Due to the cyclical nature of construction markets, companies in the construction industry have long had some difficulties attracting and retaining young talent for both management and skilled field positions. Generally, companies have found ways to retain their best workers in up and down cycles and have been able to take advantage of available sources of trained labor in order to scale up or down as needed to manage the workflow. However, the Great Recession was an aberration to the normal business cycles. After downsizing around 30% of its personnel just a few years ago, the construction industry is now facing a tight job market for skilled workers. Backlogs are growing again, and contractors need to step up their recruiting and retention efforts. “We’ve gone from culling to pulling,” according to one human resource executive.

For this report, we surveyed the membership of the Construction Personnel Executives Group (CPEG), whose members consist of human resources executives for many of the largest contractors in the country. When it comes to recruiting and retaining craft workers, many of the challenges covered in this report are more germane to larger contractors. For instance, national contractors that perform much of their own work need to develop traveling crews for national markets. Nonetheless, midsized and smaller contractors will face, or are now facing, many of the same issues as the larger contractors, and many will have a greater struggle in some areas when it comes to recruiting and retaining the best employees, especially if they are competing with these larger companies for talent.

According to the respondents to our online survey, the top-five trade workers in demand for the next five years are projected to be:

1) Craft helpers
2) Laborers
3) Operators (heavy equipment)
4) Carpenters
5) Ironworkers (reinforcing)

Not all trade workers in high demand are in short supply. The top-five trades that are expected to be hardest to find are:

1) Operator (heavy equipment)
2) Welder (boilermaker)
3) Carpenter
4) Pipefitter (all including plumbers)
5) Ironworker (reinforcing)
Our online survey and interviews revealed that 78% of those surveyed expect to increase the level of skilled trade workers by 10% or more in the next 10 years. One contributor to this expected large increase is that 45% of those surveyed expect to increase the amount of self-performed work in the future. This is an important change in strategy that should allow for greater control over work schedule, better customer service, and higher profitability along with the increased risk of managing more people and resources. The result is that companies need to be even smarter and more effective in recruiting and retaining a top skilled labor force. The most effective methods for recruiting trade workers cited by respondents included:

- Being an employer of choice (23% of respondents)
- Internal employee referral program with incentives (16% of respondents)
- External referrals (9% of respondents)
- Job postings on company website (9% of respondents)
- Online recruiting tools (8% of respondents)

Being an employer of choice was the top method for recruiting and retaining trade workers. The top-three strategies used to retain talent, according to respondents, were:

- Being an employer of choice (28%)
- Offering market-competitive compensation (20%)
- Providing comprehensive benefits and rewards (18%)

Ultimately, it falls on the human resources department to become a strategic source to carry out the company's growth plans. For some companies, this is a change in the ways things are traditionally done; for others, the growing need for skilled labor at the right place and the right time will require a greater focus and improved techniques to find the right people and help them grow within the company. The following report helps to detail our findings and will hopefully help to shape HR strategies going forward.
Introduction

After downsizing around 30% of its personnel just a few years ago, the construction industry is now facing a tight job market for skilled workers. How has the situation changed? Backlogs are growing again, so contractors need to step up their recruiting and retention efforts. “We’ve gone from culling to pulling,” according to one human resource executive.

It has been called a “war for talent.” By most accounts, the “war” was declared in a report published by Steven Hankin of McKinsey & Company in 1997. The war for talent was first conceived as a competitive battle to hire and retain top management and technical talent, the cream of the crop of students from the nation’s top universities. Now, after a cease-fire in the midst of the recession, the “war” has reignited, but this time it includes skirmishes for skilled craft labor as well as management and technical talent.

It is a growing strategic advantage for a company to be able to recruit, train and retain the best craft employees and to have the systems in place to do these things continuously. According to Rick Clevette, senior vice president, human resources at M.A. Mortenson Company, “He who controls craft, wins.” In fact, as the economy continues to dig out from the recession, the market for top talent is tight in some areas where demand outstrips supply, most notably in the shale oil and gas fields. According to a recent study conducted by FMI:

In 2008, just 3.8% of the total construction workforce was engaged in direct oil and gas construction. By 2012, 6.4% – nearly double 2008’s number – of that workforce was engaged in direct oil and gas construction. According to FMI’s estimates, by 2017 nearly 10% of the total U.S. construction workforce will have moved over to this burgeoning segment of the industry. (“Skills Shortages in a Booming Market: The Big Oil and Gas Challenge,” FMI 2013)

It is a real competitive challenge, and oil and gas appears to be winning the early rounds. There are rules of engagement, such as labor laws and regulations, record-keeping challenges, training for specific skills and safety, which need to be followed. Adding to the challenge, more contractors, especially the larger ones, are seeking to self-perform more work, and they will require more skilled people who can travel and live near the job site for extended times.
Structural Unemployment

There were an estimated 7.7 million construction workers in 2006 before the recession hit; the numbers decreased to around 5.6 million during the recession; and we are now only back up to around 6.2 million construction workers employed. Given those numbers, it does not seem to make sense that the industry should be facing a shortage of workers. However, FMI studies show that most construction workers downsized during the recession will not be coming back to the industry. Some have gone on to other industries like oil and gas or manufacturing; others have retired; and some do not have the skills contractors need at this time, do not live where the work is, or do not match current employment requirements.

At the national construction level, the employment shortfall is more difficult to visualize. The real problems occur when one considers the needs for skilled workers on the ground in a specific geographic region or specific market. Skilled trade workers are not interchangeable. For this study, we surveyed the membership of the Construction Personnel Executives Group (CPEG), whose members consist of human resources executives for many of the largest contractors in the country. According to the respondents to our online survey, the top-five trade workers in demand for the next five years are projected to be:

- Craft helpers
- Laborers
- Operators (heavy equipment)
- Carpenters
- Ironworkers (reinforcing)

Not all trade workers in high demand are in short supply. The top-five trades that are expected to be hardest to find are:

- Operator (heavy equipment)
- Welder (boilermaker)
- Carpenter
- Pipefitter (all including plumbers)
- Ironworker (reinforcing)

Structural unemployment often shows up as a problem after a long downturn or relatively sudden changes in the economy, like moving from an agrarian economy to an industrial economy. Even when it appears the nation is resolving its unemployment problems as the unemployment rate drops to below 6% for the first time since the recession, the growing number of jobs available does not always match up with the skills of those still unemployed. Where can companies find the skilled workers needed to accomplish the work in a growing backlog and still seek out opportunities for growth? The most obvious solution — and this is where the term “war” comes up — is to hire these workers away from competitors or other companies in the industry. This usually means enticements of larger pay and benefits in an industry still struggling to increase profit margins. Score one for oil and gas.

There are other solutions, as we found in our survey, but most solutions require longer-range planning and innovative programs to recruit, train and retain the best workers. These approaches are important since most now agree that the skilled labor supply problem is not a short-term situation, but one that needs a longer-range solution for the sake of the industry and individual company growth in the future. For an idea of how large the challenge may be, one of the respondents to our survey commented: “Our current forecast shows a need for 8,500 additional craft workers by 2017.” That’s for one large construction company. Overall, survey participants anticipate an increase in skilled trade workers of more than 10% over the next three to 10 years.
What is your projected requirement for skilled trade workers in the next three to 10 years?

17% An Increase of 4-6%
19% An Increase of 6-9%
27% An Increase of 10% or More

It is important to note that the respondents to this survey represented the largest contractors in the nation working in most major areas of construction, and 42.9% identified their companies as national contractors. Therefore, many of the challenges they face when it comes to recruiting and retaining craft workers are more germane to larger contractors. For instance, national contractors that perform much of their own work need to develop traveling crews for national markets. Nonetheless, midsized and smaller contractors will face, or are now facing, many of the same issues as the larger contractors, and many will have a greater struggle in some areas when it comes to recruiting and retaining the best employees, especially if they are competing with these larger companies for talent.
Type of Construction Business

- Other: 1.3%
- Electrical: 4.0%
- Mechanical/Process Piping: 6.7%
- Industrial: 9.3%
- Engineering and Construction: 9.3%
- Both General Contractor and Design-Build: 13.3%
- Design-Build: 10.7%
- Highway/Heavy Civil: 12.0%
- Construction Manager: 12.0%
- Commercial General Building Contractor (self-performing): 13.3%
- Commercial General Building Contractor (non-self-performing): 8.0%
Matching Human Resource Needs to Strategy

One of the solutions companies are undertaking to improve profit margins is to increase the amount of self-performed work. In recent decades, most large contractors have taken on the role of construction managers and hiring subcontractors to do the work as needed. They depended on the subcontractors’ ability to hire and train tradespeople to get the job done. Nonetheless, the CM has often maintained crews to self-perform certain aspects of the work, often time-critical tasks like foundation work at the beginning of the project and finishing work at the end of the project. Now, in order to gain more control over the project pace, quality and profitability, the majority of those polled in the survey for this report are strategically looking at expanding their capabilities to self-perform. According to Al Berardi, vice president of human resources at McCarthy Building Companies, Inc., “The ability to self-perform work has always been at the core of our mission, enabling us to offer clients an effective option for project delivery. Now more than ever, clients are looking for certainty. Having a trained and reliable workforce will be even more crucial for builders to be successful going forward.” Others interviewed for this report feel the same way, but this is not a trend to return to the good old days; it is a way to improve margins in a competitive market in addition to a broader trend for more E&C companies to respond to owner needs for efficiency. Along with these potential benefits come greater risks. One of the major risks will be finding, retaining and training skilled trade workers to accomplish the work.

If contractors cannot reasonably meet the need for skilled labor, the response to our survey reveals that 16% will find ways to be more productive using technologies. Along the same lines, 24% said they would increase their use of prefabrication and modularization. FMI’s 2013 report “Prefabrication and Modularization in Construction” found that:

Sixty-one percent of all respondents think the use of prefabrication will grow more than 5% a year over the next three years. Currently, 81% of the mechanical and electrical contractors surveyed for this report own their own prefabrication facilities. Of those who don’t, 33% are considering starting up their own facilities.

Clearly, our research has found that prefabrication and modularization are growing trends, but we have also found that there are many challenges to overcome before the trend becomes universal. For instance, contractors need to think more like manufacturers and learn to locate, operate and manage facilities as well as the better industrial manufacturers have learned to do over the last few decades. It will be a paradigm shift for construction.

While the increased use of modularization and prefabrication is a trend that cannot be ignored, it is not a panacea for skilled labor shortages. In fact, like the growing use of other technologies, it creates some new problems for finding and training shop personnel, including more people familiar with the use of BIM and machine tools. Improving productivity will certainly be one way to offset some of the shortage of skilled labor, but it has its challenges, according to Rick Clevette:

When you look back at productivity charts over history, there are two spikes, one during the introduction of the personal computer, the other during the growth of the Internet. When you look at the overlay to that graph, construction during that time is relatively flat. So, why hasn’t construction been able to extract the same value from new technologies that others have? Perhaps we are too slow to adopt it? Perhaps it doesn’t have the same impact? Having Internet connectivity doesn’t necessarily lay bricks faster.

Even with an increasing use of new technologies, construction will remain reliant on skilled personnel to accomplish its tasks. With the challenges becoming even more complex, human resources will become more central to the company’s strategy. One can look at the problem from three perspectives — the industry level, the corporate level and then the HR challenges:
The industry problem is understanding growth and demand. Many companies are experiencing growth and want to self-perform more as a core strategy. But the supply of qualified personnel is shrinking. How do we find or develop the people to do the core work?

Execution of the HR strategy means recruiting the right people at the right time for projects in the backlog now and projections for the future. Increasing self-performance results in the need for more personnel. For the largest contractors, this translates into processing a greatly increased number of new employees and prospective employees a year. They need to be trained, indoctrinated into the company culture, given safety training and otherwise “onboarded.” While this process isn’t totally new to most companies, the scale of new hires in an improving economy and for companies changing their strategy creates additional strain on the process. For most construction companies, it is historically unusual to have full-time HR professionals on staff dedicated to recruiting, training and tracking personnel through the process and throughout their careers with the company at the trade level.

If you cannot reasonably meet the need for skilled labor and tradespeople in the next few years, what do you think will be the impact for your business?

- We will be unable to bid on more work. 24%
- We will lose out to the competition. 5%
- Our growth will slow. 32%
- We will find ways to be more productive using technologies. 16%
- We will increase our use of prefabrication and modularization. 24%
Percentage of work that is self-performed

Do you plan to increase the amount of work you self-perform in the future?

- Yes: 45%
- No: 35%
- We are considering it: 20%
Creating an HR Strategy

The strategic plan for human resources has become a key part of the execution plan for the overall corporate strategy. This means it will likely require more detailed information about what it will take to turn strategy into tactics to provide the resources to, for instance, increase market share in current markets, enter new markets, start up new offices as well as perform the work needed to complete the current project backlog. This is a front-line plan, because if there are no people in place, the work is not done and promises aren’t kept.

Looking at the strategic task, it is clear that recruiting and retention of talent need to be ongoing efforts to staff near-term needs and to continue to anticipate and prepare for future needs. Like other aspects of the business, HR needs to keep up with new technologies for processing what is still called “paperwork,” even as more and more of this work is accomplished and stored electronically. Additionally, the company website, social media like Facebook and Twitter, and other electronic recruiting methods are being used with growing success to recruit not only management level employees but also skilled trade workers.

To get an idea of what some of the major companies are doing now to recruit, train and retain both skilled field workers as well as management staff, we asked the members of the CPEG group about some of their current requirements and how they were working to meet their hiring needs at this time.

The most effective methods for recruiting trade workers cited by respondents included:

- Being an employer of choice (23% of respondents)
- Internal employee referral program with incentives (16% of respondents)
- External referrals (9% of respondents)
- Job postings on company website (9% of respondents)
- Online recruiting tools (8% of respondents)

Being an employer of choice was the top method for recruiting and retaining trade workers. The top-three strategies used to retain talent, according to respondents, were:

- Being an employer of choice (28%)
- Offering market-competitive compensation (20%)
- Providing comprehensive benefits and rewards (18%)

Becoming an employer of choice is more than being the employer offering the highest wages and benefits, although that is where most turn first to recruit the best employees. Ultimately, the employer of choice provides the company culture of choice.
Being an employer of choice is clearly one of the best characteristics a company can offer to prospective recruits and one of the best approaches to keeping good people. As such, the corollary is true. If more companies have attractive environments in which to work, it might help the overall perception of the industry.

This is just a sampling of some typical strategic moves that should be supported by a personnel or staffing plan as part of the overall organizational strategy and business plans. The personnel plan should have more detail covering the skill level, experience and other characteristics of the hires that are required to carry out strategic initiatives as well as some tactics to achieve the strategic goal.

**What are your key considerations or criteria for hiring salaried employees since the recession officially ended?**

- To ensure we have people in place for management succession plans: 23%
- Always room for exceptional individuals: 21%
- To execute plans to enter new market sectors: 15%
- To execute plans to open new office(s)/expand geographically: 15%
- Specialized expertise: 14%
- Current staff begins to be working consistently over full capacity: 6%
- Hiring only to replace people leaving or retiring at this point: 4%
- Other: 1%
Building the Personnel Pipeline

Although many companies are still holding off hiring until they absolutely need to, there is always room for exceptional individuals. Contractors are increasingly aware they need to keep the talent pipeline full to replace retiring talent. Having people trained and in place to succeed top executives and senior management positions has been a growing concern for at least the last decade, especially in privately owned family businesses. It is not surprising then that 76% of respondents from the CPEG membership said their companies had succession plans in place for top management. However, only 14% have succession plans in place for key project managers, and only 7% have considered succession for field managers. Succession for skilled trade employees is barely considered at this time.

If companies plan to increase their rate of self-performance on projects, not only will they need to plan to recruit project managers, field managers and skilled labor, but also they will need to create plans for career growth and retention of those well-trained employees. In other words, invest in employees as if they really are the company’s most important asset. In short, companies will need to model many of the efforts in place to find, train and retain top managers to similar plans for those who perform the project work. Several of the respondents to our survey indicated they are moving in that direction now.

What companies are doing to model executive recruiting and retention to the labor force:

- Providing strong leadership development programs.
- Creating initiatives to identify and execute opportunities.
- Offering competitive salaries.
- Providing top benefits in the market.
- Becoming an employer of choice.
- Undergoing periodic reviews to identify high-potential employees at the business unit level.
- Designating employees for training and development programs.
- Customizing executive search and retention models for the labor segment.

For which of the following positions does your company have a well-defined succession plan?

- Executives: 40%
- Senior Managers: 36%
- Project Managers: 14%
- Field Managers (Foremen and Superintendents): 7%
- Experienced Trade/Craft Personnel: 2%
When we look at the most effective methods to recruit the best talent for both management positions and skilled trade workers, the top methods are the same, and there are a number of similarities in the importance and effectiveness of other methods. In fact, it may be a surprise to some that more people looking to work for a construction company are looking for ways to apply via the company's website. At the same time, this may be one of the first places prospective employees look to help determine if they want to work for your company.

More career seekers entering via the company website may be both a problem and an opportunity. One HR executive we spoke with noted his company hadn't expected growth in this area and hadn't even invited it. Traditionally, it would only advertise a job when it became available. It wasn't prepared to build a list of potential candidates for positions around the country. This created some technical as well as policy issues that needed to be worked out. Now the idea is to work to discover ways to embrace the various tactics new recruits may use to find a good fit for their skills and career needs. This will require companies to create a database that covers prospective hires around the country and to encourage a potential employee to stay in touch. Most everyone agrees that the approach to finding workers has changed from the days of posting a help wanted sign outside the project office.

What are the most effective methods to recruit the best talent for managerial and executive positions?

- Being an employer of choice (good corporate reputation) - 20%
- Internal employee referral program with incentives - 16%
- Online recruiting tools - 12%
- Internships/Co-ops - 11%
- Social network, i.e., Facebook, LinkedIn, Twitter, etc. - 10%
- Job posting on your company's website - 9%
- Employees recruiting at their alma maters - 5%
- External referrals - 5%
- Local or regional veterans group - 5%
- Professional recruiters - 4%
- Job postings in professional journals - 2%
- Association job boards - 1%
What are the most effective methods to recruit the best talent for trade workers?

- Being an employer of choice (good corporate reputation): 23%
- Internal employee referral program with incentives: 16%
- Job posting on your company’s website: 9%
- External referrals: 9%
- Social network, i.e., Facebook, LinkedIn, Twitter, etc.: 8%
- Association job boards: 8%
- Online recruiting tools: 8%
- Local or regional veterans group: 6%
- Other: 5%
- Churches and local social groups: 3%
- Job postings in professional journals: 3%
- Internships/Co-ops: 2%
Superintendents ranked low among positions for which companies have succession plans (29%), but the group topped the shortlist of positions facing skilled labor shortages, just ahead of craft labor (27%) and not too far behind job foremen (23%). However, respondents expect 55% of their future needs for superintendents will come up through the ranks and only 26% will come through a career development track. Making employee development part of a company succession plan will help alleviate future shortages in key field positions. The companies we spoke to have shifted their craft worker focus from hiring to retaining. In addition, a significant trend in the companies with an existing HR function is the assignment of a dedicated HR resource to focus on trade/craft labor recruitment and retention.

### Top three developing methods for field management (foremen and superintendents)

1 = Highest; 3 = Lowest

<table>
<thead>
<tr>
<th>Method</th>
<th>Rating</th>
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<tbody>
<tr>
<td>Offline, instructor-led</td>
<td>3.0</td>
</tr>
<tr>
<td>Instructor-led, face to face, by internal trainers</td>
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<td>Instructor-led, face to face, by external trainers</td>
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<td>Offline, self-paced, no instructor, no books, etc.</td>
<td>2.3</td>
</tr>
<tr>
<td>Structured on-the-job training</td>
<td>2.0</td>
</tr>
<tr>
<td>Through colleges/universities/vocational schools</td>
<td>2.0</td>
</tr>
</tbody>
</table>
Positions facing skilled labor shortages

- Craft: 27%
- Foreman: 19%
- Project Manager: 23%
- Superintendent: 29%
- Other: 2%

Driving factors behind skilled labor shortages
1 = Least impact; 5 = Greatest impact

- Other: 3.0
- Low rate of pay in some areas of the U.S.: 2.3
- Immigration requirement restrictions: 2.3
- Poor industry reputation keeps people from looking at construction as a career: 3.1
- People moved to different industries during the recession: 3.1
- Lack of skilled workers: 3.3
- Exodus of baby boomers: 3.3
- Rapid increase in backlogs for our business: 3.2
Survey comments on driving forces for skilled labor shortages:

- Competition from other industries; construction industry not prepared for demographic changes and not investing in the talent pipeline and cutting back on training.
- Focus on college education; not enough discussions regarding craft skills and careers in high schools.
- High schools not promoting construction industry; lack of awareness of opportunities, high pay, etc.
- The immediate demand is stretching the supply of the current skilled employee pool. We will need to concentrate on creating a mobile workforce to meet the demand and offer opportunities to people from all areas of the United States.

Survey comments on projected requirement for skilled trade workers:

- Changing use of technology means an increase in skill levels is required. Lack of desire to move to where work is; higher emphasis on family, dual-working spouse and location; can’t afford to work for the low pay anymore and greater options from which to choose; lack of respect by front-line managers.
- High school graduate experience, hard worker.
- Our current forecast shows a need for 8,500 additional craft by 2017.
- Shortage of superintendent and above is critical.
- We are a publicly traded company, and the expectation is continued growth. We are in the process of acquiring another company, which will significantly increase our workload.

In addition to the trade worker shortage, how are you responding to the growing demand for front-line supervisors and foremen?

- We are looking to current staff to take on more responsibility. 22%
- We are casting our nets further afield geographically, i.e., out of state or out of country. 13%
- We are trying to recruit from other companies. 18%
- We are looking to promote from our ranks and train more. 42%
- Other 4%
What percent of superintendents do you expect to come up through the ranks versus through a professional development track?

- Through the ranks: 55%
- Through a professional development track: 28%
- Other: 18%
Human Resource Management: Training and Retaining

Although referred to as “capital,” “assets” and “resources,” we still hire human beings to do the important work of construction. It is one of those key areas in which human resources differs from the purchasing department. On the other hand, in order to create the human resources machinery needed to constantly recruit, train, retain and promote the best talent for current and future needs, the process must be both systematic and humanistic. Recognizing the human side is part of creating a culture. For instance, one executive interviewed for this report noted that her company recognizes the number of Hispanic employees it has and creates social events like picnics and family outings that bring in the wives and mothers of the employees and creates interactions that suit that culture. It even encourages workers to recruit friends and family from their home country and advertise in Latino newspapers.

Looking at the responses from CPEG members that most intend to increase their level of self-performance, the need to increase the throughput of HR systems for training and tracking new employees as well as current employees is critical to realizing the benefits of self-performance. Add to that the comments we heard from many answering our survey that fewer parents and schools are encouraging high school students to consider going into a trade school rather than on to college. Add to that the growing question of how prospective trade workers are going to be trained if traditional training sources are inadequate or don’t have new students entering the program.

Unions have long been one of the main sources providing trained craftspeople, but only 35% of the companies interviewed use union workers, and unions also have difficulties keeping up with new techniques and technologies. One solution to the need for skilled workers is to adopt a program for just-in-time training (JITT or JIT), an approach that is also known as project- and task-specific training. JITT requires long-range planning to assure that training is timed to be completed shortly before the workers will be required to do the task. Often the task is something repetitive and may be a process or technique specific to the project, like working to a new welding code or techniques for working with specific types of concrete.

JITT is just one approach that should be part of a companywide training plan. Those companies that master workforce management will have a top-notch onboarding and training program. Many of the largest companies in the industry have their own internal universities to encourage and support an ongoing learning environment. For instance, one human resource executive we spoke with for this report talked with us about expanding its company’s Welder University in response to the expected growth in the need for trained welders. In its business, it also projects growth in the need for pipefitters, with 35% to 40% of new jobs expected to be in piping work. However, there are continuing concerns that journeymen won’t stay with the company, and young people aren’t interested in the hard work required of construction workers.
Rick Clevette noted his company has to hire 1.5 people for every one that stays. In other words, that means processing and training 30 people per day, or 7,500 per year, to net the needed 5,000 new hires that will be required by 2020, a challenge made even more difficult, considering that the needs of a national contractor cover most anywhere in the country at any given time.

Training costs for field supervisors and skilled tradespeople will likely increase. Companies that self-perform more than 50% of the project are currently spending somewhat more per trainee than companies that perform less than 50%, according to our survey of large contractors. The survey group consisted of a small group of contractors; however, all those responding took in a minimum of $500,000,000 in revenues last year, and most had annual revenues over $1 billion. The dividing line for the chart below was companies currently self-performing over or under 50% of their projects. Although this small representation is difficult to project to the whole industry, it is likely companies that are working to become industry leaders recognized as “builders” not just CMs will need to spend more to train their field personnel in both the basics and the “company way.” The company way includes those areas in which the company intends to excel and bring everyone into the company culture, such as areas of safety, productivity, teamwork and other specialized programs.

How much does your company spend annually PER PERSON on training? (annual $ per person)

- Project Management: $2,740 (Self-Performing), $2,133 (All Responses)
- Field Management: $3,590 (Self-Performing), $1,724 (All Responses)
- Trade/Craft: $4,386 (Self-Performing), $1,705 (All Responses), $661 (Low Self-Performing), $550 (All Responses), $750 (Self-Performing)
- Senior Management: $5,640 (Self-Performing), $3,490 (All Responses)
Comments from survey participants:

What is the single most important thing your company is doing to promote talent development and employee retention?

- Conduct individual development plan meetings with high-potential employees; assure them of their status and careers at [our company].
- Developing the one-on-one mentoring skills of our supervisors and managers.
- Exceptional training and development and increased focus on employee engagement.
- Focused recognition program.
- Focusing on employee engagement.
- Improving on current training models and delivery methods.
- Individual development plan for employees.
- Internal training and development programs.
- Investing heavily in all types of training and high-potential programs. Additionally, we are reworking our performance management program and processes.
- Management understanding of issue and funding of long-term solutions.
- Training programs with a purpose that clearly provide practical development opportunities.
- We are focused on internal and external development programs including coaching.
- We are issuing an employee engagement survey to improve critical aspects of developmental and retention needs.
- We are promoting [our company] as an employer of choice, which includes opportunities for employee and career development.
- We have developed a robust talent management system and process both to understand and utilize the talent within the organization now and to help us plan for the talent needs in the future.
Top Three Development Delivery Methods for Trade/Craft Worker (1=Highest, 3-Lowest)

- Through trade associations: 3.0
- Instructor-led, face to face, by internal trainers: 3.0
- Through colleges/universities/vocational schools: 3.0
- Online, self-paced, no instructor: 2.7
- Offline, instructor-led: 2.5
- Through union training programs: 2.0
- Instructor-led, face to face, by external trainers: 2.0
- Offline, self-paced, no instructor, no books, etc.: 1.6
- Online, instructor-led: 1.6
Promotion for Long-Term Success

With limited resources, a company can’t be everywhere in the market; however, with a carefully targeted plan to recruit the employees needed when and where they are needed, the company can appear to be everywhere in the job market. In large part, this is possible using the Internet and selected social networking. It is also a matter of selecting and supporting targeted programs such as the ACE Mentor Program. The successful ACE Mentor Program matches young students with industry mentors and provides students a hands-on look at possible careers in construction. The goal is to recruit in the early point of the pipeline as prospective students begin to choose career paths. Not only do they need mentoring, but also engineering schools need professors and equipment to help keep skills up to par with future industry needs. Programs that recruit ex-military, like Helmets to Hardhats, and a growing number of state and association programs are also providing a new source of potential talent for those who have served the country and now need good jobs. These successful programs are not yet enough and need to be modeled for all levels of employees.
Conclusion: Continuous Focus on R&R

The current outlook for construction is showing signs of sustainable but slow growth. That is the forecast on a national scale. Some regions and markets, like major cities and oil and gas states, are experiencing rapid growth and worker shortages now. Other markets are lagging and still trying to climb out of the long recession, but all markets have improved to the point that they are seeing the potential for skilled labor shortages now or in the very near future. The increasing cost of labor is a sign of tight labor availability, while, at the same time, most indicators of productivity show signs of slowing or stagnating in the construction industry. The industry will always have its up and down cycles. Currently, it looks like we are on the upward cycle, but our research suggests that industry companies looking to grow and prosper must recognize the need to be constantly recruiting and working on upgrading the skills and career paths of their employees in order to find and keep the best employees. Thus, HR is not just an occasional focus, but an ongoing part of the company strategy. “He who controls craft, wins” is a powerful statement that will need a long-term strategy behind it. The large companies we surveyed get it and are working to stay ahead of the curve. Any company thinking it will wait until it absolutely needs to hire before starting a long-term recruiting plan will be caught napping and find it difficult to staff that next large project.
About FMI

FMI is a leading provider of management consulting, investment banking† and people development to the engineering and construction industry. We work in all segments of the industry providing clients with value-added business solutions, including:

- Strategic Advisory
- Market Research and Business Development
- Leadership and Talent Development
- Project and Process Improvement
- Mergers, Acquisitions and Financial Consulting†
- Risk Management Consulting
- Compensation Benchmarking and Consulting

Founded by Dr. Emol A. Fails in 1953, FMI has professionals in offices across the U.S. We deliver innovative, customized solutions to contractors, construction materials producers, manufacturers and suppliers of building materials and equipment, owners and developers, engineers and architects, utilities, and construction industry trade associations. FMI is an advisor you can count on to build and maintain a successful business, from your leadership to your site managers.