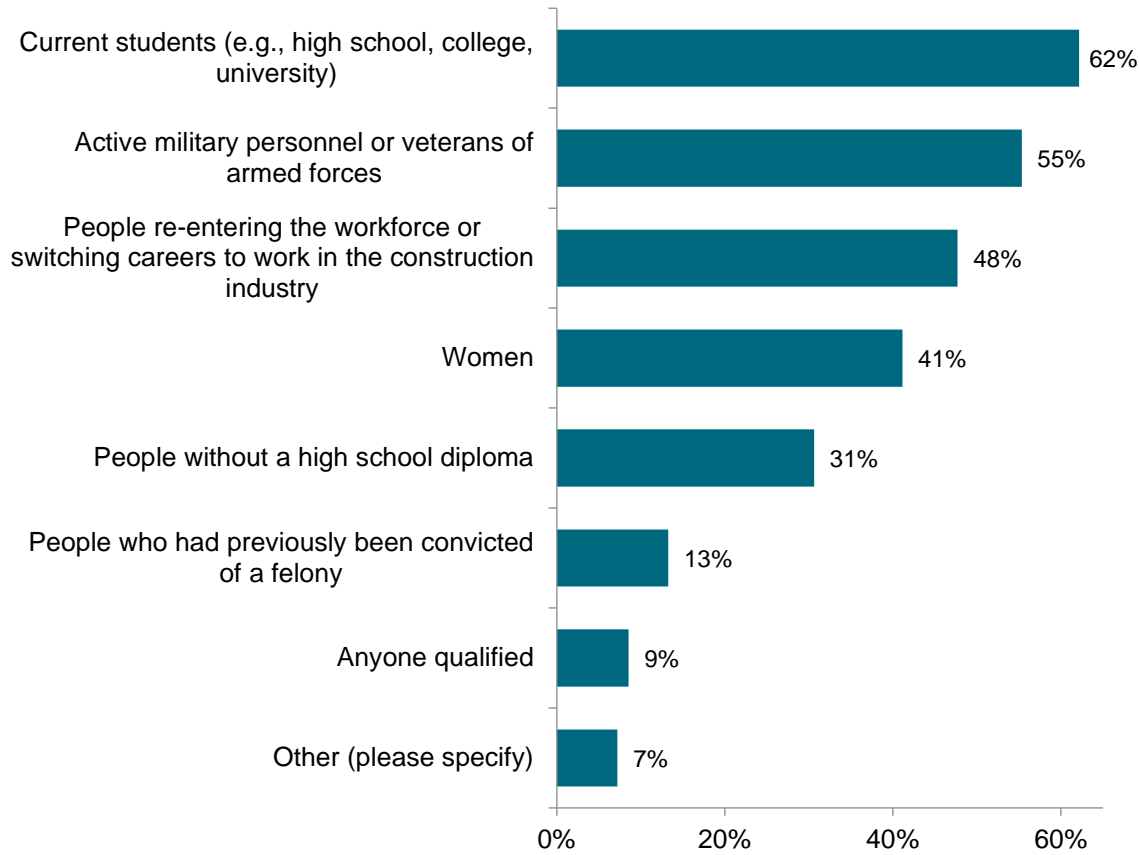
Source: FMI



Despite less than half of firms reporting having targeted women for development, their share of trade/craft employment grew from 3% in 2013 to 12% in 2018.

Which of the following groups of people has your firm targeted for recruitment and/or training? (n=761)

Source: FMI



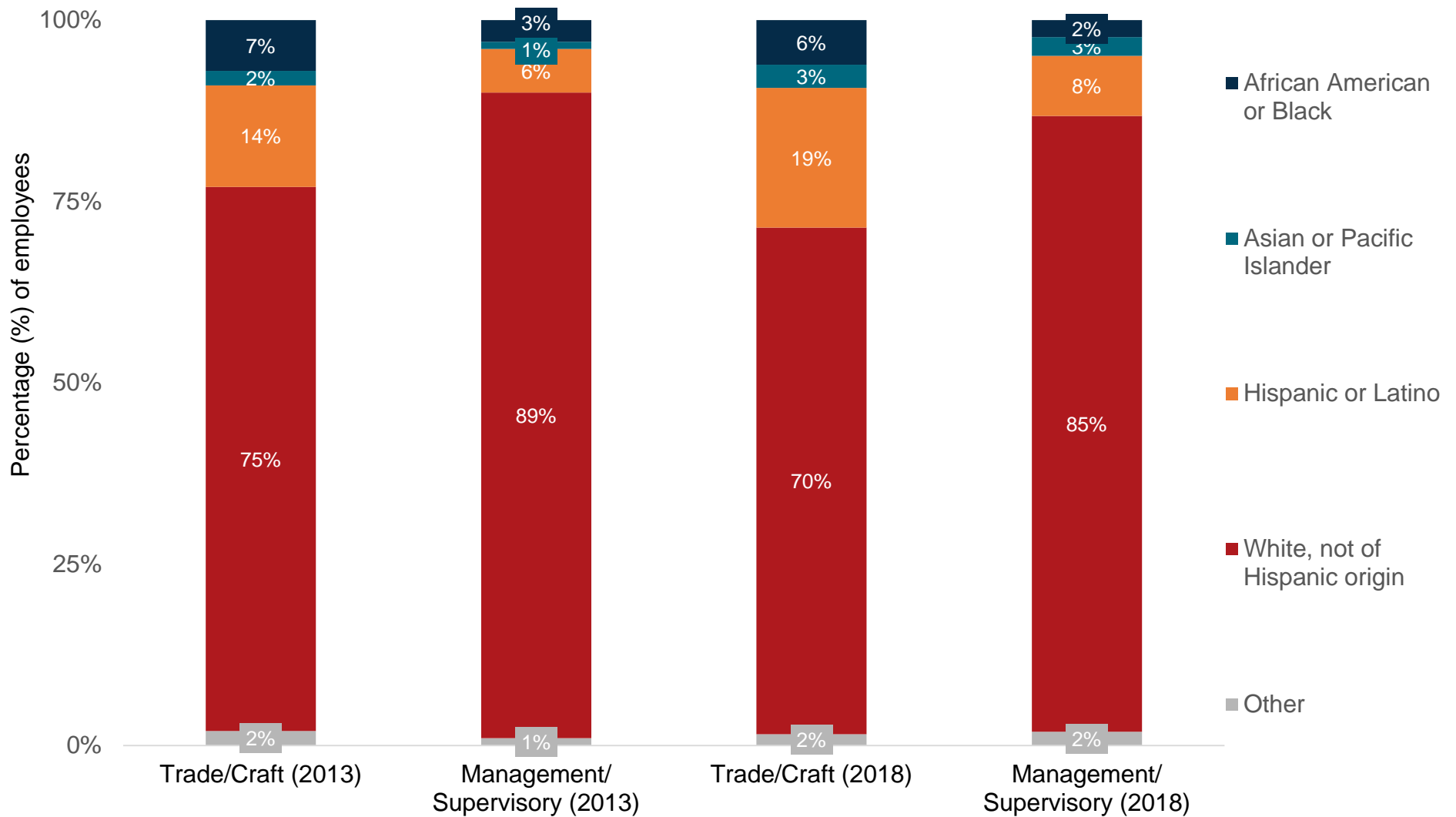
'Other' responses emphasized employee referrals, local people, racial minorities, immigrants, people just leaving high school or with a GED, people with related skills and experience, people in semi-retirement, recovering addicts and employee referrals.

	Women	Military
% targeting group for recruitment	41%	55%
% of management/supervisory employees (average)	18%	8%
% of trade/craft employees (average)	12%	10%
% of leadership training participants (median)	11%	10%
% of safety training participants (median)	12%	16%
% of trade/craft training participants (median)	11%	15%

Since 2013, the percentage of management/supervisory employees that are White (not of Hispanic origin) declined from 89% to 85%.

In your company, what percentage (%) of employees are of the following race/ethnic groups? (n=773-775)

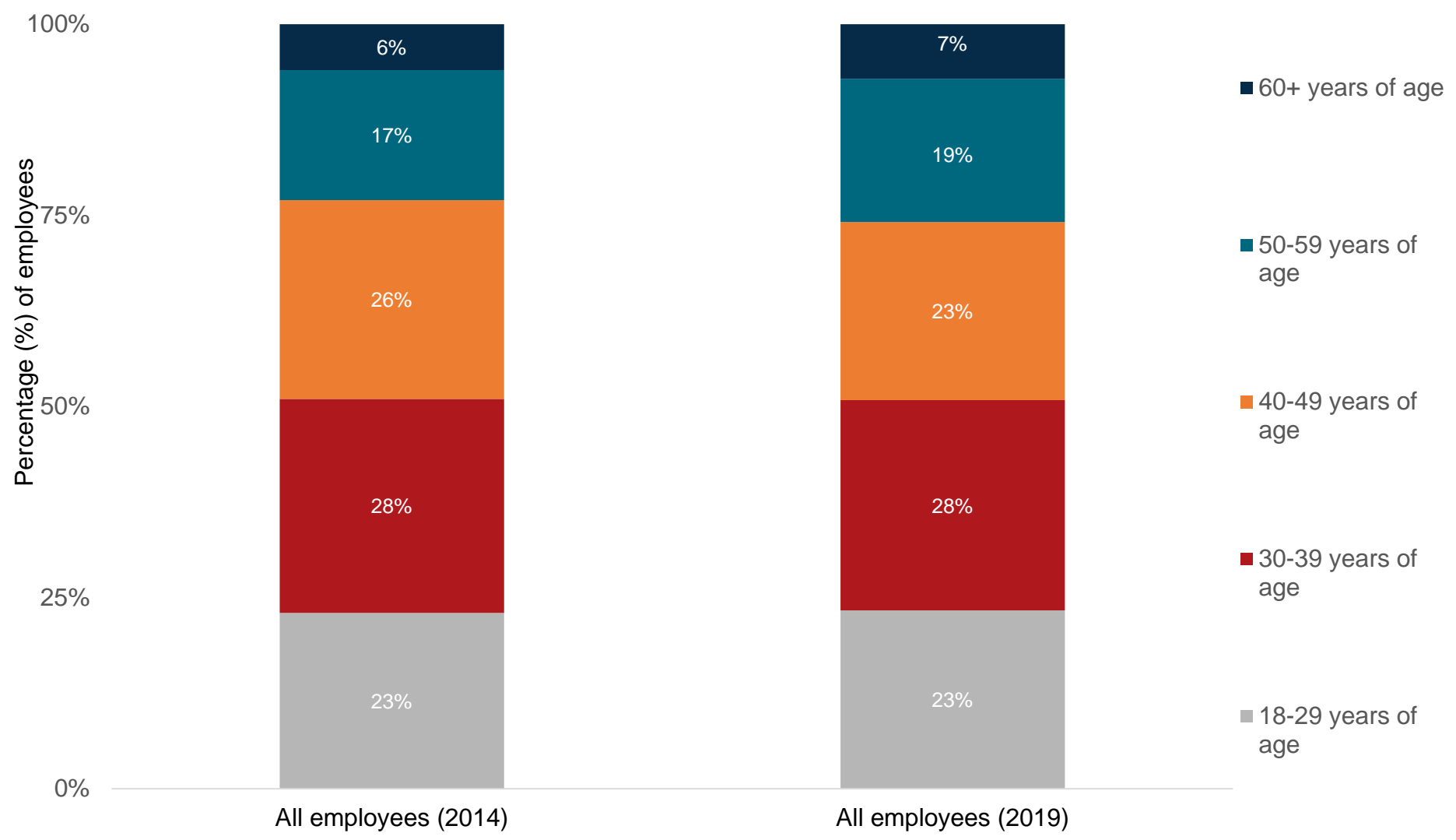
Source: FMI



A 3% increase in the share of employees over 50 years of age highlights the industry's need to attract younger employees.

In your company, what percentage (%) of your company's workforce falls into the following age groups? (n=811)

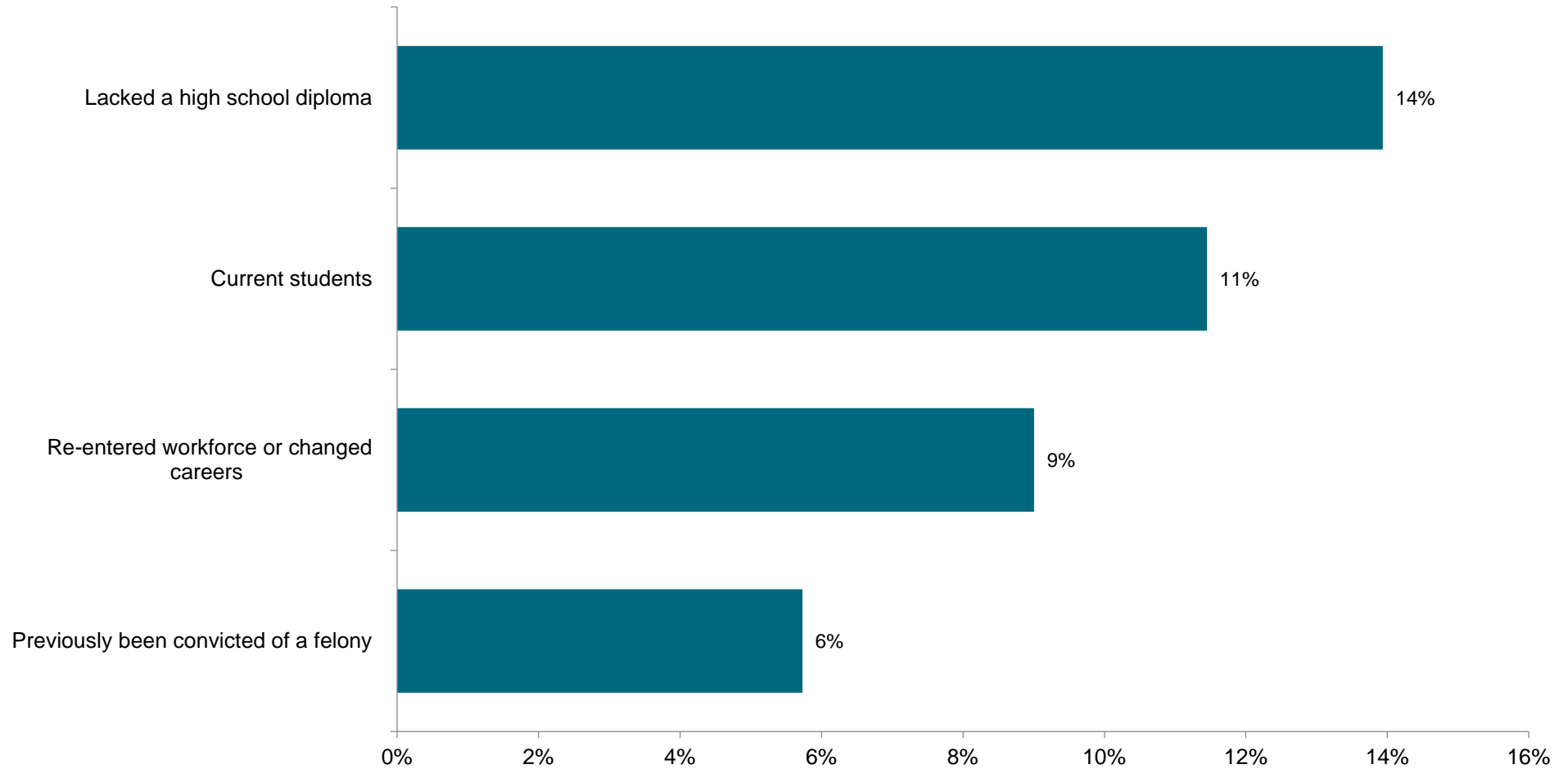
Source: FMI



One quarter of U.S. personnel receiving workforce development and education in the past year lacked a high school diploma or were current students.

What percentage of U.S. personnel trained in the past year meet the following criteria? (n=454-504)

Source: FMI





Industry Focus. Powerful Results.™



Appendix



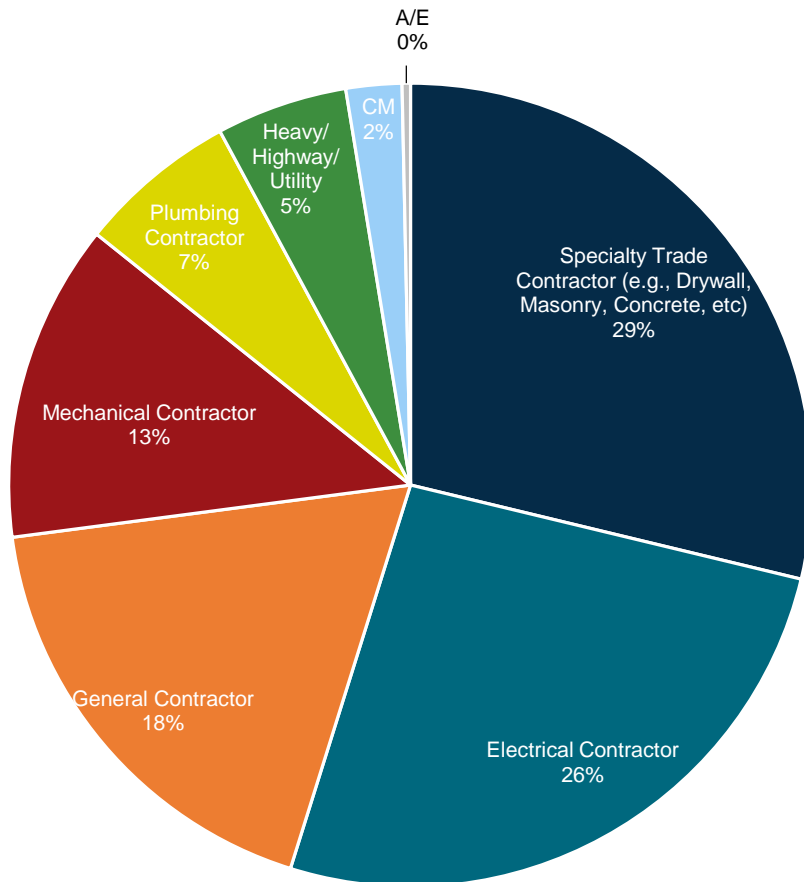
.....

Contractor Survey Demographics

Trade contractors (e.g., electrical, mechanical, plumbing or other specialty) accounted for 75% of survey respondents.

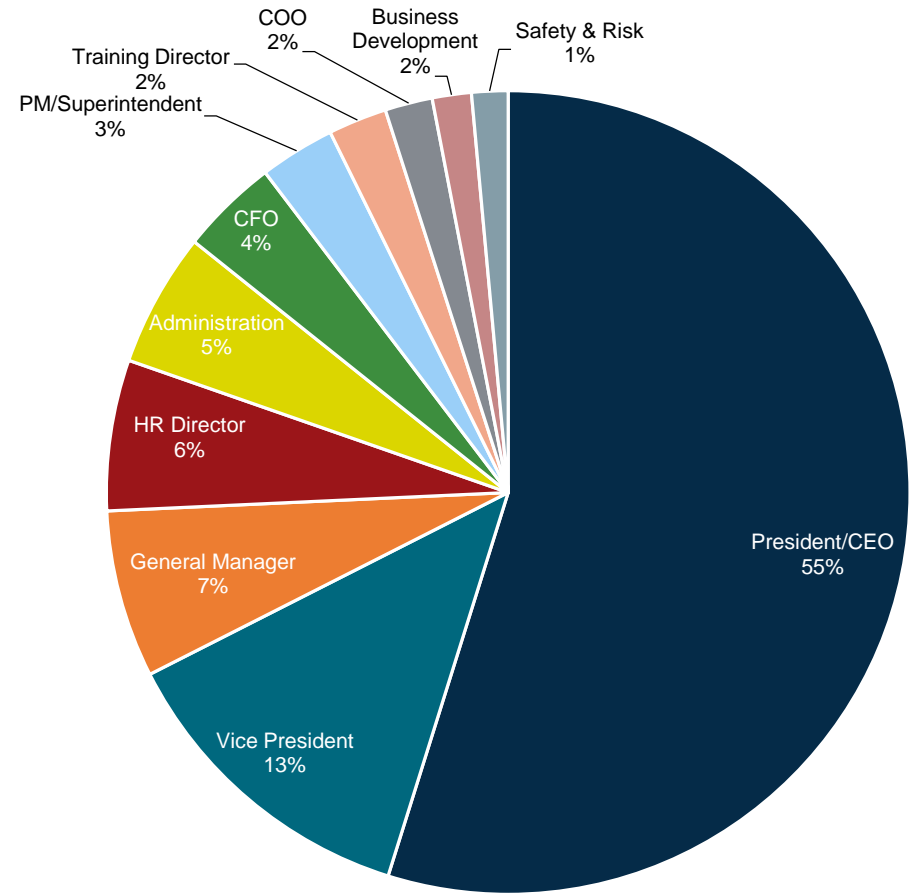
Which of the following best describes your company or organization? (n=890)

Source: FMI



Which of the following best describes your role? (n=890)

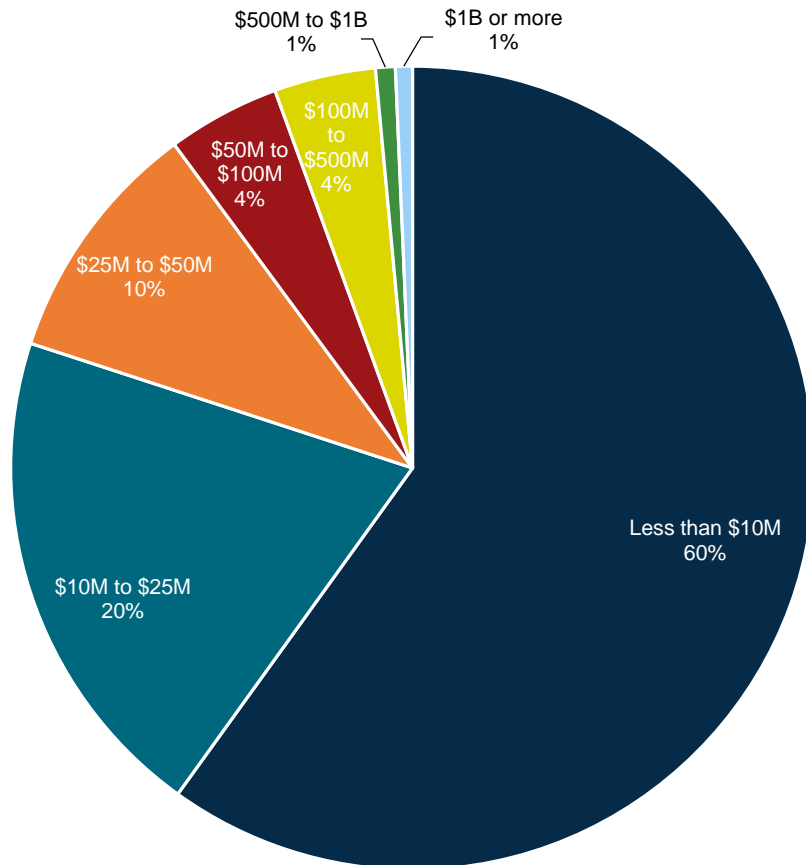
Source: FMI



Approximately 60% of the survey sample is from firms with less than \$10M and employing fewer than 50 people.

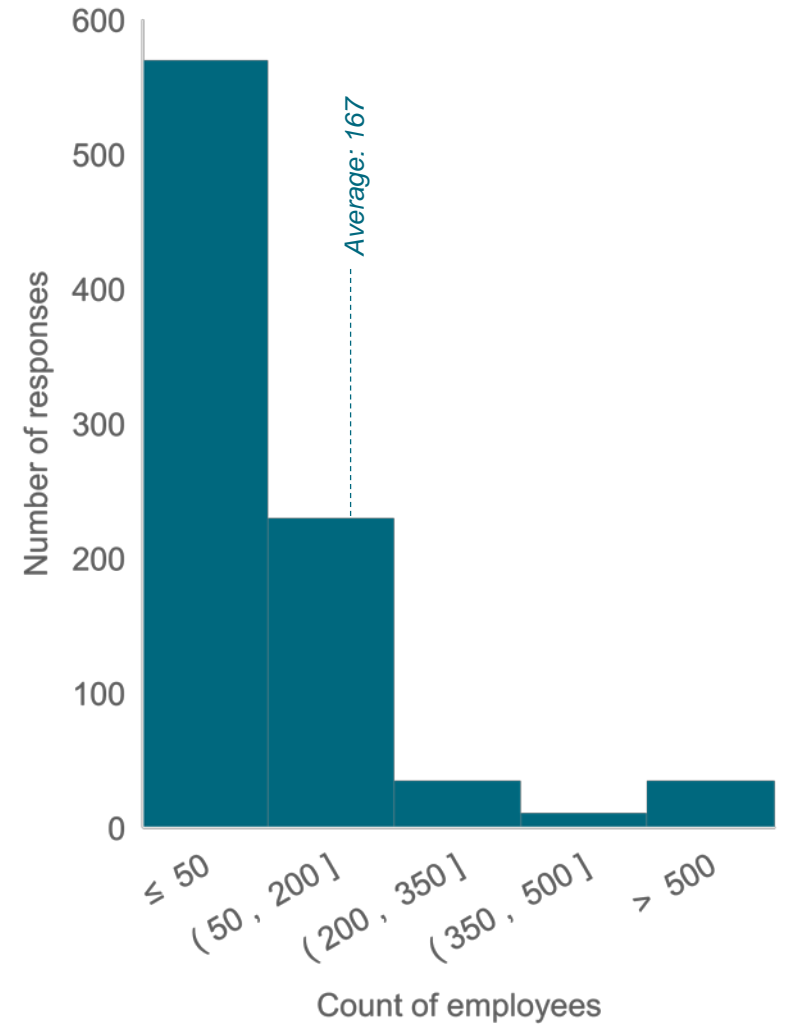
Which of the following best describes your company's annual construction revenue? (n=881)

Source: FMI



How many people are employed (both craft and salary) by your company at its seasonal peak? (n=881)

Source: FMI





Industry Focus. Powerful Results.™

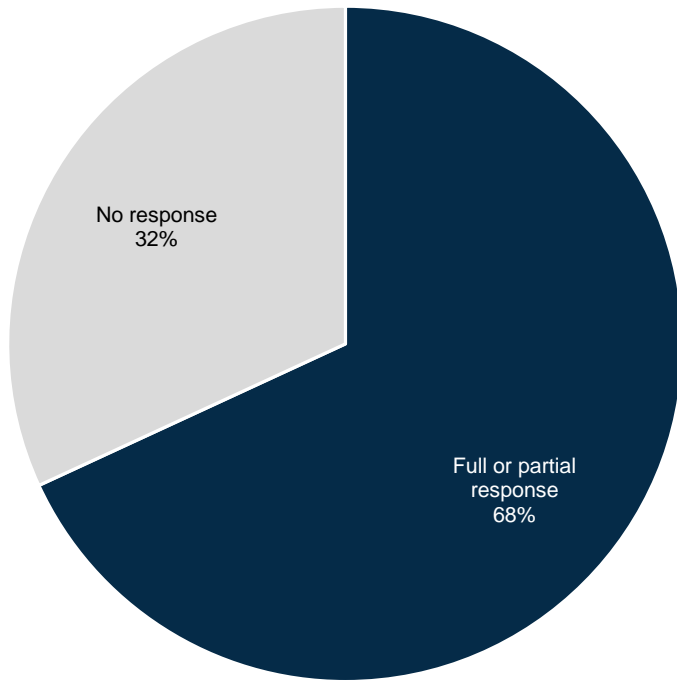
.....

ABC Chapters

More than two-thirds of ABC chapters responded to the survey. The South Atlantic region provided the greatest number of ABC chapter responses.

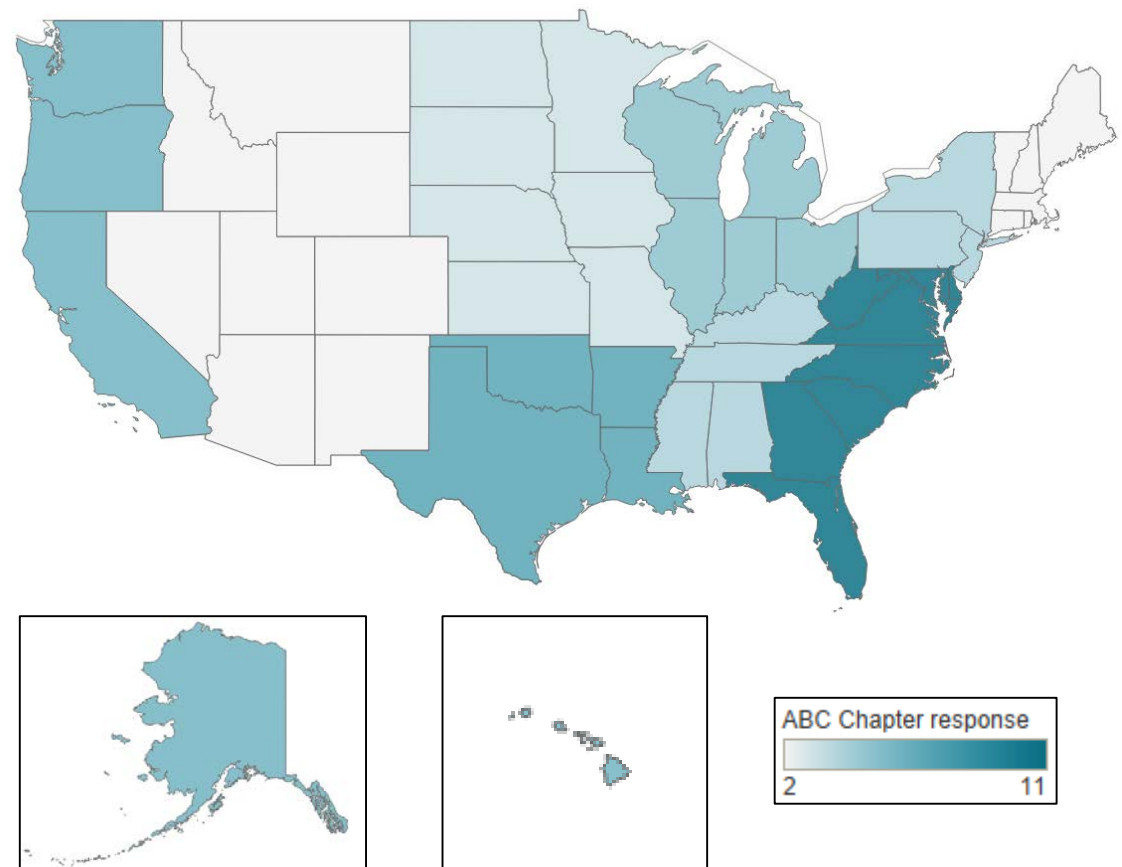
ABC Chapter response (n=69)

Source: FMI



ABC Chapter response by census region (n=47)

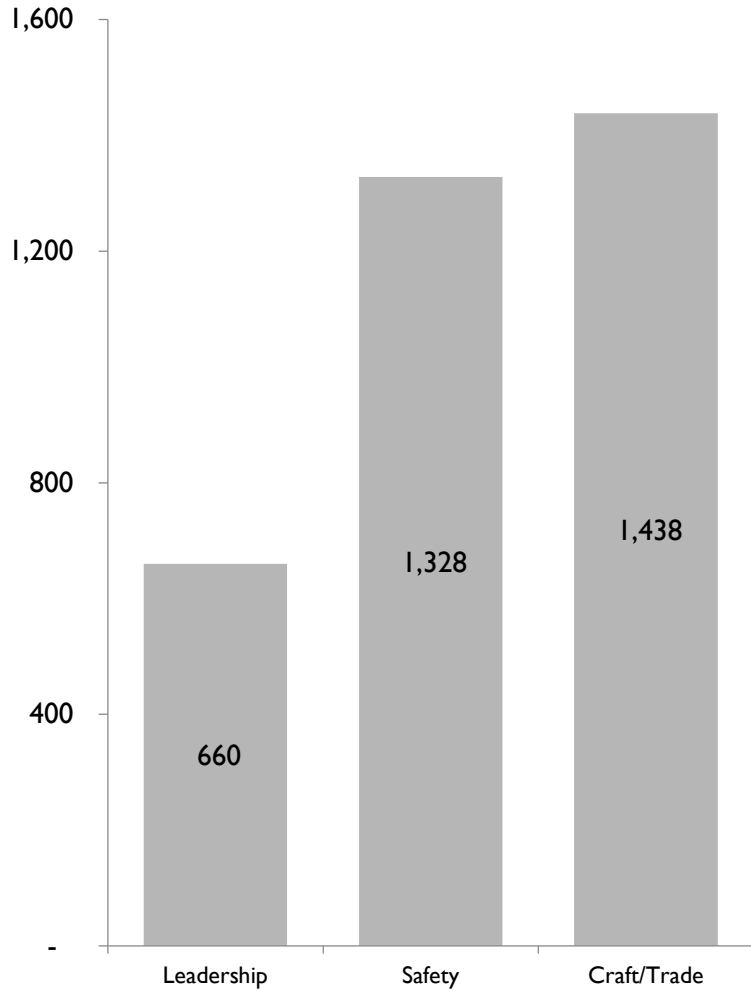
Source: FMI



More than one quarter (27%) of personnel receiving workforce development and education from ABC chapters are project managers.

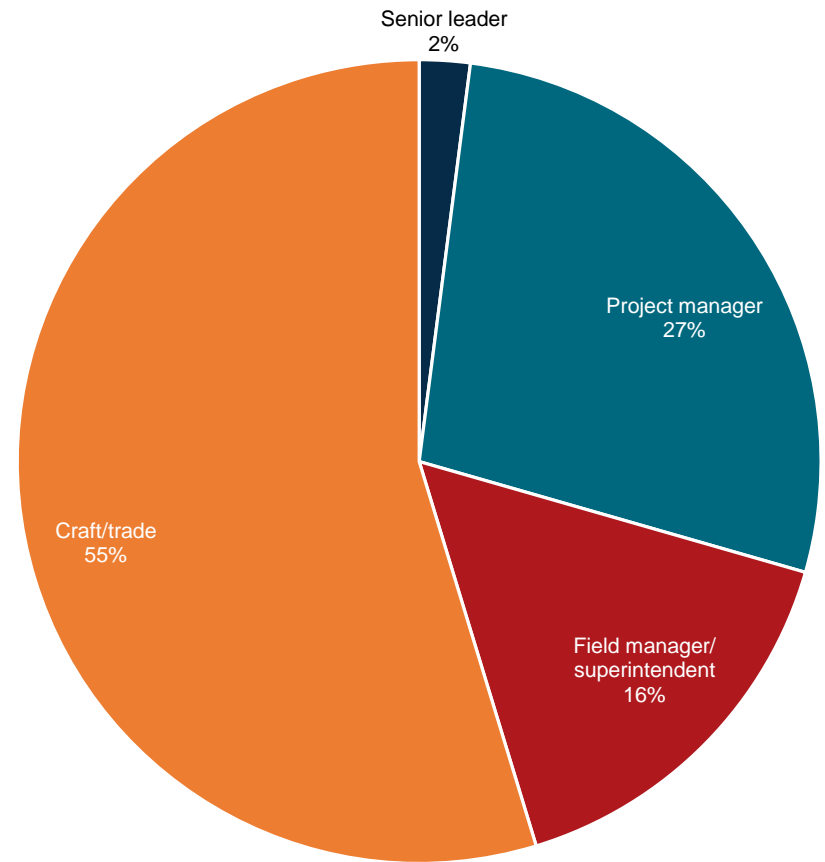
Personnel trained by training type (n=18)

Source: FMI



Personnel trained by role (n=14)

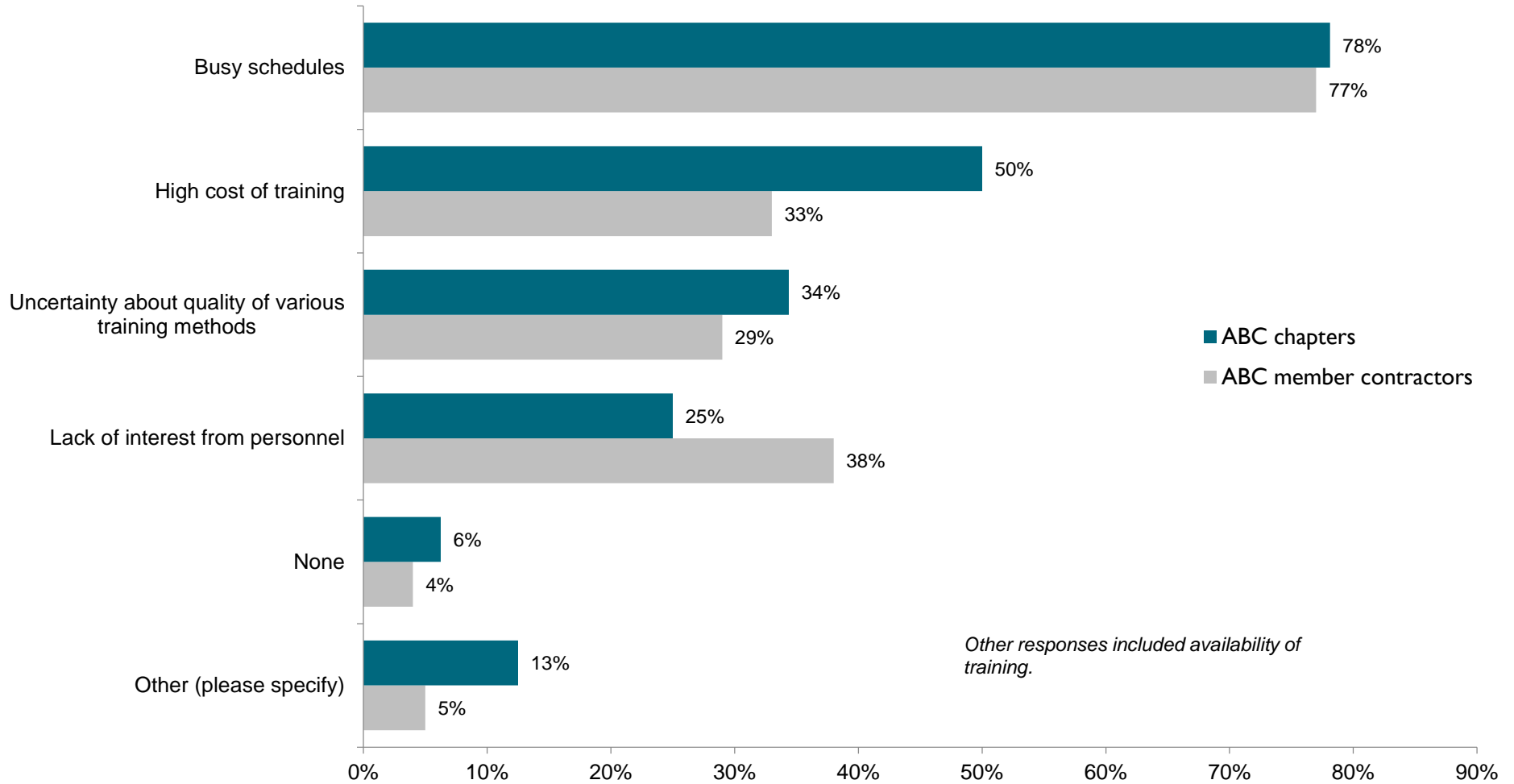
Source: FMI



Compared to contractors, ABC chapters perceive high costs to be a more consistent obstacle to workforce development.

Which of the following obstacles are limiting your ability to conduct staff training and development? (n=32)

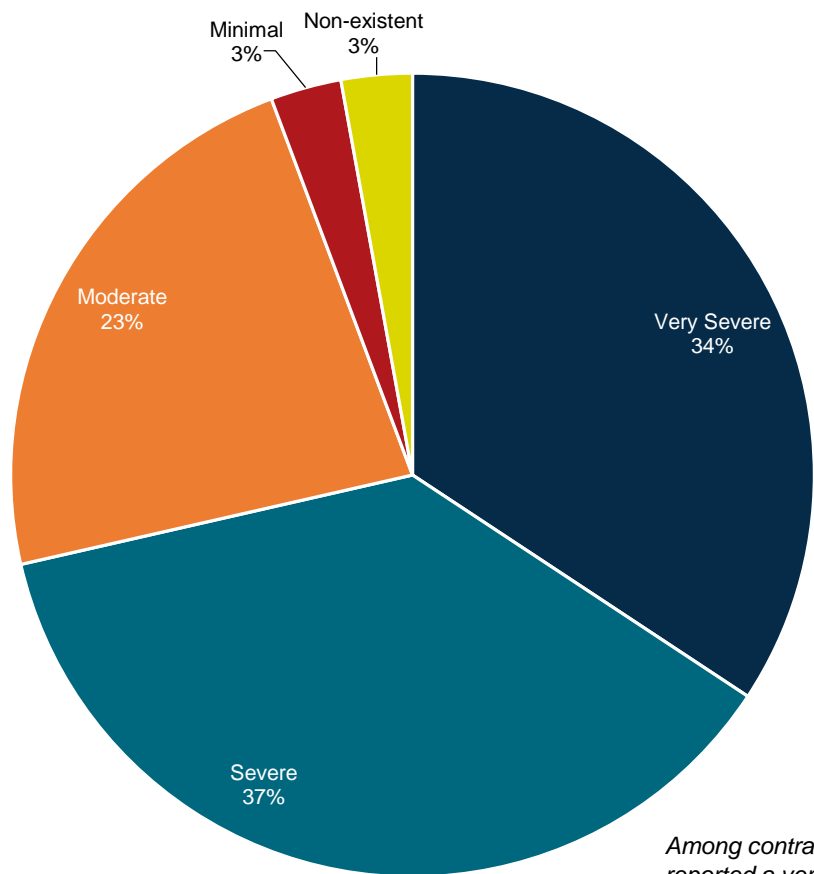
Source: FMI



Nearly all (96%) of ABC chapters reported that the industry is facing a moderate to very severe skilled labor shortage, driven primarily by the exodus of baby boomers.

How severe is the skilled labor shortage facing your company or organization? (n=35, % of responses)

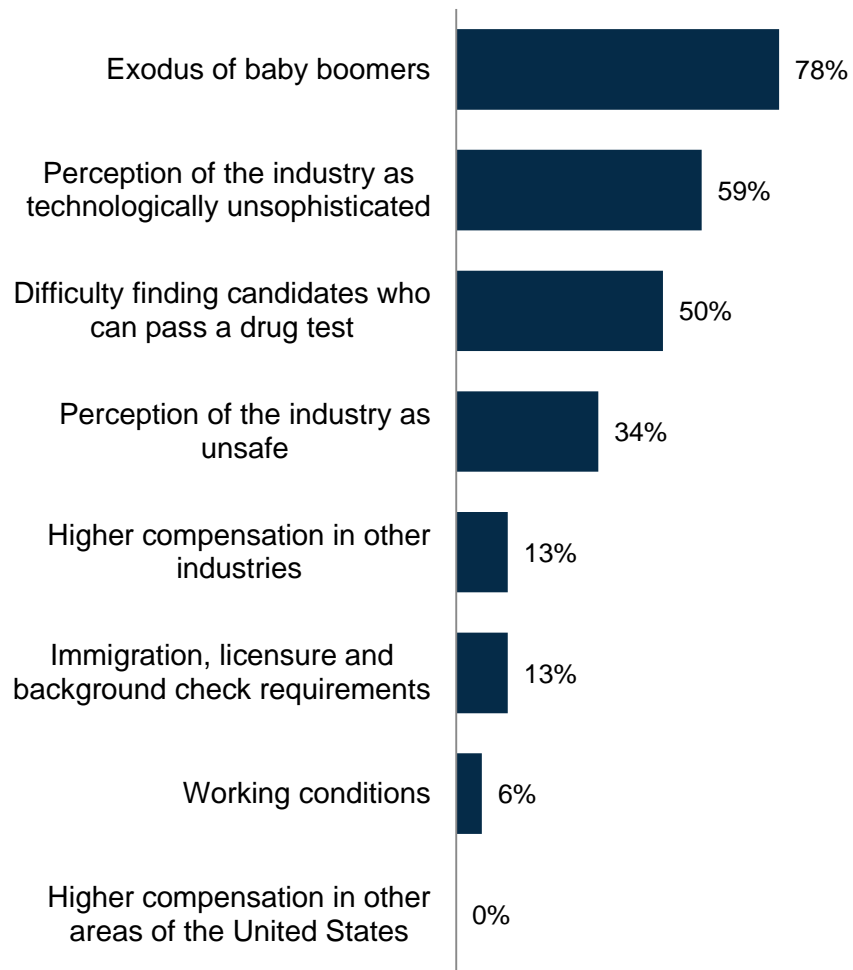
Source: FMI



Among contractors, 25% reported a very severe skilled labor shortage.

Which of the following factors have increased the severity of the skilled labor shortage facing your company or organization? (n=32 % of respondents)

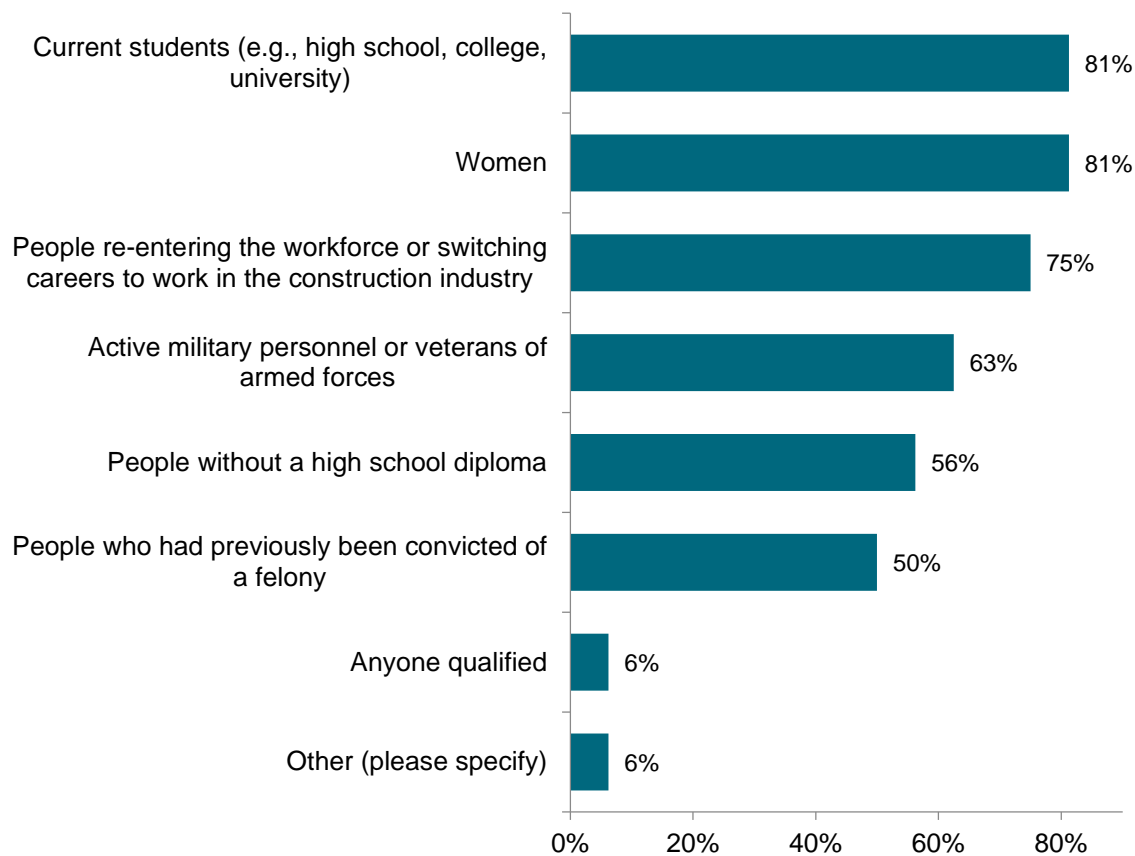
Source: FMI



ABC chapters have made a priority of targeting women for development, resulting in a very high rate of women receiving leadership training.

Which of the following groups of people has your firm targeted for recruitment and/or training? (n=16)

Source: FMI



'Other' responses included home school students.

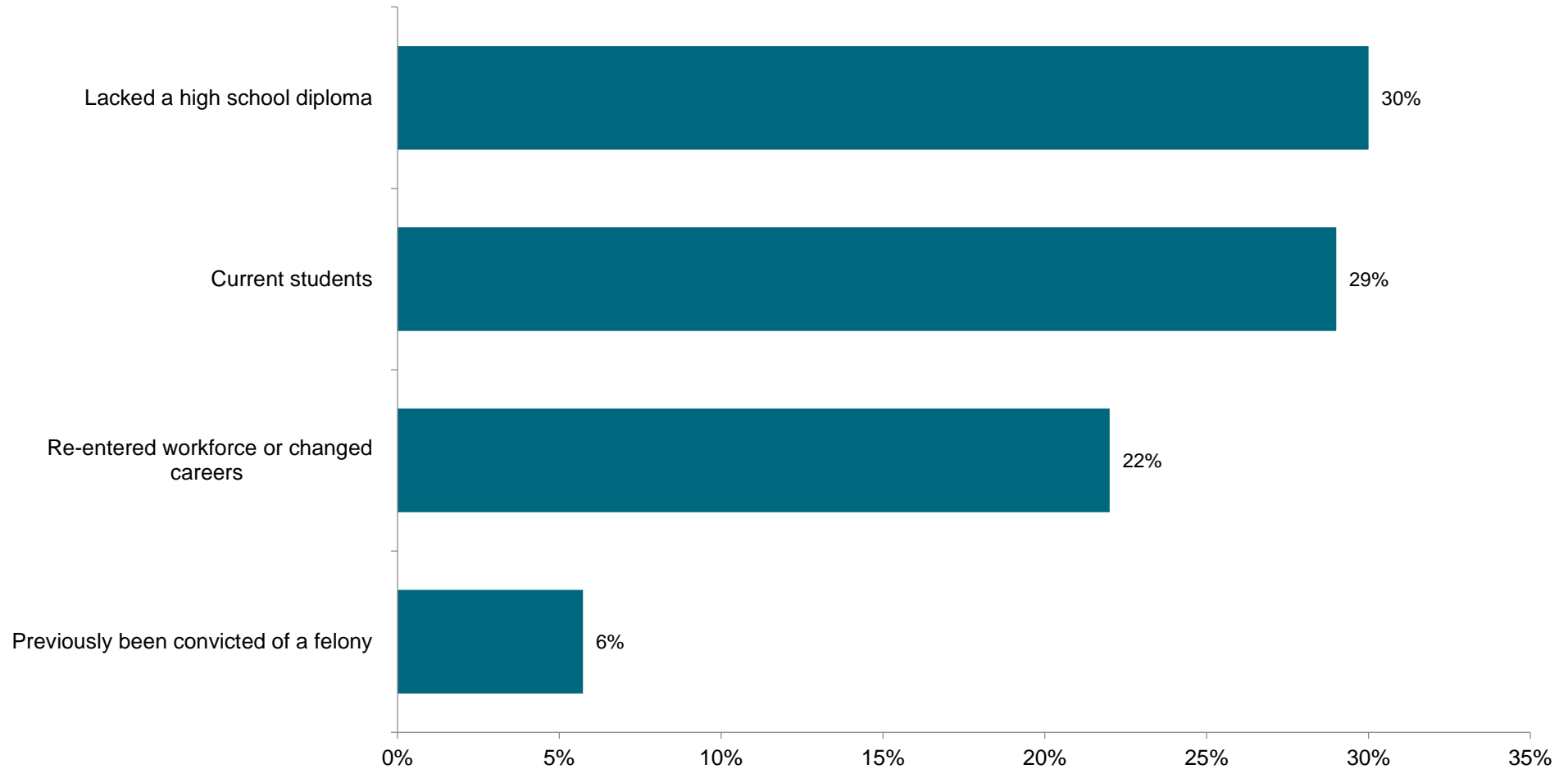
	Women	Military
% targeting group for recruitment	81%	63%
% of management/supervisory employees (average)	60%	6%
% of trade/craft employees (average)	11%	5%
% of leadership training participants (median)	65%	15%
% of safety training participants (median)	28%	NA
% of trade/craft training participants (median)	5%	NA

NOTE: INFORMATION REGARDING VETERAN/MILITARY STATUS FOR SAFETY AND TRADE/CRAFT TRAINING NOT AVAILABLE.

With more than half (59%) of all course attendees lacking a high school diploma or current students, ABC chapters are critical to educating the least developed portions of the workforce.

What percentage of U.S. personnel trained in the past year meet the following criteria? (n=10-14)

Source: FMI



For over 60 years, FMI has been the leading **management consulting and investment banking** firm dedicated exclusively to **engineering and construction, infrastructure and the built environment**.

FMI serves all sectors of the industry as a trusted advisor. More than six decades of context, connections and insights lead to transformational outcomes for our clients and the industry.

Sector Expertise

- A/E and Environmental
- General Contractors/CM
- Heavy Civil
- Industrial
- Specialty Trades
- Utility T&D
- Cleantech and Energy Services
- Construction Materials
- Building Products
- Oil and Gas
- Private Equity
- Owners