Rush County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors
6/28/2017

Using the most recent IMPLAN data available (2015) adjusted for 2017, 11 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Rush County economy.[1]

These 11 sectors have a total direct output of approximately **$152.2 million** and support **627.1 jobs** in Rush County. Running the model for all 11 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Rush County Economy						
Impact Type[2]	Employment	% Employment	Total Value Added[3]	Total Value Added % of Gross Regional Product[4]	Output[5]	Output % of Gross Regional Product
Direct Effect	627.1	26.56%	$29,072,632	25.87%	$152,158,741	135.39%
Indirect Effect	90.1	3.82%	$4,441,778	3.95%	$10,464,635	9.31%
Induced Effect	44.2	1.87%	$2,492,643	2.22%	$4,862,045	4.33%
Total Effect	761.4	32.25%	$36,007,053	32.04%	$167,485,421	149.03%

As shown in the above table, agriculture, food, and food processing sectors support **761.4 jobs**, or **32.25%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **$167.5 million, roughly 149.03% of the economy.**

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 **$36.0 million**, or **32.04% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **32.04% of the total economy**.

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.

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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.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **312.0 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Rush County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	312.0	$38,594,000
Grain farming	111.3	$42,563,683
Meat processed from carcasses	86.2	$45,701,920
All other crop farming	56.7	$4,464,297
Animal production, except cattle and poultry and eggs	30.3	$4,165,165
Wholesale trade	26.5	$4,640,415
Farm machinery and equipment manufacturing	22.7	$12,350,369
Services to buildings	10.5	$192,877
Monetary authorities and depository credit intermediation	9.4	$1,357,062
Truck transportation	6.1	$1,092,442

The meat processed from carcasses sector directly contributes approximately **$45.7 million** to the Rush County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Meat processed from carcasses	86.2	$45,701,920
Grain farming	111.3	$42,563,683
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	312.0	$38,594,000
Farm machinery and equipment manufacturing	22.7	$12,350,369
Wholesale trade	26.5	$4,640,415
All other crop farming	56.7	$4,464,297
Animal production, except cattle and poultry and eggs	30.3	$4,165,165
Oilseed farming	2.3	$2,642,097
Owner-occupied dwellings	0.0	$1,741,949
Monetary authorities and depository credit intermediation	9.4	$1,357,062

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, food, and food processing sector and the output they contributed to the Rush County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	Total Employment	Total Output
Oilseed farming	2.3	$2,642,096.52
Grain farming	111.3	$42,563,682.56
Greenhouse, nursery, and floriculture production	0.4	$65,672.76
All other crop farming	56.7	$4,464,296.82
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	312.0	$38,593,997.96
Poultry and egg production	1.4	$1,281,752.71
Animal production, except cattle and poultry and eggs	30.3	$4,165,164.95
Meat processed from carcasses	86.2	$45,701,919.56
Bread and bakery product, except frozen, manufacturing	2.0	$192,945.82
Farm machinery and equipment manufacturing	22.7	$12,350,369.45
Veterinary services	1.8	$136,838.38

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing 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 Rush County, the retail sector was omitted.