

## Ellsworth 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 Ellsworth County economy.<sup>1</sup>

These 11 sectors have a total direct output of approximately \$99 million and support 512.2 jobs in Ellsworth County. Running the model for all 11 sectors simultaneously produces the following results:

Agriculture Contribution in Ellsworth Co						
Impact Type <sup>2</sup>	Employment	% Employment	Total Value Added <sup>3</sup>	% of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>	% of Gross Regional Product
Direct Effect	512.2	11%	24,357,232.7	9%	98,835,393.1	35%
Indirect Effect	76.1	2%	7,365,779.6	3%	12,994,879.2	5%
Induced Effect	60.8	1%	4,468,737.2	2%	7,246,056.7	3%
Total Effect	649.1	13%	36,191,749.4	13%	119,076,329.0	42%

As shown in the above table, agriculture, food, and food processing supports 649.1 jobs, or 13% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$119 million, roughly 42% 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 \$36 million, or 13% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 13% of the total economy.

<sup>1</sup> 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](http://www.implan.com/index.php?option=com_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70)

<sup>2</sup> 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.

<sup>3</sup> Value added = labor income + indirect business taxes + other property type income.

<sup>4</sup> GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

<sup>5</sup> 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 269.6 employees. This table also shows the amount of jobs that are created by the agriculture industry in Ellsworth County.

Description	Total Employment	Total Output
Grain farming	269.6	26,585,901.1
Cattle ranching and farming	89.0	23,627,927.2
Animal production, except cattle and poultry and eggs	54.8	4,710,632.9
Farm machinery and equipment manufacturing	54.1	29,145,978.4
Monetary authorities and depository credit intermediation activities	17.1	5,551,678.8
Real estate establishments	15.0	1,934,089.4
Animal (except poultry) slaughtering, rendering, and processing	12.8	4,165,992.7
Securities, commodity contracts, investments, and related activities	10.6	1,183,112.7
Wholesale trade businesses	9.5	1,618,509.3
Oilseed farming	9.4	2,553,735.5

The Farm machinery and equipment manufacturing industry directly contributes approximately \$29 million to Ellsworth 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
Farm machinery and equipment manufacturing	54.1	29,145,978.4
Grain farming	269.6	26,585,901.1
Cattle ranching and farming	89.0	23,627,927.2
Monetary authorities and depository credit intermediation activities	17.1	5,551,678.8
All other crop farming	8.6	5,349,942.0
Animal production, except cattle and poultry and eggs	54.8	4,710,632.9
Animal (except poultry) slaughtering, rendering, and processing	12.8	4,165,992.7
Oilseed farming	9.4	2,553,735.5
Real estate establishments	15.0	1,934,089.4
Imputed rental activity for owner-occupied dwellings	0.0	1,920,846.7

