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Get Ready, Here Comes the Ultimate Multi-Skilled Worker

by Jeff Owens

It seems like everyone is talking about the skilled labor shortage. From the New York Times to the National Association of Manufacturers (NAM), people are debating the issue of whether there really is a skills shortage or a lack of people with the right technical skills to work in today's manufacturing. Many, including the New York Times, blame the problem on what they refer to as mismatched skills. Or, in other words, the workers have skills, just not the ones they need for the growing complexity of manufacturing.

Adding more fuel to the debate, manufacturers have laid off more than two million workers since 2007. So how can an industry that so many are disappearing from suddenly need more workers? It is a paradigm that only can be explained by supply and demand. There is a large supply of workers available, but the demand from today's manufacturers is for workers with the highest technical skills in the history of modern manufacturing.

It's no secret manufacturing has changed. In 1950, 60 percent of all manufacturing jobs could be handled by unskilled labor. By 2005, less than 15 percent of all manufacturing positions were unskilled, according to the Employment Policy Foundation.

As manufacturing has continued to automate and reduce its workforce through the elimination of low-skilled employees, a new elite manufacturing technician is beginning to surface. A worker armed with reading, writing and math skills, plus advanced problem-solving capabilities. But where is this new elite worker to be found? The search continues to weigh on manufacturers. In fact, 83 percent of U.S. manufacturers surveyed in 2005 for NAM's Skills Gap Report indicated a shortage of skilled manpower already affecting their ability to serve customers. And the problem is growing, as the Washington Post indicates that baby boomers are retiring at an alarming rate of 10,000 per day. According to the U.S. Bureau of Labor Statistics, by 2030, the last of the baby boomers will have reached retirement age and 77 million baby boomers will have left the workforce.

SO HOW DO WE FILL THIS GAP?

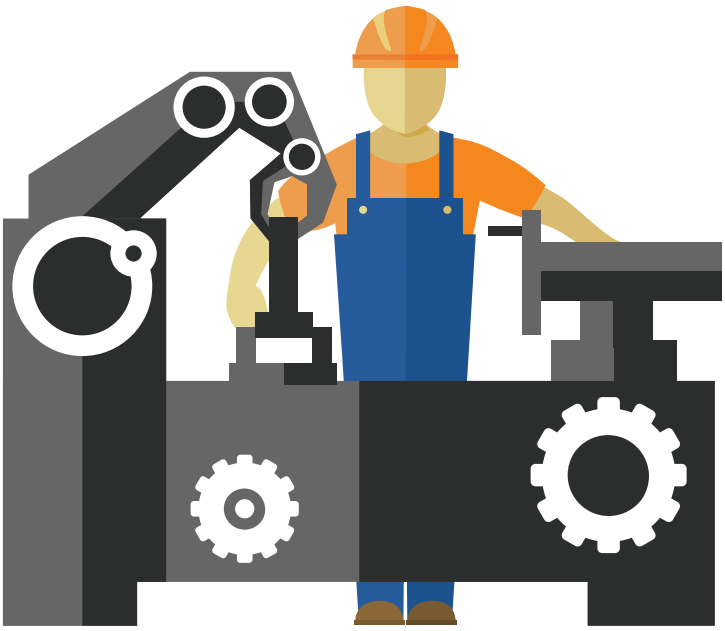
In some companies, such as professional maintenance organizations that provide production maintenance services for highly complex manufacturing assets, training employees to become this elite, multi-skilled technician has been ongoing since as far back as the mid-1980s. But, multi-skilled maintenance technicians don't grow on trees. All the numbers support the fact that maintenance professionals are in short supply, but the reasons for the shortage go deeper.

Never has there been more emphasis on asset productivity than in today's global manufacturing environment. Many manufacturers have identified production maintenance as one of the top contributors to increased productivity. And with the rising cost of downtime, manufacturers don't need wrench turners. They need proactive technicians who can head off problems before they create chaos.

So the logical question would be, is there a skills shortage or a training shortage? It's more of a question of what comes first. Without proper training, workers are not able to obtain the skills they need to be employed in today's high-tech manufacturing. And without a large number of these elite masters of manufacturing, there will continue to be a skills shortage.

In the past, manufacturing companies invested in apprentice programs and provided ongoing training to their employees. Then came the rise of increased competition and globalization, and apprentice programs became a cost cutting casualty, at least at most companies.

Training for manufacturing used to start at an early age. "When shop classes began seeing a decline in the 1970s, coinciding with a push toward college-bound classes, so did the number of young people entering skilled trades. Shop classes were largely eliminated from American high schools in the 1990s because they were expensive to run and sometimes dangerous. Now, industries facing a worker shortage are pushing for the classes' return," according to Alexandra R. Moses' book, "Shop Classes Return—with a 21st Century Twist."



Some companies have also established scholarship programs to ensure that U.S. manufacturing continues to thrive. The programs seek to prepare students for a fast-track career as a leader in manufacturing. Recipients receive tuition assistance and an opportunity for a paid summer internship with the company. The opportunity provides real-world, hands-on experiences, as well as leadership training, preparing students to compete for top jobs after graduation. This customized, well-rounded approach to technical training has helped companies identify and promote new leaders for their business.

The U.S. military has provided an excellent source for finding and recruiting skilled workers. The culture and sense of mission and discipline these returning veterans and former military personnel embody allow companies to hire for culture and train up for skills. And companies with over 25 percent of its employees having military experience find these veterans are very much at home working together.

Another approach used by companies is to tap into businesses that teach the skills needed for production maintenance on the technically complex manufacturing assets seen in today's manufacturing. Their courses teach students everything from basic electric to advanced power line communication (PLC) and computer numerical control (CNC) technology. And just as important, the training is used to advance the careers of the more senior technicians, which forms a bond to increase the retention of these valuable employees.

So as manufacturing is faced with a skills gap crisis, it must be creative and resourceful to find tangible solutions. According to NAM, the skills gap will only get worse. In fact, NAM predicts that 40 percent of factory jobs would require post-secondary education. That's why any current training offered should have an emphasis on post-secondary skills, including hydraulic theory, advanced electrical applications and more.

It's a new era in manufacturing. An era that requires a new kind of worker. Until this elite worker is available in ample supply, there will continue to be a skills gap of mismatched workers attempting to do today's work with yesterday's tools.

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For companies that employ the highest skilled technicians, it has always been important for them to recognize the importance of training early on. Reaching out at the high school level has been a strategy used to introduce talented young students to their training programs. Through a thorough assessment program and customized training, students get both classroom and on-the-job training under the watchful eye of a veteran manufacturing professional.

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