

ELECTRO WIRE™

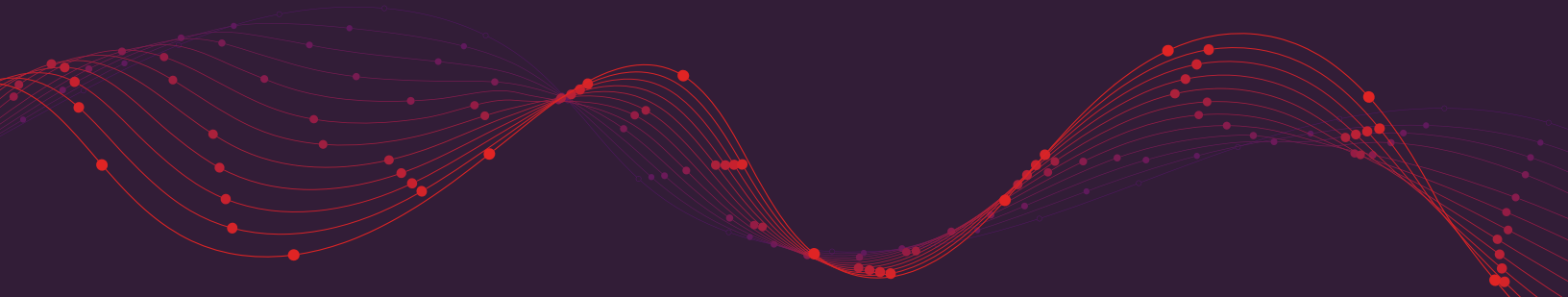
TELECOM SOLUTIONS

A GCG COMPANY



SKILLED LABOR SHORTAGE

The bottleneck in telecom expansion



As America races to modernize its telecom networks and wireless infrastructure, one constraint is impossible to ignore: a deepening shortage of skilled labor. Whether laying fiber, installing 5G radios or completing aerial make-ready work, the industry faces a capacity crisis threatening project timelines, budgets and quality standards.

Within this challenge lies opportunity. Product innovation, automation and smarter network design aren't just performance enhancers anymore – they're strategic imperatives for scaling deployments amid workforce constraints.

The numbers tell the story

Current labor shortage in US telecom

200K

fiber optic techs needed over the next five years²



86% of executives name skilled workers as their primary industry challenge¹



60% of fiber technicians are nearing retirement age²



Sources:

1. Veriforce. "The Top 2 Telecom Challenges: Skilled Workforce Availability and Network Quality and Reliability."

2. RCR Wireless. "A Shrinking and Aging Workforce: The Problem Facing Broadband in the US." June 2024.



A workforce gap with strategic consequences

The telecom labor shortage has reached critical mass. With programs like **BEAD**, **RDOF** and federal infrastructure investments (“**One Big Beautiful Bill**”) injecting tens of billions into new builds, demand for labor is rising exponentially. Yet the available workforce isn’t keeping up.

In-demand roles that are increasingly scarce:

- OSP fiber splicers for underground and aerial deployments
- Tower technicians certified for 5G, small cell and microwave installs
- Utility linemen capable of pole transfers and make-ready work
- Project managers experienced in multi-phase, multi-vendor rollouts

The ripple effect across the value chain:

- Delays in project mobilization
- Higher bid and labor costs
- Increased reliance on subcontractors, sometimes sacrificing quality and consistency

This labor gap is no longer just an operational hurdle — it’s a strategic threat to achieving nationwide telecom goals on time and on budget.

The *Fiber Broadband Association* predicts 200,000+ technicians will be required nationwide over the next five years.

Training pipelines are misaligned and underpowered

While training institutions, unions and workforce development boards are stepping up, development itself remains too slow to meet demand. Traditional training models take too long and often fail to align with real-world technologies used in modern telecom deployments.

What's needed now:

- Accelerated training programs focused on hands-on learning for fiber splicing, RF installs and structured cabling
- Cross-discipline upskilling so existing workers can shift roles as demand shifts
- Curriculum modernization including GIS tools, remote diagnostics, safety protocols and AI-enhanced planning platforms

Without bold workforce development reform, the labor gap will widen regardless of funding levels or policy support.






Retention is as urgent as recruitment

Even when skilled workers are hired, keeping them presents another major challenge. Physical demands, long hours, travel fatigue, safety risks and aggressive recruiting by competitors drive high turnover rates.

Leading contractors are responding with:

- Safety-first culture and nationally recognized certifications (NWSA, OSHA 30)
- Clear advancement paths for long-term career opportunities
- Retention bonuses and performance-based incentives rewarding reliability and quality
- Better work-life balance through flexible scheduling and local project assignments
- Choosing partners that offer value-added services

Reducing turnover preserves institutional knowledge, strengthens crew cohesion and cuts costly rework.



43%

Industry note

Telecom attrition **declined to 43%** in FY24, though younger workers continue leaving jobs faster than previous generations.

Product innovation as a force multiplier

While the labor shortage is a human capital issue, the solution increasingly lies in technology and product innovation. By reducing field labor hours and simplifying installation tasks, smart products allow smaller crews to deliver more output with fewer errors.

High-impact innovations include:

- **Pre-terminated fiber assemblies:** Eliminating field splicing needs, speeding installations and improving consistency
- **Pre-configured and kitted solutions:** Network cabinets, pole kits and service drops arrive fully assembled and labeled, ready for immediate installation
- **AI and GIS-based design tools:** Accelerating permitting, route optimization and materials planning with fewer engineering hours
- **Remote diagnostics and cloud monitoring:** Enabling crews to troubleshoot remotely, reducing truck rolls and site revisits

These tools reduce reliance on scarce skilled labor while improving first-time-right performance, boosting deployment velocity and lowering total cost of ownership.

A new model for scalable execution

To bridge the labor gap, telecom stakeholders must evolve from traditional build-and-hire models to a hybrid approach driven by smarter systems, leaner field operations and strategic partnerships.

The new model includes:

- **Modular deployment strategies:** Breaking builds into repeatable, standardized components
- **Collaborative supplier networks:** Working with manufacturers and distributors to deliver labor-saving innovations, not just materials
- **Integrated training and product rollouts:** Equipping crews to use new tools and technologies as they're deployed
- **Digital workflows and real-time reporting:** Replacing paperwork with mobile-friendly platforms that enhance accountability and reduce administrative overhead

Build smarter, not just faster

The skilled labor shortage isn't disappearing and throwing money at the problem isn't enough. The future of telecom networking expansion belongs to those who can build smarter, not just faster.

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Success requires:

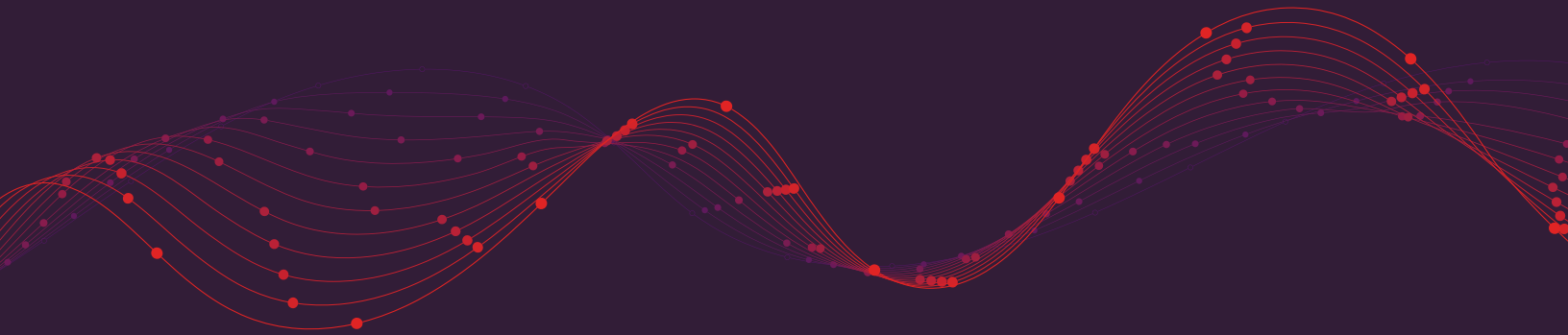
- Rethinking workforce development with urgency and creativity
- Investing in tools and technologies that reduce labor intensity
- Treating product innovation as a strategic enabler, not a luxury
- Creating environments in which talent wants to stay and grow
- Working with partners that support your goals

As funding flows and demand climbs, the winners will be those who treat the labor shortage not as a bottleneck, but as a catalyst for transformation.

The path forward with Electro Wire Telecom Solutions

At Electro Wire Telecom Solutions, we believe the future of networking isn't just about building faster — it's about building smarter. By combining accelerated workforce development with innovative, labor-saving products and streamlined deployment strategies, the industry can overcome the workforce gap and deliver networks that meet the nation's digital needs.

We're committed to enabling scalable, efficient builds that reduce field labor demands without compromising quality. As your strategic partner, we're ready to help you navigate the labor landscape with smarter systems, stronger supply chains and the tools to keep crews productive, safe and satisfied.



Let's turn the labor bottleneck into a blueprint for smarter telecom expansion

Get in touch with an Electro Wire Telecom Solutions expert.
Call [\(877\) 424-9473](tel:877-424-9473) or visit electrowire.com

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