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Report: U.S. Manufacturing Jobs Go Unfilled

by Jerry Renshaw

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Despite a sluggish recovery and uncertain job market since the 2008 recession, manufacturing jobs in the U.S. go unfilled because employers

have problems finding people with the right skills. According to a recent study by Deloitte, as many as 600,000 jobs are vacant. Modern manufacturing jobs require skills in mechatronics, mechanical systems, robotics, advanced machining and other more specialized areas. The days of unskilled or semi-skilled production line labor are over, but jobs in today's more advanced manufacturing environment offer better compensation and room for advancement. Recruiters are looking for engineers in all manufacturing-related fields – mechanical, chemical, electrical and engineering technology, – to help fill the shortfall.

Tennessee Tech University stays committed to training job-ready engineers who have the skills manufacturers need.

"It is clear that the future of manufacturing will be much different than what we see today. Emerging trends with the Maker Movement will enable the integration of additive and subtractive built-up technologies into one which is called 'hybrid,'" said Ismail Fidan, manufacturing and engineering technology professor at TTU. "Then, that will make the production of any kind of part more reliable, higher quality and lower cost. I individually believe that TTU's manufacturing and engineering technology program prepares its students for the needs and expectations of such a workforce."



Manufacturing jobs are returning to the U.S. In the last 10 years, labor and transportation costs in China have risen, while wages in the U.S. have remained flat. In addition, the long supply chains, quality problems, lengthy lag time between factory and distribution centers, and the disconnect between design and manufacturing have soured many manufacturers on Chinese production.

A case in point is General Electric's 1000-acre Appliance Park complex in Louisville, Kentucky. The facility employed 23,000 people at one time, but by the early 2000s fewer than 2,000 remained. GE is adding expanding the complex to accommodate more production, adding more production lines to turn out newly-designed products. There are now about 6,000 jobs at the complex.

As the American population ages and retires, more manufacturing jobs are expected to become vacant. A recent survey by Boston Consulting found that 21 percent of large manufacturers were bringing production back to U.S. shores, or were planning to within two years.

Many businesses, however, are still having problems finding employees with the right skill set for modern manufacturing environments. Some employers are moving to fill that gap with crash-course, fast-track training for promising employees. Others are equipping employees with more advanced skills with a formal training program, such as VW-Chattanooga's Volkswagen Academy initiative, a partnership with TTU.

In a 2012 interview on CBS' 60 Minutes, Ryan Costella of fastener manufacturer Click Bond said, "I would honestly say it's probably an entry level problem. It's those basic skill sets. Show up on time, you know, read, write, do math, problem solve. I can't tell you how many people even coming out of higher ed with degrees who can't put a sentence together without a major grammatical error. It's a problem. If you can't do the resume properly to get the job, you can't come work for us

