Barber 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 Barber County economy.[1]

These 15 sectors have a total direct output of approximately $100 million and support 645.7 jobs in Barber County. Running the model for all 15 sectors simultaneously produces the following results:

Agriculture Contribution in Barber Co						
Impact Type[2]	Employment	% Employment	Total Value Added[3]	% of Gross Regional Product[4]	Output[5]	% of Gross Regional Product
Direct Effect	645.7	17%	23,635,158.7	11%	100,483,849.5	47%
Indirect Effect	55.2	1%	6,335,717.5	3%	10,070,691.9	5%
Induced Effect	37.3	1%	3,772,213.6	2%	5,707,863.1	3%
Total Effect	738.1	20%	33,743,089.8	16%	116,262,404.5	54%

As shown in the above table, agriculture, food, and food processing supports 738.1 jobs, or 20% of the entire workforce in the county. These industries provide a total economic contribution of approximately $116 million, roughly 54% 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 $34 million, or 16% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 16% of the total economy.

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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.

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 227.0 employees. This table also shows the amount of jobs that are created by the agriculture industry in Barber County.

Description	Total Employment	Total Output
Grain farming	227.0	20,657,559.0
Cattle ranching and farming	199.3	48,856,119.6
Food services and drinking places	101.8	5,275,187.2
Retail Stores - Food and beverage	26.9	1,590,718.0
Support activities for agriculture and forestry	25.1	359,907.9
Animal (except poultry) slaughtering, rendering, and processing	23.2	8,064,093.2
Real estate establishments	16.1	2,103,224.6
All other crop farming	12.2	6,979,268.8
Monetary authorities and depository credit intermediation activities	12.1	3,954,808.7
Wholesale trade businesses	10.9	1,787,321.6

The Cattle ranching and farming industry directly contributes approximately $49 million to Barber 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
Cattle ranching and farming	199.3	48,856,119.6
Grain farming	227.0	20,657,559.0
Animal (except poultry) slaughtering, rendering, and processing	23.2	8,064,093.2
All other crop farming	12.2	6,979,268.8
Food services and drinking places	101.8	5,275,187.2
Monetary authorities and depository credit intermediation activities	12.1	3,954,808.7
Dairy cattle and milk production	8.4	2,665,947.6
Oilseed farming	9.6	2,411,794.1
Real estate establishments	16.1	2,103,224.6
Imputed rental activity for owner-occupied dwellings	0.0	1,981,358.4

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 Barber County's economy.

Description	Employment	Output
Oilseed farming	9.57	2,379,643.44
Grain farming	226.99	20,382,181.17
Tree nut farming	0.12	49,684.84
Cotton farming	1.62	885,398.98
All other crop farming	12.22	6,886,230.95
Cattle ranching and farming	199.28	48,203,590.39
Dairy cattle and milk production	8.41	2,630,340.81
Poultry and egg production	0.26	364,577.50
Animal production, except cattle and poultry and eggs	5.67	443,668.60
Support activities for agriculture and forestry	25.13	345,354.17
Animal (except poultry) slaughtering, rendering, and processing	23.23	7,884,937.76
Farm machinery and equipment manufacturing	3.07	1,688,971.04
Retail Stores - Food and beverage	94.57	5,426,890.85
Services to buildings and dwellings	1.40	95,454.51
Food services and drinking places	101.83	5,035,922.53
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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.