Washington County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors
6/30/2017

Using the most recent IMPLAN data available (2015) adjusted for 2017, 17 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Washington County economy.[1]

These 17 sectors have a total direct output of approximately **$280.0 million** and support **924.1 jobs** in Washington County. Running the model for all 17 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Washington 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	924.1	26.70%	$76,083,148	41.84%	$279,964,992	153.94%
Indirect Effect	163.3	4.72%	$9,854,218	5.42%	$22,601,811	12.43%
Induced Effect	127.1	3.67%	$7,148,680	3.93%	$13,764,283	7.57%
Total Effect	1,214.6	35.09%	$93,086,046	51.19%	$316,331,086	173.94%

As shown in the above table, agriculture, food, and food processing sectors support **1,214.6 jobs**, or **35.09%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **$316.3 million, roughly 173.94% 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 17 agriculture, food, and food processing sectors is approximately **$93.1 million**, or **51.19% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **51.19% 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.

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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 **463.5 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Washington 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	463.5	$87,798,107
Animal production, except cattle and poultry and eggs	117.3	$21,876,018
Grain farming	89.1	$49,833,169
Farm machinery and equipment manufacturing	71.8	$38,468,433
Dairy cattle and milk production	60.7	$25,456,765
All other crop farming	59.7	$6,912,395
Wholesale trade	54.0	$9,815,325
Full-service restaurants	27.0	$855,369
Oilseed farming	23.8	$41,515,061
Monetary authorities and depository credit intermediation	17.6	$2,729,332

The beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector directly contributes approximately **$87.8 million** to the Washington 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	463.5	$87,798,107
Grain farming	89.1	$49,833,169
Oilseed farming	23.8	$41,515,061
Farm machinery and equipment manufacturing	71.8	$38,468,433
Dairy cattle and milk production	60.7	$25,456,765
Animal production, except cattle and poultry and eggs	117.3	$21,876,018
Wholesale trade	54.0	$9,815,325
All other crop farming	59.7	$6,912,395
Owner-occupied dwellings	0.0	$4,878,984
Breweries	4.2	$3,163,130

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 Washington County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	Total Employment	Total Output
Oilseed farming	23.8	$41,515,060.42
Grain farming	89.1	$49,833,168.03
Vegetable and melon farming	0.1	$13,640.09
Fruit farming	0.7	$68,514.36
Tree nut farming	0.0	$23.56
Greenhouse, nursery, and floriculture production	4.2	$642,873.70
All other crop farming	59.7	$6,912,394.52
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	463.5	$87,798,103.33
Dairy cattle and milk production	60.7	$25,456,764.22
Poultry and egg production	0.6	$580,384.91
Animal production, except cattle and poultry and eggs	117.3	$21,876,016.62
Bread and bakery product, except frozen, manufacturing	5.3	$533,513.19
Frozen cakes and other pastries manufacturing	14.8	$2,455,805.78
Breweries	4.2	$3,163,129.81
Farm machinery and equipment manufacturing	71.8	$38,468,433.38
Veterinary services	6.4	$582,090.68
Landscape and horticultural services	1.8	$65,068.83

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 Washington County, the retail sector was omitted.