

## Ellsworth County

### Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

6/26/2017

Using the most recent IMPLAN data available (2015) adjusted for 2017, 16 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Ellsworth County economy.<sup>1</sup>

These 16 sectors have a total direct output of approximately **\$136.5 million** and support **609.0 jobs** in Ellsworth County. Running the model for all 16 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Ellsworth County Economy						
Impact Type <sup>2</sup>	Employment	% Employment	Total Value Added <sup>3</sup>	Total Value Added % of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>	Output % of Gross Regional Product
<b>Direct Effect</b>	609.0	14.88%	\$30,242,695	12.29%	\$136,498,225	55.48%
<b>Indirect Effect</b>	106.5	2.60%	\$6,976,537	2.84%	\$14,497,919	5.89%
<b>Induced Effect</b>	100.8	2.46%	\$4,863,121	1.98%	\$9,833,196	4.00%
<b>Total Effect</b>	816.2	19.95%	\$42,082,353	17.11%	\$160,829,340	65.37%

As shown in the above table, agriculture, food, and food processing sectors support **816.2 jobs**, or **19.95%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **\$160.8 million, roughly 65.37% of the economy.**

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 16 agriculture, food, and food processing sectors is approximately **\$42.1 million, or 17.11% of the GRP.** This indicates that personal income, business income, and taxes generated by these sectors account for **17.11% of the total economy.**

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting:

[http://www.implan.com/index.php?option=com\\_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70](http://www.implan.com/index.php?option=com_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70)

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value added = labor income + indirect business taxes + other property type income.

<sup>4</sup> GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

<sup>5</sup> Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **252.4 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Ellsworth County.

<b>Top Ten Agriculture, Food, and Food Processing Sectors by Employment</b>		
<b>Sector</b>	<b>Total Employment</b>	<b>Total Output</b>
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	252.4	\$30,727,830
Farm machinery and equipment manufacturing	103.7	\$53,966,040
Grain farming	66.3	\$24,776,261
Other chemical and fertilizer mineral mining	59.0	\$8,513,392
All other crop farming	53.7	\$4,139,129
Animal production, except cattle and poultry and eggs	43.7	\$5,818,176
Wholesale trade	22.5	\$4,397,221
Veterinary services	16.0	\$1,291,725
Monetary authorities and depository credit intermediation	15.1	\$2,309,823
Child day care services	13.3	\$215,637

The farm machinery and equipment manufacturing sector directly contributes approximately **\$54.0 million** to the Ellsworth County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

<b>Top Ten Agriculture, Food, and Food Processing Sectors by Output</b>		
<b>Sector</b>	<b>Total Employment</b>	<b>Total Output</b>
Farm machinery and equipment manufacturing	103.7	\$53,966,040
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	252.4	\$30,727,830
Grain farming	66.3	\$24,776,261
Other chemical and fertilizer mineral mining	59.0	\$8,513,392
Animal production, except cattle and poultry and eggs	43.7	\$5,818,176
Wholesale trade	22.5	\$4,397,221
All other crop farming	53.7	\$4,139,129
Animal, except poultry, slaughtering	4.3	\$3,093,810
Oilseed farming	2.7	\$3,030,559
Owner-occupied dwellings	0.0	\$2,643,381

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Ellsworth County economy.

<b>All Agriculture, Food, and Food Processing Sectors</b>		
<b>Sector</b>	<b>Total Employment</b>	<b>Total Output</b>
Oilseed farming	2.7	\$3,030,559.30
Grain farming	66.3	\$24,776,260.38
Vegetable and melon farming	0.1	\$13,111.78
Fruit farming	0.3	\$32,104.73
Tree nut farming	0.0	\$35.34
Greenhouse, nursery, and floriculture production	2.8	\$422,493.93
All other crop farming	53.7	\$4,139,129.16
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	252.4	\$30,727,828.98
Poultry and egg production	0.3	\$258,228.66
Animal production, except cattle and poultry and eggs	43.7	\$5,818,175.79
Other chemical and fertilizer mineral mining	59.0	\$8,513,392.45
Animal, except poultry, slaughtering	4.3	\$3,093,810.08
Bread and bakery product, except frozen, manufacturing	3.3	\$386,302.17
Frozen cakes and other pastries manufacturing	0.2	\$29,024.57
Farm machinery and equipment manufacturing	103.7	\$53,966,041.56
Veterinary services	16.0	\$1,291,725.04

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Ellsworth County, the retail sector was omitted.