Making Manufacturing Cool

Manufacturing has shed its old image and promises an interesting and lucrative career path for Americans.

By Penny Pritzker and G.P. "Bud" Peterson

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Parents should inform their children that modern manufacturing is the path to a great future.

This is an open letter to parents across America.

As hard as it may be to believe some days, research shows you actually have a lot of sway over your children's classroom and career choices. That is great news for parents, like you, who want their children to find careers that pay well, offer interesting life-long challenges and make our country stronger. And it is why we are asking you to encourage your children to consider a career in modern manufacturing-a fast-growing and science-based sector full of rewarding, high-tech careers that pay on average far better than non-manufacturing jobs.

We need your help, because manufacturing has an image problem. While 70 percent of Americans view it as the most important industry for a strong economy and national defense, only 30 percent of parents encourage their children to pursue a manufacturing career. That may be because the word "manufacturing" still conjures up in some minds the image of an untidy factory floor full of dirty, dangerous and repetitive jobs.

Yet that image is grossly outdated.

In truth, many manufacturing facilities in the United States today are cleaner than most offices or doctors' office waiting rooms. They are gleaming showrooms of the latest technologies. And they are staffed by highly-skilled and well-educated professionals producing the most exciting breakthroughs of our time, such as advances in robotics, automation and 3D printing.

There is also a huge and growing demand by U.S. manufacturers for skilled production workers, engineers and technicians. The resurgence in U.S. manufacturing since 2010 has already led to more than 600,000 additional jobs. The National Association of Manufacturers estimates that more than two-thirds of their sector's current skilled workforce will have retired by 2030.

These demands translate into higher pay for manufacturing workers. Over the last decade, new hires in manufacturing earned an average of 38 percent more than new hires in non-manufacturing industries. And over a career, a manufacturing worker earns 17 percent more in wages and benefits than his or her counterpart in other sectors, according to U.S. Commerce Department data.

Together these trends indicate a major opportunity for the next generation of workers who pick this exciting field.

We are doing our part to support good jobs in this industry, which is crucial to U.S. competitiveness. Government, industry and academia are joining forces like never before to ensure that U.S. manufacturing continues to grow, so that your child's career prospects are secure decades from now.

For example, the Commerce Department and Georgia Tech are part of the Advanced Manufacturing Partnership, a public-private collaboration dedicated to making sure the United States remains the most desirable place to make sophisticated products. One of the partnership's recommendations was to create the National Network for Manufacturing Innovation, an initiative launched by President Obama in 2012. This growing network of regional manufacturing hubs will ensure the most important technological and commercial breakthroughs take place in America-and benefit American workers.

You can help by getting young people excited about science, technology, engineering, and math as early as possible. Good writing and design are important too. Offering children opportunities to participate in everything from science fairs to robotics competitions can help to inspire the innovator within each of them.

[Each summer, for example, a number of high school students join Georgia Tech students in the Invention Studio for Makers Camp, building devices like next-generation helicopter models that actually fly. Many times that's just the spark they need to explore one of the exciting career opportunities in manufacturing.

Whatever your child's academic strengths and interests, there is likely to be a good career ahead of her if she pursues post-secondary education and training geared toward manufacturing.

The bottom line is that whether they choose vocational training programs with nationally recognized credentials for machinists or welders, or advanced degrees in fields like mechanical engineering-acquiring manufacturing-ready skills-can make your child a hot prospect on the job market. And it can lead them to a rewarding life making things that make this country stronger and more prosperous.

Penny Pritzker is the Secretary of Commerce of the United States.

G. P. "Bud" Peterson is President of the Georgia Institute of Technology and last year was appointed by President Obama to serve on the Advanced Manufacturing 2.0 steering committee.

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