



ECONOMIC EMERGENCY PROGRAM

Karlstad Farm Elevator Closure

In early May 2019, the Minnesota Department of Agriculture provided notice that the Karlstad Farmers Elevator would be closing its doors.¹ As of February, the elevator had two full-time employees and one part-time employee.

The elevator's closing has implications for Karlstad's economy. The loss of an employer affects not only those at the elevator, but also many community members. To respond to this economic change, decision makers in Karlstad and Kittson County need information about the potential economic impact of the Karlstad elevator closure.

University of Minnesota Extension prepared this economic emergency report in partnership with the Economic Development Administration (EDA) Center at the University of Minnesota.²

SUMMARY OF FINDINGS

The loss of three jobs at the farm elevator will affect an estimated five jobs in Kittson County. Beyond jobs at the elevator, workers at Main Street businesses—restaurants, grocery stores, and general merchandise retailers—will see their jobs affected as elevator workers have less disposable income to spend in the community. Businesses supplying the elevator will also be affected.

The loss of three jobs is predicted to cause a decline in economic output of an estimated \$698,200 in Kittson County. This includes an estimated \$190,400 of lost labor income in the county. Wholesale trade jobs (including farm elevator) jobs are important to Kittson County, accounting for 6.2 percent of all jobs. The economic impact figures are based on an average wholesale trade business in the county.

On a positive note, the relatively tight labor market, especially in wholesale trade, may provide an opportunity for employees of the Karlstad Farmers Elevator to obtain new employment. As this happens, the effects of lost income should dissipate relatively quickly. The lost business-to-business transactions, however, may linger as suppliers adjust. Further, should farmers sell to other elevators in Kittson County, those facilities may increase employment, offsetting some of the effects.

The data, analysis, and findings described in this report are specific to the geography, period, and project requirements of Kittson County. Findings are not transferable to other jurisdictions.

¹ <https://northharvestbean.org/2019/05/farmers-advised-to-file-claims-with-karlstad-elevator-closure/>

² The EDA Center at University of Minnesota is part of the University Center network. University Centers have the mission of connecting University resources with the economic development community. They are funded by the U.S. Economic Development Administration, which is a bureau of the U.S. Department of Commerce.

University of Minnesota Extension neither approves nor endorses the use or application of findings and other contents in this report by other jurisdictions.

WHAT IS AN ECONOMIC EMERGENCY?

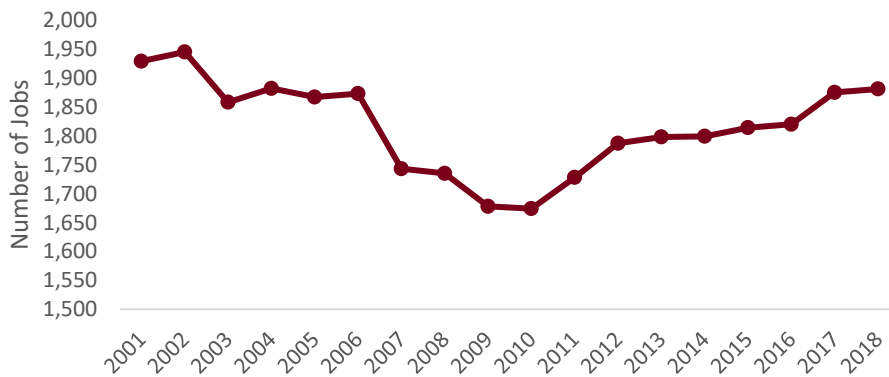
Communities often face a sudden and unanticipated change in their local economy. A major employer announces it is reducing its workforce, a fire destroys an operating facility, or a flood damages the downtown. In these situations, community leaders often need to make quick but important decisions about how to react. They work closely with the local business(es) affected and work to help the business(es) and community recover. The University of Minnesota Extension’s economic emergency program provides community leaders with information to assist in making decisions regarding the community’s future.

There are a few important things to note related to this analysis and the tool used. Information from the IMPLAN (MIG, Inc.) model is used in this analysis. In the IMPLAN model, one job is one job, regardless of whether the job is full-time, part-time, or seasonal. This should be considered when interpreting the results related to employment in this report. Further, core IMPLAN data is gathered from a variety of government sources. This analysis relies on the default IMPLAN data for the wholesale trade industry in Kittson County.

THE ROLE OF WHOLESALE TRADE IN KITTSON COUNTY’S ECONOMY

In 2018, there were 1,880 jobs in Kittson County.³ This is almost the same number of jobs as in 2001. The number of jobs declined between 2006 and 2010, consistent with the Great Recession. The number of jobs in the county has been slowly growing since its low in 2010 (Chart 1).

Chart 1: Employment in Kittson County, Minnesota, 2001-2018



Source: EMSI

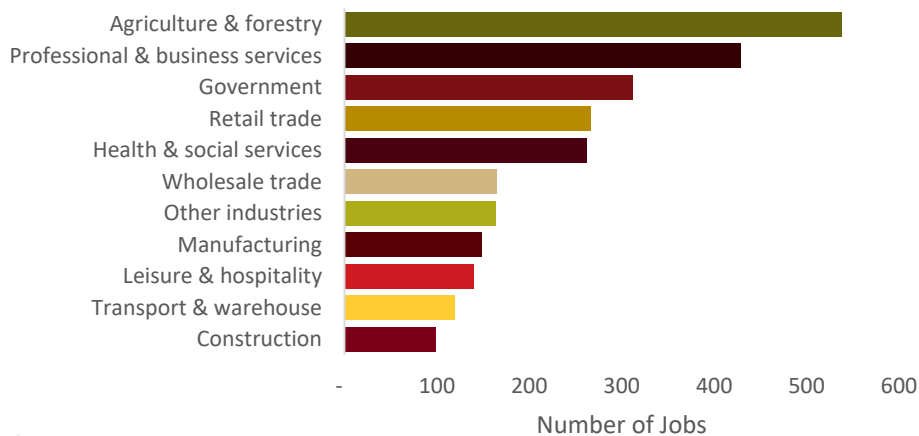
³ The data provided in this section includes all businesses within Kittson County. Data is from the EMSI database, www.economicmodeling.com.

Agriculture and forestry is the largest industry employer in Kittson County, employing slightly more than 500 people in 2017 (Chart 2). Other major industry employers include professional and business services and government.

In 2017, wholesale trade businesses employed 160 people, or 6.2 percent of workers in the county. In comparison, the wholesale trade industry employs 4.2 percent of Minnesota’s workers.

Wholesale trade businesses sell merchandise to retailers and to industrial, commercial, institutional, farm, construction contractors, or professional business users. A farmers’ elevator is a wholesale trade business, as they buy product directly from businesses (farmers) and sell to other business users. They do not primarily market to individual consumers.

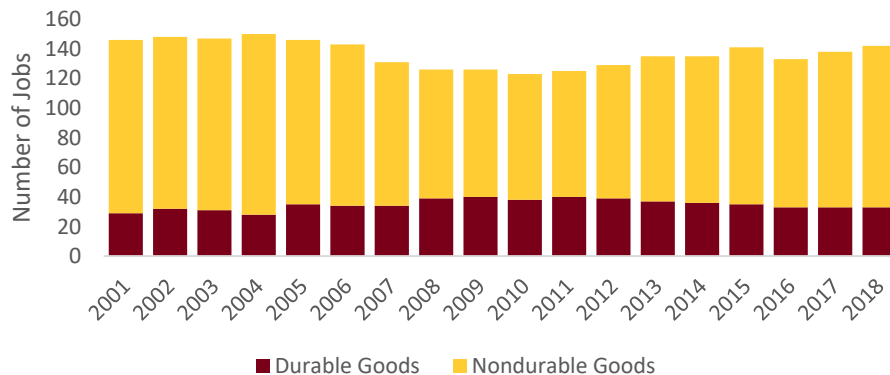
Chart 2: Employment by Industry, Kittson County, Minnesota, 2017



Source: IMPLAN

Wholesale trade businesses in Kittson County primarily deal with nondurable goods (Chart 3). Nondurable goods are items designed to be consumed or used in a short-period of time (less than three years). Food and medications are good examples of nondurable goods. Durable goods are goods that are intended for long-term use, examples include bricks and automobiles.

Chart 3: Employment, Wholesale Trade Industry, Kittson County, Minnesota, 2001-2018



Source: EMSI

Overall, the number of wholesale trade jobs in Kittson County grew between 2001 and 2004. The Great Recession affected the industry and jobs were lost between 2006 and 2010. Following the recession, the industry added jobs. In 2018, there were four fewer jobs in the industry as compared to 2001. It's been a stable industry in Kittson County.

Minnesota's economy has added jobs since the end of the 2008-2009 Great Recession. Growth has led to increasingly lower unemployment rates. The unemployment rate in Kittson County was 2.6 percent in May of 2019 (Table 1). The unemployment rate in Roseau County was 3.0 percent and 4.2 percent in Marshall County. Neighboring North Dakota also has relatively low unemployment rates with a rate of 3.3 percent in Pembina County and 2.9 percent in Walsh County.

Table 1: Unemployment Statistics, Select Minnesota and North Dakota Counties, May 2019

Local Area	Labor Force	Unemployment	Unemployment Rate
Kittson County, MN	2,443	64	2.6%
Roseau County, MN	7,966	241	3.0%
Marshall County, MN	5,634	235	4.2%
Pembina County, ND	3,300	109	3.3%
Walsh County, ND	5,310	154	2.9%

Source: Local Area Unemployment Statistics (LAUS), 2019

Lower unemployment rates suggest unemployed Karlstad Farmers Elevator employees may find employment quickly. In the fourth quarter of 2018, DEED reported 1,118 job vacancies in EDR 1-Northwest. This was a slight increase in vacancies reported compared to fourth quarter 2017, which was 996. Of those vacancies in 2018, 59 were in wholesale trade, a job vacancy rate of 1.2 percent—the lowest of all industries in the region. Wholesale trade had a median wage offer of \$19.46 per hour.

ECONOMIC IMPACT OF A GRAIN ELEVATOR CLOSURE

As of February 2019, the Karlstad Farmers Elevator employed three people. The loss of these jobs at the elevator, and the corresponding decrease in sales, will affect other businesses in Kittson County. This section of the report describes the impacts of a farm elevator closing in Kittson County. The analysis presented is for an average wholesale trade business in the county.⁴

According to the IMPLAN model, three employees in the wholesale industry in Kittson County produce an estimated \$538,500 in output annually. These employees, based on averages for wholesale trade businesses, earn an estimated \$158,300 in salaries, wages, and benefits. This is the direct impact shown in Table 2.

⁴ The job layoff figure is a given number. The IMPLAN model estimates the associated output and labor income losses, based on an average wholesale business in the county. The numbers presented here are meant to be instructive for a conversation. They may differ slightly from actual output and labor income for the Karlstad Farmers Elevator.

A wholesale trade business generates additional economic activity in the county as the business makes purchases. When a business makes purchases of inputs and supplies in the local economy, this creates indirect or business-to-business impacts. When the business' employees make purchases in the local economy, this creates induced or consumer-to-business impacts. If these purchases decrease, the corresponding local purchases will also decrease, causing a ripple of economic loss in the local community.

The loss of three jobs at a farmer elevator in Kittson County will have direct, indirect, and induced economic impacts on the county (Table 2). When three employees are laid off, an additional estimated two jobs in industries that serve the elevator and its employees will be affected. Thus, a total of five jobs in the county will be affected.

The elevator closure will result in an estimated total loss of \$698,200 in output (sales) in the county. This includes \$538,500 less in output from the elevator itself and a loss of \$159,700 in indirect and induced sales.

Table 2: Economic Impact of Farm Elevator Closure With 3 Jobs Lost: Kittson County, Minnesota

	Direct	Indirect	Induced	Total
	At Elevator	Business-Business	Consumer-Business	
Output	-\$538,500	-\$85,800	-\$73,900	-\$698,200
Employment	-3	-1	-1	-5
Labor Income	-\$158,300	-\$32,100	-\$18,900	-\$190,400

Estimates by the Extension Center for Community Vitality

The total loss of labor income will be an estimated \$190,100—\$158,300 in direct impact of wages from the elevator and about \$51,000 in wages from employees of businesses affected.

On a positive note, the relatively tight labor market provides an opportunity for employees of the Karlstad Farmers Elevator to obtain new employment. As this happens, the effects of lost income (induced effects) should dissipate relatively quickly. The lost business-to-business transactions, however, may linger longer as suppliers adjust. Further, should farmers sell their crop to other elevators in Kittson County, those facilities may increase employment, offsetting the effects.

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APPENDIX: ASSUMPTIONS AND TERMS

Economic impact analysis is based on several critical assumptions. An understanding of these assumptions ensures the results are interpreted properly. Here are the key assumptions made in the analysis for Kittson County.

First, there are assumptions that are standard for all economic impact analyses based on IMPLAN software and data. They are:

- One job is one job, regardless if the job is full-time, part-time, or seasonal. The jobs considered here are not full-time equivalents. Therefore, it is not unusual for industries with high levels of part-time employment to experience higher employment impacts.
- The model is linear. A one-unit change in output or employment will have a fixed unit change in the other measures.
- The model assumes all employees of the facility live in the county. It does make adjustments for where their incomes are spent. If the regional hub is located in a nearby county, it will adjust to assume employees spend some of their wages and salaries in the nearby county.
- The database is built on publicly available data. When data is not available for a specific industry, say due to data disclosure issues, econometric models are used to create estimates for the industry.

Second, there is an assumption unique to the analysis in Kittson County.

- The number of employees at Karlstad Farmers Elevator was provided to Extension by board members of the elevator. The IMPLAN model estimated the amount of output and labor income created by those employees, based on national and state benchmarks for the industry.

The following are a few key terms used in economic impact analysis.

Output

Output is measured in dollars and is equivalent to total sales. The output measure can include significant double counting. For example, think of corn. The value of the corn is counted when it is sold to the mill, again when it is sold to the dairy farmer, again as part of the price of fluid milk, and then yet again when it is sold as cheese. The value of the corn is built into the price of each of these items and then the sales of each of these items are added up to get total sales (or output).

Employment

Employment includes full- and part-time workers and is measured in annual average jobs. Total wage and salaried employees, as well as the self-employed, are included in employment estimates in IMPLAN. Because employment is measured in jobs and not in dollar values, it tends to be a very stable metric.

In the model, one job is one job, regardless if the job is full-time, part-time, or seasonal.

Labor Income

Labor income measures the value that is added to the product by the labor component. In the corn example, when the corn is sold, a certain percentage of the sale goes to the farmer for his/her labor. Then when the mill sells the corn as feed to the dairy farmer, it includes a markup for its labor costs in the price. When the dairy farmer sells the milk to the cheese manufacturer, he/she includes a value for his/her labor. These individual value increments for labor can be measured. This is labor income. Labor income does not include double counting.

Direct Impact

The direct impact is equivalent to the initial change in the economy.

Indirect Impact

The indirect impact is the summation of changes in the local economy that occur due to **spending for inputs** (goods and services) by the industry or industries directly impacted. For instance, if employment in a manufacturing plant increases by 100 jobs, this implies a corresponding increase in output by the plant. As the plant increases output, it must also purchase more of its inputs, such as electricity, steel, and equipment. As it increases its purchase of these items, its suppliers must also increase their production, and so forth. As these ripples move through the economy, they can be captured and measured. Ripples related to the purchase of goods and services are indirect impacts.

Induced Impact

The induced impact is the summation of changes in the local economy that occur due to **spending by labor** by the employees in the industry or industries directly impacted. For instance, if employment in a manufacturing plant increases by 100 jobs, the new employees will have more money to spend to purchase housing, buy groceries, and go out to dinner. As they spend their new income, more activity occurs in the local economy. This can be quantified and is called the induced impact.

Total Impact

The total impact is the summation of the direct, indirect, and induced impacts.