CRS Insights

Measuring the Loss of Manufacturing Jobs
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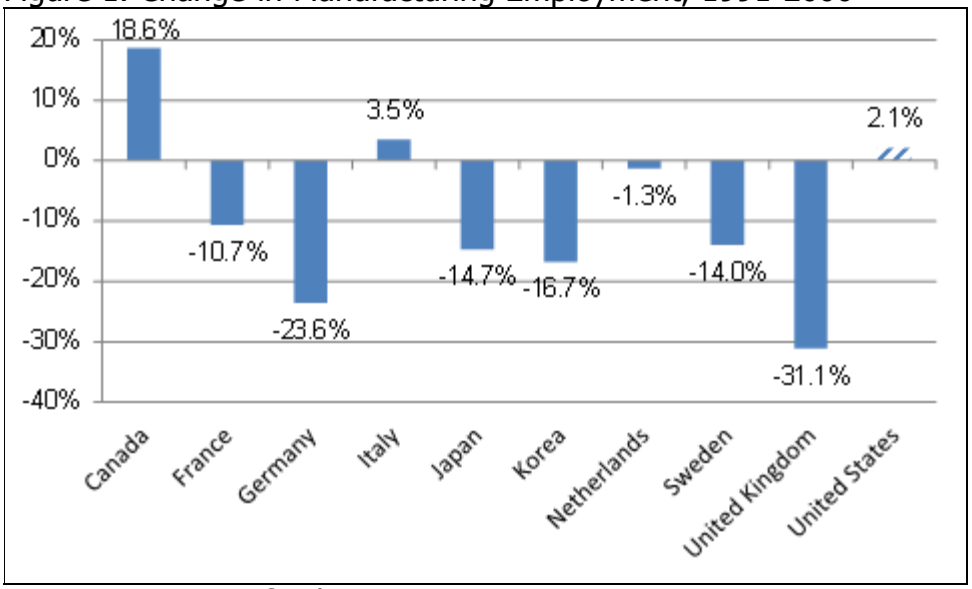
Five million fewer Americans work in manufacturing today than at the start of the 20th century. The causes of this decline are politically controversial; while CRS research has pointed out that other wealthy countries have experienced manufacturing employment declines (see CRS Report R42135, *U.S. Manufacturing in International Perspective*, by Marc Levinson), other analysts have blamed factors unique to the United States, such as U.S. trade and tax policies, for what they consider a disproportionate decline in U.S. manufacturing activity.

In testimony last week before the Senate Finance Committee, an analyst with a Washington think tank asserted that "U.S. manufacturing job losses have been extreme compared to those experienced in peer countries." According to the testimony, no country other than Great Britain lost a greater share of its manufacturing jobs than the United States did between 1997 and 2009.

Such cross-country comparisons are highly sensitive to the time period selected and the variables used. Also, long-term comparisons involving Germany are difficult, as data for the entire country are available only since 1991, following the reunification of East and West Germany in 1990. Within those constraints, however, data suggest that the United States is not an outlier when it comes to losing factory jobs.

In the case of manufacturing employment, many wealthy economies saw manufacturing jobs begin to vanish several years earlier than the United States. Between 1991 and 2000, for example, manufacturing employment grew slightly in the United States, but fell by large amounts in France, Germany, Japan, Korea, Sweden, and the United Kingdom (see **Figure 1**). Some of the job loss in Germany was undoubtedly due to the closure of inefficient East German factories in the years following reunification.

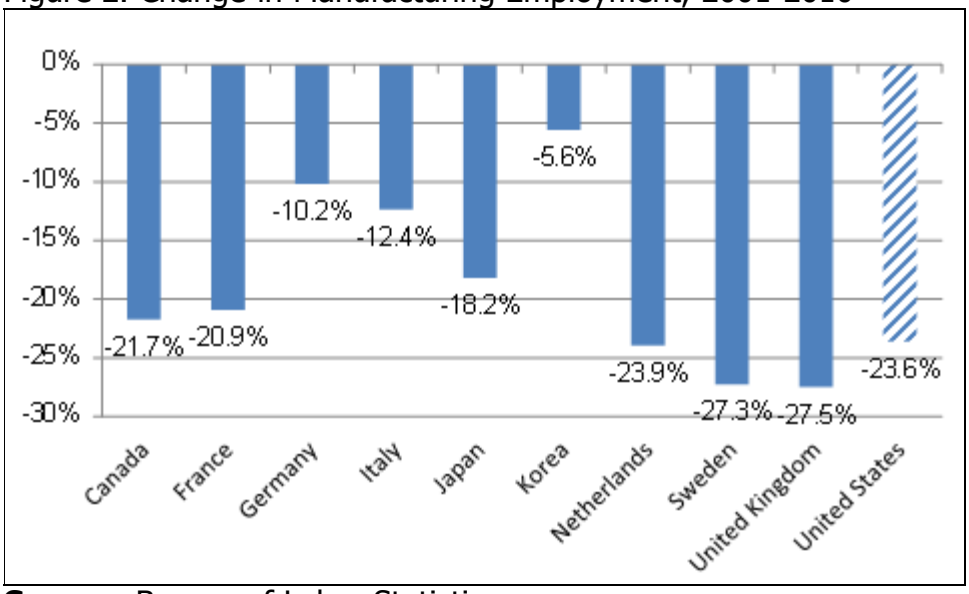
Figure 1. Change in Manufacturing Employment, 1991-2000



Source: Bureau of Labor Statistics.

Over the decade between 2001 and 2010, manufacturing employment declined in the United States and in almost all its peer economies (**Figure 2**). In this period, the United States lost proportionately far more manufacturing jobs than Germany, but its rate of employment change was similar to that of most other countries of similar income level.

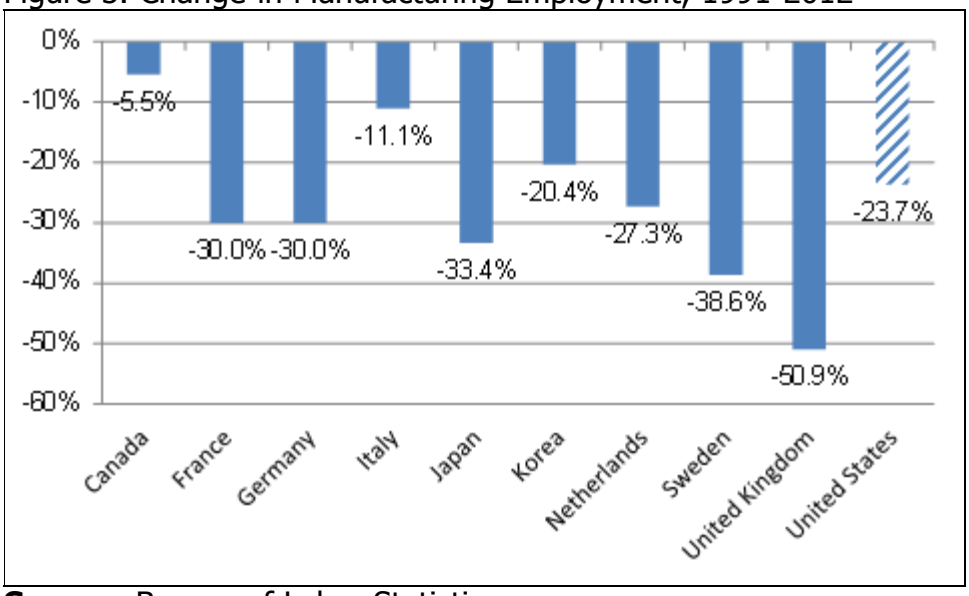
Figure 2. Change in Manufacturing Employment, 2001-2010



Source: Bureau of Labor Statistics.

Over the entire period between 1991 and 2012, the most recent year for which comparative data are available, the United States shed 23.7% of its manufacturing jobs. This was a smaller percentage decline than that experienced by many peer economies, including France, Germany, Japan, the Netherlands, Sweden, and the United Kingdom (**Figure 3**).

Figure 3. Change in Manufacturing Employment, 1991-2012



Source: Bureau of Labor Statistics.

The number of workers is not the sole measure of employment change in manufacturing. An alternative measure considers the hours of labor provided by manufacturing-sector workers. According to this measure, which is now compiled by the Conference Board, a business research organization, the total number of hours worked in U.S. manufacturing has declined at a 1.3% annual rate since 1979. This is very close to the rates of decline in Belgium, Finland, Germany, Japan, and other countries with high income levels.

An interesting chart published by the Conference Board goes far to explain these trends. The chart shows that Germany and the United States had about the same annual rate of growth in manufacturing output between 2000 and 2012. The United States accomplished this with a 3% annual decline in manufacturing work hours, while Germany had only a 1% annual decline. The difference is

labor productivity, which rose at an annual rate of 4.6% in U.S. manufacturing but only 2.7% in German manufacturing.

One difficulty with measuring manufacturing employment is that it is increasingly difficult to identify. A large and growing proportion of manufacturing-sector workers—61% in the United States—performs tasks other than physical production of goods. And it is likely that a larger share of manufacturing-related jobs, such as product design in a consulting firm and customization in a warehouse managed by a logistics company, is not performed within the confines of a manufacturing company. Due to such trends, the question, "How many people work in manufacturing?" is becoming steadily harder to answer.

Related Issues Before Congress:

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