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Where Have All the Welders Gone, As Manufacturing and Repair Boom?

By ILAN BRAT

IT'S A GREAT time to be a welder.

Months before he graduated from the four-year welding-engineering program at Ferris State University, in Big Rapids, Mich., 21-year-old Will Chemin had two offers for jobs paying \$50,000-plus. The one he took, working in Dubuque, Iowa, for Deere & Co., the Moline, Ill., equipment company, pays \$55,500 a year, plus a \$2,500 signing bonus and full relocation coverage. "It takes off a lot of stress during the school year, that's for sure," Mr. Chemin says.

Welding, a dirty and dangerous job, has fallen out of favor over the past two decades, as young skilled laborers pursue cleaner, safer and less physically demanding work. Now, thanks to a global boom in industrial manufacturing, skilled welders are in greater demand than ever. Companies can't find enough of them.

The Hobart Institute of Welding Technology, in Troy, Ohio, has been inundated, on its Web site and in person, with recruiters. A notice

from Liebherr Mining Equipment Co., offers full benefits and education subsidies. The Newport News, Va., company also is offering relocation assistance, something it hasn't done before, says Cort Rieser, vice president of manufacturing.

The company's Newport News plant, which builds 400-ton mining trucks, is running at capacity. "We've gone to all the overtime that everybody can handle," Mr. Rieser says. "I can't build any faster."

In Casper, Wyo., welders are so vital to J.W. Williams Inc.'s operations making dehydration and compression machinery for the oil and natural-gas industries that the company has begun offering \$1-an-hour bonuses to welders who simply show up for work on time. "We need welders

like a starving person needs food," says Hal Connor, the company's human-resources manager.

The welder shortage is part of a broader scarcity of skilled tradespeople affecting industries around the world. Ironworkers, machinists, sheet metalworkers, plumbers, pipe fitters and boiler-makers are all in demand as production of industrial machinery continues near all-time levels. Some companies are having difficulties getting parts to build ships, bulldozers, rail cars, mining trucks and other industrial goods.

During a recent manufacturing conference in Chicago, Caterpillar Inc. Chairman and Chief Executive Jim Owens said the paucity of welders and other skilled tradesmen was contributing to a production bottleneck at the Peoria, Ill., company. A spokesman says the problem is occurring in "pockets" and adds, "It has been an ongoing effort to recruit and train welders fairly quickly."

The ranks of welders, brazers and solderers—whose jobs all are essentially to join pieces of metal—dropped to 576,000 in 2005, a 10% decline compared with 2000, according to the federal Bureau of Labor Statistics. The American Welding Society, an industry group, predicts that by 2010 demand for skilled welders may outstrip supply by about 200,000.

Welding is a job that isn't easy to automate. Repairs on the nation's aging infrastructure, such as bridges, require judgment calls a robot can't yet make. Some welded products, such as space frames for Formula One race cars, aren't produced in sufficient quantity to justify development of expensive robots.

The average age of welders, currently 54, keeps climbing. As a wave of retirements loom, welding schools and on-site training programs aren't pump-

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U.S. Companies Ask, 'Where Are All the Welders?'

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ing out replacements fast enough. As a result, many companies are going to great lengths to attract skilled welders, sending recruiters to faraway job fairs and dangling unprecedented perks.

The median weekly earnings for welders, solderers and brazers rose more than 17% from 2000 to 2004 to hit \$600, before dipping slightly in 2005 to \$596, according to the Bureau of Labor Statistics. But taking into account premium salaries, bonuses and overtime, experienced and highly-skilled welders and welding engineers can easily collect \$60,000 a year, double the average. Welders in far-flung places, like Canada's Alberta oil sands, or under dangerous conditions, such as on an ocean oil rig, can command more than \$100,000 a year.

Some companies have resorted to outsourcing their welding. Last year, Liebherr, the Virginia mining-equipment company, began contracting out some projects to welding shops in Michigan and Texas. Some firms, unwilling or unable to pay the high rates skilled U.S. welders command, are having their welding done in places like China.

In many cases, Chinese steel mills pour the steel and welding shops there do the work, ranging from simple fabrication of metal supports for concrete pillars to complicated projects, such as making industrial boilers or heat exchangers. In many cases, China remains a cost-effective alternative, even taking into account the cost of



A welder at a Newport News, Va., plant that makes 400-ton mining trucks.

transporting finished products via ocean freighter or cargo jet.

Moody International Group, a global supplier of technical training and inspection services, has certified more than 400 people in China to American Welding Society standards since it started a training program in mid-2003, says Todd Fleckenstein, international group director. Moody, based in Houston, says it is the only outfit in China authorized to certify welders to AWS standards.

The shortage is particularly tough on small manufacturers that may lack the resources to keep their welders from

jumping to greener pastures. Glenn Eyster Jr., owner of Eyster's Machine and Wire Products, of Seven Valleys, Pa., lost two of five welders in his 31-person operation over the past two years.

This year, Mr. Eyster raised the starting wage for welders by \$1.50 to around \$17 an hour. The company, which makes wire baskets used in cooking French fries and sterilizing medical equipment, hasn't been able to raise prices enough to recoup the higher labor cost.

"It has directly affected our bottom line," Mr. Eyster says. "Am I getting more work out of them? Not exactly."

At Williams, a unit of Canada's Flint Energy Services Ltd., the Rocky Mountain region's thin labor pool has hindered efforts to train more welders through an on-site training and apprenticeship program. Executives say the company could increase production by 20% to 25% if it had more welders.

Williams has raised its starting wage for welders by 30% over the past two years to \$16 an hour. This year, it sent recruiters to job fairs as far away as Saginaw, Mich., to poach welders from the declining auto industry. Rivals, meanwhile, have been stealing Williams's welders for months, says Mr. Connor, the human resources manager. One of his most experienced welders recently jumped to a rival firm located directly across the street. "It's a fast buck," he says.



Hot Market

Median weekly earnings of employed welding, soldering and brazing workers



Source: Bureau of Labor Statistics

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