

Manufacturing Trends: Elkhart County, Indiana

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This brief reviews four decades of changing manufacturing employment in Elkhart County.

The changes in manufacturing employment over the past four decades has affected the economic landscape of northern Indiana. This business brief compares the manufacturing employment in Elkhart County from 1969 to 2010. Among the 92 counties in Indiana, Elkhart County ranks second highest in the number of manufacturing jobs gained during that period.^[1]

Indiana's manufacturing employment peaked in 1973 with 764,289 jobs. Elkhart County had its highest manufacturing employment (65,933 jobs) in 2006. *Figure 1* compares the manufacturing employment trend index^[2] (100 = highest employment) of Elkhart County and Indiana. The index illustrates that the change in manufacturing employment in the state is similar

to the employment trends for the county through 1980. After 1980, Elkhart County's employment trends deviated from state's employment trends.

Figure 2 compares manufacturing sector employment with total employment (all sectors) for Elkhart County during the period of 1969 through 2010. Elkhart County attained the highest manufacturing employment in 2006, but, within a span of four years, it has lost 30.22 percent (19,922 jobs) in that sector. Further, in 2009, when the total employment was down 14.54 percent from the previous year, manufacturing jobs dropped significantly by 26.57 percent (14,718 jobs). Interestingly, in 2010 there was an increase of 13.14 percent (5,342

FIGURE 1:
Index of State & County Manufacturing Employment Trends, 1969–2010

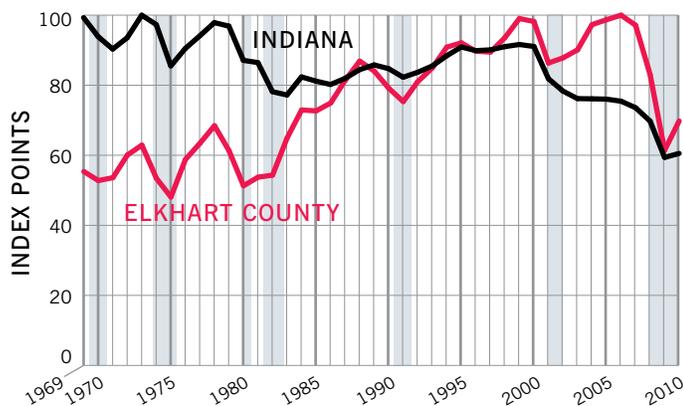
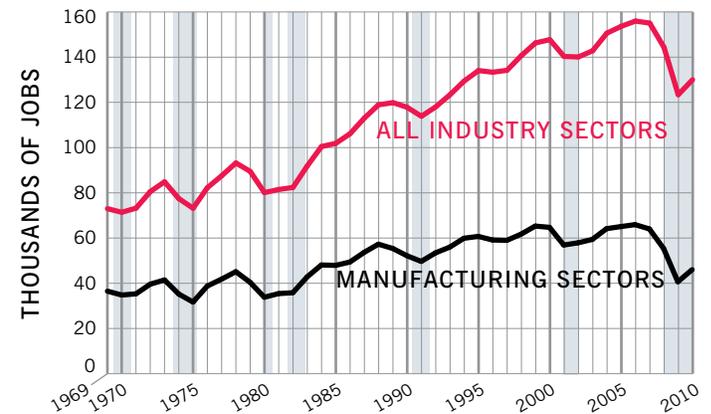


FIGURE 2:
Manufacturing Sector vs. Total County Employment, 1969–2010



Note: Shaded columns indicate a period of recession as reputed by the National Bureau of Economic Research. Source: Data for Figures 1 and 2 comes from the Bureau of Economic Analysis.

1. Manufacturing employment data from 1969 to 2010 was taken from Bureau of Economic Analysis (BEA).
2. The state and county manufacturing employment numbers for each year (from 1969 to 2010) were compared to employment in the respective highest employment year to obtain the index. For example: In 2010, Indiana had 462,554 manufacturing jobs and Elkhart County had 46,011 jobs. The index for Indiana in 2010 was 60.52 (i.e., $100 \times 462,554 / 764,289$). Similarly, the index for Elkhart County was 69.78 (i.e., $100 \times 46,011 / 65,933$).

TABLE 1:
Number of Establishments in Each
Manufacturing Sector, 1970 & 2010

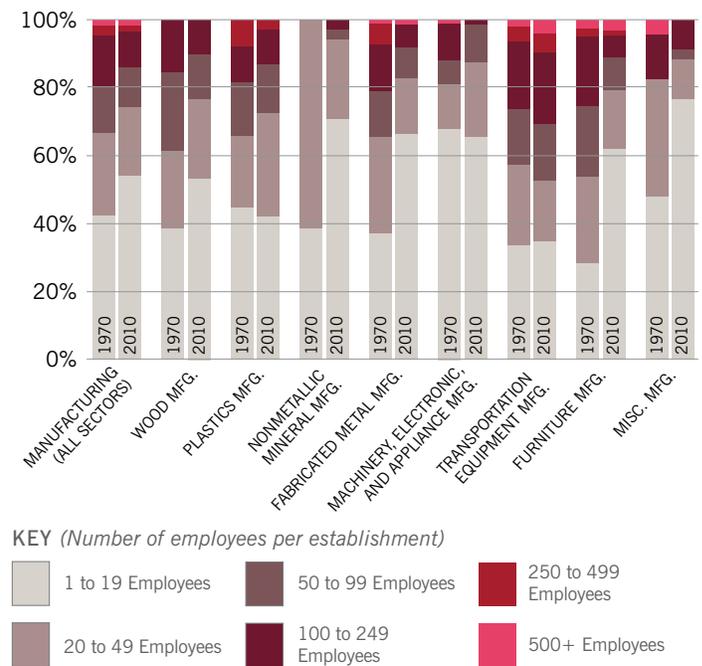
Industry Code Description	Total Establishments		
	1970	2010	Difference
<i>Manufacturing</i> (All manufacturing sectors)	503	786	283
Food mfg.	22	21	-1
Beverage and tobacco product mfg.	0	1	1
Textile mills & products	0	11	11
Apparel mfg.	21	2	-19
Wood product mfg.	28	77	49
Paper mfg.	6	9	3
Printing and related support activities	20	25	5
Chemical mfg.	0	20	20
Plastics and rubber products mfg.	28	69	41
Nonmetallic mineral product mfg.	16	34	18
Primary metal mfg.	12	15	3
Fabricated metal product mfg.	69	133	64
Machinery, electronic product, computer, electrical appliances and components mfg.	77	72	-5
Transportation equipment mfg.	145	196	51
Furniture and related product mfg.	37	63	26
Miscellaneous mfg.	22	34	12

jobs) in manufacturing employment in Elkhart County when compared to the previous year. Total employment increased gradually from 1984 to 2000 (12,805 jobs gained), with peaks and troughs associated with recessions seen in the manufacturing sector during that period. Employment and manufacturing employment increased until 2007 and then declined with the latest recession.

Table 1 compares the number of establishments for each manufacturing sector^[3] in 1970 and 2010. The sectors of machinery, electronic products, computers, electrical appliances/components, apparel, and food were the only sectors that experienced a reduction in the number of establishments. The fabricated metal product sector gained the most establishments, followed by wood product manufacturing and plastics and rubber products manufacturing. Overall, the number of manufacturing establishments in Elkhart County increased by 293 between 1970 and 2010. The transportation equipment manufacturing has the highest number of establishments (196 establishments) as of 2010.

Elkhart County's manufacturing sector has experienced greater gains in establishments compared to the state. Between

FIGURE 3:
Comparison of Establishment Sizes Across
Manufacturing Sectors, 1970 & 2010



1970 and 2010, the number of manufacturing establishments in the state increased by 52.7 percent, but Elkhart County's number increased by 56.3 percent.^[4]

Figure 3 shows the shift in establishment size across major manufacturing sectors between 1970 and 2010. The general trend is a shift to fewer large establishments (250+ employees) and more small establishments (1-19 workers). In aggregate, there has been an increase in the percentage of establishments sized 1-19, from 42.2 percent to 53.9 percent. This likely represents both an increase in the number of small, startup companies with fewer employees in Elkhart County and a downsizing of larger business establishments.

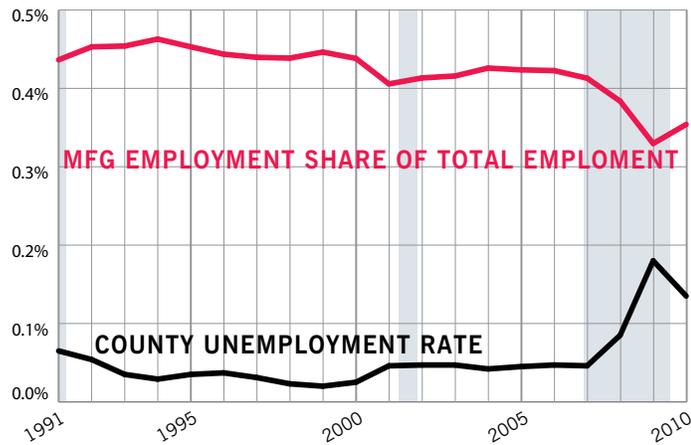
Because Elkhart County showed an increase in small firms (1 to 19 employees), there are reasons to believe that large business closures accounted for some of this variation. It is also possible that larger businesses separated into smaller establishments during this period, leading to a decline in the number of large firms and an increase in the number of smaller establishments. It would be interesting to establish those linkages among the various manufacturing sectors in Elkhart County; that correlation is left for future analysis.

The overall unemployment rate in Elkhart County dramatically spiked during the recent recession. At its peak, the unemployment rate in Elkhart County was at 20.2 percent

3. Establishment data was taken from County Business Patterns. Manufacturing sectors classified according to NAICS code #31. For 1970 data, the Manufacturing SIC codes #20 to #39 were matched with the equivalent NAICS codes.

4. In the manufacturing sector, Indiana experienced an increase in the number of establishments from 5,385 to 8,222 between 1970 and 2010.

FIGURE 4:
Elkhart County's Unemployment Rate and Manufacturing as a Share of Total Employment, 1991–2010



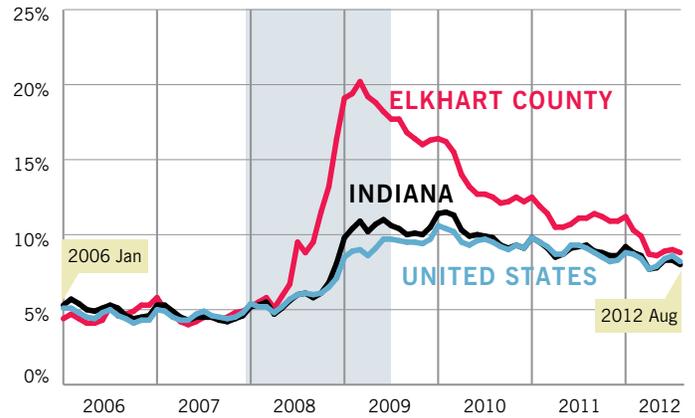
in March 2009. This is the highest unemployment rate in the recorded history of Elkhart County. The unemployment rates in the months surrounding March 2009 were just under 20.0 percent and the annual unemployment rate for 2009 was at 18.0 percent. In previous years, the annual unemployment rate had been below 10.0 percent.

Since March 2009, the unemployment rate in Elkhart County has been declining overall. March of 2012 was the first time since the start of the recession that the unemployment rate dipped below 10.0 percent. The lowest unemployment rate in Elkhart County since the peak in May 2009 was in May 2012 with an unemployment rate of 8.6 percent.

Figure 4 shows the relationship between Elkhart County's unemployment rate and its percentage of manufacturing employment from 2000 to 2010. In general, the unemployment rate was between 2.0 percent and 6.0 percent until the recent recession, when the unemployment rate hit a record high of 18.0 percent annually. The annual unemployment rate for Elkhart County has been declining since 2009, as well as its percentage of manufacturing employment. More recently, manufacturing employment as a percentage of total employment has been decreasing more dramatically than in previous years. In general, when the unemployment rate increased, the percentage of manufacturing employment decreased.

The unemployment rate in Elkhart County followed the state and national trends up until the recent recession. At its height, Elkhart County's unemployment rate was double that of the national unemployment rate and nearly twice the state's rate.

FIGURE 5:
Monthly Unemployment Rates for Elkhart County, the State, and the Nation, 2006–2012



More recently, the unemployment rate in Elkhart County has returned to a level just above the national and state unemployment rates.

Figure 5 compares the unemployment rate in Elkhart County to the unemployment rates of the state and the nation. It is quite obvious that the unemployment rate in Elkhart County spiked significantly higher than the unemployment rate at either the state or national level. Though in early 2009 the Indiana unemployment rate jumped higher than the national, overall, the trends at the national level match the unemployment rate trends at the state level.

This report also identifies key trends for Elkhart County over the last decade using data from quarterly workforce indicators (QWI).⁵ We focus on quarterly employment (number of jobs), total quarterly payroll, and end-of-quarter average monthly earnings of employees. This analysis was performed for overall NAICS 3-digit manufacturing industry sectors. The dollar values for each year were adjusted for inflation using the Consumer Price Index (CPI).

Figure 6 shows trends in payroll for major manufacturing sectors.⁶ The total quarterly payroll⁷ for the transportation equipment manufacturing sector dropped significantly by 39.7 percent from \$443.2 million in 2007 Quarter 2 to \$267.3 million in 2010 Quarter 4. Other sectors such as fabricated metal product manufacturing, plastics and rubber products manufacturing, furniture and related product manufacturing, and computer and electronic product manufacturing showed a slight decrease in payroll.

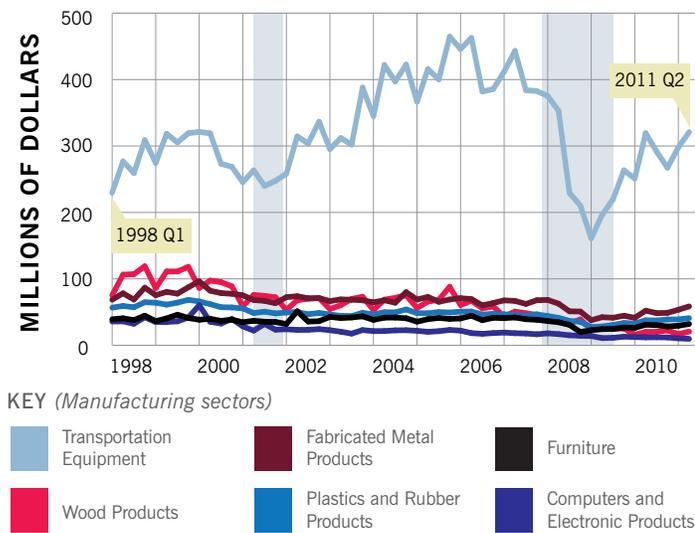
Between 1998 and 2010, the total payroll increased by 0.93 percent (\$4.78 thousand). There were losses of about

5. Quarterly Workforce Indicators (QWI) is a set of economic indicators including employment, net job flows, job creation, wages, and worker turnover. They can be queried by various levels of geography—state, county, metro, and workforce investment area, as well as by industry, gender, and age of workers.

6. Industries with more than 5,000 employees were treated as "major sectors."

7. Adjusted for inflation using CPI.

FIGURE 6:
Quarterly Payroll for Major Manufacturing
Sectors, 1998 Q1–2011 Q2



86.65 percent (\$23 million) in chemical manufacturing, 74.85 percent (\$54 million) in wood product manufacturing, and 62.16 percent (\$16 million) in computer and electronic product manufacturing. The highest gain in payroll was seen in transportation equipment manufacturing (57.96 percent increase). During this period, the average real monthly earnings of total sectors decreased by 4.8 percent (\$165.65). The largest loss (in terms of dollar value) accounted for petroleum and coal products manufacturing (21.3 percent; \$878.05). The largest gains occurred in textile mills (45.8 percent; \$1,178.61), leather and allied product manufacturing (33.8 percent; \$740.61), and transportation equipment manufacturing (4.7 percent; \$170.84). *Table 2* shows the real average monthly earnings of manufacturing NAICS sectors.

The structure of the economy in Elkhart County (and the Midwest in general) is changing. Overall, manufacturing payroll and average monthly earnings have varied slightly in the period from 1998 to 2010. Textile mills manufacturing, leather manufacturing, and transportation equipment manufacturing have grown in terms of real average monthly earnings. The chemical manufacturing and wood product manufacturing sectors have declined since 1998.

This recent recession has taken its toll on the manufacturing industry in Elkhart County. Though some aspects, like manufacturing payroll and real average monthly earnings, have improved slightly in recent years, the employment rate and manufacturing establishments⁽⁸⁾ in Elkhart County have declined dramatically during the same period.

TABLE 2:
Average Real Monthly Earnings, 1998 & 2010

Industry Code Description	1998 Earnings	2010 Earnings	Difference	Percent Change
<i>Manufacturing (All manufacturing sectors)</i>	\$3,423.29	\$3,257.64	-\$165.65	-4.8%
Food mfg.	\$2,775.96	\$2,227.50	-\$548.46	-19.8%
Textile mills	\$2,571.64	\$3,750.25	\$1,178.61	45.8%
Textile product mills	\$2,104.59	\$1,836.50	-\$268.09	-12.7%
Leather and allied product mfg.	\$2,190.39	\$2,931.00	\$740.61	33.8%
Wood product mfg.	\$3,501.75	\$2,854.00	-\$647.75	-18.5%
Paper mfg.	\$3,539.14	\$3,394.50	-\$144.64	-4.1%
Printing and related support activities	\$3,384.90	\$3,451.50	\$66.60	2.0%
Petroleum and coal products mfg.	\$4,131.05	\$3,253.00	-\$878.05	-21.3%
Chemical mfg.	\$6,264.02	\$5,790.00	-\$474.02	-7.6%
Plastics and rubber products mfg.	\$3,161.22	\$2,953.25	-\$207.97	-6.6%
Nonmetallic mineral product mfg.	\$3,442.32	\$2,927.00	-\$515.32	-15.0%
Primary metal mfg.	\$4,272.27	\$3,936.75	-\$335.52	-7.9%
Fabricated metal product mfg.	\$3,035.36	\$2,867.50	-\$167.86	-5.5%
Machinery mfg.	\$3,911.05	\$3,582.50	-\$328.55	-8.4%
Computer and electronic product mfg.	\$3,544.15	\$3,460.25	-\$83.90	-2.4%
Electrical equipment, appliance, and component mfg.	\$2,756.93	\$2,794.75	\$37.82	1.4%
Transportation equipment mfg.	\$3,660.66	\$3,831.50	\$170.84	4.7%
Furniture and related product mfg.	\$2,898.48	\$2,811.25	-\$87.23	-3.0%
Miscellaneous mfg.	\$896.69	\$3,242.25	-\$654.44	-16.8%

8. Changes in number of manufacturing establishments from 849 firms in 2007 to 786 firms in 2010, according to County Business Patterns.

About the Authors



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About the Center

Center for Business and Economic Research

The Center for Business and Economic Research (CBER) is an economic policy and forecasting research center at Ball State University. CBER research encompasses public finance, regional economics, manufacturing, transportation, and energy sector studies. The center produces the CBER Data Center and the Indiana Business Bulletin, a weekly newsletter with commentary on current issues and data on dozens of economic indicators. In addition to research and data delivery, the Center serves as a business forecasting authority in Indiana's east-central region—holding the annual Indiana Economic Outlook luncheon and quarterly meetings of the Ball State University Business Roundtable.

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