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*Commentary on the rural economy*



## Trends in Rural Manufacturing

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The recession of 2001 has hit the U.S. manufacturing sector particularly hard. Nearly all types of factories—high-tech and low-tech, durable-goods-producing and nondurable-goods-producing—have been affected in some way. But the slump has hurt rural America especially, because manufacturing remains more prevalent in rural areas than in metro areas.

This article looks at just how important factory activity is to rural areas across the country. It also examines how rural factories performed during the expansion of the 1990s and the recession of 2001. The article then discusses the ongoing challenges rural manufacturers face from increased global competition and rapidly emerging technologies in production.

**Rural manufacturing's significance**

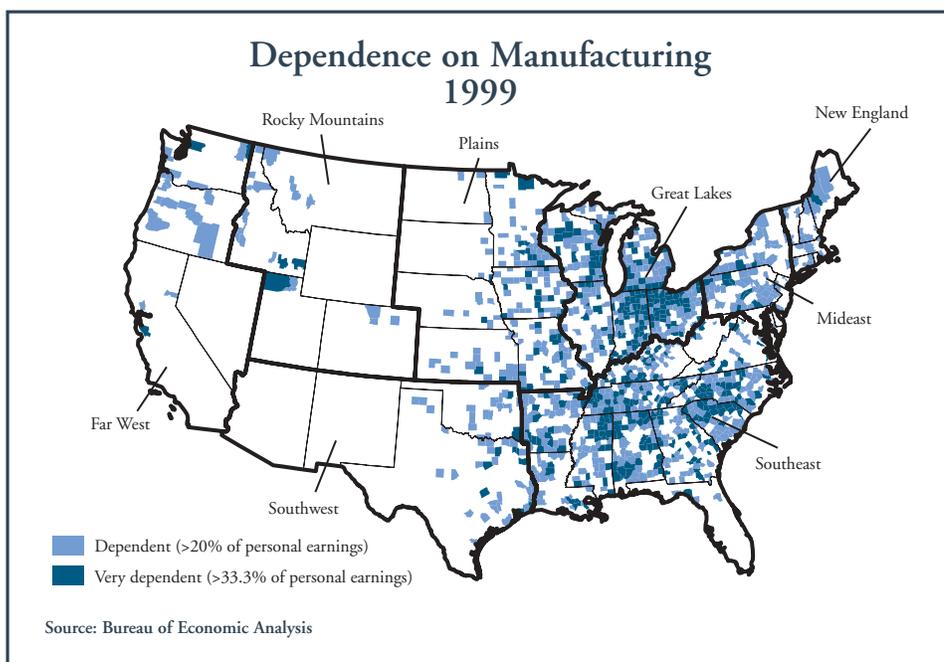
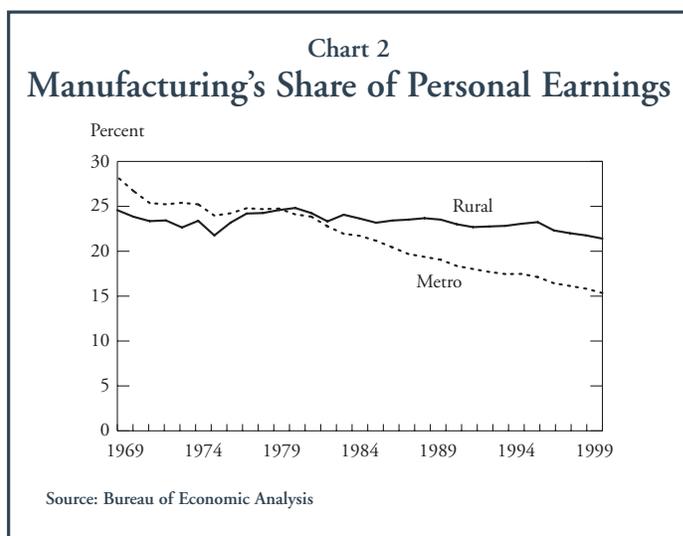
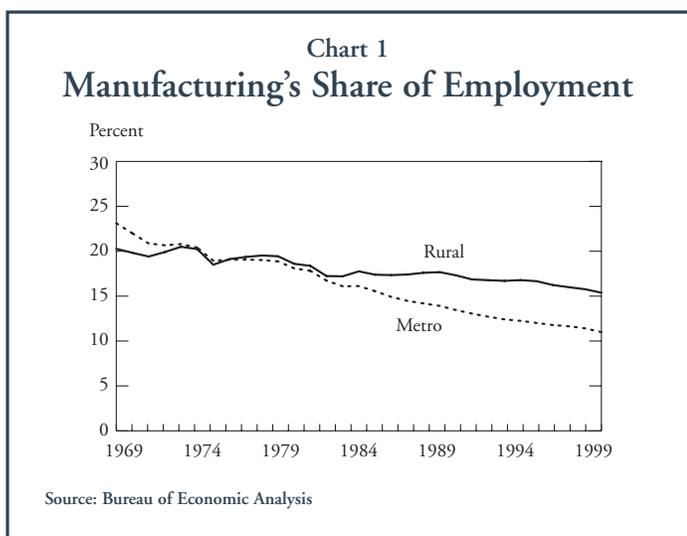
Over the last 20 years, the U.S. economy has become more service-oriented and more reliant on imports for many of its manufactured goods. As a result, manufacturing's share of national employment and earnings has fallen considerably. But most of this national decline has been centered in the nation's metro areas. In rural areas, manufacturing's share of economic activity has fallen much less (Charts 1 & 2).

Economic studies have documented several causes for the relatively steady presence of rural manufacturing.<sup>1</sup> For one,

rural areas are generally more attractive to manufacturing firms because wages, property taxes, and land costs are all lower than in most metro areas. Looking just at wages, rural factory workers earned only about two-thirds as much on average as urban manufacturing employees in 1999. Even so, the average earnings for a rural manufacturing job outpaced the average earnings for all other rural jobs by about 50 percent. These comparatively high wages, along with the prestige of having a sizable plant in a small town, continue to make manufacturing desirable to many local economic

developers.

A shift in some kinds of manufacturing from urban to rural areas began in the 1980s. This shift has also helped maintain the importance of manufacturing to rural America. Import competition, particularly from Asia, became intense for many American manufacturers in the 1980s, forcing them to look for cheaper methods of production. One way to cut costs was to move some operations from cities to towns, where labor costs were cheaper. This trend helped make up for the loss of firms in some traditionally rural industries, such as



textiles and leather, which moved to lower cost foreign countries due to similar pressures of international competition.

Finally, rural areas have not experienced the same boom in service activity that metro areas have enjoyed over the past two decades. Thus, manufacturing remains relatively more important in rural areas than in cities. Employment in the telecommunications industry, in particular, has increased far more rapidly in recent years in metro areas. The demand for telecom services is generally greatest, and service provision easiest, in more populated places. Services activity has grown to some extent in rural areas, helping offset job losses in agriculture and mining, but it hasn't grown as quickly as in the nation's metro areas.

**Regional differences in the 1990s**

Manufacturing has remained important to more than just a few of America's rural areas. In fact, more rural counties today depend on manufacturing than on any other sector of the economy. Still, the importance of rural manufacturing ranges widely from region to region. And the recent growth in rural manufacturing has differed across the country.

Like urban manufacturing, most rural manufacturing continues to concentrate in the eastern half of the United States (see map). Among the nation's economic regions (as defined by the Bureau of Economic Analysis), manufacturing's share of rural economic activity is highest in the Great Lakes

region. Rural factories in this traditional manufacturing region still account for 20 percent of jobs and 30 percent of personal earnings—percentages that are very similar to those of 30 years ago. Moreover, manufacturing's presence in the region strengthened during the 1990s, allowing steady job growth to continue.

Rural factory employment in the 1990s also rose considerably in the Plains and Rocky Mountains regions. This increase has been especially important in the Plains region, where the rural population has declined over the past decade. However, many of the new plants in these traditionally agricultural states are in the relatively low-paying food processing industry. In the

Rocky Mountains region, despite fairly rapid growth in factory jobs over the last ten years, the concentration of manufacturing activity actually decreased. Jobs in many of the region's other rural industries increased even faster than manufacturing jobs in the 1990s, as overall population surged.

In contrast to the interior regions of the country, rural

factory jobs in the nation's coastal regions declined in the 1990s. New England continued to lose a large number of jobs at rural plants producing nondurable goods, such as textiles. The rural Mideast suffered from declines in many durable goods industries, such as steel. The rural Southeast also began losing factory jobs in the mid-1990s, particularly in textile and apparel manufacturing, industries that have been especially hard hit by trade agreements such as NAFTA. Finally, over the past decade the rural Far West lost jobs in several manufacturing industries, including its important lumber industry.

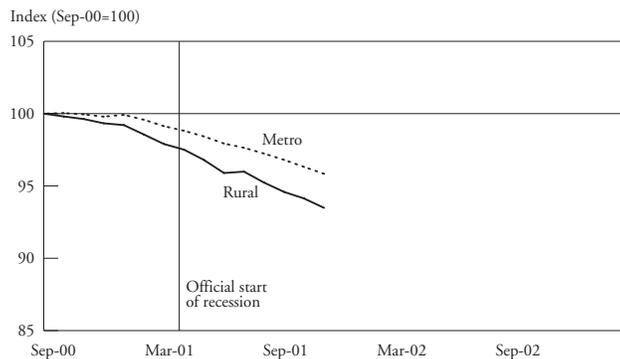
**The 2001 recession**

The 2001 recession has been a rough one for the nation's manufacturers, particularly rural ones. From the end of 2000 to the end of 2001, U.S. manufacturing employment fell more than 7 percent, a loss of more than 1.3 million jobs. Firms in many industries made sizable job cuts. Since the onset of the recession last March, factory employment has fallen even more sharply in rural areas (Chart 3). This sharper downturn, combined with the fact that manufacturing makes up a larger share of rural jobs, has depressed total nonfarm employment in rural areas more than in metro areas.

Recent activity has been mixed in the manufacturing industries that are important to rural areas—food and tobacco; textiles, apparel, and leather; and lumber, furniture, and paper (Table 1). Producers of food-related products have held up relatively well during the recession, showing once again that food demand is fairly resilient in economic downturns. Meanwhile, employment in textiles, apparel, and leather, which was already declining in the 1990s (particularly following the passage of NAFTA) dropped sharply with the recession. Employment in wood-related industries has declined as much as in industries that typically concentrate in metro areas.

Of course, no one knows exactly when the industrial slump will end, but most analysts predict the economy will rebound sometime in early 2002. Data from past recessions suggest, however, that rural manu-

**Chart 3  
Manufacturing Employment  
in the 2001 Recession**



Source: Bureau of Labor Statistics

**Table 1  
Industry Composition and Growth**

Industry Group	Share of Rural Mfg Earnings, 1999	Share of Urban Mfg Earnings, 1999	Avg Annual Job Growth, 1990s	Job Growth in 2001
Food & tobacco	11%	6%	0.1%	0.2%
Textiles, apparel, leather	8	3	-4.2	-13.2
Lumber, furniture, paper	20	7	0.3	-5.9
Chemicals, petroleum, rubber	11	15	0.2	-4.2
Metal, equipment, instruments	41	55	-0.3	-9.4
Other manufacturing	10	13	0.1	-5.4
All manufacturing	100%	100%	-0.4%	-7.2%

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics

Chart 4  
Manufacturing Employment  
in the 1990–91 Recession

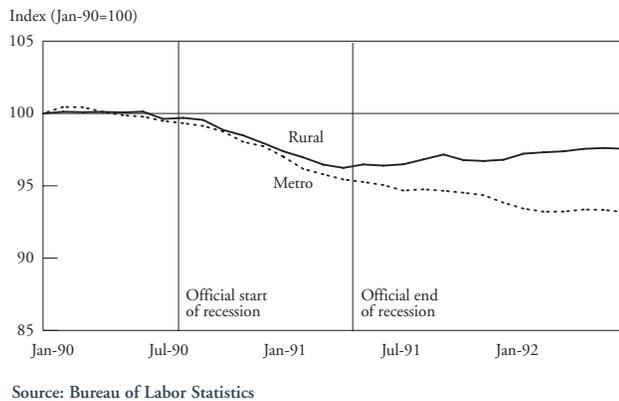
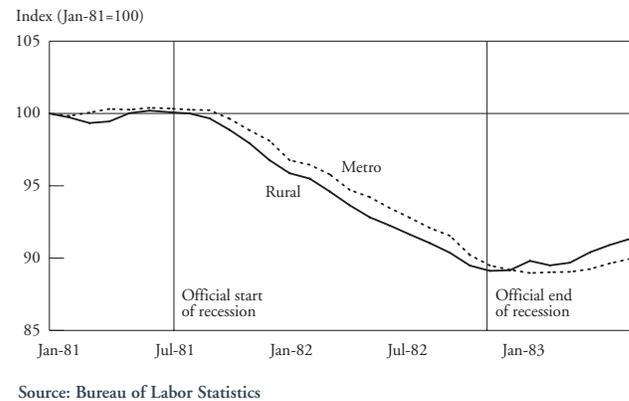


Chart 5  
Manufacturing Employment  
in the 1981–82 Recession



facturing activity should begin a steady rebound at the end of the downturn, regardless of the length or depth of the recession.

The earlier and sharper downturn in rural manufacturing jobs relative to urban manufacturing jobs in 2001 differs from trends in the nation's two most recent recessions. During the relatively brief recession of 1990-91, manufacturing employment at the beginning of the downturn fell almost equally in rural and urban areas before picking up in rural areas as the recession neared its end (Chart 4). The decline in factory employment during the more lengthy and painful recession of 1981-82 also showed little difference between urban and rural areas (Chart 5). But, like the 1990-91 recession, rural factories began adding jobs more quickly than urban areas at the end of the downturn.

### Ongoing challenges

Even before the onset of the current recession, many rural manufacturers were facing serious challenges. Perhaps the two biggest ongoing challenges have been dealing with the globalization of the economy and finding enough workers trained in using a new generation of technology.

Over the past decade, globalization has clearly taken a toll on manufacturing in many parts of the country—particularly

among producers of textiles, apparel, and leather. These industries are largely concentrated in rural areas. The opening of world trade through tariff and trade agreements has meant that many of these products can now be produced much more cheaply in foreign countries. Cheaper labor—the biggest historical advantage of rural areas—has largely been taken away. This trend is only likely to continue given the ongoing expansion of trade around the world. As a result, rural factories must find new comparative advantages.

Fortunately, the rapid introduction of new manufacturing technologies offers new sources of comparative advantage. These technologies consist mainly of computerized methods of managing inventories, automating production, and improving communication flows within factories. But rural areas struggle to adopt many of these new technologies, due largely to an inadequately trained workforce. The 1996 Rural Manufacturing Survey, performed by the U.S. Department of Agriculture, helped illustrate this point. The survey showed that the chief concern of both urban and rural manufacturers is typically the quality of their workforce.<sup>2</sup>

Contrary to popular perception, the survey found that, in general, rural manufacturers were as satisfied as their urban counterparts with their workers' skills. Both

urban and rural manufacturers increasingly require their workers to have many nontraditional skills, such as problem-solving and interpersonal skills. But the survey did reveal a discrepancy between urban and rural factories. Rural workers tend to lack computer skills. Training workers to adapt to ever-changing methods of production promises to be a difficult task for rural plant managers for years to come.

### Conclusion

Manufacturing remains a driving force in many of the nation's rural areas, but it also faces many challenges. Even before the difficulties caused by the recession of 2001, rural factories were dealing with the effects of globalization and the rapid change of technology. It remains to be seen how rural factories cope with these challenges. Given the importance of manufacturing to rural areas, however, one thing is certain: How well rural manufacturers are able to meet these challenges will profoundly affect the economic well-being of a large number of Americans.

<sup>1</sup> For example: Roth, Dennis. 2000. "Thinking About Rural Manufacturing: A Brief History," *Rural America*, January.

<sup>2</sup> Gale, et al. 1999. "Rural Competitiveness: Results of the 1996 Rural Manufacturing Survey," *USDA Agricultural Economic Report Number 776*, March.