

Building the Next-Generation Manufacturing Workforce

written by Lauri Moon | September 21, 2016

(IW - Ed Potoczak: 9-6-16) Manufacturers must do more than promote the “coolness” of today’s technologies. They need to communicate the educational requirements for succeeding in manufacturing careers, so that students can understand the skills they will need.

There’s no doubt: Manufacturers today are stuck between a rock and hard place. On the one hand, many face an aging workforce that may retire without sharing key knowledge. In fact, the Pew Research Center predicts that 10,000 baby boomers will retire each day over the next 19 years.

On the other, some 80% of businesses are struggling to bring new talent into the door and up through the ranks. *Unless things change, 2 million jobs will go unfilled even as manufacturers face a growing skills gap on their teams.*

Clearly, it’s a complex challenge, one that won’t be solved by a single silver bullet. However a number of innovative manufacturers, generational researchers and talent acquisition professionals have developed effective strategies for attracting, engaging, developing and retaining the team members who will be central to driving manufacturing businesses forward.

Here is a look at the most promising of those strategies:

Update Manufacturing’s Reputation

Attracting a new generation of employees first means changing outdated pre-conceptions about the industry. Despite decades of advances, many people visualize an antiquated manufacturing scenario with equipment straight out of the Industrial Age. They have little understanding of how advances in computer-aided design, 3D printing, robotics and computer numerical control (CNC) machining, among others, drive modern manufacturing operations.

Manufacturers should consider ongoing initiatives to engage with the community, whether that involves regularly scheduled manufacturing tours, joint career education initiatives at colleges and high schools, virtual events or social media engagement.

One of the best platforms for educating students and parents is *Manufacturing Day*, which aims to address misperceptions by showing what manufacturing is—and isn't. More than 733 events across North America are scheduled around Manufacturing Day 2016, which is set for October 7. It is not too late to host an event or join an existing one this year by visiting MFG DAY.

Manufacturers also must do more than promote the “coolness” of today's technologies. They need to communicate the educational requirements for succeeding in manufacturing careers, so that students can understand the skills they will need. And with millennials' desire to make a difference, manufacturers should provide insights into how employees can contribute to the success of the company and customers, as well as participate in any corporate causes.

Broaden the Potential Talent Pool

Millennials will be key to long-term growth, but manufacturers should not discount GenXers seeking new opportunities or a career shift. GenXers are tech-literate, and the youngest of the generation will be working for another 25-30 years. Moreover, with many having started families, GenXers tend to value job stability. By contrast, research indicates that more than 90% of millennial workers will leave a job after less than three years.

Go “Old School” and Invest in Internships

Whether recruiting millennials or GenXers, many industries require specialized expertise that is difficult to learn in a classroom or doesn't transfer well from other job experiences. Savvy manufacturers are investing in internships to help people develop these specialized skills—whether to build products or provide maintenance for sophisticated systems.

A blue ribbon program is Aviation High School in Long Island City, N.Y. Accredited by the Federal Aviation Administration (FAA), the school works with John F. Kennedy International Airport (JFK) to provide airline maintenance certification. Some 2,200 students take standard high school classes, but they also attend courses on the mechanics of how a jet airplane operates and get hands-on experience with maintenance. When students graduate, *they earn both a diploma and a certificate to work in the aviation industry.*

Manufacturers do not need to be Fortune 500 companies to offer internships. Many mom-and-pop shops and mid-size firms also offer part-time after-school jobs and individual internships through partnerships with local high schools and community colleges. Other manufacturers

work with government agencies, career assistance organizations, or other non-profits. Companies may find that they qualify for federal, state and local economic development funds to create skilled-trades apprenticeship training programs.

50 Strong, a subsidiary of mid-size manufacturer Precision Thermoplastic Components, is taking another approach. It has launched the *50 Strong Foundation*, which awards scholarships to those engaged in or interested in pursuing careers in manufacturing. The scholarship assists recipients with the cost of attending a technical, vocational or trade school in order to enhance their manufacturing skills and knowledge.

Engage New Employees

Millennials want to tackle new challenges and opportunities, and boredom is a deal-breaker. This is good news for manufacturing, which thrives on innovation and has been so transformed that it is nearly unrecognizable to people familiar with the factories of 20 years ago.

With this in mind, manufacturers should be prepared to assign meaningful responsibilities to new employees, not simply have them “pay their dues” with menial tasks. When there is a real need for new hires to assist in administrative cleanup, managers should provide a perspective on how this less-than-exciting work helps colleagues and even customers.

Management teams should also seek to engage employees, whether Millennials or GenXers, by asking them to *consider developmental assignments* in particular areas of the company, listening to their goals and hopes for enrichment or advancement and then mapping out personalized career plans with them. Also consider assigning a member of senior management to serve as an executive mentor to advise them on how to add more value to their work and the business. Don't limit mentoring to new hires; it can also unlock untapped potential among current employees.

Build Cohesive, Cross-Generational Teams

Beyond formal mentorship, consider establishing cross-generational project teams or special committees. Newer employees can gain important knowledge and build their skill sets from senior team leads. Meanwhile, more experienced employees should be encouraged to take advantage of the enthusiasm, creativity and comfort with technology that the younger generation brings.

To ensure the success of these teams, it is important for everyone to recognize the differing values and motivators for each generation, and that no one perspective is best. Millennials tend to be collaborative and tech-savvy, and they desire to make a difference early in their tenure. GenXers usually are self-reliant and analytical, and they want work/life balance. Boomers were raised with a strong work ethic, and they focus on process, desire personal gratification and are determined to perform well. Like Millennials, they tend to be optimistic. Senior management, in particular, should incorporate this understanding in strategies to create a culture, policies and plans that empower members of each generation to be successful contributors.

Empower Teams Through Technology

Cross-generational teams help foster knowledge transfer from the Baby Boomers, who are thinking about retiring, to younger team members. However, it is also important to invest in technology to capture vital company information. This may take the form of audio/video recordings of employees explaining key processes or a document management system that catalogs and stores work instructions and other data.

Using technology will make the work environment more appealing to tech-savvy millennial and GenX employees. They rely on smartphones, tablets and web apps that store, organize, search and display information on an almost unlimited number of topics in business and technology, and they want to have the same power and flexibility at work. Additionally, many modern enterprise resource planning (ERP) systems help minimize redundant work that frustrates all employees, empowering all team members to become more productive.

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