Ness County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors
6/12/2018

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 Ness County economy.[1]

These 10 sectors have a total direct output of approximately **$69.1 million** and support **552 jobs** in Ness County. Running the model for all 10 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Ness 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	552.1	20.68%	$12,179,182	9.96%	$69,131,422	56.55%
Indirect Effect	94.7	3.55%	$6,710,171	5.49%	$12,853,078	10.51%
Induced Effect	39.3	1.47%	$2,610,909	2.14%	$4,835,610	3.96%
Total Effect	686.0	25.70%	$21,500,263	17.59%	$86,820,110	71.02%

As shown in the above table, agriculture, food, and food processing sectors support **686 jobs**, or **25.70%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **$86.8 million, roughly 71.02% 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 **$21.5 million**, or **17.59% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **17.59% 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

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 **334 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Ness 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	334.2	$25,646,804
Grain farming	144.6	$34,923,104
All other crop farming	51.0	$2,547,102
Wholesale trade	27.1	$5,408,711
Truck transportation	9.9	$1,512,181
Extraction of natural gas and crude petroleum	9.7	$1,100,946
Farm machinery and equipment manufacturing	8.0	$3,557,537
Monetary authorities and depository credit intermediation	7.7	$1,486,138
Veterinary services	7.2	$529,496
Services to buildings	6.6	$134,268

The grain farming sector directly contributes approximately **$34.9 million** to the Ness 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
Grain farming	144.6	$34,923,104
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	334.2	$25,646,804
Wholesale trade	27.1	$5,408,711
Farm machinery and equipment manufacturing	8.0	$3,557,537
All other crop farming	51.0	$2,547,102
Truck transportation	9.9	$1,512,181
Owner-occupied dwellings	0.0	$1,495,864
Monetary authorities and depository credit intermediation	7.7	$1,486,138
Animal, except poultry, slaughtering	1.8	$1,196,431
Extraction of natural gas and crude petroleum	9.7	$1,100,946

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 Ness County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	Total Employment	Total Output
Oilseed farming	0.4	$256,903.83
Grain farming	144.6	$34,923,103.91
All other crop farming	51.0	$2,547,102.26
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	334.2	$25,646,804.09
Poultry and egg production	0.0	$27,056.14
Animal production, except cattle and poultry and eggs	3.3	$271,085.96
Animal, except poultry, slaughtering	1.8	$1,196,430.94
Bread and bakery product, except frozen, manufacturing	1.6	$175,902.56
Farm machinery and equipment manufacturing	8.0	$3,557,536.52
Veterinary services	7.2	$529,495.56

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 Ness County, the retail sector was omitted.