ECONOMIC FINDING

The Transformation of Manufacturing and the Decline in US Employment

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Employment rates and hours worked for prime-age men declined dramatically since 2000. Sectoral changes in manufacturing explain much of this decline, with prime-age workers with less education feeling the brunt of these sectoral changes. Negative social effects, like increased drug use, hamper a region's ability to recover.

In December 2017 the unemployment rate was 4.1 percent, far below its peak of 10 percent in October 2009 in the depths of the Great Recession, and nearly equaling the 3.9 percent in December 2000. From this reading of the data, the labor market had made tremendous gains to return to its pre-crisis strength. However, those headline unemployment numbers mask a precipitous decline in employment among prime-age working men linked to the decline in manufacturing, with negative effects that extend beyond the health of labor markets to the well-being of communities and their citizens.

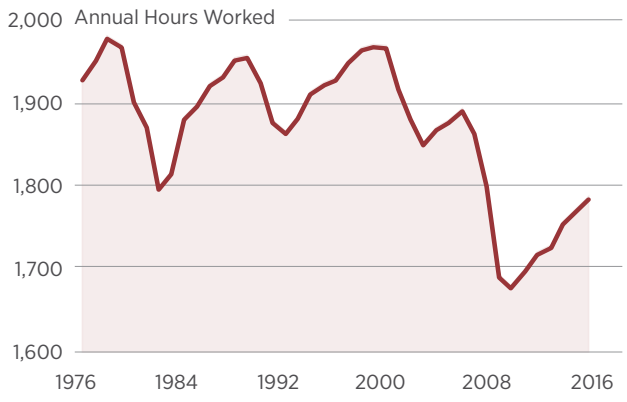
Between 2000 and 2017, employment rates for men aged 21 to 55 fell by 4.6 percentage points, and hours worked per year fell by over 180 hours (employment effects for women are also negative but less dramatic). These declines in employment began prior to the Great Recession while the economy was growing, and only worsened after 2007.

To put this decrease in perspective, the secular (or long-term) decline in annual hours worked for prime-age men from 2000 to 2017 is as large as the cyclical decline in annual hours worked during the 1982 recession. In other words, while the economy cycled through ups and downs between 2000 and 2017, prime-age working men endured a sort of shadow downturn, a 17-year decline in employment.

Using a variety of data sources and empirical approaches, the authors reveal the connection between this decrease in hours worked and the decline in manufacturing. Perhaps most sobering is the authors' conclusion that those manufacturing jobs are not coming back. The increased pace of decline in manufacturing employment since 2000—when output actually increased by about 5 percent—reveals that improvements in productivity

Figure 1

Annual Hours Worked for Men Aged 21-55 (1976 - 2016)



Monthly US Manufacturing Employment (1977-2014)

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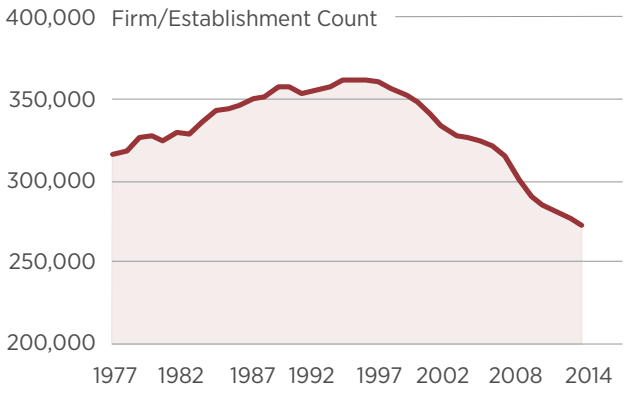
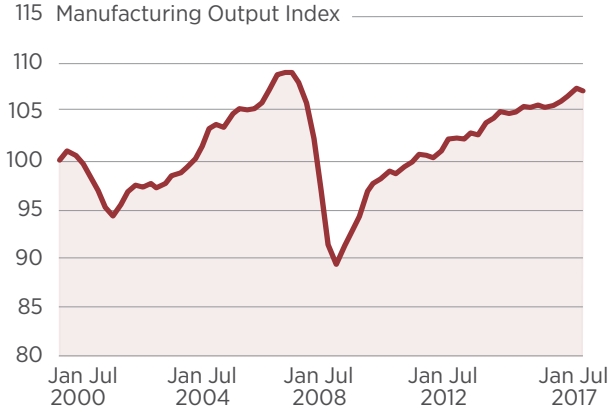
Figure 2

Total Number of Manufacturing Establishments in the US (1977-2017)



US Quarterly Real Output Index for the Manufacturing Sector (2000 - 2017)



are driving the decline in employment. Fewer workers are needed to produce more, and this won't change. Therefore, efforts to rescue jobs through trade policy are misdirected, the authors' show.

Beyond the labor market, the authors find further negative effects stemming from the decline in manufacturing employment. The authors' novel research supports the emerging view that labor market conditions can impact different dimensions of health: In this case, loss of manufacturing jobs are associated with higher rates of prescription opioid abuse and overdose deaths. Further, those negative social effects can prevent the economic recovery of these regions as possible employers may be reluctant to locate where a large number of potential workers frequently fail drug tests.

Finally, the authors investigate why these sectoral changes seem so intractable. Industries have evolved for decades and workers have either moved, taken new jobs or otherwise adapted. However, many workers today in these communities seem trapped in place, opting to drop out of the workforce and otherwise make ends meet.