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# The Economic and Public Finance Impacts of Industrial Development

Bill Kamps

*South Dakota State University*

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Editor: Donald C. Taylor

Economics Department

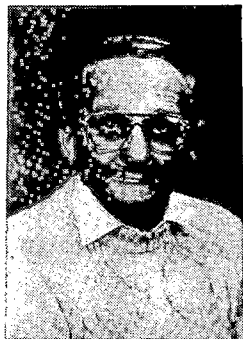
SDSU, Box 504A

Brookings, SD 57007

Tele: (605) 688-4141

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The  
Economic and Public  
Finance Impacts  
of  
Industrial Development

by  
Bill Kamps  
Professor of  
Economics

## Background

Manufacturing employment as a proportion of wage and salary employment in the U.S. declined from 1965 to 1977. The proportion of employment made up of manufacturing increased in South Dakota over the same period. This trend in South Dakota is likely to continue.

Several rural communities, through the efforts of industrial development corporations, Chambers of Commerce, or private individuals, are actively engaged in recruiting new industry. It is important that those charged with the responsibility for attracting new industry be able to critically evaluate the potential impacts that an industry might have on their community. Different industries may have quite different economic and public finance impacts upon the rural communities in which they locate, depending upon the characteristics of both the industry and the community. As a result of rural industrialization, certain sectors of the community may benefit at the expense of increased costs in other sectors.

## The Study

In a recent Master's thesis study in the Economics Department at South Dakota State University, Mark White estimated the impact of industrial development on the private, municipal, and school district sectors of the Brook-

ings (local) economy. To demonstrate the economic and public finance impacts which industrialization could have on the Brookings community, five hypothetical firms were established and studied. The characteristics of these firms were based on plant investment, employment, and salary data that could be synthesized from similar firms located elsewhere.

Information on the five selected firms is presented in Table 1. The egg processing firm has the smallest plant investment and taxable real property of the five firms. It is the second smallest employer of the five firms.

Table 1. Information on the Five Hypothetical Firms Studied

Business Activity	Total Plant Investment (\$000)	Total Taxable Real Property (\$000)	Employment	Average Annual Salary \$
(1) Table egg processing plant	167	87	15	8,800
(2) Alfalfa processing plant	3,100	300	26	6,800
(3) Feed manufacturing plant	725	453	6	10,000
(4) Feed manufacturing plant	2,400	900	24	10,400
(5) Manufacture and assembly of electromechanical products	1,100	410	175	6,400

The alfalfa processing plant has next to the lowest taxable real property, though it has the highest plant investment of the five firms. It is the second highest employer.

The third and fourth firms both use shelled corn and other whole grains as primary inputs to produce mash. The fourth firm is much larger, having three to four times as many employees and plant investment and producing over four times as much product (35 versus eight tons of mixed feed per hour).

The manufacturer and assembler of electromechanical products is by far the largest employer. For the other characteristics, however, it is below average in size.

## The Results

The results indicate that the im-

pacts of industrialization on the private sector are large in comparison to impacts on municipal governments and school districts. Private sector net impacts ranged from about 88 to 95 percent of total net impacts, depending upon the assumptions used in the analysis. So, in terms of the benefits associated with the firms, the community benefited mostly from the increased employment and income. The much smaller impacts on the municipal government and school district were positive for four of the firms, and only slightly negative for the fifth.

The larger feed manufacturer had the highest level of positive net impacts on the public sector -- twice those of the second-ranking smaller feed manufacturer. However, when the public sector net impacts are adjusted to reflect inter-firm differences in levels of employment, sales, payroll and plant investment, the smaller feed manufacturer was about twice as "profitable" from the standpoint of the community's public sector. The implication here is that the community may be better off trying to attract several small firms, with relatively higher levels of real investment per employee, rather than one large firm.

Public sector net gains attributable to a firm can be thought of as the amount of annual revenue that is available to reduce the tax burden on current property-owners while maintain-

ing a constant level of services in the public sector. From the analysis of public sector net impacts of the firms in this study, the locating of any of the five firms in the Brookings community would not appear likely to result in any significant reduction in annual property taxes for home-owners. For example, the owner of a \$60,000 home could expect his property taxes to change by no more than 0.3 percent as a result of any one of the firms locating in Brookings. These results suggest that industrial development does not substantially enhance the tax revenue base of a rural community and only marginally affects the property tax burdens of community residents.

Greater proportions of commuting employees, relative to local and in-migrant employees, for each of the firms were found to be associated with diminished levels of private sector net gains. This was due to the income spent in other communities by commuting employees.

The implication of the study is that the impacts a firm is likely to have on a rural community need to be carefully evaluated. The current study suggests that the most desirable firm from the standpoint of the community's public sector, would be one that has a high level of real investment per employee, and employs a high percentage of local employees.

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