

Business

AN EIGHTH DISTRICT PERSPECTIVE

WINTER 1985-86

St. Louis Manufacturing Employment: A Closer Look at Industrial Subsectors

The shift in national employment away from manufacturing and toward services has been widely publicized. A previous issue of *Perspective* established that the Eighth District also has participated in these trends.¹ Rather than a dramatic, recent phenomenon, however, the analysis noted that manufacturing's contribution to total employment has declined steadily since the 1960's in both the nation and the region.

In this issue we return to the topic of manufacturing employment and investigate trends in its composition in St. Louis over the period of the 1982-85 economic recovery.² Discussing manufacturing as a single entity ignores the very different performance of the individual industries that make up manufacturing and hides the fact that, while some U.S. manufacturing industries have declined in recent years, many others have grown. Even though the net effect of these changes may have been a decline in the proportion of workers in manufacturing, considering only the aggregate change masks the myriad of factors that affects this sector of the economy.

Manufacturing's Declining Share of Employment

Since 1982, manufacturing's share of total nonfarm employment has fallen from 22.1 percent to 21.6 percent in 1985.³ Although this decline is small, it is a continuation of a much longer trend. The chart on page 2 shows that manufacturing's share of St. Louis employment has declined steadily from 29.1 percent in 1972. A similar decline occurred nationally with manufacturing accounting for 26 percent of

¹ See Catherine Axtell Bieber, "Manufacturing vs. Services: A Dramatic Shift in the District Economy?" *Business: An Eighth District Perspective*, Federal Reserve Bank of St. Louis (Spring 1985).

² In this analysis we refer to the St. Louis Metropolitan Statistical Area (MSA), which includes St. Louis City; Franklin, Jefferson, St. Charles and St. Louis counties in Missouri; and Clinton, Madison, Monroe and St. Clair counties in Illinois.

³ All employment data exclude agricultural employment. Employment data for 1985 are calculated based on the 10-month period ending in October 1985.

Table 1
St. Louis Employment Growth by Sector, 1982-85*

Total Nonagricultural Employment	2.3%
Manufacturing	1.4
Nondurables	-0.4
Food and Kindred Products	0.2
Textile Mill Products	-3.7
Printing and Publishing	3.4
Chemicals and Allied Products	-0.3
Durables	2.6
Primary Metal Products	-4.0
Fabricated Metal Products	-1.7
Machinery, except Electrical	0.7
Electronic Equipment	1.4
Transportation Equipment	7.4
Motor Vehicles and Equipment	25.8
Aircraft and Parts	2.8

*Compounded Annual average rates of growth.

nonfarm employment in 1972, falling to 20 percent by 1985.

The decline in manufacturing's share of St. Louis employment between 1982 and 1985 resulted not from a decline in the number of manufacturing workers, but from a slower-than-average growth rate in this sector. The average annual growth rates for employment in manufacturing and its largest subsectors shown in table 1 indicate that total manufacturing employment in St. Louis actually increased during the recovery period at a 1.4 percent average annual growth rate. This resulted in an increase in St. Louis manufacturing employment from approximately 217,900 in 1982 to 277,400 in 1985. This growth, however, trailed the 2.3 percent average annual rate of growth of total nonfarm employment.

Divergent Performance of Key Manufacturing Subsectors

The slow increase exhibited by the manufacturing sector as a whole has not been shared by all of the manufacturing subsectors. The transportation equipment subsector, for example, has expanded at a 7.4 annual rate since 1982. This industry dominates



MANUFACTURING SHARE OF TOTAL NONFARM EMPLOYMENT: ST. LOUIS AND U.S.



manufacturing in St. Louis, providing almost a quarter of all manufacturing jobs in 1985. The 25.8 percent annual growth rate of the motor vehicles and equipment industry, a component of the transportation subsector, has been largely responsible for the rapid increase in the transportation sector. Growth in another transportation industry, aircraft and parts, also has been strong, growing at a 2.8 percent rate.

Employment in subsectors producing electronic and nonelectric machinery, however, has grown slowly, expanding at rates of 1.4 percent and 0.7 percent, respectively. Employment in the two remaining major durable manufacturing sectors, primary and fabricated metals, actually has declined at respective rates of 4 percent and 1.7 percent.

Of the major manufacturing subsectors producing nondurables, the textile mill products and chemicals and allied products industries have declined at respective annual rates of 3.7 percent and 0.3 percent since 1982. In contrast, the food and kindred products and printing and publishing subsectors have increased at rates of 0.2 percent and 3.4 percent, respectively.

Conclusion

The ongoing decline in manufacturing employment as the

share of total employment often is misunderstood. As a previous issue of **Perspective** explained, the shift of employment from manufacturing to services is not a recent phenomenon but has been continuing since the 1960s. Moreover, rather than an inexorable uniform decline across all manufacturing sectors, some subsectors have expanded during the last three years, while others have contracted. This diversity in performance suggests that any analysis of trends in manufacturing employment is complex and not likely to be traced to any single factor such as the strong dollar and lower-priced imports.

Nationally, manufacturing industries in the United States have exceeded the average rate of labor productivity growth between 1975 and 1984.⁴ This faster-than-average growth in productivity has allowed manufacturing's share of total national output to exhibit long-term stability despite a falling share of employment. If similar productivity gains were made by St. Louis manufacturers, the employment declines observed in some sectors may not be indicative of a contraction in output, but, rather, more efficient use of labor.

⁴Michael F. Bryan, "Is Manufacturing Disappearing?" *Economic Commentary*, Federal Reserve Bank of Cleveland, July 15, 1985.

—Thomas B. Mandelbaum

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EIGHTH DISTRICT BUSINESS DATA

	Growth Rates ¹		
	Current Period	Year-to-Date 1985	1984
General Business Indexes²	Aug-Oct		
Arkansas	1.0%	0.7%	3.2%
Kentucky	0.4	2.2	5.0
Missouri	2.7	2.6	3.5
Tennessee	3.9	2.2	6.7
Retail Sales³	July-Sept		
United States	8.2%	8.8%	7.6%
Arkansas	4.1	5.5	2.4
Kentucky	6.9	16.2	0.1
Missouri	-3.3	6.7	9.0
Tennessee	13.3	8.4	10.9
Payroll Employment	Aug-Oct		
United States	2.8%	3.0%	4.4%
District	1.8	1.8	3.8
Arkansas	0.8	0.3	4.6
Little Rock	5.3	-0.6	3.7
Kentucky	2.2	4.0	4.0
Louisville	4.5	2.3	2.8
Missouri	-0.5	0.0	3.3
St. Louis	0.4	0.4	3.7
Tennessee	4.6	3.0	3.9
Memphis	4.9	2.7	4.7
Average Hourly Earnings-Mfg.	Aug-Oct		
United States	0.6%	2.9%	3.7%
Arkansas	5.0	4.7	2.6
Little Rock	1.5	3.1	-1.7
Kentucky	0.6	2.1	3.5
Louisville	3.0	1.7	3.6
Missouri (June)	2.2	0.1	5.5
St. Louis (June)	-0.4	1.4	6.1
Tennessee	5.2	2.5	6.2
Memphis	0.8	4.3	5.7
Personal Income	2nd quarter '85	Year-to-Date 1985	1984
United States	4.0%	5.1%	9.9%
District	1.0	3.0	10.7
Arkansas	-10.8	0.2	12.2
Kentucky	2.8	1.4	11.2
Missouri	2.9	4.1	10.2
Tennessee	3.2	4.3	10.1
	Employment¹	Prices¹	
	(current period Aug-Oct)	(current period Aug-Oct)	
	Year-to-Date 1985	Year-to-Date 1985	Same Period 1984
Key Industries			
Fabricated Metal Products	0.4%	14.8%	0.8%
Electrical and Electronic Equipment	-3.5	6.7	1.2
Nonelectrical Machinery	-4.8	11.8	1.8
Transportation Equipment	-4.2	7.1	1.5
Food and Kindred Products	0.9	1.4	-2.8
Textile and Apparel	-4.8	1.9	0.1
Printing and Publishing	-0.8	4.1	5.2
Chemicals and Allied Products	-2.2	-12.8	0.8
Construction	5.3	16.4	1.1

EIGHTH DISTRICT BUSINESS DATA

	<u>Current Period¹</u>	<u>Previous 3 Months</u>	<u>Average Year- to-Date 1985</u>	<u>Average 1984</u>
Unemployment Rate	Aug-Oct			
United States	7.1%	7.3%	7.2%	7.5%
District	8.2	7.7	7.9	8.4
Arkansas	9.5	8.1	8.5	8.9
Little Rock	7.2	6.2	6.5	7.1
Kentucky	9.9	8.5	8.7	9.5
Louisville	8.2	8.0	8.0	8.6
Missouri	6.5	6.7	6.7	7.2
St. Louis	7.5	7.9	7.7	8.1
Tennessee	8.3	8.0	8.1	8.5
Memphis	6.7	6.4	6.4	7.2
 Construction Contracts⁴ (millions of dollars)	Aug-Oct			
District	\$939.7	\$909.1	\$871.5	\$830.4
Arkansas	118.3	104.2	103.4	115.7
Kentucky	203.3	212.8	186.4	167.5
Missouri	274.5	304.2	268.1	251.4
Tennessee	343.5	288.0	313.6	295.7

NOTE: With the exception of construction contracts and employment and prices in key industries, all data are seasonally adjusted.

¹Data are presented as three-month averages to minimize distortions due to the large variability of monthly data. The current period growth rate is a comparison of the average of the current three months to the average of the previous three months. The year-to-date growth rate is from the average of the three months ended in December 1984. All growth rates are compounded annual rates of change.

²Sources: Arkansas and Missouri from Southwestern Bell, Kentucky and Tennessee from South Central Bell.

³Sources: Arkansas from Southwestern Bell, Kentucky from Kentucky Revenue Department, and Missouri/Tennessee from U.S. Department of Commerce.

⁴Source: F.W. Dodge, Construction Potentials, McGraw-Hill Information Systems Company, proprietary data provided by special permission.