

1-1-1992

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### Citation

Erickcek, George A. 1992. "The 1991 Economic Impact of the Upjohn Company on Kalamazoo County." Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.  
<https://research.upjohn.org/reports/186>

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THE 1991 ECONOMIC IMPACT OF THE UPJOHN COMPANY  
ON KALAMAZOO COUNTY

by

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In 1991, the Upjohn Company employed 7,194 individuals in Kalamazoo County. Although the company's employment levels are down 4.1 percent from last year, it still accounts for 5.4 percent of Kalamazoo County's total employment.<sup>1</sup> Moreover, the company employs more than one out of every five manufacturing workers in the county.

The company paid \$357.3 million in wages and salaries to its county's workers and an estimated \$8.0 million in dividends to stockholders in the county. In total, the company provided 8.3 percent of the county's estimated total personal income in 1991.<sup>2</sup>

The total direct economic impact of the Upjohn Company on Kalamazoo County is not limited only to its county payroll and the earned dividends of its county stockholders, however. In 1991, the company paid \$21.3 million in taxes to local governments in the county (excluding the state's Single Business Tax), a 7.6 percent increase over 1990. In addition, the company spent \$175 million in capital expenditures in the county, up 8.7 percent from

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<sup>1</sup> Includes all wage and salary, self-employed and agricultural workers in the county.

<sup>2</sup> All dollar amounts presented in this report are in nominal (current dollars).

previous year's levels, and purchased \$156.2 million worth of goods and services from county suppliers. Finally, in 1991 the Upjohn Company and the Upjohn Company Foundation contributed \$4.9 million to community organizations in the county, an increase of 32.4 percent over the previous year.

As shown in Table 1, the company's total direct economic impact on Kalamazoo County reached \$804.9 million in 1991.

TABLE 1  
THE DIRECT ECONOMIC IMPACT OF THE  
UPJOHN COMPANY ON KALAMAZOO COUNTY  
1991  
(Millions of Dollars)

Wages and Salaries.....	\$357.3
Benefits (excluding workers' compensation, social security or unemployment payments) .	82.2
Taxes (local).....	21.3
Dividends.....	8.0
Capital Expenditures.....	175.0
Goods and Services <sup>3</sup> .....	156.2
Contributions and Association Support.....	4.9
Total direct economic impact	\$804.9

Upjohn Company's total economic impact on Kalamazoo County is much greater than the number of its employees, the size of its payroll, or the

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<sup>3</sup> Includes auto rentals, hotels, air travel, and airport fuel flowage fees.

amount it purchases from suppliers in the county. In addition to the above direct economic impacts, the company generates an even larger indirect economic impact on the county which can be measured both in employment and personal income. The company's indirect employment impact includes workers employed by its suppliers located in Kalamazoo County and individuals employed in firms which depend upon the consumption expenditures by Upjohn employees. Indirect income includes the earnings of these workers. Moreover, the company's indirect impact includes the third, fourth, and higher order employment and income effects, such as, individuals employed in firms which are dependent upon the consumer expenditures of those employed in producing goods or services for the Upjohn Company or its workforce.

The Upjohn Institute's econometric model of Kalamazoo County is especially designed to accurately measure the total economic impact of changes in economic activity in the county. The model captures all the employment and income impacts discussed above.

We estimated the total employment impact of the Upjohn Company on Kalamazoo County, direct and indirect, was 23,332 in 1991. In Table 2, the company's total employment impact on the county is broken down into both its direct effect (7,194 Upjohn Company employees) and the indirect effect (16,138 jobs created outside the company). Similarly, the total impact of the Upjohn Company on the county's total personal income was \$682 million, which is the sum of the \$365.3 million of direct income to Upjohn employees and county stockholders, plus the \$316.7 million of non-company income created in the county as a result of the Upjohn Company.

TABLE 2

DIRECT, INDIRECT AND TOTAL ECONOMIC IMPACTS  
OF THE UPJOHN COMPANY ON KALAMAZOO COUNTY

	DIRECT	INDIRECT	TOTAL
Jobs.....	7,194	16,138	23,332
		(millions)	
Income*.....	\$365.3	\$316.7	\$682.0

\*Includes wages, salaries, and dividends paid to local residents

In total, an estimated 17.6 percent of the county's total employment was directly or indirectly dependent on the Upjohn Company in 1991. Furthermore, 15.4 percent of the county's total personal income was generated, directly or indirectly, by the presense of the Upjohn Company.

Employment dependent upon the Upjohn Company is distributed across all the major economic sectors of the county, as shown in Table 3. Over 25 percent of the county's manufacturing workers is dependent upon the Upjohn Company, directly or indirectly. An estimated 17.1 percent of the county's retail workers and 17.7 percent of the county's finance, insurance and real estate workforce depend the company's payroll or direct orders.

TABLE 3

EMPLOYMENT IMPACT OF THE UPJOHN COMPANY  
BY INDUSTRY

Industry	Number of Workers	Percentage of Industry's County Employment
Manufacturing (Including Upjohn)	7,782	25.2
Retail	4,082	17.1
Finance	1,686	17.7
Services	5,626	16.0
Other	4,156	12.7

Often these total impacts are stated as ratios with respect to their corresponding direct impacts and called employment or income multipliers. The Upjohn Company's employment multiplier was 3.24 (23,332/7,194) in 1991, meaning that each job at the company created 2.24 other jobs locally. 1991's employment multiplier is slightly higher than 1990's multiplier of 3.02. In 1991 the company's income multiplier was 1.87 (\$682.0 million/\$365.3 million), meaning that every dollar of income earned through Upjohn added another 87 cents of income locally.

In 1991, the total economic impact of the Upjohn Company on Kalamazoo County was \$1.26 billion. The total economic impact of the company is the total value of all goods and services produced in the county due to the Upjohn Company only, minus the cost of all raw and intermediate materials used in the county to produce these goods and services. In economic terms, it is the

portion of the county's total value added or gross regional product which is generated by the Upjohn Company. The total economic impact of the Upjohn Company in 1991 was 4.1 percent higher than its 1990 estimate of \$1.21 billion.

#### **Methodological Notes**

Upjohn Company's total economic impact on Kalamazoo County was calculated by, first, estimating the total value of all goods and services produced in the county due to the presence of the company in 1991. Many of these goods and services require inputs totally or partially produced outside the county, however. The cost of all raw and intermediate materials and services used in the production of the county's goods and services was subtracted from total sales to yield the estimated company's economic impact on the county. For example, in the sale of a television to an Upjohn Company employee, the cost to the dealer of the set is subtracted from the value of the sale, leaving only the retail service provided by the county dealer.

In determining the company's total economic impact, its direct economic impact of \$804.9 million was not used because it unavoidably overstates the company's net impact on the county. This figure is a company cost figure (outlays for wages, benefits, capital expenditures, etc.) and includes the purchases of goods and services produced outside of the county. These out-of-county produced goods and services do not contribute to the economic activity of the county directly and, hence, should be excluded from the company's direct impact. Since it is not possible to exclude the portion of the

company's capital expenditures that do not contribute to county's regional product, the inclusion of the company's total outlays of \$175 million for capital equipment overstates the company's direct impact. For this reason we relied upon our model's estimate of the company's direct economic impact on the county in determining its total economic impact.

As last year, the economic impact of the Upjohn Company on Kalamazoo County was generated using a 463 industrial-sector input/output model conjoined with a 53 industrial sector simulation and forecasting model.