While there is no shortage of workers in the U.S., there is a shortage of trained and prepared employees to fill roles in the increasingly high-tech manufacturing sector. Thought leaders detail what led to the gap and how the industry can foster suitable candidates.

oday's manufacturing demands advanced technologies and state-of-the-art facilities, but this is not the impression held by many Americans. To secure its future, it is critical to update this perception in the eyes of students, parents and educators allowing the confectionery industry and many others to attract the talent needed to grow.

Studies sponsored by Deloitte Consulting LLP and The Manufacturing Institute (MI) found a negative image of manufacturing is a major factor compounding the current skills gap. Adding to misperception, are demographics. Nearly 3.5 million manufacturing jobs will likely need to be filled over the next decade, with the skills gap expected to result in two million of those jobs being unfilled, according to the Deloitte study.

One misconception fueling this issue is that the U.S. will eventually move away from manufacturing and the majority of the population will transition into service industry careers, according to Antigone Sharris, engineering technology chair and faculty at Chicago's Triton College.

"That perception isn't true and there is a complete

misunderstanding of what manufacturing is," Sharris tells **Candy & Snack TODAY**. "People don't understand that even the service industry will still need things repaired. Because of that, people will need to know how to make things and fix them."

Further propelling misunderstandings are guidance counselors stressing the importance of obtaining four-year degrees, according to Stephan Girard, director of education and workforce for The Association for Packaging and Processing Technologies (PMMI).

"High school guidance counselors push kids into fouryear degrees and downplay the importance or availability of other options, such as community colleges or trade jobs," he says. "It is a bit of a disservice and, unfortunately, that has led to this gap."

Rob Nelson, chairman and CEO of Elmer Candy Corp. and chairman of The Confectionery Foundation, explains the key to reversing this mindset is to "show the next generation what manufacturing is all about — we are not dimly lit buildings with big smokestacks and loud supervisors cracking a whip. We are facilities with cutting-edge technology that



supply side when it comes to major choices and what types of professions are being pursued. There is a disconnect between that and what the market is actually creating in terms of jobs."

Another issue impacting the employment market is relatively slow wage growth for U.S. workers, sources agree.

"Economists say 'if you pay people a decent wage, they will come out of unemployment and take a job, but they aren't willing to work for low wages.' If companies pushed wages, they might see those jobs filled quicker," Smith explains. "We tend to dismiss that, but there is some narrative to the fact that wages are low and it is contributing."

However, she says the flip side is that a true gap exists in terms of experience and credentials. Despite record low unemployment, Smith notes the skills gap has remained unchanged.

"Again, there is a disconnect between education characteristics of unemployed and career opportunities," she says. "This might suggest that these unemployed people might need to reskill, either through community colleges or technical certification, to prepare for jobs of the future."

Even in the face of automation, Sharris emphatically states employees with critical thinking skills will always be in demand.

"When one of those automated warehouses breaks down, the company loses thousands of dollars a second. They need talent that can really move, and that is where we come in with the brain and problem-solving skill sets," she says. "That is what companies desperately need, they need people who can think, it is not just pushing a button. On the other side, they also need people who can improve their processes."

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TIPS FOR UNCOVERING THE RIGHT CANDIDATES

To help businesses fill gaps, the National Center For The Middle Market (NCMM), a research and leadership group focused on the middle market economy headquartered at The Ohio State University's Fisher College of Business, highlights three ways to pique possible employee interest and bring new candidates up to speed on company processes:

In-House Classes: Identify skill or knowledge areas where new workers are lacking and have senior employees conduct seminars and training classes. This has two benefits: The cost will be far less than outsourcing it to a training firm, and no third-party will know the business the same way trustworthy and dependable employees will.

Boot Camps: There are companies that specialize in teaching specific skills, offering crash courses in specific types of software development, negotiation, data science or accounting. In addition to bringing new employees up to speed, these programs can give existing employees a path into new roles within the company. Additionally, boot camps are less costly than making new hires, according to NCMM.

Study Grants: Covering the training costs of a prospective employee in exchange for a promise to work at the company for a specific length of time not only allows a company to retain more of its training investment, but also increases the possibility of hiring long-term employees.

offer fulfilling careers."

He notes the Confectionery Foundation's NextGen program helps accomplish this goal, adding: "Once people know the facts, they are more than twice as likely to pursue or recommend a job in manufacturing."

Of course, the public's perception of manufacturing jobs is just one facet among many that have exacerbated the skills gap dilemma. Nicole Smith, chief economist at the Georgetown University Center on Education and the Workforce, tells **Candy & Snack TODAY** the rate of increase in demand for jobs is outstripping the ability to supply properly trained workers.

"We have jobs that are coming up at a faster rate than secondary education can supply," she says. "There is also concern on the

skills gap



Louisiana Gov. John Bel Edwards (sitting, center) signs a proclamation at Elmer Candy Corp. declaring the first week of October Louisiana Manufacturing Week. He was joined by Rob Nelson (left), chairman and CEO of Elmer Candy, and Deputy Secretary Louisiana Economic Development Brad Lambert (right).

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Fortunately, the Deloitte and MI studies also show that individuals who are familiar with manufacturing are more than twice as likely to recommend or pursue a career in the

day.

industry. Programs like the Confectionery Foundation's career immersion day during the Sweets & Snacks Expo in Chicago help elevate the attractiveness of the industry by showing young talent that the industry represents innovative, dynamic and valuable career paths. Students from 23 colleges in 10 states participated in the NextGen 2017 program, according to Nelson. (For more on the work of the Foundation, see sidebar The Confectionery Foundation: A Platform for Talent Acquisition) & Snack

"The fact the Confectionery Foundation took this problem on is huge," says Sharris, who regularly brings students to the Expo career events. "The fact they try to connect companies to us is huge and something that needs to be done more."

In fact, Nelson not only chairs the foundation, his company used the program to find its current quality assurance manager.

"Our chief technology officer had the opportunity to meet many of the NextGen students, and when our quality assurance manager position opened up in January he reached out to them," Nelson says. "One of the attendees recommended our position to a friend. A couple of months later that friend is a valuable member of the Elmer Chocolate team."

PMMI's Girard relays the best way to address the skills gap is through a multi-prong approach by initially working to shift perceptions on manufacturing careers, followed by partnering with education institutions.

"With the cost of education, a two-year school should really be considered," he says. "A student that pursues a liberal arts degree leaves school with that degree and considerable debt, while someone who completes a two-year degree program can find a great job, have little debt and a great career ahead of them."

Another tremendous recruitment tool is outreach to community colleges, which Smith says are forging the path on the journey to closing the gap.

"Community colleges' curriculum development is reflective of new technologies that companies in the geographic location are using," she explains. "They can also work with companies to create opportunities for intern/ externships. By the time a student graduates, they have not only skills from the program, but also firm-specific knowledge so they can hit the ground running once they

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THE CONFECTIONERY FOUNDATION: A PLATFORM FOR TALENT ACQUISITION

ve, ths. The Confectionery Foundation's NextGen program is providing a platform to open the eyes and bright minds of undergraduate and graduate students attending vocational colleges and universities to opportunities in snack and confectionery manufacturering. In turn, the program helps companies find future candymakers, plant operation personnel, and maintenance workers, as well as other employees, such as marketing and sales professionals. The Foundation's career immersion day at the Sweets & Snacks Expo is a unique experience for students, as well as attending professors. More than 70 industry professionals volunteer each year for this personalized and positive immersion

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The Foundation also provides an opportunity for NCA members to benefit from the time and effort the group invests in identifying and recruiting these students. The schedule of events during the Expo provides an industry briefing, small group guided tours of the show, a career fair for employers, and a networking reception. HR professionals have commented that the timing gives them a jumpstart on September recruiting.

The Confectionery Foundation also encourages NCA members to participate in outreach opportunities throughout the year at local schools, as well as the National Association of Manufacturers' annual Manufacturing Day initiative in October.

While many industries participate in Manufacturing Day, candymakers' events are especially popular. Last fall, Louisiana Governor John Bel Edwards chose Elmer Chocolate as the site to sign a proclamation for Louisiana Manufacturing Week. The event was an incredible opportunity for Elmer Chocolate to educate students, community members, media and policymakers on the exciting opportunities available in candy manufacturing and how integral Elmer Chocolate's operation is to the local, national and global economy.

To volunteer, watch the videos on the program or learn more, please visit confectionlink.org CCST

skills gap _____

Continued from page 36 leave university."

To get the ball rolling with local education institutions, Triton College's Sharris recommends companies pinpoint the person that holds her role at their local community colleges and trade schools.

"If a company did that it would be a big start, and they



Projected production job openings during the next decade



Anticipated labor shortage during coming 10 years



Positions remain unfilled because of talent shortages

Source: Deloitte/Manufacturing Institute will find the people they are looking for are right in their backyards," she says.

Sharris adds that in addition to thinking of immediate solutions for the skills gap, long-term planning should be in the works as well, giving youth programs as an example.

"Even if we fix the pipeline of employees today, trust me it will break down again tomorrow. That is what we missed, how to engage the youth," she tells **Candy & Snack TODAY.**

To this end, Sharris participates in events that get first graders interested in manufacturing careers by introducing them to engineering and explain what the field entails.

Companies can also try to get involved in the improvement of STEM curriculum at high schools, Nelson says. He notes Elmer operates in a parish (Louisiana's version of a



We have jobs that are coming up at a faster rate than secondary education can supply."

COLE SMITH GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE

county) with an organized group of manufacturers and educators working to achieve those curriculum goals.

"We look to partner with other manufacturers in our geographical area and work with the local technical college to develop curriculums that support our group's needs," Nelson adds. "We are the only confectionery company, but there are manufacturers that have similar needs — employees with mechatronic backgrounds, for example. Greater New Orleans Inc., our region's economic development alliance, has helped identify partners. Ultimately, we want to launch an apprenticeship program that allows people out of high school — but really it would be open to anybody — to work for us, go to school and graduate with high in-demand skills, a marketable degree and no college debt." C©ST

In addition to Rob Nelson's input, Confectionery Foundation leaders Katherine Clark and Sara Clair contributed vastly to this report.

WHAT EXECUTIVES ARE SAYING ABOUT THE SKILLS GAP



Source: Deloitte/Manufacturing Institute