

Preparing For The Infrastructure Boom During a Labor Shortage

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The injection of billions into repairing aging, deteriorating infrastructures is a welcome development. But an injection of labor is what industries like construction and manufacturing will need in order to effectively tackle and succeed at those projects.

The pervasive shortage of both skilled and general labor has tempered what would otherwise be promising opportunities for those industries. How can construction companies not only prepare for this reality but meet the challenge with confidence and a brighter outlook?



Recruit For Both On And Off The Jobsite

By nature, people tend not to gravitate toward places or positions where they haven't seen themselves represented. Proactively breaking the mold of the typical construction worker stereotype, which has been predominantly male, can help change this. In other words, grow and diversify your workforce by embracing diversity. Actively recruiting people of different races, cultures, genders, and ethnicities invites their unique perspectives and fresh ideas on how to solve problems, collaborate, and find consensus.

Replacing an aging workforce with younger workers who can make construction a lifelong profession has proven to be a challenge. Where will you find them? Go where your future workforce is.

You'll find them at high school and trade school career fairs, which are prime opportunities to reach a large number of prospective job candidates in person. Because they're already attending with the mindset of learning about career options, you'll be able to meet and talk with about-to-be or newly minted adults about opportunities within your construction company. It'll be your chance to share what working in the industry is really like. With trade schools enjoying a resurgence in popularity, now's the time to reach out to this motivated audience.

If your company has invested heavily in software technology, don't overlook the tech- and S.T.E.M.-based schools and their campus groups where you can find students who may be attracted to construction tech. Many may not have even

thought of the industry as an area of interest for them nor considered the application of modern software and field technologies to construction projects. This is your chance to pique interest in the opportunities to get in on the ground floor efforts of an industry that is not only exploring all that tech can do but is looking to the tech-savvy younger generation to help guide them.

For Gen Z, social media is an ingrained part of their world. Because the younger set live their lives online, it's natural to think of reaching out to them there. But another Tallo survey suggests that professional social media platforms like Tallo or LinkedIn are preferable to personal ones.

Train And Upskill Current Workers

One strategy is to identify either existing skills gaps or high demand for specific expertise needed on the jobsite and offer worker training in those areas. Provide in-person (on-site or at a local partner school) and online training options where possible, with the understanding that younger workers tend toward online as they're more familiar and comfortable with that format.

When workers have more than one area of demonstrable knowledge and skill, they become more flexible. They're easily able to transition to where you need them and when. For example, you may need people skilled in operating excavating equipment at the beginning of an extensive infrastructure project. Or you may find you're short on workers who know how to safely handle waste removal throughout that project. Finding people with those skills could turn into a challenge out on the open market where there could be a pronounced labor shortage for the particular skills or experience you're looking for. But cross-functional training workers in more than one skill ensures that even a lean team is nimble enough to keep job tasks progressing.

Another strategy is to upskill those who are either tech-savvy or at least tech-curious in some of the construction technology that is becoming part of the mainstream "tools" of the trade. It could be anything from using mobile checklists to do quality assurance or safety walkthroughs. Or how to access and understand performance metrics via dashboards so they

can take more ownership in job progress. Or learning how to work with augmented reality wearables to help those in the back office assess progress at different points throughout the jobsite.

Prioritizing skill development of existing employees shows them you're willing to invest in them – and they're more likely to stick around when they know they're valued and trusted to take on more.

Enforce Jobsite Safety To Reduce Worker Absence

Every worker that winds up as an injury statistic is one less worker on your team and contributes to the labor shortage, whether temporarily or permanently. Not only does it jeopardize completing a job task on time, but you're left scrambling trying to replace that person on short notice. The goal then is to have safety measures in place to reduce the likelihood of injury. This may take on even more urgency as many infrastructure projects due for retrofitting and repair have already been deemed safety risks. All the more reason to have a strategy in place before sending everyone out on the jobsite.

First things first: Require safety training. It may sound obvious, but it bears emphasizing. Construction is a dangerous profession with high injury and fatality rates. Those numbers can only come down when everyone knows how to maintain their own safety – to safely operate equipment and tools, navigate hazards, follow appropriate protocols when performing high-risk job tasks and correctly handle hazardous material.

The sooner hazards are detected, the more quickly they can be addressed. Start by implementing the processes that uncover them – rolling punch lists, safety inspection checklists, and commissioning walkthroughs – at the beginning of the projects. Especially for complex infrastructure projects, shifting the timeline shifts the intent from reactive repair to proactive prevention, identifying any structural or jobsite safety hazards that can physically hurt and sideline anyone on the jobsite.

Take advantage of today's field technologies that can reduce exposure to physical and environmental hazards and potential

injuries. These could be drones that conduct inspections of multi-story buildings and difficult-to-access places that would otherwise put human inspectors in harm's way. Think, too, of “smart” technology in the form of wearables or jobsite sensors that alert workers to nearby hazards or when unfavorable health-impacting environmental conditions develop.


Invest in software for risk management and commissioning, and in technologies like building information modeling (BIM) to virtually detect safety concerns in order to prevent them or mitigate their impact.

It's true that what you don't know can hurt you; add to that what you can't recall or find. Cloud-based risk management software puts the information stored in it – operating manuals for machinery and equipment, and information on how to handle certain materials – on the fingertips of those on-site who need to refer to it in real time, so they don't make a harmful yet preventable mistake.

We mentioned above that starting commissioning at the beginning of the project is key. The early timing keeps any detected defects from becoming further built into the structure or worsening if left unaddressed. And the direct result of that is less chance for rework. Rework is often cited as the cause for many late-stage injury incidents as safety concerns go out the window in favor of rushing to complete the project on time. Losing workers at this last-minute stage puts unnecessary pressure on existing site crews to meet the project completion deadline.

BIM, known for the precise virtual 3D models it produces, showcases its visualization capabilities as it pulls back the curtain on the unseen defects and safety risks that exist in the open but also lurk behind walls, floors, and ceilings. You not only can see them but analyze them. The flexibility of the BIM model enables you to explore fixes directly within the model to either prevent them from being constructed to begin with or allow site crews to understand how to safely avoid or address them.

Reacting To The Labor Shortage Challenge With Proactive Planning

While the anticipated effect of the infrastructure boom on the demand for workers presents a challenge for the construction industry, it also presents an opportunity. The key to overcoming labor shortages will lie in proactive planning and strategic management. That means it's going to be up to construction companies to have solid labor acquisition, retention, and safety strategies in place. The labor shortage may worsen before it gets better, but these strategies can help soften its impact as infrastructure projects gear up. 



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