

Manufacturing Trends: Delaware County, Ind., 1969 – 2009

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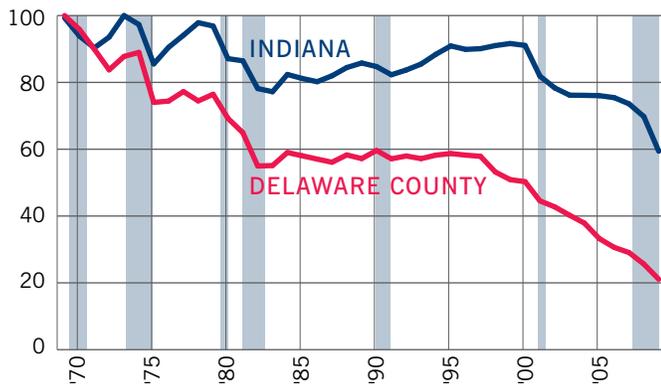


This brief reviews four decades of declining manufacturing employment in Delaware County.

The dramatic decline in manufacturing employment through the past four decades has affected the economic landscape of east central Indiana. Among the 92 counties in Indiana, Delaware County ranks ninth highest in the number of manufacturing jobs lost during that period. This business brief compares the manufacturing employment in Delaware County from 1969 to 2009. It reflects the changes in manufacturing employment and size of establishments for each manufacturing sector.¹

Indiana's manufacturing employment peaked in 1973 with 764,289 jobs. Delaware County had its highest manufacturing employment (19,365 jobs) during 1969.² Figure 1 compares the

FIGURE 1:
State & County Manufacturing Employment Trends Index, 1969-2009

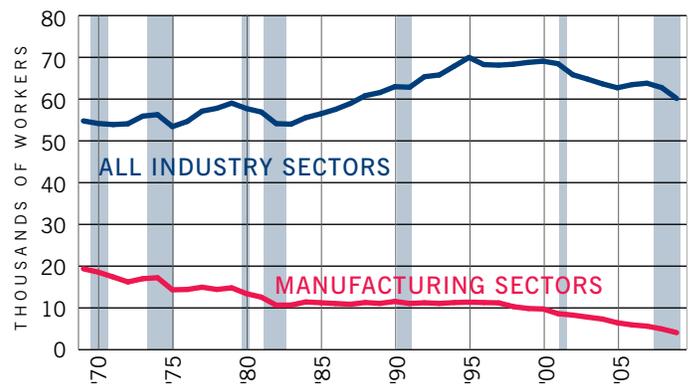


Note: Shaded columns indicate a period of recession as reported by the National Bureau of Economic Research.

manufacturing employment trend index³ (100 = highest employment) for Delaware County and the state. The index illustrates that the decline in manufacturing employment in the state is reflected in a similar trend in Delaware County, but with lower peaks and larger declines.

Figure 2 compares the manufacturing sector employment with total employment (all sectors) for Delaware County, 1969-2009. Delaware County attained the highest manufacturing employment in 1969, but, within a span of three years, it had lost 16.3 percent (3,146 jobs) in that sector. Further, in 1975, when the total employment was down 5.1 percent from the pre-

FIGURE 2:
Manufacturing Sector Employment vs. Total County Employment, 1969-2009



Note: Shaded columns indicate a period of recession as reported by the National Bureau of Economic Research.

1. Manufacturing employment data from 1969 to 2009 was taken from BEA's regional data.
2. Delaware County manufacturing employment, according to REIS and Census of Manufacturers: 18,600 (1967), 16,700 (1963), 14,968 (1958), 17,453 (1954) and 17,985 (1947).
3. The state and county manufacturing employment numbers for each year (1969 to 2009) were compared to employment in the respective highest employment year to obtain the index. For example: In 2009, Indiana had 453,904 manufacturing jobs and Delaware County had 4,081 jobs. The index for the state in 2009 was 59.4 (i.e., $100 \times 453,904 \div 764,289$). Similarly, the index for Delaware County was 21.1 (i.e., $100 \times 4,081 \div 19,365$).

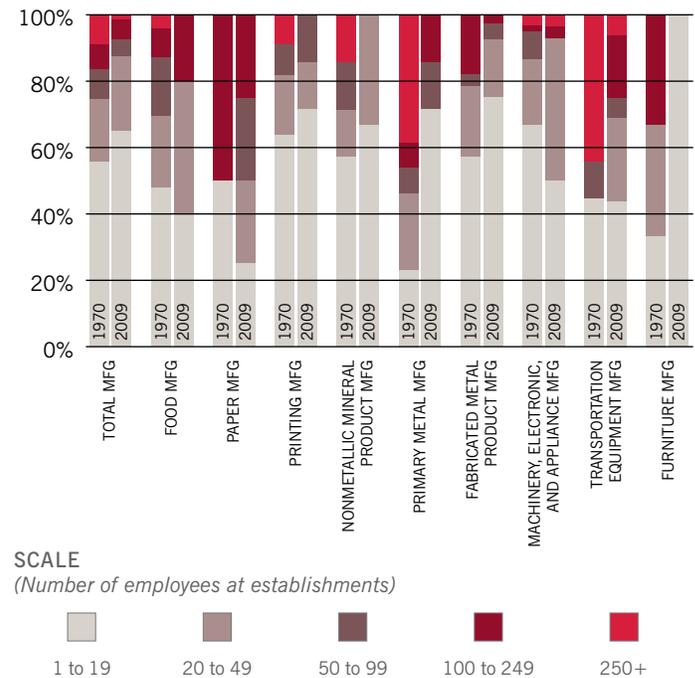
TABLE 1:
No. of Establishments in Each Manufacturing Sector in Delaware County, 1970 & 2009

Industry Code Description (NAICS Code Description)	Total Establishments		
	1970	2009	Difference
<i>Manufacturing</i> (31---, all manufacturing sectors)	158	145	-13
Food mfg. (311)	23	5	-18
Beverage and tobacco product mfg. (312)	0	1	1
Textile mills & products (313 & 314)	0	2	2
Apparel mfg. (315)	0	1	1
Wood product mfg. (321)	0	2	2
Paper mfg. (322)	4	4	0
Printing and related support activities (323)	11	14	3
Chemical mfg. (325)	0	3	3
Plastics and rubber products mfg. (326)	0	6	6
Nonmetallic mineral product mfg. (327)	7	3	-4
Primary metal mfg. (331)	13	7	-6
Fabricated metal product mfg. (332)	28	40	12
Machinery, electronic product, computer, electrical appliances and components mfg. (333, 334 & 335)	60	28	-32
Transportation equipment mfg. (336)	9	16	7
Furniture and related product mfg. (337)	3	4	1
Miscellaneous mfg. (339)	0	9	9

vious year, the manufacturing jobs dropped significantly (16.8 percent; 2,898 jobs). Interestingly, in 1984 there was an increase of 7.1 percent (756 jobs) in manufacturing employment when compared to the previous year. Despite a gradual increase in total employment during 1985-2000 (12,603 jobs), few peaks and troughs were seen in the manufacturing sector. From 2001 until 2009, manufacturing and total employment declined steadily in Delaware County. Between 1970 and 2009, transportation equipment manufacturing sector (NAICS 336) lost the most jobs.⁴ Plastic and rubber product sector (NAICS 326) gained the most jobs.

Table 1 compares the number of establishments for each manufacturing sector⁵ during 1970⁶ and 2009. The machinery, electronic products, computer, electrical appliances/components sector and the food sector experienced the highest reduction in the number of establishments. The fabricated metal product sector gained the most establishments. Overall, 13 manufacturing establishments were lost over that period.

FIGURE 3:
Comparison of Establishment Sizes Across Manufacturing Sectors in Delaware County, 1970 & 2009



It may be noted that the manufacturing sectors accounting for the highest gain/loss in employment and establishments are different suggesting that there is little or no correlation between employment and establishments. This phenomenon has seen the growth of smaller manufacturing establishments across Indiana.

Figure 3 shows the shift in establishment size across major manufacturing sectors, 1970-2009. The general trend is a shift to fewer large establishments (250+ employees) and more small establishments (1-49 workers). In aggregate, there has been an increase in percentage of establishment size 1-19 from 55.7 percent to 64.8 percent. This represents both an increase in the number of small startup companies with fewer employees in Delaware County and the downsizing of larger business establishments. In most of the manufacturing sectors, (especially the transportation equipment sector - NAICS 336) establishments with more than 250 employees either shut down their operations and/or downsized their employment.

4. BEA's regional data do not have employment data for each manufacturing sector. Employment and establishment data for each sector is available in County Business Patterns (CBP) for the year 1970, but some of the sectors withheld employment information. We estimated the manufacturing sector that contributed the most to manufacturing employment by adjusting the 1970 CBP employment numbers to the 1970 BEA total manufacturing numbers and then finding the largest difference between 2009 employment and the adjusted 1970 number for each sector.

5. Establishment data was taken from CBP. Manufacturing sectors classified according to NAICS code (sector 31). For 1970 data, the manufacturing SIC codes (sectors 20 to 39) were matched with the equivalent NAICS codes.

6. Because we do not have county business patterns data for the year 1969 (Delaware County's highest manufacturing employment year), we are using 1970 data. There was a loss of 802 manufacturing jobs between 1969 and 1970.

Delaware County's manufacturing sector has experienced greater losses when compared to the state average. Between 1970 and 2009, the state figures⁷ for the number of establishments for overall manufacturing were up 56.6 percent, but Delaware County's number declined by 8.2 percent. Because the trend in Delaware County showed upward movement of smaller firms (1-49 employees), there are reasons to believe that large business closures accounted for some of this variation. It is also possible that mergers and acquisitions would have occurred among establishments during this period leading to the decline in number of firms and change in the size of establishments due to downsizing or expansion of employment. It would be interesting to establish those linkages among the various manufacturing sectors in Delaware County, which is left for future analysis.

7. In manufacturing sector, Indiana experienced an increase in number of establishments from 5,385 to 8,431 between 1970 and 2009.

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