<table>
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</thead>
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<td>38</td>
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</tbody>
</table>
Management Summary

Section 1
Methodology

- ABC distributed the survey to ABC contractor members from Jan. 4 to May 20, 2024.

- After removing duplicate and incomplete responses, the sample response rate was 5% of all ABC contractor members. The large sample size and the distribution of responses across categories gave FMI confidence to model 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 survey data on total workforce development and education budgets, FMI cleaned and corrected data related to per-person spending within each education type. FMI assigned each contractor category a typical number of course attendees educated and per-person investment for each education type (leadership, safety, craft/trade).

- FMI multiplied the number of course attendees educated by the amount spent per course attendee to calculate the investment per firm in each category. 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 education investment made by ABC member contractors, as the largest ABC member contractors were assumed to have revenues no greater than $2 billion.

- The results of the survey are contained in the subsequent report.

1All charts and graphs are rounded to the nearest whole number.
ABC member contractors invested $1.6 billion in workforce development in 2023 to educate more than 1.3 million course attendees.

ABC contractors invested an average of 7.5% of payroll on workforce development in 2023, down from 8% in 2022.

Safety education accounts for the greatest share (59%) of total workforce investment, which has remained stable since 2022.

Trade and specialty contractors have continued to increase their share of the total workforce development investment, growing to 50% in 2023 from 42% in 2022.

81% of ABC members who utilize virtual or augmented reality use it for safety education.
ABC member contractors invested an average of $11,746 on workforce development and education.

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>Source(s): ABC, FMI</th>
</tr>
</thead>
</table>

### Overall

**Total education investment**

<table>
<thead>
<tr>
<th></th>
<th>General contractor/construction manager</th>
<th>Trade or specialty</th>
<th>Heavy/civil/utility</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC members by type (number of firms)</td>
<td>3,697</td>
<td>9,934</td>
<td>748</td>
<td>14,379</td>
</tr>
<tr>
<td>Total education investment</td>
<td>$748,489,402</td>
<td>$808,572,006</td>
<td>$49,728,242</td>
<td>$1,606,789,650</td>
</tr>
</tbody>
</table>

### Number of course attendees educated in each course type

<table>
<thead>
<tr>
<th>Number of course attendees educated in each course type</th>
<th>Leadership</th>
<th>Safety</th>
<th>Craft/trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>General contractor/construction manager</td>
<td>49,489</td>
<td>238,301</td>
<td>139,599</td>
</tr>
<tr>
<td>Trade or specialty</td>
<td>78,280</td>
<td>515,964</td>
<td>284,370</td>
</tr>
<tr>
<td>Heavy/civil/utility</td>
<td>4,054</td>
<td>32,745</td>
<td>17,312</td>
</tr>
<tr>
<td>Overall</td>
<td>131,823</td>
<td>787,010</td>
<td>441,281</td>
</tr>
</tbody>
</table>

### Per-attendee investment

<table>
<thead>
<tr>
<th>Per-attendee investment</th>
<th>Leadership</th>
<th>Safety</th>
<th>Craft/trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>General contractor/construction manager</td>
<td>$2,885</td>
<td>$2,065</td>
<td>$1,960</td>
</tr>
<tr>
<td>Trade or specialty</td>
<td>$2,314</td>
<td>$2,328</td>
<td>$2,175</td>
</tr>
<tr>
<td>Heavy/civil/utility</td>
<td>$1,438</td>
<td>$2,092</td>
<td>$1,863</td>
</tr>
<tr>
<td>Overall</td>
<td>$2,413</td>
<td>$2,250</td>
<td>$2,106</td>
</tr>
</tbody>
</table>

### Student distribution by role

<table>
<thead>
<tr>
<th>Student distribution by role</th>
<th>General contractor/construction manager</th>
<th>Trade or specialty</th>
<th>Heavy/civil/utility</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior executive</td>
<td>9%</td>
<td>6%</td>
<td>4%</td>
<td>7%</td>
</tr>
<tr>
<td>Project manager</td>
<td>14%</td>
<td>9%</td>
<td>7%</td>
<td>11%</td>
</tr>
<tr>
<td>Field manager</td>
<td>17%</td>
<td>17%</td>
<td>13%</td>
<td>17%</td>
</tr>
<tr>
<td>Support staff</td>
<td>8%</td>
<td>9%</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td>Craft/trade</td>
<td>51%</td>
<td>59%</td>
<td>68%</td>
<td>56%</td>
</tr>
</tbody>
</table>
The number of course attendees educated by ABC member contractors increased year-over-year from 2022, surpassing 1.36 million in 2023.

**Model Summary**  
Source(s): ABC, FMI

<table>
<thead>
<tr>
<th>Number of course attendees educated</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>57,303</td>
<td>144,459</td>
<td>122,192</td>
<td>131,823</td>
</tr>
<tr>
<td>Safety</td>
<td>787,011</td>
<td>727,446</td>
<td>752,139</td>
<td>320,758</td>
</tr>
<tr>
<td>Craft/trade</td>
<td>441,281</td>
<td>411,721</td>
<td>448,114</td>
<td>138,956</td>
</tr>
<tr>
<td>Total</td>
<td>1,360,115</td>
<td>1,261,358</td>
<td>1,344,712</td>
<td>517,017</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average investment per attendee</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>$2,413</td>
<td>$2,136</td>
<td>$2,226</td>
<td>$1,405</td>
</tr>
<tr>
<td>Safety</td>
<td>$2,250</td>
<td>$2,187</td>
<td>$2,200</td>
<td>$2,369</td>
</tr>
<tr>
<td>Craft/trade</td>
<td>$2,106</td>
<td>$2,025</td>
<td>$2,227</td>
<td>$1,779</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total investment by contractor type</th>
<th>General contractor/construction manager</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>General contractor/construction manager</td>
<td>$748,489,402</td>
<td>$863,789,746</td>
<td>$1,072,927,828</td>
<td>$789,969,546</td>
<td></td>
</tr>
<tr>
<td>Heavy/civil/utility</td>
<td>$49,728,242</td>
<td>$25,076,658</td>
<td>$27,849,454</td>
<td>$57,180,520</td>
<td></td>
</tr>
<tr>
<td>Trade or specialty</td>
<td>$808,572,006</td>
<td>$655,923,019</td>
<td>$545,604,739</td>
<td>$511,523,548</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$1,606,789,650</td>
<td>$1,544,789,423</td>
<td>$1,646,382,021</td>
<td>$1,358,673,614</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average investment by contractor type</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General contractor/construction manager</td>
<td>$202,440</td>
<td>$238,566</td>
<td>$296,327</td>
<td>$228,183</td>
</tr>
<tr>
<td>Heavy/civil/utility</td>
<td>$66,507</td>
<td>$32,493</td>
<td>$36,085</td>
<td>$84,089</td>
</tr>
<tr>
<td>Trade or specialty</td>
<td>$81,395</td>
<td>$63,971</td>
<td>$53,212</td>
<td>$52,378</td>
</tr>
</tbody>
</table>
Trade and specialty contractors represented the largest share of total education investment at 50% in 2023.

Management Summary
Source(s): ABC, FMI

Estimated ABC membership by contractor type
All respondents, percent of total

- Heavy/civil/utility: 5%
- General contractor/construction manager: 25%
- Trade/specialty: 70%

Total educating investment by contractor type
All respondents, percent of total

- Heavy/civil/utility: 3%
- General contractor/construction manager: 47%
- Trade/specialty: 50%
At 59%, safety education accounted for the greatest share of total workforce investment.

Management Summary
Source(s): ABC, FMI

Education investment by education type
All respondents, percent of total

- Safety education: 59%
- Craft/trade education: 31%
- Leadership education: 10%

Average per-attendee education investment by education type
All respondents

- Safety education: $2,413
- Leadership education: $2,250
- Craft/trade education: $2,106
In 2023, ABC member contractors provided safety education to more than 787,000 course attendees. 

Management Summary
Source(s): ABC, FMI

Course attendees educated by role
All respondents, percent of total

- Trade/Craft Personnel: 56%
- Field Managers/Superintendents: 11%
- Project Managers: 11%
- Support Staff: 9%
- Senior Executives: 7%

Course attendees educated by educating type
All respondents

- Safety education: 787,011
- Craft/trade education: 441,281
- Leadership education: 131,823
The total percentage of women in ABC member companies declined to 30%, from 33% in 2022.

Management Summary
Source(s): ABC, FMI

In your company, what percentage (%) of each type of employees are women?
All respondents, average percentage

- Craft/trade: 16%
- Management/supervisory: 8%
- Other: 6%
Key Findings

Section 2

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Workforce Development

Section 2.1
ABC member contractors invested an average of 7.5% of their total payroll on education in 2023.
ABC member contractors educated more trade/craft personnel than any other category.

How many personnel in each of the following groups receive education in a year?

All respondents, average

<table>
<thead>
<tr>
<th>Personnel Category</th>
<th>Average Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade/craft personnel</td>
<td>84.91</td>
</tr>
<tr>
<td>Support staff</td>
<td>27.76</td>
</tr>
<tr>
<td>Field managers/superintendents</td>
<td>27.07</td>
</tr>
<tr>
<td>Project managers</td>
<td>21.2</td>
</tr>
<tr>
<td>Senior executives</td>
<td>4</td>
</tr>
</tbody>
</table>
In 2023, ABC member firms invested in safety education for 123 course attendees, on average.

How many course attendees receive education in the following categories annually?
All respondents, average

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety education</td>
<td>123</td>
</tr>
<tr>
<td>Trade/craft education</td>
<td>65</td>
</tr>
<tr>
<td>Leadership education</td>
<td>32</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Education Type</th>
<th>Investment per Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership education</td>
<td>$3,761</td>
</tr>
<tr>
<td>Safety education</td>
<td>$4,707</td>
</tr>
<tr>
<td>Craft/trade education</td>
<td>$5,084</td>
</tr>
</tbody>
</table>
Over half of respondents (58%) reported a labor shortage that is severe or very severe, citing an exodus of baby boomers as the top contributor.

**How severe is the skilled labor shortage facing your company or organization?**
All respondents, percent of total

- Very severe: 20%
- Severe: 38%
- Moderate: 32%
- Minimal: 8%
- Nonexistent: 2%

**Which of the following factors have increased the severity of the skilled labor shortage facing your company or organization? Choose up to three.**
All respondents, percent of total

- Exodus of baby boomers: 59%
- Workers leaving the construction industry for other industry sectors: 47%
- Difficulty finding candidates who can pass a drug test: 36%
- Perception of the industry as technologically unsophisticated: 32%
- Higher compensation in other industries: 31%
- Other (please describe): 28%
- Immigration requirements: 18%
- Higher compensation in other areas of the United States: 18%
- Perception of the industry as unsafe: 10%

Other includes a demotivated younger generation, strict union requirements and increased competition for talent.
Exactly half of respondents (50%) employ reentering or second-chance citizens.

Do you employ reentering or second-chance citizens (e.g., previously incarcerated)?
All respondents, percentage of total

- Yes: 50%
- No: 50%
Development Practices

Section 2.2
82% of survey respondents targeted high school students, graduates and/or people with a GED diploma for recruitment.

Which of the following groups of people has your organization engaged with for industry outreach and recruitment? Please select all that apply.

All respondents, percent of total

- High school students, graduates and/or people with a GED diploma: 82%
- Community college students and graduates: 67%
- Higher education/university students and/or graduates: 53%
- Women: 53%
- People reentering the workforce or switching careers to work in the construction industry: 51%
- Active military personnel or veterans of armed forces: 46%
- Racial/ethnic minorities: 44%
- People without a high school diploma: 37%
- Reentering citizens or formerly incarcerated: 23%
- Disabled: 12%
- Other (please specify): 8%

Other includes skilled tradespeople, refugees and applicants currently seeking GEDs.
Nearly two-thirds of respondents (62%) had a registered apprenticeship program validated by the state or U.S. Department of Labor.

**Does your company participate in a government-registered apprenticeship program? Select all that apply.**
All respondents, percent of total

- Yes, other organization-registered program: 10%
- Yes, a company-sponsored program: 11%
- No registered program: 38%
- Yes, an ABC chapter-affiliated program: 41%

**How many employees are currently involved in a government-registered apprenticeship program?**
All respondents with government-registered programs, percent of total

- 0: 18%
- 1-5: 45%
- 6-10: 9%
- 11-20: 12%
- >20: 15%
ABC member firms partnered with college/university and high school career and technical education programs most frequently for internship programs.

**Does your organization participate in internship programs?**
All respondents, percent of total

- Yes: 39%
- No: 61%

**What types of entities do you partner with for your internship program?**
Select all that apply.
All respondents, percent of total

- College/university: 80%
- High school/career and technical education center: 67%
- Job education center: 16%
- Military/veteran organization: 15%
- Other: 2%

*Other includes apprenticeship schools and community collaboratives.*
In 2023, 94% of internships were paid, with most internships dedicated to project management and craft/trade positions.

**Are your interns paid or unpaid?**
All respondents, percent of total
- Paid: 94%
- Unpaid: 0%
- Mixture of both/it depends: 6%

**For which job classifications do you provide internships?**
All respondents, percent of total
- Project management: 72%
- Craft/trade: 59%
- Field leadership: 35%
- Safety: 30%
- Other: 15%
70% of respondents reported that the biggest obstacle to delivering education is busy schedules.

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.

All respondents

- Busy schedules: 70%
- Lack of interest from personnel in receiving training: 44%
- Uncertainty about quality of various training methods: 28%
- High cost: 28%
- Other: 15%

Other includes high difficulty sourcing talent for niche industries, limited training courses available and internal organization.
Face-to-face, instructor-led, outside provider trainings were the most utilized methods to educate personnel in 2023.

Which of the following education methods do you use to educate personnel? Select all that apply.

All respondents, percent of total

- Face-to-face, instructor-led, outside provider
- Online, instructor-led
- On-the-job training
- Face-to-face, instructor-led, internal provider
- Other
- Online, self-paced (no instructor)
- Through trade association
- Through colleges/universities/vocational programs
- Virtual reality or augmented reality

- Senior executive
- Project management
- Field management/superintendent
- Craft/trade
- Average
81% of ABC members who utilize virtual or augmented reality use it for safety education.

Which of the following types of education have you used virtual reality or augmented reality to administer? Please select all that apply.

All respondents, percent of total

- Safety education: 81%
- Knowledge education: 69%
- Skills training: 50%
- Operation of equipment: 44%
96% of ABC contractors offer paid vacation time, while just 8% report have employee stock ownership plans.

**What benefits does your organization offer to your employees as part of their total compensation package? Check all that apply.**

All respondents, percent of total

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paid vacation</td>
<td>96%</td>
</tr>
<tr>
<td>Health insurance</td>
<td>93%</td>
</tr>
<tr>
<td>Dental insurance</td>
<td>81%</td>
</tr>
<tr>
<td>401(k)</td>
<td>75%</td>
</tr>
<tr>
<td>Vision insurance</td>
<td>74%</td>
</tr>
<tr>
<td>Paid sick leave</td>
<td>74%</td>
</tr>
<tr>
<td>Life insurance</td>
<td>73%</td>
</tr>
<tr>
<td>Short-term disability insurance</td>
<td>66%</td>
</tr>
<tr>
<td>Long-term disability insurance</td>
<td>51%</td>
</tr>
<tr>
<td>Tuition assistance program</td>
<td>42%</td>
</tr>
<tr>
<td>Health savings account</td>
<td>38%</td>
</tr>
<tr>
<td>Profit sharing plan</td>
<td>37%</td>
</tr>
<tr>
<td>Flexible spending account</td>
<td>32%</td>
</tr>
<tr>
<td>Simple IRA</td>
<td>23%</td>
</tr>
<tr>
<td>Employee stock ownership plan</td>
<td>14%</td>
</tr>
<tr>
<td>8% Employee stock ownership plan</td>
<td>8%</td>
</tr>
</tbody>
</table>
78% of member contractors offer paid maternity leave, and 45% offer paid paternity leave.

What benefits does your organization offer to your employees as part of their total compensation package? Check all that apply.

All respondents, percent of total

- Paid maternity leave: 78%
- Paid paternity leave: 45%
- Other: 21%
- Child care stipend: 4%
- Company-sponsored child care facility: 2%
68% of ABC contractors participate in community-based philanthropy or volunteer work.

Does your organization participate in community-based philanthropy and/or volunteer work?
All respondents, percentage of total

- Yes: 68%
- No: 32%
64% of surveyed contractors deliver diversity awareness education.

Does your organization deliver diversity awareness education, including but not limited to sexual harassment, hostile work environment and unconscious bias in the workplace?

All respondents, percentage of total

- Yes: 64%
- No: 36%
80% of respondents use or are planning to start using construction technology.
Executive management personnel were the group most commonly identified as the decision-makers when purchasing and deploying construction technology.

Who is involved in the identification and decision to purchase and deploy construction technology? Check all that apply.

All respondents, percent of total

- Executive management: 97%
- Field leadership and supervision: 61%
- Estimators: 31%
- Safety professionals: 30%
- Craft professionals: 15%
- Planners/schedulers: 10%
- Document and revision control personnel: 5%
- Architects/engineers: 3%
Lack of time was identified as the greatest barrier to adopting and deploying construction technology.

What barriers have you identified when adopting and deploying construction technology? Check all that apply.

All respondents, percent of total

- Lack of time: 62%
- Lack of training: 42%
- Lack of information technology infrastructure/resource: 38%
- Lack of employee support: 35%
- Lack of financial resources: 33%
- Lack of leadership and supervision support: 22%
Executive management and field leadership were among the top users of construction technologies.

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

All respondents, percent of total

- **Executive management**: 87%
- **Field leadership and supervision**: 87%
- **Estimators**: 64%
- **Safety professionals**: 49%
- **Craft professionals**: 47%
- **Planners/schedulers**: 36%
- **Document and revision control personnel**: 24%
- **Architects/engineers**: 15%
Webinars were the most frequently identified category for delivering training and education programs in 2023.

What technology are you using to deliver training and education?
All respondents, percent of total

- **Other**: 55%
- **Webinars (Zoom, Teams, etc.)**: 31%
- **LMS Programs (LinkedIn Learning, Coursera, etc.)**: 14%
- **Prerecorded videos (YouTube or internal trainings)**: 11%
- **Procore**: 10%
- **PowerPoint presentations**: 6%
- **Virtual reality**: 6%
- **Interplay**: 3%

*Other includes online tools such as BambooHR and ClickSafety.*
95% of respondents captured, tracked and reported total recordable incident rates on safety reports and dashboards.

What metrics do you capture, track and report on your safety report? Check all that apply.
Respondents who reported using safety dashboards/reports only, percent of total

- Total Recordable Incident Rate: 95%
- Number of lost workday injury cases: 86%
- Number of medical treatment cases: 75%
- Days away, restricted or transferred rate: 74%
- Number of first-aid cases: 70%
- Number of near-miss incidents: 56%
- Number of safety audits: 50%
- Number of behavior-based safety observations: 39%
- Other: 1%
53% of all survey respondents were Presidents/CEOs.

Which of the following best describes your company?

All respondents

- Specialty Trade Contractor: 26%
- General Contractor: 23%
- Electrical Contractor: 19%
- Mechanical Contractor: 12%
- Other (please describe): 11%
- Heavy/Highway/Utility: 5%
- Plumbing Contractor: 2%
- Construction Manager: 2%
- Engineering Firm: 0%

Other includes historic restoration contractors, glazing contractors and structural steel fabricators.

Which of the following best describes your role?

All respondents

- President/CEO: 53%
- Vice President: 12%
- General Manager: 6%
- Human Resources Director: 5%
- Training Director: 4%
- Chief Financial Officer: 3%
- Chief Operating Officer: 3%
- Project Manager/Superintendent: 1%

Other includes Chief Visionary Officers (CVO), Human Resources Managers, and Operations Managers.
Nearly two-thirds of respondents (64%) reported annual revenue of less than $24.9 million, and almost half (49%) employed fewer than 50 people.
Employees aged 30 to 39 comprise the largest share of member workforces.

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

- 18-29: 26%
- 30-39: 29%
- 40-49: 22%
- 50-59: 16%
- 60+: 8%
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