Montgomery County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors
6/11/2018

Using the most recent IMPLAN data available (2016) adjusted for 2018, 20 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Montgomery County economy.[1]

These 20 sectors have a total direct output of approximately **$250.9 million** and support **1,225 jobs** in Montgomery County. Running the model for all 20 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Montgomery 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	1225.4	5.92%	$63,182,462	4.29%	$250,855,040	17.03%
Indirect Effect	264.4	1.28%	$22,642,896	1.54%	$51,453,204	3.49%
Induced Effect	179.0	0.87%	$11,447,283	0.78%	$20,573,556	1.40%
Total Effect	1668.7	8.07%	$97,272,641	6.60%	$322,881,800	21.92%

As shown in the above table, agriculture, food, and food processing sectors support **1,669 jobs**, or **8.07%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **$322.9 million, roughly 21.92% 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 20 agriculture, food, and food processing sectors is approximately **$97.3 million**, or **6.60% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **6.60% 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.

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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 **536 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Montgomery 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	535.7	$42,277,205
Animal production, except cattle and poultry and eggs	185.1	$16,904,710
Grain farming	96.8	$24,534,291
Farm machinery and equipment manufacturing	68.6	$32,228,618
Dairy cattle and milk production	62.8	$27,607,223
Wholesale trade	60.5	$11,651,505
Landscape and horticultural services	55.6	$3,423,630
Veterinary services	48.6	$4,451,982
All other crop farming	48.5	$2,566,652
Nitrogenous fertilizer manufacturing	35.2	$47,648,617

The nitrogenous fertilizer manufacturing sector directly contributes approximately **$47.6 million** to the Montgomery 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
Nitrogenous fertilizer manufacturing	35.2	$47,648,617
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	535.7	$42,277,205
Farm machinery and equipment manufacturing	68.6	$32,228,618
Dairy cattle and milk production	62.8	$27,607,223
Grain farming	96.8	$24,534,291
Flour milling	15.5	$21,990,853
Oilseed farming	28.8	$20,872,433
Animal production, except cattle and poultry and eggs	185.1	$16,904,710
Petroleum refineries	2.4	$11,963,923
Wholesale trade	60.5	$11,651,505

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 Montgomery County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	Total Employment	Total Output
Oilseed farming	28.8	$20,872,433.06
Grain farming	96.8	$24,534,290.72
Vegetable and melon farming	0.1	$30,671.15
Fruit farming	2.4	$247,996.62
Tree nut farming	2.5	$393,356.72
Greenhouse, nursery, and floriculture production	10.0	$1,714,750.44
All other crop farming	48.5	$2,566,652.34
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	535.7	$42,277,204.57
Dairy cattle and milk production	62.8	$27,607,222.88
Poultry and egg production	1.8	$1,444,269.25
Animal production, except cattle and poultry and eggs	185.1	$16,904,709.65
Commercial logging	2.8	$127,694.43
Commercial hunting and trapping	5.7	$116,421.86
Flour milling	15.5	$21,990,853.01
Bread and bakery product, except frozen, manufacturing	17.7	$2,123,064.74
Frozen cakes and other pastries manufacturing	1.0	$150,602.41
Nitrogenous fertilizer manufacturing	35.2	$47,648,616.94
Farm machinery and equipment manufacturing	68.6	$32,228,617.92
Veterinary services	48.6	$4,451,981.76
Landscape and horticultural services	55.6	$3,423,629.62

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 Montgomery County, the retail sector was omitted.