Wyandotte County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors
10/13/14

20 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Wyandotte County economy.[1]

These 20 sectors have a total direct output of approximately $729 million and support 1,313.6 jobs in Wyandotte County. Running the model for all 20 sectors simultaneously produces the following results:

Agriculture Contribution in Wyandotte Co						
Impact Type[2]	Employment	% Employment	Total Value Added[3]	% of Gross Regional Product[4]	Output[5]	% of Gross Regional Product
Direct Effect	1,313.6	1%	153,057,400.7	2%	729,108,639.9	9%
Indirect Effect	648.6	1%	59,753,571.5	1%	101,971,663.2	1%
Induced Effect	397.8	0%	31,221,504.0	0%	47,659,648.9	1%
Total Effect	2,360.0	2%	244,032,476.3	3%	878,739,951.9	11%

As shown in the above table, agriculture, food, and food processing supports 2,360.0 jobs, or 2% of the entire workforce in the county. These industries provide a total economic contribution of approximately $879 million, roughly 11% 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 20 agriculture, food, and food processing sectors is approximately $244 million, or 3% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 3% of the total economy.

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.

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.

In the top ten by employment, Cookie, cracker, and pasta manufacturing is the top employer in the agriculture industry with 363.8 employees. This table also shows the amount of jobs that are created by the agriculture industry in Wyandotte County.

Description	Total Employment	Total Output
Cookie, cracker, and pasta manufacturing	363.8	186,947,461.7
Animal (except poultry) slaughtering, rendering, and processing	345.4	124,756,407.6
Wholesale trade businesses	138.5	28,119,587.1
Soft drink and ice manufacturing	107.1	85,564,180.3
Other industrial machinery manufacturing	104.7	43,601,674.6
Bread and bakery product manufacturing	88.2	17,125,008.4
Food services and drinking places	87.1	5,144,352.2
Other animal food manufacturing	78.2	120,207,437.5
Employment services	70.8	1,940,931.6
Transport by truck	65.7	10,270,196.6

The Cookie, cracker, and pasta manufacturing industry directly contributes approximately $187 million to Wyandotte County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

Description	Total Employment	Total Output
Cookie, cracker, and pasta manufacturing	363.8	186,947,461.7
Animal (except poultry) slaughtering, rendering, and processing	345.4	124,756,407.6
Other animal food manufacturing	78.2	120,207,437.5
Soft drink and ice manufacturing	107.1	85,564,180.3
Flour milling and malt manufacturing	39.9	56,769,468.4
Other industrial machinery manufacturing	104.7	43,601,674.6
Wholesale trade businesses	138.5	28,119,587.1
Dog and cat food manufacturing	18.0	23,731,892.1
Pesticide and other agricultural chemical manufacturing	11.3	18,276,747.1
Bread and bakery product manufacturing	88.2	17,125,008.4

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 Wyandotte County's economy.

Description	Employment	Output
Oilseed farming	42.57	2,695,891.62
Vegetable and melon farming	3.78	816,644.85
Greenhouse, nursery, and floriculture production	7.87	1,452,238.68
Cattle ranching and farming	25.26	1,556,277.04
Support activities for agriculture and forestry	2.99	45,151.12
Dog and cat food manufacturing	18.31	23,373,308.18
Other animal food manufacturing	79.42	118,391,128.54
Flour milling and malt manufacturing	39.93	56,735,038.76
Soybean and other oilseed processing	4.41	9,116,976.74
Frozen food manufacturing	22.57	8,187,718.39
Fruit and vegetable canning, pickling, and drying	31.00	16,543,851.85
Animal (except poultry) slaughtering, rendering, and processing	353.26	121,984,764.10
Bread and bakery product manufacturing	91.39	16,528,823.85
Cookie, cracker, and pasta manufacturing	376.92	180,439,132.69
Tortilla manufacturing	1.32	314,022.33
Soft drink and ice manufacturing	110.69	82,785,896.30
Paper mills	4.19	2,680,296.90
Pesticide and other agricultural chemical manufacturing	11.68	17,656,814.58
Farm machinery and equipment manufacturing	14.11	7,391,404.63
Other industrial machinery manufacturing	104.69	41,684,921.26
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All 105 counties in Kansas have Implan models and 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.