

2014 Iowa Ag Economic Contribution Study



September 2014

Executive Summary

The results of this analysis show that agriculture is a critical component of Iowa's overall economic well-being. Iowa agriculture is connected to a large integrated set of industries – from the production of agricultural commodities to food and feed processing to agricultural input manufacturing and many other ag-support industries. The results of the analysis indicate that diminishment or removal of any one of them will likely cause significant negative impacts to the others.

This study is based on a combination of datasets from the 2012 Census of Agriculture, USDA/Risk Management Agency¹, and the IMPLAN modeling system. The analysis also shows that Iowa has an agricultural resource base that continues to grow with and support the state's economy at large, primarily due to its integration across all sectors of the economy. Given the vitality of Iowa's agricultural industries, it is reasonable to assume that Iowa's agricultural base has room for continued growth and will remain a key part of the state's economic well-being.

Key Findings

- In 2012, total production agriculture and ag-related industries accounted for **\$112.2 billion**, or more than **33 percent** of Iowa's total output, for an increase of six percentage points above the 2007 estimates
- Farming provides the base for a variety of agri-food industries, including food processing and the manufacture of farm machinery, chemicals and fertilizer. Taking those jobs into account means that in 2012, production agriculture and ag-related industries accounted for **418,771**, or **1 in every 5** Iowans.
- Crop farming is a significant part of agriculture's economic contribution. Statewide output attributed to crop production and further processing is just under **\$47.2 billion** and is responsible for **183,379 jobs**.
- Livestock farming is also a significant part of agriculture's economic contribution. Statewide output attributed to livestock production and further processing is just under **\$31.6 billion** and is responsible for **122,764 jobs**.
- **37** of Iowa's counties derive **at least one half** of their total output from ag and ag-related industries.
- **35** of Iowa's counties derive **at least one third** of their total jobs from ag and ag-related industries.
- **29** of Iowa's counties derive **at least one fourth** of their total jobs from the crop and crop processing industries.
- **23** of Iowa's counties derive **at least one fifth** of their total output from the livestock and meat processing industries.

Methodology

The 2014 South Dakota Ag Economic Contribution Study was completed with a combination of the 2012 Census of Agriculture, the IMPLAN modeling system (2012 data), SAS (Statistical Analysis System), and Microsoft Excel 2013. Results from this analysis are presented within this Agricultural Statistics book using common economic terms. The economic terms are:

Due to the drought of 2012 in Iowa, many counties had crop insurance indemnities. To account for this, county crop sales as reported by the 2012 Census of Agriculture were adjusted to account for 2012 actual crop insurance indemnities. Please visit this link for background on the implications of insurance indemnities on agricultural statistics: <https://www.sdstate.edu/econ/commentator/upload/No549.pdf>

- **Output**
 - The most broad measure of economic activity – sometimes referred to as “sales”
- **Employment (Jobs)**
 - A measure of job positions without regard to whether they are full-time equivalents
- **Value-Added**
 - A combination of Labor Income (defined below), Other Property Type Income, and Tax on Production and Imports
- **Labor Income**
 - The sum of Employee Compensation (work for hire) and Proprietor Income (self-employed) and is a *sub-component* of value-added.

Due to the large number of sectors available for analysis within the IMPLAN modeling system (440), a degree of aggregation was undertaken to better understand the contribution of agriculture to each of Iowa’s counties relative to other important Iowa industries. In all, there are 58 sectors identified as being related to agriculture, some of which are not present in Iowa (i.e., Tobacco Farming and Cotton Farming). In some cases (production agriculture sectors), the 2012 Census of Agriculture was used to calibrate the IMPLAN data for greater accuracy. The rest of Iowa’s industries were aggregated into fourteen other key non-ag industries in Iowa.

Upon identification of the 58 IMPLAN agricultural sectors, they were further aggregated into three broad agricultural classes: **Crops, Livestock, and Other Agriculture**. Examples of some sectors included in each of these broad classes are listed below. A summary of Non-Agricultural Sectors is also provided.

- **Crops**
 - Oilseed Farming, Grain Farming, Vegetable and Melon Farming, Greenhouse, Nursery, and Floriculture Production, Forest Nurseries, Forest Products, and Timber Tracts, Logging, Flour Milling and Malt Manufacturing, Wet Corn Milling, Soybean and Other Oilseed Processing, and Fruit and Vegetable Canning, Pickling, and Drying.
- **Livestock**
 - Cattle Ranching and Farming, Dairy Cattle and Milk Production, Poultry and Egg Production, Animal Production (Except Cattle and Poultry and Eggs (Hogs)), Fishing, Hunting and Trapping, Fluid Milk and Butter Manufacturing, Cheese Manufacturing, Animal (Except Poultry) Slaughtering, Rendering, and Processing, and Poultry Processing
- **Other Agriculture**
 - Support Activities for Agriculture and Forestry, Other Animal Food Manufacturing, Fats and Oils Refining and Blending, Breakfast Cereal Manufacturing, Frozen Food Manufacturing, Fertilizer Manufacturing, Pesticide and Other Ag Chemical Manufacturing, Farm Machinery and Equipment Manufacturing, and Veterinary Services
- **Non-Agricultural Sectors**
 - Construction, Entertainment, Financial, Government, Households, Information, Manufacturing, Mining, Remainder, Retail, Services, Transportation, Utilities, and Wholesale

Please email (info@decision-innovation.com) or call (515.257.6077) for further information related to methodology.

Visuals

Figure 1, Iowa Output by Industry

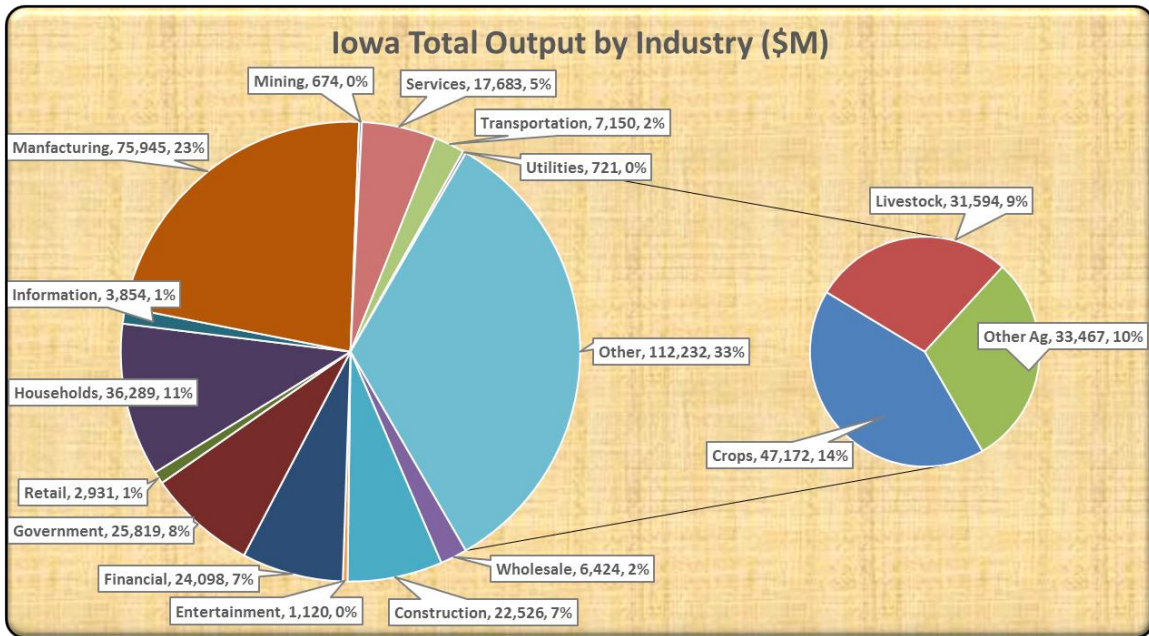


Figure 1 provides an illustration of the level of output derived from each of Iowa’s major industries. As shown, a combination of Crops, Livestock, and Other Ag comprise 33% of all economic activity in Iowa. Other significant industries include Manufacturing (23%), Government (8%), Financial (7%), Construction (7%), and Services (5%).

Figure 2, Iowa Jobs by Industry

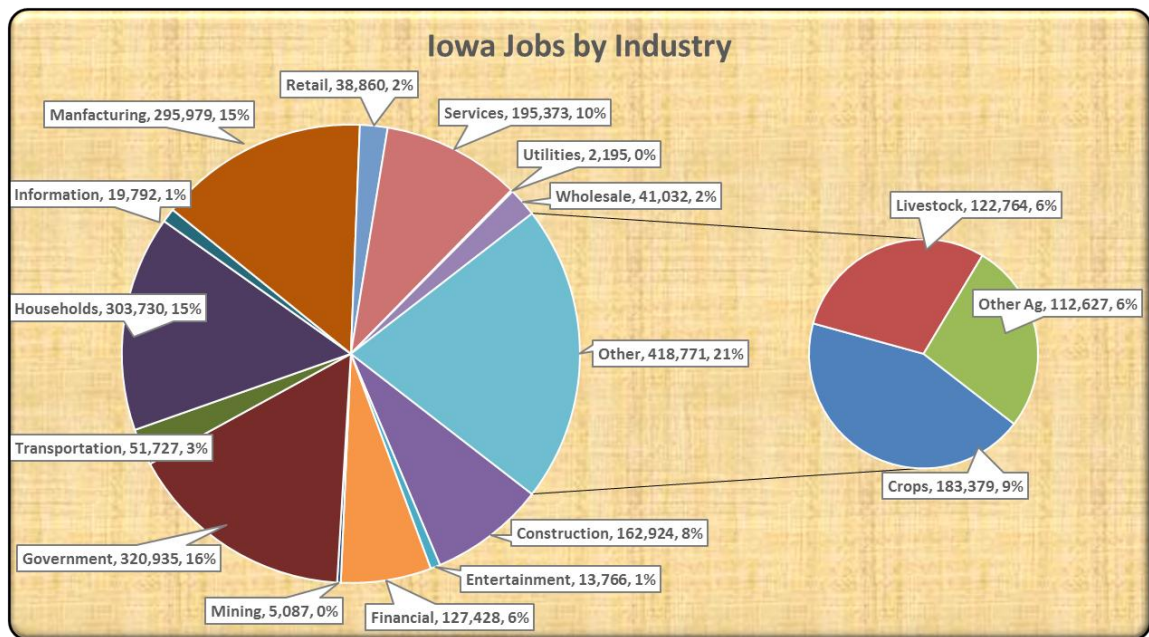


Figure 2 shows the number of jobs originating from Iowa’s major industries. As shown, Crops, Livestock, and Other Ag provide 21% of all jobs in Iowa. Other significant industries include Government (16%), Manufacturing (15%), Services (10%), and Construction (8%).

Figure 3, Output Derived from Total Ag (\$M)

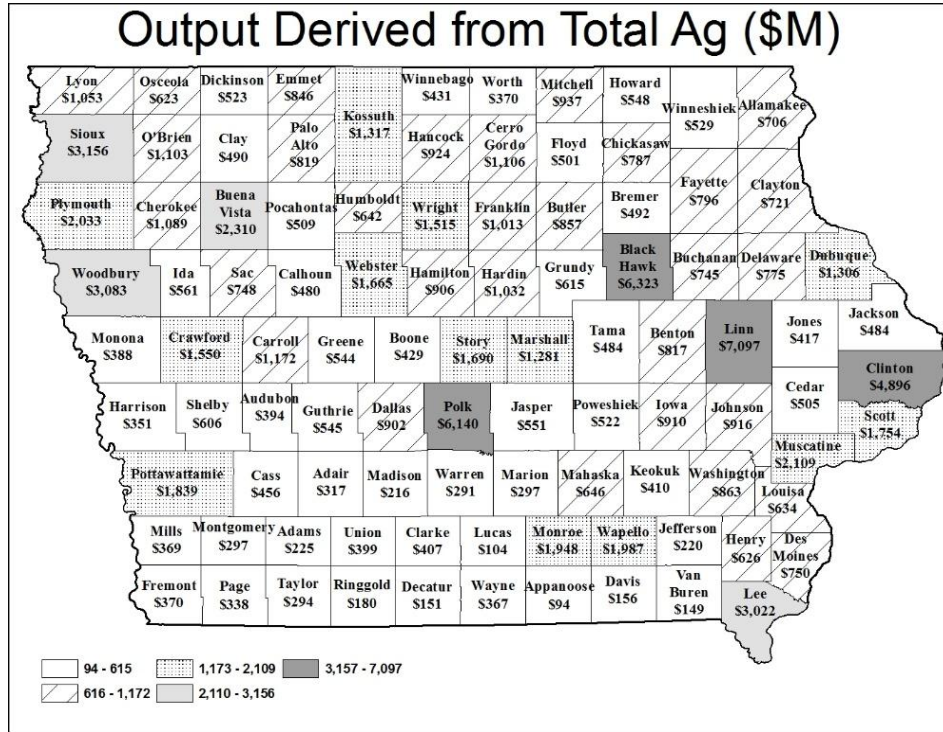


Figure 4, Percent of Output Derived from Total Ag

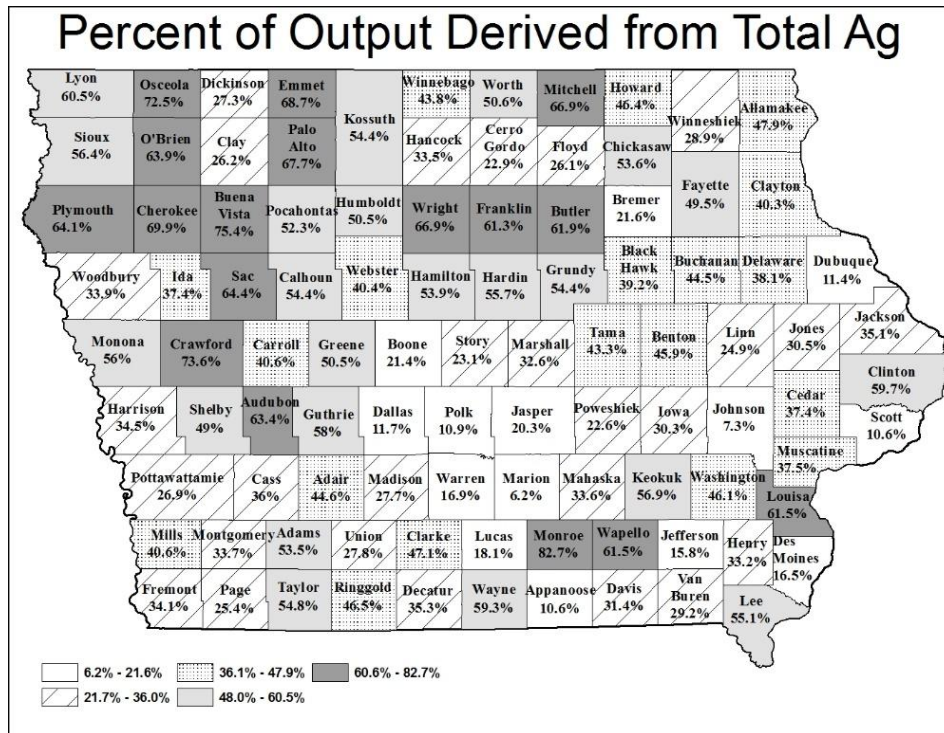


Figure 5, Jobs Derived from Total Ag

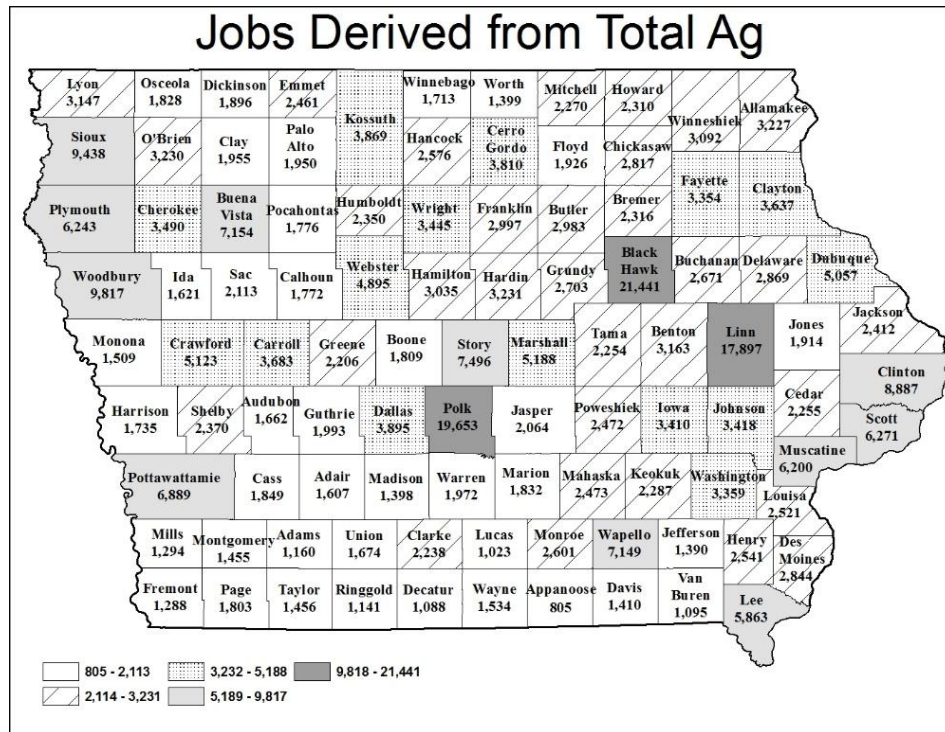


Figure 6, Percent of Jobs Derived from Total Ag

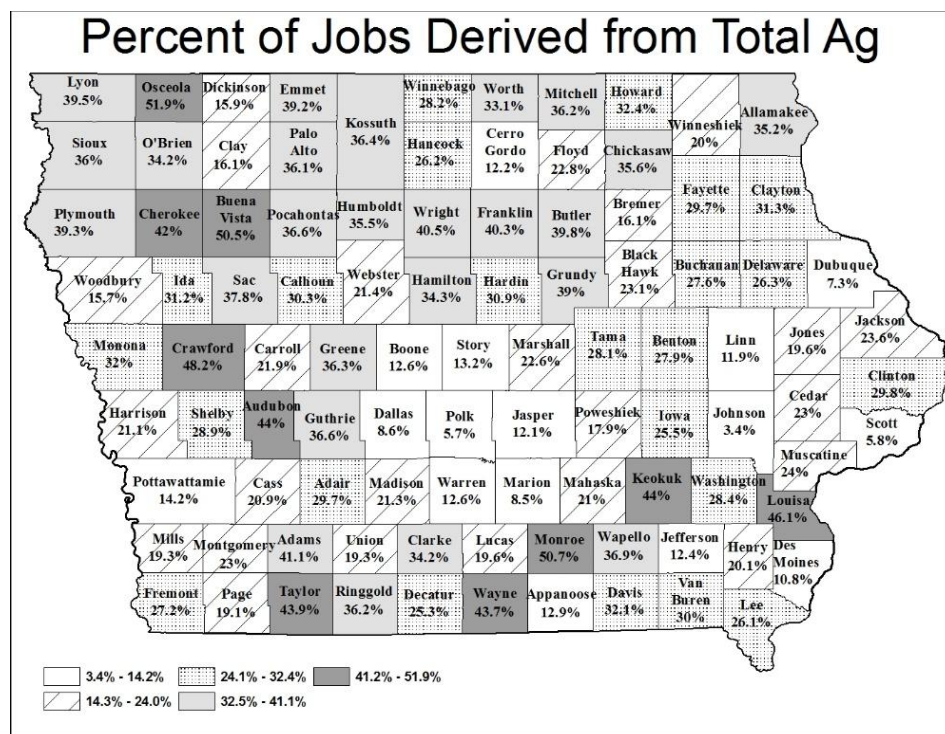


Figure 5 and Figure 6 illustrate the number of jobs by county that find their origins from all of Iowa agriculture (Crops, Livestock, and Other Ag). The share of jobs derived from agriculture tends to make up a higher share of output the more rural a county is. The share of jobs derived from all of agriculture ranges from 3.4% in Johnson County to 51.9% in Osceola County.

Figure 7, Output Derived from Crops

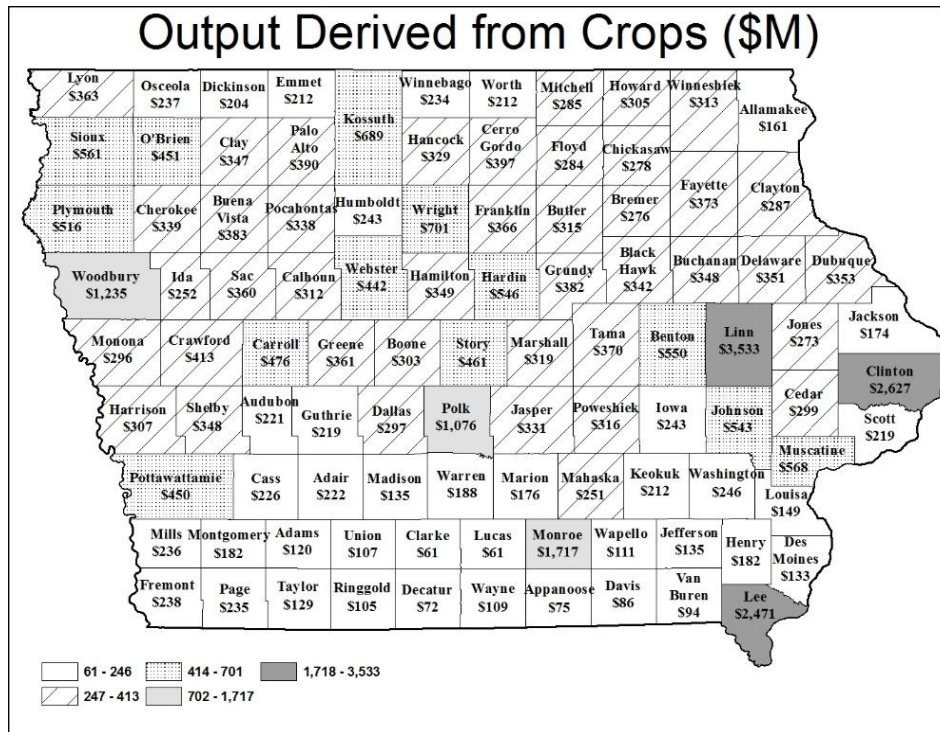


Figure 8, Percent of Output Derived from Crops

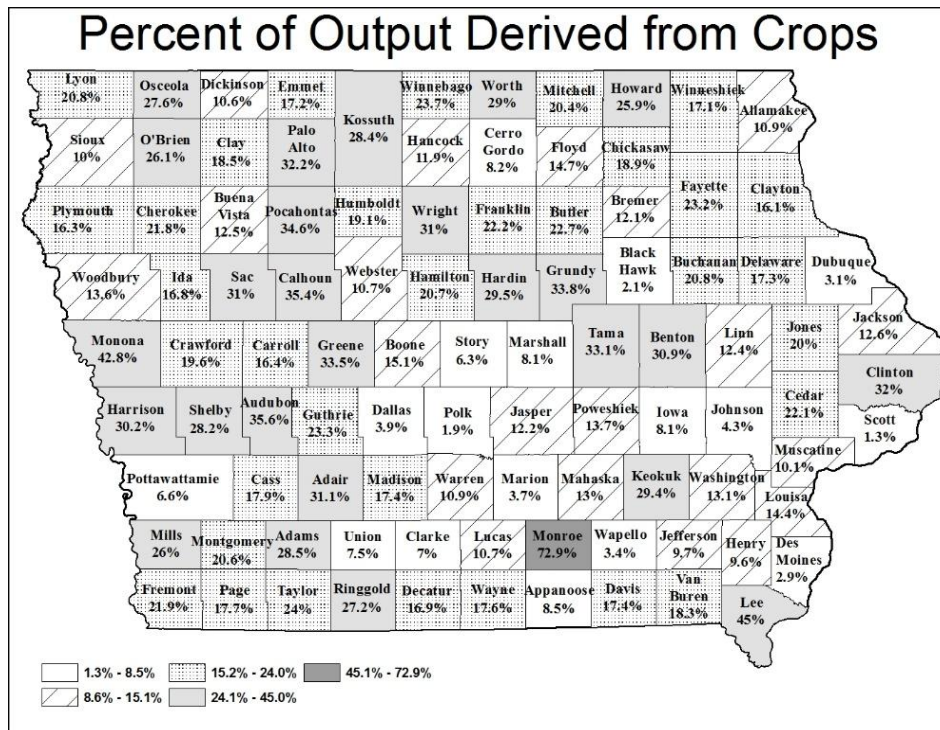


Figure 7 and Figure 8 illustrate the degree to which each Iowa county derives its output from production and processing of crops. When the share of output derived from the production and processing of crops is mapped, we see a lower share in counties in the central part of the state. The share of output derived from the production and processing of crops ranges from 1.3% in Scott County to 72.9% in Monroe County.

Figure 9, Jobs Derived from Crops

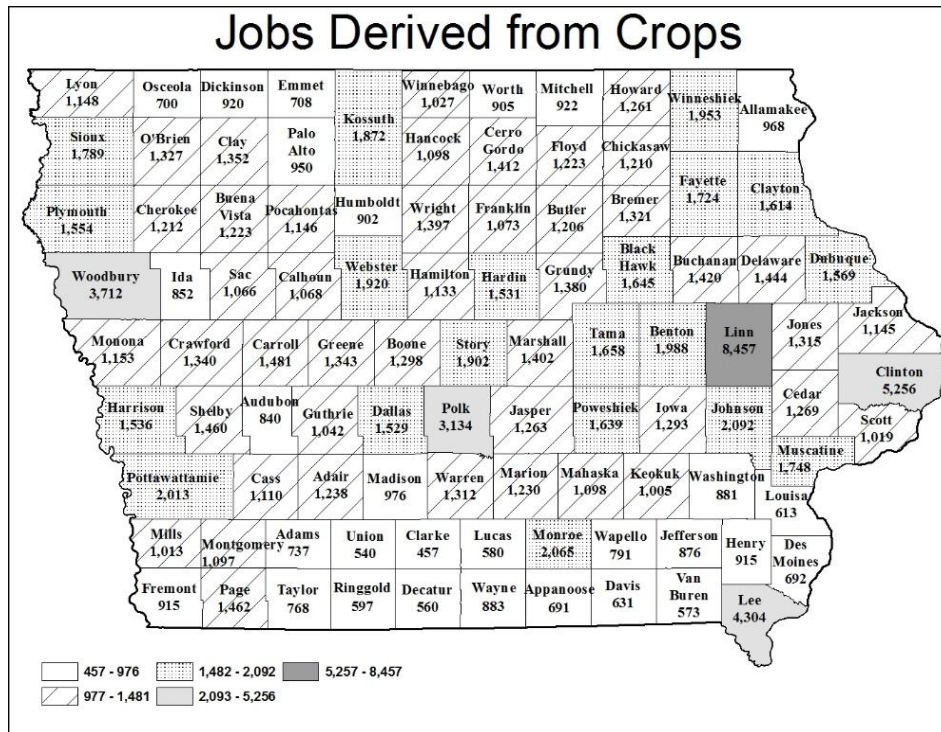


Figure 10, Percent of Jobs Derived from Crops

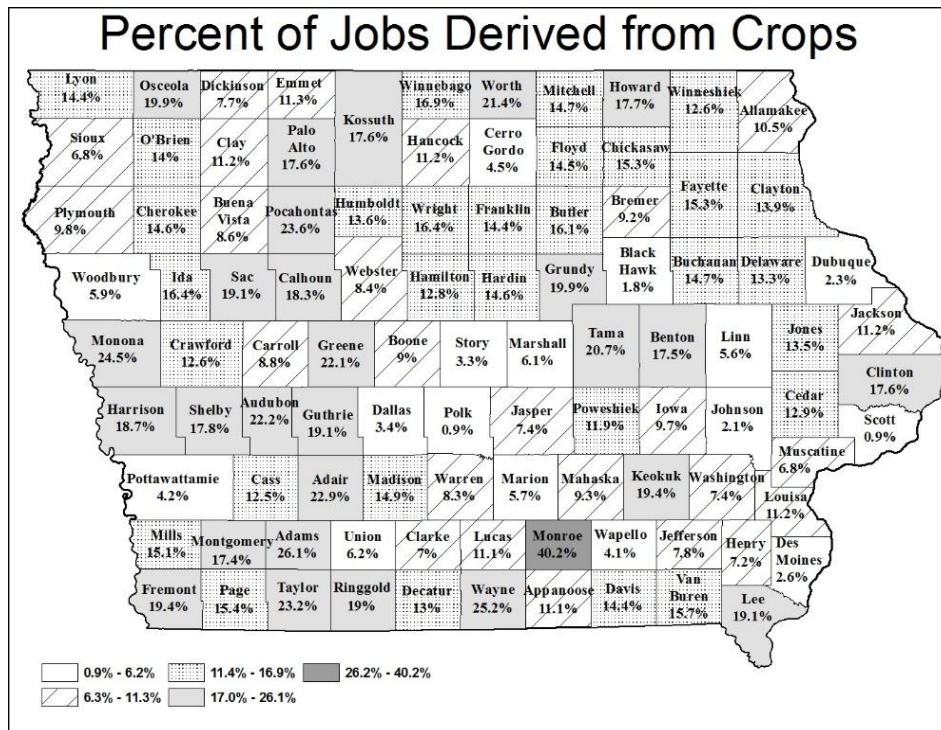


Figure 9 and Figure 10 illustrate the number of jobs that find their origins in the production and processing of crops. When the share of jobs derived from the production and processing of crops is mapped, we see a lower share in counties in the central part of the state. The share of output derived from the production and processing of crops ranges from 0.9% in Polk County to 40.2% in Monroe County.

Figure 11, Output Derived from Livestock

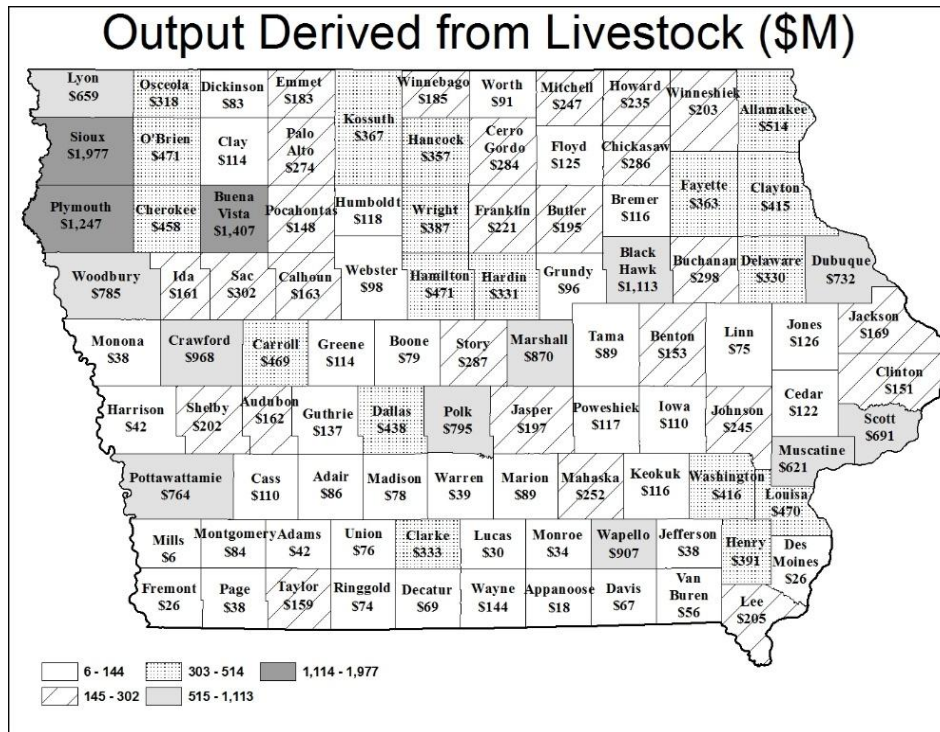


Figure 12, Percent of Output Derived from Livestock

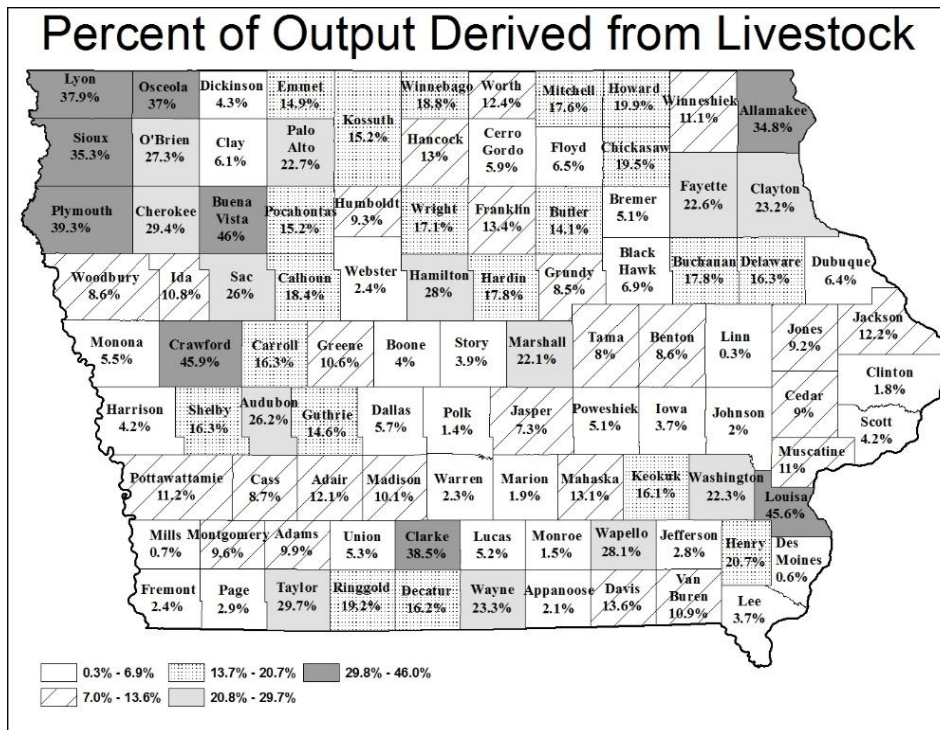


Figure 11 and Figure 12 illustrate the degree to which each Iowa county derives its output from production and processing of livestock. When the share of output derived from the production and processing of livestock is mapped, we see a higher share is generally present in the northwest. The share of output derived from the production and processing of livestock ranges from 0.3% in Linn County to 46.0% in Buena Vista County.

Figure 13, Jobs Derived from Livestock

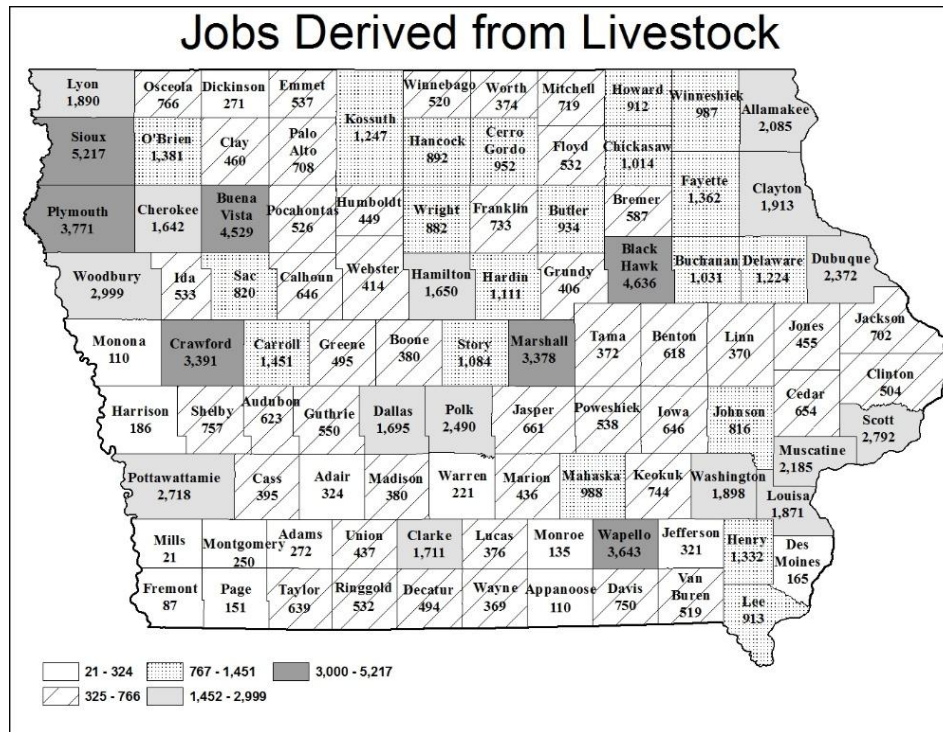


Figure 14, Percent of Jobs Derived from Livestock

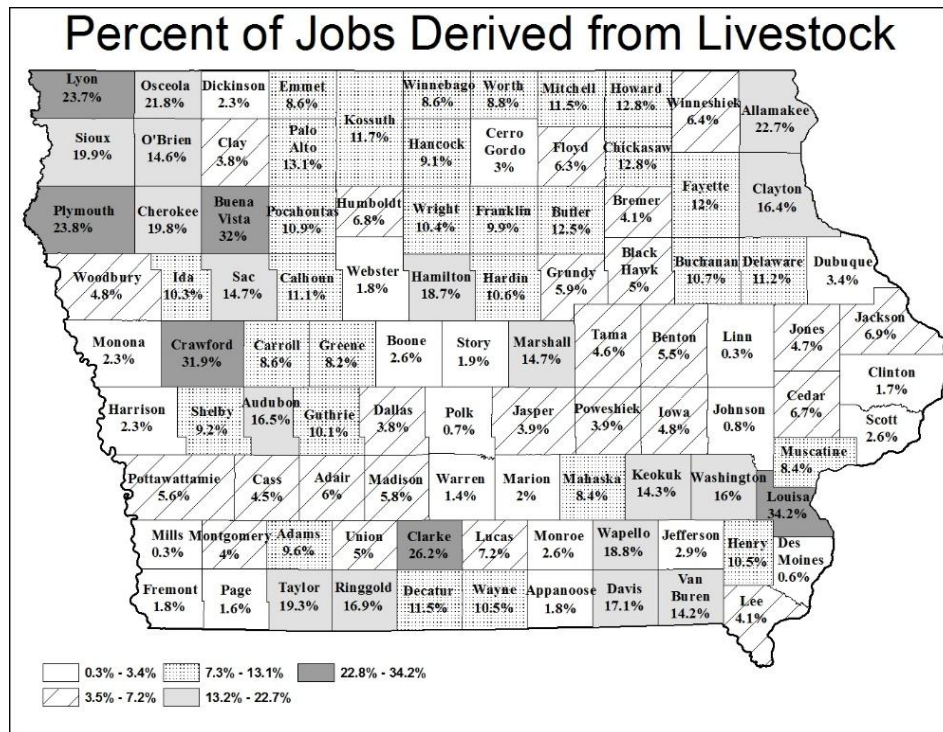


Figure 13 and Figure 14 illustrate the number of jobs that find their origins in the production and processing of livestock. The share of jobs derived from the production and processing of livestock ranges from 0.3% in Linn County to 34.2% in Louisa County.

AGRICULTURE RELATED INTERNET ADDRESSES

USDA

NATIONAL AGRICULTURAL STATISTICS SERVICE

IOWA FIELD OFFICE

Home Page <http://www.nass.usda.gov/ia>

Email nassrfoumr@nass.usda.gov

IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP (IDALS)

Home Page <http://www.iowaagriculture.gov>
Climatology Bureau <http://www.iowaagriculture.gov/climatology.asp>

IOWA FARM BUREAU

Home Page <http://www.iowafarmbureau.com>

IOWA STATE UNIVERSITY

Extension Service <http://www.extension.iastate.edu>
Regional Economics & Community
Analysis Program <http://www.recap.iastate.edu>

UNITED STATES DEPARTMENT OF AGRICULTURE (USDA)

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USDA - ECONOMIC RESEARCH SERVICE

Home Page <http://www.ers.usda.gov>

USDA - NATIONAL AGRICULTURAL STATISTICS SERVICE (NASS)

Home Page <http://www.nass.usda.gov>
Information http://www.nass.usda.gov/About_NASS/index.asp
Census of Agriculture www.agcensus.usda.gov
(Data for 1997, 2002, 2007, and 2012)
Publications <http://www.nass.usda.gov/Publications/index.asp>
Quick Stats http://www.nass.usda.gov/Data_and_Statistics/index.asp

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