

Overview

The Kansas Department of Agriculture’s Economist creates annual economic contribution reports to estimate the impact of agriculture on the Kansas economy. The purpose of these reports is to provide information to stakeholders, policymakers, and the general public. In this report, the model analyzes the effects of agriculture on the Ottawa County, Kansas, economy. For the estimated current year (2024), 22 agriculture and agriculture-related sectors directly contribute \$174 million in output and 606 jobs to the Ottawa County, Kansas, economy. Including indirect and induced effects, agriculture and agriculture-related sectors have a total impact of \$197 million in output, 724 jobs and 32% of the total Gross Regional Product (GRP).

Estimated Economic Contribution of Agriculture.

Methodology and Glossary on final page

Results

In this model, the 22 agriculture and agriculture-related sectors have a total direct output of \$174 million and account for 606 jobs in Ottawa County, as shown in the following table:

Table 1: Agriculture and Agriculture-Related Sectors’ Contribution to the Ottawa County Economy

Contribution Type	Employment	% Employment	Total Value Added	% of Gross Regional Product	Output
Direct Effect	606	24%	\$43,469,000	26%	\$174,179,000
Indirect Effect	65	3%	\$4,687,000	3%	\$13,982,000
Induced Effect	52	2%	\$4,554,000	3%	\$8,982,000
Total Effect	724	29%	\$52,711,000	32%	\$197,145,000

Note: Individual effects may not equal the total effect due to rounding.

The agriculture and agriculture-related sectors provide a total estimated impact of \$197 million in output. These sectors also support a total of 724 jobs, or 29% of the county’s entire workforce. Another metric used to calculate the importance of sectors in the economy is their value added as a percentage of the Gross Regional Product. Total value added by the 22 agriculture and agriculture-related sectors is \$53 million, or 32% of the Gross Regional Product.

Top Ten Sectors by Output

The table below shows Ottawa County’s top ten sectors by output, including direct, indirect and induced effects. The *beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming* sector is the top contributor in output to the Ottawa County economy, with \$90 million in total output.

Table 2: Top Ten Sectors by Output, Ottawa County

Sector	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	\$89,586,000
Grain farming	\$45,057,000
Oilseed farming	\$22,930,000
All other crop farming	\$6,125,000
Other real estate	\$5,896,000
Food product machinery manufacturing	\$3,770,000
Owner-occupied dwellings	\$2,626,000
Monetary authorities and depository credit intermediation	\$1,717,000
Support activities for agriculture and forestry	\$1,677,000
Truck transportation	\$1,654,000

Top Ten Sectors by Employment

Of the agriculture and agriculture-related sectors, *beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming* supports the most jobs in the county with 324 jobs. Table 3 illustrates the top ten sectors by total employment, including direct, indirect, and induced effects in Ottawa County.

Table 3: Top Ten Sectors by Employment, Ottawa County

Sector	Total Employment
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	324.69
Grain farming	101.22
All other crop farming	90.94
Support activities for agriculture and forestry	39.59
Other real estate	30.77
Food product machinery manufacturing	13.95
Oilseed farming	11.09
Hospitals	11.27
Veterinary services	7.06
Truck transportation	7.70

All Direct Agriculture Sectors

Table 4 is a summary of agriculture sectors represented with output and employment levels. These values estimate the value of output and the jobs these agriculture sectors support in the Ottawa County economy. Generally, this analysis includes three categories: production, manufacturing or processing, and services. Note, the model does not include ethanol production nor wholesale and retail sales of final products.

Table 4: All Direct Agriculture Sectors, Ottawa County

Sector	Total Output	Total Employment
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	\$89,586,000	324.69
Grain farming	\$45,057,000	101.22
Oilseed farming	\$22,930,000	11.09
All other crop farming	\$6,125,000	90.94
Food product machinery manufacturing	\$3,770,000	13.95
Support activities for agriculture and forestry	\$1,677,000	39.59
Animal, except poultry, slaughtering	\$1,180,000	1.44
Greenhouse, nursery, and floriculture production	\$792,000	4.55
Poultry and egg production	\$483,000	0.50
Veterinary services	\$422,000	7.06
Animal production, except cattle and poultry and eggs	\$408,000	1.93
Landscape and horticultural services	\$363,000	4.62
Other animal food manufacturing	\$350,000	0.27
Distilleries	\$342,000	0.55
Vegetable and melon farming	\$151,000	0.65
Other snack food manufacturing	\$149,000	0.24
Bread and bakery product, except frozen, manufacturing	\$135,000	0.98
Roasted nuts and peanut butter manufacturing	\$114,000	0.23
Frozen cakes and other pastries manufacturing	\$85,000	0.98
Commercial logging	\$24,000	0.24
Forestry, forest products, and timber tract production	\$17,000	0.22
Commercial hunting and trapping	\$9,000	0.24

Methodology

Using the economic software IMPLAN, the equilibrium displacement model calculates the estimated output and employment of all 546 different economic sectors if the current economy experiences no shocks within the agriculture and agriculture-related industries. IMPLAN sectors are based on North American Industry Classification System (NAICS) codes. The results of this model are broken down into direct, indirect and induced effects, and the IMPLAN framework avoids double counting. All agriculture and agriculture-related sectors represented in this model use the most recent IMPLAN data available (2022), adjusted for 2024 dollars. For this model, key statistics are defined as follows: total employment refers to the annual average of the sum of full and part time jobs held attributed to the 22 agricultural sectors, total gross regional product is the sum of the value added of all industries across the region, and total output is the total annual value of production for an industry or area.

Notes and Glossary

These results are based on estimated production and employment numbers, along with estimated potential sector-, industry- and economy-wide effects. Therefore, these results will differ from actual events.

Due to confidentiality policies that exist within several agencies from which IMPLAN collects their data, some sectors in some regions may not have all data available.

The model provides results in relation to the agriculture and agriculture-related sectors. These results are not equal to the total effects of all 546 sectors but rather the total effects relative to agriculture.

The following terms are used throughout this report:

- *Direct effect*: the contribution from agricultural and food products
- *Indirect effect*: the contribution from farms and agricultural businesses purchasing inputs and services from supporting industries within the region.
- *Induced effect*: the contribution from employees of farms, agricultural businesses, and supporting industries spending their wages on goods and services within the region.
- *Value added* = labor income + indirect business taxes + other property type income
- *Gross Regional Product* = final demand of households + government expenditures + capital + exports – imports – institutional sales
- *Output* = intermediate inputs + value added
- *Employment*: full-time/part-time annual average, i.e., 1 job lasting 12 months = 2 jobs lasting 6 months each = 3 jobs lasting 4 months each. A job is neither full-time nor part-time.

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