

Ford County

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

10/3/14

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

These 11 sectors have a total direct output of approximately \$2506 million and support 7,787.1 jobs in Ford County. Running the model for all 11 sectors simultaneously produces the following results:

Agriculture Contribution in Ford Co						
Impact Type ²	Employment	% Employment	Total Value Added ³	% of Gross Regional Product ⁴	Output ⁵	% of Gross Regional Product
Direct Effect	7,787.1	34%	302,348,840.0	22%	2,505,783,313.1	182%
Indirect Effect	1,412.6	6%	133,363,223.3	10%	231,029,262.6	17%
Induced Effect	1,851.3	8%	139,696,813.4	10%	216,293,827.3	16%
Total Effect	11,050.9	48%	575,408,876.7	42%	2,953,106,402.9	214%

As shown in the above table, agriculture, food, and food processing supports 11,050.9 jobs, or 48% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$2953 million, roughly 214% 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 11 agriculture, food, and food processing sectors is approximately \$575 million, or 42% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 42% 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, Animal (except poultry) slaughtering, rendering, and processing is the top employer in the agriculture industry with 5,684.1 employees. This table also shows the amount of jobs that are created by the agriculture industry in Ford County.

Description	Total Employment	Total Output
Animal (except poultry) slaughtering, rendering, and processing	5,684.1	1,876,429,032.0
Support activities for agriculture and forestry	623.0	10,362,856.4
Grain farming	463.8	111,299,207.2
Cattle ranching and farming	426.5	275,673,851.6
Food services and drinking places	394.7	22,697,081.9
Wholesale trade businesses	337.0	64,501,360.3
Commercial hunting and trapping	293.8	26,011,227.0
Farm machinery and equipment manufacturing	238.6	129,154,727.0
Transport by truck	173.2	24,701,352.6
Services to buildings and dwellings	146.0	8,404,397.3

The Animal (except poultry) slaughtering, rendering, and processing industry directly contributes approximately \$1876 million to Ford 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
Animal (except poultry) slaughtering, rendering, and processing	5,684.1	1,876,429,032.0
Cattle ranching and farming	426.5	275,673,851.6
Farm machinery and equipment manufacturing	238.6	129,154,727.0
Grain farming	463.8	111,299,207.2
Wholesale trade businesses	337.0	64,501,360.3
Other animal food manufacturing	28.1	42,041,766.9
Imputed rental activity for owner-occupied dwellings	0.0	39,862,857.0
Monetary authorities and depository credit intermediation activities	116.4	38,788,106.5
Electric power generation, transmission, and distribution	37.2	26,396,704.7
Commercial hunting and trapping	293.8	26,011,227.0

