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When Factories Vanish, So Can Innovators

By LOUIS UCHITELLE

SPOONS and forks, the metal flatware that everyone uses, are no longer made in the United States.

The last factory in an industry stretching back to colonial times closed eight months ago in Sherrill, N. Y., a small community in the foothills of the Adirondacks, and 80 employees lost their jobs.

No one paid much attention beyond the people in the town itself, even though the closing represented the demise of an industry that had flourished in this country for generations. Paul Revere, in fact, was a flatware craftsman.

Sherrill Manufacturing, which owned the factory, said in a statement that production had succumbed to less expensive Chinese imports. Robert A. Comis, the Sherrill city manager, said, "It is too common a situation."

Losing an industry or ceasing to manufacture a particular product, in this case stainless steel flatware, has indeed become a fairly frequent event. Just in the last few years, the last sardine cannery, in Maine, closed its doors. Stainless steel rebars, the sturdy rods that reinforce concrete in all kinds of construction, are now no longer made in America. Neither are vending machines or incandescent light bulbs or cellphones or laptop computers.

Less noticeably, American manufacturers are importing more of the components that go into their

products. The imported portion has risen to more than 25 percent from 17 percent in 1997, according to Susan Houseman, a senior economist at the [W.E. Upjohn Institute](#) in Kalamazoo, Mich. The [Boeing Company](#), to consider one striking example, once bought all of its components from American suppliers, or made them in its factories here. Now the wings of several of its airliners are manufactured by Japanese subcontractors and shipped across the Pacific in giant cargo planes.

Foreign-made parts might also be infiltrating the sleek business jets that the Gulfstream Aerospace Corporation makes at its United States factories. Joseph T. Lombardo, Gulfstream's president, says he isn't sure, although Gulfstream buys components exclusively from American suppliers. "What I don't know," he says, "is how many of the parts in those components were imported by our American suppliers."

It is certainly more than we measure, Ms. Houseman says. An accurate count would reduce manufacturing's share of the gross domestic product, or total national output, to less than the 11.2 percent that the Bureau of Economic Analysis has reported through 2009, the latest figure available.

That 11.2 percent would be closer to 10.5 percent, if all of the imported components were counted as imported instead of domestically made. Even the 11.2 percent figure is down sharply from the 14.2 percent share of just a decade earlier, and the nearly 30 percent of the heyday 1950s, when almost every product bought by Americans was also made here.

Concern is increasing that this decline has gone too far. "I think there is a growing recognition that a diminished manufacturing sector will undermine our economy," says Mark Zandi, chief economist for [Moody's Analytics](#).

How did the nation get into this situation? It gambled, in effect, that by importing more from foreign suppliers and from American companies that had set up shop abroad, consumer prices for manufactured products would fall, without any sacrifice in product quality. Low-wage workers abroad would make that happen.

American manufacturers, on the other hand, would be the world's best innovators, developing sophisticated new products here at home and producing them, at least initially, in their domestic factories.

The first part of the arrangement worked very well. Consumer prices did fall as imports flooded in — from foreign manufacturers, of course, but also from factories newly opened abroad by American multinationals. The flood was so great that President [Ronald Reagan](#) in the 1980s placed temporary quotas on Japanese autos and motorcycles, and tariffs on selected electronic devices.

The second part of the arrangement, however, has been more problematic. As it turns out, the United States is not the only path-breaker. The Toyota Prius, the first hybrid, shines as an example of Japanese ingenuity, and more than a decade after that car was developed it is still being exported from Japanese factories, marrying innovation to production and jobs.

The [iPad](#) and the [iPhone](#), developed by [Apple](#) in the United States, are spectacular technologies. But the devices themselves are made in Asia, not America. And as time passes, the people who make the iPad and the iPhone day after day — the engineers and factory workers in Asia — may produce the next innovations. Or so many experts are coming to believe, including Ms. Houseman.

“The big debate today is whether we can continue to be competitive in R&D when we are not making the stuff that we innovate,” she says. “I think not; the two can't be separated.”

THE loss of manufacturing capacity, measured in lost workers, is startling. From the high point in the summer of 1979, through last month, employment in manufacturing has fallen by 8.1 million, to 11.6 million, with most of the drop in just the last decade. While consumers have benefited from lower prices, made possible by unrestricted imports, on the other side of the ledger are tens of billion of dollars in lost manufacturing wages.

Something else is gone, too. “We had a storehouse of knowledge and skill built up in these workers and we can't use it now,” says James Jordan, president of the Interstate Maglev Project, promoting a [high-](#)

speed rail technology that uses special magnets to levitate and propel trains. Maglev was invented in the United States, but equipment based on that technology is manufactured and used today in Japan.

Mr. Jordan argues that as manufacturing's presence — and status — shrinks in America, the odds of a **Henry Ford** or a **Thomas Edison** or a **Steve Jobs** appearing in the next generation are reduced.

Certainly people like **Mark Zuckerberg** of **Facebook** are inventors, though not of physical products.

“Young people stop thinking about making things,” Mr. Jordan says. “It is no longer in their heads. They have a different mental orientation.”

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