

Bring Back the Trades: The Case for Skilled Work in America



Introduction

Across the country, a quiet crisis has been building for decades. While millions of young people were pushed toward the four-year college path, the trades — the people who build our homes, wire our buildings, fix our cars, and keep the lights on — were left behind. Today, that gap has become impossible to ignore. This report lays out why skilled trades matter more than ever, what's driving the shortage, and the real opportunities — including scholarships and paid training — available to anyone ready to find a trade and a passion.

The Worker Shortage Is Real

For years, "Help Wanted" signs have become a permanent fixture on Main Street. Skilled trades are aging out faster than they're being replaced. Many electricians, plumbers, welders, and machinists working today are approaching retirement, and far fewer young workers are entering to take their place. At the same time, demand keeps climbing — new housing construction, aging infrastructure, the expansion of the power grid, and a boom in manufacturing all require skilled hands. The result is a widening gap between the workers needed and the workers available.

The numbers back this up. The Associated Builders and Contractors estimates the U.S. construction industry alone faces a shortage of roughly 350,000 workers this year, and the National Center for Construction Education and Research expects a shortfall of more than 1 million construction workers by 2030 as experienced tradespeople retire. Mike Rowe has put an even sharper point on the defense side of the problem: speaking with Fox News host Laura Ingraham, he said the Pentagon needs 400,000 welders and electricians just for submarine contracts over the next seven to eight years — and that the military is now competing for the same pool of workers as Silicon Valley. "It's mind-boggling," Rowe said, "and they're all competing for your kid."

That competition isn't limited to defense contractors. Every new AI data center also needs electricians to install high-voltage systems, HVAC technicians to build cooling systems, and welders and steelworkers to construct the facility itself. As Rowe put it: "If the Defense Department needs it, we need it. They're all looking to hire the same young person who wants to learn a skill that's in demand."

How We Got Here

Starting in the 1990s and 2000s, many high schools scaled back or eliminated shop classes and vocational programs, redirecting almost all guidance toward four-year degrees. An entire generation grew up hearing "college is the only path to success." The unintended consequence: fewer plumbers, fewer electricians, fewer welders — and a labor market that can no longer keep pace with demand.

Why the Trades Deserve a Second Look

The trades offer something a traditional degree often can't: a fast, affordable path to real income and real skill.

- **Earn while you learn.** Most trade training happens through paid apprenticeships. Instead of paying tuition and taking on debt, you're earning a paycheck from day one while learning directly from experienced professionals.
- **Lower cost, faster start.** Trade programs typically take months to two years, compared to four (or more) for a college degree — with a fraction of the debt.
- **Strong, steady demand.** Skilled trades are difficult to automate or outsource. A plumber, electrician, or HVAC technician is needed locally, every time.
- **Room to grow.** Many tradespeople go on to run their own businesses, supervise crews, or specialize in high-paying niches like industrial electrical work or advanced welding.
- **No boxing you in.** The trades cover enormous ground — plumbing, electrical, carpentry, welding, HVAC, masonry, machining, culinary arts, farming, auto repair, and more. There's a fit for nearly every interest and skill set.

It's Never Too Late

One of the most powerful truths about the trades: age is not a barrier. People switch into skilled trades at 25, 35, and 55 all the time. Many apprenticeship and training programs are specifically built for career-changers, not just recent high school graduates. Whether you're just starting out or looking for a fresh direction, the trades welcome you at any stage of life.

A Major New Investment: BuildFreedom.US and \$10 Million from the Department of War

The push to rebuild America's trades workforce recently got a significant boost from the federal government. The Department of War is partnering with skilled trades advocate Mike Rowe to invest \$10 million in training Americans for hundreds of thousands of open, high-paying jobs in the defense sector.

The department formally launched the initiative, BuildFreedom.US, with a website detailing job openings and training resources for skilled tradespeople whose work supports defense-critical missions. The site is funded by the Pentagon's industrial base analysis and sustainment office and is designed to connect students, veterans, and young adults with what the department calls "AI-proof" careers, combining resources from government, industry, and educational institutions to address talent shortages across the defense industrial base.

The \$10 million announced at the launch event will directly fund the mikeroweWORKS Foundation Scholarship program, targeting critical talent shortages across the defense industrial base. It's part of a much larger commitment: a Pentagon spokesperson said at the launch that the department has "invested more than half a billion dollars specifically in workforce programs and initiatives specifically designed to close these gaps," adding that BuildFreedom.US "will continue to grow and continue to close these gaps."

"These jobs are in demand like never before, and they don't require a college degree, but they do require training and work ethic, and a desire to build something that truly matters," Rowe, CEO of the mikeroweWORKS Foundation, said in a promotional video shown during the launch. *"My foundation has the money to help you get the training you need."*

Under Secretary of War for Acquisition and Sustainment Mike Duffey, who presented the investment to Rowe, said: *“America’s strength has always been forged by people who build, manufacture and innovate. BuildFreedom.US will bridge talent with opportunity to build meaningful careers, ensuring our workforce is ready for the challenges of tomorrow.”*

Eight Trades. One Mission

BuildFreedom.US highlights eight trades that are in heavy demand right now and essential to America's defense industrial base. Each offers a different path — pick the one that fits the way you want to spend your days.

Trade	What You'll Do	Pay Range	Time to Start	Demand
Electrician	Wire ships, factories, and homes	\$40K – \$110K	48 mo	High
Welder	Build the steel backbone of America	\$33K – \$75K	9 mo	Very High
CNC Machinist	Machine the parts that defend America	\$34K – \$75K	12 mo	Very High
Shipbuilder	Build the Navy's fleet	\$32K – \$72K	18 mo	Critical
HVAC Technician	Keep the mission running	\$36K – \$84K	12 mo	High
Pipefitter	Run the pipe that runs the world	\$38K – \$108K	60 mo	Very High
Diesel Mechanic	Build what defends America	\$36K – \$80K	24 mo	High
Defense Technician	Move the mission. Sustain the fight.	\$42K – \$110K	24 mo	High

Get Paid to Learn a Six-Figure Trade

A registered apprenticeship is a real job from day one. You earn a paycheck while you train under journey-level pros, with structured classroom instruction on the side that's usually paid for by your employer or union. Most programs run two to five years, with raises every 6 to 12 months as your skills grow. When you've finished, you'll hold a credential recognized by the Department of Labor that works in all 50 states.

BuildFreedom.US curates registered apprenticeship programs across the defense industrial base, though it doesn't run the programs itself. Entry requirements, pay scales, and start dates are set by each sponsor.

Scholarships and Paths to Get Started

There are more ways than ever to get trained without taking on heavy debt:

- **Trade and technical school scholarships** — many community and technical colleges offer scholarships specifically for trade programs.
- **Union apprenticeships** — electrical, plumbing, and building trades unions often offer paid apprenticeships with little to no cost for training.
- **Employer-sponsored training** — many companies, especially in construction and manufacturing, pay for certification and training as part of the job.

- **Nonprofit and foundation scholarships** — organizations such as the Mike Rowe WORKS Foundation and the Home Builders Institute offer scholarships aimed at trade careers, now bolstered by a new \$10 million Department of War investment through the BuildFreedom.US initiative.
- **State workforce grants** — many states now fund short-term trade certifications through workforce development programs, especially in high-demand fields.
- **Federal financial aid** — Pell Grant eligibility has expanded in recent years to cover more short-term workforce training programs.

Because scholarship offerings and funding levels change often, it's worth checking current listings before applying.

Call to Action

The message is simple: opportunity is everywhere, and it's calling. Whether you're drawn to working with your hands, solving problems, building something real, or mastering a craft, there's a trade with your name on it. You can earn while you learn, avoid the debt trap, and step into work that's always in demand.

America is calling. It's time to bring back the trades.