



Skills Gap

## How to Tackle 3 Factors at Play in the Manufacturing Skills Gap

Julie Sullivan | Oct 26, 2017

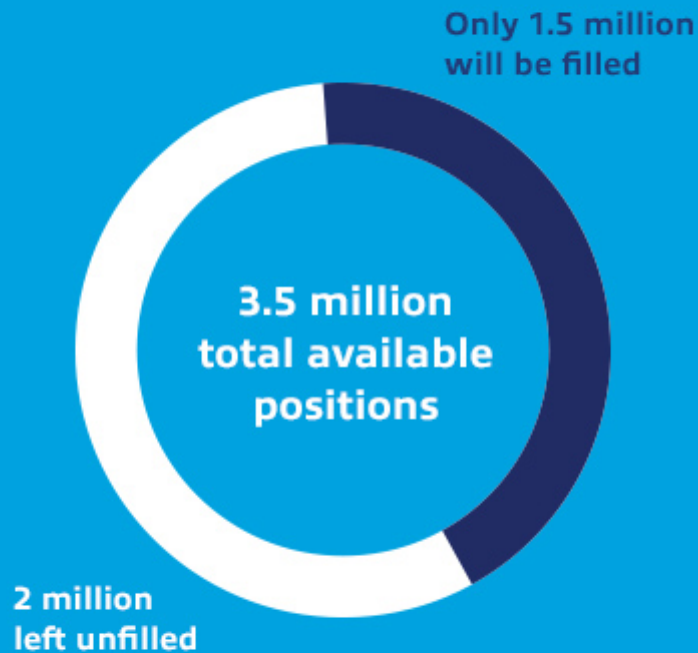
Do entry-level workers and students (regardless of gender and education) truly understand the opportunities in manufacturing? Let's explore how companies can help attract a future generation.

Most manufacturing businesses already struggle to hire skilled machinists when they have openings. Industry forecasts suggest that it will only get tougher.

In fact, *research* by Deloitte and The Manufacturing Institute shows that of an estimated 3.5 million total positions in manufacturing that will be available by 2025, only 1.5 million will be filled.

## Finding and Keeping Skilled Staff Will Continue To Be A Large Challenge

2 million manufacturing jobs are expected to be unfilled by 2025.



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Thought**

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With the advent of automation and ever-growing globalization, it might seem curious that so many jobs would go unfilled in the United States. But as an *Associated Press article* emphasizes, many of these manufacturing jobs (which have sustained the working class for nearly a century) no longer define the middle class—more and more of these hands-on jobs require education and special skills that have drawn potential workers away from factories and shops at high rates.

What can a business do to keep ahead of the skills gap? We delve into three reasons why this significant gap occurs and suggest how to mitigate them.

### Bringing Women into the Manufacturing Workforce Is a Challenge

The Manufacturing Institute attributes the skills gap in metalworking and machining professions to two major factors: the retirement of nearly 2.7 million baby boomers and economic expansion, leaving roughly 2 million jobs vacant. But in regard to why the gap is widening (and who can fill it in the

future), it helps to give context to the numbers.

For the most part, manufacturing employees are male. According to a *study* from Deloitte about women in manufacturing, only about 29 percent of manufacturing employees are female. However, women make up 47 percent of the total U.S. workforce.

Why aren't women working in manufacturing? A lack of awareness constitutes one major reason, according to Jennifer McNelly, former Manufacturing Institute executive director, in an interview with *Area Development*.

"People don't realize that modern manufacturing provides challenging, fulfilling and well-paying careers with opportunity for advancement," she says. "In this industry, you aren't stuck in one position. You are open to endless opportunities, whether you're interested in design, engineering or even marketing and business."

As McNelly stresses in the article, women could fill the skills gap entirely. "They are an untapped talent pool," she says.

To attract more female staff to manufacturing, the institute heads *STEP Ahead*—a program that helps to highlight the contributions of women in manufacturing, and helps illuminate new career and networking opportunities.

The institute has been hosting events and engaging with manufacturers to both provide training and to expand the hiring of women for manufacturing jobs.

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Matthew R. Rocco

President of the South Florida Manufacturers Association

## Advancements in Manufacturing Technology Are Leaving Workers Behind

Between *additive manufacturing*, *CNC machining* and other high-tech tools, the manufacturing industry is becoming progressively more tech-driven. Unfortunately, a sizable chunk of the associates entering the manufacturing workforce have not been trained to handle this newer equipment.

As the AP article suggests, the U.S. is behind other industrialized countries when it comes to operating tech-laden equipment on the shop floor. Several European and Asian countries now have manufacturing setups that let humans and robots work in tandem with one another.

U.S. manufacturers also lack apprenticeships, one common way that knowledge is transferred to new employees.

Augmented reality could be a viable option for solving the tech training issue, according to *The Brookings Institution*. AR-adapted glasses, using camera and photo recognition software, pair objects with relevant information on tiny screens. They could potentially replace the need for intensive hands-on training. As the article suggests, real-time information can direct associates to complete complex tasks, with utmost accuracy, in the moment.

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## **New Generation of Workers Unaware of the Opportunities**

As blue-collar hero **Mike Rowe** has repeated with gusto in recent years, not all successful careers are associated with four-year college degrees—and especially not careers in manufacturing. Often the metalworking and manufacturing trades require specialized technical skills that a traditional college course might not supply.

Convincing the next generation of workers to venture into manufacturing, however, is not so simple.

“Manufacturing is not always viewed by our youth and parents as a viable career, and this prohibits any potential interest for manufacturing among our youth,” says Matthew R. Rocco, president of the **South Florida Manufacturers Association**. “Our youth are constantly being told that they either have to become a lawyer, doctor or accountant to be successful, and manufacturing is not being included in that mix.”

The vast majority of adults (71 percent) don't see manufacturing as a high-tech career choice, according to a survey conducted by **ORC International**. And 33 percent do not see a career in manufacturing as high-paying, although the facts dispel this perception. An entry-level technician can earn upward of \$75,000 a year straight out of a two-year vocational school.

A pro-manufacturing campaign, combined with aggressive recruitment on campuses, can help combat these misplaced views. Machining and metalworking manufacturers can tap resources through organizations such as the National Tooling and Machining Association to become involved in on-campus programs and other efforts to reach potential new employees.

By making benefits like pay and the use of emerging tech in manufacturing more well known, a business can help to dramatically shift manufacturing's image.

***How is your shop working to address the manufacturing skills gap? We want to know. Comment in the section below.***

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