# How Do You Recruit for an Invisible Job?

*By Maria Chastka*

*Fig. 1: Shooting panels for nozzleman certification on Newell Project, Santa Cruz, CA*

Tunneling projects are a unique construction segment to be a part of. You can be working on a large-scale, technically challenging, resource-consuming project — in some cases the most expensive investment a city or state has ever made to their infrastructure — and if it goes well, people will not even know you're there. Herein lies one of the struggles the tunneling industry faces: If people aren't aware the projects exist, they also don't know there are jobs available. So how do we recruit both for technical positions and craft labor for invisible opportunities? That is the 2.1-million-employees-needed question.

While the projections vary from hundreds of thousands to over several million workers, depending on the metrics used, the fact is that currently, over 20% of the existing underground construction/tunneling work force is over the age of 55. We needed to start rebuilding our base of employees a decade ago. That didn't happen, and now we need new solutions for a worsening problem. In my opinion, this needs to be a shotgun approach. Yes, we need people today — but we also need to be attracting younger generations to even consider this industry, so we don't have another large gap in employees.

From a higher education standpoint for potential engineers, project managers, and consultants, this seems like an easy goal: Just go to all of the engineering schools and speak with students studying complementary majors. But, with nearly 300 Civil Engineering programs in the US alone, this is neither quick nor easily achieved. Multiply that number by more than a dozen other majors and programs that can feed into the industry, and this feels impossible.

Now for the good news: There are incredibly dedicated people working on this very approach. Between the collaboration of the Society of Mining, Metallurgy, and Exploration (SME) and Underground Construction Association (UCA) with universities throughout the US, the *Teach the Professors* initiative is working to inform college professors of the career opportunities in our underground industry. The goal is to include coursework in their syllabus that introduces students to various aspects of underground construction. This also provides recruiting opportunities and contacts for students to reach out to when pursuing a job after graduation. This initiative needs more support from industry individuals to reach and increase the network of programs sooner. People can reach out to UCA directly to get involved.

In conjunction with the *Teach the Professors* initiative,

UCA also has a *Down for That* program, which reaches out directly to students from grade school through university to engage and educate them about tunneling. This program has the structure and tools necessary to support industry veterans who are available to share their time with schools in their area. There are presentations, books, and contact lists just waiting for more volunteers to join the effort. This is how we continue to build the base for not only the tunneling industry, but also for construction and the trades.

The opportunity to go into a grade-school classroom and talk about the equipment we use and the projects we build can spark an interest that may lead a student to pursue construction as a career. One bonus I have personally found has been in reigniting my own excitement for the work we do: Sharing photos and videos from different projects I've been on and then watching the students' eyes light up with delight reminds me why we are building these projects in the first place. The infrastructure projects we are building are for future generations to benefit from. Answering their questions — which always include, "But why?" — helps instill that needed sense of purpose, especially on the really challenging workdays.

Another aspect of this initiative that I feel strongly passionate about, is sharing this career opportunity with all the students — not just the boys that have previously been the target audience for construction career planning. When I walk into a classroom in full shotcreter PPE (rain gear, hard hat, full or half face respirator, thick gloves) and then remove the respirator so they can see me, I inevitably get a gasp


*Fig. 2: At The Mighty Quinn's 1st hole through for the LOT Project*


*Fig. 3: Maria Chastka on site*

and comments like, “But you’re a girl!” I hope that being able to explain all of the different opportunities I have had in my career, despite being ‘just a girl’, allows those students who didn’t consider themselves capable of something similar to reevaluate that notion.

As these initiatives with schools, professors, and students gain momentum, I believe we also need to promote and target the trades. Sharing the opportunities available to everyone, not just college graduates, is a key component to the tunneling industry’s success. While visiting elementary and high schools, we need to share information about trade schools and union training opportunities. The financial stability available for trade employees rivals and in many cases surpasses new college graduates, depending on their degree. Trade schools and unions offer training programs to provide a springboard into the workforce. There are also scholarship opportunities for trade schools, and some high schools now have co-op programs with local trades to learn while still in school.

Overall, the tunneling industry has a surplus of career opportunities, and projects will continue to need new generations of employees to succeed. The request I have for all of my colleagues is to find their replacement: Try to teach and mentor, but at the very least, hire prospective candidates to take your role at some point in the future. If we can all approach the workforce shortage with this mentality, I believe we have a chance of improving our odds of success.

## REFERENCES


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***Maria Chastka*** *has worked in the Mining and/or Underground Construction industry since 2001. Projects include small heading drill and blast, roadheader, SEM, NATM, and large scale TBM infrastructure projects around the US. She is currently a Project Engineer for Granite Construction on the Lower Olentangy Tunnel (LOT) Project in Columbus, Ohio. Her first experience working with shotcrete was on the Dulles International Airport (IAD) East/West Automated People Mover (APM) project with Atkinson Construction in 2005. Since then, she has worked on various projects throughout the US, getting her shotcreter certification in 2020 on the Newell Creek Dam Inlet/Outlet Project with Obayashi. She is passionate about growing the tunneling industry and encourages hands-on learning opportunities whenever possible. She is the Tunnel Tour Lead for UCA’s Women In Tunneling (WIT) and Co-Chair for UCA’s Cutting Edge Conference, as well as a member of the US-ITA’s Working Group 12 - Sprayed Concrete Use.*