

Crawford County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

10/3/14

15 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Crawford County economy.¹

These 15 sectors have a total direct output of approximately \$638 million and support 1,630.7 jobs in Crawford County. Running the model for all 15 sectors simultaneously produces the following results:

Agriculture Contribution in Crawford Co						
Impact Type ²	Employment	% Employment	Total Value Added ³	% of Gross Regional Product ⁴	Output ⁵	% of Gross Regional Product
Direct Effect	1,630.7	8%	115,612,616.0	8%	638,425,585.6	46%
Indirect Effect	486.0	2%	53,729,932.4	4%	92,970,226.7	7%
Induced Effect	427.9	2%	30,136,820.5	2%	48,053,054.9	3%
Total Effect	2,544.6	12%	199,479,368.9	14%	779,448,867.1	56%

As shown in the above table, agriculture, food, and food processing supports 2,544.6 jobs, or 12% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$779 million, roughly 56% 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 15 agriculture, food, and food processing sectors is approximately \$199 million, or 14% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 14% 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, Grain farming is the top employer in the agriculture industry with 392.4 employees. This table also shows the amount of jobs that are created by the agriculture industry in Crawford County.

Description	Total Employment	Total Output
Grain farming	392.4	26,457,882.3
Animal (except poultry) slaughtering, rendering, and processing	380.4	121,359,514.3
Cattle ranching and farming	303.8	55,186,422.3
Dog and cat food manufacturing	246.7	316,942,095.8
Oilseed farming	145.1	27,085,618.0
Wholesale trade businesses	134.0	24,618,740.5
Food services and drinking places	115.6	5,818,940.5
Management of companies and enterprises	78.8	16,128,996.1
Other animal food manufacturing	39.1	58,243,833.0
Other industrial machinery manufacturing	37.9	14,665,542.0

The Dog and cat food manufacturing industry directly contributes approximately \$317 million to Crawford County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

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Other animal food manufacturing	39.1	58,243,833.0
Cattle ranching and farming	303.8	55,186,422.3
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Management of companies and enterprises	78.8	16,128,996.1
Other industrial machinery manufacturing	37.9	14,665,542.0
Monetary authorities and depository credit intermediation activities	37.0	12,163,017.0

