

## Hodgeman County

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

6/11/2018

Using the most recent IMPLAN data available (2016) adjusted for 2018, 10 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Hodgeman County economy.<sup>1</sup>

These 10 sectors have a total direct output of approximately **\$136.8 million** and support **525 jobs** in Hodgeman County. Running the model for all 10 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Hodgeman 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>	524.7	32.92%	\$25,999,536	31.82%	\$136,770,586	167.37%
<b>Indirect Effect</b>	46.4	2.91%	\$2,914,776	3.57%	\$5,987,143	7.33%
<b>Induced Effect</b>	15.2	0.95%	\$1,407,927	1.72%	\$2,410,279	2.95%
<b>Total Effect</b>	586.3	36.78%	\$30,322,239	37.11%	\$145,168,008	177.65%

As shown in the above table, agriculture, food, and food processing sectors support **586 jobs**, or **36.78%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **\$145.2 million**, roughly **177.65% 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 10 agriculture, food, and food processing sectors is approximately **\$30.3 million**, or **37.11% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **37.11% of the total economy**.

The following tables document the top industries affected by employment and output, as well as a listing of all industries that were analyzed.

1 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)

2 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.

3 Value added = labor income + indirect business taxes + other property type income.

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

5 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 **407 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Hodgeman 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	407.3	\$85,383,968
Grain farming	67.0	\$39,801,469
Dairy cattle and milk production	28.1	\$8,282,167
All other crop farming	14.9	\$1,760,901
Wholesale trade	13.5	\$2,458,731
Real estate	6.8	\$561,647
Monetary authorities and depository credit intermediation	5.9	\$855,062
Securities and commodity contracts intermediation and brokerage	5.7	\$357,163
Marketing research and all other miscellaneous professional, scientific, and technical services	3.9	\$130,686
Veterinary services	2.7	\$206,254

The beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector directly contributes approximately **\$85.4 million** to the Hodgeman 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>
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	407.3	\$85,383,968
Grain farming	67.0	\$39,801,469
Dairy cattle and milk production	28.1	\$8,282,167
Wholesale trade	13.5	\$2,458,731
All other crop farming	14.9	\$1,760,901
Owner-occupied dwellings	0.0	\$1,262,582
Monetary authorities and depository credit intermediation	5.9	\$855,062
Farm machinery and equipment manufacturing	1.6	\$609,068
Real estate	6.8	\$561,647
Truck transportation	2.4	\$420,614

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 Hodgeman County economy.

<b>All Agriculture, Food, and Food Processing Sectors</b>		
<b>Sector</b>	<b>Total Employment</b>	<b>Total Output</b>
Oilseed farming	0.3	\$411,808.20
Grain farming	67.0	\$39,801,468.56
All other crop farming	14.9	\$1,760,900.65
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	407.3	\$85,383,968.50
Dairy cattle and milk production	28.1	\$8,282,166.86
Poultry and egg production	0.0	\$23,573.83
Animal production, except cattle and poultry and eggs	0.2	\$36,511.46
Bread and bakery product, except frozen, manufacturing	2.6	\$254,865.85
Farm machinery and equipment manufacturing	1.6	\$609,067.61
Veterinary services	2.7	\$206,254.39

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 Hodgeman County, the retail sector was omitted.