

Lyon 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 Lyon County, Kansas, economy. For the estimated current year (2023), 30 agriculture and agriculture-related sectors directly contribute \$2.68 billion in output and 4,610 jobs to the Lyon County economy. Including indirect and induced effects, agriculture and agriculture-related sectors have a total impact of \$3.04 billion in output, 6,700 jobs and 46% of the total Gross Regional Product (GRP).

Estimated Economic Contribution of Agriculture.

Methodology and Glossary on final page

Results

In this model, the 30 agriculture and agriculture-related sectors have a total direct output of \$2.68 billion and account for 4,610 jobs in Lyon County, as shown in the following table:

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

| Contribution Type | Employment | % Employment | Total Value Added | % of Gross Regional Product | Output |
|----------------------|------------|-----------------|----------------------|-----------------------------------|-----------------|
| Direct Effect | 4,611 | 22% | \$758,029,000 | 38% | \$2,681,041,000 |
| Indirect Effect | 1,136 | 5% | \$99,858,000 | 5% | \$227,551,000 |
| Induced Effect | 954 | 5% | \$75,443,000 | 4% | \$135,743,000 |
| Total Effect | 6,701 | 32% | \$933,330,000 | 46% | \$3,044,336,000 |

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

The agriculture and agriculture-related sectors provide a total estimated impact of \$3.04 billion in output. These sectors also support a total of 6,700 jobs, or 32% 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 30 agriculture and agriculture-related sectors is \$933 million, or 46% of the Gross Regional Product.

Top Ten Sectors by Output

The table below shows Lyon County's top ten sectors by output, including direct, indirect and induced effects. The *dog and cat food manufacturing* sector is the top contributor in output to the Lyon County economy, with \$1.29 billion in total output.

Table 2: Top Ten Sectors by Output, Lyon County

| Sector | Total Output |
|--|-----------------|
| Dog and cat food manufacturing | \$1,299,317,000 |
| Meat processed from carcasses | \$182,363,000 |
| Soybean and other oilseed processing | \$106,122,000 |
| Confectionery manufacturing from purchased chocolate | \$96,104,000 |
| Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming | \$71,192,000 |
| Other animal food manufacturing | \$58,495,000 |
| Animal, except poultry, slaughtering | \$56,091,000 |
| Oilseed farming | \$46,514,000 |
| Distilleries | \$32,043,000 |
| Grain farming | \$32,043,000 |

Top Ten Sectors by Employment

Of the agriculture and agriculture-related sectors, *meat processed from carcasses* supports the most jobs in the county with 1,329 jobs. Table 3 illustrates the top ten sectors by total employment, including direct, indirect, and induced effects in Lyon County.

Table 3: Top Ten Sectors by Employment, Lyon County

| Sector | Total Employment |
|--|------------------|
| Meat processed from carcasses | 1,329.38 |
| Dog and cat food manufacturing | 1,178.70 |
| Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming | 645.23 |
| Support activities for agriculture and forestry | 401.30 |
| Confectionery manufacturing from purchased chocolate | 244.24 |
| Truck transportation | 140.37 |
| Grain farming | 126.40 |
| All other crop farming | 117.02 |
| Bread and bakery product, except frozen, manufacturing | 116.40 |
| Wholesale - Grocery and related product wholesalers | 106.81 |

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 Lyon 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, Lyon County

| Sector | Total Output | Total Employment |
|--|-----------------|------------------|
| Dog and cat food manufacturing | \$1,299,317,000 | 1,178.70 |
| Meat processed from carcasses | \$672,810,000 | 1,329.38 |
| Soybean and other oilseed processing | \$182,363,000 | 40.99 |
| Confectionery manufacturing from purchased chocolate | \$106,122,000 | 244.24 |
| Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming | \$96,104,000 | 645.23 |
| Other animal food manufacturing | \$71,192,000 | 63.43 |
| Animal, except poultry, slaughtering | \$58,495,000 | 91.48 |
| Oilseed farming | \$56,091,000 | 50.60 |
| Distilleries | \$46,514,000 | 30.77 |
| Grain farming | \$32,043,000 | 126.40 |
| Bread and bakery product, except frozen, manufacturing | \$26,659,000 | 116.40 |
| Support activities for agriculture and forestry | \$10,606,000 | 401.30 |
| Landscape and horticultural services | \$6,600,000 | 68.82 |
| All other crop farming | \$4,368,000 | 117.02 |
| Wineries | \$3,224,000 | 11.53 |
| Veterinary services | \$2,831,000 | 53.61 |
| Frozen cakes and other pastries manufacturing | \$1,282,000 | 13.81 |
| Animal production, except cattle and poultry and eggs | \$1,213,000 | 10.07 |
| Other snack food manufacturing | \$1,089,000 | 1.76 |
| Roasted nuts and peanut butter manufacturing | \$755,000 | 1.73 |
| Rendering and meat byproduct processing | \$319,000 | 0.80 |
| Commercial logging | \$275,000 | 4.58 |
| Poultry and egg production | \$169,000 | 0.28 |
| Forestry, forest products, and timber tract production | \$126,000 | 1.66 |
| Commercial hunting and trapping | \$125,000 | 3.09 |
| Greenhouse, nursery, and floriculture production | \$108,000 | 1.11 |
| Fruit farming | \$78,000 | 0.73 |
| Tree nut farming | \$69,000 | 0.64 |
| Other leather and allied product manufacturing | \$46,000 | 0.23 |
| Vegetable and melon farming | \$35,000 | 0.28 |

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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