The Food-Processing Industry in Indiana

rom your Thanksgiving turkey to your favorite pop, the foodprocessing industry includes an eclectic variety of products. The general groupings within food processing, and their relative size in terms of employment, are shown in Figure 1. According to the most recent Covered Employment and Wages Survey data from the U.S. Bureau of Labor Statistics, Indiana's foodprocessing industry consists of 439 establishments employing more than 34,000 people (see Table 1). This represents 5% of Indiana's manufacturing employment in 1999 and only 1.2% of the state's total nonfarm employment.

The majority of food processing takes place either at the point of agriculture production or at the place of food consumption. Therefore, most production will either be in states like California, Illinois, Ohio, Pennsylvania and Texas (consumption by population) or Arkansas, Georgia, Illinois, Iowa and Nebraska (agriculture production). To mitigate the effect of population, it is possible, using the 1997 Economic Census, to rank the top five food-processing states



Table 1: Food-Processing Industry, Relative to Manufacturing & All Industries												
Industry Sector	Establishments	Employment	Average Annual Wages	Wages as a % of Manfacturing Wages	Wages as a % of Total Private Wages							
All Industries	153,890	2,905,306	\$30,035									
Manufacturing Industries	9,847	690,031	\$41,532									
Food-Processing Industry Totals	439	34,363	\$32,837	79%	109%							
Bakery Products	83	4,930	\$30,681	74%	102%							
Beverages	45	3,923	\$40,079	97%	133%							
Dairy Products	38	2,911	\$33,992	82%	113%							
Fats & Oils	22	1,436	\$44,875	108%	149%							
Grain Mill Products	72	4,498	\$44,515	107%	148%							
Meat Products	74	8,070	\$24,004	58%	80%							
Miscellaneous Food Products	58	4,090	\$29,871	72%	99%							
Preserved Fruits & Vegetables	35	3,093	\$33,625	81%	112%							
Sugar & Confectionary Products	14	1,412	\$25,759	62%	86%							
Source: U.S. Bureau of Labor Statistics, Covered Employment and Wages												

by value of shipments per capita (see Table 2).

Certainly due to Indiana's renowned agricultural tradition, the perception exists that it is also a major foodprocessing state. Indiana does rank among the top 10 producers of dairy products, processed grain and soft drinks in terms of employment, payroll and value of shipments (see Table 3). Although Coke or 7-Up cannot really be considered food, a major ingredient of soft drinks is the corn syrup produced by wet corn milling facilities in Indiana. Nevertheless, foodprocessing enterprises by no means dominate the state's economy. Within manufacturing alone, the industry is relatively small compared to motor vehicle production, metals, electronics and industrial machinery.

Wages within the food-processing industry vary significantly depending on the product area (see Figure 2 on page 4). Wage differences can be explained, at least in part, by the variation in production methods and in the accompanying skill requirements. For example, wet corn milling involves high-skill, complex manufacturing processes and produces high-demand goods such as corn syrup, fructose, gluten and others. Wages in this area are significantly higher than in the meat-processing industry, where employees are not required to be highly skilled.

Given the advanced nature of Indiana's manufacturing sector as a whole, it is not surprising to find that food-processing wages are below the *(continued on page 4)*

Та	Table 2: Top Food-Processing States Ranked by Industry Value of Shipments Per Capita, 1997												
Rank	Animal Feeds	Bakeries & Tortillas	Dairy Products	Fruit & Vegetable Preserving & Specialty Food	Grain & Oilseed Milling	Meat Products	Other Food Products	Soft Drinks & Ice	Sugar & Confectionary Products				
1	Iowa	Tennessee	Wisconsin	Idaho	Iowa	Nebraska	Maryland	INDIANA	Pennsylvania				
2	Delaware	Illinois	Vermont	Oregon	Nebraska	Kansas	Georgia	Georgia	Illinois				
3	Arkansas	North Dakota	Idaho	Wisconsin	North Dakota	Iowa	Illinois	Iowa	Louisiana				
4	Nebraska	Pennsylvania	Iowa	Arkansas	Illinois	Arkansas	Louisiana	Oklahoma	Tennessee				
5	Kansas	Georgia	South Dakota	Washington	Arkansas	South Dakota	Missouri	Texas	Minnesota				
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Source: U.S. Census Bureau, 1997 Economic Census

Table 3: Worker Productivity in Indiana's Food-Processing Industry, 1997 Shipments/ Annual Sales/ Establish-National National Pavroll National National **Receipts** Industry ments Rank **Employees** Rank (\$1,000)Rank (\$1,000) Rank Animal Food 51 15 1.677 11 48,664 13 840,106 15 **Bakeries and Tortillas** 155 7,645 13 219,461 12 12 18 1,269,983 **Dairy Products** 33 4,750 8 180.022 2,197,874 9 16 7 Fruit/Vegetable & Specialty Food 25 18 2,033 21 52,469 20 547,337 22 Grain & Oilseed Milling 26 14 2,868 8 122,023 6 2,493,907 6 Meat Products 63 24 7,742 20 166,800 20 1,795,820 20 **Other Food Products** 50 20 4,820 8 144,795 8 1,197,930 14 Soft Drinks & Ice 27 12 2,244 9 76,635 9 1,483,137 6 18 Sugar & Confectionary 43 14 1,527 33,953 20 277,545 18 Source: U.S. Census Bureau, 1997 Economic Census

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(continued from page 3) state average (see Table 1). On average, a manufacturing worker in Indiana will earn just over \$41,000 per year, while those within food processing will average around \$33,000 annually. Nevertheless, the average food-processing wage is approximately 9% higher than Indiana's overall average wage of approximately \$30,000. Again, the variation in wages is not surprising given the variation in skill requirements across industries.

The productivity of the foodprocessing industry can be estimated using the dollar value of shipments per worker. Using the 1997 Economic Census for Indiana, three areas ---grain processing, soft drinks and animal food, respectively — have the highest levels of productivity in the industry (see Figure 3). Generally, the level of value added during the production process will increase the value of shipments per worker - a trend that is reflected in these productivity results.

Technical Note: The 1999 foodprocessing data available through the Bureau of Labor Statistics are organized by Standard Industrial Codes (SIC). The 1997 Economic Census data, however, are organized by the new North American Industry Classification System. Therefore, the categories seen in Table 1 and Figures 1 and 2 will be different than those in Tables 2 and 3.





