

Prompt: What are some of the strategies the manufacturing industry should implement in order to grow its need for workers?

### **The Manufacturing Industry Today**

On the cusp of a post-pandemic economy, now more than ever is the crucial time to expand the manufacturing industry's workforce. As a nation, we are consuming more manufactured products than ever before, yet manufacturing jobs are in significant decline. Researchers at the W.E. Upjohn Institute for Employment Research found that for every one manufacturing job, an average of two additional jobs are created. Manufacturing is the driving force of American prosperity and generates more economic activity than any other sector (Manufacturers Alliance for Productivity and Innovation).

In 2019, the manufacturing industry employed a total of 12.8 million people, according to the U.S. Bureau of Labor Statistics. The Bureau predicts a decrease to just under 12.4 million manufacturing employees by 2029. That's over 400,000 jobs terminated!

What is the reasoning behind this prediction and how can its effects be reversed? The following discussion explores factors that contribute to the decline of manufacturing jobs in the United States and practical solutions to increase the number of jobs.

### **Increased International Trade**

One factor that has contributed to the decrease in manufacturing jobs is a substantial rise in international trade, specifically with China. With cheaper and more abundant labor comes cheaper and more abundant manufacturing goods. Domestic companies in search of manufactured products turn to other sources outside of the U.S. because of lower costs. The downside of outsourcing more affordable manufacturing production is the inability of domestic manufacturing companies to compete (W. E. Upjohn Institute for Employment Research).

A solution that will increase consumption of U.S. manufacturing products as well as create more jobs is focusing on attracting overseas contracts. Manufacturing companies can hire employees whose only job is to market the company's services to businesses abroad. These employees will create company-specific presentations about the benefits of their manufacturing process and product over others', such as better quality or delivery efficiency, in order to reach overseas companies. An increase in the amount of overseas contracts would increase the amount of new work for manufacturers, and therefore increase the need for more workers.

### **Skills Discrepancy**

As the older generation exits the manufacturing labor force, there is an overwhelming demand for experienced workers and technicians, and few people ready to meet this demand. Maintaining a large and skilled workforce is crucial to the success of a growing manufacturing industry.

How can manufacturers attract the younger generation to their jobs? According to reporters at the George Brown College, one reason for the lack of available workers is an

absence of widespread information about the field. Young people entering the workforce are not aware of the newly-developed technologies, engaging work environment, innovation, and high earnings associated with manufacturing jobs. In order to combat this deficiency, manufacturers should target the younger generation directly through social media. Developing a social media presence and spreading information to prospective employees about the benefits of manufacturing jobs will generate interest. With effective social media campaigning, this interest is likely to lead to a person pursuing the job. Social media campaigns don't have to be limited to sponsored ads and short videos on platforms like Facebook and Instagram, but they can also expand to expansive video platforms, like YouTube. Manufacturing companies can create engaging content, attractive to younger audiences, that introduces different positions, includes conversations from current professionals, and demonstrates innovations in the field.

Once interest is generated, how can new workers be sufficiently educated in a timely manner? A solution not only to finding more employees, but also to generating thorough education and experience among employees, is starting job searches at the high school level. Manufacturing companies can visit high schools to recruit students who exhibit an aptitude for mechanics, engineering, and other useful qualities of manufacturers. These students can then be offered an internship position at the company which could evolve into a permanent job. With this process, students will be able to learn the necessary skills for manufacturing immediately after high school. These students will gain a significant amount of valuable experience by a younger age than workers previously, which will translate into more years of high quality and loyal employees.

Additionally, manufacturers can engage and recruit youth at college job fairs. This face-to-face interaction will help the manufacturer become more familiar with the skills and aspirations of college students, as well as allow the college students to become familiar with the expectations and advantages of the manufacturing industry.

### **Artificial Intelligence**

With artificial intelligence and machine learning on the rise, will robots eventually take over the manufacturing industry and displace human jobs?

There is a widespread misconception that as technology advances and machines are able to do repetitive factory jobs, available jobs will decrease drastically. On the contrary, research by Deloitte found that manufacturing jobs have been *created* due to developing technology, with an increase in the need for high-skilled workers. Automation is thought to be damaging, but it will actually result in increased productivity and economic growth. The possible downside of automation is the loss of low-skilled jobs that the machine would replace.

Machines don't work perfectly one hundred percent of the time. Trained workers will be needed to monitor and maintain the machines. In addition, to maintain and grow the amount of jobs, manufacturers can implement "collaborative robots," robots that work jointly with humans. The combination of the machine performing labor intensive jobs with the steady hand and creativity of the human component results in increased productivity.

## **Lack of Workers**

Although the volume of manufacturing jobs has been decreasing, the number of job openings is steadily increasing. As of January 2021, the U.S. Bureau of Labor Statistics reported 515,000 manufacturing job vacancies, an increase of 71,000 vacancies compared to the previous month. There is a substantial shortage in willing and able workers to fill those vacancies.

In addition to targeting recent college graduates and high school students for future jobs, manufacturing companies could work with government agencies that act as a liaison between employers and nonviolent ex-convicts. Manufacturers could hire and train people with nonviolent histories coming out of correctional facilities. With the increasing job vacancies becoming more significant and impactful, looking to this source of workers would be beneficial for the industry while also providing an opportunity for a second chance for members of the community.

## **Conclusion**

With the amount of manufacturing jobs on a steady decline, manufacturers need immediate and effective solutions for creating new jobs and attracting workers. Methods to accomplish this goal includes focusing employees on securing overseas contracts, targeting the younger generation through social media campaigns, creating internship opportunities for high school students, recruiting at college job fairs, and maintaining collaborative artificial intelligence positions. Additionally, there is a shortage of workers able to fill job vacancies which can be helped by working with government agencies to place nonviolent ex-convicts in fitting manufacturing jobs.

The manufacturing industry is the foundation of American business and economics; it is instrumental to raising living standards worldwide, and creates jobs for countless others outside of the industry. Increasing the number of jobs in the manufacturing industry is crucial to the well-being of our nation.

## Works Cited

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