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Small But Mighty

Agriculture remains a vital industry in central Minnesota

By Mary Edwards

From the raw numbers, agriculture appears to command a tiny presence in central Minnesota. In 2004, farm earnings (the sum of wages, salaries, benefits, and proprietors' income) made up only two percent of total area earnings. Farm employment has steadily declined for decades and the trend continues. Between just 2001 and 2004, the decline in farm employment in the St. Cloud MSA was 1.7 percent, and 1.9 percent in the state as a whole.

To determine the economic impact of agriculture on a community we must compare the St. Cloud area as it is now, to a scenario where agriculture is entirely eliminated. Using an input-output analysis program, IMPLAN, to measure the economic impact of agriculture we find that while farm employment comprises 4.4 percent of total employment in central Minnesota, the industry actually sustains from 7.7 percent to 11.5 percent of the total area jobs.

The 4.4 percent total agricultural employment in the area translates into a "direct effect" of 4,917 jobs. Firms in industries that produce goods used in the local agriculture industry, including wholesale trade, trucking, the real estate industry, veterinarians, and equipment repair can support 3,300 employees via the "indirect effect." Finally, the farmers, farm employees and employees of the firms in the support industries would not have incomes with which to purchase goods and services. The "induced effect" of 880 workers supports additional jobs, especially in wholesale and retail trade, health care, and restaurants. Thus, at least 9,097 central Minnesota jobs are attributable to agriculture.

But the true impact is even larger. The traditional method of input-output analysis merely looks at the number of jobs that an industry supports from its purchases from other industries, i.e., the backward linkages. If all farms were eliminated from the area, meat and poultry processing plants would have no reason to locate here, nor would grain mills, fluid milk processors, and cheese manufacturing firms. These forward linkages to agriculture directly employ 1,495 workers. They indirectly support 1,862 jobs chiefly in wholesale trade, trucking, warehousing and storage, veterinary services, employment services, restaurants, automobile repair, and commercial machinery repair industries. Finally, employee spending supports an additional 1,081 jobs. These forward linkages are thus responsible for an additional 4,438 jobs in central Minnesota.

Agriculture is a vital industry in central Minnesota. A simplistic estimate of the employment impact is that it sustains almost 9,100 area jobs, but a more realistic estimate defends 13,538 jobs due to both the backward and forward linkages of agriculture.

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SIDE BAR

Regional Ag Production

Benton and Stearns Counties make up two percent of total land area of the state and three percent of total farm land in the state, but together they generate five percent of the market value of agricultural products in Minnesota.

Benton and Stearns Counties:

Raise 9.3 percent of the total number of cattle and calves in Minnesota

Support 15 percent of the state's milk cows

Provide almost half the broilers and chickens sold in Minnesota

Grow 11 percent of the total bushels of oats in the state

Grow 13 percent of the corn used for silage.

By the Numbers

0.7 – The percent increase in jobs between July and August in the Fargo-Moorhead MSA

50 – The number of jobs that were added to Rochester's economy in August

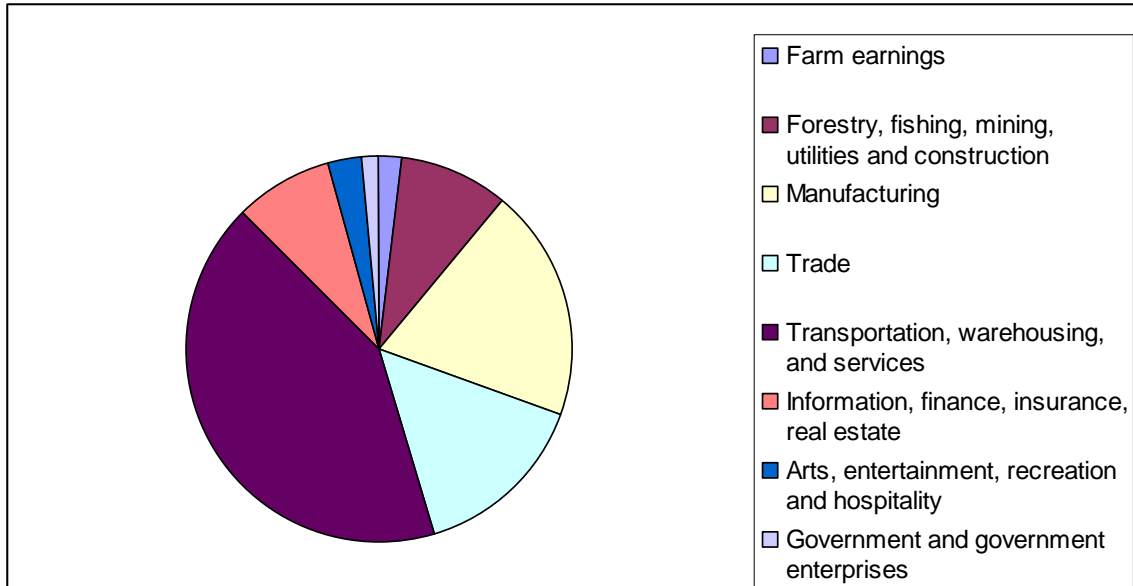
200 – The number of jobs created in St. Cloud's economy in August.

400 – The number of new jobs in the Fargo Moorhead area in August that were related to government services

700 – The number of workers who have been hired each August in St. Cloud for over three years running

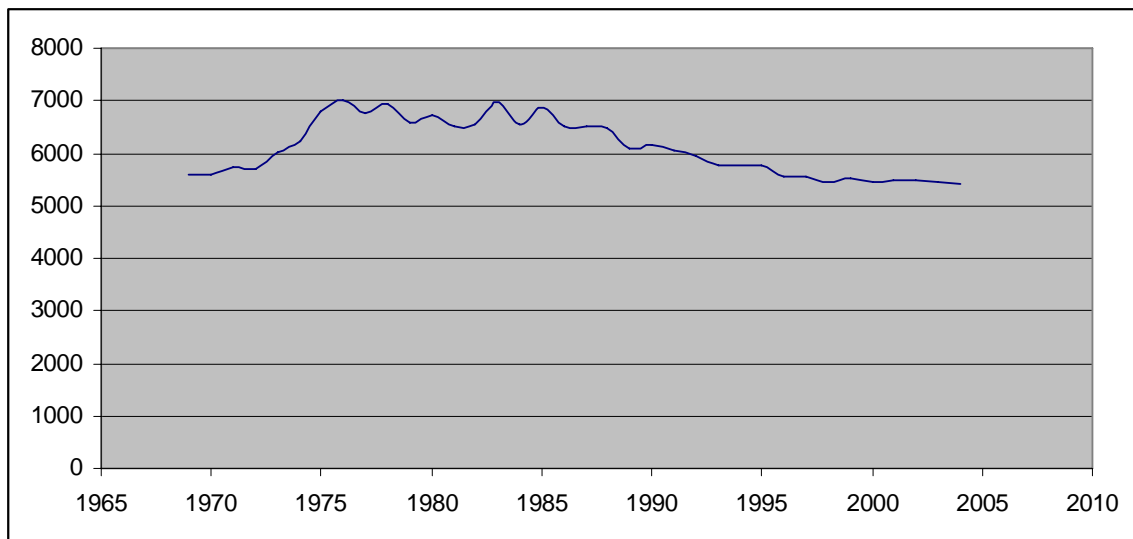
1,600 – The number of jobs that have been added to Rochester's economy over the last three years

Figure 1. Total earnings by industry in central Minnesota, 2004



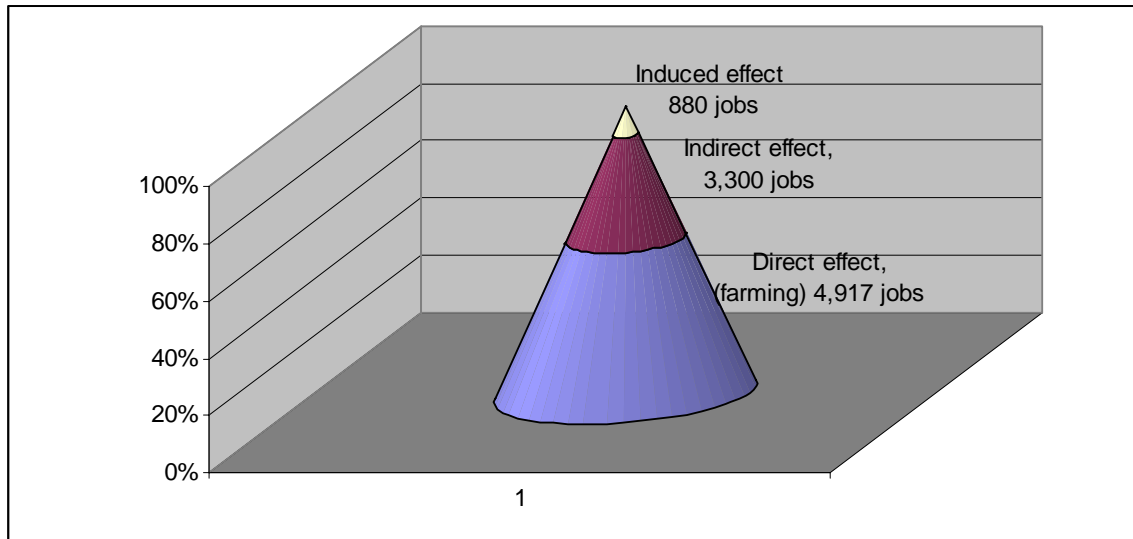
Source: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce. <http://www.bea.gov/bea/regional/reis/CA05Nfn.cfm>. Date accessed, 19 October 2006.

Figure 2. Farm employment in central Minnesota, 1969-2004.



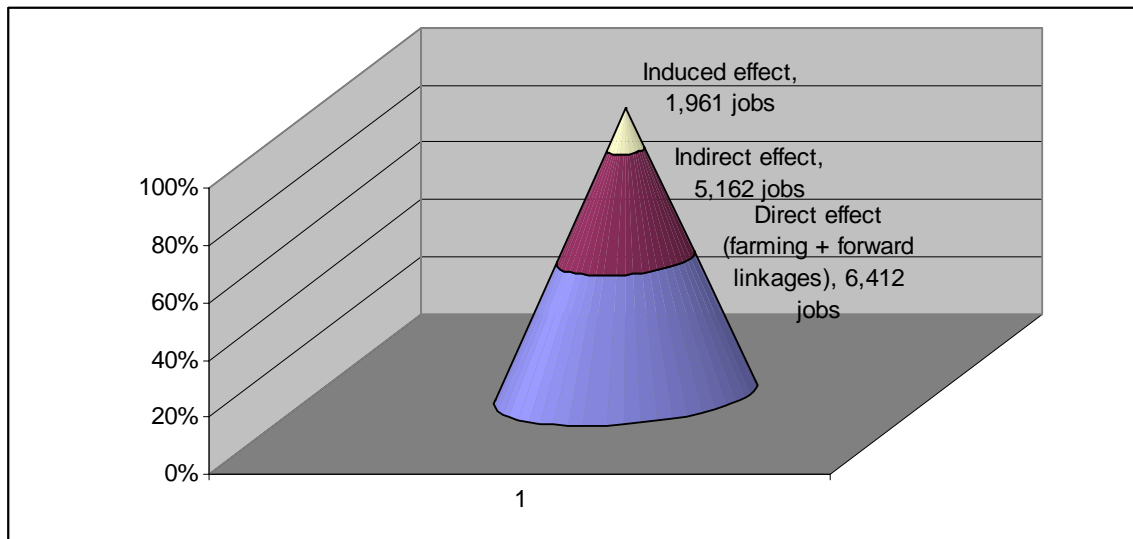
Source: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce <http://www.bea.gov/bea/regional/reis/CA25Nfn.cfm>, <http://www.bea.gov/bea/regional/reis/CA25fn.cfm> Date accessed 11 November 2006.

Figure 3. Impact of agriculture on central Minnesota (backward linkage approach).



Source: IMPLAN Input-output analysis (2001 data).

Figure 4. Impact of agriculture on central Minnesota (Including forward linkages)



Source: IMPLAN Input-output analysis (2001 data).