

Hidden in plain sight

Candidates with the right skills can have a future in manufacturing

INTERVIEWED BY ADAM BURROUGHS

Manufacturing in Northeast Ohio is a more than a viable career option. The industry is leading the region in employment opportunities and is contributing considerably to Northeast Ohio's economy, which is why the need for workforce training is critical.

"There may be many people interested in manufacturing who don't believe they can do the work because they lack the necessary skills or don't know what opportunities exist," says Alicia Booker, vice president of manufacturing at Cuyahoga Community College. "Fortunately there are intermediaries that can teach these skillsets, translating the needs of employers to future employees."

Smart Business spoke with Booker about job opportunities in manufacturing and the skills needed to be successful in the industry.

What are the skills needed in today's manufacturing industry?

There are essentially two levels of skills. The first level includes the more traditional technical skills required of mechanics, HVAC technicians, machinists and welders. Those with these skills are still in demand. There's a gap in the talent pipeline, however, largely because of a drought in vocational opportunities — shop class, for instance.

The other level includes the soft skills, such as critical thinking, communication, troubleshooting, and writing and organizational skills. The nature of work has changed in manufacturing. People don't just work with their hands. They need to be able to think critically about the impact their job has on the other aspects of a project and solve problems.

Another consideration for those in the trades is the ability to create a pathway to management. Having the skills needed

ALICIA BOOKER
Vice President of manufacturing
Cuyahoga Community College

(216) 987-3048
alicia.booker@tri-c.edu



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to get an entry-level job is one thing, but there is a need for people to move up to management, which necessitates an understanding of the regulatory environment that surrounds a company, sales, customer service, etc.

What areas of manufacturing are expected to have the most job growth?

The segment with the most anticipated growth is transportation — automotive is expected to be strong, but the emerging growth is in aerospace. Fabricated metals is an area of growth as the defense and medical industries call for lighter materials that have greater levels of performance. Food manufacturing is also contributing to growth in manufacturing, as is steel-based machining. The oil, gas and coal industry is seeing resurgence, but not in a significant way. However, if it picks up it will be a huge economic feeder in Northeast Ohio.

What misconceptions are keeping some from pursuing a career in manufacturing?

There's a belief that manufacturing jobs are dirty and unsafe; require little skill, so they're geared toward those who are not college bound; and have a high potential for layoffs. That's a significant misconception, especially in advanced manufacturing. Factory floors are generally much cleaner today than they have been and much of the work has

a digital component. Much of it requires highly skilled people to perform.

How can those people currently working in manufacturing keep up with new technologies or gain new skills?

There has to be a commitment to gaining new skills, whether employers help with that through talent and professional development, or people develop their own skills and grow through education.

At some shops, it's a collaborative environment in which robotics work with and alongside people. That's contributing to the expectation that Northeast Ohio manufacturers could see a 70 percent productivity increase by 2025. That leads to more opportunities and jobs, but those jobs will require a higher level of skills.

The key for job seekers will be getting the knowledge required of roles in new technologies, such as 3-D printing and the internet of things. Automation technology is also broadening its presence, but that doesn't necessarily displace workers. People are needed to do programming and conduct an analysis of the end product to troubleshoot the equipment.

Job candidates need to prepare for how the nature of manufacturing work is changing. The same can be said for employers. Companies must change and adapt to keep up with industry advances. ●