



UPPER INDUSTRY REPORT • TELECOMMUNICATIONS

The Telecommunications Talent Market in 2026.

How AI-accelerated sourcing fills network, field, and technical roles for build-out and operations — a field guide for telecom talent teams.

EDITION

H2 2026

READING TIME

10 minutes

SOURCES

8 cited (2024–2026)

PUBLISHED BY

UPPER

KEY FINDINGS

178,000

combined new + replacement worker gap facing U.S. broadband construction and technician roles over the next decade.¹

17%

of the telecom workforce is 55–64 — more than double the 7% share in the 1970s.¹

\$734B+

invested cumulatively by U.S. wireless carriers, funding 447,605 operational cell sites that all need crews.⁴

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of the decade's projected worker need is retirement replacement, not net-new growth.¹

\$42.5B

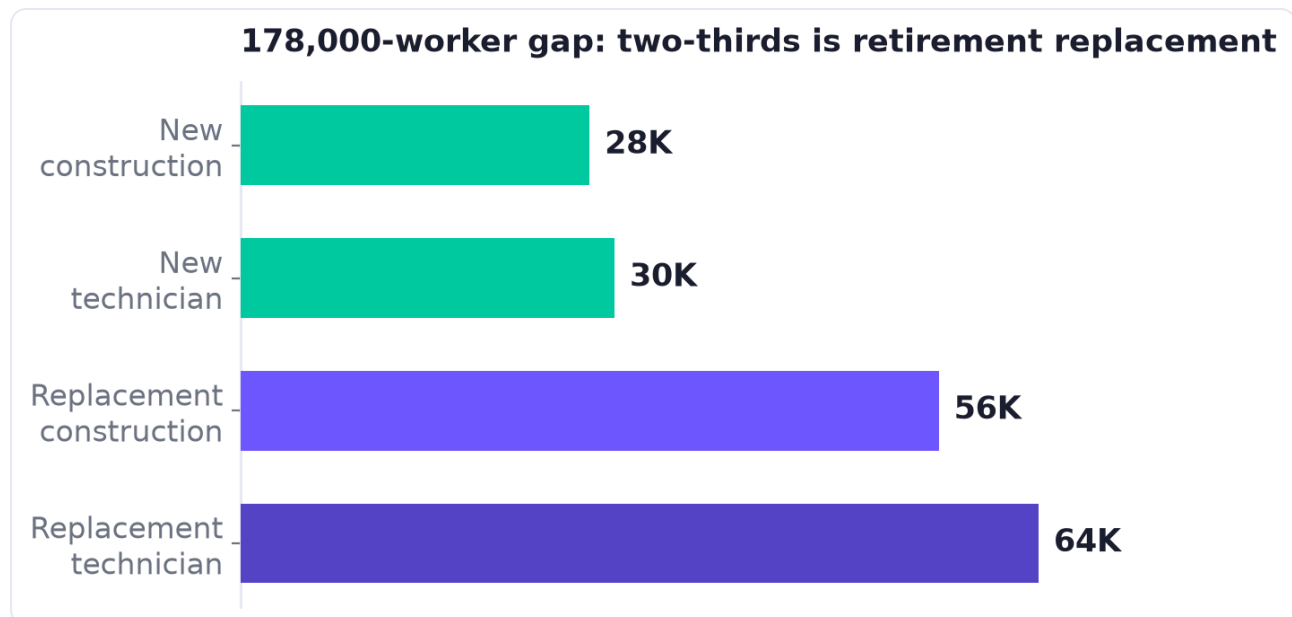
BEAD program budget; 41 states plus D.C. have flagged workforce availability as a deployment risk.¹

01 — The Gap

How big is telecom's workforce shortfall?

The U.S. broadband build-out faces a combined 178,000-worker gap over the next decade.

A Pew-published analysis by Continuum Capital for the Fiber Broadband Association and PCCA estimates the U.S. will need **58,000 new** broadband construction and technician workers — 28,000 in construction and 30,000 in technician roles — plus another **120,000 replacement** workers (56,000 construction, 64,000 technician) over the next decade.¹ That's a combined gap of roughly **178,000 workers** against a backdrop of a **\$42.5 billion** federal BEAD program, where **41 states plus D.C.** have already flagged workforce availability as a deployment risk.¹



Source: Continuum Capital study for Fiber Broadband Association / PCCA, via Pew, October 2025.

The timeline pressure compounds the shortage: training a qualified technician takes **12–24 months**, while BEAD's deployment window runs just **2025–2032**, and Capital Projects Fund (CPF) dollars must be expended by the end of 2026.¹ There isn't enough runway to train the entire gap away — employers have to source experienced and transferable-skill talent now.

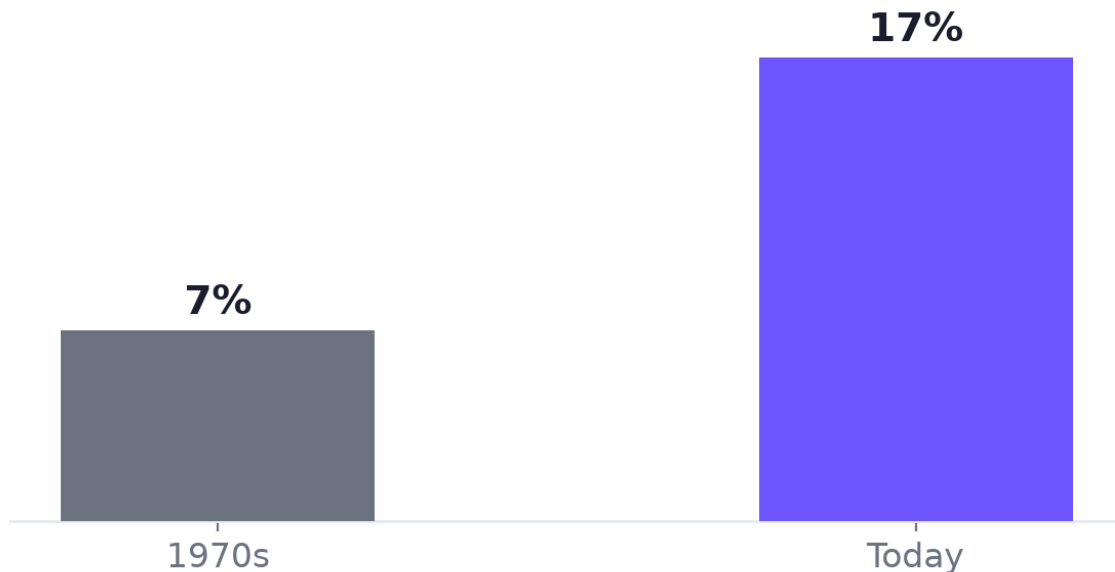
02 – The Aging Workforce

Why is telecom's talent pool shrinking from the top down?

The share of telecom workers 55–64 has more than doubled since the 1970s.

17% of telecom workers today are 55–64, compared with just **7%** in the 1970s, and the share of workers 65 and older has tripled.¹ A 2022 GAO estimate put the fixed-broadband workforce at **477,700** and mobile-broadband workers at **88,600** — a base that's aging faster than it's being replenished.¹ Roughly two-thirds of the decade's total worker need — 120,000 of the 178,000-worker gap — is retirement replacement rather than growth.¹

Share of telecom workers aged 55-64 has more than doubled



Source: U.S. Government Accountability Office data, via Pew, October 2025.

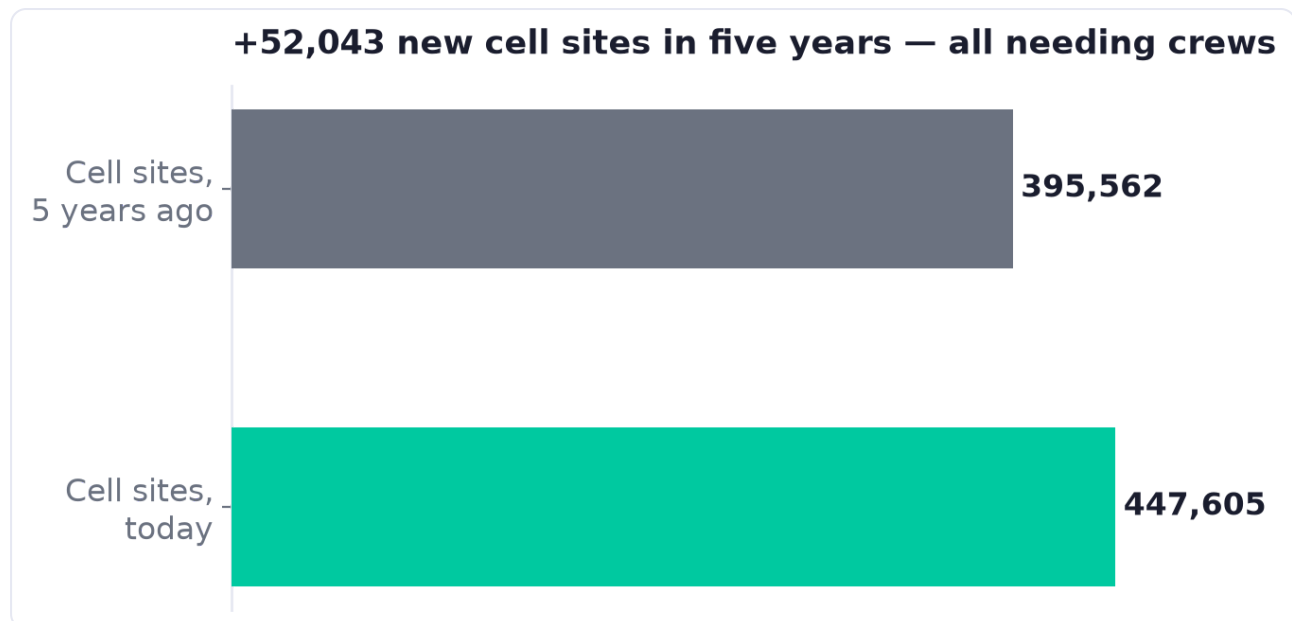
Compounding the pipeline problem, union representation in telecom fell from **26%** in 2000 to **11%** in 2024 — eroding the apprenticeship structures that historically fed new workers into the trade.¹

03 – The Build-Out

How much infrastructure does this workforce actually need to staff?

U.S. wireless carriers have built out **\$734B+** in cumulative infrastructure — and it all needs crews to install, maintain, and expand it.

U.S. wireless carriers have invested more than **\$734 billion** cumulatively, including **\$30 billion in 2024 alone**, building out to **447,605 operational cell sites** — an increase of **52,043 sites** in just five years.² BLS counts roughly **91,770** telecom equipment installers/repairers, **60,030** line installers/repairers, and **13,950** electronics engineers within the telecom NAICS classification — a workforce that has to grow in step with the infrastructure buildout.³



Source: CTIA 2025 Annual Wireless Industry Survey.

Line installer median wage sits at **\$64,640/year**, with equipment installers earning roughly **\$33.79/hour** and line installers **\$39.45/hour** — solid wages that still haven't grown meaningfully faster than the broader economy for the top five broadband occupations between 2010 and 2021.^{6,1}

04 – The Credentialing Gap

Why is it so hard to verify telecom candidates?

There's still no uniform credentialing standard for telecom job titles — making candidate comparison difficult.

A gap identified by GAO in 2020 remains unresolved as of 2025: there is **no uniform credentialing standard** across the industry for broadband and telecom job titles, meaning candidates trained at different programs or on-the-job pathways are difficult to compare on paper.¹ Roughly **10–15%** of telecom workers already travel **200+ miles** for rural fiber and tower work, adding a geographic-matching problem on top of the credentialing one.¹

"Telecom doesn't have a talent-pool problem so much as a talent-visibility problem — the workers exist, but there's no common language to find and compare them."

05 — The Playbook

What should a telecom talent team do about it?

Five moves separate the telecom employers that will staff the BEAD-era build-out on schedule:

- 1. Normalize certifications into one taxonomy.** AI-assisted sourcing can parse and standardize fragmented credentials across different training backgrounds.
- 2. Source geography-aware, not just keyword-aware.** Map candidate location and travel willingness against project sites to close the mismatch between talent and BEAD-funded work.
- 3. Build succession benches ahead of retirements.** With two-thirds of the gap being replacement, not growth, source successors before the vacancy opens.
- 4. Widen the aperture to adjacent trades.** Electricians, cable installers, and military communications veterans bring transferable skills that traditional sourcing overlooks.
- 5. Move faster than the training pipeline.** With training taking 12-24 months against multi-year federal deadlines, sourcing experienced talent now closes gaps a training pipeline can't close in time.

This is precisely the model UPPER was built to run: autonomous, compliant, multi-channel sourcing that normalizes credentials and reaches geographically dispersed field talent in one loop — so telecom employers can staff build-out deadlines that don't move.

Sources

1. [Pew Charitable Trusts — Demand for Broadband Workforce Expected to Rise, October 2025](#)
2. [CTIA — 2025 Annual Wireless Industry Survey](#)
3. [U.S. Bureau of Labor Statistics — Telecommunications Industry \(NAICS 517\)](#)
4. [CTIA — Cumulative Wireless Carrier Investment Data, 2025](#)
5. [Redline Group — RF/Microwave Skills Gap \(UK context\)](#)
6. [Cabling Installation & Maintenance \(citing BLS\) — Telecom Technician Pay Data](#)

This report synthesizes third-party research current as of July 2026; figures are attributed to their original sources above. The UK RF/microwave skills-gap reference is included as an illustrative international parallel, not a direct U.S. statistic. Some forward projections are inherently uncertain. UPPER edition H2 2026 — refreshed semiannually.