

INDUSTRY WHITEPAPER

The Definitive Guide to Welding & Fabrication

Practical strategy for hiring, verifying, and retaining welders and fabricators — for commercial contractors competing for a certified, credential-scarce workforce.

I've watched too many good shops lose bids over an empty seat, not a bad one.

I'm Michael Carter, President of My Trade Talent. Before recruiting was the job, I spent years on the other side of this problem — trying to staff structural and pipe scopes against a bid deadline with a candidate pool that looked bigger on a job board than it actually was.

What I learned is that welding and fabrication hiring rarely fails because there aren't enough people applying. It fails because the process can't tell a genuinely certified, production-ready welder from someone who's good at describing themselves as one — until the first bad weld shows up on an inspection report.

This guide is the playbook I wish I'd had: what the labor market actually looks like right now, the ten roles that matter most, and a hiring process built around verification instead of hope. I hope it's useful whether or not you ever work with us.

The five things to take away if you read nothing else.

- **This is a replacement-driven market, not a growth market.** BLS projects only +2% growth through 2034, but that still means an estimated 45,600 openings a year — mostly retirements and trade transfers, not new demand.
- **Certification is process- and position-specific.** "AWS certified" on a resume tells you almost nothing until you verify which process, which position, and whether it's still active.
- **Pay varies by roughly \$30,000 depending on state** — Hawaii's welder median sits near \$76,970 versus West Virginia's roughly \$47,000, per BLS OEWS.
- **The combo welder — cross-trained structural and pipe — is the most in-demand generalist** on our desk, and the hardest to keep on the market once found.
- **A flat-rate, standing pipeline outperforms reactive contingency hiring** in a market where replacement demand is constant, not seasonal.

INTRODUCTION

Welding and fabrication hiring has a verification problem, not a headcount problem.

Every commercial fabrication shop and pipeline contractor we talk to describes the same frustration: postings get plenty of applicants, but few of them are actually qualified for the specific joint, process, and position the job requires. That gap — between "says they can weld" and "certified for this exact scope" — is where most reactive hiring fails.

This guide lays out what the labor market actually looks like for welders and fabricators right now, the ten roles commercial contractors recruit for most, and a practical framework for hiring that doesn't rely on resume keywords.

457,300 welders, cutters, solderers, and brazers were employed nationally as of 2024, per BLS employment projections (the 2024–34 projection cycle is the current standing BLS estimate for employment and outlook).

2% growth projected 2024–2034 — slower than average, but still generating an estimated **45,600 openings per year**, mostly from retirements and workers transferring out of the trade (BLS Occupational Outlook Handbook).

In other words: this isn't a shrinking trade running out of demand. It's a trade where replacement is happening faster than the pipeline is filling — exactly the kind of market where a reactive, post-and-pray hiring approach falls behind.

Where the work — and the pay — actually is

The national median for welders is \$53,750 a year (\$24.84/hour), per BLS OEWS data for May 2025 — the most current release. Wages still vary sharply by state: the most recent state-level breakdown put medians as low as roughly \$47,000 in West Virginia and as high as roughly \$77,000 in Hawaii, driven by cost of living, industrial mix, and local demand. Texas employs the most welders of any state (52,820), followed by California (28,300), Ohio (19,750), and Wisconsin (17,440) — a footprint that tracks closely with where heavy industrial, energy, and manufacturing work is concentrated.

A resume can't tell you what a welder is actually certified to do.

Welding certifications are process- and position-specific. A welder certified on flat-position structural plate isn't automatically certified for 6G pipe, and a shop-only combo welder isn't automatically qualified for field structural erection. The American Welding Society (AWS) runs four distinct professional certification tiers:

- **Certified Welder (CW)** — tests welders on real procedures used in structural steel, petroleum pipeline, sheet metal, and chemical refinery welding.
- **Certified Welding Inspector (CWI)** — hands-on inspection of welds and compliance with code, not a welding certification itself.
- **Certified Welding Supervisor (CWS)** — demonstrates the skills and training to lead a welding crew productively.
- **Senior Certified Welding Inspector (SCWI)** — the highest inspection-side credential AWS offers, industry-wide recognized.

The practical problem: job boards surface resumes, not verified credentials. A candidate can list "AWS certified" without a hiring manager having any efficient way to confirm the process, position, or whether the certification is still active. Verifying it means going back to AWS directly — a step most reactive hiring processes skip under time pressure, and exactly the step that separates a good hire from an expensive mistake.

WHAT THE JOB ACTUALLY INVOLVES

Beyond the torch: what O*NET data says the role really requires.

O*NET (the Department of Labor's companion database to BLS) breaks the role down by actual equipment and core skills — useful for writing a job posting that filters for reality, not just a job title:

Equipment & tools

- Shielded metal arc (SMAW) and gas metal arc (GMAW) welders
- Cutting torches, power grinders, straightening presses
- Hoists and cranes for positioning heavy material

Core skills

- Monitoring/assessing own and crew performance for corrective action
- Quality control analysis — inspecting product against spec
- Knowledge of production/processing and mechanical systems

THE 10 ROLES

The positions commercial welding and fabrication contractors recruit for most.

Each of these has its own certification requirements, comp range, and time-to-fill. A full wage breakdown is in the companion Salary Guide.

ROLE	WHAT THEY DO
Structural Welder	MIG/TIG/stick welding on structural steel and platework
Pipe / Pipeline Welder	Pressure-pipe and pipeline code welding
Combo Welder	Cross-trained structural + pipe — the most in-demand generalist
Certified Welding Inspector (CWI)	AWS-certified quality control and code inspection
Fabrication Shop Foreman	Runs the shop floor, crew scheduling
Structural Ironworker / Erector	Field erection of fabricated steel
Robotic / Automated Welding Technician	Programs and tends robotic welding cells
Welding Engineer	Procedure specs; WPS/PQR qualification
Fabrication Project Manager	Bid-to-build oversight on structural/piping jobs
Estimator	Takeoffs and bid pricing for fabrication scopes

Screen for verified credentials before you screen for anything else.

- **Verify directly with AWS.** Don't take "AWS certified" at face value — confirm process, position, and active status before an interview, not after an offer.
- **Match the certification to the actual scope.** A candidate certified for flat structural plate is not qualified for 6G pipe just because they're "a welder."
- **Ask about production experience, not testing experience.** Passing a certification test and holding a steady bead in production for eight hours are different skills.
- **Build a pipeline before you need it.** With replacement-driven demand, waiting until a seat opens puts you behind contractors who already have a warm bench.

A full interview framework — including specific questions by role — is in the companion Interview Guide.

WHY FLAT-RATE

Contingency fees are a tax on urgency. A retainer is a tax on nothing.

Most staffing agencies work on contingency — a percentage fee, often 20-25% of first-year salary, paid only when a hire lands. That model incentivizes speed over fit, and gives the agency no reason to build a durable pipeline for you.

My Trade Talent works on a flat monthly retainer instead:

- We're incentivized to build a standing, credential-verified pipeline — not just fill one seat and move on.
- Your cost doesn't spike with three open seats and doesn't disappear with zero — it's predictable.
- We stay accountable for fit over time, not just for a signed offer letter.

If open welding and fabrication seats are costing you production capacity every week they sit empty, a standing pipeline is worth evaluating against what you're doing today.

An open seat doesn't just sit empty — it moves work onto everyone else.

In a shop or field crew, a vacant welding seat rarely shows up as a clean, isolated loss. It shows up as overtime on the welders you already have, as a foreman pulled off supervision to fill a torch, or as a bid you don't submit because you can't staff the scope with confidence. None of that is captured by "one open req" on a whiteboard.

With replacement-driven demand running at an estimated 45,600 openings a year nationally, this isn't a one-time gap to fill and forget — it's a standing condition of the trade. Contractors who treat every vacancy as an emergency, one at a time, are working against a labor market that produces vacancies continuously.

Use our free **Cost of Vacancy Calculator** at mytradetalent.com/cost-of-vacancy to model what a specific open seat is costing your shop in overtime, coverage, and lost margin — by role and days vacant.

Certified welders have options. What are they actually screening for?

In a scarce-credential market, the hiring conversation runs both directions. Contractors who win the best candidates on their shortlist tend to be specific and honest about a handful of things candidates in this trade consistently ask about:

- **Equipment and process.** Welders want to know what they'll actually be running — SMAW, GMAW, robotic cells — and whether the shop invests in maintaining it.
- **Safety record, not safety slogans.** A specific answer about incident history and PPE enforcement lands better than a poster on the wall.
- **Overtime policy and schedule predictability.** Field welders in particular weigh per diem, travel expectations, and how mandatory overtime actually gets handled — not just the base rate.
- **A real path from Certified Welder toward CWI, CWS, or a supervisory role.** Contractors who can describe that path specifically — not vaguely — retain longer.

None of this replaces competitive pay. But at parity, the shop that answers these questions specifically wins the candidate the vaguer competitor loses.

RETENTION

The certification path that gets someone hired is also what keeps them.

Because AWS credentials (Certified Welder → CWS → CWI → SCWI) are individually held, portable, and career-defining, they double as a retention lever most contractors underuse. A welder who sees a concrete, funded path toward CWI — inspection work, better hours, less physical wear — has a real reason to stay rather than shop their resume every time a competitor posts a higher hourly rate.

Scheduling predictability matters just as much in a trade where a lot of the work is field-based and travel-heavy. Crews that know their rotation two weeks out, with clear per diem and overtime rules, report meaningfully less turnover than crews managed job-to-job with no visibility.

BUILDING THE PIPELINE

What "credential-verified pipeline" actually means, operationally.

A standing pipeline isn't a bigger applicant pool — it's a smaller, pre-vetted one, maintained continuously instead of assembled under deadline. In practice, that means:

- Certifications are confirmed with AWS directly, before a candidate ever reaches your desk — not after an offer is extended.
- Candidates are tagged by actual production experience (process, position, code) rather than self-reported skill level.
- The pipeline stays warm between openings, so a seat filling today doesn't leave you starting from zero when the next one opens — which, in this trade, it will.

Four questions worth asking any recruiter before you sign with them.

- **"How do you verify a welding certification?"** If the answer doesn't mention contacting AWS directly, the candidates you're seeing haven't been verified — just represented.
- **"What happens to the pipeline if I don't have an open seat this month?"** Contingency recruiters have no incentive to maintain one. Ask what stays warm between placements.
- **"What's your fee structure if a placement doesn't work out in the first 90 days?"** Get this in writing before you need it, not after.
- **"Do you specialize in this trade, or is welding one of a dozen categories you cover?"** Specificity in the answer usually tracks with specificity in the candidates.

FINAL WORD

The market isn't going to get easier. The process can.

Replacement-driven demand means the welding and fabrication labor market isn't a temporary crunch to wait out — it's the standing condition for the foreseeable future. The contractors who adapt their hiring process now, around verification and a maintained pipeline rather than reactive posting, will simply spend less time and money on this problem than the ones who don't.

A flat-rate recruiting partner built for commercial trades.

My Trade Talent recruits for commercial trades contractors nationally on a flat monthly retainer — no per-hire contingency fee, no incentive to rush a placement that doesn't fit. We maintain live, credential-verified candidate pipelines across welding and fabrication and nine other commercial trades verticals.

Get in touch: mytradetalent.com · (314) 886-7975 · staffing@abstraktmg.com

The pipeline runs through technical schools, apprenticeships, and the military — not four-year degrees.

Unlike a lot of the roles commercial contractors compete for, welding and fabrication talent overwhelmingly enters through career and technical education (CTE) programs, community-college welding technology programs, employer-sponsored apprenticeships, and military welding training (the Navy, Army, and Air Force all run welding MOS/rating pipelines that translate directly to civilian structural and pipe work).

That matters for sourcing: job boards built around white-collar resume conventions aren't where this candidate pool lives. Relationships with regional CTE programs and welding technology instructors, and outreach built around military transition timelines, consistently surface stronger candidates than a generic posting.

Welding demand tracks heavy industry, not population.

The four states with the highest welder employment — Texas (52,820), California (28,300), Ohio (19,750), and Wisconsin (17,440), per BLS — aren't simply the four biggest states. They're where heavy industrial, energy, and manufacturing work concentrates: Gulf Coast petrochemical and pipeline in Texas, aerospace and advanced manufacturing in California, and durable-goods manufacturing across the Ohio/Wisconsin industrial corridor.

Contractors operating in or near these corridors are competing directly with industrial and energy employers for the same certified pipe and structural welders — which is exactly where a maintained, verified pipeline matters most.



Every hire from zero is a *tax* on your team.

My Trade Talent maintains a live, credential-verified pipeline of welders and fabricators on a flat monthly retainer — so open seats fill with qualified people, not guesses.

Schedule a Discovery Call

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