

Fixing the skills gap isn't as hard as you think

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Could manufacturers get the workforce they want by offering higher wages and apprenticeships?



WaterSaver Faucet, which makes faucets for laboratories at its plant in Noble Square, seems to be doing a better job than most. The company pays entry-level workers better than many smaller shops, but rather than compete for experienced skilled workers like CNC machine operators, it recruits newbies at \$14/hour and trains them.

It's Anna DeRango's job to staff a factory that employs 130 people in Noble Square. But even though the number of unfilled manufacturing jobs is rising, she's not worried about finding the workers.

Last year, after an upward slog of almost a decade, job openings in manufacturing finally matched pre-recession levels. This year the country has averaged 372,000 open jobs each month, and there's no reason to think that the numbers the U.S. Bureau of Labor Statistics plans to release Sept. 12 will be different.

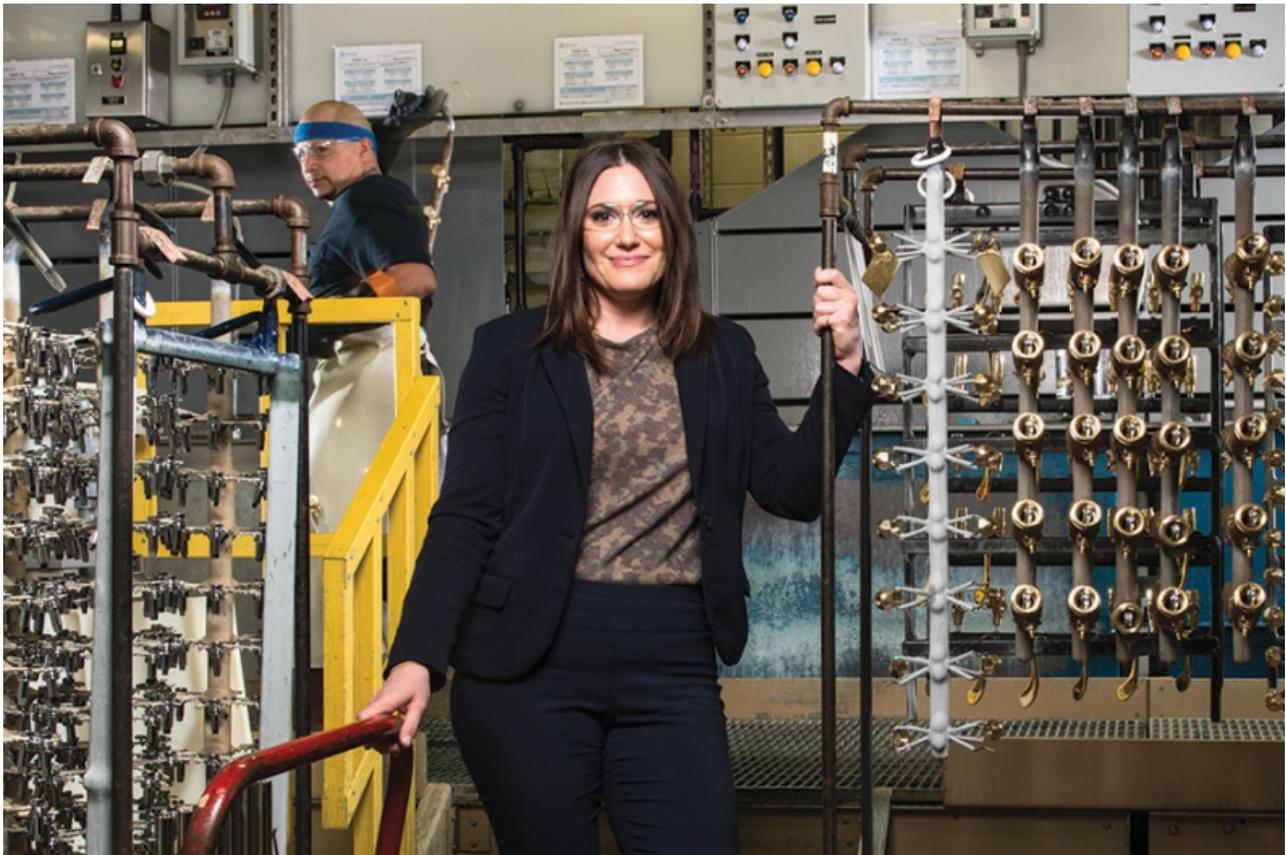
DeRango is the human resources manager at **WaterSaver Faucet**, a manufacturer with an estimated \$18 million in revenue that makes laboratory sink faucets for customers like Northwestern University. She's looking for two polishers, two rackers, two assemblers and a second-shift computer-numerically controlled (CNC) machine operator. She's not worried about hiring for two reasons. First, the company pays competitive rates for production workers: The \$12.29 to \$14 per hour that it pays lower-skilled factory workers hugs the Chicago-area median pay for low-skilled jobs like assembly (\$12.49 an hour), packaging (\$13.91) and general production (\$14.05). Second, when WaterSaver can't afford top dollar, it forgoes experienced, high-skilled workers in favor of entry-level employees who can be trained. A newbie CNC machine operator starts at \$14 an hour, well under the median wage of \$18.79.

"We stay very open-minded about who may be appropriate for what," DeRango says. "That's kind of what you have to do. You're not getting people walking in the door who have this specific experience."

Though WaterSaver's approach seems successful, other manufacturers say they **can't find workers with the right skills** to fill the jobs they have available.

But when demand for workers spikes, wages climb, too. Except for a handful of job titles, there isn't much wage inflation in Chicago manufacturing.

The median manufacturing worker in the Chicago metro area saw wages rise 5 percent from 2012 to 2016 to \$33,000 a year, even as wages for all occupations rose 6.9 percent in that period. The average 151,000 U.S. manufacturing workers quitting their jobs each month in 2016, presumably to take higher-paying jobs, was still 27 percent lower than the number quitting before the recession. Taken together, the data suggest that employers aren't so desperate for talent that they're willing to raise wages.



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Yet the companies that have the easiest time attracting candidates are the ones that pay the most, says Anne Edmunds, regional vice president at staffing firm Manpower Group.

Manufacturers need to take their destiny into their own hands, to take action to develop the workforce they want, says Justin Rose, a partner in the Chicago office of Boston Consulting Group. "Their expectations for what they have to pay are too low . . . and they're waiting for other people to deliver for them," he says. "There has to be a mind-shift."

Patrick O'Rahilly has a front-row seat to see who Chicago manufacturers want to hire. Employers use his business, Factory Fix, **to hire part-time help**: Twenty percent of the ads seek engineers or robotics experts, 40 percent seek maintenance and electrical workers, and 40 percent seek machinists, whether they do the work manually or with computerized machines. O'Rahilly says two of the jobs his customers struggle most to fill are CNC programmer and manual machinist.

The market for CNC programmers in Chicago is following the classic law of supply and demand. There were 1,280 CNC programmers in the market in 2015, according to the Bureau of Labor Statistics, and between 2012 and 2016, their wages rose almost 32 percent to \$55,670.

The picture looks different for manual machinists, who make up a far greater share of the manufacturing workforce. (There were almost 26,000 machinists in the Chicago area in 2016.) Their wages have dropped almost 13 percent during that period, to \$36,250.

MEETING DEMAND

Kent Gladish, senior membership director at the Schaumburg-based Technology & Manufacturing Association, says business owners may be working extra hours in the shop themselves to meet customer demand without hiring. They may want to add headcount, "but it's almost perceived that it's *no* supply, therefore I don't need to pay anybody 120 percent, because I can't find anybody."

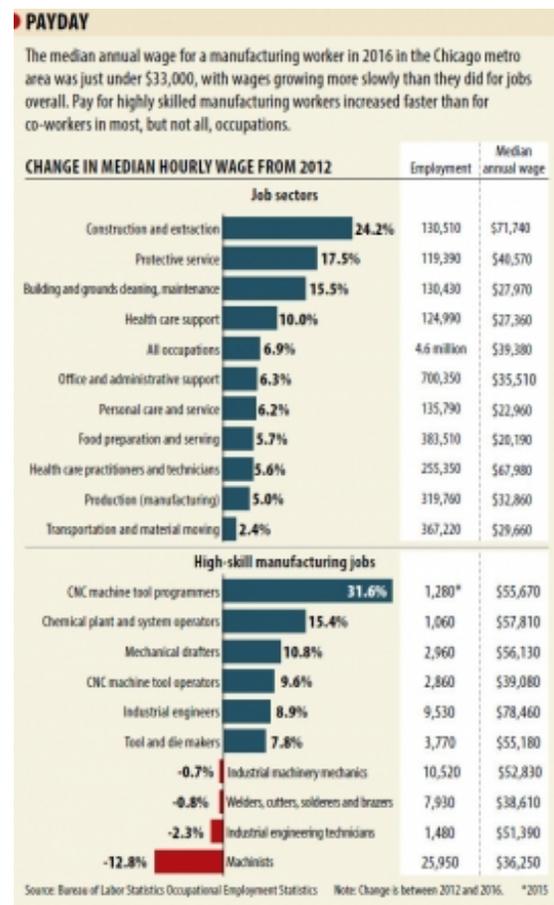
Employers may not be able to afford to raise wages if they aren't making a high-margin product, or if they need to invest in new machinery, says Jim Nelson, vice president for external affairs at the Illinois Manufacturers' Association.

Anyway, higher pay won't improve the quality of applicants. Job-seekers need 10th-grade math and reading skills—"Too many people apply for manufacturing jobs who are unable to read a blueprint"—and they need to pass a drug test and show up on time. "Manufacturing is not the consolation prize for an occupation," he says. "It is a high-skilled, rewarding career."

Except it's a career that in Chicago has a median annual wage of \$32,860. That's higher than other occupations that draw from a similar worker pool, like janitorial services or low-skilled health care like home health aides. But unlike in manufacturing, wages in those fields have grown 10 to 15 percent in recent years to roughly \$27,000.

Slow wage growth and worry about job security are rational reasons a worker might not want to go into manufacturing, says Andrew Weaver, a labor and employment professor at University of Illinois at Urbana-Champaign who co-authored a [2017 study](#) on the "[skills gap](#)." The study found that 76 percent of manufacturers nationwide did not have any long-term vacancies. "Instead of a skill gap, you just come up with a natural set of hiring challenges in some corners of the industry that are really predicted by external circumstances but aren't a function of the lousy quality of the U.S. workforce."

Some manufacturers already are shifting their approach to hiring. Paul Ziegenhorn is president of Matrix Tooling in Wood Dale, which designs and builds plastic injection molds; Procter &



Gamble is a customer. He's doubling down on a years-long apprenticeship. Rather than raise the wage he had been offering to entice an experienced worker (without success), he decided to hire employees at \$15 an hour and train them: "They get a little bit more experienced, and you have some time before they're at \$30 an hour. Years. Business 101."

Jeff Majewski, general manager at South Elgin precision machine shop KrisDee & Associates, has created a bonus system for his current workers to run multiple machines, upping productivity without hiring. He also offers overtime. Even so, he's mulling the idea that by the end of the year, the machine operators who used to start between \$10 and \$12 an hour will all start at \$12.