McPherson County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors
5/24/2016

Using the most recent IMPLAN data available (2014) adjusted for 2016, 24 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the McPherson County economy.[1]

These 24 sectors have a total direct output of approximately **$638 million** and support **2,251.6 jobs** in McPherson County. Running the model for all 24 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall 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	2,251.6	9.95%	$170,017,338.72	8.66%	$638,040,656.04	32.52%
Indirect Effect	456.4	2.02%	$30,738,917.96	1.57%	$59,153,334.15	3.01%
Induced Effect	404.0	1.79%	$23,939,342.18	1.22%	$44,586,728.74	2.27%
Total Effect	3,112.0	13.75%	$224,695,598.85	11.45%	$741,780,718.93	37.81%

As shown in the above table, agriculture, food, and food processing sectors support **3,112 jobs**, or **13.75%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **$741.8 million, roughly 37.81% 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 24 agriculture, food, and food processing sectors is approximately **$224.7 million**, or **11.45% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **11.45% 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 **753.5 employees**. This table also shows the amount of jobs that are created by the agriculture industry in McPherson County.

Top Ten Sectors by Employment		
Sector	**Total Employment**	**Total Output**
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	753.5	$83,307,823.00
Farm machinery and equipment manufacturing	275.9	$161,136,468.33
Landscape and horticultural services	259.2	$9,004,947.46
All other industrial machinery manufacturing	251.0	$68,823,429.09
Grain farming	191.7	$71,432,947.74
Frozen specialties manufacturing	133.6	$48,649,094.73
Support activities for agriculture and forestry	123.5	$7,637,630.09
Tortilla manufacturing	89.3	$18,299,832.56
Animal production, except cattle and poultry and eggs	61.8	$7,206,893.43
Veterinary services	50.2	$4,086,936.23

The farm machinery and equipment manufacturing sector directly contributes approximately **$161.1 million** to the McPherson 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 Sectors by Output		
Sector	**Total Employment**	**Total Output**
Farm machinery and equipment manufacturing	275.9	$161,136,468.33
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	753.5	$83,307,823.00
Grain farming	191.7	$71,432,947.74
Wet corn milling	27.4	$69,419,416.83
All other industrial machinery manufacturing	251.0	$68,823,429.09
Frozen specialties manufacturing	133.6	$48,649,094.73
Flour milling	23.6	$37,200,770.52
Oilseed farming	19.6	$22,638,808.08
Tortilla manufacturing	89.3	$18,299,832.56
Other animal food manufacturing	8.7	$12,429,451.90

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 McPherson County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	Total Employment	Total Output
Oilseed farming	19.6	$22,638,808.08
Grain farming	191.7	$71,432,947.74
Vegetable and melon farming	0.1	$27,386.94
Fruit farming	0.0	$5,376.87
Greenhouse, nursery, and floriculture production	1.8	$411,828.44
All other crop farming	49.9	$3,920,450.59
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	753.5	$83,307,823.00
Dairy cattle and milk production	9.2	$4,737,740.03
Poultry and egg production	1.2	$1,156,760.93
Animal production, except cattle and poultry and eggs	61.8	$7,206,893.43
Commercial logging	3.8	$195,620.19
Other animal food manufacturing	8.7	$12,429,451.90
Flour milling	23.6	$37,200,770.52
Wet corn milling	27.4	$69,419,416.83
Frozen specialties manufacturing	133.6	$48,649,094.73
Animal, except poultry, slaughtering	15.9	$9,751,137.00
Bread and bakery product, except frozen, manufacturing	19.0	$2,049,110.09
Frozen cakes and other pastries manufacturing	1.1	$156,256.83
Tortilla manufacturing	89.3	$18,299,832.56
Farm machinery and equipment manufacturing	275.9	$161,136,468.33
Lawn and garden equipment manufacturing	4.2	$1,992,168.23
All other industrial machinery manufacturing	251.0	$68,823,429.09
Veterinary services	50.2	$4,086,936.23
Landscape and horticultural services	259.2	$9,004,947.46

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 McPherson County, the retail sector was omitted.