

NAVIGATING THE MANUFACTURING SKILLS GAP



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INTRODUCTION

What is the manufacturing skills gap?



The economic prosperity this nation has enjoyed in the last century has been largely built on manufacturing. Since its dawn during the industrial revolution, manufacturing has contributed to more jobs, greater export potential, and a higher standard of living for Americans.

Despite recent economic challenges, the U.S. and global economies are expected to rebound in the coming years with slow to moderate growth. While manufacturers are encouraged by this brighter outlook, they still face the significant challenge of a lack of qualified individuals to supply the job needs they anticipate having to meet goals for growth. This scarcity of available talent, referred to as the manufacturing skills gap, is not a new problem, but it continues to be a concern for the manufacturing industry. As the baby boomer generation nears retirement and manufacturing expands, the question of who

will fill manufacturing jobs becomes more pressing.

A major factor contributing to the manufacturing skills gap is industry perception. Though Americans by and large consider manufacturing an industry that is extremely vital to the strengthening of our nation's economy, they tend to not rank manufacturing very highly as a career choice. According to a Public Perception of Manufacturing study series conducted over the past six years by The Manufacturing Institute and Deloitte,

“...only 37 percent of respondents in the 2015 study indicated they would encourage their children to pursue a manufacturing career”

Since the newest generations of workforce participants have essentially been discouraged from pursuing manufacturing as a career, the skills gap in this area has continued to widen.

TRANSLATING THE SKILLS GAP

What does the manufacturing skills gap mean for your business?

Manufacturing executives here and throughout the world identify talent-driven innovation as a key factor in their ability to be competitive. That being the case, the manufacturing skills gap is likely to have a significant impact on the growth and profitability of today's manufacturers. According to a 2015 study completed by the Manufacturing Institute and Deloitte,

"82 percent of executives responding to the skills gap survey indicate they believe the skills gap will impact their ability to meet customer demand, and 78 percent believe it will impact their ability to implement new technologies and increase productivity."

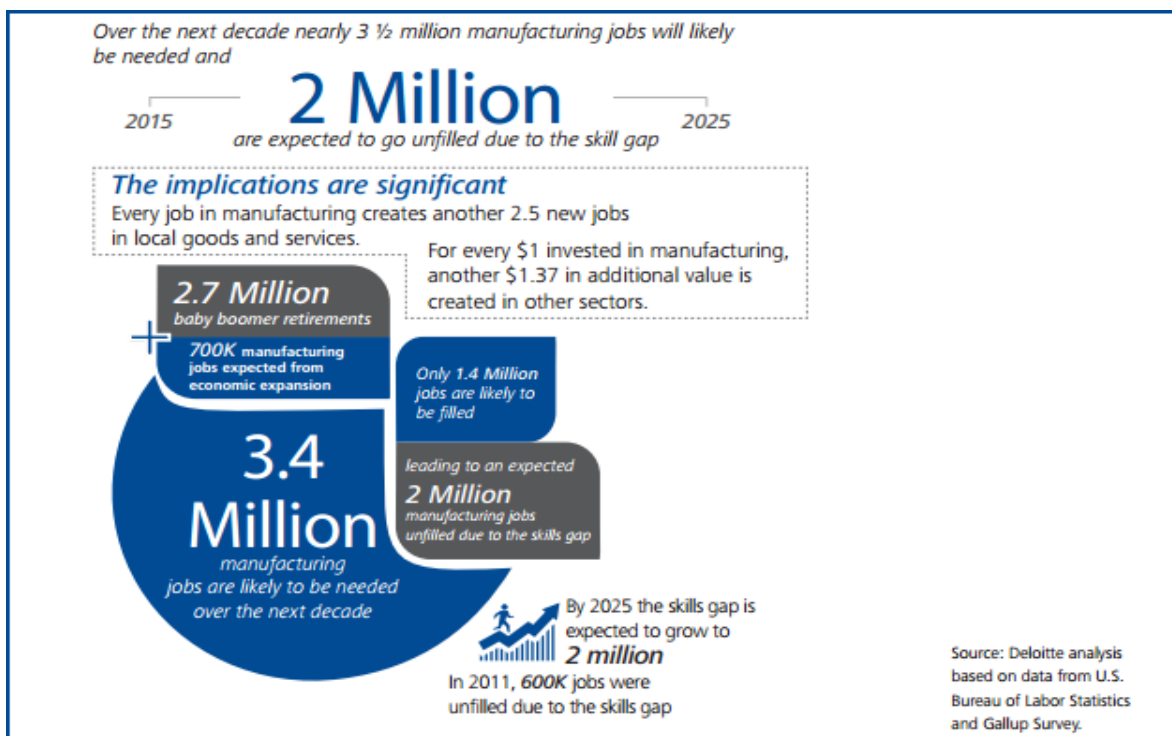
The lack of qualified individuals to fill needed manufacturing roles is a serious issue for manufacturing businesses. Add to that the costs of recruiting and hiring new talent, and you have a significant burden on businesses that are trying to grow and meet customer demands.

Manufacturers face another problem as the manufacturing skills gap widens. When already limited resources are focused on meeting current demand and staying competitive, there are few resources left to devote to advancing new product innovation and development. Furthermore, research and development efforts need the full support of skilled and qualified manufacturing talent to bring new ideas to fruition.

THE FUTURE WORKFORCE

What future trends are predicted for the manufacturing workforce?

Along with today's talent shortage, trends predict there is a more pressing, longer term issue weighing on manufacturers. According the Manufacturing Institute 2015 study, projections indicate that over the next ten years, nearly three and a half million manufacturing jobs will need to be filled. The manufacturing skills gap is anticipated to result in 2 million of those jobs are likely to go unfilled due to the manufacturing skills gap.



INDUSTRY ACTIONS

How is the industry acting to improve manufacturing workforce development in the future?

The public perception study mentioned earlier was not all bad news for manufacturing. It also showed that respondents who were familiar with manufacturing tended to have more favorable perceptions of manufacturing jobs, and were twice as likely to encourage their children to pursue a manufacturing career. This indicates that manufacturers need to engage people through community and educational programs that will improve the perception of the U.S. manufacturing industry, and make it more inviting to upcoming generations.

Manufacturers and manufacturing organizations have become more active in the promotion of manufacturing careers as an option for young people, and also in encouraging STEM (science, technology, engineering, and mathematics) focused educational initiatives in schools.



One highly successful initiative has been [MFG DAY](#), which is produced by three major industry organizations - **Fabricators & Manufacturers Association, International; National Association of Manufacturers; and Manufacturing Extension**

Partnership. In order to address the common misconceptions about manufacturing, MFG DAY supports participating manufacturers in opening their doors through community programs to show what manufacturing is and what opportunities exist for future workforce participants.

The goal of MFG DAY and similar programs is to inspire future generations to embrace manufacturing careers.

TACKLING THE SKILLS GAP

How can manufacturers address the manufacturing skills gap today?

While long term initiatives hold promise for the industry to address talent shortages on a broader scale, individual manufacturers must plan strategies for dealing with manufacturing skills gap challenges today.

Two key strategies will help manufacturing operations navigate the skills gap in the short term - 1) Outsourcing and 2) Supply Chain Planning.

Outsourcing

With less talent and fewer resources, successful manufacturers have looked for ways to improve workflow and productivity. An effective strategy for addressing production deficiencies has been outsourcing. Outsourcing allows a company to grow without increasing overhead or tying up in-house resources. Benefits include reduced labor costs, expanded capabilities, and the ability to meet growing demand. Success with outsourcing greatly depends on selecting the right manufacturing partner and strategic supply chain planning.

Supply Chain Planning

The skills gap problem in the US has resulted in supply chains becoming increasingly more global and interconnected. Unfortunately, this makes them more susceptible to disruptions with more points for failure. The cost of supply chain disruptions can be delayed shipments, decreased sales, lost customers, and lower profits. Supply chain planning is an essential strategy to omit potential risks that can derail the manufacturing process. A dependable and collaborative supply chain relationship with effective planning is the only way to reduce supply chain risk.

PARTNERSHIP PROVIDES A SOLUTION

Manufacturers can navigate the skills gap through a strategic partnership with a reliable and experienced supplier. The right outsourcing partner will serve as an extension of your business, and work to understand your business, while implementing effective strategies for reducing risks for your organization.

A supply chain partnership is a trusting and collaborative relationship, which is about managing supply chain risk. These partnerships in productivity encourage integration and communication to reveal risks, and result in action that brings measurable overall supply chain cost reductions.

As an experienced manufacturer and supplier, Nolte Precise Manufacturing has observed the advantages a strategic supply chain partnership can offer. We have observed how our full precision machining capabilities have created a dependable resource for our clients who need low to high volume precision machined components and assemblies. As a partner supplier, we understand that things like exceptional quality and on-time delivery are an expectation in a partnership, rather than merely a differentiating factor we offer as a business.

Nolte Precise Manufacturing is working to overcome the skills gap problem with investments in our industry:

- **An apprenticeship program** that ensures our clients product is not dependent on 1 or 2 people to deliver on time, and right every time. Our bench is strong and growing.
- **Advanced skills development** assures we have the skill sets to handle today's business and future growth demand.
- **Raising awareness about the manufacturing industry** is our proactive approach. We support opportunities at the primary, secondary, and post-secondary education levels, serving on several boards of advisers with local career and technical learning centers in our region.

The fact that there is a skills gap does not matter to your customers - they want their orders shipped. Supply chain relationships with partners who are invested in meeting your increasing demands, now and in the future, will help you to navigate and bridge the skills gap.

Additional Resources

- National Association of Manufacturers: Workforce Development and Training
<http://www.nam.org/Issues/Workforce-Development-and-Training/>
- Monster.com: Behind the employment data – the hidden manufacturing job opportunity
<http://www.monster.com/blog/b/hidden-manufacturing-opportunity>



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