Cheyenne 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, 11 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Cheyenne County economy.[1]

These 11 sectors have a total direct output of approximately **$144.0 million** and support **491 jobs** in Cheyenne County. Running the model for all 11 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Cheyenne County Economy						
Impact Type[2]	**Employment**	**% Employment**	**Total Value Added[3]**	**Total Value Added % of Gross Regional Product[4]**	**Output[5]**	**Output % of Gross Regional Product**
Direct Effect	491.3	28.14%	$26,107,470	25.74%	$144,028,717	141.98%
Indirect Effect	126.5	7.25%	$10,384,336	10.24%	$18,927,488	18.66%
Induced Effect	96.4	5.52%	$5,816,407	5.73%	$11,033,600	10.88%
Total Effect	714.2	40.91%	$42,308,214	41.71%	$173,989,804	171.52%

As shown in the above table, agriculture, food, and food processing sectors support **714 jobs**, or **40.91%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **$174.0 million, roughly 171.52% 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 11 agriculture, food, and food processing sectors is approximately **$42.3 million**, or **41.71% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **41.71% 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.

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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

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 **338 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Cheyenne County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	**Total Employment**	**Total Output**
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	338.1	$66,688,892
Grain farming	95.3	$55,077,828
Wholesale trade	49.2	$10,524,556
Support activities for agriculture and forestry	17.7	$1,065,248
Dairy cattle and milk production	15.7	$5,521,445
Farm machinery and equipment manufacturing	15.6	$6,844,802
All other crop farming	13.1	$1,520,778
Hospitals	12.7	$1,845,295
Securities and commodity contracts intermediation and brokerage	11.6	$549,878
Monetary authorities and depository credit intermediation	8.6	$1,401,954

The beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector directly contributes approximately **$66.7 million** to the Cheyenne County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	**Total Employment**	**Total Output**
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	338.1	$66,688,892
Grain farming	95.3	$55,077,828
Wholesale trade	49.2	$10,524,556
Farm machinery and equipment manufacturing	15.6	$6,844,802
Dairy cattle and milk production	15.7	$5,521,445
Oilseed farming	2.6	$4,104,820
Other animal food manufacturing	2.4	$2,830,311
Owner-occupied dwellings	0.0	$2,723,864
Hospitals	12.7	$1,845,295
All other crop farming	13.1	$1,520,778

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 Cheyenne County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	**Total Employment**	**Total Output**
Oilseed farming	2.6	$4,104,820.32
Grain farming	95.3	$55,077,828.37
All other crop farming	13.1	$1,520,777.85
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	338.1	$66,688,891.64
Dairy cattle and milk production	15.7	$5,521,444.58
Poultry and egg production	0.9	$716,654.69
Animal production, except cattle and poultry and eggs	1.0	$171,947.55
Other animal food manufacturing	2.4	$2,830,310.86
Bread and bakery product, except frozen, manufacturing	1.4	$148,161.35
Farm machinery and equipment manufacturing	15.6	$6,844,801.75
Veterinary services	5.1	$403,077.68

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 Cheyenne County, the retail sector was omitted.