

July 2015

Comanche County

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

A total of 10 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Comanche County economy. These 10 sectors have a total direct output of approximately \$127 million and support 323.0 jobs in Comanche County. Running the model for all 10 sectors simultaneously produces the following results:

Agriculture Contribution in Comanche County

				% of Gross		% of Gross
		% of Total	Total	Regional		Regional
Impact Type ²	Employment	Employment	Value Added ³	Product ⁴	Output ⁵	Product
Direct Effect	323.0	22%	\$37,936,441	45%	\$127,484,601	152%
Indirect Effect	88.3	6%	\$4,181,786	5%	\$9,062,901	11%
Induced Effect	47.4	3%	\$2,639,481	3%	\$4,969,311	6%
Total Effect	458.8	31%	\$44,757,708	53%	\$141,516,812	169%

As shown in the above table, agriculture, food, and food processing supports 458.8 jobs, or 31% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$142 million, roughly 169% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

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 \$45 million, or 53% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 53% 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.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting: https://implan.com/index.php?option=com content&view=category&id=19

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 by employment, Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming is the top employer in the agriculture industry with 133.5 employees. This table also shows the amount of jobs that are created by the agriculture industry in Comanche County.

Top 10 Industries Affected by Employment

	Total	Total
Sector Description:	Employment	Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching		
and farming	133.5	\$42,628,765
Mayonnaise, dressing, and sauce manufacturing	56.6	\$41,014,537
All other crop farming	47.1	\$7,370,671
Grain farming	43.2	\$18,647,736
Farm machinery and equipment manufacturing	25.7	\$15,249,212
Support activities for agriculture and forestry	23.2	\$1,333,726
Animal production, except cattle and poultry and eggs	14.0	\$1,743,936
Truck transportation	12.3	\$1,129,080
Wholesale trade	9.7	\$1,939,060
Full-service restaurants	8.7	\$323,028

The Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming industry directly contributes approximately \$43 million to Comanche County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

Top 10 Industries Affected by Output

	Total	Total
Sector Description:	Employment	Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching		
and farming	133.5	\$42,628,765
Mayonnaise, dressing, and sauce manufacturing	56.6	\$41,014,537
Grain farming	43.2	\$18,647,736
Farm machinery and equipment manufacturing	25.7	\$15,249,212
All other crop farming	47.1	\$7,370,671
Wholesale trade	9.7	\$1,939,060
Animal production, except cattle and poultry and eggs	14.0	\$1,743,936
Owner-occupied dwellings	0.0	\$1,506,221
Support activities for agriculture and forestry	23.2	\$1,333,726
Truck transportation	12.3	\$1,129,080

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 sector and the output they contributed to Comanche County's economy.

Sector Description:	Employment	Output
Oilseed farming	0.1	\$306,446
Grain farming	43.2	\$18,647,736
Vegetable and melon farming	0.5	\$109,123
Cotton farming		\$247,136
All other crop farming	47.1	\$7,370,671
Beef cattle ranching and farming, including feedlots and dual-purpose ranching		" · y - · · y - ·
and farming	133.5	\$42,628,765
Animal production, except cattle and poultry and eggs	14.0	\$1,743,936
Bread and bakery product, except frozen, manufacturing	1.6	\$167,038
Mayonnaise, dressing, and sauce manufacturing		\$41,014,537
Farm machinery and equipment manufacturing	25.7	\$15,249,212

All 105 counties in Kansas have IMPLAN models with an agriculture 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 Kansas, the retail sector was omitted.