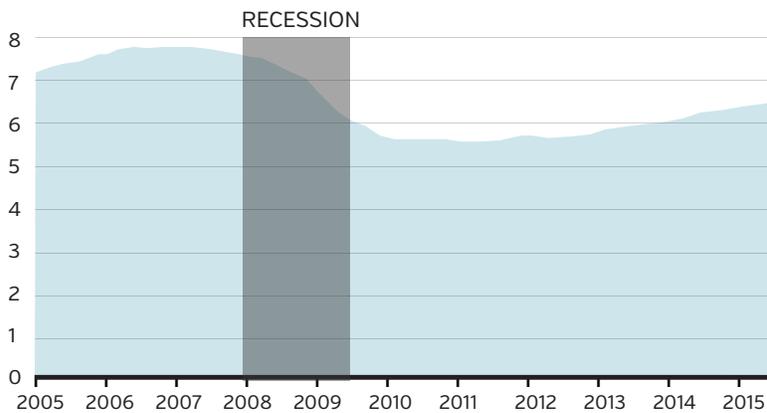


LABOR SHORTAGE + INDUSTRY CHANGE

WHAT HAPPENED? JOBS WERE LOST



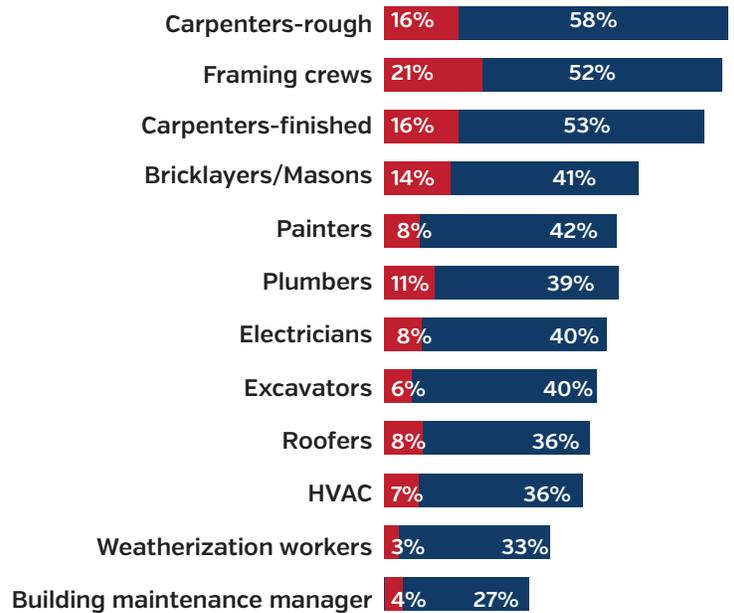
4/06 - 1/11

40%
2.3 M
Jobs Lost

Between April 2006 and January 2011, the construction industry eliminated nearly 2.3 million jobs or 40% of its work force. As of May 2015, the sector was still more than 1.3 million jobs shy of its bubble-era peak.

Source: *Wall Street Journal*

WHAT'S GOING ON NOW? SKILLED LABOR SHORTAGE



Share of Builders Reporting Subcontractor Shortages

Source: *Eye on Housing*

THE PAIN POINT

"The combination of having had this massive long exodus, a late pickup in hiring and now this greatly diminished pool of workers, that's what has contractors scrambling."

AGC Chief Economist Ken Simonson told *The Wall Street Journal*

WHAT SHOULD WE DO?

#1. EMBRACE OFFSITE CONSTRUCTION

As companies struggle to staff job sites and stick to difficult schedules, many have started to turn to prefab as an option that offers more certainty.

Modular construction can cut costs by 20-30%. A shorter build time saves money on overall construction. Labor costs are less, as prefab construction uses more factory workers and less individual tradesmen like plumbers and electricians

A Kansas City startup is building the city's first net-zero home using alternative construction processes to reduce costs and build time. To do so, the company plans to ship construction kits with pre-cut structural insulated panels, windows, fixtures and most other building materials, to the local builder who will construct the house.

#2. FOCUS ON SITE SAFETY

If a job site is understaffed, then workers run the risk of tackling too many duties and/or working longer hours than they should. All of these factors lead to anxiety-driven and stressed workers, which in and of itself increases the chances of potential accidents.

The ACG has reported a 15% increase in the number of reportable injuries and illnesses because of workforce challenges. Creating a culture based on safety offers many benefits for your organization. First, it reduces the risk of accidents among inexperienced workers. In addition, companies with a strong history of safety are in a better position to attract the most qualified applicants.

Safety Apps for phones and tablets have emerged as game changers. Consider Fall Safety App, Safety Meeting App or iSafe Inspections.

#3. UTILIZE BUILDING INFORMATION MODELING [BIM]

This is a great “correlating” factor which is to say that as labor decreases, job sites need to get more efficient. Which is why BIM is quickly becoming the most significant and widely adopted new technology in the industry.

The process of creating digital models to provide information for planning construction has proven beneficial for both economic and safety reasons. 3D and 4D modeling may be used to model owner's process flows and discover conflicts in design documents and drawings.

Even if you only use BIM for your company's models, you'll reduce errors and complete project models in less time.

Younger workers could see BIM as an exciting opportunity to use new technology in a field that may not have normally considered.

#4. GET MORE TECHNICAL

Mobile technology that allows real-time information to be collected and sent to the office is changing the face of the construction industry. This technology is being used to track daily activities and critical information, and streamline collaboration between teams in the field and at the office.

By eliminating the use of paper and spreadsheets, construction companies can save hundreds of hours spent on data entry, collating information for reporting, or looking for paperwork that has been lost or filed away. Increasing back-office efficiency allows projects to be run leaner, and completed on time and on budget.

Better accountability of field staff. Staff travel times, GPS locations and time spent on-site can all be consistently monitored with mobile apps. This improves accountability and reduces labor costs. Costs can be also reduced with mobile timesheets that record clock-in/clock-out times to the minute.

Permit App allows employees can send and receive permits to and from mobile devices, allowing workers to get started on tasks in minutes, not hours or days. JobFLEX allows contractors to create estimates quickly and efficiently, even without an Internet connection. And Fieldwire is a planning app that makes it easy for foremen, project managers and superintendents to collaborate while they are in the field.

#5. INVEST IN DRONE TECHNOLOGY

Whether they're used for surveying, to show clients and potential clients an aerial overview of completed projects, to monitor jobsites to ensure safe practices or to inspect bridges and other structures, drones have the potential to become as important industry tool.

The American drone company, Skycatch, is able to reduce the land surveying process from two weeks to one day, or even 30 minutes.

The site of a new downtown stadium for the Sacramento Kings in California is being monitored by drones and software that can show managers how the project is progressing, automatically highlight parts that may be falling behind schedule and flag potential or current safety issues.

#6. RETHINK WHO YOU HIRE

To maintain operations and mitigate effects on revenue, businesses should be exploring options to tackle the skills gap head on. That means, rethinking your ideal employee.

Hire vets. Last year, 100 construction companies agreed to be part of efforts, together with Michelle Obama and the U.S. Department of Labor, to hire 100,000 veterans over the next five years. They founded the Helmets to Hardhats program, which receives federal funding, and whose goal is to provide training and job opportunities for military members making the transition back to civilian life. Fifteen trade unions and industry associations help sponsor the program.

Hire Women. Attracting more women may also be a viable solution. With women only accounting for 3% of the construction industry, there is opportunity for growth.