

## Estimated Economic Impact of Emporia Farmers Market in 2013

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Farmers' markets have increased significantly over the last decade from 1,755 to 8,268<sup>1</sup>. Specialty crop farmers have the potential to gain more of the consumer market and presumably farmers' markets benefit local economies through retention of local dollars. There have been a number of studies to quantify this local impact in the country.

Using an IMPLAN-based input-output model, we estimated the approximate impact of one local farmer's market in Kansas. In 2013, roughly \$97,244.51 of spending occurred at the Emporia Farmers Market over the course of the year including the outdoor and indoor markets. This spending generated a gross impact of \$176,822.20 and value added of \$91,761.10 to the Kansas economy.

For the model, spending was allocated into 22 agriculture, food, and food processing sectors which were analyzed to determine their overall contribution to the state economy.<sup>2</sup>

Running the model for all 22 sectors simultaneously produces the following results:

### Impact of Agriculture, Food, and Food Processing Sectors on the Kansas Economy

Impact Type <sup>3</sup>	Employment	Value Added <sup>4</sup>	Output <sup>5</sup>
Direct Effect	0.2	46,498.7	98,029.7
Indirect Effect	0.2	14,962.0	28,290.9
Induced Effect	0.4	30,300.4	50,501.6
<b>Total Effect</b>	<b>0.8</b>	<b>91,761.1</b>	<b>176,822.2</b>

As shown in the above table, agriculture, food, and food processing provide a total gross economic contribution of approximately \$176,822.22 to Gross Region Product (GRP).

Another metric used to calculate the importance of sectors in an economy is their value added. Total value added by the 22 agriculture, food, and food processing sectors is approximately \$91,761.10. This indicates the impact that personal income, business income, and taxes generated by these sectors had on the total economy.

<sup>1</sup> USDA Agriculture Marketing Service, updated 8/20/2014

<http://www.ams.usda.gov/AMSV1.0/ams.fetchTemplateData.do?template=TemplateS&leftNav=WholesaleandFarmersMarkets&page=WFMFarmersMarketGrowth&description=Farmers+Market+Growth>

<sup>2</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>3</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>4</sup> Value added = labor income + indirect business taxes + other property type income.

<sup>5</sup> Output = intermediate inputs + value added.

In order to get the most accurate impact, we want to account for the opportunity cost of the money spent at the farmers' market. The opportunity cost reflects what would have occurred had the consumer spending at the farmers' market instead been directed to Kansas grocery stores and building material and garden supply stores. We assume that expenditures at the farmers' markets are the same as those that would have been made at a local store. This may be an overestimate as shoppers may tend to spend more at the farmers' markets because they can purchase a different basket of goods, but it results in a conservative estimate for the positive impact of the market.

For the Emporia market, we assume that all \$97,244.51 would have been spent at in-state retail outlets, primarily grocery stores. Spending was distributed across the sectors using the same product mix bought at the farmers' market.

Running the model for these sectors simultaneously produces the following results for impact for local stores:

### Opportunity Cost of Agriculture, Food, and Food Processing Sectors on the Kansas Economy

Impact Type	Employment	Value Added	Output
Direct Effect	0.5	19,064.7	28,113.1
Indirect Effect	0.1	4,493.0	7,529.2
Induced Effect	0.1	6,908.4	11,506.4
<b>Total Effect</b>	<b>0.7</b>	<b>30,466.1</b>	<b>47,148.7</b>

As shown in the above table, agriculture, food, and food processing provide a total gross economic contribution of approximately \$47,148.70 to Gross Region Product (GRP) and total value added is approximately \$30,466.10.

When the effect of direct revenue losses are included (primarily for grocery stores), the net impact of the Emporia Farmers Market is reduced to \$129,672.5 or value added of \$61,295.00 to the state-wide economy. After accounting for this opportunity cost there is a multiplier of approximately 1.33 for spending at the market. The following table summarizes these results:

### Gross and Net Impacts of Emporia Farmers Market

Measure of Economic Activity	Farmers' Market	Opportunity Cost	Economic Gain	% Decline
Industry Output	\$176,822.15	\$47,148.70	\$129,673.45	26.7%
Value Added	\$91,761.10	\$30,466.09	\$61,295.02	33.2%

Presented here is a simple approach used to evaluate the net impacts on the state economy by the economic activity generated by the Emporia Farmers Market. In accounting for the opportunity costs, we are more consistent with economic reality and our results are strengthened. As expected, even after accounting for the opportunity cost the impact is still positive and substantial.