



THE
FEARLESS
FACTORY

OHIO

OUR CHALLENGE:

America was built on a rich history of hard work. Today, however, workers lack the skills needed to fill the many trade jobs that are available.



FAST FACTS:

83%
SHORTAGE

**83% OF COMPANIES
REPORT A MODERATE TO
SERIOUS SHORTAGE OF
SKILLED WORKERS.**

600K
UNFILLED

**600,000 SKILLED JOBS
ARE CURRENTLY GOING
UNFILLED.**

**WORSE IN
3-5 YRS**

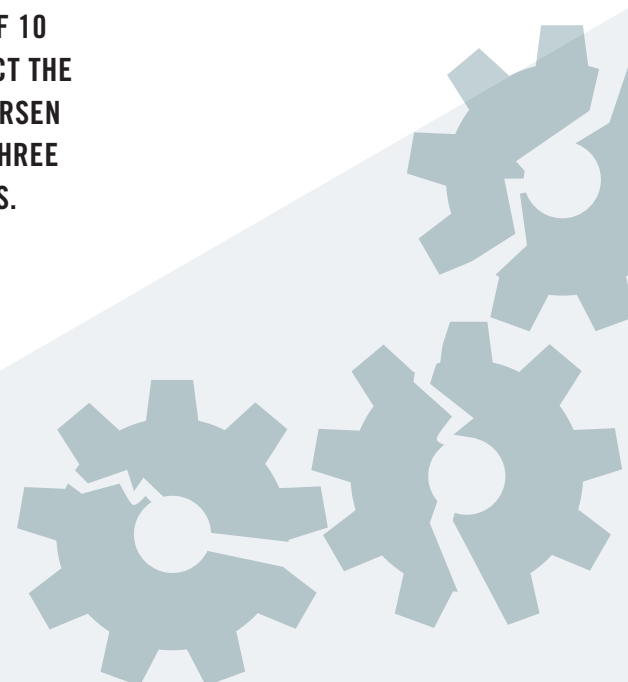
**NEARLY 7 OUT OF 10
EMPLOYERS EXPECT THE
SHORTAGE TO WORSEN
OVER THE NEXT THREE
TO FIVE YEARS.**

AMERICA FACES A MANUFACTURING CRISIS

Americans have earned their reputation as hardworking, industrious people. We take pride in our work, and in our ability to enrich the lives of our families and countrymen through that work. Ever since Samuel Slater built the first American textile factory in 1790, countless Americans have devoted their lives to making the world a better place through manufacturing.

While the manufacturing industry has long been a staple of America's economy and the backbone of hundreds of towns and communities, the country today faces a crisis in manufacturing the likes of which it has never experienced before. Approximately 1 million American manufacturing jobs are currently waiting to be filled by skilled workers, and as many as 10 million new skilled workers will be needed by 2020.

Simply put, firms across the country desperately need—but cannot find—employees trained in the technologies and trades necessary to work in their modern manufacturing operations. In order to develop new products and grow the current manufacturing base, America's industrial sector must enlist creative, talented professionals who are eager to put their knowledge of science, technology, engineering, and mathematics to work in manufacturing.





OUR

OPPORTUNITY:

We must foster the rebirth of America's superior manufacturing sector by leveraging the most entrepreneurial generation yet—our youth.

FAST FACTS:

AGE
56

**THE AVERAGE AGE OF
THE AMERICAN SKILLED
WORKER IS 56.**

LIKE:
48%

**48% OF 18- TO
24-YEAR-OLDS HAVE
EXPRESSED INTEREST
IN A MANUFACTURING
CAREER.**

\$77K
/YEAR

**THE AVERAGE TRADE
WORKER EARNS \$77,000
A YEAR—MORE THAN
THE AVERAGE COLLEGE
GRAD.**

THE PATH TO THE FUTURE

One of the primary reasons that there are so many manufacturing positions available today is that young Americans are not given the guidance (or encouragement) necessary to explore industrial and trade jobs as a viable career path. Only one in three parents encourage their children to work in a trade, so it should come as no surprise that 61 percent of 18- to 24-year-olds would prefer a professional career to a manufacturing career.

In addition, many young Americans have misconceptions about the modern manufacturing industry. Popular media and prevailing stereotypes have led them to believe that manufacturing is a dirty, backbreaking profession. Many are surprised to learn that manufacturing is in fact a thriving, technologically driven industry that's open to men and women of all backgrounds. Manufacturing and trade jobs pay generously, offer clean and comfortable working conditions, and provide a diverse array of career path opportunities.

How can we inspire innovative young Americans to reconsider the industrial arts as an exciting, cutting edge career path—and reinvigorate the country's industrial sector in the process? We must first show them that the field of manufacturing can be a relevant and enriching part of their lives, and then give them a unique space that encourages exploration, experimentation, and entrepreneurship.



OUR SOLUTION:

Our goal is to partner with the State of Ohio to create the Fearless Factory: a hub of manufacturing innovation in the heart of The Queen City—Cincinnati.

FAST FACTS:

57%
SUBPAR
SKILLS

**57% OF AMERICANS
SAY THEIR REPAIR
SKILLS ARE AVERAGE
OR BELOW.**

**JOBS
IN
DEMAND**

**THE MOST DIFFICULT
JOBS TO FILL INCLUDE
TECHNICIANS, SKILLED
TRADE WORKERS, AND
PRODUCTION OPERATORS.**

28%
GROWTH
AREA

**TRADE JOBS WILL GROW
AS MUCH AS 28% OVER
THE NEXT FIVE YEARS.**

ENTER THE FEARLESS FACTORY

The Fearless Factory will be a state-of-the-art manufacturing studio, learning lab, and makerspace designed to cultivate the leaders and innovators of America's next industrial revolution. At this cutting edge facility, passionate, action-oriented professionals will use the latest technology and proven, hands-on teaching methods to instruct learners in the industrial arts.

The key to the Fearless Factory's success will be the synthesis of the German and Georgian models. By offering longer-term apprenticeships alongside shorter-term training programs—both of which will be developed to fit specific industrial needs—the Fearless Factory will produce a workforce that is smart, adaptable, and capable of filling the many manufacturing jobs available throughout America.

The Fearless Factory is poised not only to solve America's manufacturing crisis, but also to drive growth as the heart of America's rejuvenated industrial sector. While the structured programs offered at the Fearless Factory will give young workers the skills they need to get to work, the facility's collaborative atmosphere and community-oriented workspace will nurture creative thought, innovative action, and the entrepreneurial spirit. It's just what America needs to step forward and resume its role as a global leader in manufacturing.

**THE
FEARLESS
FACTORY**



**THE FEARLESS FACTORY IS BROUGHT TO YOU BY THE FEARLESS PIONEERS,
A GROUP OF ACTION ORIENTED, RUGGEDLY ENTREPRENEURIAL PROFESSIONALS FROM
THE SURROUNDING REGION. THESE FEARLESS TRAILBLAZERS REPRESENT
A VARIETY OF INDUSTRIES AND BRING A WEALTH OF KNOWLEDGE AND EXPERTISE FROM
MORE THAN A CENTURY OF COMBINED EXPERIENCE IN THE INDUSTRIAL ARTS.
THE FEARLESS PIONEERS SHARE AN ALIGNED VISION, A THIRST FOR NEW FRONTIERS,
AND A RELENTLESS DRIVE TO SOLVE THE AMERICAN UNDEREMPLOYMENT CRISIS.
TO LEARN MORE, PLEASE VISIT WWW.WEWORKFEARLESS.COM.**

THE FEARLESS FACTORY PRESENTS:

America's MANUFACTURING CRISIS

A Shortage of Qualified Workers

83%

Serious
Shortage

■ 83% of companies report a moderate to serious shortage of skilled workers.

600K
Skilled Jobs
Unfilled

■ 600,000 skilled jobs are currently going unfilled. The most difficult jobs to fill include technicians, skilled trade workers, and production operators.

7/10
Expect Worse
Shortage

■ Nearly 7 out of 10 employers expect the shortage to worsen over the next three to five years.

A Growing Skills Gap

74%
Negative
Impact

■ 74% of companies say shortages in skilled machinists, operators, craft workers, distributors, and technicians have had a significant negative impact on expansion and productivity.

1 in 5
Filling the Gap

■ 1.5 million Americans are not fully proficient in their work, yet only one in five employers is concentrating on training and development to fill the skills gap.

Average
Below
Skills

■ 57% of Americans say their repair skills are average or below. Only 42% of employers believe new graduates are adequately prepared by their colleges or other pre-employment training programs.

An Underutilized Youth

■ Only 17% of young people view manufacturing as a top career choice.

■ Women comprise just 30% of the manufacturing workforce.



■ The average age of the American skilled worker is 56. By 2030, 77% of skilled baby boomers will have left the workforce.

■ 50% of the country's 17-year-olds are not qualified to work in a 21st century auto plant.

23%
Left in 2030

■ Exposure to engineering doubles teens' career interest.

Sources: BLS, BEA, Census, National Science Foundation, U.S. Department of Commerce, New America Foundation, National Association of Manufacturers, Manufacturing Institute, eMaint Maintenance Management Solutions, WorkBoots, Benchmark Learning, MathMovesU, Manufacturing Innovation Blog.

TO LEARN MORE ABOUT THE FEARLESS FACTORY, VISIT

www.WeWorkFearless.com

THE FEARLESS FACTORY

Overview: Individuals and organizations have been trying—but failing—to fix America's manufacturing crisis for more than 20 years. Previous efforts have not been successful because they have focused on the wrong problems. The Fearless Factory will provide accelerated knowledge, skills, and confidence to help mid-level manufacturing companies grow. Our approach is a systematic, state-of-the-art solution that touches every facet of business, from simple systems improvement to excellence training for today's business leaders. In short, the Fearless Factory will be an indispensable resource that solves the skills and talent gap in America—once and for all.

"Never doubt that a small group of thoughtful committed citizens can change the world; indeed, it's the only thing that ever has."

—Margaret Mead

Problem: America was built on a rich history of hard work. Today, however, workers lack the skills needed to fill the many trade jobs that are available.

- America today faces a crisis in manufacturing the likes of which it has never experienced before.
- Approximately 1 million American manufacturing jobs are currently waiting to be filled by skilled workers, and as many as 10 million new skilled workers will be needed by 2020.
- Firms across America desperately need—but cannot find—employees trained in the technologies and trades necessary to work in their modern manufacturing operations.
- In order to develop new products and grow the current manufacturing base, America's industrial sector must enlist creative, talented professionals who are eager to put their knowledge of science, technology, engineering, and mathematics to work in manufacturing.

Opportunity: We must foster the rebirth of America's superior manufacturing sector by leveraging the most entrepreneurial generation yet—our youth.

- One of the primary reasons that there are so many manufacturing positions available today is that young Americans are not given the guidance (or encouragement) necessary to explore industrial and trade jobs as a viable career path.
- In addition, many young Americans have misconceptions about the modern manufacturing industry.
- In order to inspire innovative young people to reconsider the industrial arts as an exciting, cutting edge career path and reinvigorate America's industrial sector in the process, we must show them that the field of manufacturing can be a relevant and enriching part of their lives and give them a unique space that encourages exploration, experimentation, and entrepreneurship.

Solution: Our goal is to create the Fearless Factory, a collaborative space that fosters innovation and addresses the needs of manufacturers from services to training.

- The Fearless Factory will be a state-of-the-art manufacturing studio, learning lab, and makerspace designed to cultivate the leaders and innovators of America's next industrial revolution.
- At this cutting edge facility, passionate, action-oriented professionals will use the latest technology and proven, hands-on teaching methods to instruct learners in the industrial arts.
- The key to the Fearless Factory's success will be the synthesis of the German and Georgian models.
- The Fearless Factory will produce a workforce that is smart, adaptable, and capable of filling the many manufacturing jobs available throughout America.

Our Goals: We want to STEM the tide and solve America's manufacturing crisis.

- Create a talent magnet state with a highly trained and skilled workforce that attracts and retains America's most innovative business leaders.
- Develop a model of excellence that can be replicated, state by state, revitalizing American manufacturing and the American middle class.
- Change the perception of the manufacturing sector among today's youth (with a heavy focus on the recruitment of women in the field of STEM).
- Impress the importance of the industrial arts to our economy and as an exciting and viable career path.

Outcome: The Fearless Factory will produce a number of quantifiable, real-world outcomes.

- More higher paying, skilled jobs created.
- More companies attracted to your state.
- Major sponsorships.
- Partnerships between local and national business and the state.
- Expansion through a replicable model.
- National recognition as a center of excellence and innovation.
- More students joining the STEM fields.

Who Is Behind the Fearless Factory?

The Fearless Factory is brought to you by the Fearless Pioneers, a group of action oriented, ruggedly entrepreneurial professionals from the surrounding region. These fearless trailblazers represent a variety of industries and bring a wealth of knowledge and expertise from more than a century of combined experience in the industrial arts. The Fearless Pioneers share an aligned vision, a thirst for new frontiers, and a relentless drive to solve the American underemployment crisis.

To learn more, visit us online at: www.WeWorkFearless.com