

# The Worker Shortage Paradox

Millions of Americans sit unemployed while businesses can't find enough qualified workers

By Dave Daley

**T**he headlines are relentless: 600,000 skilled manufacturing jobs are going unfilled; trucking companies need 35,000 drivers; home builders lack labor; the IT worker shortage is near crisis.

At a time when more than 8 million Americans are standing in unemployment lines, businesses are complaining that they cannot find workers to fill job openings.

What explains this seeming contradiction? Have Americans lost their appetite for work? (See related column by Mike Nichols.) Is the education system failing to prepare the workforce for in-demand jobs? How can we bridge the gap between job seekers and job openings?



Robert Helf photo illustration



Skyward, a big software company that designs administration programs for K-12 schools, is building its \$30 million world headquarters in Stevens Point.

Tom Lynn photo

The issue is complex. The short answer: The workforce across the United States is changing as baby boomers retire, and there's a mismatch between the next generation of workers funneling into the job pipeline and the jobs available at the end of that pipeline.

Wisconsin is seeing the same fracturing as the rest of the country: workers sitting at home while jobs go unfilled in occupations that span many industries. Two of the state's biggest business groups are warning that Wisconsin's current shortage of skilled workers will only worsen over the next decade.

Wisconsin Manufacturers & Commerce said in June that the lack of qualified and willing workers was holding back Wisconsin's economy. In a survey of 306 top business executives in the state, WMC reported that 70% were having trouble finding workers — up from 64% in the group's January survey and 53% a year earlier.

"The sad irony is that as the economy improves, there is a greater demand for workers,"

WMC President and CEO Kurt R. Bauer said.

"But if businesses can't find workers, then the economy can't achieve its full potential."

Metropolitan Milwaukee Association of Commerce President Tim Sheehy says his staff projects that over the next 10 years, the seven-county metropolitan Milwaukee region will have 100,000 jobs without workers to fill them.

The basis of that projection: Population in the region is expected to grow 3% from 2013 to '23, but the primary workforce group, those age 15 to 69, is projected to decline slightly (0.4%). During the same period, regional employment is expected to grow 10%.

Strong job growth is expected in fields such as education, professional and scientific services, and company management — jobs that pay well and require more education. But growth is also expected in average-pay and average-education jobs in the

accommodation and food service businesses, and in administrative positions, MMAC says.

**Wisconsin needs to move aggressively to address projected shortages,** Sheehy says. "How do we grow, retain, attract diverse young talent that we're going to need to fill these jobs and fulfill the premise that if you invest in Wisconsin, if you invest in metro Milwaukee, that we are going to have the talent you need to grow your business and compete?"

Is the education system not adequately preparing the workforce? The consensus is yes. Too many colleges are graduating students with liberal arts degrees in limited-job specialties such as Renaissance art, and too few tech schools are producing graduates with skills in high-demand fields such as information technology.

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— **Kurt R. Bauer**, *Wisconsin Manufacturers  
& Commerce president and CEO*



The academic community — chiefly four-year universities — needs to take a hard look at the classes offered and better match coursework with real-world jobs, experts say.

Stephen Moore, a distinguished visiting fellow at the Heritage Foundation,

wrote in *Forbes* magazine in March that mechanics, electricians and plumbers have no trouble finding jobs, yet high schools are scrapping old-school basics like shop classes. Meanwhile, universities are turning out graduates who've acquired massive debt but no practical job training.

Universities turn up their noses at blue-collar professions and give preference to what Moore called the "talking professions" — the law, the media, the church and academia. "Those who can't 'do' become attorneys and sociology professors," he wrote.

While higher education is falling short, so are schools at the grade-school level, Sheehy points out.

"We've got to improve on 15 or 16% of the third-graders in



Milwaukee that are reading at grade level,” Sheehy says. “There’s a huge potential pool of talent in the 120,000 kids in the city of Milwaukee. Young African-American and Hispanic kids make up the fastest-growing portion of that young population. We can’t have that talent pool leaking early on by not graduating from high school or not being able to go on to a two-year apprenticeship program.”

Milwaukee schools are key to any long-term strategy to find enough workers over the next decade, Sheehy says. “Part of the policy perspective has to be better education, more high-performing schools serving these children, if we are going to meet the talent demands going forward,” he adds.

For youths not on the college-degree track, the answer may be a career in the largest single employment sector in Wisconsin: manufacturing.

## But manufacturing has an image problem.

“There is a perception of manufacturing jobs as dirty, dumb and dangerous, and all you need is a strong back and a good alarm clock,” Sheehy says. “Those analogies can get tossed out the window when you look at today’s manufacturing environment and requirements.”

Companies must reform manufacturing’s image to attract the large number of workers needed to replace retiring baby boomers.

On a per capita basis, metro Milwaukee ranks second in the country in manufacturing jobs. Wisconsin ranks eighth in terms of manufacturing employment growth over the past three years.

Manufacturing, Sheehy notes, is still “Wisconsin’s fastball, and we can’t afford to lose any speed on that fastball. The types of jobs are changing, but it’s still critically important to our economic health and it provides high-value, high-wage jobs for Wisconsin citizens.”

To head off projected shortages, the industry needs to invest in apprenticeships, internships and other initiatives that acquaint youths early on with opportunities in manufacturing.

MMAC is investing in a program called “Be the Spark,” which last year placed 1,000 Milwaukee Public Schools seventh-graders in small businesses and on factory floors to expose them to those fields. The association hopes to double that number over the next year.

Manufacturing today requires teamwork, an ability to work with technology and adaptive thinking and learning, Sheehy says. “It’s an exciting environment, and we need to do a better job of communicating that to the kids who view a dark, dingy workplace as the definition of manufacturing.”

The industry also is collaborating more with workforce development boards to train workers through apprenticeship programs and by working more closely with high schools and tech colleges to craft classes that better fit the jobs of the future.

One example: Ford Motor Co. is implementing “career academies” in its plants in Nashville, Louisville and Cleveland, where high school kids can see firsthand what a career in a manufacturing plant looks like.

Another example: the Northeast Wisconsin Manufacturing Alliance is recommending that

companies utilize the wealth of practical knowledge of retirees by rehiring them part time to serve as mentors to new workers.

Locally, educators are seeing the need to feed more youths into the factory pipeline. Arrowhead High School in Hartland this fall established what is, in effect, a manufacturing plant in the school — a 10,000-square-foot design, engineering and manufacturing center that the school hopes will interest more high-schoolers in manufacturing careers. So far, 260 students are enrolled.

Concerns about impending worker shortages in Wisconsin are not new. Three years ago, the Wisconsin Manufacturers & Commerce Foundation held more than 50 listening sessions around the state involving more than 300 Wisconsin manufacturers.

**One conclusion: The definition of success needs to be changed and students need to take a hard look — a reality**

check, in effect — at what kind of jobs they can expect to find in their chosen fields.

“If every 16-year-old and their parents have all this information and a full understanding of — and an open mind to — all the occupations available, we will work through this shortage,” WMC Foundation President Jim Morgan said at the time.



**Morgan**

“Currently, though, our definition of success seems driven by a mentality that master’s degree is better than bachelor’s degree, bachelor’s degree is better than technical degree and technical degree is better than work experience. (But) the workplace is not that linear and easily defined,” he said.

As in manufacturing, the construction industry is struggling to find qualified workers. And the reason is much the same: not enough parents and high schools are encouraging kids to enter the skilled trades.

As construction jobs disappeared with the 2007-’09 recession, many tradesmen retired or switched careers and did not return with the current resurgence in construction projects.

Morgan noted that there were shortages of welders, machinists, masons and computer-numerical controlled (CNC) machine operators. “Some of those require work experience, some apprenticeships, some technical degrees, some four-year degrees or more,” he added. “Let’s make sure everyone knows the market, because the market will drive us to success.”

**In central Wisconsin, a worker shortage in information technology is reaching a crisis stage, according to Lori A. Weyers, president of Northcentral Technical College in Wausau.**

“If you talk to any businessman, they’ll say ‘I need as many (IT workers) as they can get me,’ ” she says.

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– **Lori A. Weyers**  
*President of Northcentral Technical College*



# Workers

Officials at the University of Wisconsin-Stevens Point report that the school cannot graduate enough IT students to meet the demand. So both private businesses and technical colleges are scrambling to add more classes and outreach programs that encourage high school students to choose a technology career over the traditional four-year college.

Skyward, a big software company that designs administration programs for K-12 schools, is building its \$30 million world headquarters in Stevens Point and expects to open its doors **next spring**, creating even more demand for IT workers.

"If we could find 20 more programmers today, we'd hire them," says Skyward CEO Cliff King. "That's what we're up against. We need software developers, and we need them today."

Skyward expects to expand from the 421 employees it now has across the country to about 900 workers in Wisconsin alone over the next decade. That includes as many 260 software programmers. "That's a real need we have to try to grow our business," King says.

Skyward's software products, which are used in schools in 21 states, allow administrators, teachers, parents and students to track everything from when a student is tardy to test scores to what's on the lunch menu. "It's all real time," King says. The software also tracks the numbers — student population, reading levels, number of faculty and staff — that drive the state and federal funding that school districts receive.

Renaissance Learning in Wisconsin Rapids, which develops software for accelerated learning programs in schools, regularly finds its recruiters competing with other software firms for IT workers. Renaissance Learning employs 500 people in Wisconsin Rapids and 950 workers overall in the U.S., Canada, the United Kingdom and Australia. The company has customers for its assessment, teaching and accelerated learning programs in more than 60 countries, including the U.S., says John Corrigan, the company's senior vice president of human resources and administration.

Similarly, Epic Systems Corp., based in the Madison suburb of Verona, is attracting IT talent from other parts of the state. The tech company, which develops software for hospitals and other health-related businesses, now employs more than 8,000 workers and is continuing to expand.

The rapidly growing IT field, covering almost every aspect of the 21st century economy, is the chief reason for the increased

need for tech-savvy workers. "The demand for IT workers is growing by leaps and bounds," says Weyers of Northcentral Technical College. "In health care, in manufacturing, in education — it crosses every occupational group."

"For the economy of the future, 60% of the jobs will be technical," she adds.

As in the manufacturing sector, only now are IT businesses realizing that traditional college curriculums are not meeting the growing demand.

**Businesses need to send a message to high schools that a two-year technical college degree can land graduates a good-paying job and that a four-year baccalaureate degree is not always needed, experts say.**

To that end, Northcentral and the 15 other schools in the Wisconsin Technical College System are working with high schools to establish "IT academies" — much like Ford's "career academies" — that better prepare students for IT careers and train high school teachers for IT courses.

In April, businesses and colleges formed the Central Wisconsin IT Alliance to help develop an IT workforce in the region and spark interest among students.

Skyward's King, who leads the alliance, says it is focusing on getting high schools, technical colleges and the university system to ramp up IT courses and add more instructors. "You've got to start young, in the K-12 schools," he says.

If it is any consolation, Wisconsin is not alone in its IT worker shortage. "This is a national issue," Weyers says. But for Wisconsin, the stakes are high.

The growth of tech companies in the state hinges on whether Wisconsin can funnel enough workers into the IT job pipeline to meet demand. Manufacturers fear that a lack of qualified workers will hold back the state's economy. And in southeastern Wisconsin over the next decade, there could be 100,000 jobs without the workers to fill them.

Meanwhile, according to the Bureau of Labor Statistics, 137,400 people in Wisconsin were unemployed in August. For Wisconsin's economy to thrive, the state must figure out how to get those thousands of unemployed into the thousands of waiting jobs.



Tom Lynn photo

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*Dave Daley, a journalist for 30 years, covered the Capitol for The Milwaukee Journal and legal affairs for the Milwaukee Journal Sentinel.*

## *Apprenticeships and tax credits may be part of solution*

Facing a skilled worker shortage in 2007, South Carolina turned to an old-school solution: apprenticeships where workers are taught skills on the job while earning small paychecks.

Called Apprenticeship Carolina, the program offered a tax credit of \$1,000 a year per apprentice to any company hiring a trainee. It caught on: In seven years, the number of apprentices in the state jumped from about 800 to nearly 11,000; companies with apprenticeship programs climbed from 90 to 670.

Apprenticeships were not limited to the traditional building trades but were offered in a wide range of fields, including health care and information technology.

Democratic presidential candidate Hillary Clinton has gone South Carolina one better — calling for a \$1,500 federal tax credit for any U.S. business hiring a young apprentice.

Under two recently announced federal grants, 600 Milwaukee-area apprenticeships will be created over five years in construction, design, engineering, health care, IT and manufacturing. The Milwaukee Area Workforce Investment Board and the Milwaukee Institute of Art & Design will receive grants of \$3 million each.

One advantage of apprentice programs: Apprentices are paid — generally at half the wage of a journeyman or veteran worker — as they learn and do not pile up massive debt as do many college students. A typical apprenticeship graduate can go into a construction job that pays close to \$33 an hour. The tax dollars spent through the employer tax credit are repaid three times over, on average, through increased tax revenue from both the apprentice and the employer, studies show.

Tim Sheehy, president of the Metropolitan Milwaukee Association of Commerce and a member of the WPRI board of directors, calls Clinton's proposal "helpful" but emphasizes that the strategy must be comprehensive if adopted. "This has to be a core policy mission for educators and workforce development leaders as well as employers," he says. "This is not something that ... we're going to solve by operating on the fringe of an incentive program. This needs to be an embedded part of our strategy going forward."

Wisconsin has a strong apprenticeship history. It founded its apprenticeship program in 1911, and the state's technical college system grew out of that, according to the state Department of Workforce Development.

The number of apprentices in Wisconsin fell sharply from 1,200 10 years ago to only a few hundred in the depths of the 2007-'09 recession. But it has since rebounded to about 850. The Associated Builders and Contractors of Wisconsin sponsor apprentices in a dozen trades.

DWD spokesman John Dipko says the department works under the philosophy that "a nimble talent



**Sheehy**

development system" is key to keeping Wisconsin businesses competitive. To that end, the state has helped implement youth apprenticeship programs, where high school students can learn a skill both in class and at a job site, and registered apprenticeship programs, where employers can train their own workers in new skills — in effect growing their own workforce.

This year, the state counted 2,500 youth apprentices and 10,000-plus registered apprentices in these programs, largely in the state's construction, industrial and service sectors.

Two years ago, the state launched the Wisconsin Fast Forward program that now has allocated \$30 million in worker training grants in high-demand occupations.

One of the groups applying for Fast Forward grants is the Hispanic Chamber of Commerce of Wisconsin. "The skilled worker shortage in Wisconsin is expected to exceed 13,000 vacancies by 2021 in the metal manufacturing sector alone," Jorge Franco, the chamber's chief executive officer, said at the time.

In a twist on the typical job training program, the chamber is including four to six weeks of "essential life skills training" as part of an up-to-16-week welder training course.

— *Dave Daley*