Business

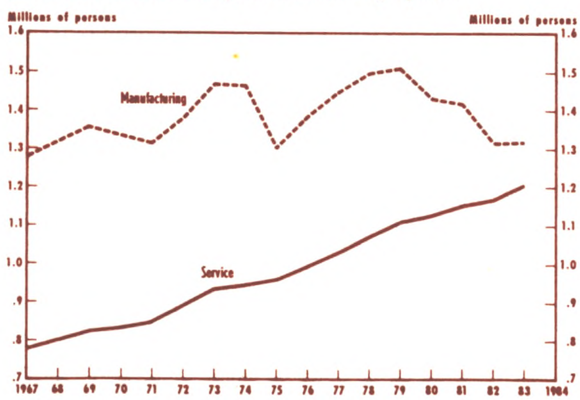
AN EIGHTH DISTRICT PERSPECTIVE

Spring 1985

Manufacturing vs. Services: A Dramatic Shift in the District Economy?

A great deal has been written about the shift in the composition of the domestic economy away from manufacturing and toward services. Some analysts have suggested that this shift has been a recent, dramatic phenomenon. Several studies, however, have disputed this belief, indicating that the shift away from manufacturing toward services has been going on for a long time and has not accelerated dramatically. This issue compares wage and salary disbursement and employment trends in the manufacturing and service sectors to determine the extent of this shift in the Eighth Federal Reserve District.

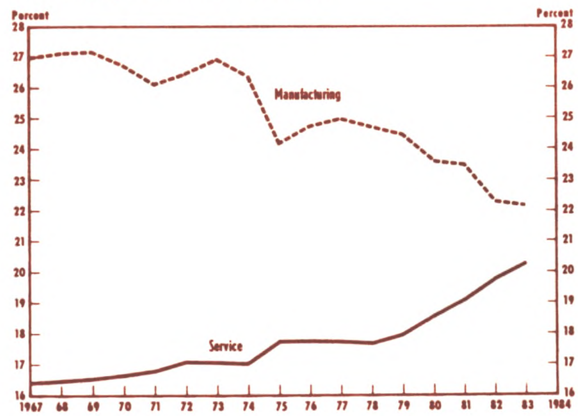
Chart 1
8th District Manufacturing and Service Employment



A Look at the Data

A comparison of manufacturing and service employment from 1967 to 1983 shows that the number of jobs has risen in both sectors, though manufacturing employment has increased only slightly — much less rapidly than service sector employment (see chart 1). In the late 1960s, total employment in the District grew at a 1.7 percent rate.[1] Manufacturing employment, however, grew at a slower 1.4 percent rate, while service employment

Chart 2
Contribution of Manufacturing and Service Sectors to Total Employment in the 8th District



exceeded the growth of total employment at 2.3 percent. In the 1970s, growth in total employment was a more rapid 2 percent. Over the same period, the growth rate of manufacturing employment fell to 0.7 percent, while the growth in service employment increased to 3.1 percent. In the more recent 1981-83 period, though total employment has fallen at a 0.6 percent rate and manufacturing employment at a more rapid 2.7 percent rate, service employment has increased at a rate of 2.3 percent.

Manufacturing's contribution to total employment also has declined since 1967, while the service sector's contribution has increased. As chart 2 indicates, while District manufacturing averaged 27 percent of total employment from 1967 to 1970, its share declined to 25.2 percent in the 1970s and again to 22.6 percent in the 1981-83 period. This is similar to the nationwide trend. Manufacturing in the United States accounted for 26.4 percent of employment in 1967. That share fell steadily to 23.6 percent in 1972, 22.1 percent in 1977 and 19.7 percent in 1982.

In contrast, the District service sector, which accounted for an average of 16.5 per-

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[1]All growth rates are compounded annual rates of change. Data were obtained from Wharton Econometric Forecasting Associates.

Chart 3
8th District Manufacturing and Service Wage Bill

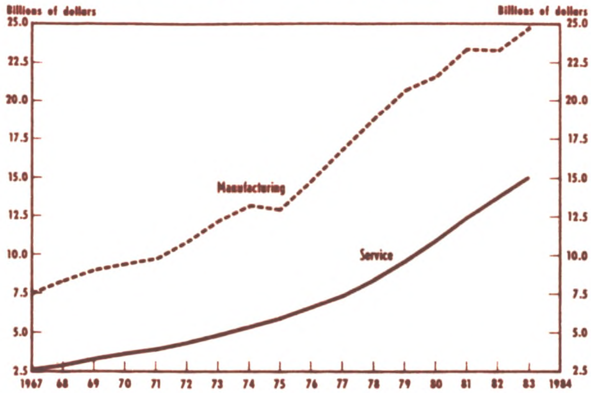
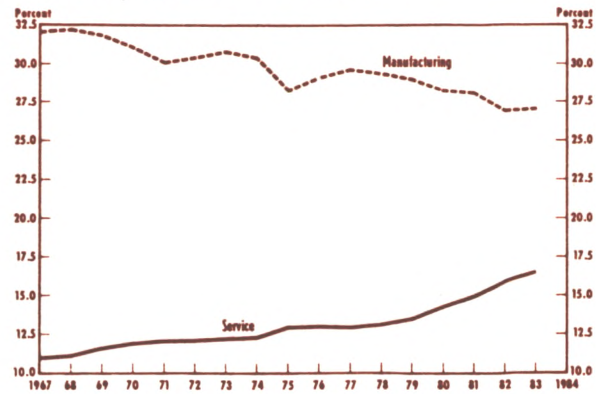


Chart 4
Contribution of Manufacturing and Service Sectors to the Total Wage Bill in the 8th District



cent of total employment in the late 1960s, increased its contribution to 17.5 percent in the 1970s and to 19.7 percent in the early 1980s.

The data clearly show that District manufacturing employment, in fact, has declined relative to employment in services. The decline, however, has been going on since at least 1967 and is similar to the national trend. There is some evidence that the decline has accelerated slightly, but this acceleration does not appear to have been dramatic.

It is not possible to conclude on the basis of these data that growth in manufacturing output has declined. To the extent that manufacturing industries have experienced labor productivity increases, declines in employment growth would have been possible without subsequent reductions in the growth of output. Several studies that looked at national data found that manufacturing output as a percentage of GNP has been quite stable over the past several decades. Whether this is also true for the District remains uncertain, however, since data are not available on manufacturing output by state.

Wage and Salary Disbursements

The trends in employment in manufacturing and services are reflected in the growth in wage and salary disbursements in each sector and its relative contribution to total wage and salary disbursements (the total wage bill) over time. Chart 3 displays Eighth District total manufacturing and total service wage disbursements. The total wage bill grew at a 7.7 percent rate from 1961 to 1970. Total wages paid to manufacturing workers (the manufacturing wage bill) grew at a comparable 7.6 percent rate over the same period, whereas total wages paid to service sector workers (the service wage bill) grew more rapidly at 8.8 percent. In the decade of the 1970s, the service wage bill continued to grow more rapidly than either the total or the manufacturing wage bill, climbing an average of 11.8 percent per year, while the total and manufacturing wage bills increased at 9.8 and 8.7 percent rates, respectively.

In the recent past, there has been a slowdown in the growth of all wage disbursements. The slowdown has been only slight in the service sector, from the 11.8 percent rate of the 1970s to 11.3 percent in the early 1980s. The reduction in growth has been more substantive in the total and the manufacturing wage bills, however, where the growth rates fell to 6.1 percent and 4.7 percent, respectively, from 1981 through 1983.

In addition, there has been a simultaneous decline in the percent contribution of manufacturing to the total wage bill in the Eighth District. While the manufacturing sector contributed 31.7 percent of total wage and salary disbursements from 1961 through 1970, that share dropped to an average of 29.5 percent in the 1970s and to 27.3 percent for the 1981-83 period (see chart 4). In contrast, the service sector's contribution to the total wage bill in the District has increased steadily, from an average of 11.1 percent in the 1961-70 period to 12.8 percent in the 1970s and to 15.8 percent in the most recent period.

These trends are similar but slightly less substantial than those that have occurred at the national level. The U.S. manufacturing wage bill declined from an average of 31.6 percent of the total U.S. wage bill from 1961 through 1970, to 27.1 percent in the 1970s and 24.8 percent in the 1981-83 period. The service sector's share rose from an average of 12.1 percent in the 1960s to 14.8 percent in the 1970s and 17.7 percent in the early 1980s.

Conclusion

It is clear that the Eighth District has indeed participated in the nationwide shift in employment away from manufacturing toward services. These trends, however, have been no more marked in the District than in the nation, and in the case of each sector's contribution to the total wage bill, the trend has been less substantial in the District. Rather than indicating a sudden and dramatic shift, the data show that manufacturing's contribution to both employment and total wage disbursements in the District has declined steadily since the 1960s. Moreover, any recent acceleration in the changing composition of District employment has been slight.

—Catherine Axtell Bieber

EIGHTH DISTRICT BUSINESS DATA

	Growth Rates[1]		
	Current Period	Year-to-Date 1985	1984
General Business Indexes[2]	Nov-Jan		
Arkansas	3.8%	7.5%	2.6%
Kentucky	4.9	3.8	4.7
Missouri	3.4	4.6	3.6
Tennessee	6.5	6.4	6.4
Retail Sales	Oct-Dec		
United States	8.6%	7.8%	11.0%
Arkansas[3]	6.2	2.4	11.2
Kentucky[3]	−16.6	0.1	8.7
Missouri	8.9	9.4	9.4
Tennessee	18.9	9.9	13.8
Personal Income	3rd quarter '84		
United States	8.6%	9.9%	7.5%
District	9.7	11.2	6.9
Arkansas	13.3	10.3	8.2
Kentucky	11.3	13.4	4.2
Missouri	7.1	9.6	7.6
Tennessee	10.0	12.1	7.4
Payroll Employment	Nov-Jan		
United States	3.8%	3.6%	4.1%
District	8.9	12.9	3.6
Arkansas	7.6	10.9	3.7
Little Rock	82.3	77.6	11.8
Kentucky	10.5	14.3	4.0
Louisville	18.4	−0.9	9.2
Missouri	12.1	17.5	2.9
St. Louis	13.9	14.5	4.5
Tennessee	5.1	8.0	4.0
Memphis	16.5	3.8	7.0
Average Hourly Earnings-Mfg.	Nov-Jan		
United States	5.8%	5.3%	3.7%
Arkansas	−2.3	−2.9	3.3
Little Rock	−19.8	−22.0	−0.4
Kentucky	2.8	1.3	3.5
Louisville	3.9	0.5	3.6
Missouri	4.6	1.0	5.6
St. Louis	1.7	3.6	6.1
Tennessee	11.8	7.8	5.6
Memphis	10.4	9.3	5.2

	Employment[1]		Prices[1]	
	Year-to-Date 1985	Same Period 1984	Year-to-Date 1985	Same Period 1984
Key Industries				
Fabricated Metal Products	41.2%	0.9%	−1.5%	3.1%
Electrical and Electronic Equipment	−10.0	9.8	2.9	3.5
Nonelectrical Machinery	10.6	16.6	2.3	3.0
Transportation Equipment	13.7	5.5	4.8	1.4
Food and Kindred Products	−5.3	−4.6	2.8	9.7
Textile and Apparel	1.5	−11.1	1.5	2.3
Printing and Publishing	24.1	5.4	9.9	10.5
Chemicals and Allied Products	−42.8	0.8	0.9	3.6
Construction	−38.4	−40.3	1.8	2.7

EIGHTH DISTRICT BUSINESS DATA

	Current Period[1]	Previous 3 Months	Average Year-to-Date 1985	Average 1984
Unemployment Rate	**Nov-Jan**			
United States	7.2%	7.4%	7.4%	7.5%
District	8.1	8.5	7.8	8.6
Arkansas	8.7	9.1	8.2	9.0
Little Rock	6.6	6.8	6.3	6.9
Kentucky	9.1	9.6	8.4	9.5
Louisville	8.4	8.9	8.1	8.9
Missouri	6.9	6.7	7.0	7.4
St. Louis	7.6	7.6	7.5	8.3
Tennessee	8.4	9.3	8.0	8.9
Memphis	6.7	7.3	6.6	7.6
Construction Contracts[4] (millions of dollars)	**Nov-Jan**			
District	$675.9	$882.5	$615.8	$830.4
Arkansas	84.1	130.5	81.9	115.7
Kentucky	111.5	205.4	123.2	167.5
Missouri	210.8	241.5	149.3	251.4
Tennessee	269.5	305.1	261.4	295.7

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

[1]Data 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 1983. All growth rates are compounded annual rates of change.

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

[3]*Sources:* Arkansas from Southwestern Bell and Kentucky from Kentucky Revenue Department; Missouri and Tennessee are seasonally adjusted by this Bank.

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