



Osage 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 Osage County, Kansas, economy. For the estimated current year (2023), 26 agriculture and agriculture-related sectors directly contribute \$219 million in output and 1,088 jobs to the Osage County economy. Including indirect and induced effects, agriculture and agriculture-related sectors have a total impact of \$260 million in output, 1,296 jobs and 21% of the total Gross Regional Product (GRP).

Estimated Economic Contribution of Agriculture.

Methodology and Glossary on final page

Results

In this model, the 26 agriculture and agriculture-related sectors have a total direct output of \$219 million and account for 1,088 jobs in Osage County, as shown in the following table:

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

| Contribution Type | Employment | % Employment | Total Value Added | % of Gross Regional Product | Output |
|---------------------|--------------|--------------|---------------------|-----------------------------|----------------------|
| Direct Effect | 1,088 | 20% | \$56,652,000 | 16% | \$219,060,000 |
| Indirect Effect | 136 | 3% | \$12,909,000 | 4% | \$29,915,000 |
| Induced Effect | 72 | 1% | \$6,089,000 | 2% | \$11,191,000 |
| Total Effect | 1,296 | 24% | \$75,651,000 | 21% | \$260,167,000 |

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

The agriculture and agriculture-related sectors provide a total estimated impact of \$260 million in output. These sectors also support a total of 1,296 jobs, or 24% 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 26 agriculture and agriculture-related sectors is \$75 million, or 21% of the Gross Regional Product.

Top Ten Sectors by Output

The table below shows Osage 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 Osage County economy, with \$59 million in total output.

Table 2: Top Ten Sectors by Output, Osage County

| Sector | Total Output |
|--------------------------------------------------------------------------------------------|--------------|
| Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming | \$59,318,000 |
| Oilseed farming | \$44,346,000 |
| Meat processed from carcasses | \$40,994,000 |
| Grain farming | \$8,482,000 |
| Wholesale - Other nondurable goods merchant wholesalers | \$6,370,000 |
| Other real estate | \$4,516,000 |
| All other crop farming | \$3,360,000 |
| Other local government enterprises | \$3,036,000 |
| Owner-occupied dwellings | \$2,239,000 |
| Farm machinery and equipment manufacturing | \$2,239,000 |

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 528 jobs. Table 3 illustrates the top ten sectors by total employment, including direct, indirect, and induced effects in Osage County.

Table 3: Top Ten Sectors by Employment, Osage County

| Sector | Total Employment |
|--------------------------------------------------------------------------------------------|------------------|
| Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming | 528.34 |
| Grain farming | 158.82 |
| All other crop farming | 134.18 |
| Meat processed from carcasses | 89.84 |
| Oilseed farming | 69.12 |
| Other real estate | 39.78 |
| Veterinary services | 27.41 |
| Support activities for agriculture and forestry | 26.44 |
| Wholesale - Other nondurable goods merchant wholesalers | 22.87 |
| Landscape and horticultural services | 16.98 |

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 Osage 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, Osage County

| Sector | Total Output | Total Employment |
|--------------------------------------------------------------------------------------------|--------------|------------------|
| Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming | \$59,318,000 | 528.34 |
| Oilseed farming | \$58,399,000 | 158.82 |
| Meat processed from carcasses | \$44,346,000 | 134.18 |
| Grain farming | \$40,994,000 | 89.84 |
| All other crop farming | \$4,516,000 | 69.12 |
| Farm machinery and equipment manufacturing | \$2,239,000 | 27.41 |
| Veterinary services | \$1,761,000 | 26.44 |
| Landscape and horticultural services | \$1,685,000 | 16.98 |
| Animal production, except cattle and poultry and eggs | \$1,285,000 | 10.98 |
| Support activities for agriculture and forestry | \$1,013,000 | 5.43 |
| Bread and bakery product, except frozen, manufacturing | \$579,000 | 4.36 |
| Other animal food manufacturing | \$525,000 | 4.36 |
| Vegetable and melon farming | \$469,000 | 2.68 |
| Frozen cakes and other pastries manufacturing | \$361,000 | 2.00 |
| Other snack food manufacturing | \$356,000 | 1.89 |
| Roasted nuts and peanut butter manufacturing | \$252,000 | 1.42 |
| Bottled and canned soft drinks & water | \$228,000 | 0.60 |
| Poultry and egg production | \$178,000 | 0.58 |
| Dairy cattle and milk production | \$170,000 | 0.58 |
| Commercial logging | \$104,000 | 0.56 |
| Tree nut farming | \$81,000 | 0.46 |
| Commercial hunting and trapping | \$57,000 | 0.45 |
| Greenhouse, nursery, and floriculture production | \$40,000 | 0.26 |
| Forestry, forest products, and timber tract production | \$40,000 | 0.24 |
| Fruit farming | \$36,000 | 0.23 |
| Other leather and allied product manufacturing | \$15,000 | 0.23 |

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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