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Manufacturing job plunge may be terminal

A few days ago at one of the big industrial trade shows that has not announced plans to leave Chicago's McCormick Place, Brad Meyer stood beside a new plasma cutting machine that has not had its production moved to low-cost factories in China.

And the best part? Despite sagging sales, Meyer's company has not imposed a single layoff.

Hypertherm is among a relative handful of employers with a no-layoff policy, raising pay and hours in the good times and sharing the pain in the bad, rather than balancing the books by whacking its 1,000-strong work force.

As for the rest of American manufacturing, layoffs prevail. And the alarming rate of decline is turning off a new generation of young people on the idea of making stuff for a living.

At the Fabtech 2009 trade show last week, one of the organizers unveiled a national poll of 500 teens showing more than half want nothing to do with a career in manufacturing.

Anyone with a teen at home could probably think of a few explanations, but one reason stands above all: Manufacturing employment has collapsed over the past decade, to a much greater extent than during the Rust Belt crisis that got so much attention years ago.

Between 1980 and 1989, America lost 1.4 million manufacturing jobs, or 7.3 percent, according to the Bureau of Labor Statistics. Between 2000 and last month, 5.6 million jobs went away, a devastating one-third of the total.

What teenager would aspire to become one of those statistics?

The numbers aren't the result of reclassification, or some trick in the data, said Gary Pisano, a Harvard Business School professor. Rather, he sees a "vicious circle" at work: "As the opportunities dry up, fewer people go into it," he explained. "Then, when a company wants to expand in the U.S., it can't find the work force, so they outsource."

The decline goes far beyond the troubled auto industry. Every major category of manufacturing has declined, the government data show. Factories making machinery, metalwork and computers, among other products, all employ far fewer workers than at the start of the decade.

As a result, America is losing the know-how required for innovation and may never get it back, Pisano said. "A manufacturing base is very hard to rebuild."

It's not gone yet. Part of the decline in jobs reflects improved productivity. Contrary to the popular image, blue-collar factory workers use as much brain as brawn these days.

There still are jobs -- millions of jobs. About 25,000 visitors checked out the Fabtech show, where sparks were flying from the latest welding, cutting, drilling and milling machines.

Among those attending was John Ratzenberger, the actor remembered as Cliff in the TV show "Cheers," who also is a zealous believer in making stuff.

He blames TV, in part, for turning America against manual labor.

"We've been taught to make fun of people who make things. Tradespeople like carpenters, plumbers and welders are always depicted as being stupid," he said. "There's tons of jobs in manufacturing."

To an extent, however, that's wishful thinking. Far fewer jobs are available than in the past, and the new ones generally require more skills, said Harvard's Pisano. Labor-intensive assembly work has given way to advanced production, where workers are expected to program and monitor the equipment involved in everything from aerospace and biotechnology to green energy.

"A typical high school graduate with no additional training is not going to run these machines," observed Fabtech attendee Chris Kuehl, an economist specializing in manufacturing.

At last week's four-day show, Hypertherm introduced a new plasma machine, blasting a perfectly round, bolt-ready hole in three-quarter-inch steel.

Meyer, a veteran associate at the Hanover, N.H.-based company, said it's the type of precise and efficient tool that might tempt the world's Caterpillars and Deeres to open their wallets again.

For the workers, learning to operate Hypertherm's motion-control sensors and software is nothing like drilling a hole in the old days, and that's probably a hopeful sign.

As Meyer put it, "This is a different type of high tech."

Greg Burns

