



Atchison County, Kansas

2023 ECONOMIC CONTRIBUTION REPORT
NOVEMBER 15, 2023

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 Atchison County, Kansas, economy. For the estimated current year (2023), 27 agriculture and agriculture-related sectors directly contribute \$433 million in output and 1,004 jobs to the Atchison County economy. Including indirect and induced effects, agriculture and agriculture-related sectors have a total impact of \$532 million in output, 1,544 jobs and 30% of the total Gross Regional Product (GRP).

Estimated Economic Contribution of Agriculture.

Methodology and Glossary on final page

Results

In this model, the 27 agriculture and agriculture-related sectors have a total direct output of \$433 million and account for 1,004 jobs in Atchison County, as shown in the following table:

Table 1: Agriculture and Agriculture-Related Sectors' Contribution to Atchison County Economy

Contribution Type	Employment	% Employment	Total Value Added	% of Gross Regional Product	Output
Direct Effect	1,004	13%	\$150,186,000	23%	\$433,132,000
Indirect Effect	279	4%	\$28,447,000	4%	\$62,067,000
Induced Effect	262	3%	\$20,067,000	3%	\$37,571,000
Total Effect	1,545	20%	\$198,702,000	30%	\$532,771,000

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

The agriculture and agriculture-related sectors provide a total estimated impact of \$532 million in output. These sectors also support a total of 1,544 jobs, or 20% 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 27 agriculture and agriculture-related sectors is \$198 million, or 30% of the Gross Regional Product.

Top Ten Sectors by Output

The table below shows Atchison County's top ten sectors by output, including direct, indirect and induced effects. The *flour milling* sector is the top contributor in output to the Atchison County economy, with \$70 million in total output.

Table 2: Top Ten Sectors by Output, Atchison County

Sector	Total Output
Flour milling	\$70,963,000
Other animal food manufacturing	\$60,501,000
Grain farming	\$47,098,000
Oilseed farming	\$43,736,000
Distilleries	\$43,181,000
Bottled and canned soft drinks & water	\$42,842,000
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	\$38,084,000
All other food manufacturing	\$12,986,000
Wholesale - Other nondurable goods merchant wholesalers	\$10,318,000
Other real estate	\$10,318,000

Top Ten Sectors by Employment

Of the agriculture and agriculture-related sectors, *flour milling* supports the most jobs in the county with 291 jobs. Table 3 illustrates the top ten sectors by total employment, including direct, indirect, and induced effects in Atchison County.

Table 3: Top Ten Sectors by Employment, Atchison County

Sector	Total Employment
Flour milling	291.55
Other animal food manufacturing	190.88
Grain farming	73.94
Maintenance and repair construction of nonresidential structures	67.62
Oilseed farming	55.22
Distilleries	52.92
Bottled and canned soft drinks & water	52.50
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	44.13
All other food manufacturing	42.68
Wholesale - Grocery and related product wholesalers	37.53

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 Atchison 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, Atchison County

Sector	Total Output	Total Employment
Flour milling	\$70,963,000	291.55
Other animal food manufacturing	\$66,983,000	190.88
Grain farming	\$60,501,000	73.94
Oilseed farming	\$47,098,000	55.22
Distilleries	\$43,736,000	52.92
Bottled and canned soft drinks & water	\$43,181,000	52.50
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	\$42,842,000	44.13
All other food manufacturing	\$38,084,000	42.68
Leather and hide tanning and finishing	\$4,732,000	35.63
Landscape and horticultural services	\$2,771,000	28.52
Dairy cattle and milk production	\$2,364,000	27.60
All other crop farming	\$1,875,000	26.27
Veterinary services	\$1,715,000	26.11
Support activities for agriculture and forestry	\$1,363,000	23.29
Other leather and allied product manufacturing	\$942,000	11.14
Bread and bakery product, except frozen, manufacturing	\$756,000	4.89
Animal production, except cattle and poultry and eggs	\$535,000	4.89
Frozen cakes and other pastries manufacturing	\$478,000	3.69
Greenhouse, nursery, and floriculture production	\$460,000	2.72
Other snack food manufacturing	\$443,000	1.77
Poultry and egg production	\$442,000	0.68
Vegetable and melon farming	\$352,000	0.68
Roasted nuts and peanut butter manufacturing	\$298,000	0.67
Fruit farming	\$73,000	0.65
Commercial logging	\$69,000	0.50
Forestry, forest products, and timber tract production	\$53,000	0.44
Tree nut farming	\$9,000	0.06

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 (2021), adjusted for 2023 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 72 agricultural sectors, total gross regional product is the sum of the value added of all industries across the state, 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 county
- *Induced effect*: the contribution from employees of farms, agricultural businesses, and supporting industries spending their wages on goods and services within the county
- *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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