It’s no secret the U.S. manufacturing industry is suffering from a lack of skilled workers to fill existing jobs. And with fewer young people pursuing manufacturing jobs, the problem is expected to only get worse. It’s vitally important the industry improve its image with Generation Y, or the “millennials.” But reaching, training and retaining this demographic has proven difficult for many manufacturers.

We know solving this problem is not just possible, but probable, with the right strategies. Our peers in Europe—especially Germany—don’t suffer from the same skills gap the U.S. does, likely due to the heavy emphasis on apprenticeships and dual training for students.

This issue of the GrayWay discusses what’s behind America’s skills gap problem, and what manufacturers can do to recruit and retain the best and brightest young talent.
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GRAY... WE’RE BUILDING
Fritz Winter North America LP Franklin, Ky.
GREAT EXPECTATIONS

Attracting Millennials and Younger to Careers in Manufacturing
Last year, The Manufacturing Institute partnered with Deloitte to update its manufacturing skills gap report—the findings were concerning, to say the least. The report revealed that the United States will need to fill nearly 3.5 million manufacturing jobs over the next decade. A staggering 2 million of those jobs are likely to go unfilled due to the skills gap.

As Baby Boomers exit the workforce, the need to attract younger workers to manufacturing has never been more important. A crucial target: millennials, who the U.S. Census Bureau defines as people between ages 18 and 34 by 2015. The pool of millennials is vast—this generation has recently overtaken baby boomers as the largest with 75.4 million who fall into this category. But while their numbers may be plenty, attracting them to an industry suffering from an image problem has proven challenging.

Jennifer McNelly, executive director of The Manufacturing Institute, says while Americans overwhelmingly believe manufacturing is important, they don’t necessarily want their children to pursue careers in the industry. According to the organization’s public perception survey, 90 percent of Americans believe that manufacturing is very important to economic prosperity, and 82 percent believe the U.S. should further invest in
manufacturing. But just one in three parents surveyed would encourage their children to pursue a career in manufacturing. The reasons: worry about job security and stability and the belief that the industry has limited career prospects.

And it seems young people are listening to their parents.

“When you actually segmented that out to the Millennial Generation, interest in manufacturing jobs dropped to the rock bottom,” said McNelly. “These are the workers we need today. They’re employed today somewhere and moving towards management, if not already there. It remains a persistent problem for us and something we really need new strategies to change.”

The good news, McNelly says, is that the manufacturing industry fully recognizes the problem and is working hard to address it. Companies are investing in summer camps for kids and programs like First Robotics, an international youth organization that operates robotics and Lego competitions. Manufacturers are also participating in National Manufacturing Day. In its third year, over 2,600 events attracted more than 400,000 students and parents to celebrate manufacturing and promote it as a fulfilling and fruitful career option.

The Manufacturing Institute launched an ambassador’s toolkit targeted to millennials during last year’s Manufacturing Day. The toolkit provides manufacturers with a guide to create an ambassador program that encourages employees to engage today’s workforce and to expose more students to careers in manufacturing. And manufacturers are already taking advantage.

Cooper Tire, a global replacement tire manufacturer headquartered in Findlay, Ohio, participates in the Manufacturing Institute’s Dream It. Do It. program, and has recruited some 40 employees to serve as ambassadors on “The Dream Team.” The company says their ambassador program is already having an impact.

“We’re actually going back to focus on eighth graders with most of our outreach efforts because eighth grade is one of those ages where kids are making their first decisions, opinions, forming their idea of what they might want to do for their careers, so it’s not at all too early to start to talk with them about careers in manufacturing,” said Anne Roman, vice president of communications and public affairs for Cooper Tire.
Roman says the makeup of the Dream Team is purposefully diverse so young people can see that manufacturing isn’t just about “making stuff,” but offers careers in a variety of fields.

“Students are intrigued when we tell them how many people it actually takes to make a tire,” said Dream Team ambassador and associate engineer for Cooper Tire Patrick Wallace. “From innovation in tire design and materials to manufacturing, through sales and marketing — taking a tire from concept to production and delivering it to the end user is a complex process.”

The company also participates in Manufacturing Day, and Roman says feedback from parents and students has been overwhelmingly positive.

“We received great surveys back. One parent wrote to us and talked about the fact that her child has never expressed that much excitement about anything that took place at school until he was exposed to this. It’s fascinating.”

But Kunz says an area that needs more attention is ensuring enough students are enrolled in programs geared toward the manufacturing field.

“There are schools that have had to close their programs,” said Kunz. “They have great programs. They have beautiful new equipment for these kids to learn on, but not enough kids are enrolled.”

“There really needs to be a call to action for the industry, parents, career counselors—there’s a lot of people who play a role. It’s going to take a village to address it.”

Jeannine Kunz, vice president of Tooling U-SME, works to provide schools with the latest curriculum that aligns to what the industry needs. Kunz says she sees more schools coming to the table to work with local employers and ensure students are equipped with the right skills to satisfy the needs of today’s manufacturers.
WHAT A MILLENNIAL WANTS

Meeting the Needs and Expectations of Generation Y

Manufacturing is an industry that has relied on the Baby Boomers and Generation X to supply its workforce for the past several decades. But now that the Millennial Generation has come of age, many manufacturers have been left scratching their heads as to how to not only appeal to millennials, but how to retain them as well.
While every generation brings its own unique talents and challenges, the Millennial Generation was raised in a distinctly different economic time fraught with recession, rising costs of higher education and debt. Many millennials were just entering the workforce as the Great Recession hit in 2007. Job opportunities were scarce and unemployment was high. Some even gave up on looking for gainful employment. In fact, almost one-third of millennials are still living at home.

Even so, millennials have higher expectations for employers, and tend to “jump ship” if those expectations are not met. Recently, Tooling U-SME surveyed millennials about what they are looking for in a career and employer. When describing their ideal job, 72 percent said they are more likely to value opportunities for career advancement, compared to 52 percent of Baby Boomers and 64 percent of Gen Xers.

The survey also revealed that millennials want the companies they work for to have a higher sense of purpose than just making money. They care about the environment, and want their employers too as well.

Millennials want experiences at work, not just an 8 to 5 job. They want to feel valued and to contribute their own special talents to the organization.

Millennials were raised in the digital age and, therefore, interact differently with their peers and coworkers. They rely heavily on social media for communication and engagement with others, and prefer texting as a primary form of communication. Utilizing these forms of communication is an important engagement tool for today’s employers, and can increase overall satisfaction of younger employees.

Millennials are also not afraid to question authority and push boundaries. And if they are not satisfied with the work they’ve been given, the corporate culture, or their direct supervision, millennials won’t hesitate to speak up, or even look for opportunities elsewhere.

Given these differences, manufacturers need to buck their traditional way of thinking and embrace the unique characteristics of the millennial workforce in order to appeal to and retain these workers.

According to the Tooling U-SME survey, nearly half of companies are approaching recruitment differently with millennials than they did with previous generations. That’s good news.
And once a company has successfully recruited employees from this demographic, Tooling U-SME recommends seven strategies for working with and retaining millennials:

**Don’t generalize.**
Like all generations, this broad swathe of workers is made up of individuals with different life experiences that color their approach to work and careers.

**Communicate your corporate mission.**
Millennials expect companies to demonstrate a strong sense of purpose and want to be part of that. Be sure to communicate your mission and show how each individual job ties to it. Allow them to see how their talents and skills fit into the big picture.

**Show them their future.**
Millennials want to see their (near) future. Provide room for growth within your company so they do not feel they need to grow somewhere else.

**Provide continual learning opportunities.**
Millennials have a strong desire to learn and acknowledge they have things to learn. Help them gain that missing knowledge, especially by appealing to their desire for the experiential.

**Go digital.**
Move away from paper. Much hiring and training can now be done digitally through tablets and smartphones. Allow millennials to share their technical talents with older workers, which can create new peer connections.

**Allow them to share their ideas.**
Only 28 percent of millennials feel that their current organization is making full use of their skills so provide them the opportunity to show what they can do.

**Provide regular and immediate feedback.**
Millennials grew up with constant feedback from their parents, teachers and coaches. They expect it from you, their leader. It doesn’t have to be a long session. Just five minutes of clear, direct feedback, on a regular basis, will keep them motivated and engaged.

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**IMMERSED IN TECHNOLOGY AND UNCERTAINTY**

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<tr>
<td>Millennial Generation born</td>
<td>9/11</td>
<td>Recession</td>
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<td>1992</td>
<td>2004</td>
<td>2010</td>
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<td>First text message sent</td>
<td>Facebook founded</td>
<td>In two months, Instagram hits 1 million users</td>
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<td>1999</td>
<td>2006</td>
<td>2014</td>
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<td>First rudimentary Blackberry device introduced</td>
<td>First tweet sent</td>
<td>Debt burden of college graduates rises faster than inflation</td>
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<td>2000</td>
<td>2007</td>
<td>2015</td>
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<tr>
<td>PayPal reaches 1 million users</td>
<td>iPhone introduced</td>
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Source: Tooling U-SME
SkillsUSA competition helps prepare future workforce for skilled jobs

A player in the effort to ensure America’s future workforce is ready for skilled jobs in manufacturing is SkillsUSA—a national association of more than 300,000 students, teachers and industry representatives that provides educational programs, events and competitions that support career and technical education.

Each year, the association holds its marquee event at its National Leadership and Skills Conference—including the SkillsUSA Championships—where middle school, high school, postsecondary and college students demonstrate skills in robotics, automotive technology, drafting, criminal justice, aviation maintenance and public speaking.

The event—organized by over 1,700 volunteers and judges—is massive, attracting some 6,000 participants and occupying the space of more than 19 football fields this year.

Students are evaluated against industry standards for entry-level positions by leaders in business and industry. Those who meet a pre-determined threshold are awarded a Skill Point Certificate—a work ready certification recognized by employers across the country.
Gray has been selected by German-owned Fritz Winter North America LP to design and build a 225,000 s.f. foundry and production facility in Franklin, Ky. The project represents a $193.7 million investment and will create 343 new jobs. It is expected to be complete in the summer of 2017.

Fritz Winter is one of the leading companies in the production of cast iron engine blocks and heads, brake rotors and drums, flywheels and hydraulic housings. The family-owned company began exporting to the U.S. in 1966 and currently employs 3,700 people worldwide.