July 2015

Norton 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 Norton County economy.[1] These 10 sectors have a total direct output of approximately $161 million and support 422.5 jobs in Norton County. Running the model for all 10 sectors simultaneously produces the following results:

Agriculture Contribution in Norton County

Impact Type[2]	Employment	% of Total Employment	Total Value Added[3]	% of Gross Regional Product[4]	Output[5]	% of Gross Regional Product
Direct Effect	422.5	11%	$73,887,669	28%	$161,407,869	61%
Indirect Effect	143.9	4%	$9,197,739	3%	$16,923,545	6%
Induced Effect	128.1	3%	$8,320,064	3%	$14,934,878	6%
Total Effect	694.5	19%	$91,405,472	35%	$193,266,293	73%

As shown in the above table, agriculture, food, and food processing supports 694.5 jobs, or 19% of the entire workforce in the county. These industries provide a total economic contribution of approximately $193 million, roughly 73% 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 $91 million, or 35% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 35% 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, Animal production, except cattle and poultry and eggs is the top employer in the agriculture industry with 178.2 employees. This table also shows the amount of jobs that are created by the agriculture industry in Norton County.

Top 10 Industries Affected by Employment

Sector Description:	Total Employment	Total Output
Animal production, except cattle and poultry and eggs	178.2	$40,006,965
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	102.0	$58,522,851
Support activities for agriculture and forestry	54.5	$2,908,398
Grain farming	54.1	$41,969,549
Veterinary services	42.9	$3,217,264
All other crop farming	35.8	$10,063,400
Wholesale trade	30.8	$5,849,941
Truck transportation	17.9	$2,559,984
Monetary authorities and depository credit intermediation	16.1	$2,755,500
Full-service restaurants	12.4	$480,183

The Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming industry directly contributes approximately $59 million to Norton 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

Sector Description:	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	102.0	$58,522,851
Grain farming	54.1	$41,969,549
Animal production, except cattle and poultry and eggs	178.2	$40,006,965
All other crop farming	35.8	$10,063,400
Oilseed farming	1.4	$6,598,123
Wholesale trade	30.8	$5,849,941
Owner-occupied dwellings	0.0	$3,309,905
Veterinary services	42.9	$3,217,264
Support activities for agriculture and forestry	54.5	$2,908,398
Monetary authorities and depository credit intermediation	16.1	$2,755,500

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 Norton County's economy.

Sector Description:	Employment	Output
Oilseed farming	1.4	$6,598,123
Grain farming	54.1	$41,969,549
Greenhouse, nursery, and floriculture production	1.1	$436,856
All other crop farming	35.8	$10,063,400
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	102.0	$58,522,851
Animal production, except cattle and poultry and eggs	178.2	$40,006,965
Bread and bakery product, except frozen, manufacturing	3.8	$390,038
Frozen cakes and other pastries manufacturing	0.3	$35,419
Veterinary services	42.9	$3,217,264
Landscape and horticultural services	3.0	$167,403
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--

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.