2014

Occupational Outlook for the Construction Industry in the Greater Grand Rapids-Holland-Muskegon Region

Brian Pittelko
W.E. Upjohn Institute

George Erickcek
W.E. Upjohn Institute, erickcek@upjohn.org

W.E. UPJOHN INSTITUTE
FOR EMPLOYMENT RESEARCH

Occupational Outlook for the Construction Industry in the Greater Grand Rapids-Holland-Muskegon Region

Brian Pittelko
George Erickcek

September 23, 2014

Introduction

The ongoing economic expansion in the greater Grand Rapids region is generating substantial demand for skilled construction-trade occupations. From the bottom of the Great Recession to June of this year, construction employment has grown by more than 5,000 jobs, a 28 percent increase (seasonally adjusted) in the three metropolitan areas of Grand Rapids, Holland, and Muskegon. Indeed, there is a growing fear that if construction demand continues to grow, talent shortages in key occupations could force contractors to turn down projects.

This research effort which is sponsored by the memberships of the Associated Builders and Contractors, Inc. (ABC), the American Subcontractors Association (ASA), and the Home Builders Association (HBA) is designed to

1. Identify the current and short-term demand for key skilled-trades-construction workers;
2. Identify the strength of the existing pipeline of new skilled-trades workers; and
3. Estimate the potential loss of business activity that could result if firms are unable to find the skilled workers they need.

The research effort is being conducted by the W.E. Upjohn Institute for Employment Research, a non-profit research organization based in Kalamazoo in association with TALENT 2025.

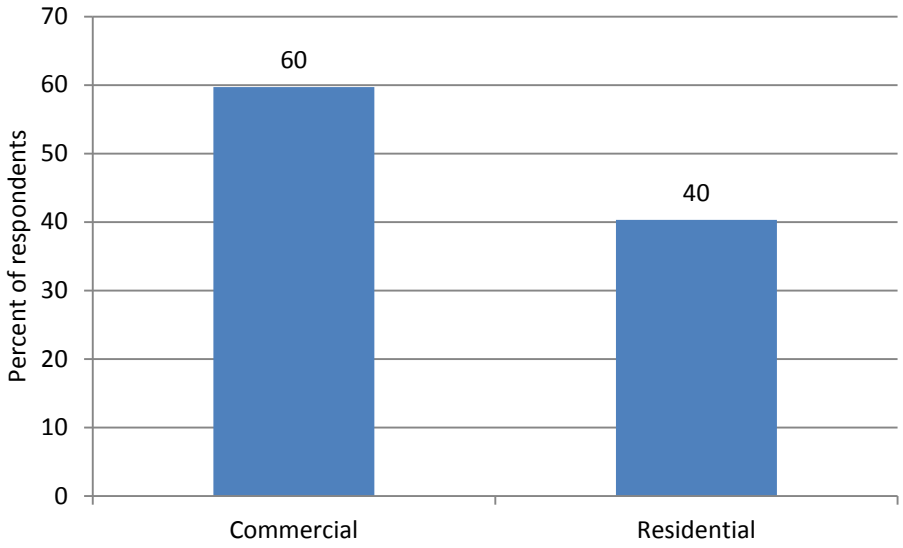
The analysis combined the results of a survey to the approximate 600 members of the three sponsoring organizations, and consisted of an in-depth analysis of available secondary data from the Bureaus of the Census, Bureau of the Labor Statistics, and other governmental sources and interviews of training providers in the region.

Survey Results

Unfortunately, despite multiple efforts by both the Upjohn Institute and the three sponsoring organizations to increase the response rate, the survey gathered only 62 responses for a response rate of 11.1 percent. The poor response rate, unfortunately, lowers the statistical reliability of the survey findings and is so low that there were insufficient responses to report the finding of several of the more in-depth questions.

A greater number of commercial firms responded to the survey than residential construction firms. Unfortunately, due to the low response rate, it is impossible to separate the responses of the survey between the two membership groups.

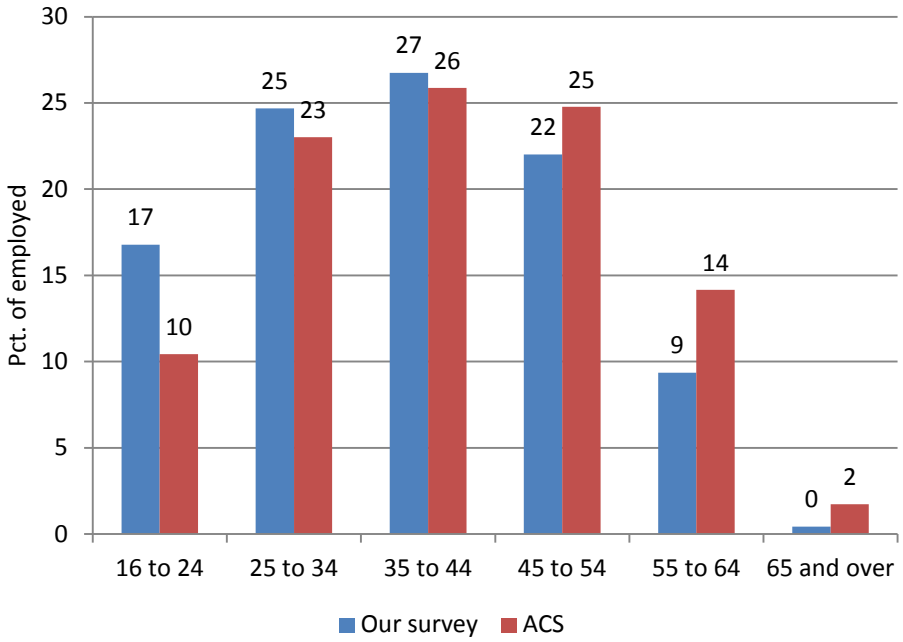
Figure 1 Sector of Respondents



The age profile on the workforce of the responding construction companies is not statistically different from the distribution reported in the 2012 U.S. Bureau of the Census American Community Survey (ACS). Figure 2 shows the percent distribution of the employed according to the ACS and the results of the survey. The workforce of the survey respondents skews younger than the actual workforce but still, statistically speaking, there is a 95 percent confidence level that the two surveys came from the same population. While both show the largest group to be the 35- to 44-year-old population, the second largest of the respondents was the 25- to 34-year-old group rather than the 45- to 54-year-olds. Also, the 16- to 24-year-olds represent 17 percent of the survey workforce, when the actual number is 10 percent.

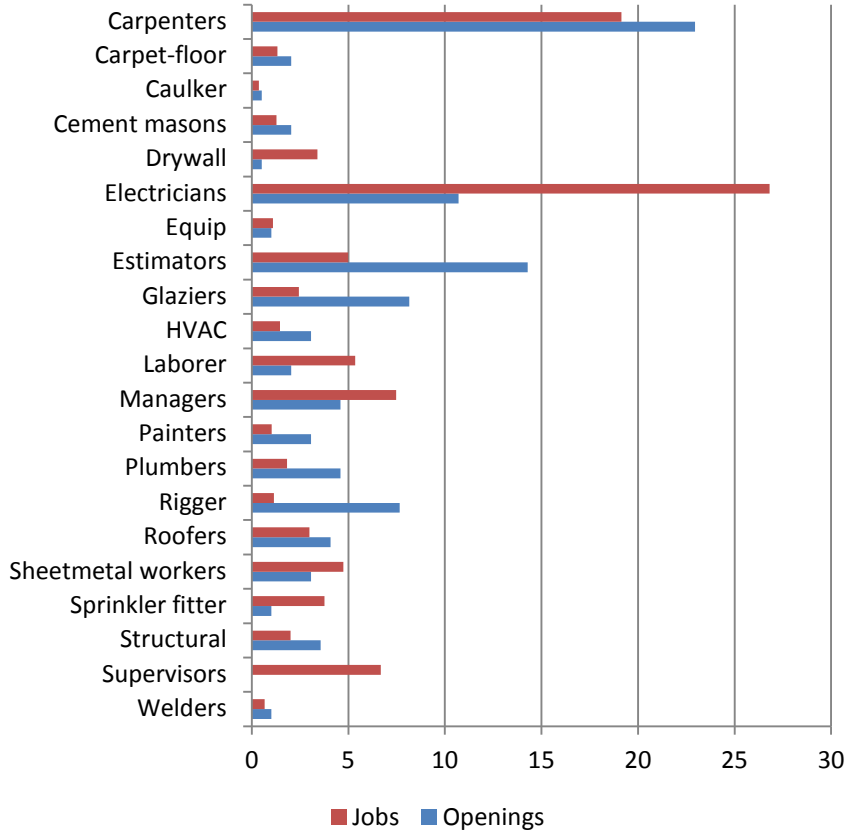
The age composition of the existing construction workers eases the worries of a looming retirement problem for the industry. Between 9 and 16 percent of the industry's workforce is older than 54 years of age with approximately 50 percent of the workforce between the ages of 25 and 44. Still, while the distribution does not look at first as though there are any problems, the lack of younger workers is concerning.

Figure 2 Age Composition of the Workforce



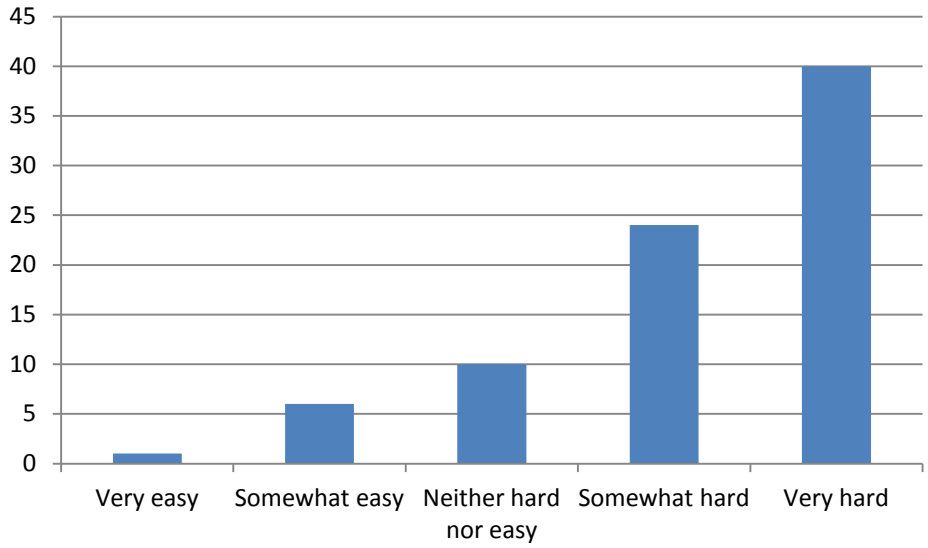
There were 196 job openings in the companies who responded to the survey. Figure 3 shows the openings per occupation as a percent of total openings, compared to the number of jobs in each occupation as a percent of all occupations for the respondents. There were a few stark differences. Over 25 percent of occupations in the responding firms are electricians, but they account for just over 10 percent of openings. Conversely, nearly 15 percent of openings were for estimators, compared to only 5 percent of jobs.

Figure 3: Job Openings



Regarding the difficulty in filling the last vacancy, the survey provides evidence that the labor market is getting tighter. Figure 4 shows results dramatically tilted toward "Somewhat Hard" and "Very Hard." Employers are undoubtedly having difficulty with hiring talented workers.

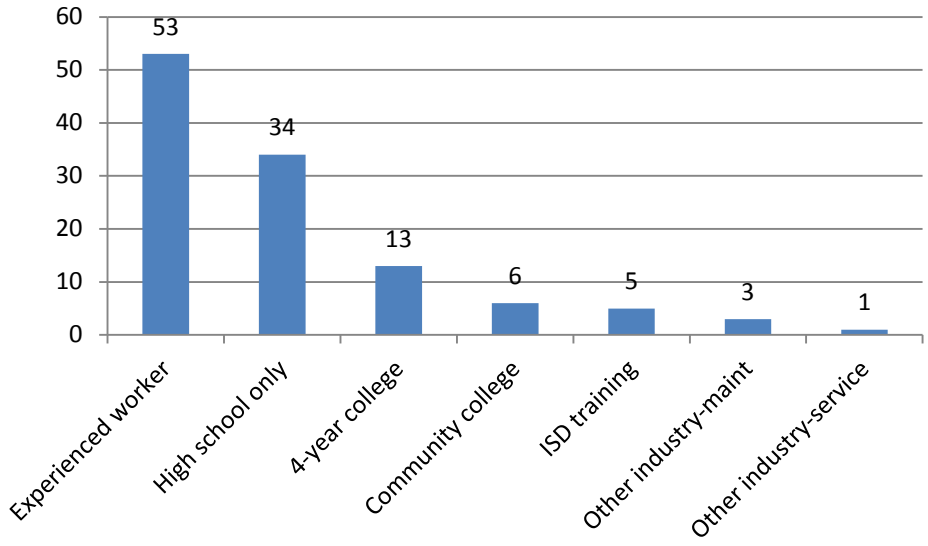
Figure 4 Difficulty of Filling Vacancies



Workplace experience is more valued by construction contractors than education attained. As shown in Figure 5, when considering the last hire for any applicable occupations, experience level was the strongest attribute, followed by having a high school degree. Post-secondary training institutions were well below the top two. Follow-up interviews with local community colleges suggest that enrollment is down due to the availability of jobs and the willingness of employers to hire without a certificate. In other words, with employers willing to hire a greater number of unskilled workers as long as they have a minimum of experience, there is little incentive to attend training classes.

During the recession, on the other hand, enrollment was up as competition was higher for fewer jobs. Since the industry has rebounded, fewer students are willing to invest the time and money in post-secondary training when they can start work immediately. The survey results also suggest that area employers are more willing to hire relatively inexperienced workers without formal training than workers who have recently completed a certificate or degree program.

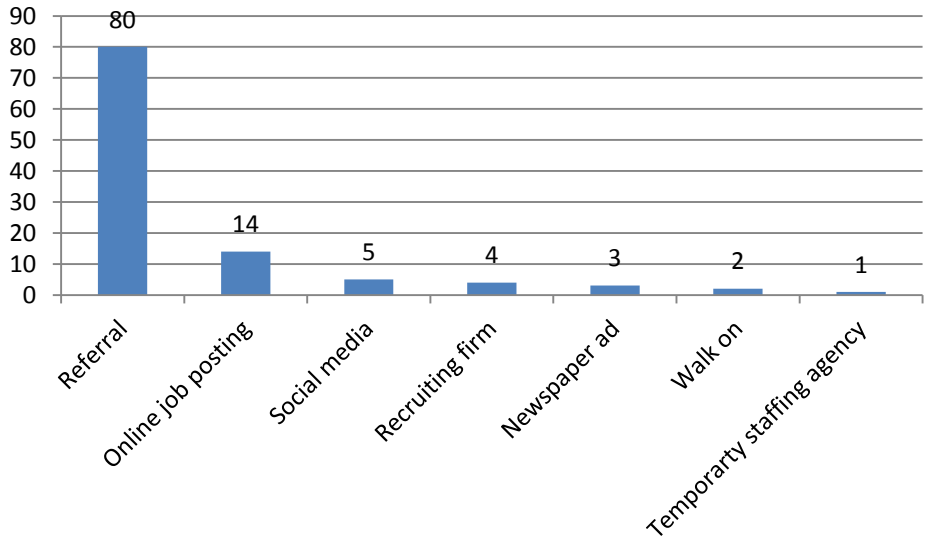
Figure 5 Education Level



Overwhelmingly, referrals from other employees are the method from which new hires come to the attention of employers. Figure 6 shows that 80 of the most recent hires were by referrals, with online postings a distant runner up with 14.

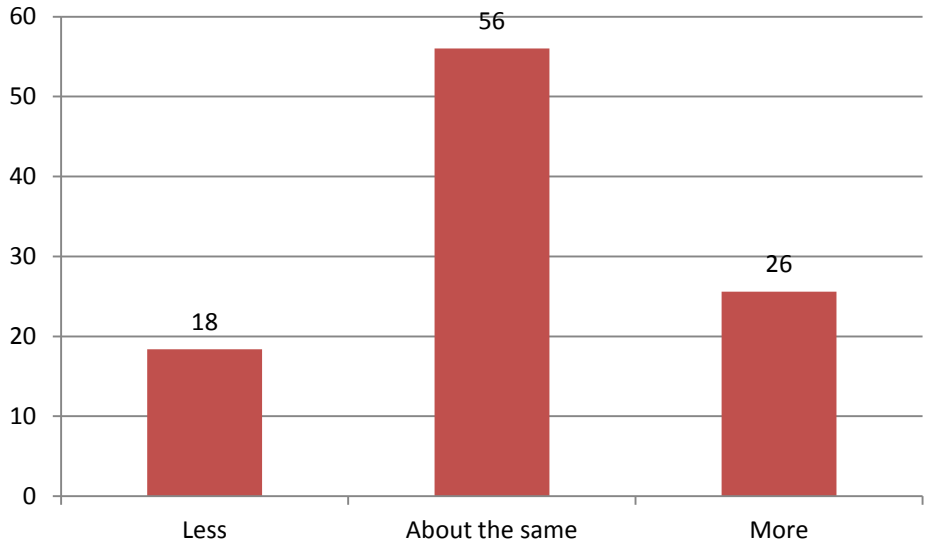
Referrals are seen as a safe option as a trusted employee can vouch for the quality of work or the reliability of the individual. Referrals are also easier than posting a job opening and sorting through resumes and less expensive than employing staffing agencies or recruiters. However, employers may be simply “looking under the lamppost” for employees and could be missing opportunities. However, not all employers used referrals exclusively. Among the responses, there were a few employers that used a mix of referrals and other methods. This mix could suggest that employers are using various methods, but that the person ultimately hired was from a referral.

Figure 6 Path to Employment



During a labor shortage, the typical response is to raise wages in order to attract workers. Figure 4 showed that most employers found it at least somewhat hard to fill vacancies. Figure 7 shows the median wage for the same occupations as the other questions and asked if companies paid less, about the same, or more than the median. Of the companies that responded, 56 percent said they were paying about the same as the area average wage according to the BLS for the various occupations, and 26 percent were paying more than the area average. That suggests that in spite of over 80 percent of occupations paying at or above average wages, respondents are still having trouble filling vacancies.

Figure 7 Wages Relative to Regional Average



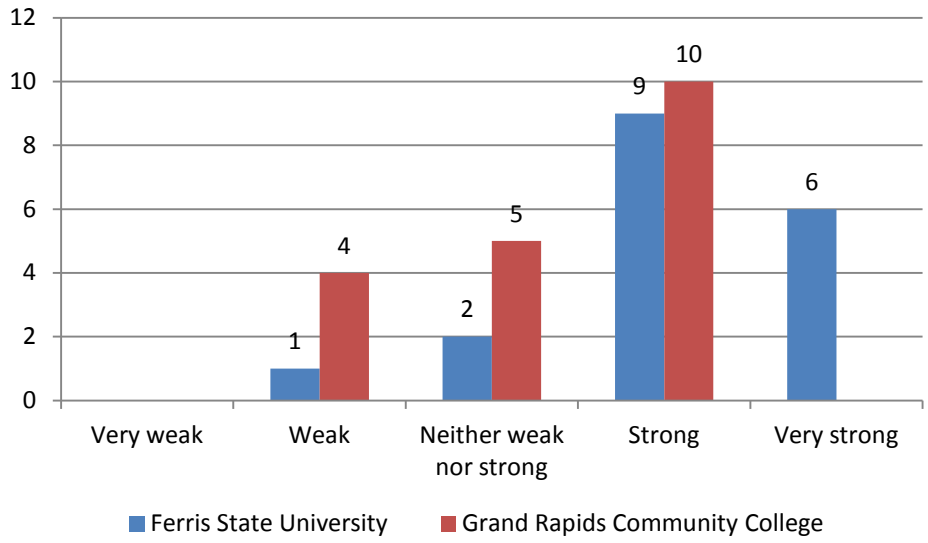
Unfortunately the low survey response rate did not allow any conclusions to be drawn regarding the perceived quality of existing training programs. Only Ferris State University and Grand Rapids Community College (GRCC) received more than ten responses. It would not be fair to other educational institutions to report their results; sometimes they received one vote for "weak." Both Ferris and GRCC did well, with most of their responses leaning neutral to strong.

Figure 8 shows their responses. Ferris State is appreciated, with most of their responses either "strong" or "very strong." They have over 200 students in their management program on track to receive both an associate's and bachelor's degree. Their program has grown as the economy has improved in the last few years. They have 50 incoming freshmen into the program this fall. Ferris State also has evening classes in Grand Rapids for a bachelor's degree program geared toward working-age adults. They generally have a 95 to 100 percent placement rate for their graduates.

Grand Rapids Community College has four programs: introduction to construction, green remodeling, residential construction, and an electrician program. As discussed earlier in question four, and opposite of Ferris State, their enrollment has been declining slightly as the economy has improved and there is less demand for formally trained workers. Western Michigan University also has a management program that has lost some enrollment. However, the decline is due to the addition of a civil engineering major, drawing some of the students from the construction engineering major.

The lack of responses for other institutions is not surprising as most of the post-secondary institutions have little construction trades training. Montcalm Community College does not have any training classes, though they do coordinate apprenticeships at area businesses. Montcalm Community College does have an associate's degree program for construction, but it is for individuals who already have their Journeyman's certificate. Starting this year, they can receive 29 credits for the certificate and then take 31 general education credits for their associate's degree. As discussed earlier in question four, and opposite of Ferris State, their enrollment has been declining slightly as the economy has improved and there is less demand for formally trained workers.

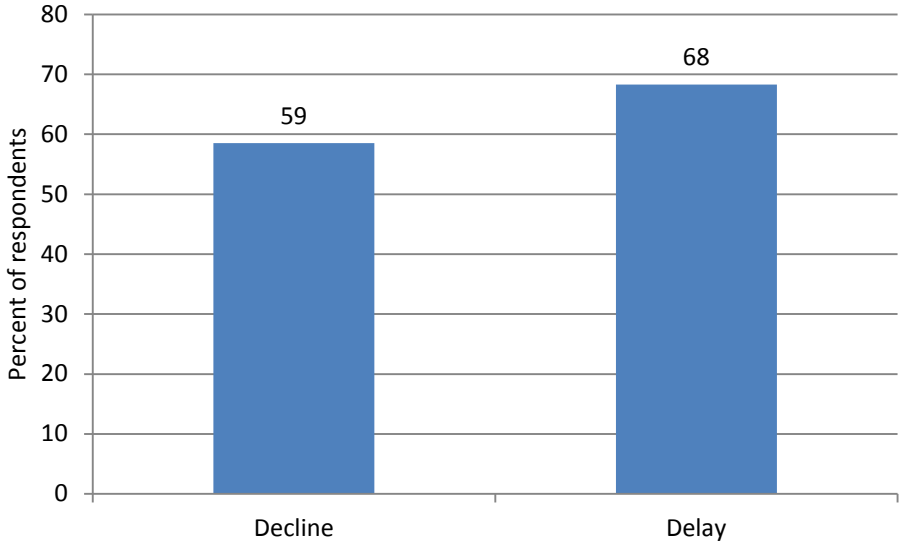
Figure 8 Perception of Post-Secondary Institutions



The last two questions of the survey went to the heart of the talent shortage question in the area, and asked whether businesses have had to decline to bid or at least delay work due to a shortage of skilled workers. Shown below in Figure 9, nearly 60 percent of firms were unable to even bid on work. Even greater, 68 percent of respondents reported having to delay work because of the

same issues. While it is likely that other firms stepped in to do the work, even the delays can cost both employers money unnecessarily.

Figure 9 Declining or Delaying Work



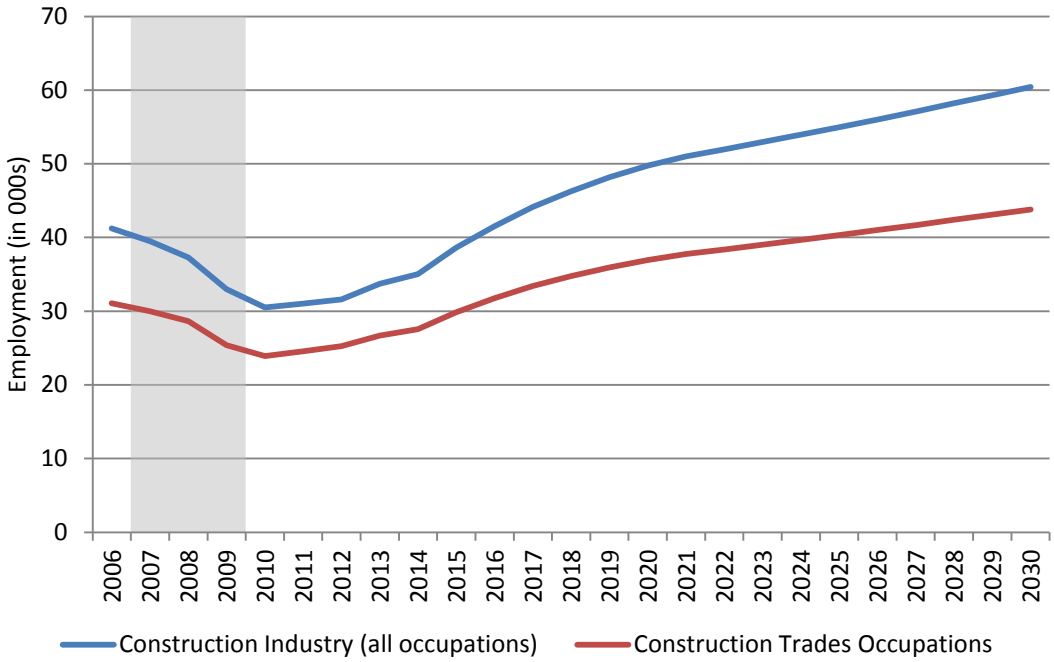
When asked what is your biggest talent challenge, firm owners and managers cited hard skills, such as trained carpenters, HVAC, and other occupations they were not finding. However, five mentioned soft skills, such as travel and showing up to work, and two mentioned fitting into the firm's culture, which is likely related to soft skills. Interestingly, six organizations mentioned issues related to young people seeing skilled trades as a viable career. They revealed that they currently have young workers on board, but they were afraid they would lose them to different careers.

When asked for recommendations to address the current talent shortage, the overwhelming response was directed at further education and training, especially at the high school level. Respondents felt that young people needed to be exposed to skilled training occupations and told of opportunities. Of the 28 responses, 21 talked about educating young people. A few mentioned increasing compensation which is the traditional sign of a labor shortage, and a few more mentioned better marketing. One respondent claimed there needed to be a less fragmented system for posting jobs, as newspaper ads are no longer the way people find work.

Forecast

Figure 10 shows the construction industry and occupational forecast through 2030. The Great Recession is shaded in gray. The blue industry line contains skilled-trade occupations as well as administrative, sales, and other support occupations for construction firms. The red line is the total for skilled-trade occupations alone. The long-term forecast calls for construction employment to grow from 33,700 today to more than 60,000 workers in 2030, a strong 3.5 annual percent growth during the period. Employment in the region's skilled-trade construction occupations are forecasted to climbed from 26,700 to 43,800 during the same period, an average annual growth rate of 3.0 percent.

Figure 10 Forecast to 2030



SOURCE: Regional Economic Modeling, Inc. (REMI).

The construction industry has been growing since bottoming out in 2010. While the Great Recession technically ended in May 2009, the industry did not begin recovering until 2011. The recovery was rather slight through 2012, but employment picks up in 2013 and 2014 and is expected to grow a little faster in the next 10 years. The growth projection is a little higher for the whole industry than for skilled-trade occupations alone. This difference is likely because as the industry grows, more administrative and other support occupations will be needed in the industry. It is important to note that the expected annualized growth rate for the industry is considerably above the 0.7 percent annualized rate for total employment in the region. In other words, the industry is forecasted to be among the fastest in the region during the forecast period.

This forecast is generated by a model especially designed for the region by Regional Economic Modeling, Inc. (REMI). The long-term forecast is based on Bureau of Economic Analysis (BEA) regional data for which 2012 is the most recent available year. More recent data are available from the Bureau of Labor Statistics (BLS), but that data does not include self-employed workers, which make up a significant part of the construction industry.

The model's short-term employment forecast, from 2013 to 2015, is generated by using the most recent University of Michigan national forecast. After 2015, the forecast is based on BEA and BLS long-term trend forecasts.

The model's short-term occupational forecast for the construction trades which, again, is based on the University's forecast is shown in Table 1. Most of the occupations were expected to grow about five to six percent during 2013 and then the growth slows down to between two to four percent in 2014. Data from the BLS for the whole industry showed a 6.1 percent increase from 2012 to 2013; therefore, while our occupational data are projected for 2013, the number appears solid.

The occupational projections show some of the midsize-occupation groups (employing 500 to 1,000) growing at a more robust rate than some of the larger occupations. Cement masons, drywall installers, and roofers are expected to grow 3.6 to 3.9 percent. Large occupations with large growth are supervisors and helpers, with 3.6 and 4.1 percent, respectively.

Table 1 Short-Term Occupation Projections

	Base-year employment	Percent change	
Occupation	2012	2013	2014
First-line supervisors of construction trades	2,305	6.1	3.6
Boilermakers	119	4.2	2.4
Brickmasons, blockmasons, and stonemasons	381	6.6	3.7
Carpenters	3,466	5.7	3.2
Carpet, floor, and tile installers and finishers	358	5.9	3.4
Cement masons, concrete finishers, and terrazzo workers	776	6.6	3.6
Construction laborers	4,792	5.7	3.4
Construction equipment operators	1,809	5.5	3.0
Drywall installers, ceiling tile installers, and tapers	524	6.5	3.9
Electricians	3,183	5.1	2.7
Glaziers	245	5.3	3.1
Insulation workers	276	6.5	3.7
Painters and paperhangers	1,077	5.5	3.2
Pipelayers, plumbers, pipefitters, and steamfitters	2,124	5.7	3.2
Plasterers and stucco masons	113	6.2	4.2
Reinforcing iron and rebar workers	87	6.9	3.2
Roofers	533	6.6	3.9
Sheet metal workers	988	4.1	1.7
Structural iron and steel workers	339	5.9	3.3
Solar photovoltaic installers	23	8.7	4.0
Helpers-all types	1,165	6.6	4.1
Construction and building inspectors	333	2.4	1.2
Elevator installers and repairers	116	6.0	2.4
Fence erectors	118	6.8	3.2

SOURCE: Regional Economic Modeling, Inc. (REMI).

Conclusion

The talent shortage in the construction industry seems to be real. Firms are having a hard time finding workers, and the vast majority have had to decline or delay work due to the lack of skilled workers. Most organizations are paying at least at the median wage level if not more. At the same time, hiring is still done primarily through referral. Companies are hiring primarily

experienced workers from other firms. One comment mentioned that they are attempting to "grow their own" skilled workforce, and companies doing likewise may also explain the number hired directly out of high school without any formal training. Post-secondary institutions come in third and fourth for sources of new hires.

While the labor shortage appears real, companies may not be doing enough to find workers. The vast majority of new hires come from referrals. Even if companies are posting online but ultimately hiring a referral, it may discourage workers from applying for online postings. Very few hires come from formal training institutions, which also may discourage potential workers from enrolling in those programs.

Finally, our forecast is calling for the demand for construction trade occupations to be among the highest in the region in the short and long term. Clearly, employers are going to have to adopt a more aggressive strategy for attracting talent, including better outreach to secondary and post-secondary education institutions and moving on from depending heavily on referrals. Finally, if this forecast proves to be correct there will be strong wage pressures in the industry for several years.