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Does Industrial Development Lower Taxes?



Cooperative Extension Service
South Dakota State University
U.S. Department of Agriculture

Does Industrial Development Lower Taxes?

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Many communities in South Dakota want to diversify their local economy by promoting industrial development. Their objectives are to help stabilize migration patterns, increase local income and reduce tax burdens. But before advertising their communities to industrial executives in general, local citizens must assess both the feasibility and future impact of each specific industry. Different types of industries have different economic impacts upon a local economy. Although it is generally thought that industrial development is beneficial to a community and that industrial development should be promoted, in some cases certain sectors of the community may benefit at a cost to other sectors of the community.

Small towns beware: Industry can be costly

An article with this title reports the economic and taxation impacts of industrialization efforts in rural areas.¹ The report on which the article is based summarized the effects of more than 700 manufacturing plants in 245 communities within 34 states, all of which located in rural areas between 1945 and 1975.²

¹Summers, Gene, "Small Towns Beware: Industry Can Be Costly," *Planning*, May 1976, Vol. 42, No. 4, pp. 20-21.

²Summers, Gene, Sharon D. Evans, Frank Clemente, E. M. Buck, and Jon Minkoff, *Industrial Invasion of Nonmetropolitan America: A Quarter Century of Experience*, Praeger Publishers, New York, 1976.

The results suggest that many communities over-estimate the additional revenues available from new plants while under-estimating the additional public expenditures.

Public tax revenues were lower than expected because: (1) some of the payroll leaked out of the community through commuters or sales, (2) the multiplier effects were smaller than expected, (3) local government was unable to convert growth in retail sales or property valuation into tax revenues, and (4) local government gave too many concessions to new industry. The author summarizes the results as follows:

In sum, then, despite sizable contributions new industry should have made to the public sector, the net gain was relatively small. In several communities, the town lost out by bringing in new industry. In contrast, there were large gains in the private sector. Judging by the experience of these 245 communities, one must question the commonly held belief that new industry will substantially relieve the fiscal burden of non-metropolitan communities.³

There are no pat answers

While the conclusions from the above study suggest that communities should be careful to promote the right type of industrial growth and to use appropriate incentives, the results show that there are no pat answers. The impacts of a firm depend on a

number of characteristics of the firm and also of the community.

To estimate the impact on the local economy, information is needed on the type and size of the firm, the residential location of its employees, the annual income from jobs created, local spending patterns, and income multipliers. For the impact of a new firm on local government and school district, information is also needed on the local tax structure, expenditures on schools and other public services, utility costs and rates.

Since the impacts of a new firm depend on all of these variables, each firm in a given community must be analyzed individually. Data on the local community must be used. After the data is collected and the analysis completed, what can the estimates tell the community? The next section shows an example of these results.

What can the estimates tell the community?

Table I shows the results of this type of analysis for the 3M plant in Brookings, South Dakota. This study was done in 1973, when the employment at 3M was 360 persons. 3M has grown substantially since 1973, both in physical size and employment, so the present impact is certainly not the same as in 1973. The situation in 1973 is only used as an example of how a community can estimate the economic impact of an additional industry.

3M's impact on local economy

The net impact of 3M on the Brookings economy was estimated to

³ Summers, *Planning*, p. 21.

be \$2,982,138 annually. The primary benefits (\$1,837,112) were simply the payroll of the firm that remained in the Brookings community.

The secondary benefits were estimated to be \$1,157,668. These were the result of the multiplier effect of the primary benefits, based on a community multiplier of .630.

A multiplier effect is the result of a chain reaction of increased spending brought about by the initial spending of the employees of the firm. The primary effect of an increased payroll in a community is the spending by the recipients of the payroll. This added spending of these consumers increases the income of the community. This process will continue and increase the income of the community, although the effects of each additional expenditure will become smaller until additional effects are unnoticeable.

For example, if the payroll of a new industrial plant is \$100,000 and the employees spend 60% or \$60,000 of that within their local community, then the income of the community will increase by \$60,000. If the recipients of the \$60,000 spent locally by employees of the new firm also spend 60% of their income locally, the income of the community will increase by an additional \$36,000. Another spending cycle will increase income by an additional \$21,600. Additional spending cycles will become smaller and add smaller amounts to the income of the community.

The addition of all of these increased spending increments will be some multiple of the initial payroll of the industrial plant. This multiple is called the income multiplier. County multipliers in South Dakota have been estimated to range between .12 and 1.23.⁴ Although, theoretically the multiplier effect originates as just discussed, the actual process is more complex and involves leakages from the spending stream.

Primary income lost because the 3M plant came to Brookings (\$7,755) measures the lost income due to jobs vacated, and not refilled as a result of the new employment opportunities at 3M. The secondary income lost (\$4,887) incorporates the multiplier effect of the primary income lost.

Thus, the annual net gain to the local private economy was estimated to be \$2,982,138 in 1973 (\$2,994,780 in benefits minus \$12,642 in costs).

3M's impact on municipal government and schools

The increases in municipal property tax revenues from the plant and new homes built as a result of expanded employment were \$45,430 and \$5,681 respectively. Other revenues of \$107,548 include revenues from user fees and licenses such as: liquor, taxes, parking meter revenues, and license fees.

The utility bills for 3M and new residents are not included as additional revenues since these were assumed to be offset by the same level of costs to the city. If these had not been the same, it would have been necessary to include them.

These changes resulted in a net annual gain to city government of \$45,905.

Changes in the school district's tax revenue and state and federal aid are also shown in Table 1. They exceed the additional costs by \$94,678.

When the net gains to the local economy, the municipal government and school district were summed, the annual net gains totaled \$3,122,721.

Is your community aggressive enough?

Once the analysis is completed local people can better determine the value to their communities of an additional industry. If they decide to en-

Table 1. Economic impacts of the 3M Company on Brookings' private sector, municipal government, and school district, 1973*

Private sector impacts		
Benefits		
Primary benefits		1,837,112
Secondary benefits		1,157,668
Total benefits		2,994,780
Costs		
Primary income lost		7,755
Secondary income lost		4,887
Total costs		12,642
Net gains		2,982,138
Municipal government impacts		
Additional revenues		
Industrial property tax		45,430
Residential property tax		5,681
Other revenues		107,548
Total additional revenues		158,659
Additional costs		
New residents' services		111,334
Services for commuters		1,420
Total additional costs		112,754
Net gains		45,905
School district impacts		
Additional revenues		
Industrial property tax		117,777
Residential property tax		14,728
State aid		5,121
Federal aid		1,752
Total additional revenue		139,378
Additional costs		
Operating costs for new students		40,040
Capital outlays for new students		4,660
Total additional costs		44,700
Net gains		94,678

⁴ Morse, George, Arnold Bateman and Loren Tauer, *Industrial Development: Citizen's Workbook for Assessing Economic and Public Finance Impacts*, South Dakota Extension Service Circular EMC 715-A, October 1976.

* Source: Dwight G. Uhrich, "A Case Study of the Economic Impact of the 3-M Company on the Brookings Community," (Master's Thesis, Economics Department, South Dakota State University, 1974). The estimates in this table differ from Uhrich's because the secondary impacts are not included for the school district and city government. Inclusion of these impacts increases the net gains to the city by \$27,324 and decreases the net gains to the school by \$577.

courage industry, several measures can be taken. Some of these are:

1. Erection of buildings that might meet the needs of some types of industry.
2. Establishment of municipally owned industrial sites.
3. Five-year discretionary taxation on new structures or additions.

Any of these either requires funds from local tax revenues or reduces the taxes which can be collected (provided, of course, that the firm moves into the area). On the other hand each of these adds to the local tax base. It is frequently difficult to determine the net gains to local government without estimating both the additional revenues and expenditures.

Private investments will also have impacts on the local economy and public sectors. Zoning regulations can be used to encourage or discourage these investments once the impacts are known.

By knowing the approximate impact of a firm on your local economy, city government, and school district you can determine the degree to which it is wise to give a firm a tax break or other assistance. Undoubtedly many communities are not using these tools aggressively

enough while others have gone overboard. What's the case in your community?

A "do-it-yourself" analysis

If your community needs assistance in studying the impact of different types of firms on your community, SDSU and the Cooperative Extension Service may be able to help.

A workbook has been developed by SDSU economists which provides local citizens with a method for "do-it-yourself" impact analyses. Training programs can be provided by SDSU Extension economists to local leaders wishing to use this workbook. A computerized analysis is also available to communities wishing to look at numerous development options.

For a copy of the workbook or assistance from SDSU Extension economists, contact your local Extension agent and request EMC 715-A *Industrial Development: Citizen's Workbook for Assessing Economic and Public Finance Impacts*.

Related bulletins on growth impacts

Your county Extension agent also has copies of the following publications on the economic and public fi-

nance impacts of industrialization or subdivision developments:

As Your Community Grows . . . Some Economic Considerations, Bulletin EC 416, written by John Gordon and Jim Nelson, Purdue University, 1975.

Local Public Finance Impacts of Rural Residential Developments: A Case Study in the Rapid City School District of South Dakota, SDSU Exp. Sta. Bulletin 650, by Arnold Bateman, 1977.

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