

2024 Iowa Pork Industry Report

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Prepared For:



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1 Executive Summary

The Iowa pork industry is a robust industry that continues to expand and increasingly contribute to the Iowa and U.S. economy. Iowa hog cash receipts in 2023 (\$9.328 billion) accounted for 34.3% of U.S. total hog cash receipts and 22.9% of Iowa cash receipts from all state commodities. Hog inventory numbers reached a new record high with 25.0 million hogs on Iowa farms in December 2023. Iowa holds 33.1% of the U.S. hog inventory. Iowa's hog breeding herd (0.75 million head) continues to decline particularly in 2023, the number of breeding hog reduced in 2023 (180,000 head) represented 88% of reduction at the national level (204,000 head). In 2023, Iowa market inventory represented 97% of the state total hog inventory. The share of market hog inventory averaged 95% during the last two decades.

Decision Innovation Solutions (DIS) estimates that in 2023 there were 5,172 hog farms in Iowa. The size of hog farms in Iowa continues to increase. Seventy-three percent of Iowa's hog inventory is now (2022 Census of Agriculture) on farms with 5,000 or more head, which is up from 69% in 2017 and 40% from two decades ago. The most common commercial-size hog farm in Iowa is 2,000-4,999 head with 31% of Iowa hog farms in this size category. Farms with 5,000 or more head comprise 20% of all farms, and farms of 1,000-1,999 head account for 13% of hog farms.

The 3 counties in Iowa with more than 1 million hogs hold 16% of Iowa's hog inventory. These are: Washington, Sioux, and Lyon counties.

Iowa slaughtered 40.235 million hogs in 2023, which represents about 31.4% of the total number (127.971 million) of hogs slaughtered in the U.S. in 2023. Currently Iowa has 13 commercial hog slaughter facilities with an estimated daily slaughter capacity of 143,800 head. If operated 5.4 days per week for 52 weeks per year, this would equal an annual slaughter capacity of 40,379,040 head.

The 35 focus counties selected for specific analysis represent 35.4% of the counties in Iowa; however, these 35 counties have inventories that account for 61.3% of the total hog inventory for the state of Iowa. Additionally, these 35 counties represent 55.7% of the hog farms in Iowa, with an average inventory per farm of 5,570 head, which is more than the statewide average head per farm (4,834 head).

The Iowa pork industry is estimated to contribute the following to the state's economy:

- **\$15.4 billion** in value added
- More than **120,000** jobs
- **\$8.0 billion** in labor income
- **\$40.5 billion** in total sales (output)
- More than **\$2.7 billion** in taxes paid

Of the \$15.4 billion in value added derived from the Iowa hog industry:

- Hog production contributed **\$9.9 billion**
- Hog slaughter contributed **\$3.9 billion**
- Hog processing contributed **\$1.5 billion**

2 Introduction

2.1 Iowa Pork Industry Trends

2.1.1 Inventory

Iowa's hog inventory data for the last 20 years has fluctuated, but numbers have consistently increased. Inventories increased particularly from 2015 to 2020, numbers declined in 2021 and 2022, but in 2023, Iowa hog inventories reached its highest number in the last two decades (25.00 million head) (Figure 1). From 2004 to 2023, Iowa's December 1 hog inventory share of U.S. total inventory averaged 30.4%, while the state hog inventory expanded 53% in that period. Hog inventories briefly declined in 2013 to 20.2 million hogs due to PEDv. This outbreak caused significant morbidity and mortality, particularly in young piglets. Iowa's December 1, 2013, inventory of under-50-pound hogs (4.840 million head) was 5.5% below its December 1, 2012, level (see Figure 2). Since then, all weight classes of hogs have experienced significant increases. Over the past 15 years, U.S. hog inventory has grown at a 1.2% annual average rate. Iowa hog inventory for the past 10 years has increased 2.33% annually. During the last 15 years, 30% of inventory has been hogs in the 50-119 pounds category, followed by hogs weighing less than 50 pounds, which comprised 24.5% of the inventory, on average.

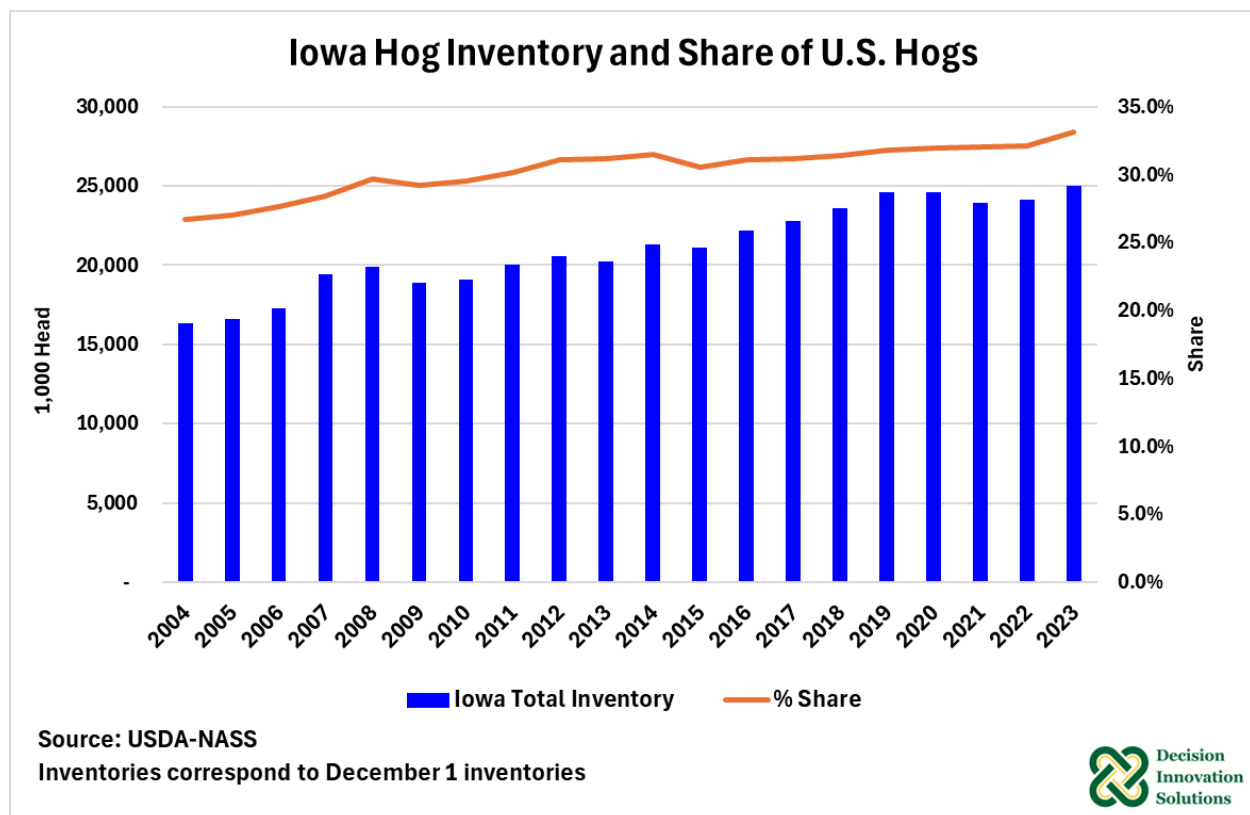


Figure 1. Iowa Hog Inventory and Share of U.S. Hogs

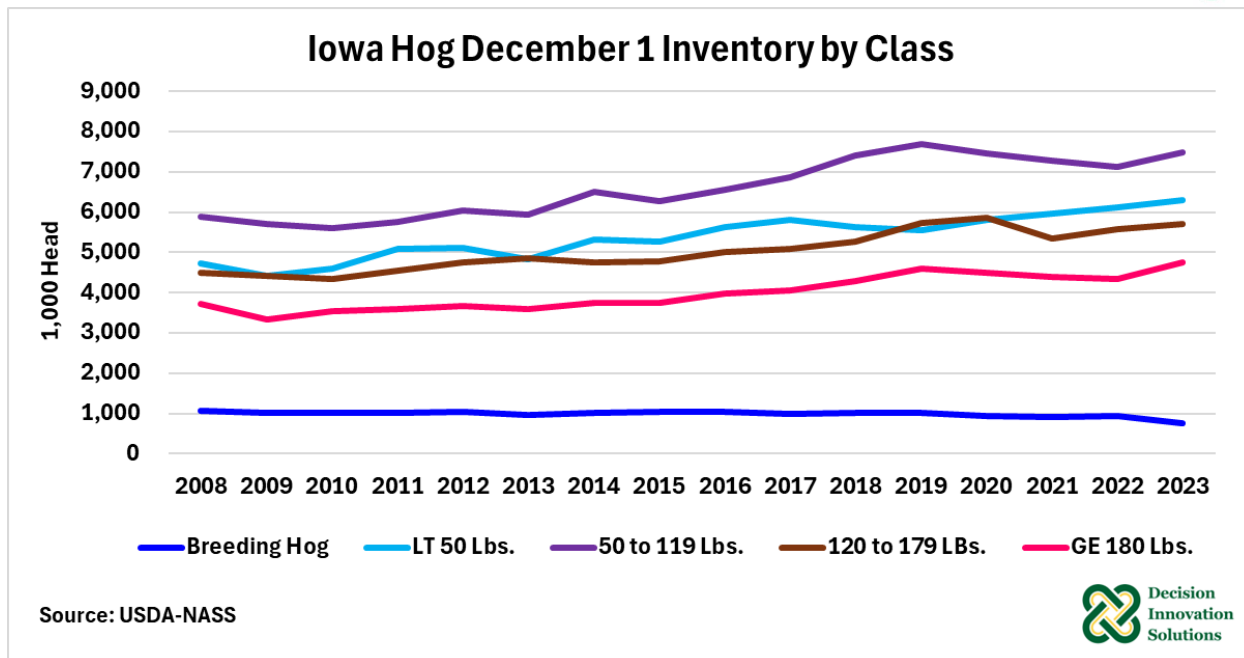


Figure 2. Iowa Hog December 1 Inventory by Class

As Figure 3 shows, U.S. hog operations are mostly located in the Midwest (Iowa and Southern Minnesota, particularly) and in eastern North Carolina. Among main hog producers, Iowa holds the largest inventories. In 2019, Iowa hog inventory was 2.7 times higher than the inventories in Minnesota and 3.0 times in North Carolina. When compared with Illinois and Indiana, Iowa inventory was 4.5 and 5.6 times higher, respectively.

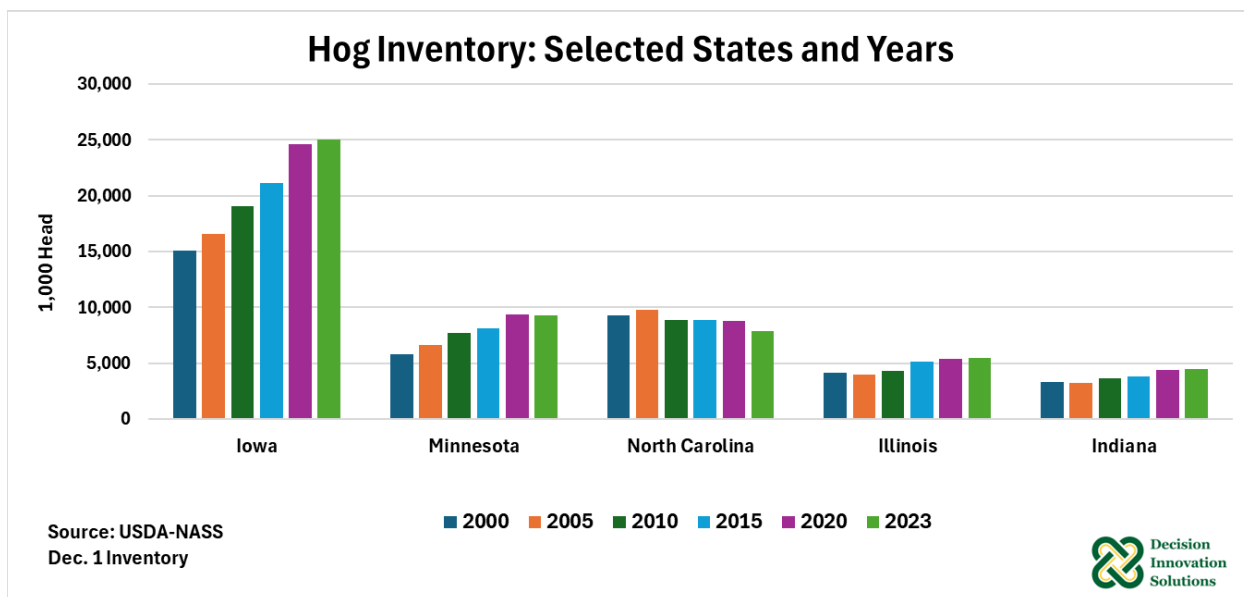


Figure 3. Hog Inventory: Selected States and Years

2.1.1.1 Inventory and Farm Distribution (State)

According to data from the USDA's Census of Agriculture, Iowa number of hog operations with inventories declined 70.1% between 1997 (17,585 operations) and 2022 (5,253 operations). In contrast, hog inventory increased 64% during the same period, from 14.51 head in 1997 to 23.81 million in 2022.

There has been a fivefold increase in terms of average farm size over those 26 years, as measured by the number of head of hogs in inventory per farm (see Figure 4).

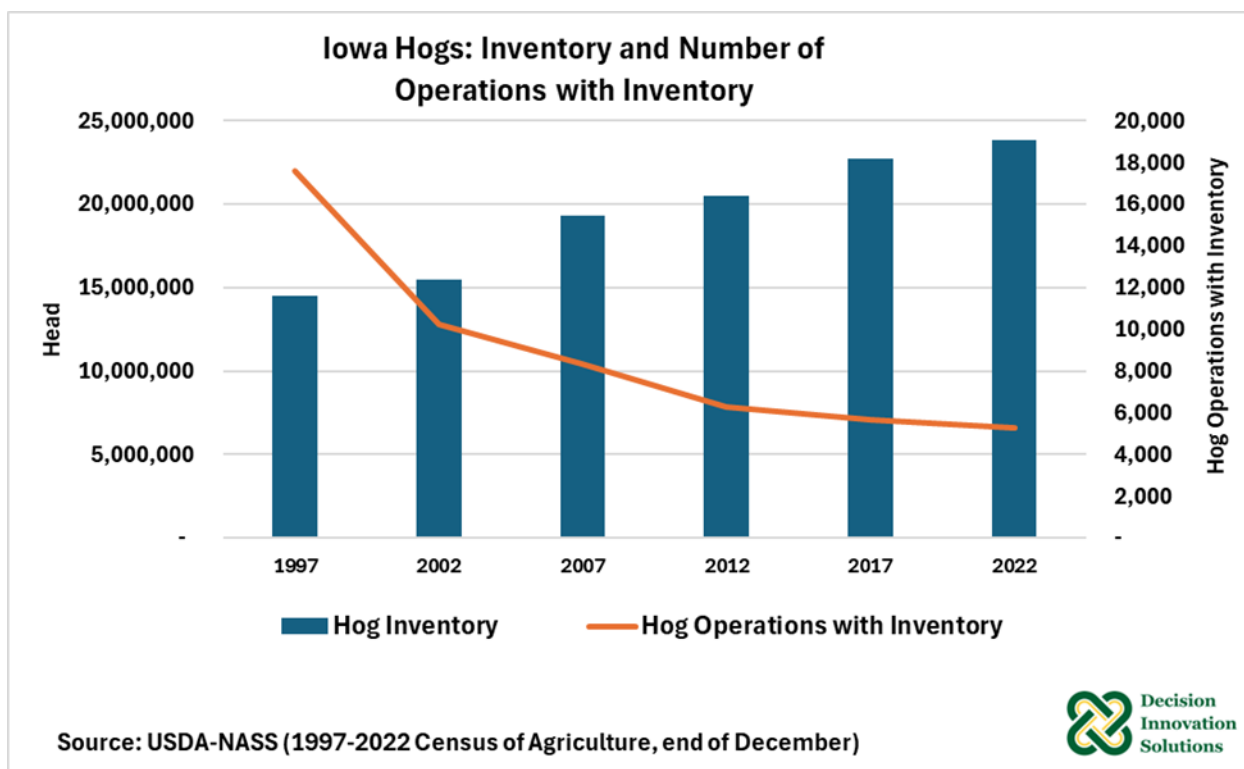


Figure 4. Iowa Hogs: Inventory and Number of Operations with Inventory

Iowa has hog farm inventories in every county with numbers ranging from less than 500 head (inventory) in Mills County to more than 1.5 million head in Washington County. USDA Census of agriculture data indicates Iowa hog inventories have grown by 9.3 million head from 14.513 million head in 1997 to 23.81 million head in 2022. Hog inventories on farms with 5,000 or more heads have continually increased during that period, from 3.8 million head in 1997 to 17.4 million head in 2022. In contrast, inventory on hog farms holding between 1,000 to 1,999 head declined during the same period (see Figure 5). Inventories with 5,000 or more heads comprised 73% of total Iowa inventory compared with 26% in 1997 (see Figure 6).

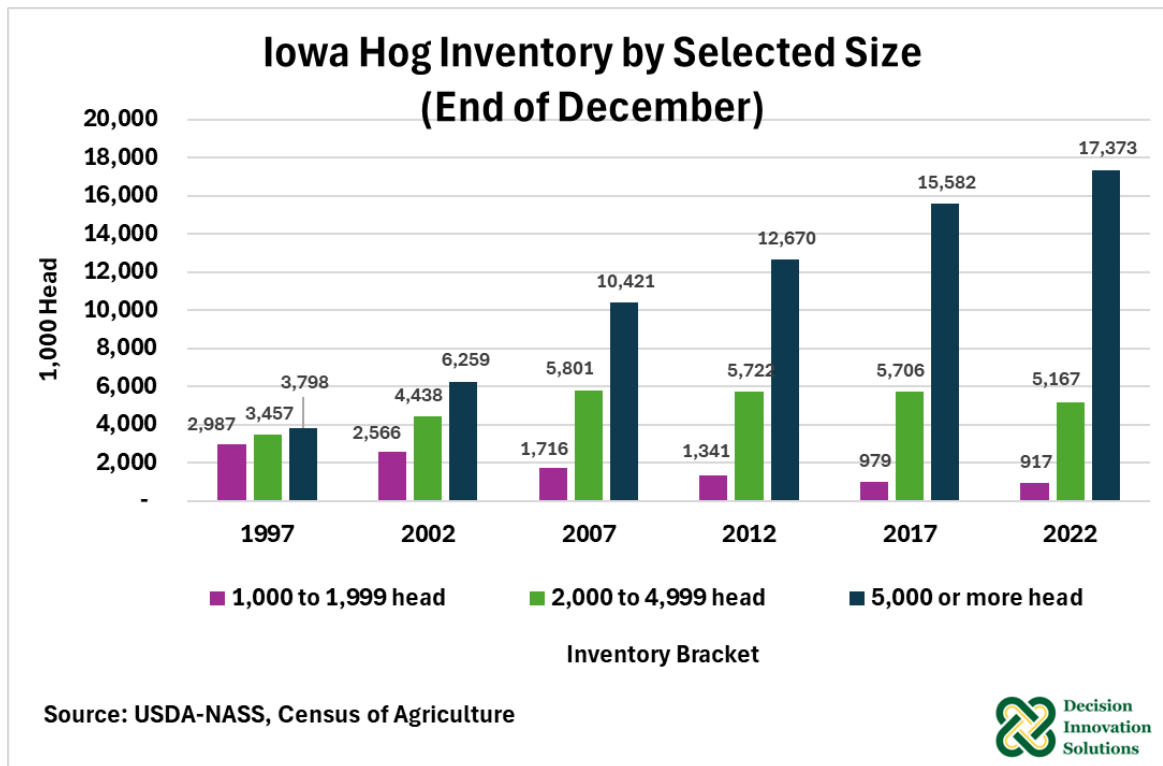


Figure 5. Iowa Hog Inventory by Selected Size (End of December)

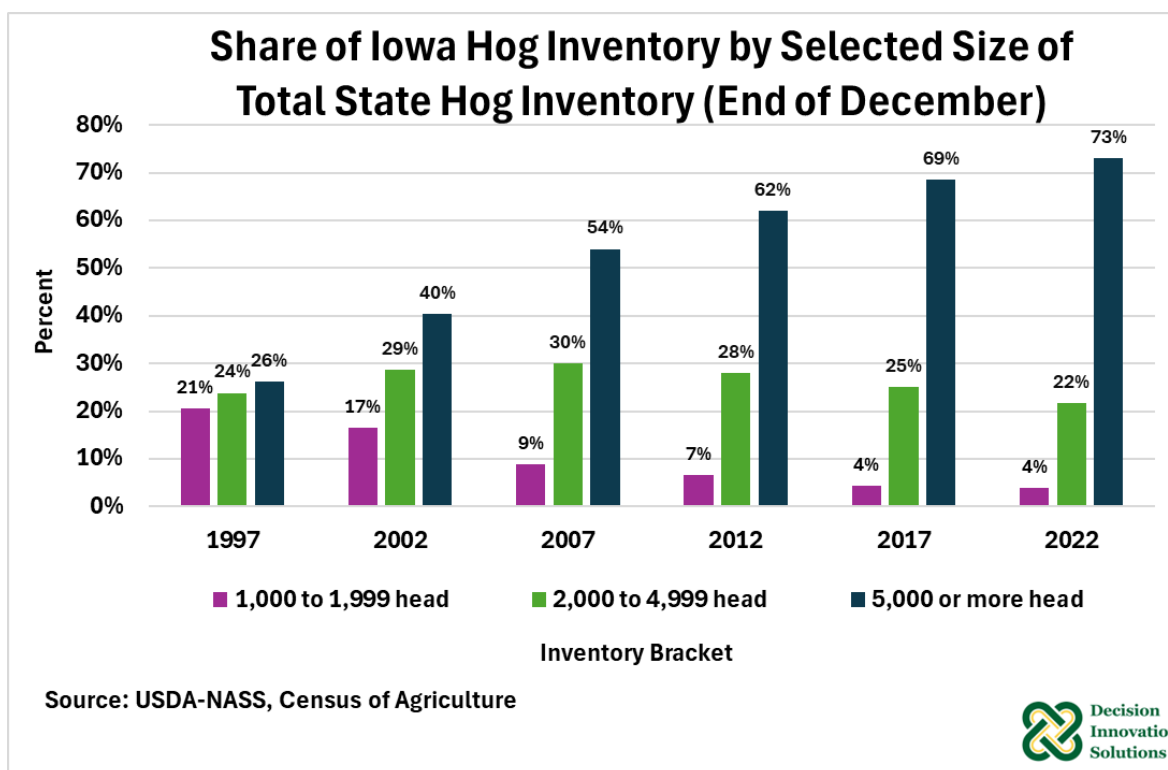


Figure 6. Share of Hog Inventory by Selected Size of Total Inventory (End of December)

Iowa's overall number of farms with hog inventories fell from 17,585 operations in 1997 to 5,253 in 2017. Note that the number of hog farms holding 1,000 to 1,999 head experienced a 69% decline during that period; however, hog operations holding 2,000 or more head expanded during the same time (see Figure 7). Farms with 5,000 or more head represented just 2% of all Iowa hog farms in 1997, whereas they comprise 20.4% of Iowa hog farms in 2022. Hog farms holding 2,000 to 4,999 head are the most numerous size farms with a 31.5% share of the total number of Iowa hog farms, according to the last Census of Agriculture (see Figure 8).

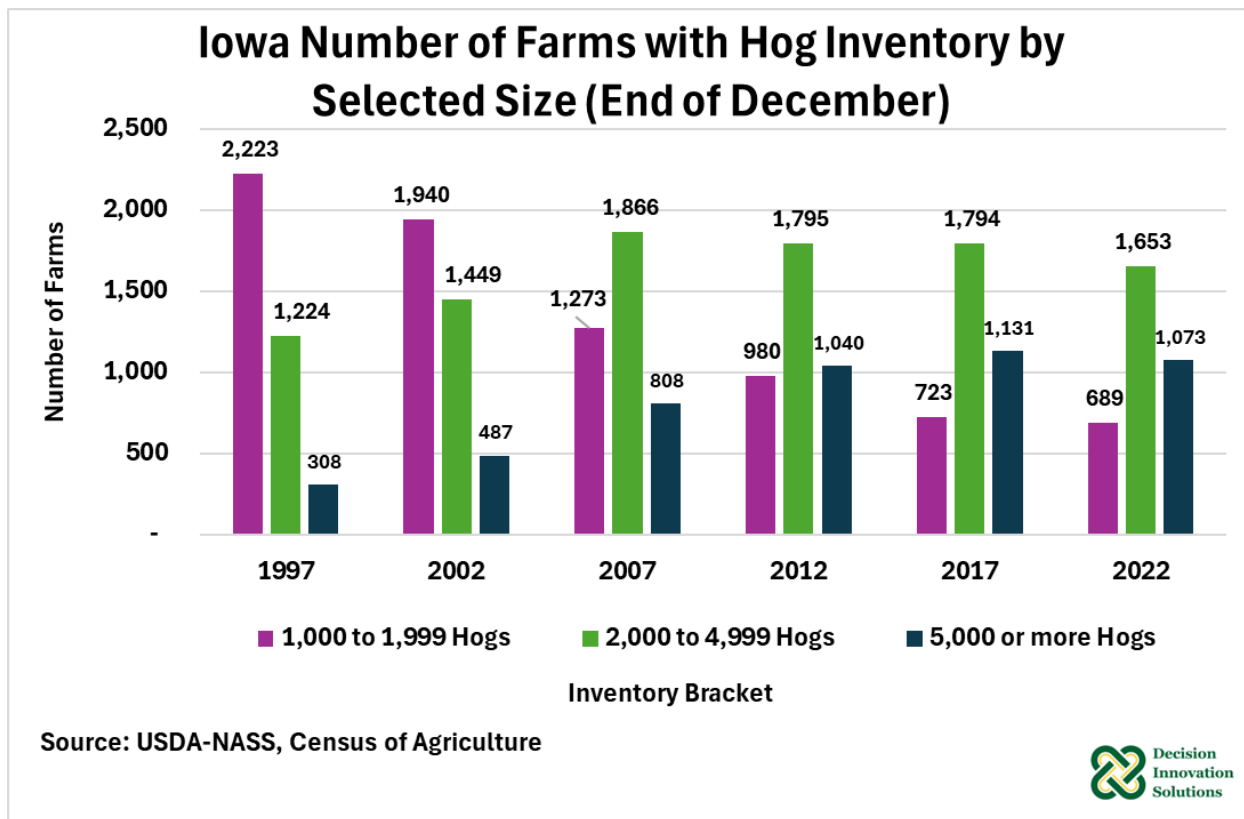


Figure 7. Iowa Number of Farms with Hog Inventories by Selected Size (End of December)

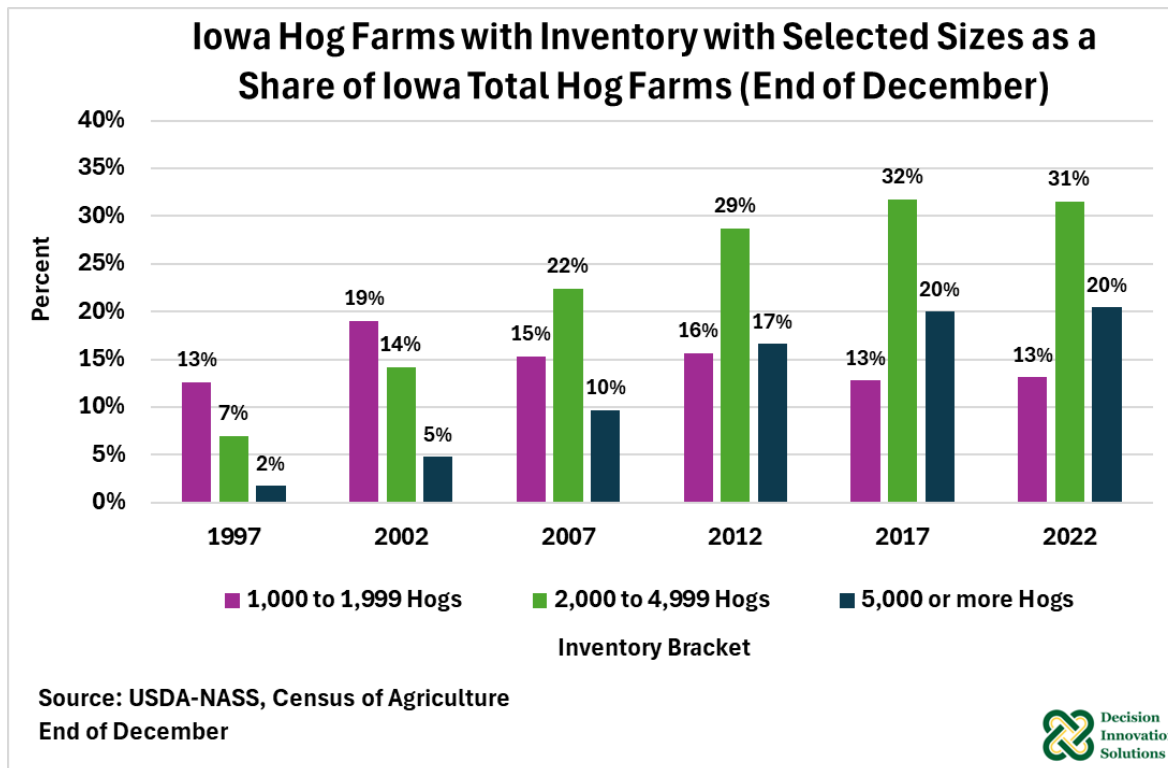


Figure 8. Iowa Hog Farms with Inventories with Selected Sizes as a Share of Iowa Total Hog Farms (End of December)

As reported by the 2022 USDA Census of Agriculture, there were 147 operations designated as farrow-feeder operations, which were down from 109 in the previous Census. Of the 147 operations, 40 operations were in the 1 to 24 head size; 21 had 100 to 199 head; 5 had 5,000 or more head, which were down from 8 in 2022 and from 10 operations in 2002. The smallest number of farrow-to-feeder operations (2) were those with 1,000 to 1,999 head, which were down from 3 in 2017. In 2002 there were 51 of this type of operation (see Figure 9).

In 2022, there were 1,128 farrow-to-finish operations in Iowa compared with 1,222 in 2017. Those with 1 to 24 heads were the largest category with a total number of 300 operations, up from 285 in 2017. The next largest number of operations (183) were those with 5,000 head or more. All other sizes of operations declined between 2017 and 2022. Over 62% of farrow-to-finish operations in Iowa were those with less than 1,000 head (Figure 10).

There were 256 farrow-to-wean operations in Iowa in 2022, up from 209 in 2012 and 234 in 2017. Of the 256 operations, 91 were large farms managing 5,000 or more head, up from 80 in 2017 (see Figure 11).

There were 2,993 finish-only operations, down from 3,213 in 2017. Most of finish only hog operations in Iowa were those ranging in size from 2,000 to 4,999 head. In 2022, there were 1,137 of this type of operation (see Figure 12). There were also 662 operations reported as finish only with 5,000 or more head and 470 operations with inventories between 1,000 to 1,999 head.

Most of the hog nursery operations in Iowa were managing 2,000 to 4,999 head (see Figure 13). In 2022, there were 269 hog nursery operations in Iowa, down by 358 operations from the previous Census.

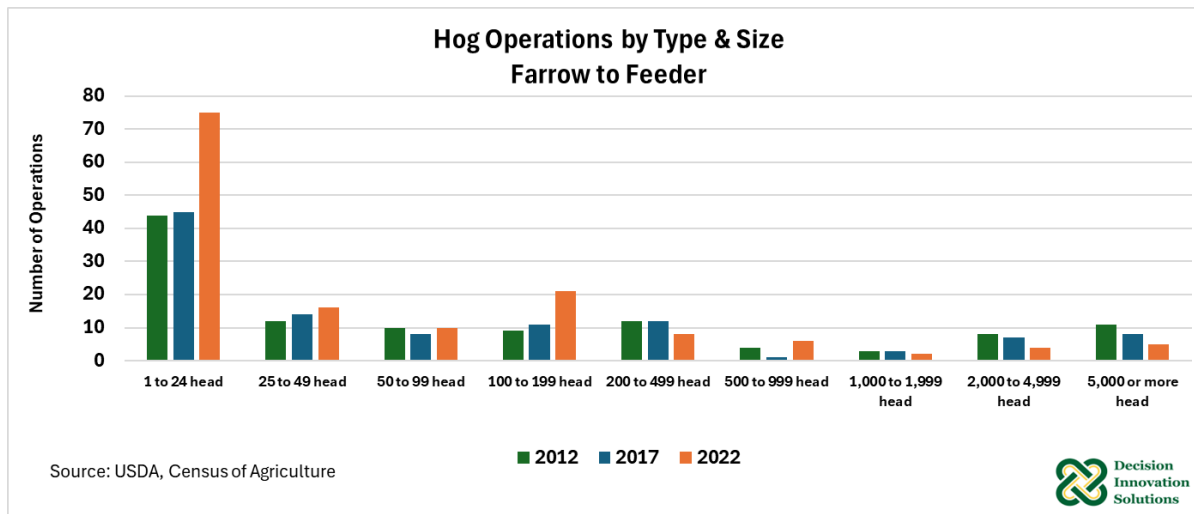


Figure 9. Hog Operations by Type & Size, Farrow-to-Feeder

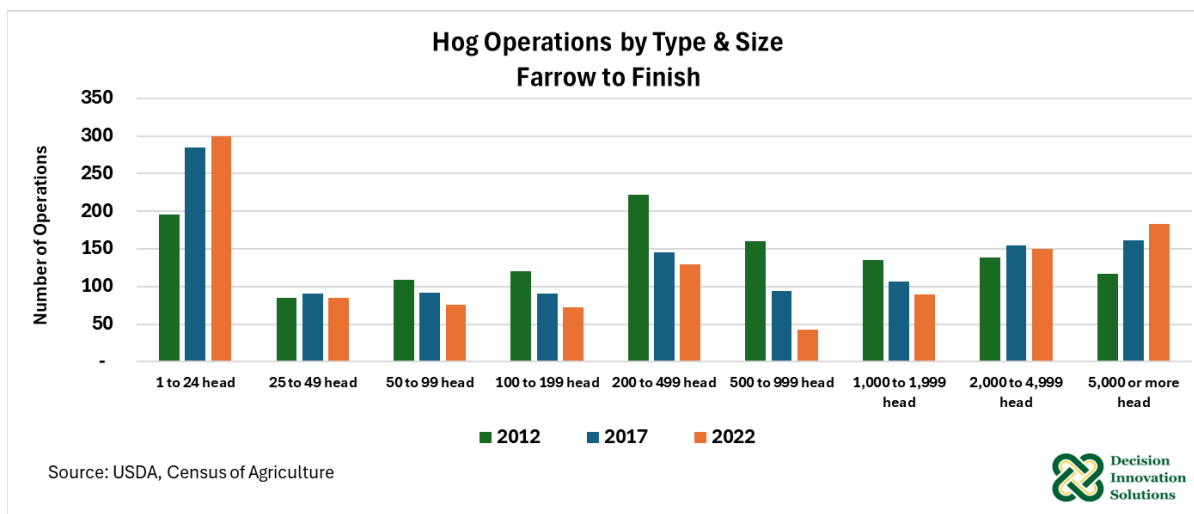


Figure 10. Hog Operations by Type & Size, Farrow-to-Finish

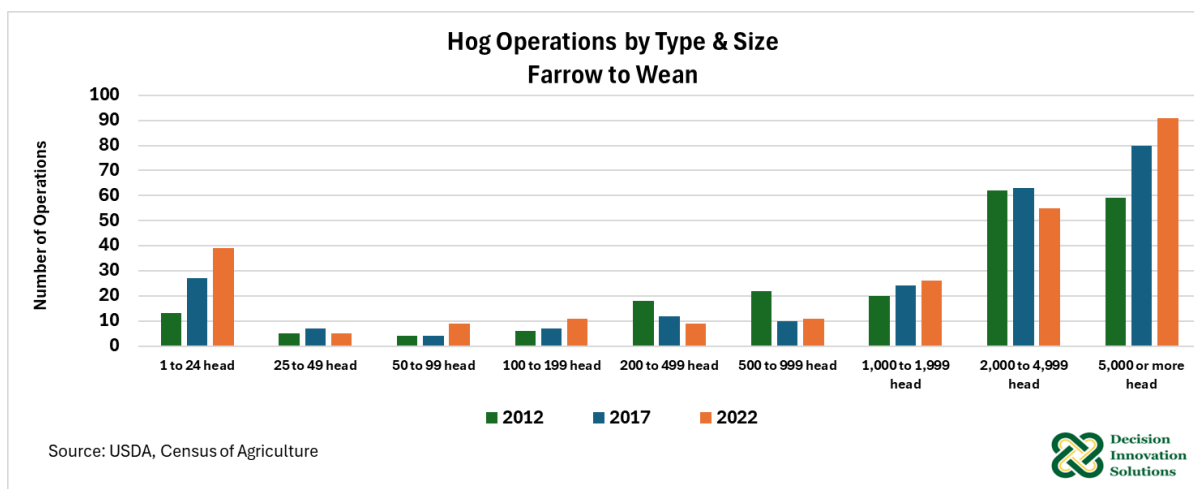


Figure 11. Hog Operations by Type & Size, Farrow-to-Wean

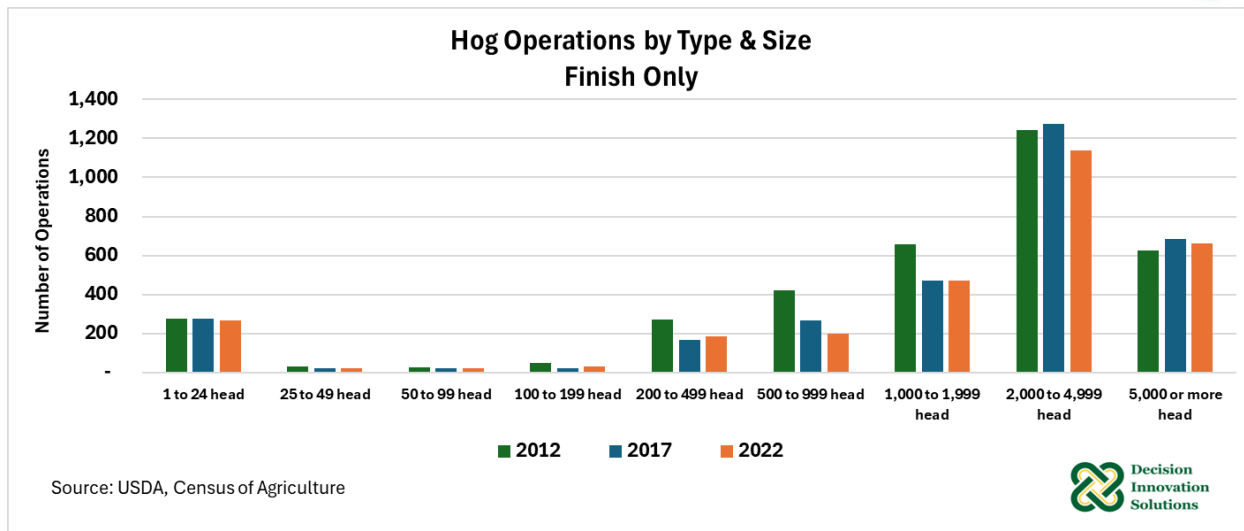


Figure 12. Hog Operations by Type & Size, Independent Grower

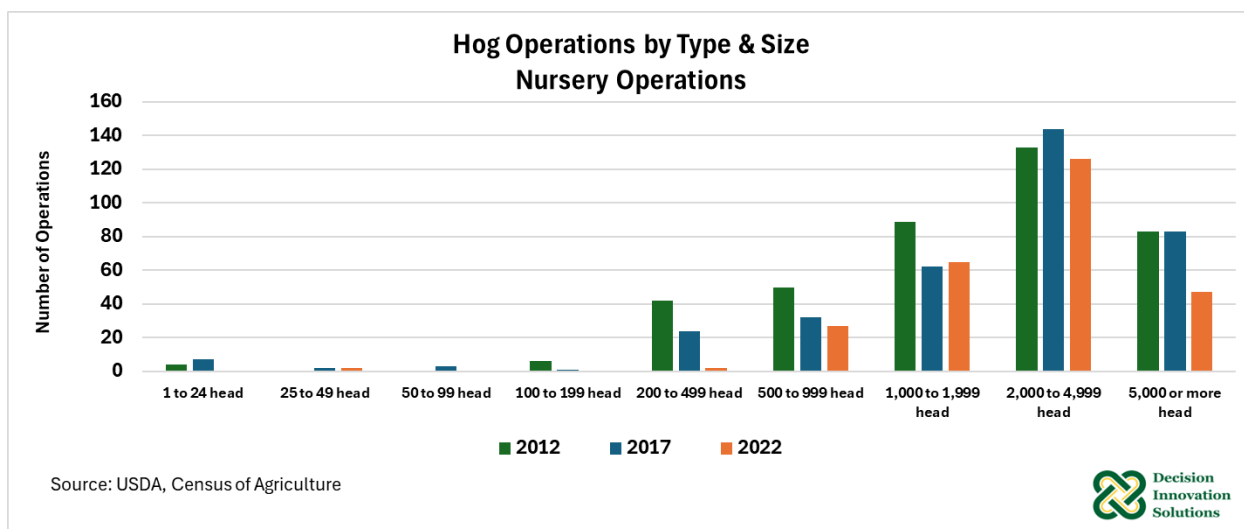


Figure 13. Hog Operations by Type & Size, Nursery Operations

In 2022, there were 5,253 hog operations of several sizes and types in Iowa compared with 17,585 in 1997. Most of the operations in Iowa were those managing 200 to 499 head in 1997. The number of operations of this size declined from 4,664 in 1997 to 349 in 2022. Most hog operations in 2022 were those with 2,000 to 4,999 head. This size grew from 1,224 operations in 1997 to 1,653 in 2022. The number of hog operations with 5,000 or more head rose to 1,073 in 2022 from 308 in 1997. However, this type of operation declined by 58 operations from the 2017 Census (1,131 operations). There was a 93.2% reduction in the number of hog operations with 100 to 199 head between 1997 and 2022. Hog operations with 200 to 499 head fell from 4,664 in 1997 to 349 in 2022 (see Figure 14).

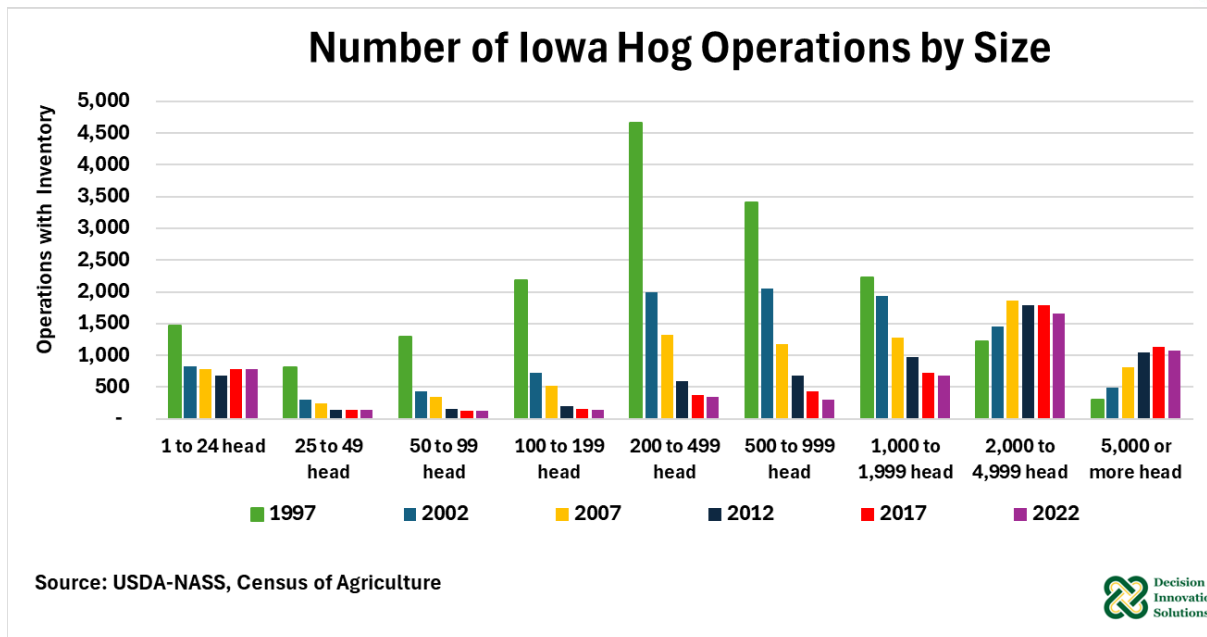


Figure 14. Number of Iowa Hog Operations by Size

Iowa hog inventory share of U.S. hog inventory by size of operation has increased throughout the years for large hog operations. In particular, the share of hog operations with 5,000 or more head increased from 17% in 1997 to 30% in 2023. However, this share fell between 2012 (35%) and 2022. Iowa's share relative to the national level has stayed fairly steady across the six agricultural censuses for operations with 1 to 24 head and 200 to 499 head (see Table 1).

Table 1. Iowa Hog Inventory Share of U.S. Hog Inventory by Size of Operation (1997, 2002, 2007, 2012, 2017, 2022)

Iowa Hog Inventory Share of <u>U.S.</u> Hog Inventory by Size of Operation (1997, 2002, 2012, 2017,2022)						
Inventory Size	1997	2002	2007	2012	2017	2022
1 to 24 head	3%	2%	2%	2%	2%	2%
25 to 49 head	9%	5%	6%	4%	4%	5%
50 to 99 head	14%	9%	11%	7%	7%	8%
100 to 199 head	21%	16%	20%	13%	12%	15%
200 to 499 head	28%	26%	29%	28%	26%	30%
500 to 999 head	33%	34%	33%	35%	33%	31%
1,000 to 1,999 head	34%	38%	32%	37%	36%	40%
2,000 to 4,999 head	28%	32%	35%	38%	38%	36%
5,000 or more head	17%	22%	28%	35%	31%	30%
Source: USDA-NASS, Census of Agriculture (1997-2022) 						

Based on the percent change in the number of hog operations from 2017 to 2022, the two counties with the largest gains in the number of hog farms with sales were Warren County (+129%) and Guthrie County (113%). Page County (-71%) experienced the largest percent decrease in the number of hog operations, followed by Fremont County (-69%). Other counties with large percentage increases in the number of hog operations in the county are: Adair (84%). Cerro Gordo (51%), Bremer (44%), Clinton (43%), and Worth (35%) (Figure 16).

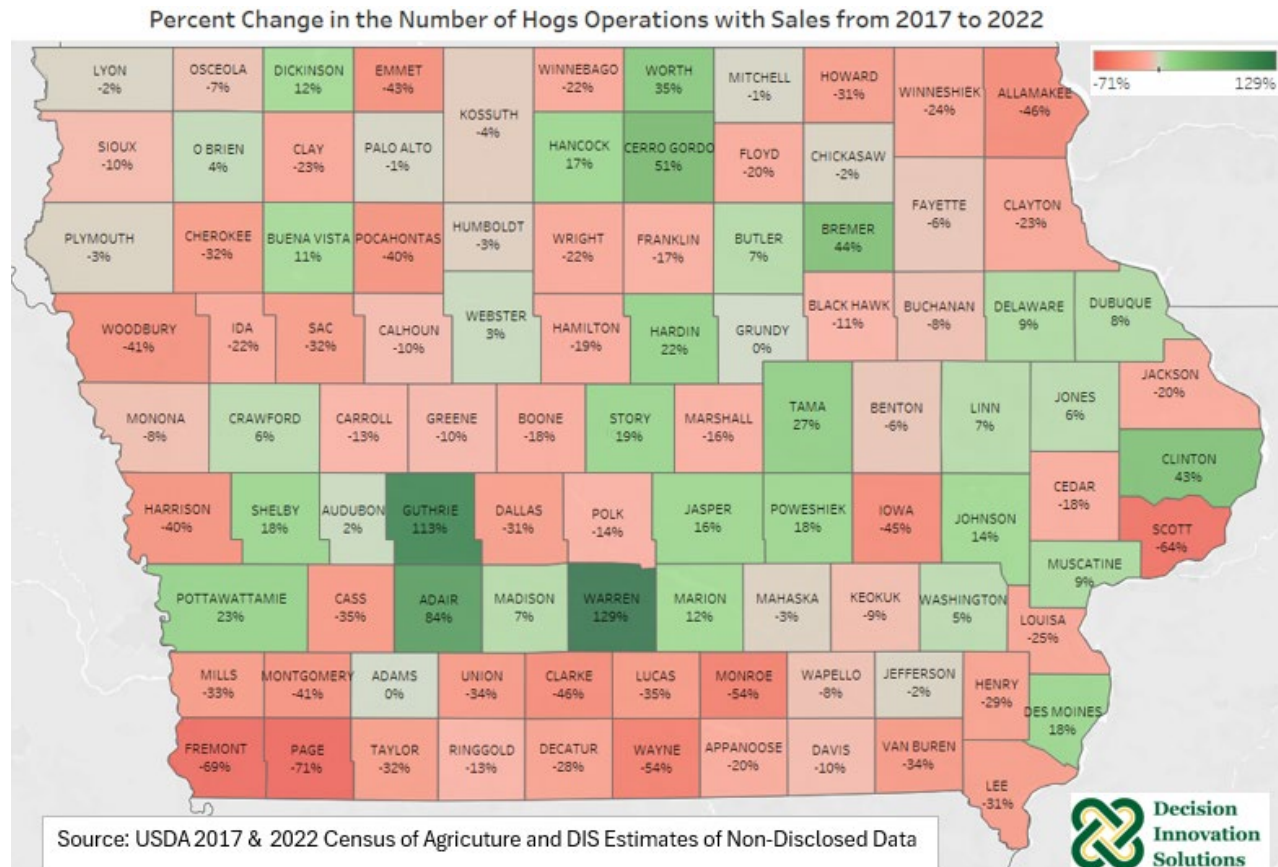


Figure 16. Percent Change in Number of Hog Operations with Sales by County (2017-2022)

Washington leads the state in hogs sold at 4,223,143 head. Other counties with more than 2 million head sold include: Sioux (3.8 million), Lyon (3.7 million), Plymouth (2.6 million), and Harding (2.2 million). Plymouth and Hamilton counties sold more than 2 million hogs. There are 18 counties that marketed between 1 and 2 million head in 2022 (Figure 17).

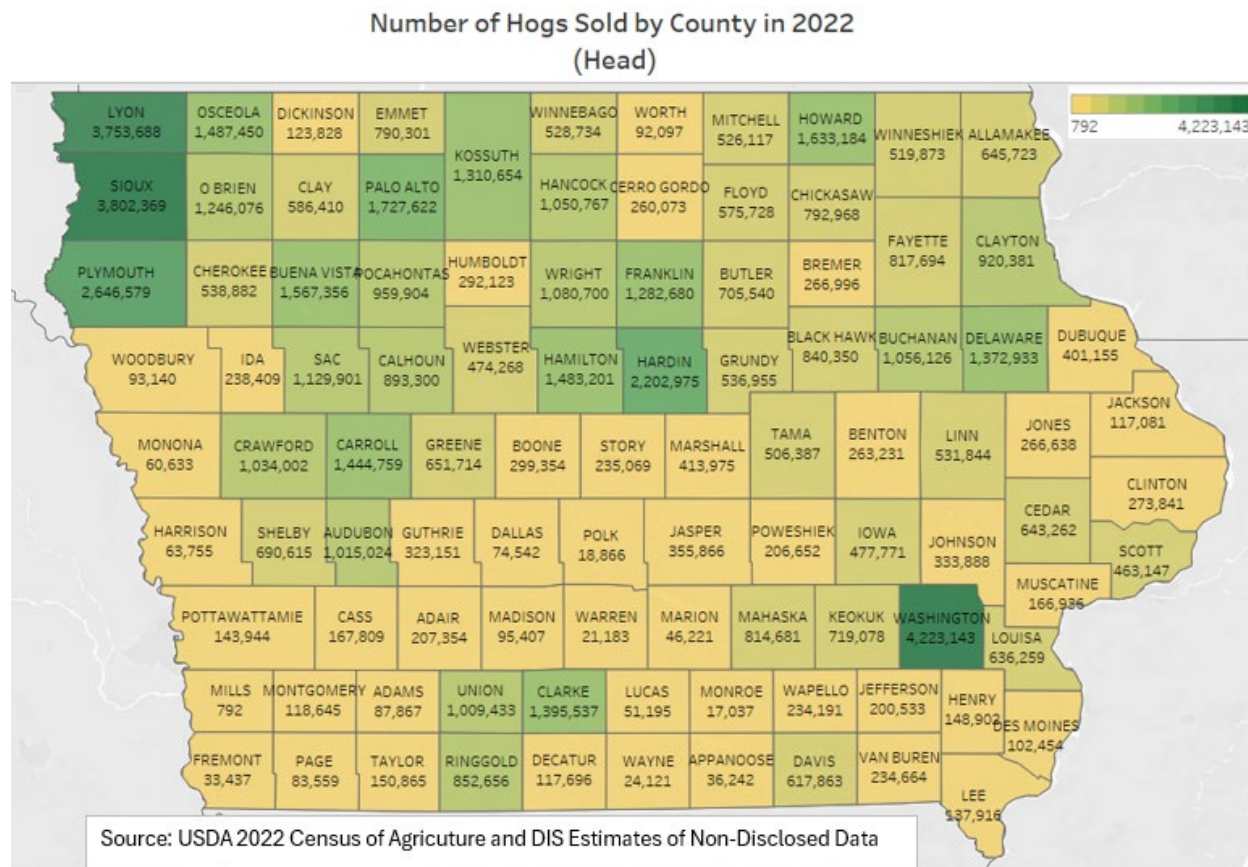


Figure 17. Number of Hogs Sold by County (2022)

Warren County led the state in the largest percentage change in the number of hogs sold from 2017 to 2022 with a 1,985% increase (although from a very small base). Other counties with very large percentage increases in hogs sold include Appanoose (+505%), Winnebago (+144%), Howard (+129%), Ida (+127%), and Work (+111%). Mills County led the state in loss of hogs sold (-96%). Other counties with large declines in the number of hogs sold include Monroe (-79%), Wayne (-64%), Dickinson (-55%), and Harrison (-51%), Monona (-51%), and Woodbury (-51%) (Figure 18).

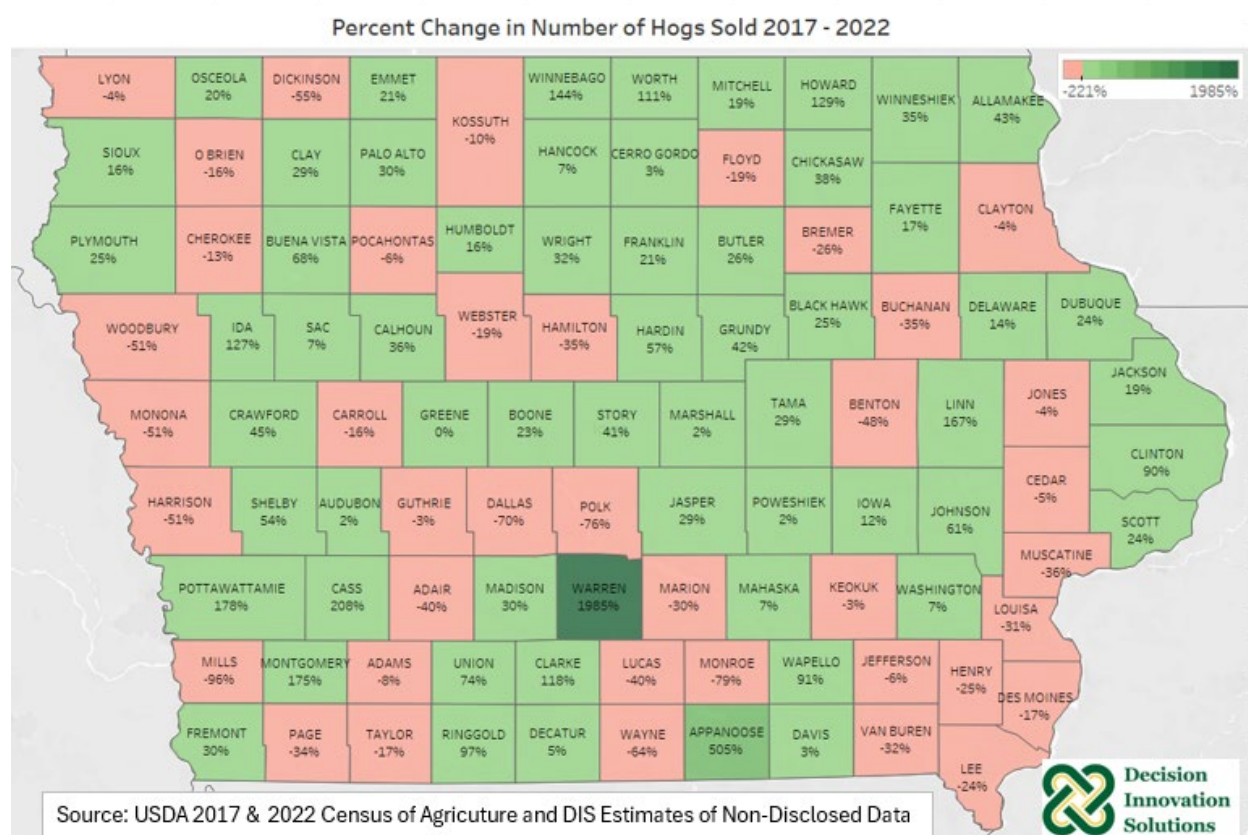


Figure 18. Percent Change in Number of Hogs Sold by County 2017 – 2022

Washington County led the state of Iowa in the value of hogs sold at \$738 million. Following this lead were Sioux County (\$664 million), Lyon County (\$656 million), Plymouth County (\$463 million), and Harding County (\$385 million). Mills County has the lowest value of hogs sold (Figure 19).

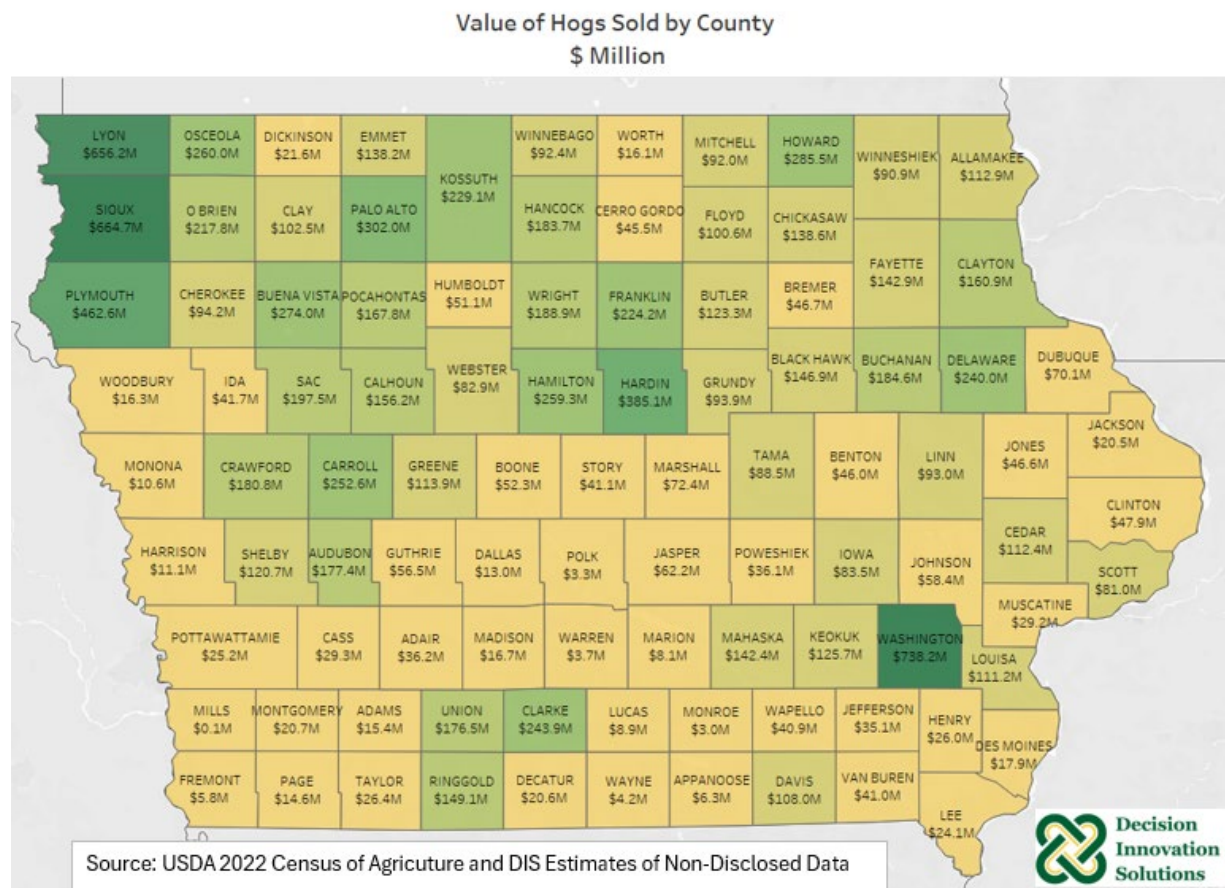


Figure 19. Value of Hog Sales by County (2022)

Warran County (+8567%) and Appanoose County (+4346%) lead the way in largest percentage increases in the value of hogs sold from 2017 to 2022. Eighty counties in Iowa had increases in the percent change in value of hogs sold from 2017 to 2022. Declines in the percent change in value of hogs sold were experienced in 19 counties with Mills County having the largest decline with a 92% decrease (Figure 20).

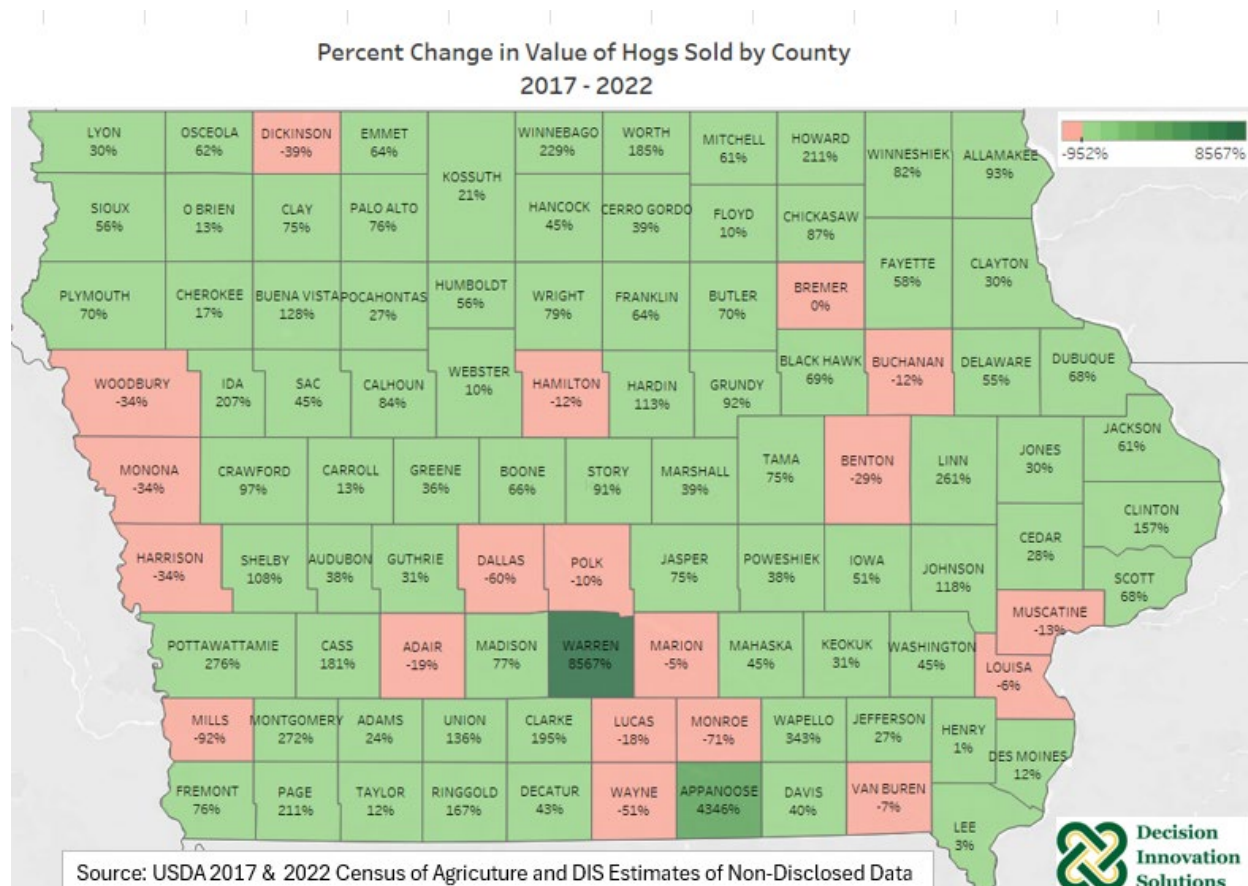


Figure 20. Percent Change in Value of Hogs Sold by County, 2017 - 2022

2023 county hog inventory was estimated by applying the 2022 county inventory distribution (county share) to the December 1, 2023 Iowa total hog inventory (25.0 million head) as reported by USDA-NASS. Note that 2022 county inventory data as reported in the 2022 Census of agriculture contained complete inventory estimates for only partial inventory data for only 14 counties. In most cases, some inventory estimates for selected size categories was withheld to protect individual producer's inventory information. To estimate the 2022 hog inventory for the counties with missing inventory, the average hog inventory for Iowa hog farms of each size category was multiplied times the number of operations with missing inventory data.

The annual decline in the number of Iowa hog farms (121) between the last two censuses (2017 and 2022) was used to estimate the 2023 number of hog farms in Iowa. The 2022 county distribution of the number of hog farms was used to estimate the county distribution of the number of hog farms in 2023.

The counties with inventory over 1.0 million head held 12.4% of total state inventory in 2022 (see Figure 21). These counties include Washington and Sioux. In 2023, Lyon County was added to the 2022 list of counties with inventories above 1.0 million hogs. The share of Iowa hog inventory from these three counties grew to 16% (see Figure 22). The number of hog farms in Iowa in 2023 was estimated at 5,172.

The average county hog inventory was 252,525 head, while the average number of hog farms per county was 52. This resulted in an average inventory per Iowa hog farm of 4,615 head in 2023.

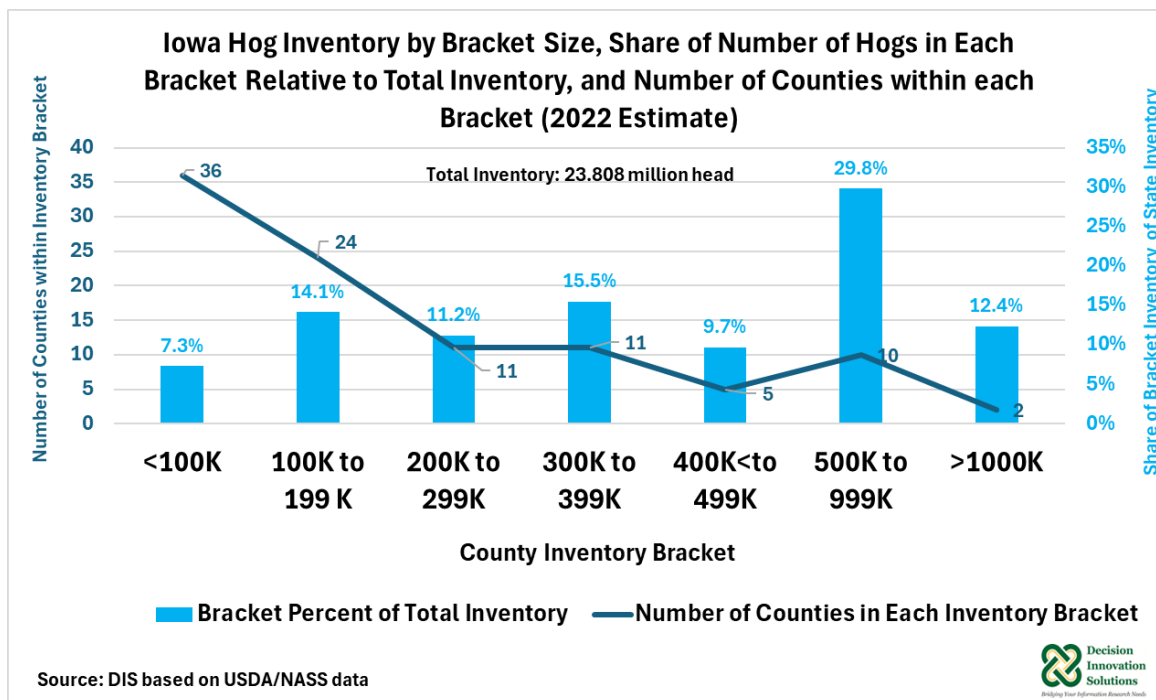


Figure 21. Iowa Hog Inventory by Bracket Size, Share of Number of Hogs in Each Bracket Relative to Total Inventory, and Number of Counties within Each Bracket (2022 Estimate)

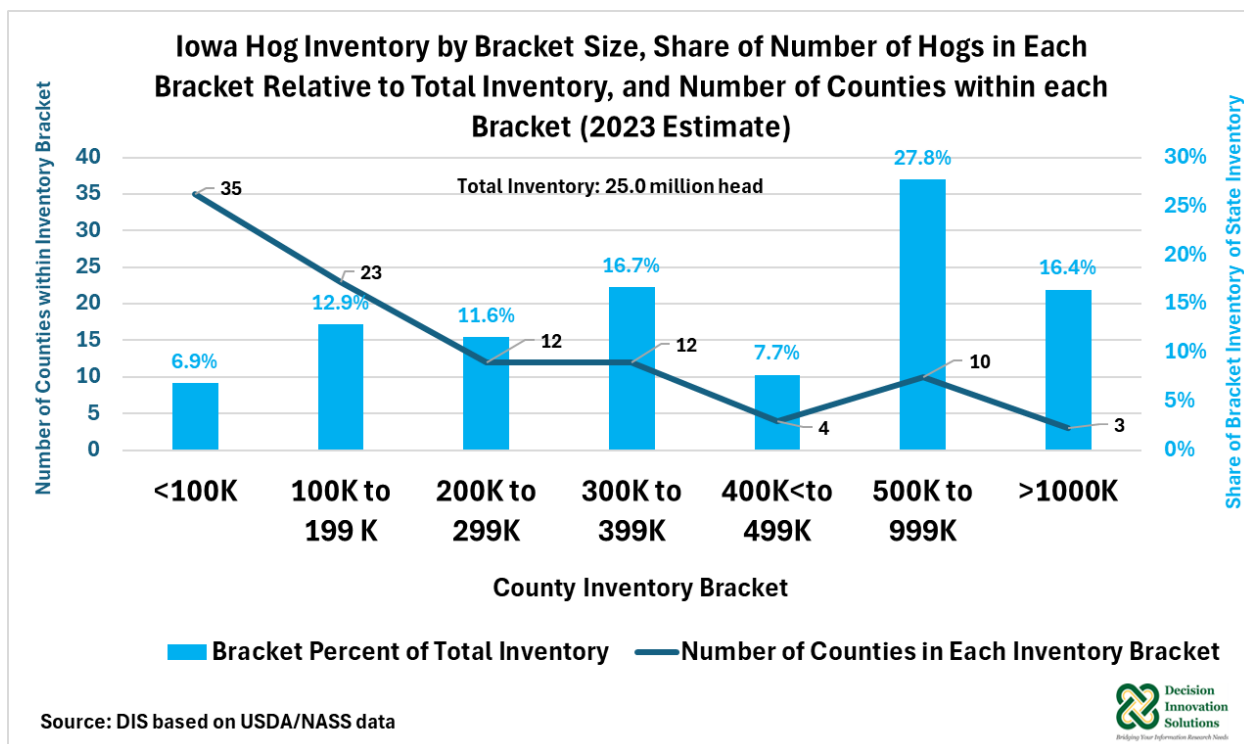


Figure 22. Iowa Hog Inventory by Bracket Size, Share of Number of Hogs in Each Bracket Relative to Total Inventory, and Number of Counties within Each Bracket (2023 Estimate)

In addition to an overall look at all Iowa counties, 35 have been identified as “focus” counties and will be addressed in more detail here (see Table 2)

Table 2. Iowa Focus Counties (2024)

Iowa Focus Counties (2024)			
Allamakee	Clayton	Jefferson	Plymouth
Audubon	Delaware	Jones	Sioux
Buchanan	Des Moines	Kossuth	Wapello
Buena Vista	Dubuque	Lucas	Washington
Calhoun	Fayette	Lyon	Webster
Carroll	Floyd	Marshall	Winneshiek
Cass	Hamilton	Mitchell	Woodbury
Cedar	Hardin	O’Brien	Wright
Chickasaw	Howard	Palo Alto	

The 35 focus counties selected for specific analysis represent 35.4% of the counties in Iowa; however, these 35 counties have inventories that account for 61.3% of the total hog inventory for the state of Iowa. Additionally, these 35 counties represent 55.7% of the hog farms in Iowa, with an average inventory per farm of 5,570 head, which is more than the statewide average head per farm (4,834 head). All 35 counties saw growth in hog inventory between the years of 2022 and 2023. Washington County’s increase in inventory during this period was estimated at 74,392 head, which was up from 1.487 million head in 2022 to 1.561 million head in 2023 (see Figure 23).

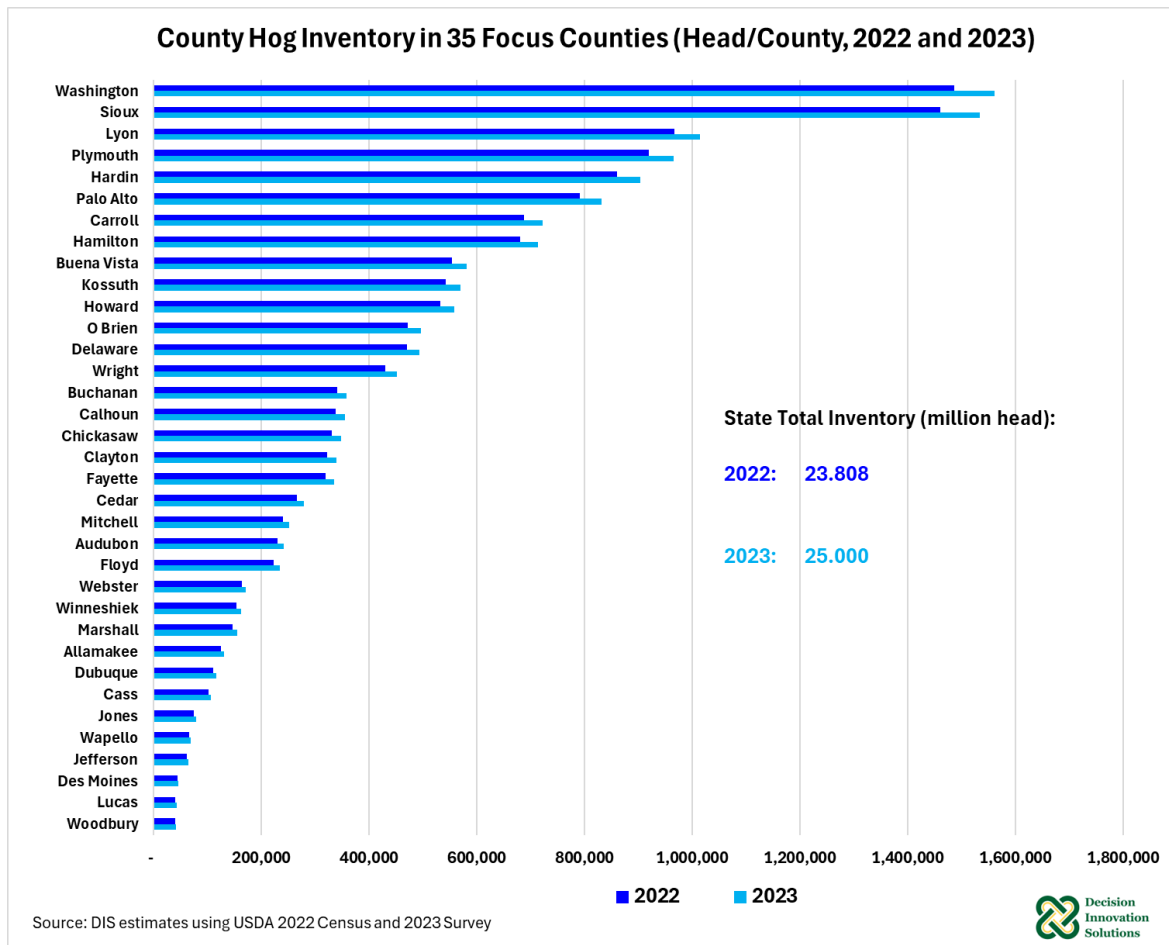


Figure 23. County Hog Inventory in 35 Focus Counties (Head/County, 2022 and 2023)

There was an estimated reduction of 81 hog farms among these 35 counties between 2022 and 2023. The three counties with the largest number of hogs farms are Sioux County, Lyon County and Plymouth County. The number of farms in Sioux County declined from 368 in 2022 to 362 in 2023; Lyon County had a reduction of 4 farms and Plymouth County had a reduction of 3 farms (see Figure 24).

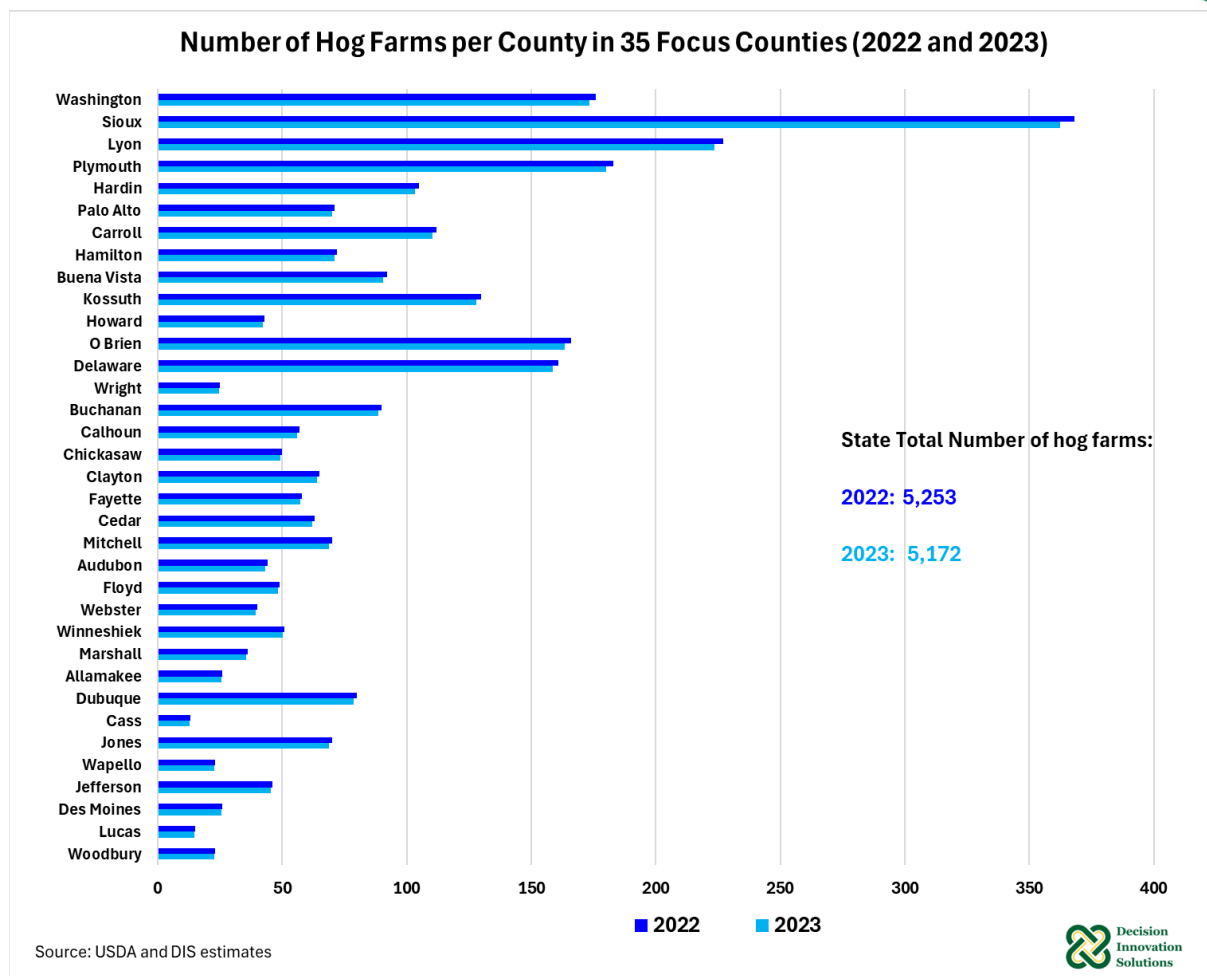


Figure 24. Number of Hog Farms per County in 35 Focus Counties (2022 and 2023)

2.1.2 Hog Slaughter Facility Capacity

According to the USDA-NASS annual report, “Livestock Slaughter 2023 Summary” (January to December 2023), Iowa slaughtered 40.235 million hogs in 2023, which represents about 31.4% of the total number (127.971 million) of hogs slaughtered in the U.S. in 2023. Iowa’s December 1, 2023, hog inventory was 25.00 million hogs. Assuming each hog space turns 2.2 times per year, an estimated 55.0 million hogs can be raised annually in Iowa. This indicates that 14.765 million (26.8% of production) hogs leave Iowa to be slaughtered elsewhere.

Currently Iowa has 13 commercial hog slaughter facilities with an estimated daily slaughter capacity of 143,800 head (see Table 3). If operated 5.4 days per week for 52 weeks per year, this would equal an annual slaughter capacity of 40,379,040 head.

Federally inspected weekly hog slaughter in 2023 and percent of capacity utilization is shown in Figure 25. Capacity utilization reached 89% during the last quarter of the year and 94% in late December 2023.

Table 3. Iowa Estimated Daily Hog Slaughter Capacity by Plant (Fall 2024)

Iowa Estimated Daily Slaughter Capacity by Plant (Fall 2024)			
Company	City	County	Daily Plant Capacity (Head)
Farmland	Denison	Crawford	10,450
Pine Ridge Farms	Des Moines	Polk	4,000
JBS	Marshalltown	Marshall	21,000
Cargill Pork	Ottumwa	Wapello	20,000
Tyson Foods	Waterloo	Black Hawk	19,500
Tyson Foods	Storm Lake	Buena Vista	17,000
Tyson Foods	Columbus Junction	Louisa	10,100
Seaboard Triumph Foods	Sioux City	Woodbury	20,400
Prestage Foods	Webster City	Hamilton	10,000
Sioux-Preme Packing Co	Sioux Center	Sioux	4,600
Premium Iowa Pork	Hospers	Sioux	3,150
Redwood Farms (Dakota Pork In	Estherville	Emmet	2,400
Verschoor Meats	Sioux City	Woodbury	1,200
Total			143,800
			

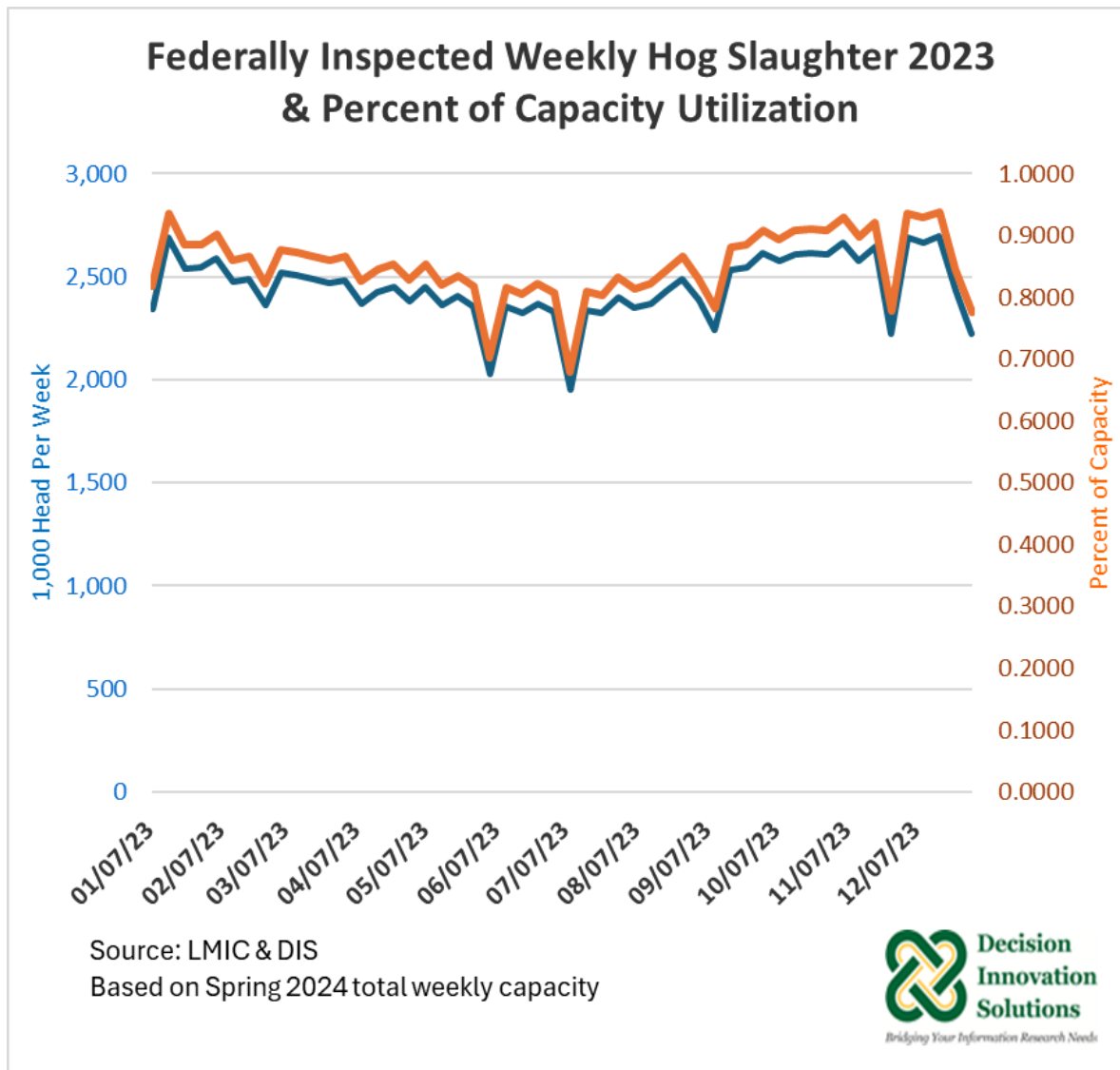


Figure 25. Federally Inspected Weekly Hog Slaughter (2023) & Percent of Capacity Utilization

2.1.3 Hog Production

Iowa is the top hog producer in the U.S. (see Figure 26). Feed cost is the largest cost component in a hog production enterprise and Iowa's cost-effective situation is supported by its position as a top corn and soybean producer in the country. Hog production in Iowa has increased from 6.48 billion pounds in 2000 to 14.3 billion in 2023. Among large hog producers, Iowa's hog production share of total U.S. hog production has consistently increased over the last 20 years, from 25% in 2000 to 37% in 2018 (Figure 27). However, the share fell to 34% in 2023. For Minnesota, a distant competitor, hog production share of total U.S. production grew from 10% to 11% over the 24-year span (see Figure 28), whereas, for North Carolina, the share of hog production declined from 14% to 10% during the same period (see Figure 29).

Hog production slowdowns and temporary closures of several hog processing facilities due to the Covid pandemic is reflected in the 2020 Iowa hog production. That year, Iowa hog production fell 11% to 12.83 billion pounds relative from the record level in 2019.

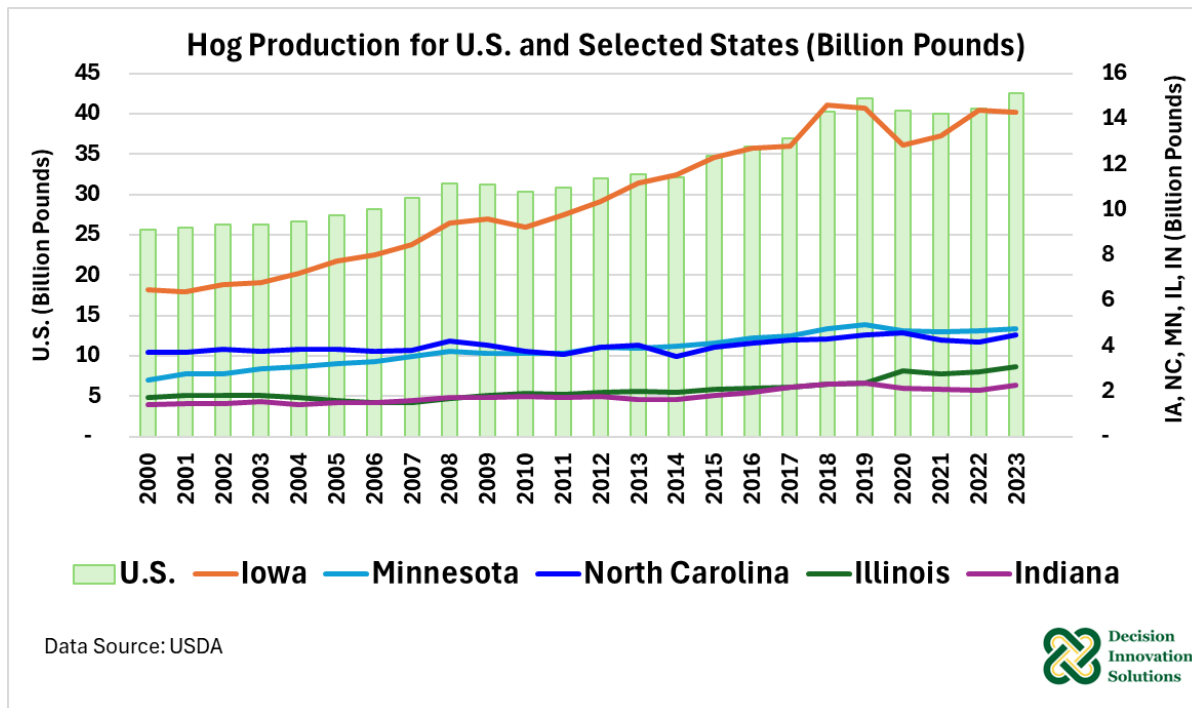


Figure 26. Hog Production for U.S. and Selected States (Billion Pounds)

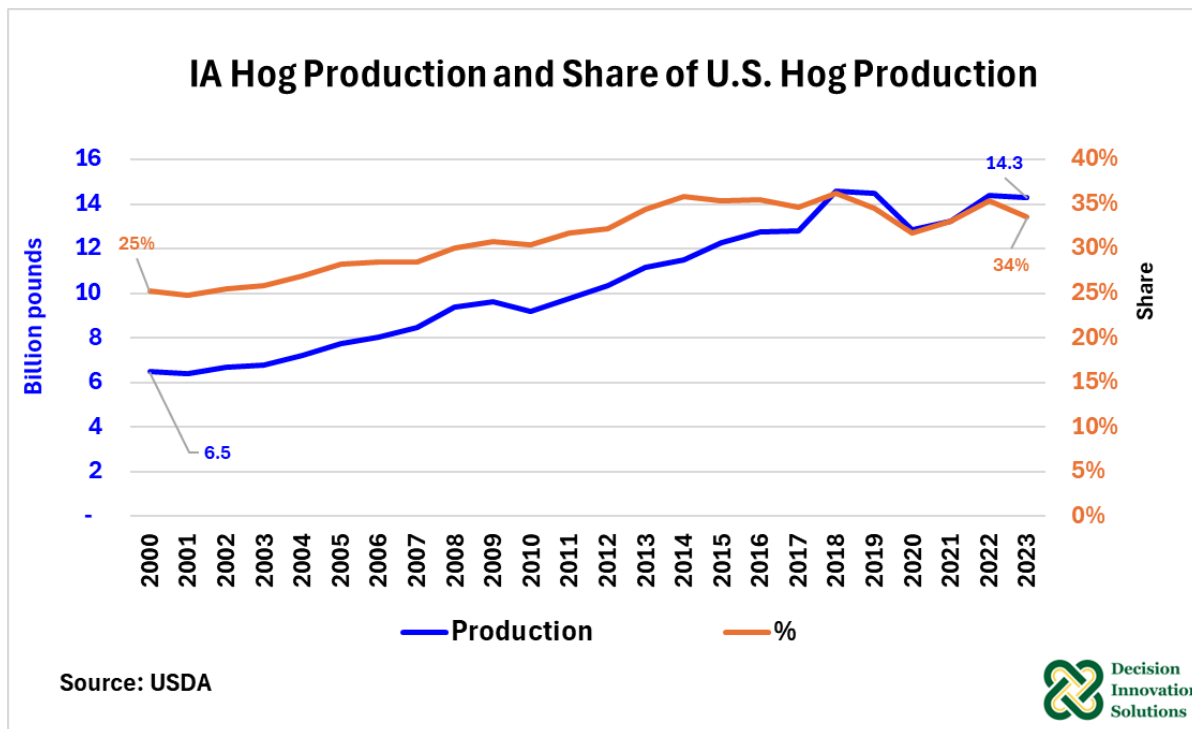


Figure 27. IA Hog Production and Share of U.S. Hog Production

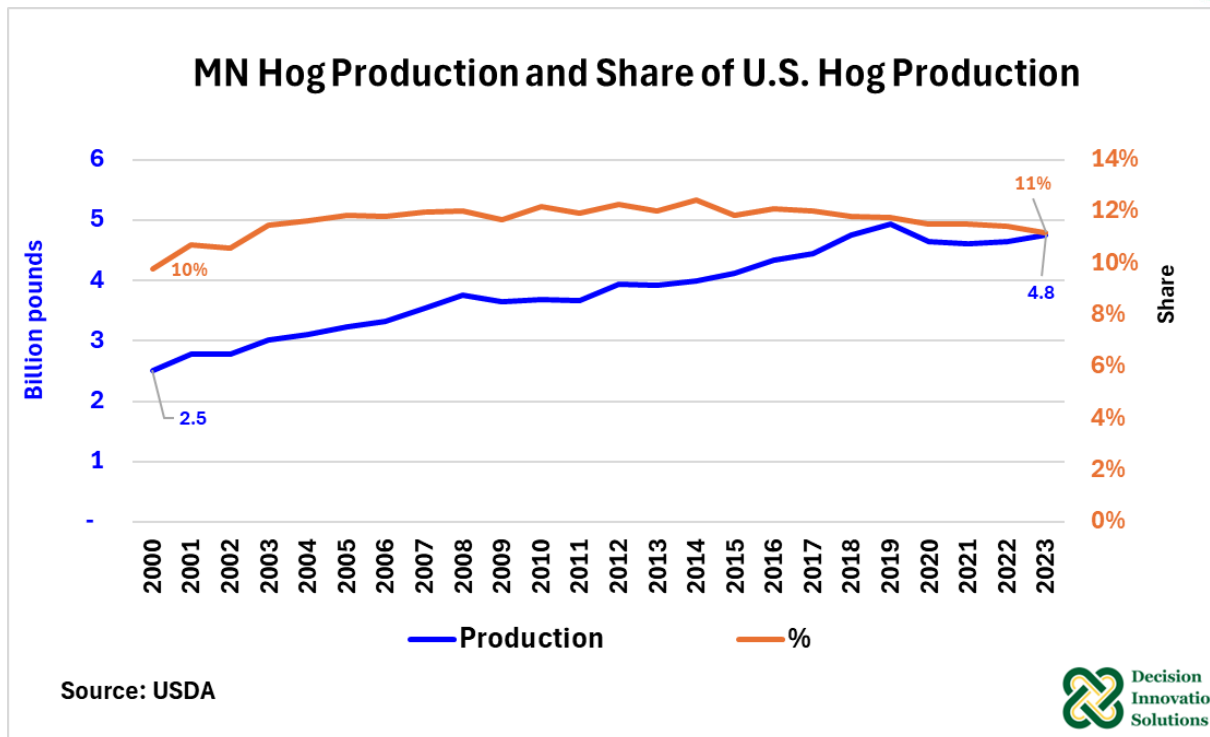


Figure 28. MN Hog Production and Share of U.S. Hog Production

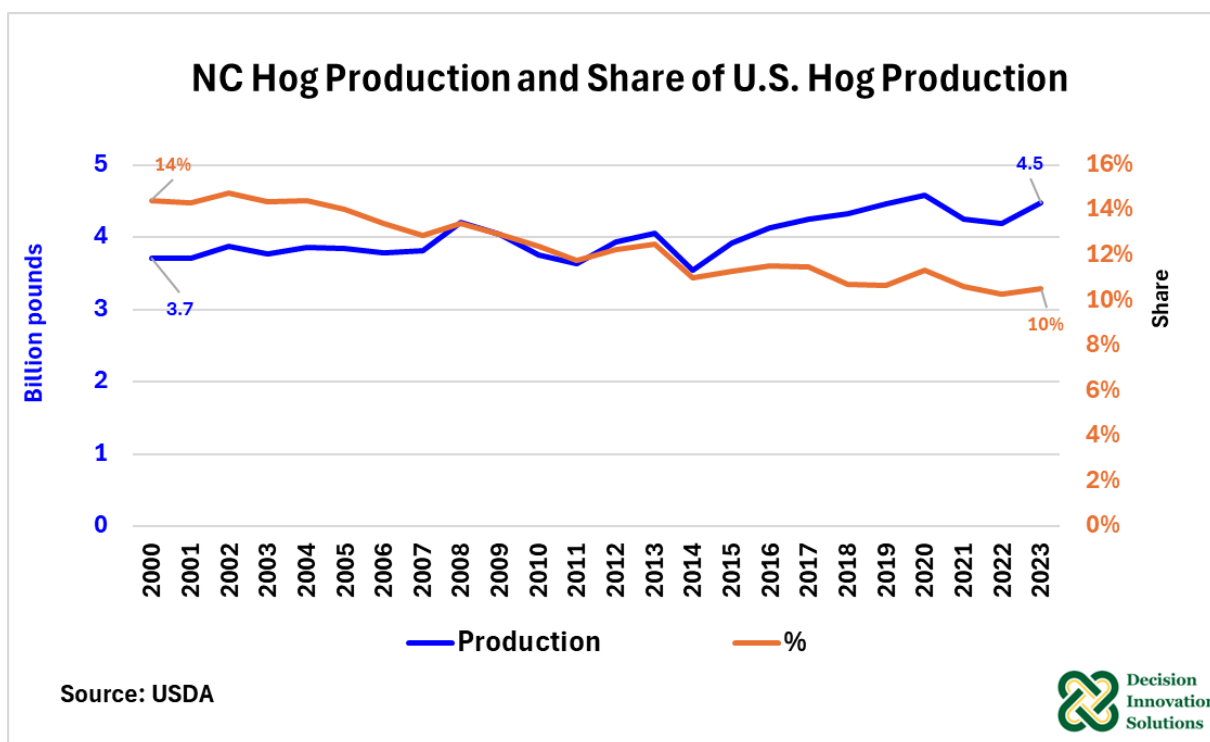


Figure 29. NC Hog Production and Share of U.S. Hog Production

2.1.4 Hog Prices

Barrow and gilt prices during the last five years have fluctuated, depending on the time of year, between \$68 and \$87 per hundredweight (cwt) (Figure 30). In 2022, barrow and gilt prices were above the 5-year

average. For most of 2023, barrow and gilt prices were above the 5-year average. The gap between those prices increased during the months of July to September. According to USDA, 2023 fourth-quarter hog prices were driven by two dynamics: 1) a large hog supply ready for slaughter during that period due to a 1% year over year larger March-May pig crop, and 2) by an expansion on U.S. imports of Canadian slaughter hogs. U.S. hog imports of hogs weighing 50 kilograms or more for immediate slaughter increased 13.4% to 1.64 million head in 2023 compared to 2022. Compared with 2020 (802,862 head), imports in 2023 increased 104.7%. U.S. hog imports of hogs weighing 50 kilograms is sourced exclusively from Canada.

It is not uncommon to expect seasonal variations in the prices. The 5-year average included the low prices in 2020. Backlogs caused by the COVID-19 pandemic in slaughtering and a surplus of hogs may have driven down hog prices in 2020.

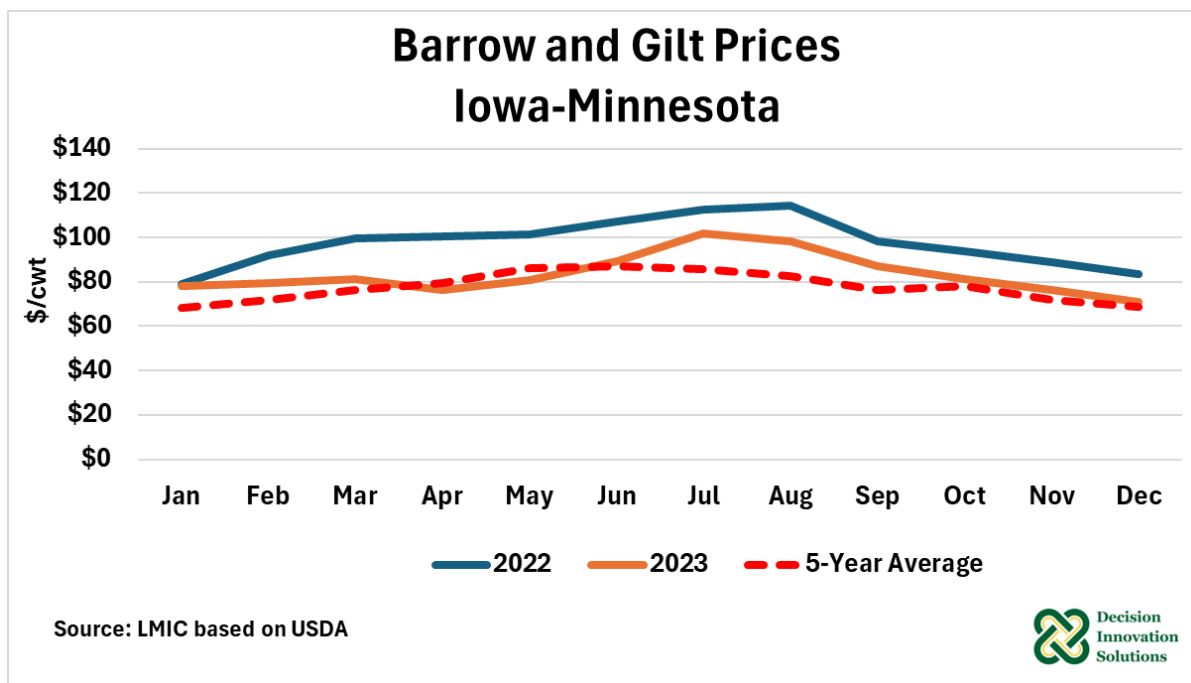


Figure 30. Barrow and Gilt Prices Iowa-Minnesota

Pork cutout values are unique to each hog and differ based on the cuts that can be processed from that carcass. During the last 5-years, the average pork cutout value varied from \$79.15 to \$93.23 per hundredweight (see Figure 31). Influenced by seasonal price variations, pork cutout values are typically higher during the spring-summer months from April to July. Soft domestic demand for pork cuts throughout 2023, compared with the previous year, turned down 2023 hog prices relative to 2022.

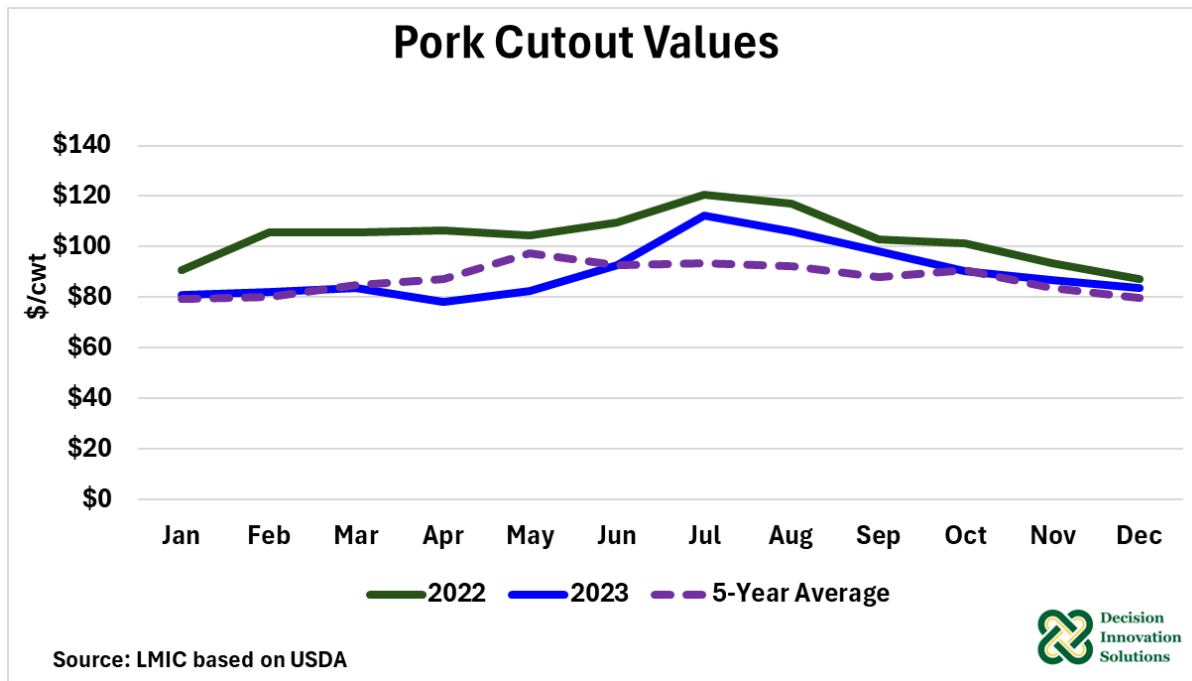


Figure 31. Pork Cutout Values

The difference between prices at different stages of the supply chain is termed price spread. The difference between the wholesale price and net farm price is reflected in the farm-to wholesale pork price (see Figure 32). A record high for the share of wholesale-to-retail pork value occurred in February 2020. Farm-to-wholesale pork value spreads reached a record high in May 2020. These spreads are indicative of the impacts of events such as the COVID-19 pandemic. In 2023, the lowest share of wholesale-to-retail pork value occurred in May 2023 (see Figure 32). Since 2000, the farmer's share of the pork value at retail has declined. In 2000 the share averaged 30.77% compared with 20.66% in 2023.

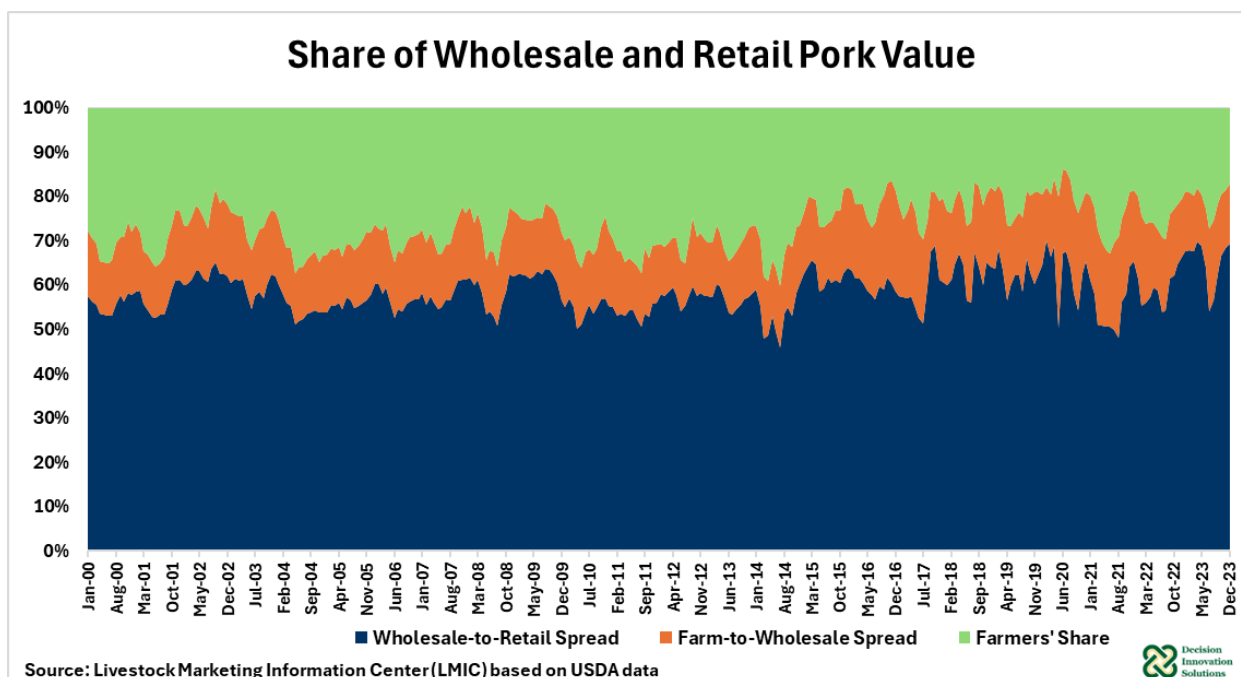


Figure 32. Share of Pork Wholesale and Retail Spread

2.1.5 Cash Receipts

Compared with other states, Iowa value of hog cash receipts in 2023 (\$ 9.328 billion) ranked first in the U.S., which represented 34.3% of U.S. total hog cash receipts (Table 4). At the state level, Iowa hog cash receipts accounted for 22.9% of total state cash receipts in 2023, and about 1.8% of U.S. cash receipts from all commodities. Cash receipts is the value of hog sales by farmers to processors or final users.

Table 4. Cash Receipts from Hogs, State Ranking (2023 Nominal (Current Dollars))

Cash Receipts from Hogs, State Ranking (2023 Nominal (Current Dollars))							
Rank	State	State receipts for Hogs	Share of U.S. receipts for Hogs	Cumulative share of U.S. receipts for Hogs	State receipts for all commodities	Share of State receipts for all commodities	Share of U.S. receipts for all commodities
		\$1,000	%	%	\$1,000	%	%
	United States	\$27,183,042			\$526,284,316	5.2	
1	Iowa	\$9,328,112	34.3	34.3	\$40,753,430	22.9	1.8
2	Minnesota	\$3,121,642	11.5	45.8	\$25,449,085	12.3	0.6
3	North Carolina	\$2,656,721	9.8	55.6	\$15,653,235	17.0	0.5
4	Illinois	\$1,957,718	7.2	62.8	\$27,544,162	7.1	0.4
5	Indiana	\$1,484,377	5.5	68.2	\$17,101,228	8.7	0.3

Source: USDA-ERS (Sep. 2024)



Cash receipts from Iowa agriculture have fluctuated between \$26.348 billion and \$44.816 billion during the last decade (Figure 33). On average, from 2014 to 2023, receipts from corn (31.3%), hogs (26.2%), soybeans (18.5%), and cattle & calves (14.2%) made up about 90.2% of total receipts from agriculture. Cash receipts vary year-to-year due to changes in prices and production but the overall contribution of these four commodities to Iowa agricultural revenues has been quite consistent (Figure 34).

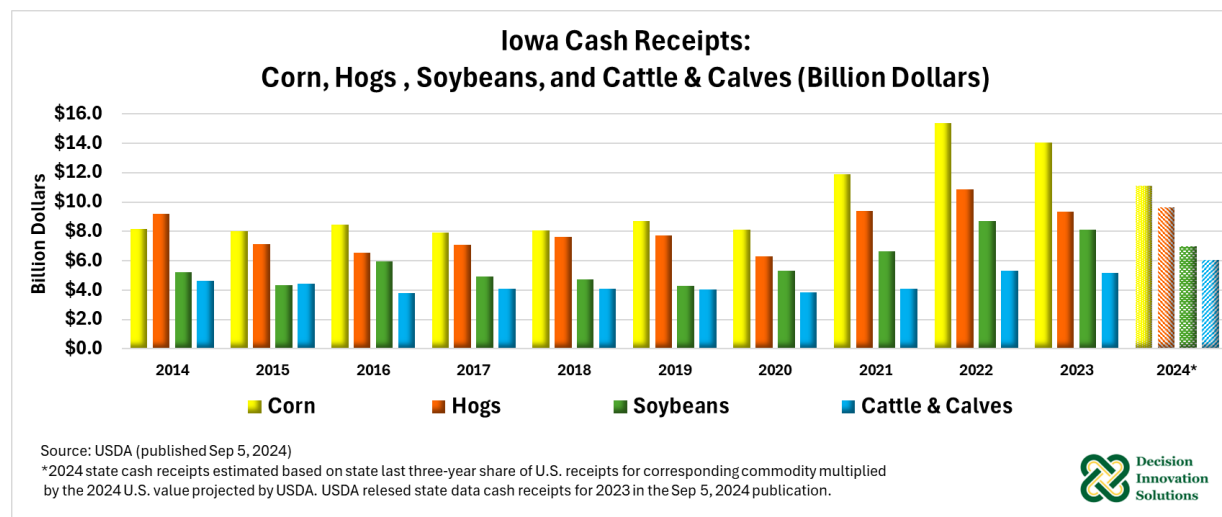


Figure 33. Iowa Cash Receipts: Corn, Hogs, Soybeans, and Cattle & Calves (Billion Dollars)

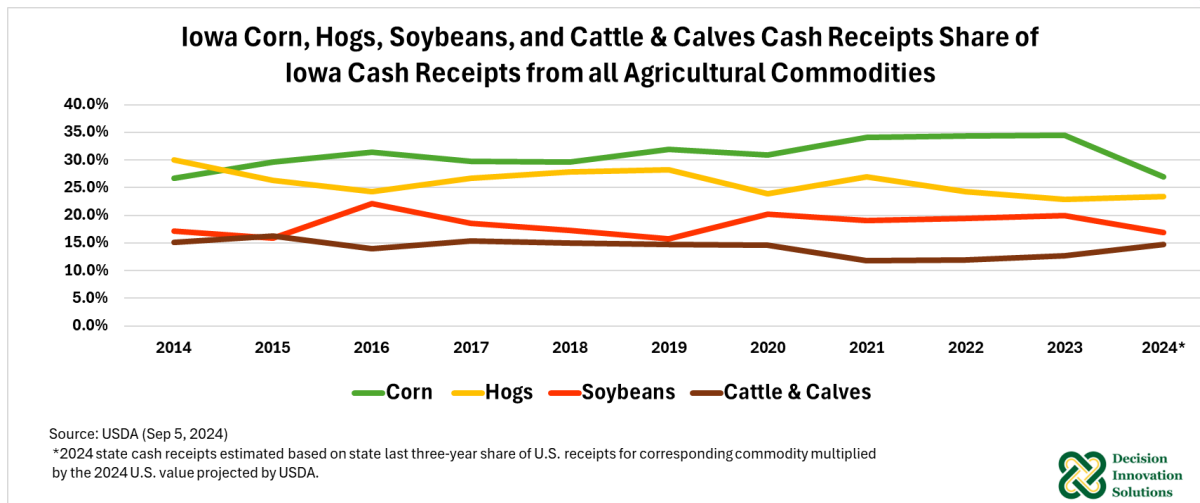


Figure 34. Iowa Corn, Hogs, Soybeans, and Cattle & Calves Cash Receipts Share of Iowa Cash Receipts from all Agricultural Commodities

2.1.6 . Production/Feed Costs and Returns

Changes in feed costs have a considerable impact on the profitability of pig production due to the large proportion of feed costs relative to total production costs. In Iowa, feed costs were about 54% of total production costs related to producing wean-to-finish hogs (270 pound-hog) during 2023. Overall, corn cost was the largest feed expense, representing 48% of total feed cost and 26% of total cost (see Figure 35) in 2022; however corn cost declined 11% to \$51.21 per head in 2023 relative to 2022 (\$57.73/head) (see Figure 36).

Soybean meal cost increased 2% whereas DDGs cost declined 1% in 2023 compared with the previous year. The average total cost of producing a wean-to-finish hog (finishing a weaned 12-pound hog) in Iowa was down 5% to \$196.55/head in 2023 from \$207.45/head in 2022. The cost of soybean meal and DDGs represented a smaller proportion (18% and 13%, respectively) of feed cost associated with total production cost. Total cost comprises the cost of a 12-pound weaned pig, which in 2023 was down 22% to an average of \$41.16/head compared the previous year (\$52.84/head) and average cost of death loss (\$6.59/head in 2023 compared with \$8.36/head in 2022).

Figure 37 shows that the large profits realized in 2014 by Iowa hog producers (wean-to-finish) as a result of PEDv were reduced in 2015 and 2016 to the point that by the end of 2016 the annual returns were negative. As Figure 38 indicates, despite lower production costs in 2015 and 2016, particularly due to lower corn and soybean meal prices compared with 2014, hog producers have seen reduced profit margins as a reduction in production costs were offset by falling hog selling prices brought by large supplies. 2017 showed positive returns with stronger hog selling prices, combined with lower feed costs. 2018 and 2019 years brought negative returns with expanding supplies and lower hog prices, particularly in 2018. In 2021, after the economy started to reopen following shutdowns due to the COVID-19 pandemic, demand for pork grew substantially, and hog prices increased, that is reflected in a positive annual returns to wean-to-finish operations that year (\$14/head). Despite feed cost declines in 2023 compared with 2022, the year ended with negative returns (-\$25/head), in part due to declining selling hog prices in 2023 from the previous year.

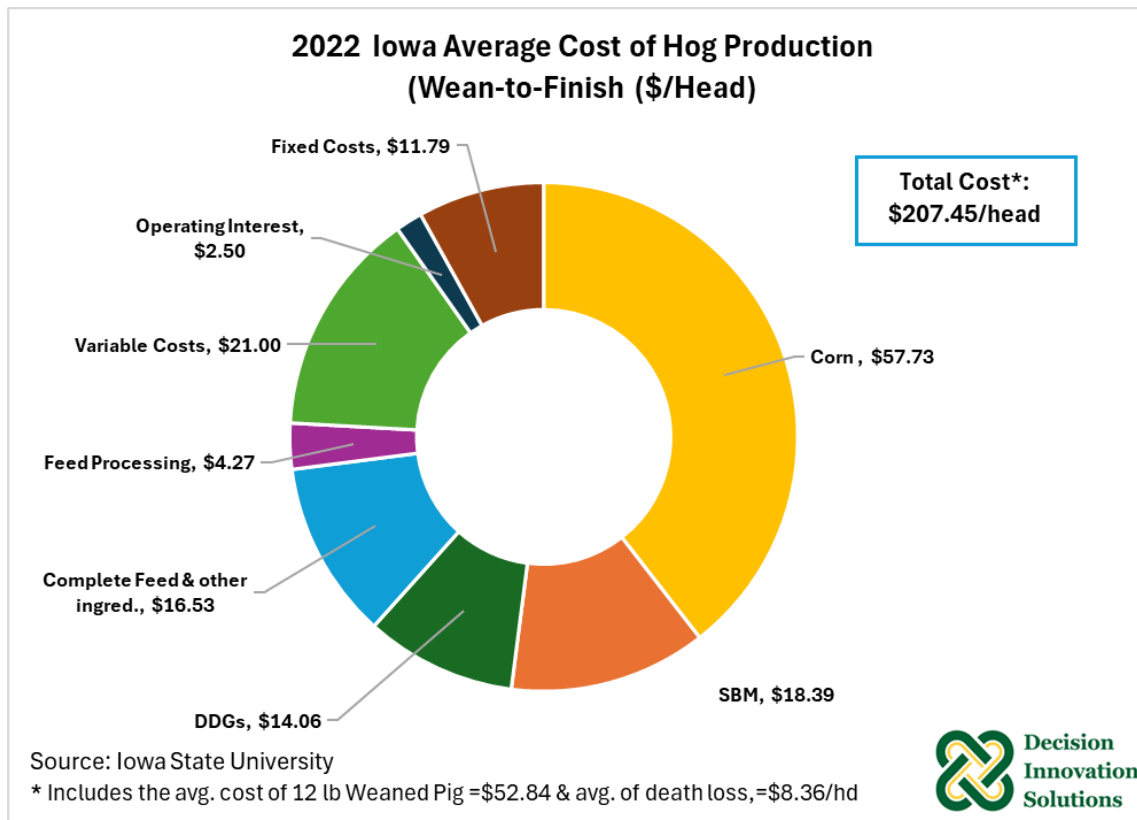


Figure 35. 2022 Iowa Average Cost of Hog Production (Wean-to-Finish (\$/Head))

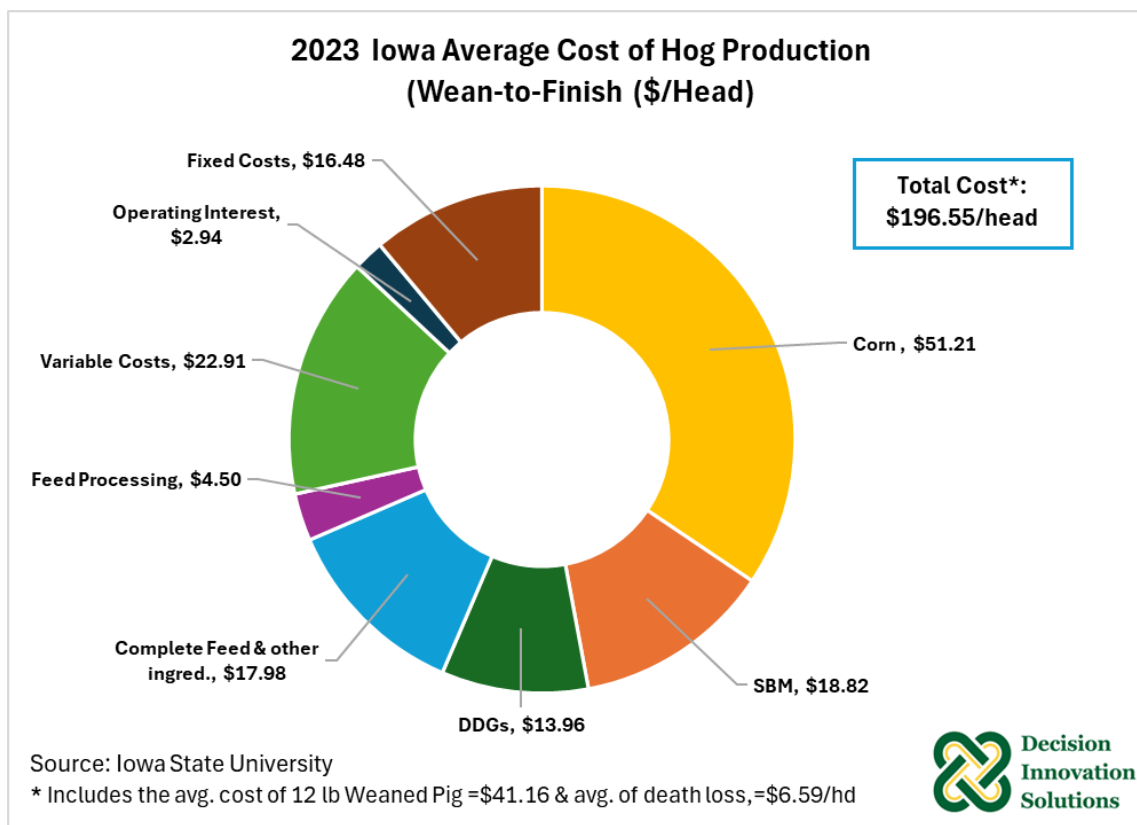


Figure 36. 2023 Iowa Average Cost of Hog Production (Wean-to-Finish (\$/Head))

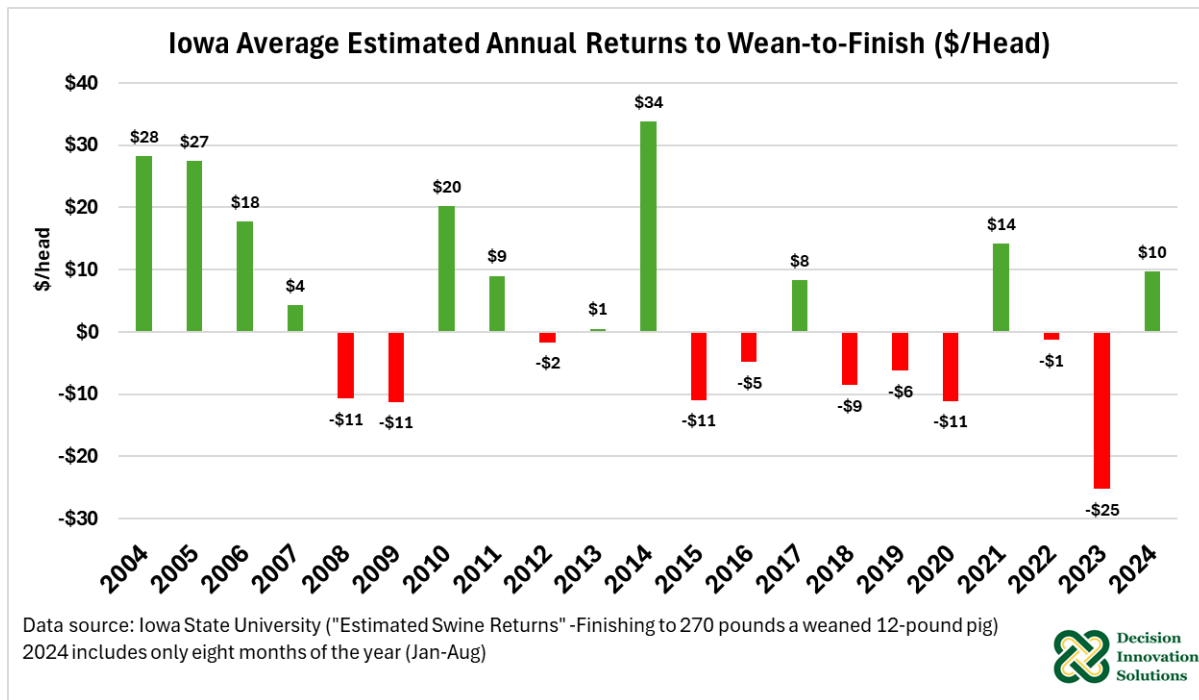


Figure 37. Iowa Average Estimated Annual Returns to Wean-to-Finish (\$/Head)

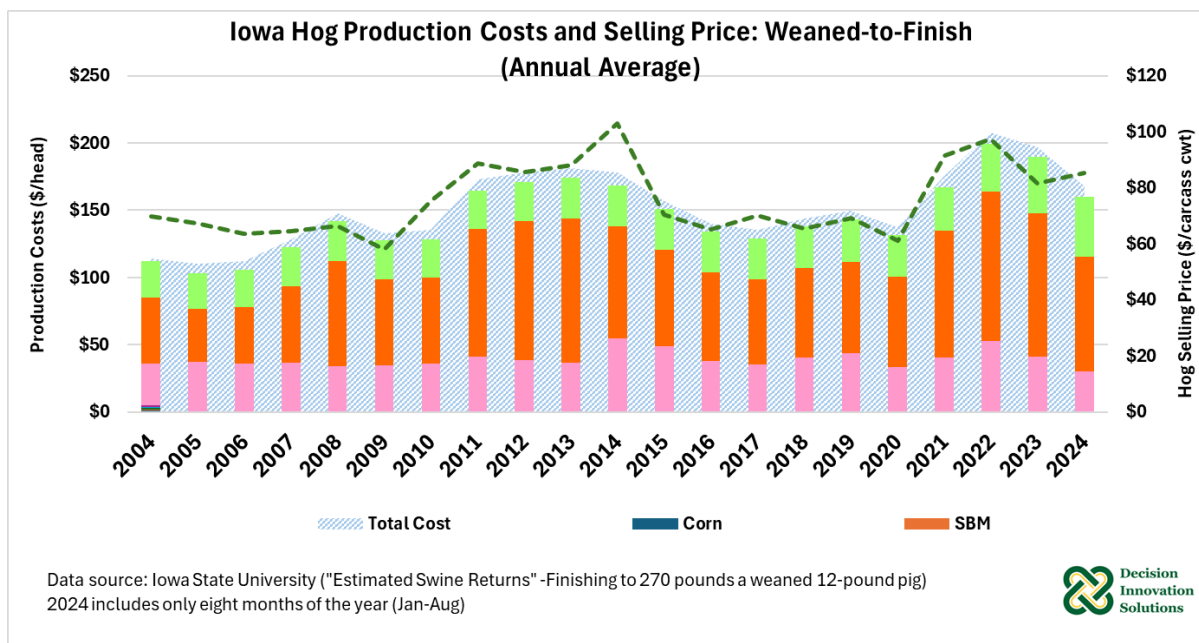


Figure 38. Iowa Hog Production Costs and Selling Price: Wean-to-Finish (Annual Average)

2.1.7 Pork Consumption

U.S. per capita pork consumption ranks third after beef and broiler meat (see Figure 39). Although per capita pork consumption has fallen from 72.9 pounds (carcass weight equivalent - CWE) in 1970, when pork was the second most consumed meat in the U.S., to 64.6 pounds (CWE) in 2023, the figure indicates that the difference between per capita pork consumption and per capita beef consumption has

declined. There has been a substantial shift in the types of meat consumed since the 1970s, specifically a decrease in per capita beef, relatively steady per capita pork consumption, and a significant increase in per capita broiler consumption. More recently, per capita pork consumption has increased since 2014.

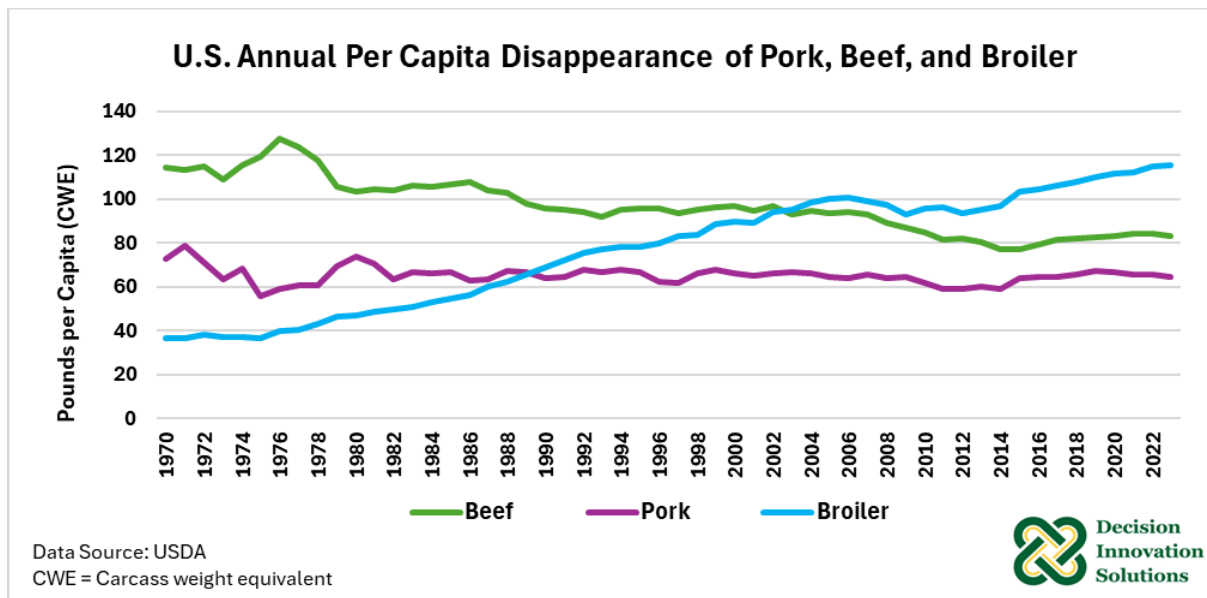


Figure 39. U.S. Annual Per Capita Disappearance of Pork, Beef, and Broiler (CWE)

Figure 40 shows average U.S. per capita consumption of pork, beef, and broiler meat throughout the last five decades (1974-1983 to 2014-2023). Overall, U.S. pork consumption has remained fairly stable compared with beef and broiler meat during that 50-year period. U.S. pork consumption was about the same (64.85 pounds CWE per capita, on average) in the 1974-1983 as in the 2014-2023 decade (64.84 pounds CWE per capita, on average).

In contrast, U.S. beef consumption fell 27.8% from the first decade (112.8 pounds CWE per capita, on average) to the last decade (81.46 pounds CWE per capita, on average). At the same time, U.S. broiler consumption grew 146.6%, on average, from 1974-1983 to 2014-2023. Because of the changes in meat (pork and beef) and broiler consumption patterns during this 50-year period, on average, for each pound of beef consumed in the 1974-1983 decade, 0.57 pounds of pork were consumed. In contrast, 0.80 pounds of pork were consumed for each pound of beef consumed in the 2014-2023 decade. This reflects a narrowing of the gap between pork and beef consumption during that period.

The consumption pattern between pork and broiler meat substantially reversed during the past 50 years. For each pound of broiler meat consumed in the 1974-1983 years, 1.48 pounds of pork were consumed, while in the most recent decade, only 0.60 pounds of pork were consumed per pound of broiler meat consumed.

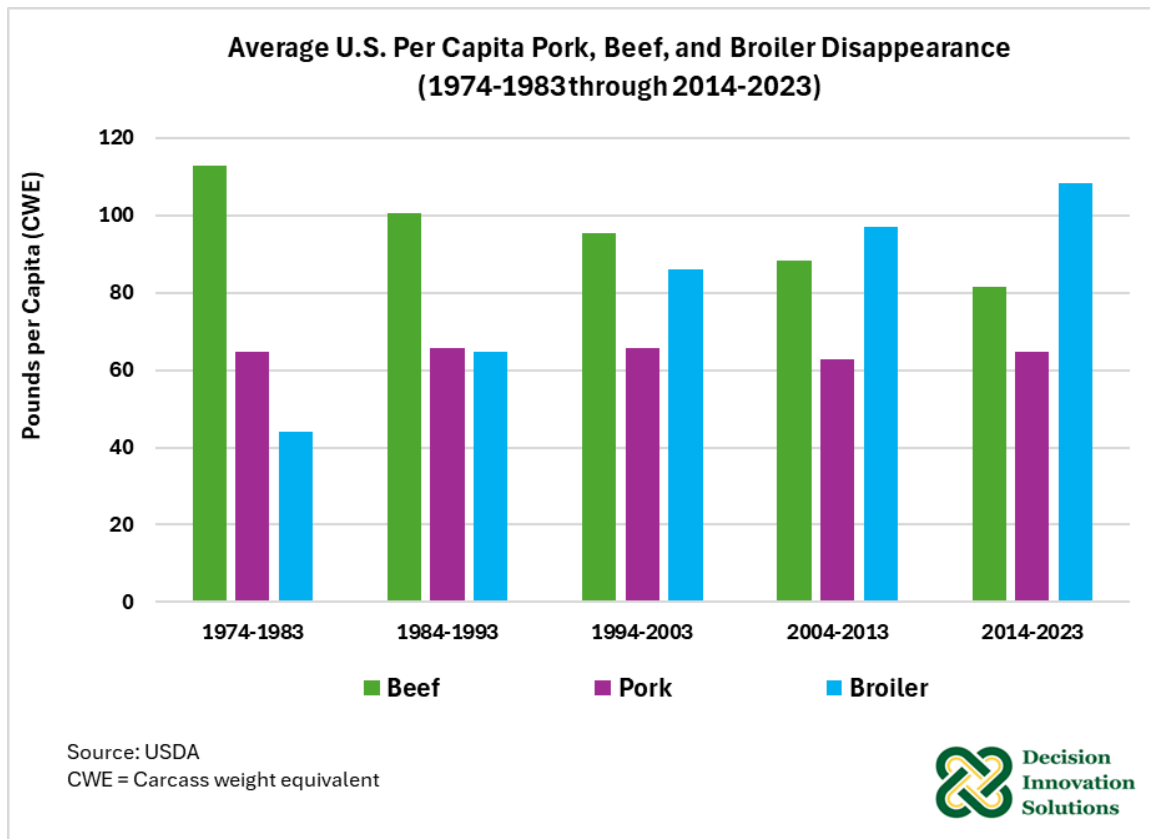


Figure 40. Average U.S. Per Capita Pork, Beef, and Broiler Disappearance (1974-1983 through 2014-2023, Pounds- CWE)

2.1.8 U.S. Pork Exports

U.S. pork muscle cut exports are a part of total U.S. pork exports with a share of about 80% of total U.S. pork exports. The rest of U.S. pork exports are in the form of variety meats. U.S. pork muscle cuts exported during 2023 reached a volume of 2.32 million metric tons (MT), increasing 8.3% from 2022, but exports were down 3.1% from 2021 (see Figure 41).

The 2023 export value (\$6.80 billion) was up 6.0% relative to the previous year (see Figure 43).

U.S. pork muscle cuts shipments from January to June 2024 were estimated at 1.21 million metric tons (MT), up 3.6% from the volume exported during the same period in 2023 (see Figure 42). The value of U.S. pork muscle cuts exported from January to June 2024 was estimated at \$3.61 billion was up 7.7% from 2023 (January to June) (Figure 44).

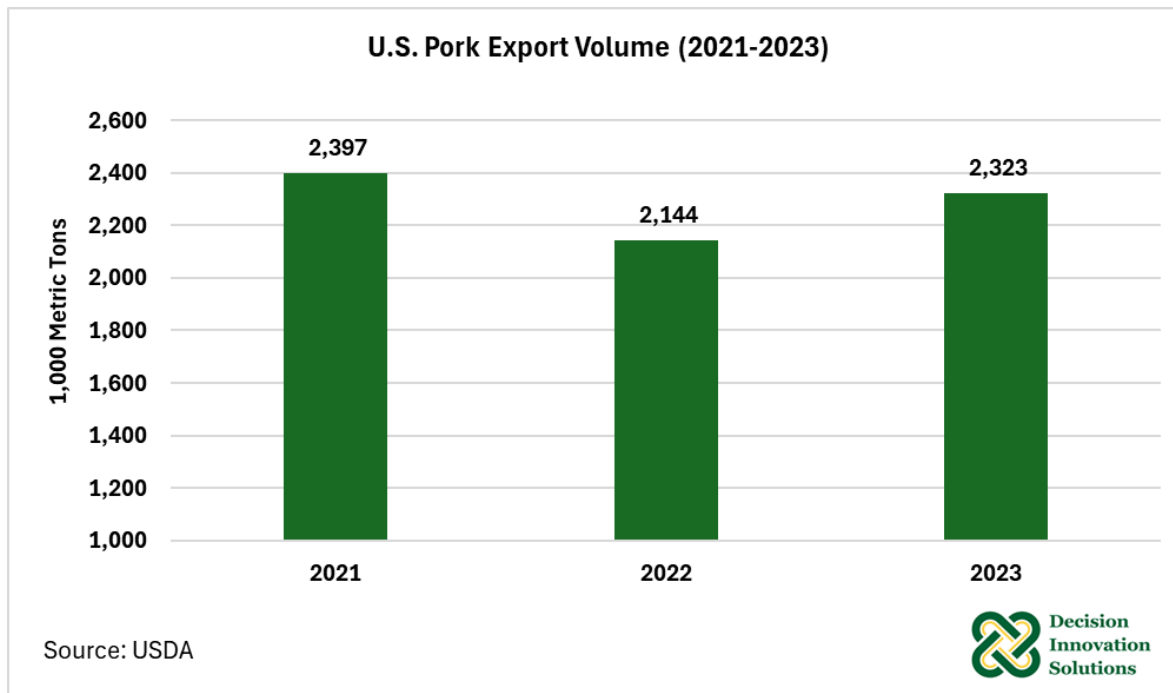


Figure 41. U.S. Pork Exports (2021-2023)

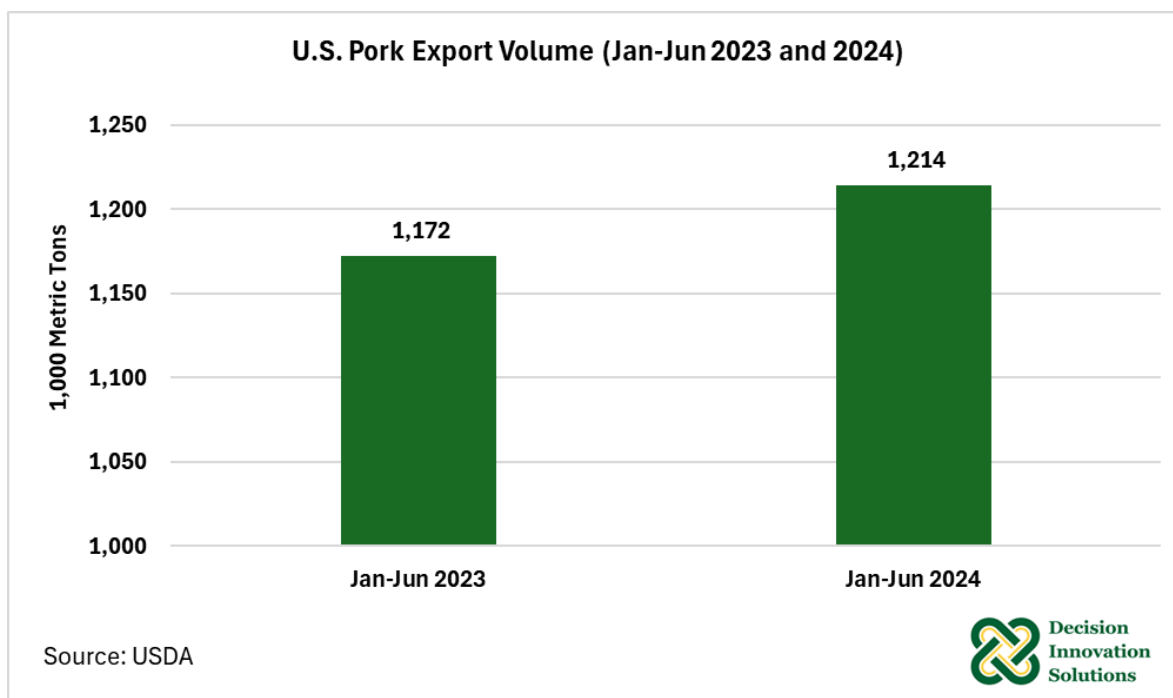


Figure 42. U.S. Pork Export Volume (Jan-Jun 2023-2024)

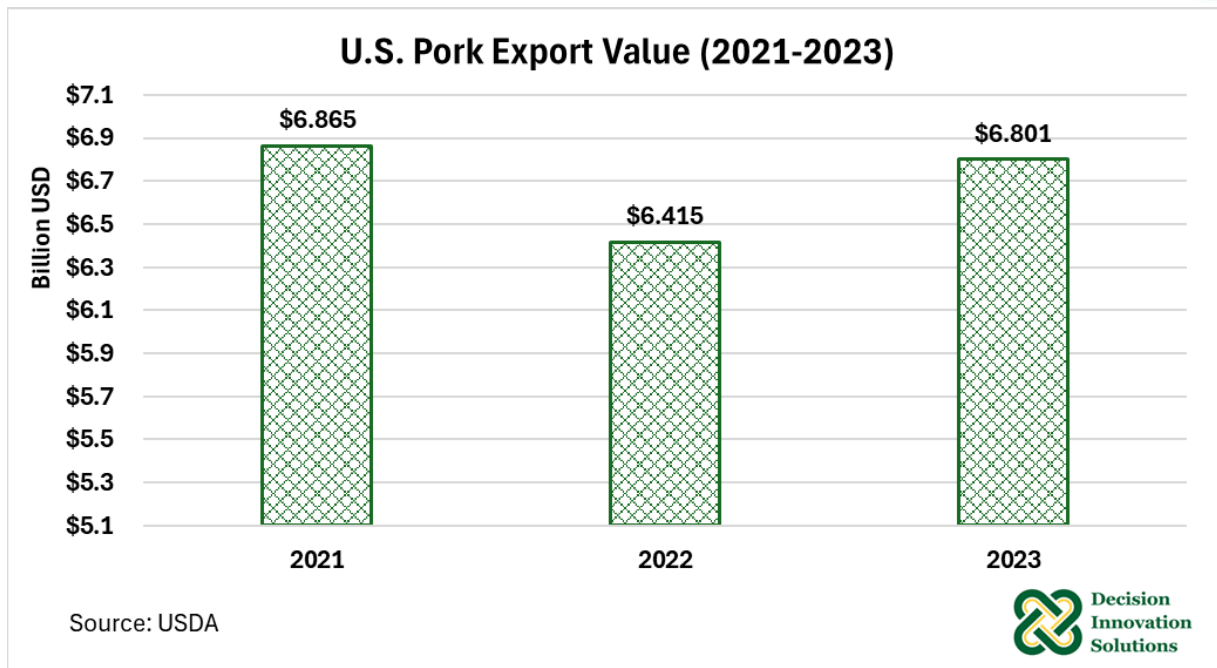


Figure 43. U.S. Pork Export Value (2021-2023)

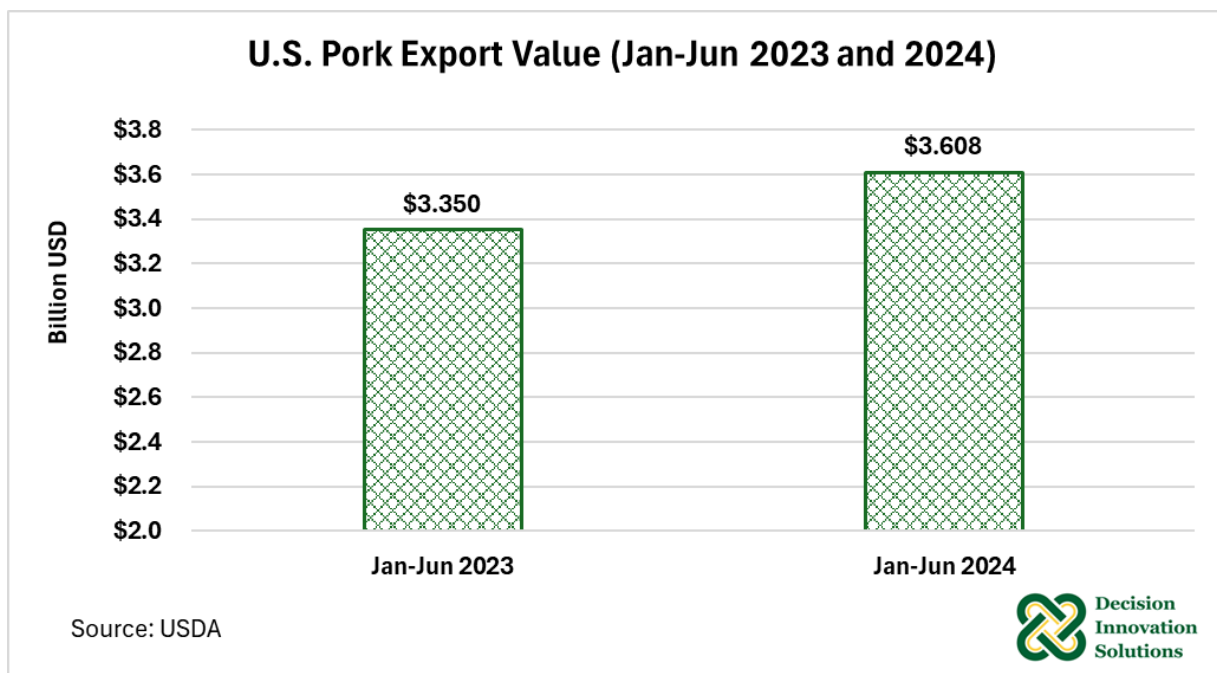


Figure 44. Pork Export Value (Jan-Jun 2023 and 2024)

2.1.8.1 Pork Exports to Selected Markets

The main destination for U.S. pork muscle cut is Mexico (see Figure 45). In 2023 the U.S. exported 941,384 Metric tons (MT) of pork to Mexico, increasing 11.6% from 2022. The second large destination for U.S. pork in 2023 was Japan with 338,656 MT; however, U.S. pork exports to that market declined 2.1% year-over-year. In addition, exports to China fell 18.4% in 2023 relative to 2022.

U.S. pork shipments to other important markets such as South Korea and Canada expanded in 2023 by 9.8% each compared with 2022.

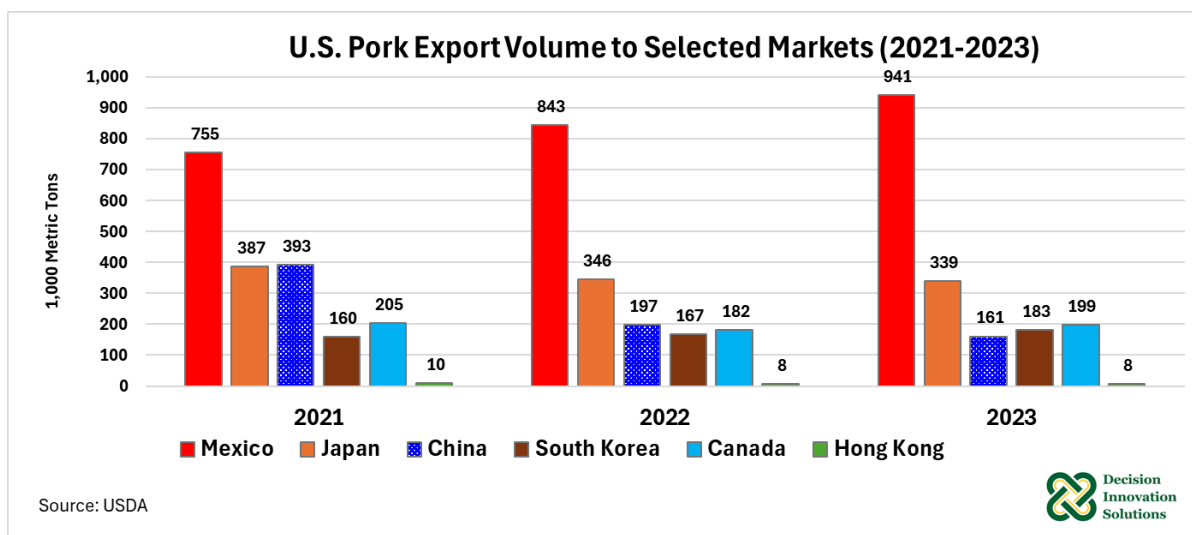


Figure 45. U.S. Pork Export Volume to Selected Markets (2021-2023)

The value of U.S. exports to Mexico (\$2.05 billion) in 2023 made up 30.2% of total value of U.S. pork exports last year (see Figure 46). The value of U.S. pork shipments to Japan and Canada accounted for 20.4% and 12.4%, respectively. As shown in Figure 46, the value of U.S. shipments to Mexico, South Korea, and Canada increased in 2023 compared with 2022.

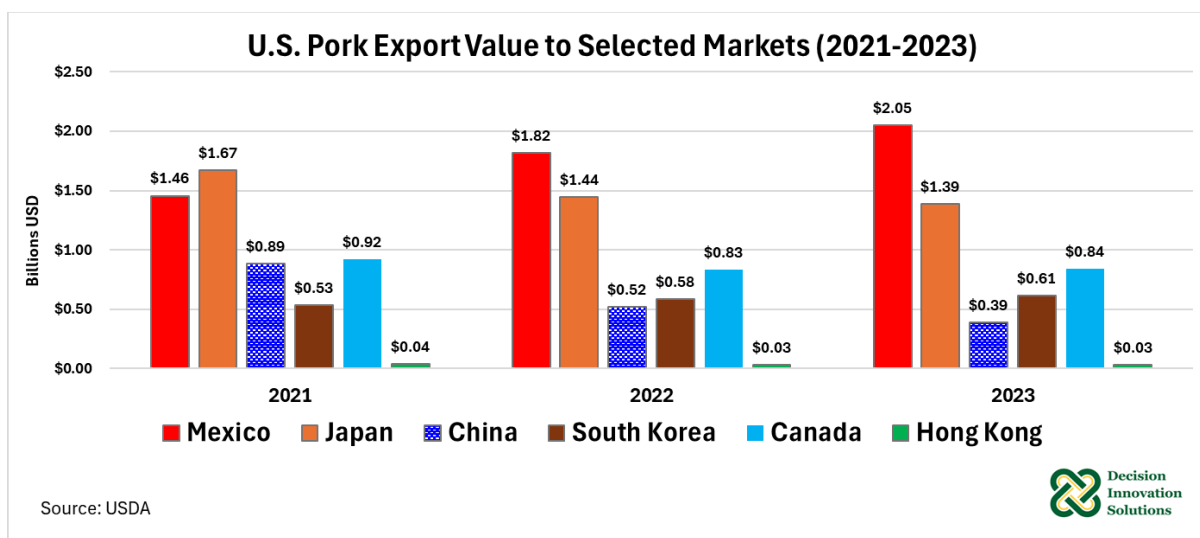


Figure 46. U.S. Pork Export Value to Selected Markets (2021-2023)

The volume of U.S. pork exports to Mexico and South Korea expanded 6.2% and 31.0% during the first six months of 2024, respectively, compared with the same period the previous year (see Figure 47). At the same time, the volumes of U.S. pork exports to Japan, China, Canada, and Hong Kong, all experienced reductions. Exports to China declined 37.3% while shipments to Hong Kong fell 1.7%. Exports to Japan and Canada decreased about 4% each.

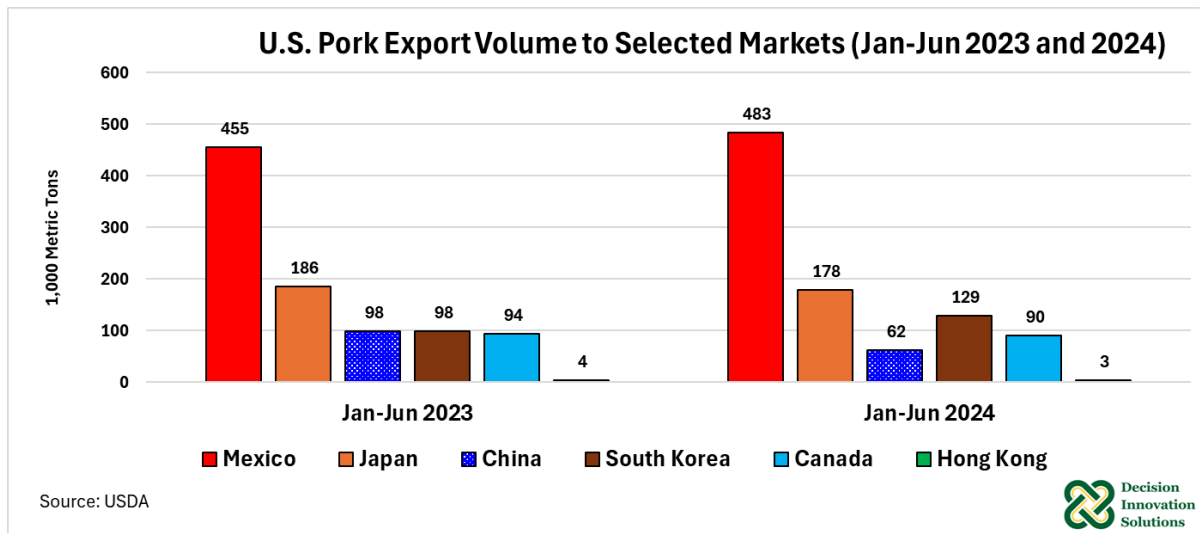


Figure 47. U.S. Pork Export Volume to Selected Markets (Jan-Jun 2023 and 2024)

The value of U.S. pork exports to Mexico from January to June 2024 was about \$1.06 billion, which increased 14.1% year-over-year and made up 29.5% of total value of hog exports during that period (see Figure 48).

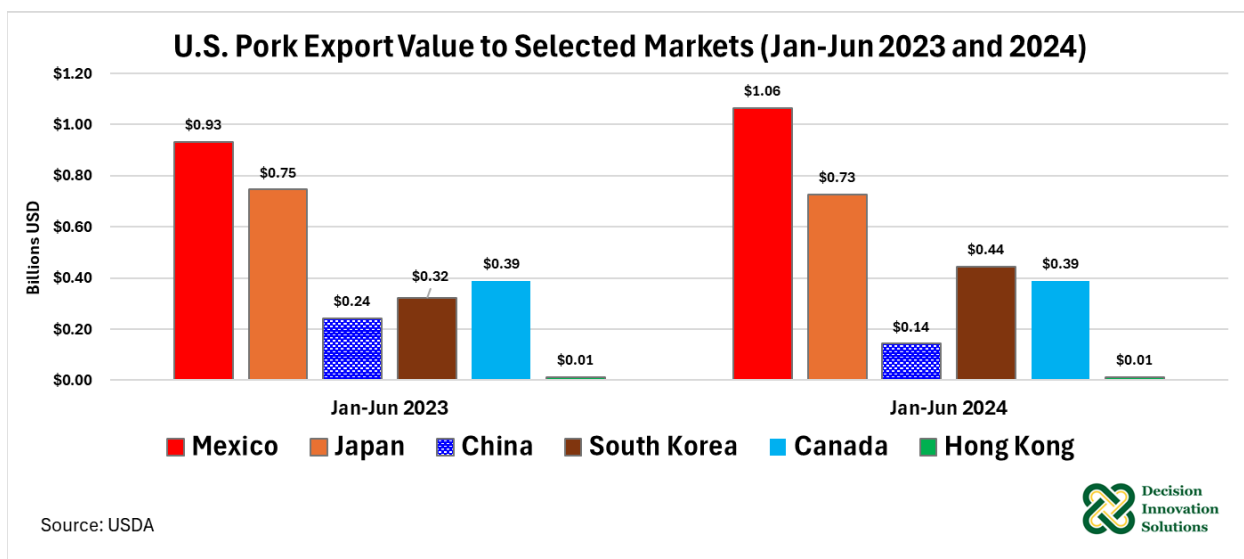


Figure 48. U.S. Pork Export Value to Selected Markets (Jan-Jun 2023-2024)

2.1.9 Iowa Pork Exports

From 2021 to 2023, Iowa pork exports to main destinations were estimated as the state's share of national production multiplied times national export data for the corresponding markets.

Total Iowa hog exports were estimated at 821,057 MT in 2023 (see Figure 49). Pork exports by Iowa represented about 35.5% of total U.S. exports in 2023 (2.32 million MT). Shipments to the top three markets, Mexico, Japan, and Canada, represented about 62.0% of total exports in 2023. Iowa's pork exports shipped to "Other" markets accounted for 21.2% (173,766 MT) of the state total pork.

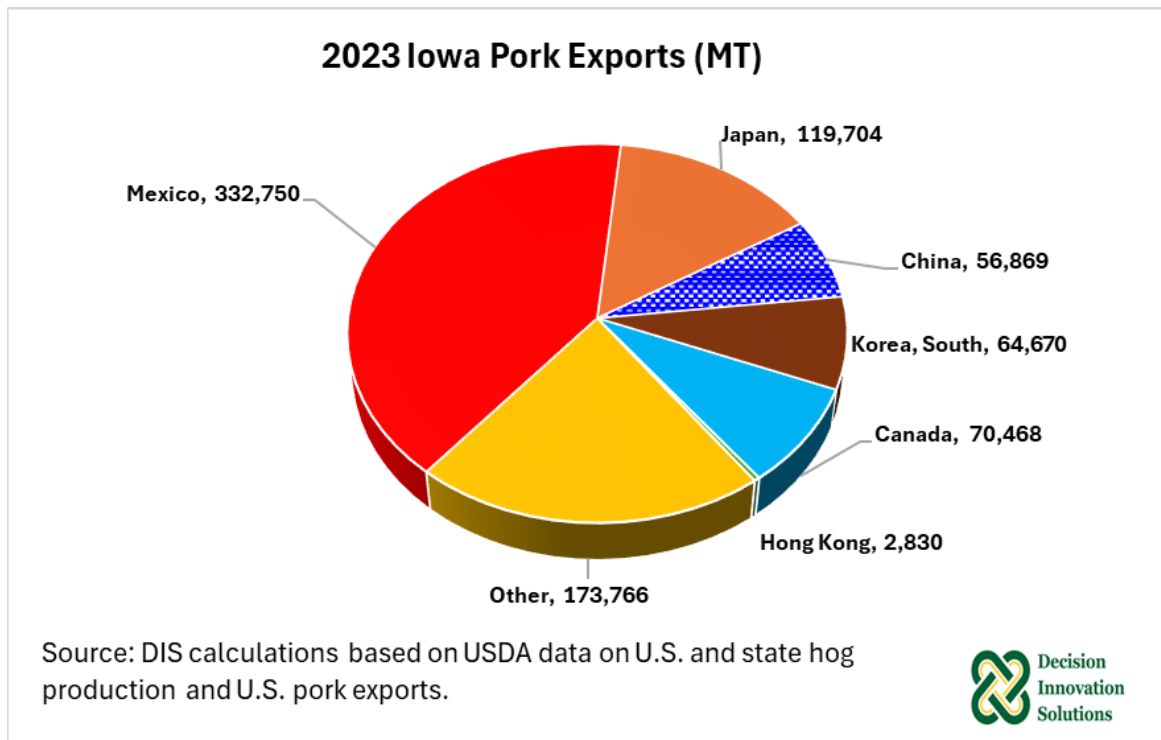


Figure 49. 2023 Iowa Pork Exports (MT)

2.1.9.1 Iowa County Pork Muscle Cut Exports

Key data to estimate Iowa pork muscle cut exports was:

- 1) the 2022 USDA Census Iowa county hog inventory share to total Iowa hog inventory that year
- 2) Iowa's percent of market hog inventory (33.701%) to total U.S. market hog inventory in December 2022, and
- 3) Iowa's percent of market hog inventory (34.138%) to total U.S. market hog inventory in June 2023
- 4) 2023 U.S. pork muscle cut exports: January to June 2023 (1.173 million MT) and July to December 2023 (1.151 million MT)

We applied the following procedure:

Iowa Market Hog Inventory Data by County: December 1, 2022, and June 1, 2023

December 1, 2022, USDA Survey market hog inventory data for Iowa was not available at the county level. To estimate Iowa's Dec 1, 2022, market hog inventory data by county, we applied the 2022 USDA Census Iowa county hog inventory share to total Iowa hog inventory that year (see Table 5) to Iowa's December 1, 2022, market hog inventory (23.17 million head). We used the December 1, 2022, market hog inventory data because historically in Iowa, on average, 97.0% of December 1 inventory is composed of market hog inventory, which are the hogs that enter processing plants within the next six months (January to June).

June 1, 2023, USDA Survey market hog inventory data for Iowa was not available at the county level. To estimate Iowa June 1, 2023, market hog inventory data by county, we applied the 2022 USDA Census Iowa county hog inventory share to total Iowa hog inventory that year to Iowa's June 1, 2023, market

hog inventory (22.990 million head). (see Table 5). We used the June 1, 2023, market hog inventory data since historically in Iowa, on average, 96.2% of June 1 inventory is composed of market hog inventory, which are the hogs that enter processing plants within the next six months (July to December).

Iowa 2023 Pork Muscle Cut Exports: January to June and July to December

To estimate January through December 2023 Iowa pork muscle cut exports (referred from here on as Iowa pork exports), we assumed that the percent of Iowa's pork exports from January to June 2023 to U.S. pork exports during that period (1,172,296 MT), was the same as Iowa's percent of market hog inventory (33.701%) to total U.S. market hog inventory in December 2022. Based on this percentage, Iowa exported 395,074 MT ($1,172,296 \text{ MT} \times 33.701\%$) of pork muscle cuts from January to June 2023. In addition, we assumed that the percent of Iowa's pork exports from July to December 2023 to U.S. pork exports during that period (1,150,560 MT), was the same as Iowa's percent of market hog inventory (34.138%) to total U.S. market hog inventory in June 2023. Based on this percentage, Iowa exported 392,774 MT ($1,150,560 \text{ MT} \times 34.138\%$) of pork from July to December 2023. Iowa pork exports from January to December 2023 were assessed at 787,848 MT.

2023 Iowa County Pork Muscle Cut Exports

To estimate Iowa pork muscle cut exports from January to June 2023 at the county level, we applied the 2022 USDA Census Iowa county hog inventory share to total Iowa hog inventory that year to the estimated Iowa January to June 2023 exports (395,074 MT). To estimate Iowa pork muscle cut exports from July to December 2023 at the county level, we applied the 2022 USDA Census Iowa county hog inventory share to total Iowa hog inventory that year to the estimated Iowa July to December 2023 exports (392,774 MT). Iowa pork exports for the entire 2023 year at the county level are the sum of January-June plus July to December 2023 County level data (see Table 5).

Among the selected 35 Iowa counties, five counties exported 23.9% of total Iowa pork muscle cut exports in 2023, with Washington and Sioux counties exporting 49,194 MT (6.2%) and 48,336 MT (56.1%), respectively. The selected 35 Iowa counties exported about one-fifth (20.8%, 482,704 MT) of all U.S. pork muscle cut exports from January to December 2023.

Table 5. Focus Counties: Inventory, Exports, and County Share of Total Exports (January to December 2023)

Focus Counties: Inventory, Exports, and County Share of Total Exports (January to December 2023)							
Selected County	December 1, 2022, Iowa Market Hog Inventory (Head)	June 1, 2023, Iowa Market Hog Inventory (Head)	January to June 2023 Pork Muscle Cut Exports by Selected County (MT)	July to December 2023 Pork Muscle Cut Exports by Selected County (MT)	January to December 2023 Pork Muscle Cut Exports by Selected County (MT)	County Share of Iowa Total Pork Muscle Cut Exports (January to December 2023, %)	County Share of U.S. Total Pork Muscle Cut Exports (January to December 2023, %)
Washington	1,446,767	1,435,527	24,669	24,525	49,194	6.2%	2.1%
Sioux	1,421,518	1,410,474	24,238	24,097	48,336	6.1%	2.1%
Lyon	940,709	933,400	16,040	15,947	31,987	4.1%	1.4%
Plymouth	894,892	887,940	15,259	15,170	30,429	3.9%	1.3%
Hardin	837,657	831,149	14,283	14,200	28,483	3.6%	1.2%
Palo Alto	770,432	764,446	13,137	13,060	26,197	3.3%	1.1%
Carroll	669,084	663,886	11,409	11,342	22,751	2.9%	1.0%
Hamilton	661,852	656,711	11,285	11,220	22,505	2.9%	1.0%
Buena Vista	538,218	534,037	9,177	9,124	18,301	2.3%	0.8%
Kossuth	528,141	524,038	9,005	8,953	17,958	2.3%	0.8%
Howard	517,691	513,669	8,827	8,776	17,603	2.2%	0.8%
O'Brien	459,447	455,878	7,834	7,788	15,623	2.0%	0.7%
Delaware	457,778	454,222	7,806	7,760	15,566	2.0%	0.7%
Wright	417,963	414,716	7,127	7,085	14,212	1.8%	0.6%
Buchanan	331,673	329,096	5,655	5,622	11,278	1.4%	0.5%
Calhoun	329,280	326,721	5,615	5,582	11,196	1.4%	0.5%
Chickasaw	321,783	319,283	5,487	5,455	10,942	1.4%	0.5%
Clayton	313,921	311,482	5,353	5,322	10,674	1.4%	0.5%
Fayette	310,091	307,682	5,287	5,257	10,544	1.3%	0.5%
Cedar	258,303	256,296	4,404	4,379	8,783	1.1%	0.4%
Mitchell	233,461	231,648	3,981	3,958	7,938	1.0%	0.3%
Audubon	223,896	222,157	3,818	3,795	7,613	1.0%	0.3%
Floyd	216,595	214,913	3,693	3,672	7,365	0.9%	0.3%
Webster	158,688	157,455	2,706	2,690	5,396	0.7%	0.2%
Winneshiek	149,602	148,440	2,551	2,536	5,087	0.6%	0.2%
Marshall	142,942	141,832	2,437	2,423	4,860	0.6%	0.2%
Allamakee	121,071	120,131	2,064	2,052	4,117	0.5%	0.2%
Dubuque	107,726	106,889	1,837	1,826	3,663	0.5%	0.2%
Cass	98,212	97,449	1,675	1,665	3,339	0.4%	0.1%
Jones	72,876	72,310	1,243	1,235	2,478	0.3%	0.1%
Wapello	63,804	63,309	1,088	1,082	2,170	0.3%	0.1%
Jefferson	59,507	59,045	1,015	1,009	2,023	0.3%	0.1%
Des Moines	42,608	42,277	727	722	1,449	0.2%	0.1%
Lucas	39,167	38,863	668	664	1,332	0.2%	0.1%
Woodbury	38,601	38,301	658	654	1,313	0.2%	0.1%
Other	8,974,045	8,904,328	153,017	152,127	305,144	38.7%	13.1%
STATE TOTAL	23,170,000	22,990,000	395,074	392,774	787,848	100.0%	33.9%
U.S. TOTAL	68,752,000	67,345,000	1,172,296	1,150,560	2,322,857		

Source: DIS estimates based on inventory data from USDA CENSUS and Survey data
DIS estimates based on export Data from USDA-FAS

3 Methodology

3.1 Economic Contribution Methodology and Terms

The following economic contribution study was conducted using a combination of IMPLAN and Microsoft Excel. IMPLAN is an input-output model used to understand industry relationships and conduct economic assessments for specified local economies. IMPLAN datasets are constructed annually and are derived from many different sources, including the U.S. Bureau of Labor Statistics (BLS), the U.S. Bureau of Economic Analysis (BEA), the U.S. Bureau of Economic Analysis Benchmark Input-Output Account of the U.S., the BEA output estimates, the U.S. Census Bureau's economic censuses and surveys, the U.S. Department of Agriculture's census, and more.

Within IMPLAN, the effects of an economic impact or contribution event are expressed in terms of direct, indirect, and induced effects. These different effect types are defined as follows:

- **Direct Effects** – The economic activity directly attributable to the industry under analysis; in this study, the production of animal feed and pet food from a variety of inputs
- **Indirect Effects** – The effects of local inter-industry spending throughout the supply chain, for example, the feed, veterinary services, and transportation services to move nursery pigs to finishing barns and other inputs used by a farmer to farrow pigs
- **Induced Effects** – The results of employees of the directly and indirectly affected industries spending their income throughout the local economy
- **Total Effect** – The sum of direct, indirect, and induced effects

The 2022 IMPLAN data package, which is the most recent data available, was used for this analysis. Using inflation factors inherent in the IMPLAN modeling system, all numbers within these sectors were brought forward from 2022 to 2024. The results of this analysis are presented using the following common economic modeling terms:

- **Output:** The broadest measure of economic activity – also commonly referred to as “sales.” Output refers to the total value of all sales of an industry within a study area without any deductions for the cost or origination of inputs that were used in the production process.
- **Value Added:** A component of output, this measure includes the total sales minus the costs of inputs. Alternatively, value added is calculated as the sum of labor income (further defined below), taxes on production and imports, and other property-type income. An industry's value added is equivalent to its contribution to GDP.
- **Labor Income:** A subset of value added, includes the sum of employee compensation (i.e., wages and benefits) and proprietor income (i.e., income of self-employed workers).
- **Employment (Jobs):** A measure of part- and full-time job positions, including contract workers, without regard to their full-time equivalence. Since it is not representative solely of full-time positions or full-time equivalents, care must be made when drawing comparisons to other measures of employment.

3.2 Economic Impact Study versus Economic Contribution Study

The term “Economic Impact Study” implies a change has taken place within a local economy. The change in a local economy typically comes from one of the following sources:

- Entrance/departure of a new business or industry
- Expansion/contraction of an existing business or industry

While estimating a change (economic impact study) such as the entrance or departure of industry activity is a worthwhile endeavor in many instances, this is not how the contribution of the agriculture sectors in this analysis were estimated. This analysis is an effort to evaluate the structure of existing industries within an existing economy. As a result, shocking the economy to create or eliminate parts of the industry is not appropriate. For that reason, this study is called an “economic contribution analysis”; in other words, we are interested in understanding what the Iowa hog industry currently contributes to the overall economy. This is a key difference from what is traditionally termed an “economic impact study”. With a contribution analysis, the sum of individual industry estimates will never differ from the total of what actually exists in a given study area.

3.3 Defining the Hog Industry

The hog industry (including farming, slaughter, and processing) is contained within three industries in IMPLAN:

- Animal production, except cattle and poultry and eggs
- Animal, except poultry, slaughtering
- Meat processed from carcasses

These IMPLAN industries also include activities not related to hog production and processing. For example, the “animal production, except cattle and poultry and eggs” industry also includes sheep and goat farming. To account for this, adjustments were made to the input values of these industries to reflect the portions of these industries that are due to hog farming, slaughter, and processing. These adjustments were made using data from USDA surveys and the 2022 Census of Agriculture.

4 State Level Results

4.1 State Value Added

Hog production, slaughtering, processing, and related economic activities in Iowa is estimated to contribute \$15.4 billion in value added in 2024. Of this total, around \$9.9 billion or 64% comes from hog production, \$3.9 billion or about 26% comes from hog slaughter, and \$1.5 billion or approximately 10% comes from processing (Figure 50).

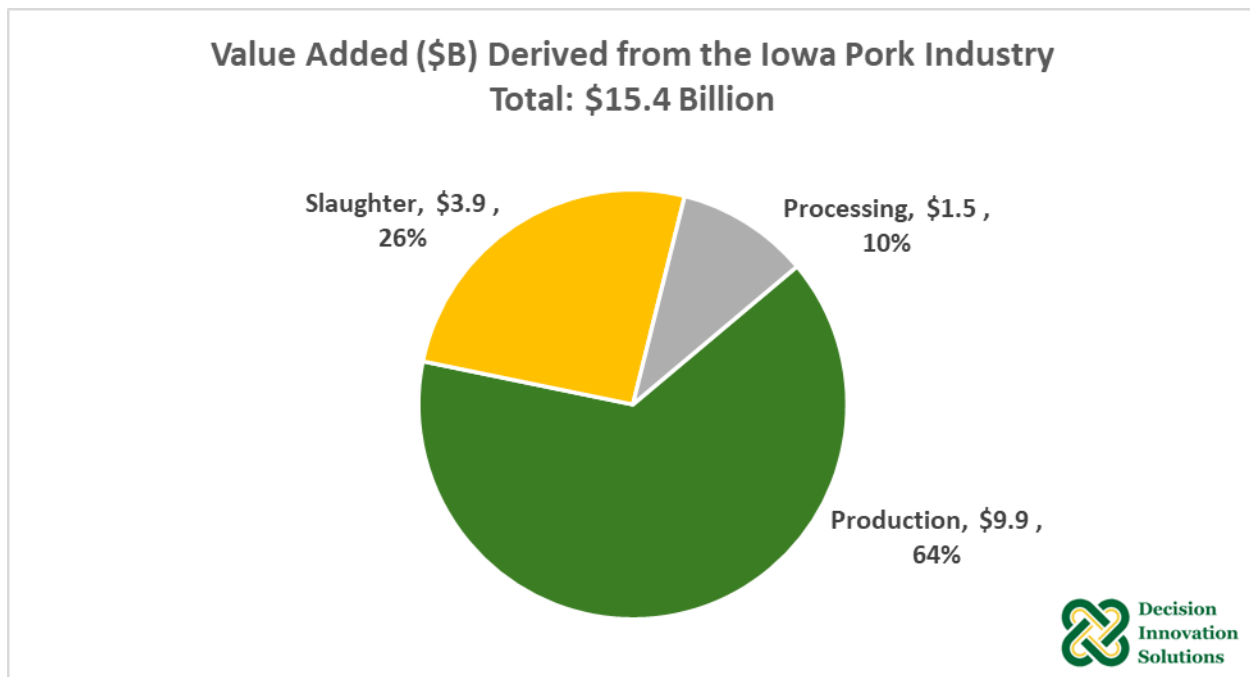


Figure 50. Economic Contribution of the Iowa Pork Industry - Value Added

4.2 State Jobs

The pork industry in Iowa is estimated to contribute more than 120,000 jobs within the state in 2024. Of this total, more than 64,000 (54%) are derived from hog production, more than 39,000 (33%) are derived from hog slaughter, and more than 16,000 (13%) are derived from hog processing (Figure 51).

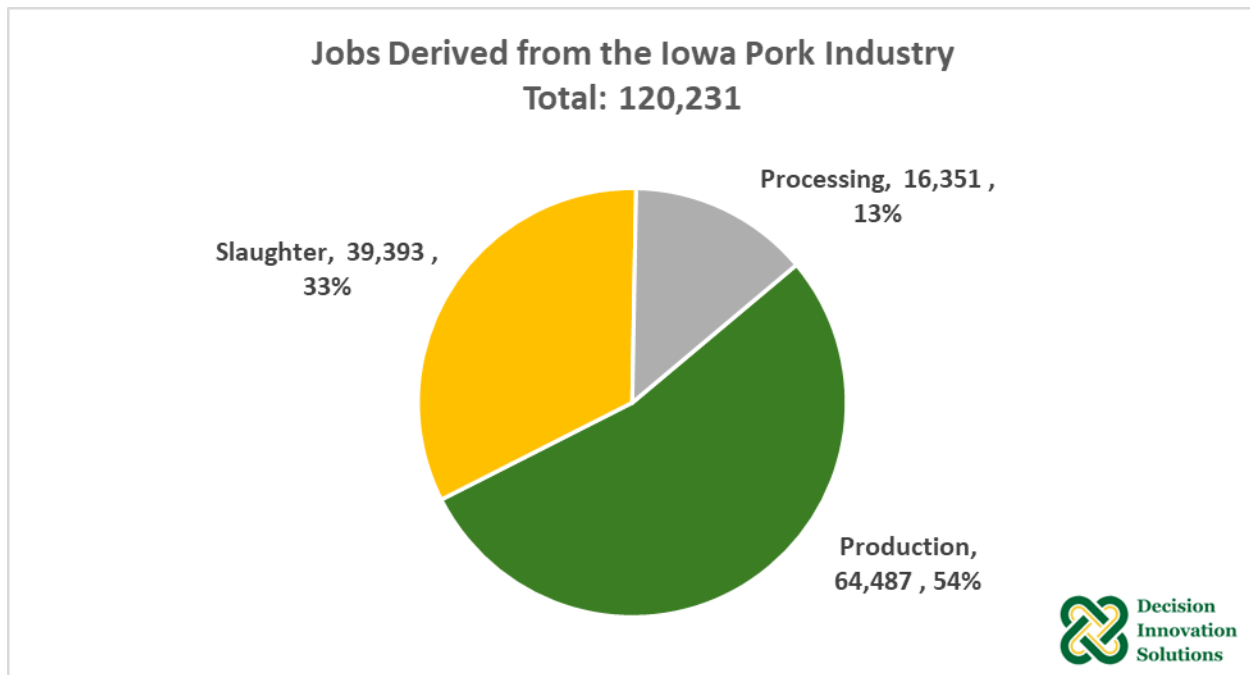


Figure 51. Economic Contribution of the Iowa Pork Industry - Jobs

4.3 State Output (Sales)

The sales contributed to Iowa's economy from hog production, slaughtering, processing, and related economic activities are estimated to be \$40.5 billion in 2024. More than \$16.3 billion or about 40% of this amount is derived from hog production, \$17.6 billion or 44% is derived from hog slaughtering, and about \$6.6 billion or about 16% is derived from hog processing (Figure 52).

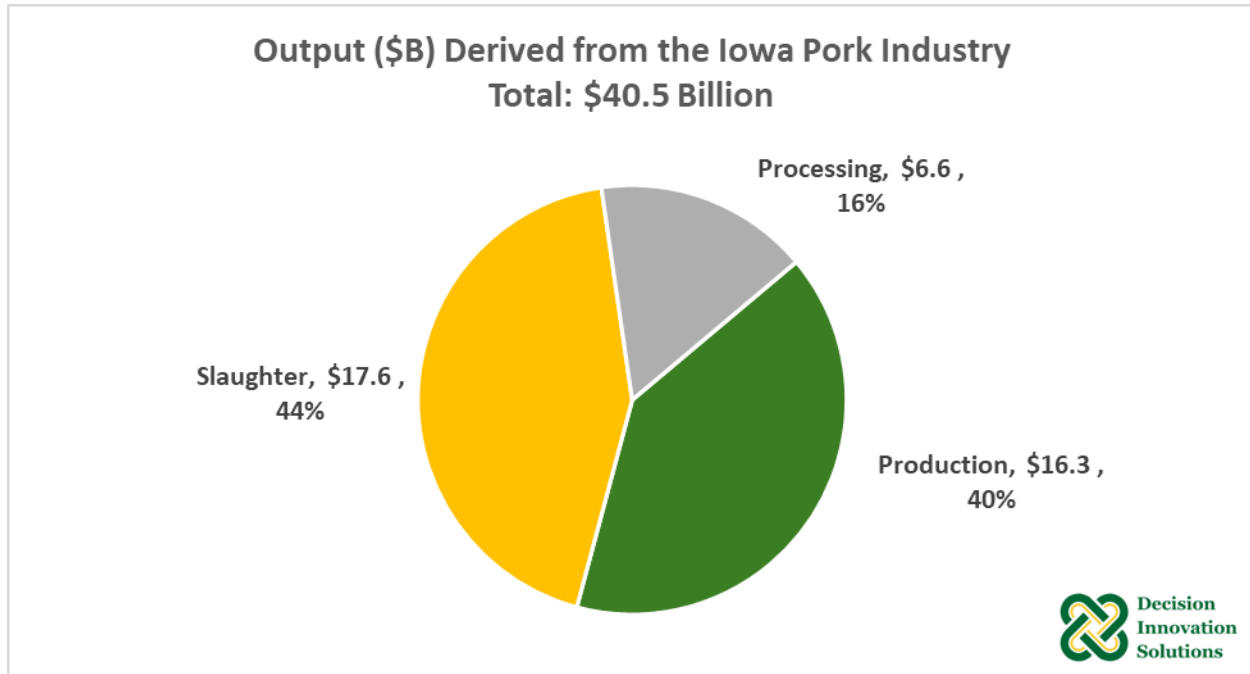


Figure 52. Economic Contribution of the Iowa Pork Industry - Output

4.4 State Labor Income

Hog production, slaughter, and processing in Iowa is estimated to contribute around \$8.0 billion in labor income in 2024. Of this amount, \$4.1 billion (51%) is derived from hog production, \$2.7 billion (34%) is derived from hog slaughter, and \$1.2 billion (15%) is derived from hog processing (Figure 53).

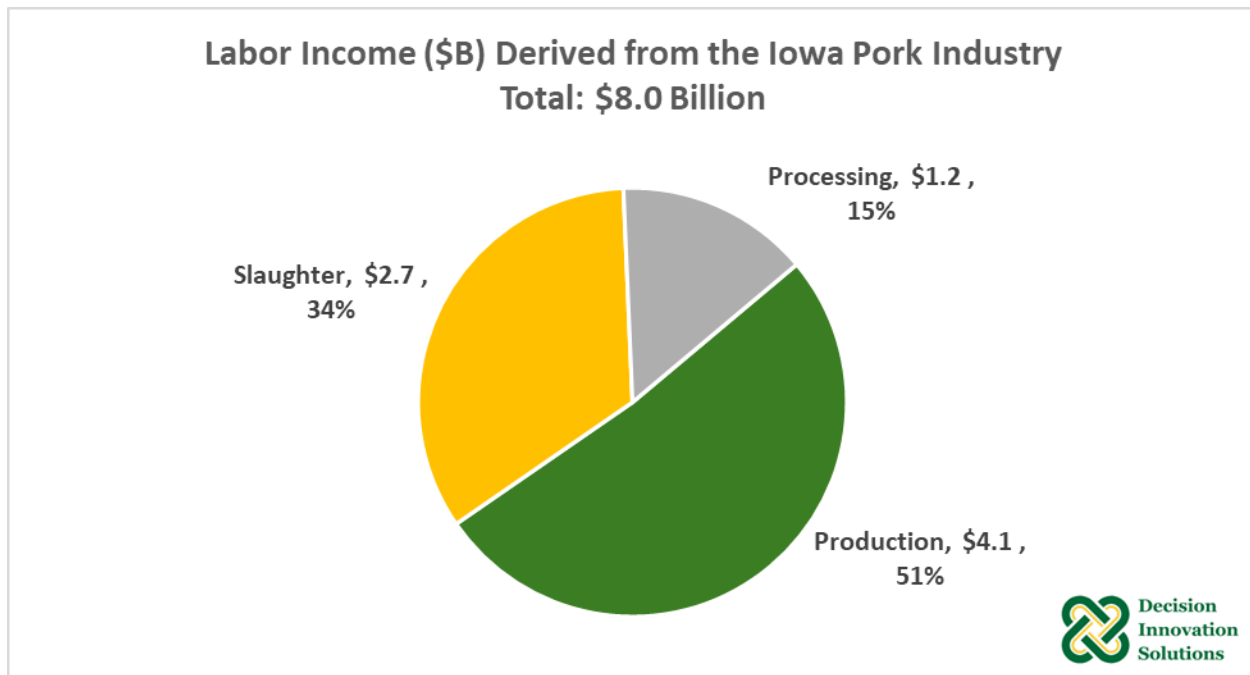


Figure 53. Economic Contribution of the Iowa Pork Industry - Labor Income

4.5 State Taxes

An estimated \$2.7 billion in taxes are paid as a result of hog production, slaughter, and processing in Iowa. Of this total, approximately 52 percent (\$1.4 billion) is due to hog production, 34 percent (\$927 million) is due to hog slaughter, and 14 percent (\$379 million) is due to hog processing (Figure 54). Between the three sectors of the hog industry, an estimated \$330 million in taxes is paid to local (county and sub-county districts) governments, nearly \$586 million is paid at the state level, and more than \$1.8 billion is paid at the federal level (Figure 55).

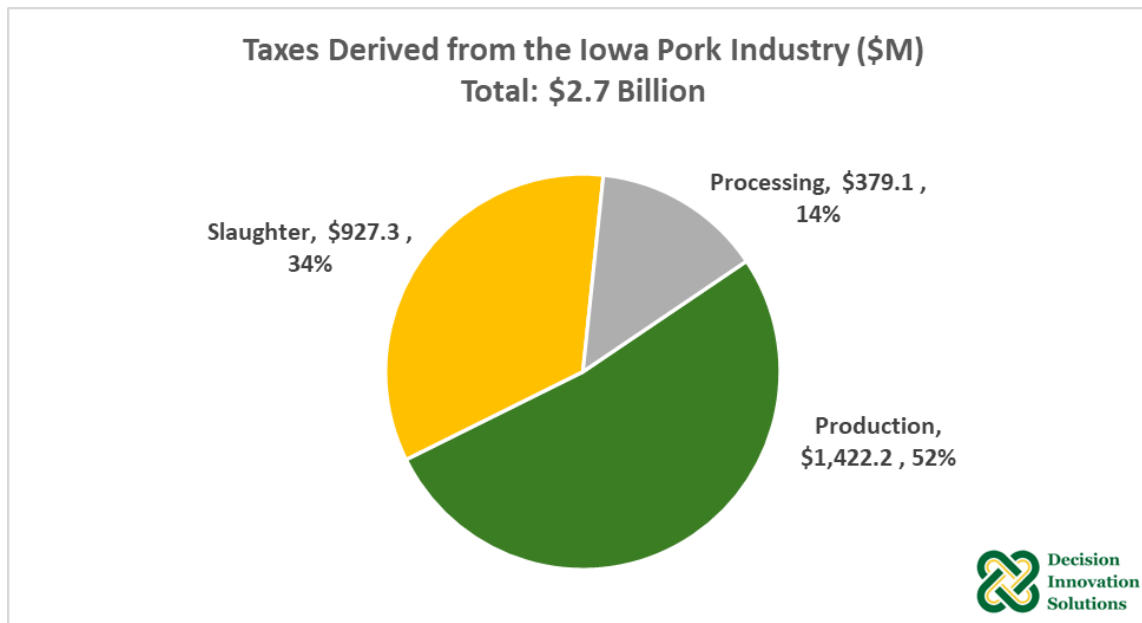


Figure 54. Economic Contribution of the Iowa Pork Industry - Taxes

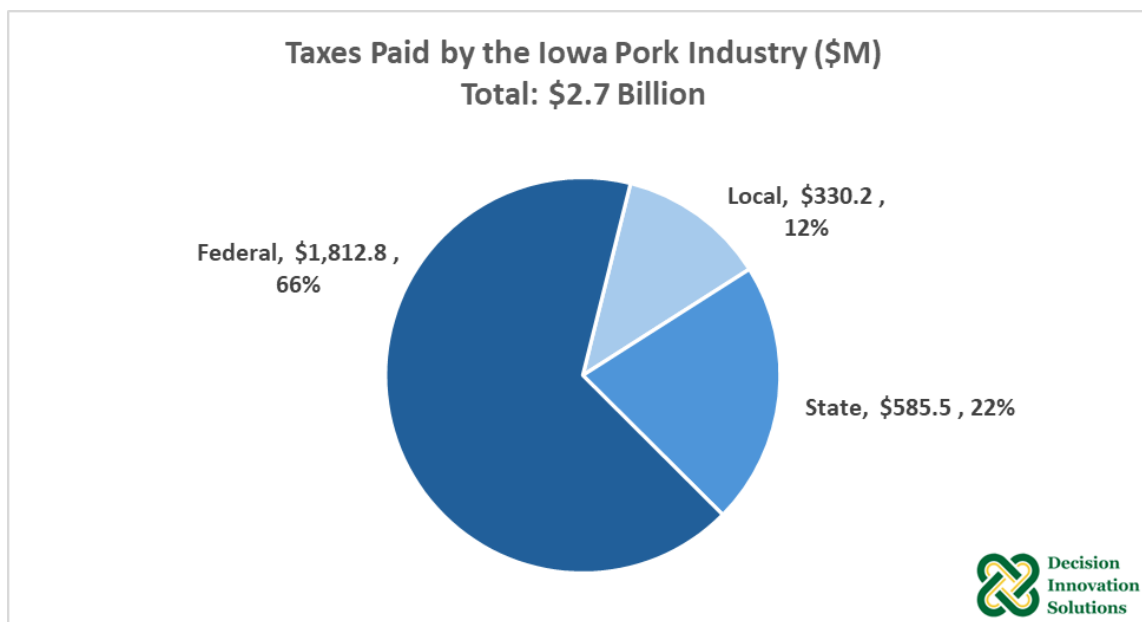


Figure 55. Iowa Pork Industry Taxes Paid by Level of Government

5 County Level Results

The analysis conducted above at the state level was also done for 35 of Iowa’s counties that were identified as “focus” counties. The full list of counties is shown in Table 2 in section 2.1.1. Additional maps showing the county-level contribution of the sectors making up the pork industry (hog production, slaughter, and processing) are shown in Appendix A, Additional County Maps.

5.1 County Value Added

Figure 56 shows the estimated value added contribution of hog production, slaughter, and processing for each of the 35 focus counties. This value ranges from \$17.4 million in Lucas County to \$631.4 million in Sioux County. In addition to Sioux County, Woodbury, Washington, Lyon, Hamilton, Plymouth, Marshall, and Wapello Counties all have an estimated value added contribution of more than \$300 million.

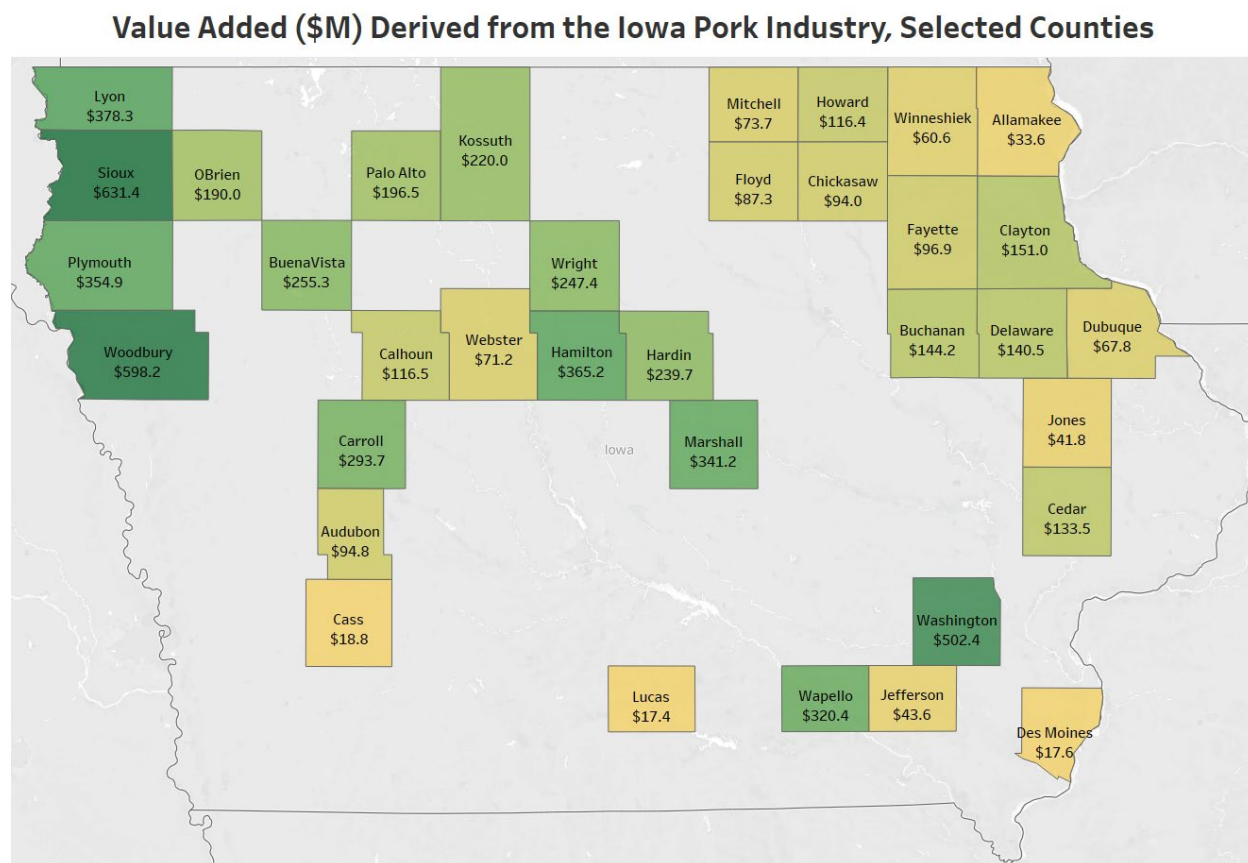


Figure 56. Value Added Contribution of the Iowa Pork Industry, Selected Counties

5.2 County Jobs

The estimated jobs supported by the pork industry in each of the focus counties is shown in Figure 57. This value ranges from 169 jobs in Cass County to more than 6,000 jobs in Woodbury County. A total of 14 of the 35 focus counties have an estimated jobs contribution of more than 1,000.

Jobs Derived from the Iowa Pork Industry, Selected Counties

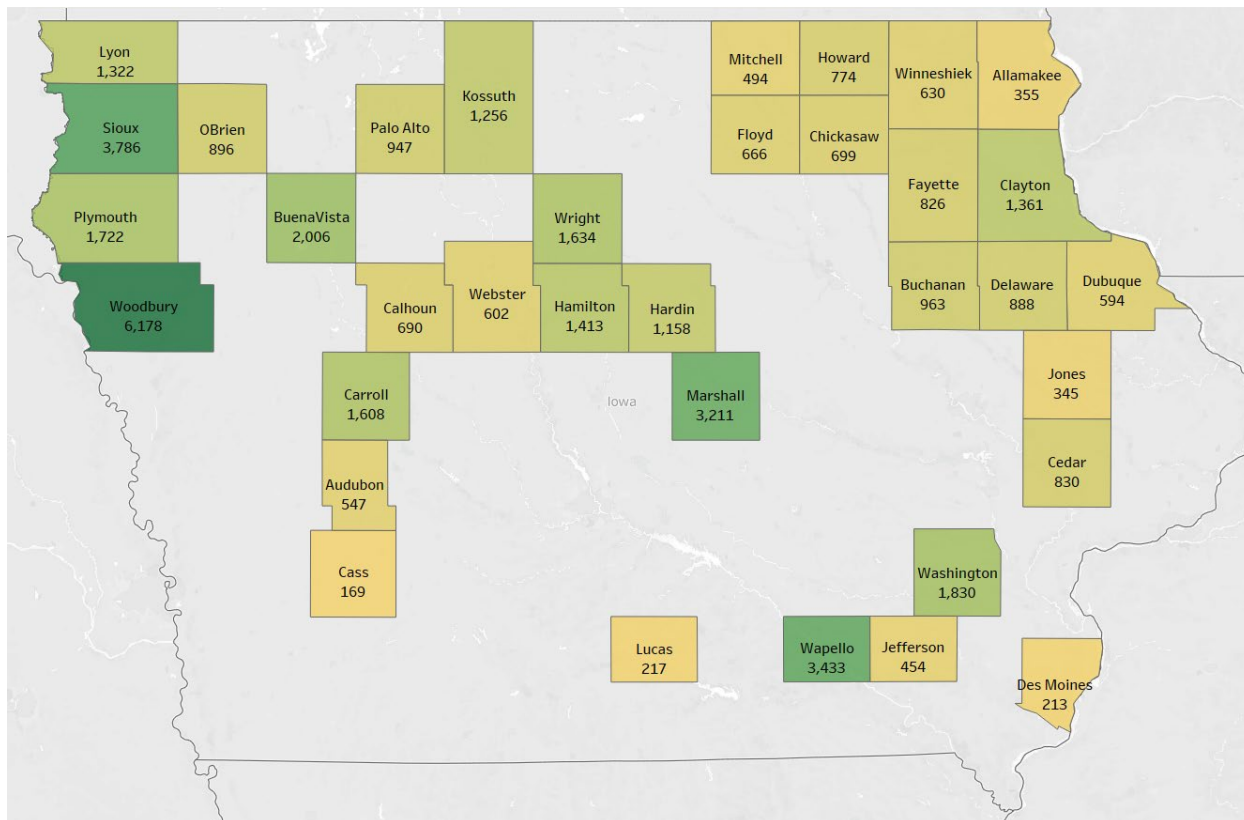


Figure 57. Jobs Contribution of the Iowa Pork Industry, Selected Counties

6 Appendix A, Additional County Maps

6.1 Value Added

Value Added (\$M) Derived from Hog Production, Selected Counties

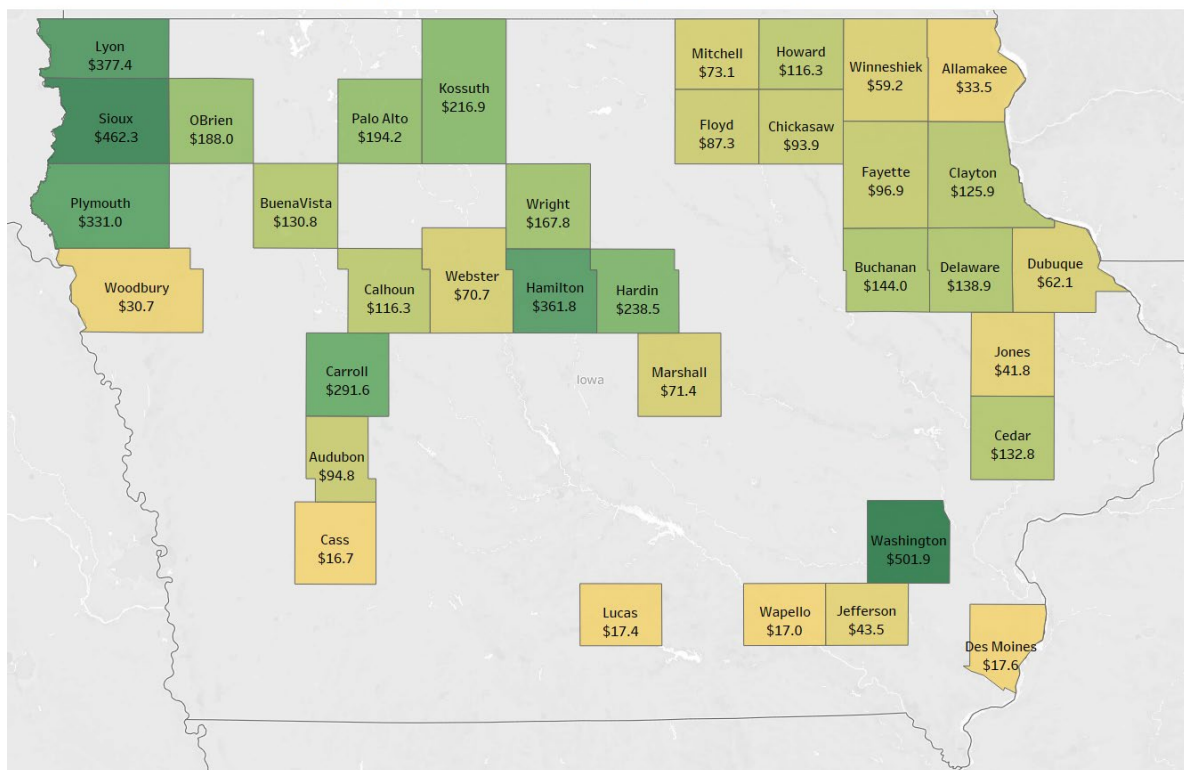


Figure 58. Value Added (\$M) Derived from Hog Production, Selected Counties

Value Added (\$M) Derived from Hog Slaughter, Selected Counties

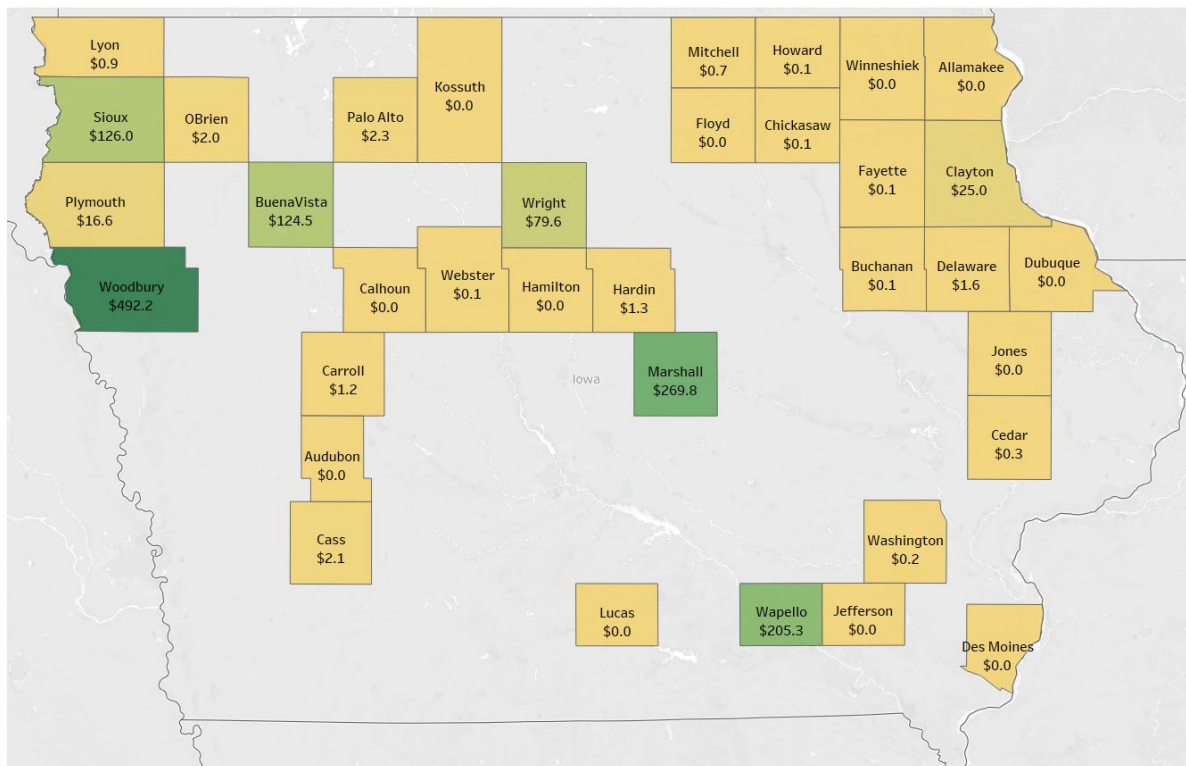


Figure 59. Value Added (\$M) Derived from Hog Slaughter, Selected Counties

Value Added (\$M) Derived from Hog Processing, Selected Counties

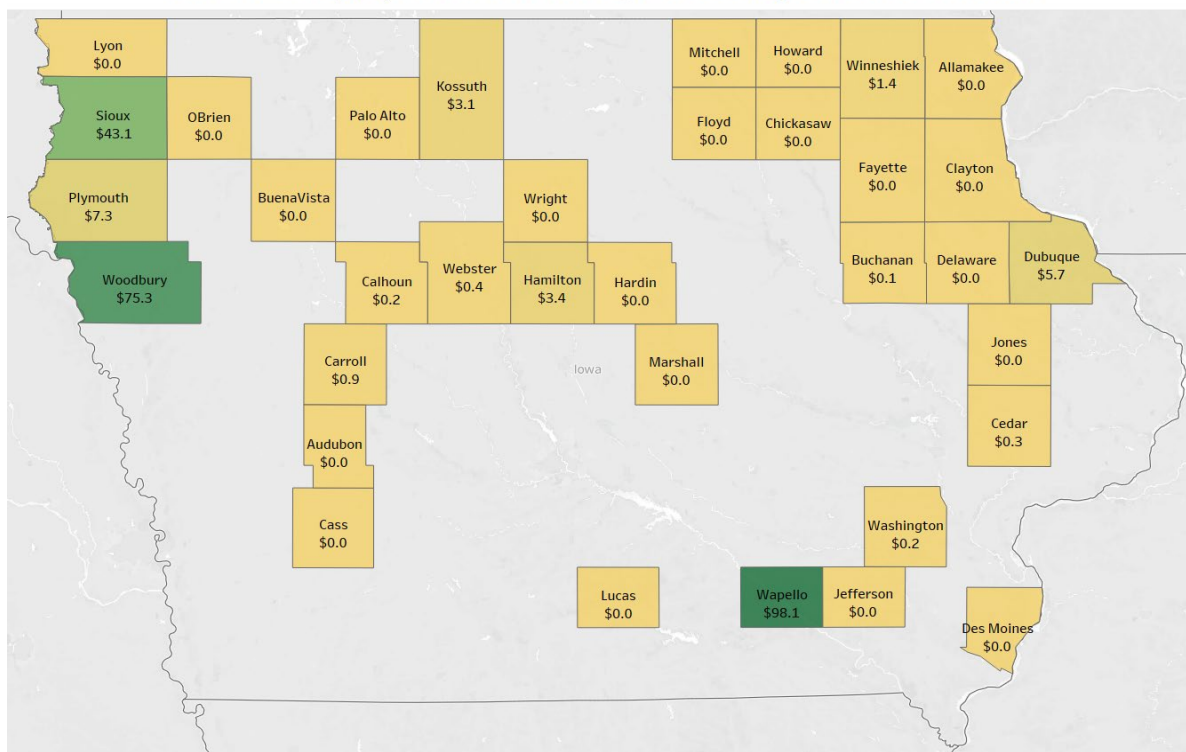


Figure 60. Value Added (\$M) Derived from Hog Processing, Selected Counties

6.2 Jobs

Jobs Derived from Hog Production, Selected Counties

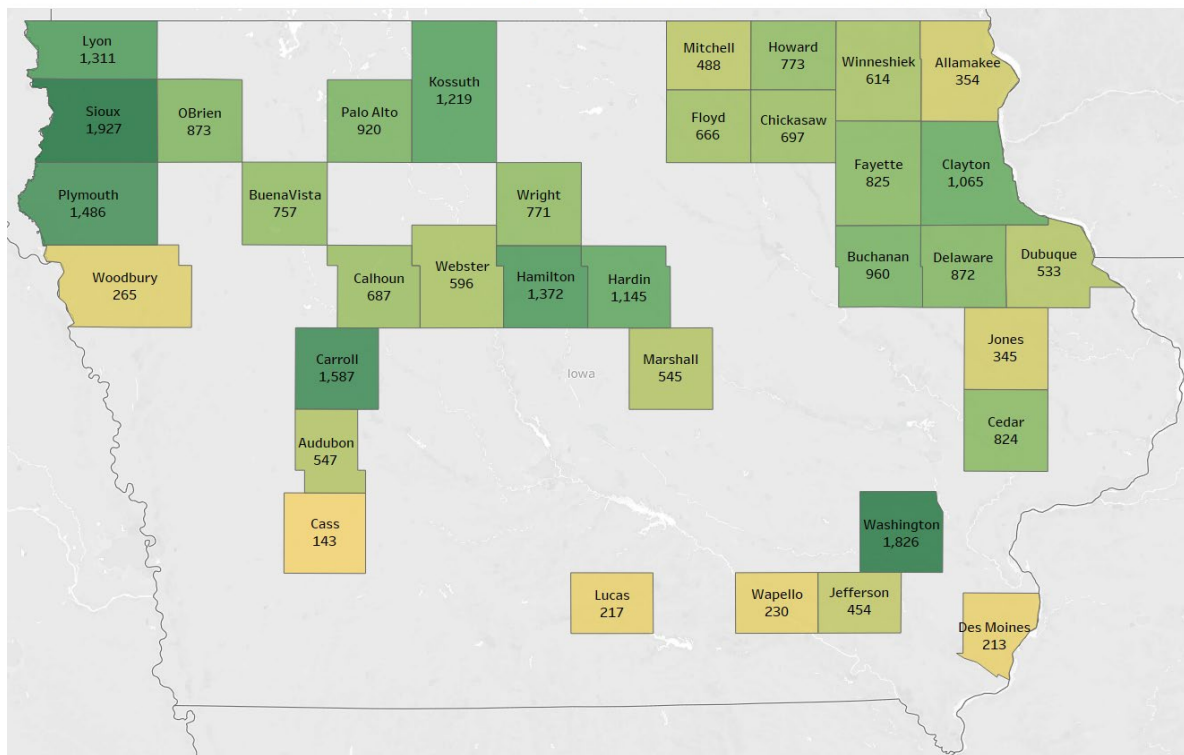


Figure 61. Jobs Derived from Hog Production, Selected Counties

Jobs Derived from Hog Slaughter, Selected Counties

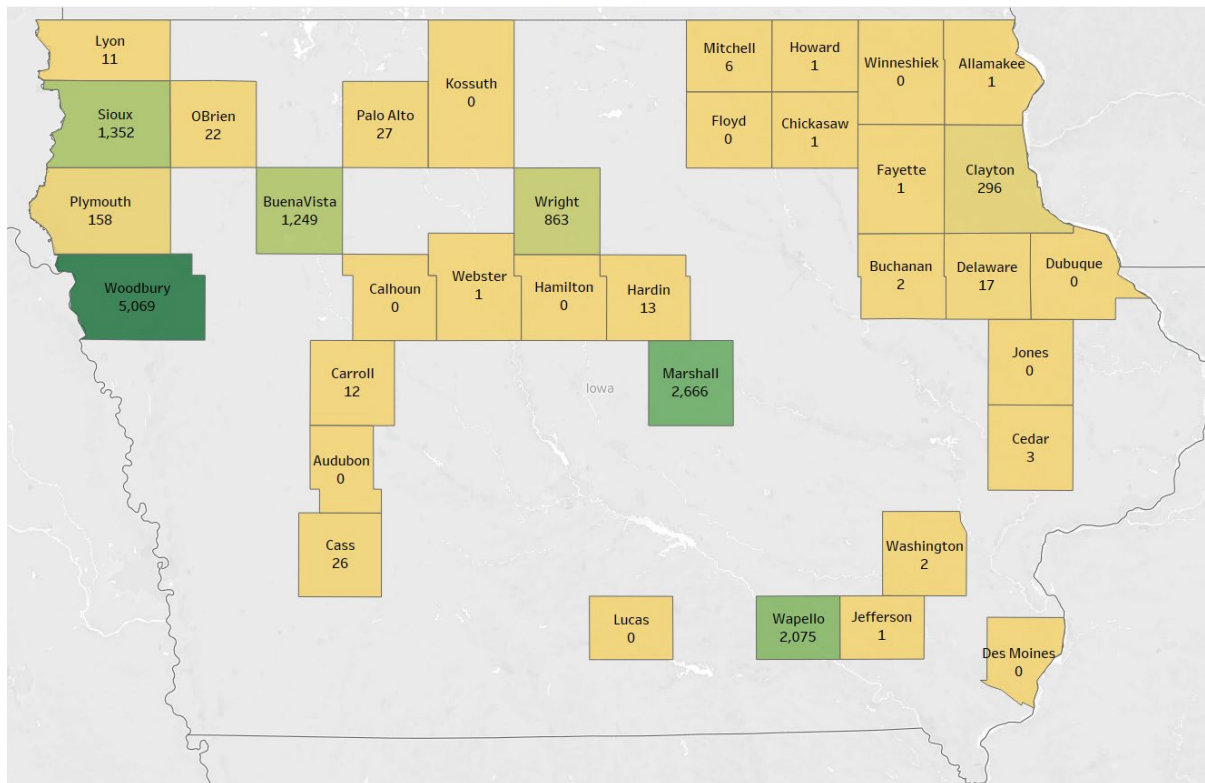


Figure 62. Jobs Derived from Hog Slaughter, Selected Counties

Jobs Derived from Hog Processing, Selected Counties

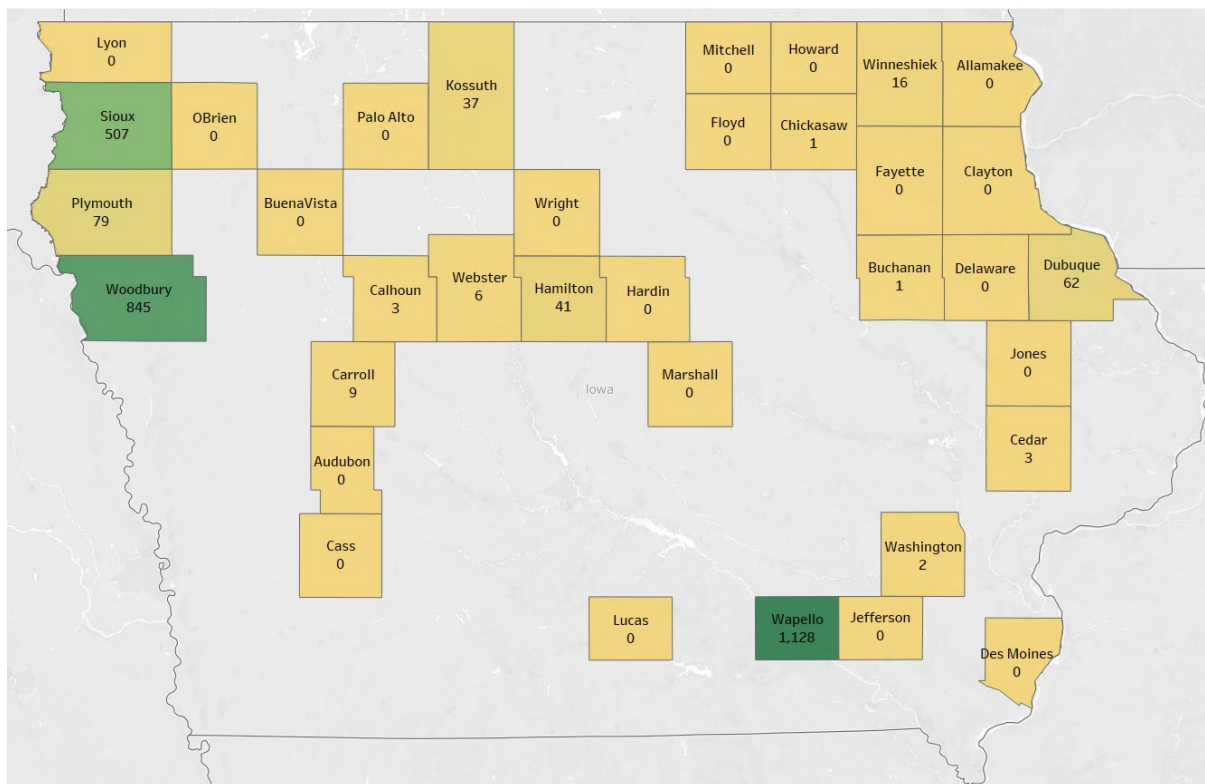


Figure 63. Jobs Derived from Hog Processing, Selected Counties