

W Frank Barton School of Business

# Center for Economic Development and Business Research

## Kansas Animal Food Manufacturing

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## Overview

The animal food manufacturing sector refers to establishments predominantly involved in manufacturing food and feed for animals from ingredients, such as grains, oilseed mill products, and meat products.<sup>1</sup> The sector is highly concentrated in Kansas, predominantly in the Northeast part of the state. The Kansas animal food manufacturing sector, which primarily employs production workers, has experienced growth in both employment and wages between 2007 and 2011. The productivity of Kansas workers in this industry rose above the national average in 2011.

The location quotient technique indicates that Kansas has a concentration in the animal food manufacturing sector. Location quotient is defined as a ratio between a percentage of regional industry employment and a percentage of national industry employment. It determines whether a geographic area has a greater share of an industry than the nation as a whole. A region is said to be specialized when its location quotient is higher than 1.2. Kansas has a specialization in animal food manufacturing, with location quotients higher than 1.2 in 2007 and 2011.

<i><b>Table 1. Kansas Animal Food Manufacturing Statistics</b></i>		
	<b>2007</b>	<b>2011</b>
Number of Establishments	57	63
Number of Jobs	1,989	2,374
Percent of all Kansas Manufacturing Jobs	1.1%	1.5%
Percent of all U.S. Animal Food Manufacturing Jobs	4.2%	4.7%
Average Annual Wage	\$ 37,759	\$ 42,380
Total Wages Paid	\$ 75,103,000	\$ 100,611,000
Level Change in Total Wages Paid from 2007	-	\$ 25,508,000
Percent Change in Total Wages Paid from 2007	-	34.0%
Location Quotient	4.4	4.8

Source: County Business Patterns, U.S. Census Bureau.

In 2011, the Kansas animal food manufacturing sector accounted for 4.7 percent of the U.S. animal food manufacturing employment and 4.5 percent of the U.S. animal food manufacturing industry's total wages.

During the same year, the Kansas dog and cat food manufacturing subsector represented approximately 71 percent of the Kansas animal food manufacturing employment and 73.4 percent of total Kansas animal food manufacturing wages.

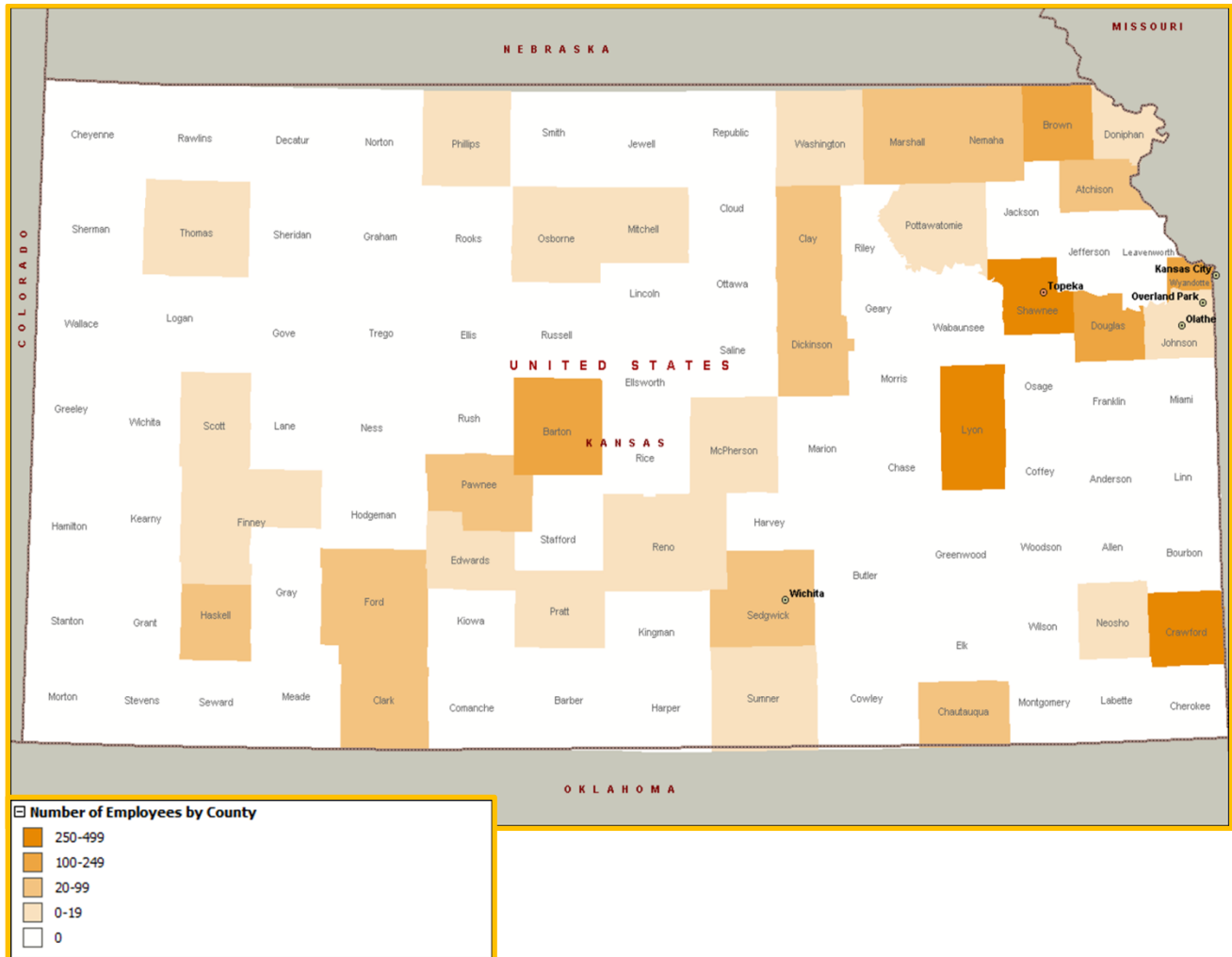
<sup>1</sup> Source: North American Industry Classification System (NAICS), U.S. Census Bureau.

## Data

### Main Locations

Kansas animal food manufacturing employees are spread over the state. Large shares of those employees are located in northeast Kansas, particularly in Lyon, Shawnee, Wyandotte, and Brown Counties. Crawford County, in the Southeast, also has many workers in this sector.

***Kansas Animal Food Manufacturing Employees in 2011***

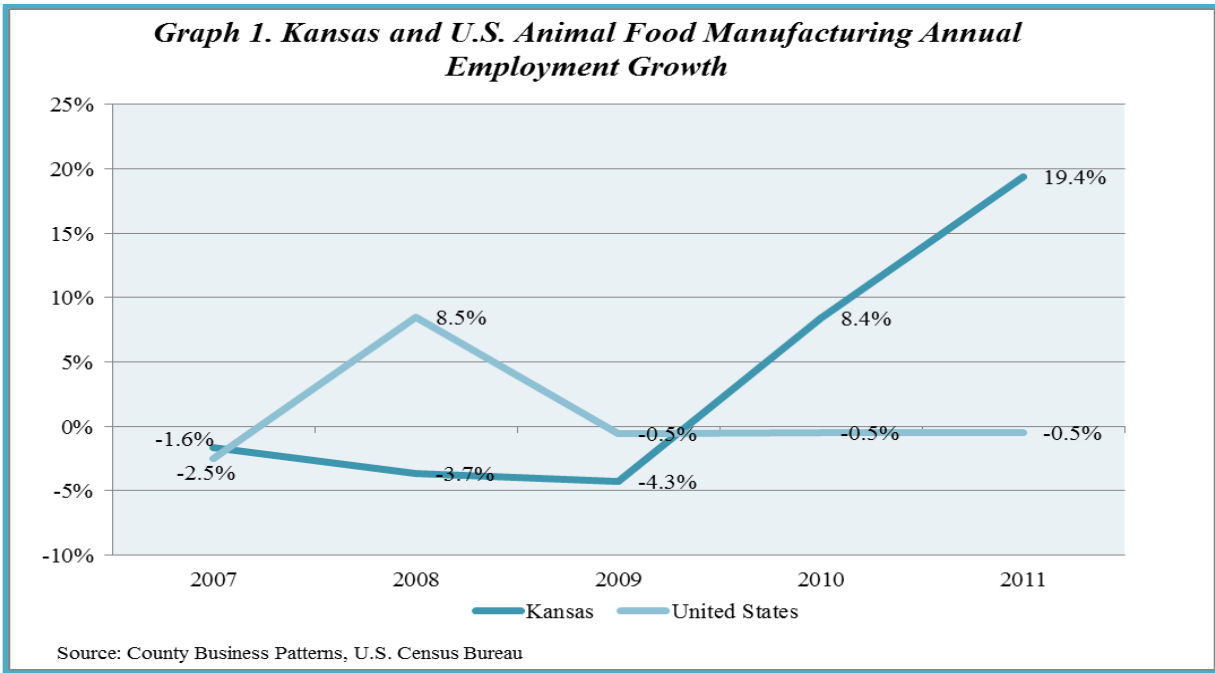


Source: County Business Patterns, U.S. Census Bureau.

### Employment

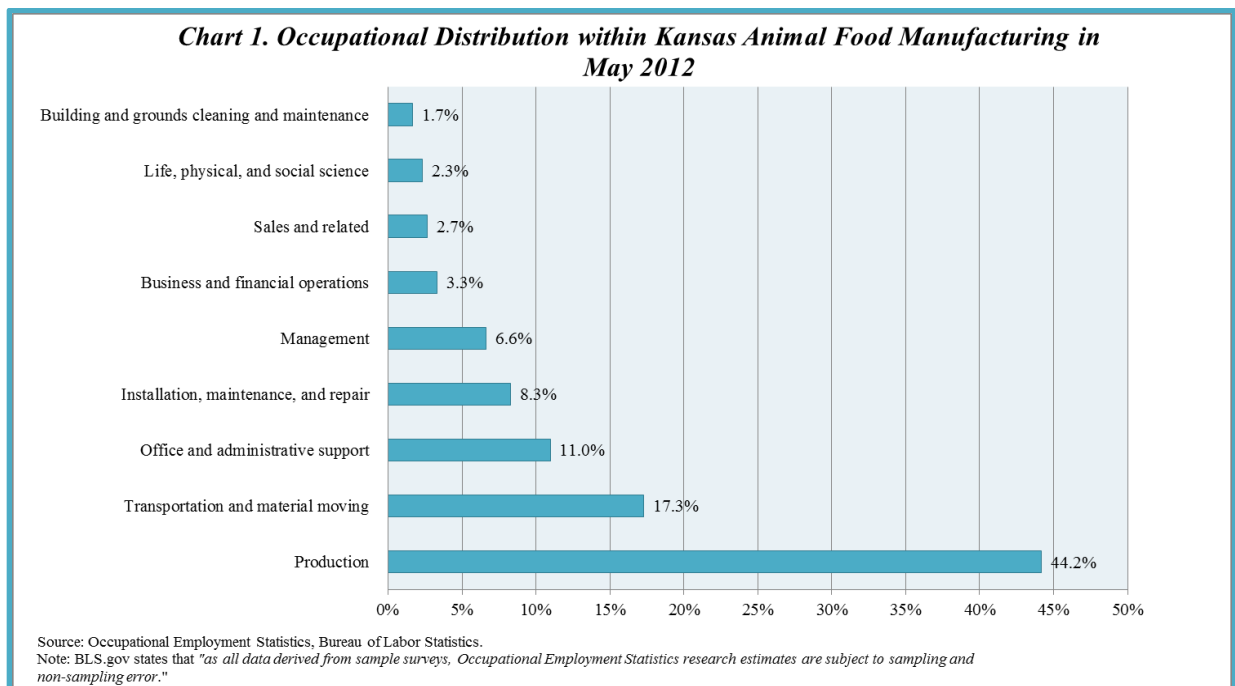
Kansas animal food manufacturing employment growth was negative during the recession.<sup>2</sup> In the study period, the largest drop in employment occurred in 2009 (-4.3 percent). Employment started to rise after the recession ended, with a growth of 8.4 percent in 2010 and 19.4 percent in 2011.

<sup>2</sup> The recession started in 2007 and ended in 2009.



The U.S. animal food manufacturing sector experienced annual drops in its employment levels in the five years examined, with the exception of 2008, when employment growth rose to 8.5 percent.

Chart 1 indicates that 44.2 percent of the workers employed in the sector were concentrated in production occupations. The transportation and material moving and the office and administrative support occupations employed 17.3 percent and 11 percent of the workers within the sector, respectively.



The occupations requiring a high school diploma (or equivalent) and/or moderate-term on-the-job training dominate the Kansas animal food manufacturing sector. Most of the occupations did not necessitate employees having work experience in a related occupation in order to be hired.

**Table 2. Ten Largest Occupations within Kansas Animal Food Manufacturing in May 2012**

Occupation	Employment	Mean Hourly Wage	Mean Annual Wage	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency
Packaging and filling machine operators and tenders	490	\$ 15.28	\$ 31,780	High school diploma or equivalent	None	Moderate-term on-the-job training
Mixing and blending machine setters, operators, and tenders	270	\$ 14.94	\$ 31,080	High school diploma or equivalent	None	Moderate-term on-the-job training
Extruding, forming, pressing, and compacting machine setters, operators, and tenders	240	\$ 17.97	\$ 37,370	High school diploma or equivalent	None	Moderate-term on-the-job training
Heavy and tractor-trailer truck drivers	150	\$ 15.10	\$ 31,410	High school diploma or equivalent	1 to 5 years	Short-term on-the-job training
Maintenance and repair workers, general	130	\$ 18.58	\$ 38,650	High school diploma or equivalent	None	Moderate-term on-the-job training
First-line supervisors of production and operating workers	120	\$ 25.93	\$ 53,940	Postsecondary non-degree award	1 to 5 years	None
Laborers and freight, stock, and material movers, hand	110	\$ 12.45	\$ 25,890	Less than high school	None	Short-term on-the-job training
Industrial truck and tractor operators	100	\$ 15.80	\$ 32,860	Less than high school	Less than 1 year	Short-term on-the-job training
Sales representatives, wholesale and manufacturing, except technical and scientific products	80	\$ 25.17	\$ 52,340	High school diploma or equivalent	None	Moderate-term on-the-job training
General and operations managers	70	\$ 48.02	\$ 99,880	Associate's degree	1 to 5 years	None

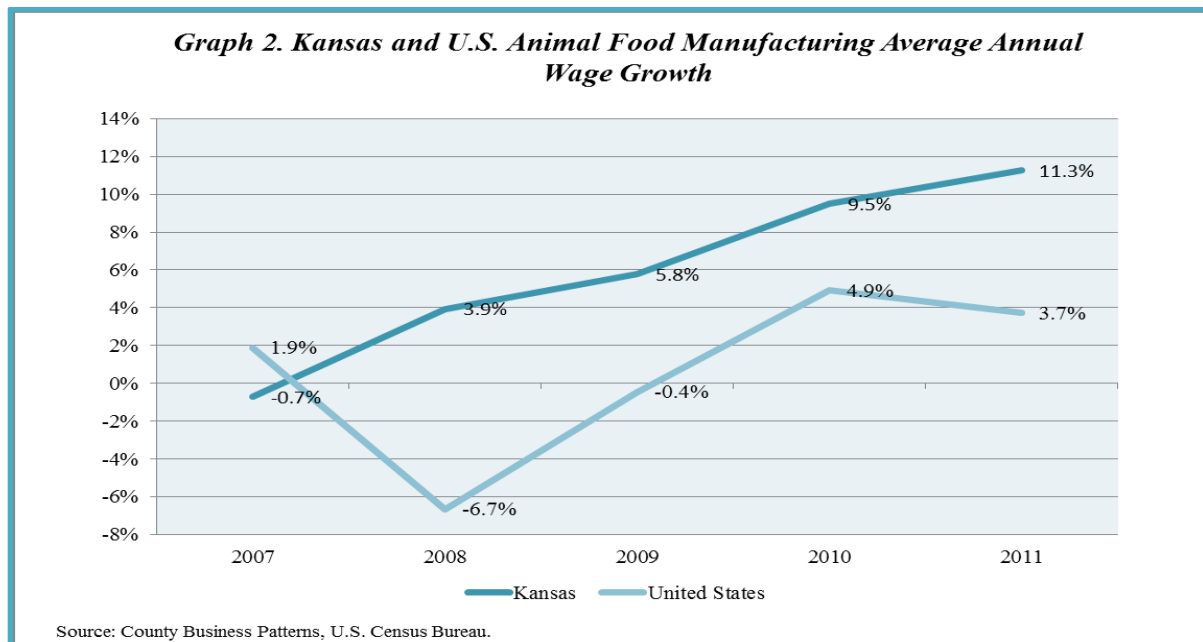
Source: Occupational Employment Statistics, Bureau of Labor Statistics.  
Note: BLS.gov states that "as all data derived from sample surveys, Occupational Employment Statistics research estimates are subject to sampling and non-sampling error."

The previous table indicates that the top three highest paying occupations within the sector were:

- general and operations managers (\$99,880)
- first-line supervisors of production and operating workers (\$53,940)
- sales representatives, wholesale and manufacturing, except technical and scientific products (\$52,340)

## Wages

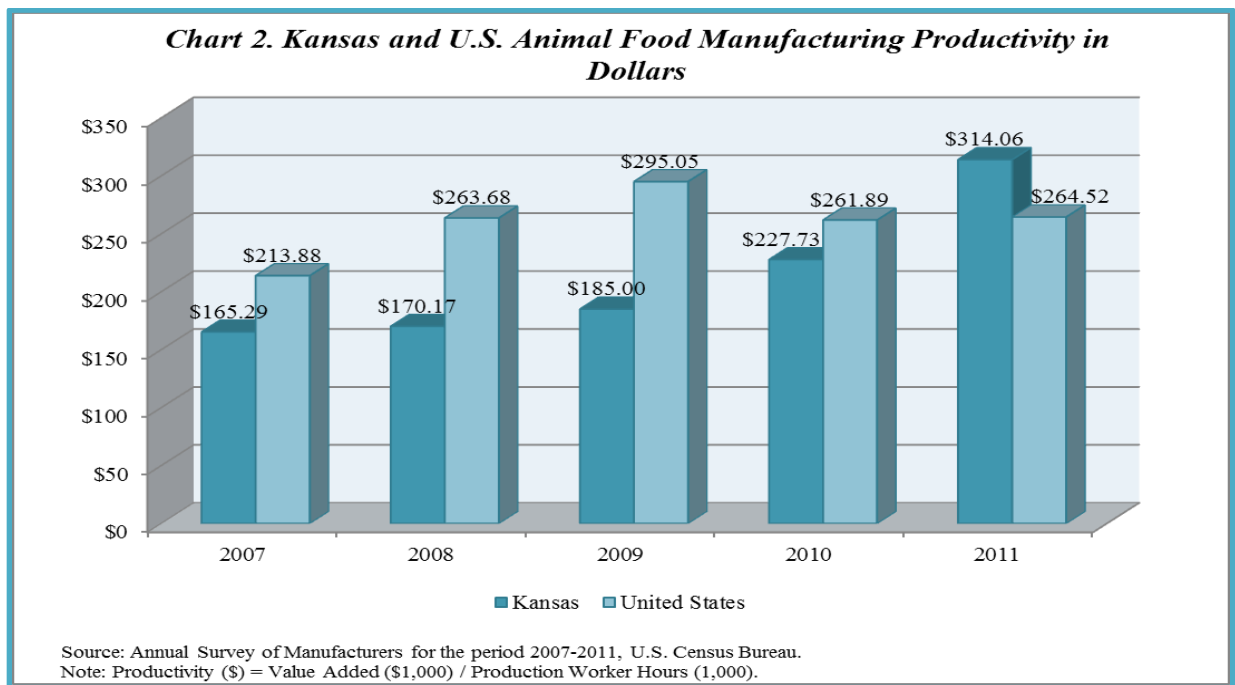
With the exception of 2007, annual Kansas animal food manufacturing wages increased every year. With an annual wage growth of 11.3 percent, 2011 recorded the largest increase during the five-year period.



The nation’s animal food manufacturing wages were impacted during the recession. Wages started to recover in 2010.

## Productivity

Although Kansas animal food manufacturing productivity was below the U.S. average between 2007 and 2010, it improved every year during the period. The increase in productivity, in this Kansas sector, was the highest after the recession ended, rising by \$42.74 in 2010 and \$86.33 in 2011. The animal food manufacturing productivity of Kansas workers rose above the national average in 2011.

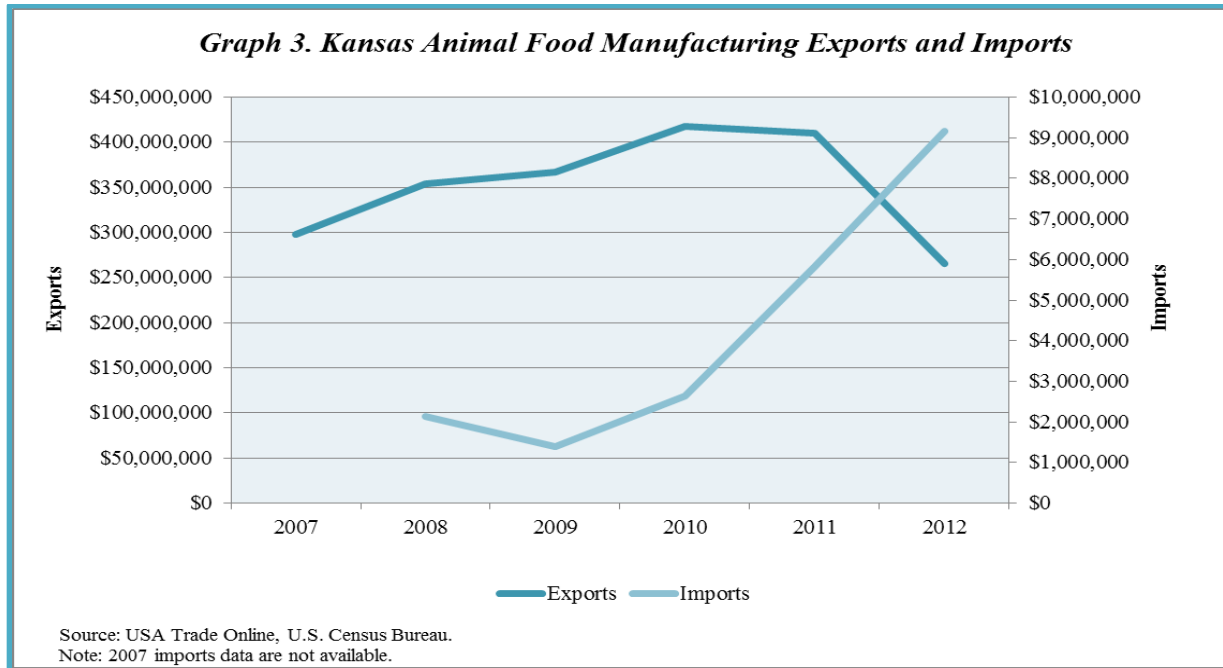


## Exports and Imports<sup>3</sup>

Kansas animal food manufacturing exports consistently increased from 2007 to 2010. Exports dropped by \$8,219,455 in 2011 and \$144,623,310 in 2012. From 2007 to 2012, Asia was Kansas’ main export partner.

Kansas animal food manufacturing imports decreased by \$744,738 in 2009. Imports rose by more than \$7 million between 2009 and 2012. From 2008 to 2012, North America was Kansas’ main import partner.

<sup>3</sup> Exports to Africa, Asia, Australia and Oceania, Europe, and North America  
 Imports from Africa, Asia, Australia and Oceania, Europe, and North America



The animal food manufacturing sector is highly concentrated in Kansas. The state, in this sector, employs predominantly production workers, and has seen its employment rising after 2009. Kansas animal food manufacturing wages also experienced growth between 2007 and 2011. The latter year recorded the largest increase in wages during the five-year period. Productivity also grew in 2011, surpassing the national average that year. Kansas animal food manufacturing export and import data indicates that Asia was Kansas’ main export partner and North America was Kansas’ main import partner between 2007 and 2012.