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U.S. Livestock Industry Trends and Nebraska's Role

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Acknowledgment

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Chapter 1: Introduction

From the earliest days of settlement, the livestock industry has been a significant economic and cultural part of Nebraska history. From its rich prairie grasslands to the early development of Omaha around the meat packing industry, no area has been untouched by the livestock industry.

The industry has continued to evolve up until the present time, placing Nebraska among the top livestock producing states in the nation. Currently the state ranks **1st** in commercial red meat production and commercial cattle slaughter, **2nd** in cattle and calves cash receipts, **3rd** in meat animals cash receipts, **4th** in all livestock and products cash receipts and beef cows and heifers calved, and **6th** in all hogs and pigs produced. Moreover, Nebraska ranks among the top five states in the production of major feed grain and oil seed crops as well as the recent development of ethanol production (with its distillers grains by-product for livestock feed). This livestock/crop combination provides a unique synergistic system for Nebraska that leads to a competitive economic advantage for all component groups. In turn, both the state and sub-state regional economies have been impacted positively — particularly in those areas where value-added processing has accompanied livestock production.

However, the U.S. livestock industry is in a dynamic flux, changing rapidly in response and reaction to multiple forces. Global food demand, particularly protein-based demand, is growing rapidly, which at least partially explains expanded U.S. livestock-based exports in recent years. Consumer demand, both domestic and foreign, is being shaped by concerns of health and nutrition, food safety, humane treatment of animals, and environmental spillovers, as well as economic considerations. Meanwhile, the production side of the industry is facing the challenges of remaining economically viable in the face of small and highly volatile profit margins in a vertically-integrated industry that is increasingly responding to larger macro-economic forces beyond its control. The consequences of this are an industry that is changing rapidly in both the structural configuration of livestock production and its geographic location. How Nebraska's livestock industry is adapting to these changes under way is the focus of this report and the subsequent ongoing data monitoring/analysis series. The purpose of this determination is to provide an ongoing factual understanding of the industry changes impacting Nebraska — identifying both threats to and opportunities for future economic viability.

This report presents a baseline perspective with trend analysis over the past 10 years. Assembling data from several sources, a set of metrics is used to track trends as well as comparative relationships with other states. Its intent is to provide readily accessible insight for industry stakeholders, policy makers, and researchers. From this effort, the Department of Agricultural Economics at the University of Nebraska–Lincoln will continue to monitor and update these series through its online "*Nebraska Livestock Industry Data Dashboard*."

Chapter 2: Beef Industry

In Nebraska's livestock industry, beef cattle production represents the primary share. In 2010, the beef cattle component accounted for more than 85 percent of the total dollar value of livestock production — putting the state at the forefront of the U.S. beef industry.

Section 2.1 Annual Calf Crop

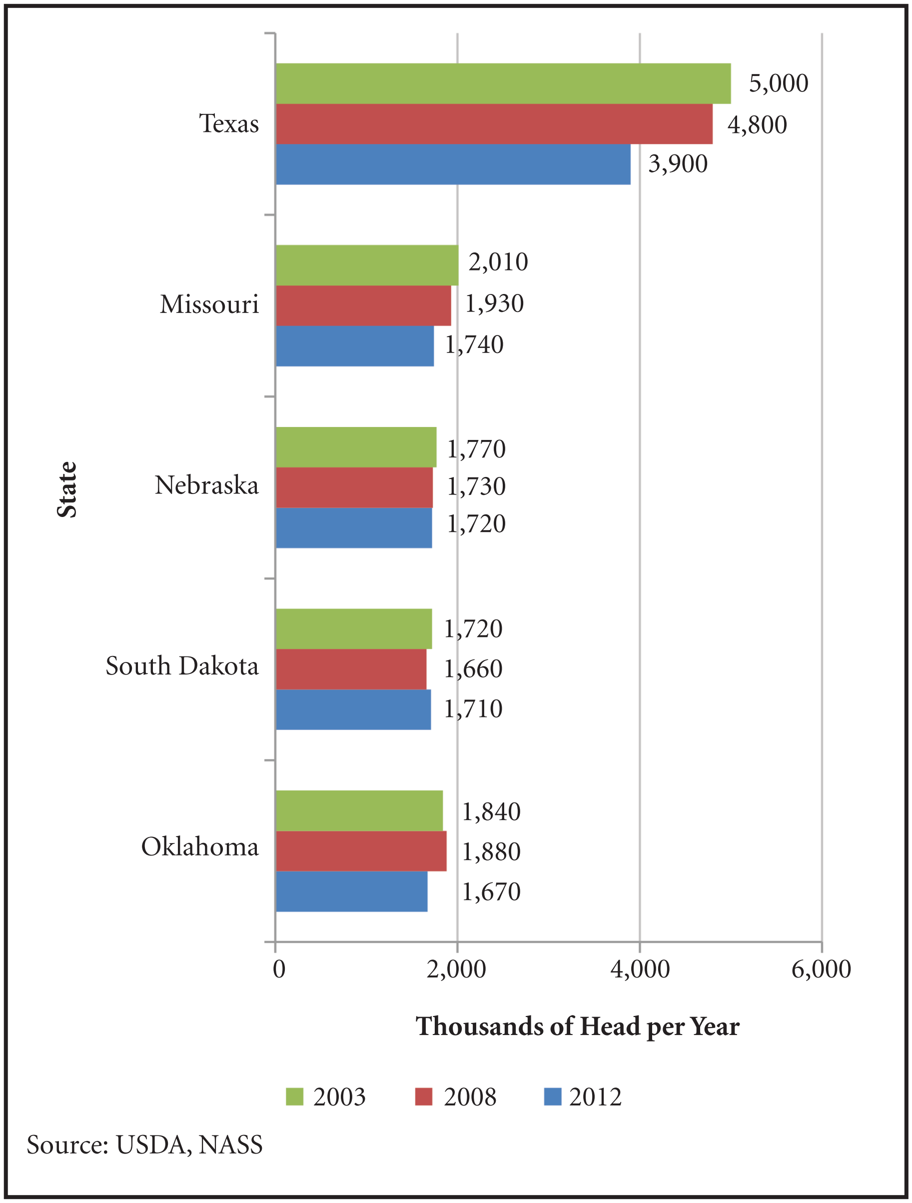


Figure 2.1. Annual Calf Crop in Top Five Beef States of U.S.

- The annual calf crop is the total head of calves born by state for industry-leading beef states.

Table 2.1. Select State Comparison of U.S. Annual Calf Crop: 2003, 2008, and 2012

Region	Inventory Year			Percent Change Between Periods		
	2003	2008	2012	2003-2008	2008-2012	2003-2012
	(1,000 head)	(1,000 head)	(1,000 head)	(percent)	(percent)	(percent)
Top Five Beef States						
Texas	5,000	4,800	3,900	-4.0	-18.8	-22.0
Missouri	2,010	1,930	1,740	-4.0	-9.8	-13.4
Nebraska	**1,770**	**1,730**	**1,720**	**-2.3**	**-0.6**	**-2.8**
South Dakota	1,720	1,660	1,710	-3.5	3.0	-0.6
Oklahoma	1,840	1,880	1,670	2.2	-11.2	-9.2
Subtotal	12,340	12,000	10,740	-2.8	-10.5	-13.0
Other Nebraska Neighbors						
Kansas	1,550	1,430	1,250	-7.7	-12.6	-19.4
Iowa	1,110	1,070	1,050	-3.6	-1.9	-5.4
Colorado	730	780	760	6.8	-2.6	4.1
Wyoming	700	680	660	-2.9	-2.9	-5.7
Subtotal	4,090	3,960	3,720	-3.2	-6.1	-9.0
Other States	21,163	20,193	19,819	-4.6	-1.8	-6.3
United States	37,593	36,153	34,279	-3.8	-5.2	-8.8

Source: USDA, NASS

- The U.S. annual beef calf crop fell by more than 3.3 million from 2003 to 2012, leading to an 8.8 percent decline.
- For the decade, Texas, the largest beef calf producing state, had annual calf crop numbers fall by 1.1 million head, a 22 percent decline. The sharpest decline occurred during the latter half of the decade when the crop dropped by 18 percent.
- From 2003 to 2012, Nebraska's annual beef calf crop declined by 50,000 head, a 2.8 percent decline. Declines for the second half of the decade were less than those for other industry-leading beef states.
- Pervasive drought conditions for the past three years in the Southern Plains states have been a major contributor to heavy beef cow-herd culling, including complete herd liquidations in some areas. Some of the livestock being liquidated during the drought were purchased and moved to states in the Northern Great Plains. These shifts only serve as a temporary solution for a short period of time.
- For Nebraska, the drought of 2012 and its continuation into 2013 appear to be leading to herd downsizing and, in turn, a smaller calf crop for 2013. Depending upon the severity of the drought, herd downsizings may persist for a considerable period of time into the future.

Table 2.2. Select State Share of U.S. Annual Calf Crop: 2003, 2008, and 2012

Region	*Percent Share of U.S. Annual Calf Crop*		
	2003	*2008*	*2012*
	(percent)	(percent)	(percent)
Top Five Beef States			
Texas	13.3	13.3	11.4
Missouri	5.3	5.3	5.1
Nebraska	**4.7**	**4.8**	**5.0**
South Dakota	4.6	4.6	5.0
Oklahoma	4.9	5.2	4.9
Subtotal	32.8	33.2	31.3
Other Nebraska Neighbors			
Kansas	4.1	4.0	3.6
Iowa	3.0	3.0	3.1
Colorado	1.9	2.2	2.2
Wyoming	1.9	1.9	1.9
Subtotal	10.9	11.0	10.9
Other States	56.3	55.9	57.8
United States	100.0	100.0	100.0

Source: USDA, NASS

- For the decade, Texas's share of the U.S. beef calf crop declined from 13.3 percent to 11.4 percent, nearly 2 percentage points.
- With only a modest decline in its annual beef calf crop over the 2003 to 2012 decade relative to other areas of the country, Nebraska's share of the total U.S. production increased by 0.3 percentage points to 5.0 percent.
- South Dakota's share of the annual crop also rose by 0.4 percentage points over the decade to 5.0 percent of the U.S. total for 2012. This increase in the share of annual calf crop may be attributed in part to the purchase and movement of bred cows from the drought-stricken Southern Plains.
- Compared to other segments of the beef industry, the calf crop is the least concentrated sector with the top five beef states only contributing about one-third of the annual production. Cattle on feed and the fed cattle slaughter markets are much more concentrated, accounting for more than twice the concentration in market share for the top five states when compared to the annual calf crop.

Section 2.2 Cattle on Feed: January 1 Inventory

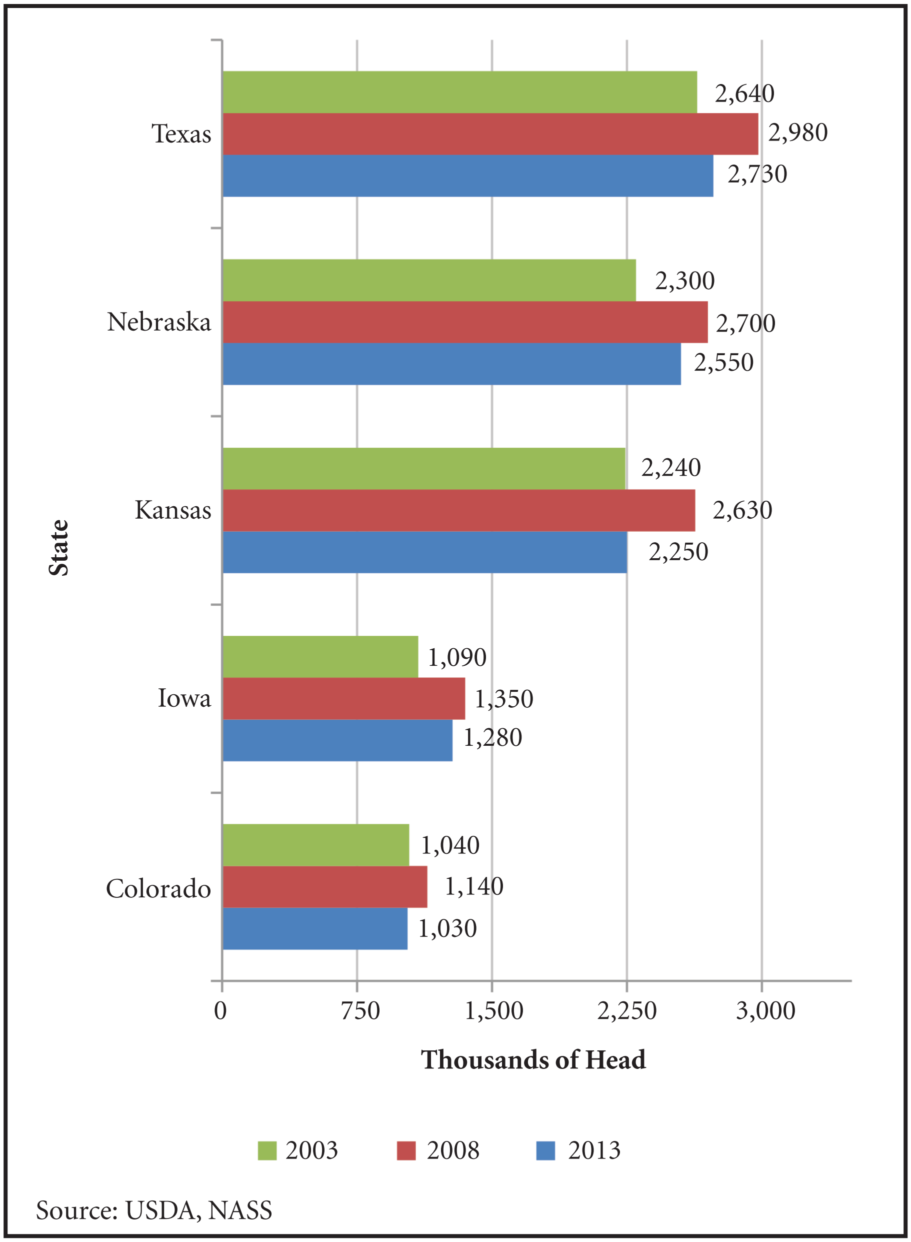


Figure 2.2. Cattle on Feed: Jan. 1 Inventory in Top Five States of U.S.

- Cattle on feed January 1 inventory is the total head of cattle being fed for slaughter by state on the respective inventory date.

Table 2.3. Select State Comparison of U.S. Cattle on Feed Jan. 1 Inventory: 2003, 2008, and 2013

Region	*Cattle on Feed Inventory*			*Percent Change Between Periods*		
	Jan. 1, 2003	*Jan. 1, 2008*	*Jan. 1, 2013*	*2003-2008*	*2008-2013*	*2003-2013*
	(1,000 head)	(1,000 head)	(1,000 head)	(percent)	(percent)	(percent)
Top Five States						
Texas	2,640	2,980	2,730	12.9	-8.4	3.4
Nebraska	**2,300**	**2,700**	**2,550**	**17.4**	**-5.6**	**10.9**
Kansas	2,240	2,630	2,250	17.4	-14.4	0.4
Iowa	1,090	1,350	1,280	23.9	-5.2	17.4
Colorado	1,040	1,140	1,030	9.6	-9.6	-1.0
Subtotal	9,310	10,800	9,840	16.0	-8.9	5.7
Other Nebraska Neighbors						
South Dakota	395	400	300	1.3	-25.0	-24.1
Wyoming	75	70	65	-6.7	-7.1	-13.3
Missouri	70	65	50	-7.1	-23.1	-28.6
Subtotal	540	535	415	-0.9	-22.4	-23.1
Other States	2,866	2,914	2,557	1.7	-12.3	-10.8
United States	13,211	14,809	13,352	12.1	-9.8	1.1

Source: USDA, NASS

- Nationally, cattle on feed have declined nearly 10 percent over the past five years. In part, this has resulted in a gradual trend of higher feedlot placement weights to compensate for the decline in the head of cattle on feed.
- Of the top five states, Nebraska and neighboring Iowa have experienced the smallest percentage declines over the past five years, averaging just over 5 percent or half the national average. The fact that these two states lead the nation in ethanol production bears mentioning, since the distillers grains by-products from the ethanol process have quickly become a highly desirable, cost-efficient ingredient in cattle rations. Location in proximity to this input appears to give these two states a competitive advantage over other parts of the country, which face the higher associated costs of drying and transportation.
- With the exception of Iowa, Nebraska's neighboring states have experienced larger percentage declines in cattle on feed over the past five years; in some cases greater than 15 percent.
- In addition to the above, significant locational shifts of the cattle-feeding industry appear under way across the country, particularly in a fairly short span of five years.
- If the current five-year trend continues for the next five to seven years, Nebraska will lead the U.S. in number of cattle on feed.

Table 2.4. Select State Share of U.S. Cattle on Feed Jan. 1 Inventory: 2003, 2008, and 2013

Region	Percent Share of U.S. Cattle on Feed Inventory		
	Jan. 1, 2003	Jan. 1, 2008	Jan. 1, 2013
	(percent)	(percent)	(percent)
Top Five States			
Texas	20.0	20.1	20.4
Nebraska	**17.4**	**18.2**	**19.1**
Kansas	17.0	17.8	16.9
Iowa	8.3	9.1	9.6
Colorado	7.9	7.7	7.7
Subtotal	70.5	72.9	73.7
Other Nebraska Neighbors			
South Dakota	3.0	2.7	2.2
Wyoming	0.6	0.5	0.5
Missouri	0.5	0.4	0.4
Subtotal	4.1	3.6	3.1
Other States	21.7	19.7	19.2
United States	100.0	100.0	100.0

Source: USDA, NASS

- While the U.S. cattle industry has declined in total number of head over the past decade, Nebraska's market share of cattle on feed has gradually increased from 17.4 percent to 19.1 percent.
- Nebraska, in combination with Iowa, accounted for nearly 29 percent of the U.S. cattle on feed as of January 1, 2013, as compared with less than 26 percent a decade earlier. This subtle change may be stemming from the availability of distillers grains by-products that allows producers to feed lower cost rations compared to only utilizing corn as the main protein source.
- The top five states for cattle on feed have a combined national market share of almost 75 percent. A concentration rate this high has significantly impacted the location, size, and scale of fed cattle slaughtering facilities across the U.S. With trends continuing in the cattle on feed industry, the resulting implications will likely carry through to the fed cattle slaughtering packers.

Section 2.3 Fed Cattle Slaughtering Capacity

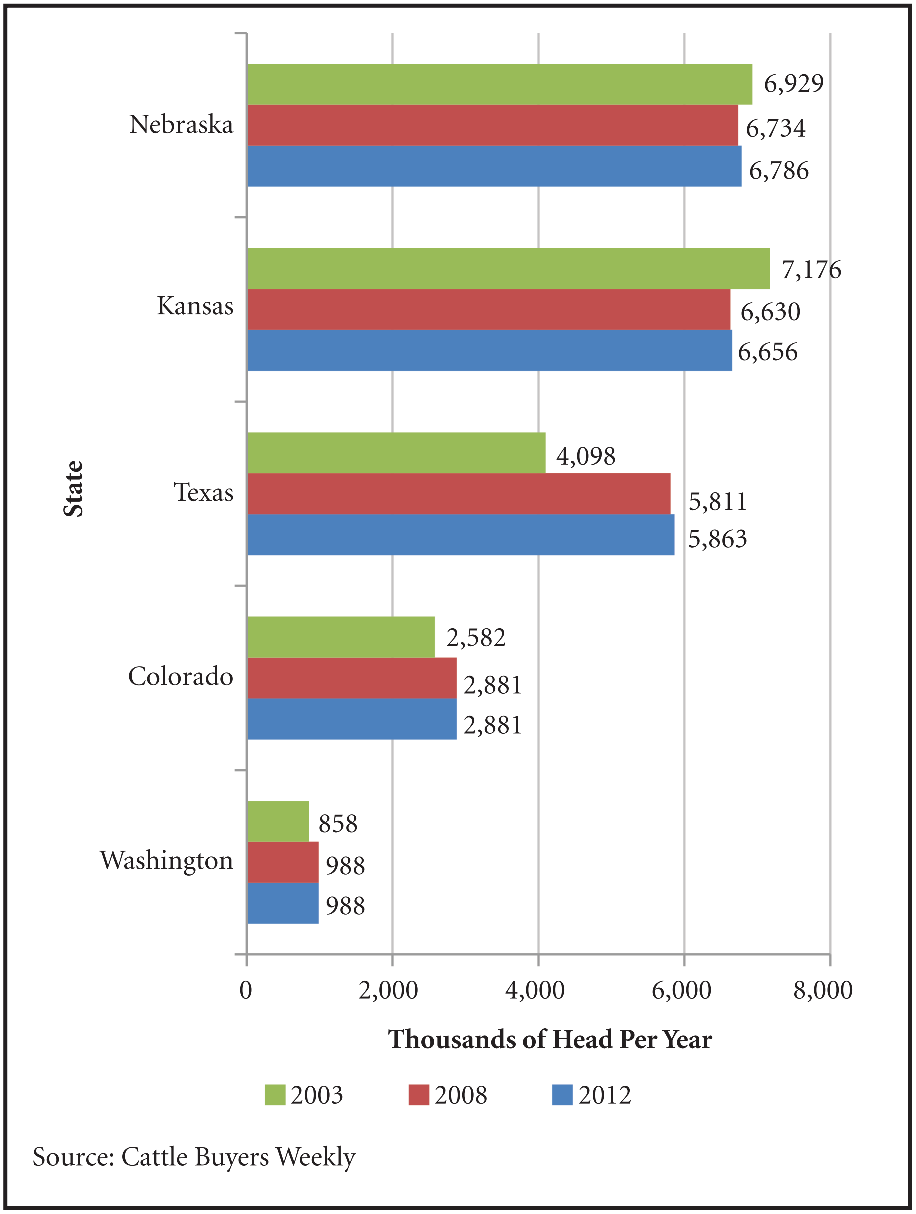


Figure 2.3. Fed Cattle Slaughtering Capacity in Top Five States of U.S.

- The fed cattle slaughtering capacity is an annual estimate for the total head of fed cattle (excluding cull cows or bulls) slaughtered in the respective state. To determine this estimate per state, the average daily slaughtering capacity of each major fed cattle plant was multiplied by 260 operating days per year and then summed together by region.

Table 2.5 Select State Comparison of U.S. Annual Fed Cattle Slaughtering Capacity: 2003, 2008, and 2012

Region	*Capacity Year*			*Percent Change Between Periods*		
	2003	*2008*	*2012*	*2003-2008*	*2008-2012*	*2003-2012*
	(1,000 head)	(1,000 head)	(1,000 head)	(percent)	(percent)	(percent)
Top Five States						
Nebraska	**6,929**	**6,734**	**6,786**	**-2.8**	**0.8**	**-2.1**
Kansas	7,176	6,630	6,656	-7.6	0.4	-7.2
Texas	4,098	5,811	5,863	41.8	0.9	43.1
Colorado	2,582	2,881	2,881	11.6	0.0	11.6
Washington	858	988	988	15.2	0.0	15.2
Subtotal	21,642	23,044	23,174	6.5	0.6	7.1
Other Nebraska Neighbors						
Iowa	689	689	689	0.0	0.0	0.0
South Dakota	—	—	390	—	—	—
Missouri	—	—	—	—	—	—
Wyoming	—	—	—	—	—	—
Subtotal	689	689	1,079	0.0	56.6	56.6
Other States	2,769	2,647	2,798	-4.4	5.7	1.0
United States	25,100	26,380	27,050	5.1	2.5	7.8

*Estimates not provided for values noted with a dash.
Source: Cattle Buyers Weekly

- Beef packer slaughtering capacity in Nebraska has remained relatively steady over the past five years, ranking the state highest in the nation with 6.7 million head in 2012.
- The remaining states in the top five experienced more substantial changes over the decade. The most notable change has been in Texas where slaughtering capacity surged nearly 42 percent (1.7 million) from 2003 to 2008. (**Note:** the Texas capacity for 2012 does not account for the recent suspending of operations for a plant in Plainview, Texas, in January 2013, which represents an estimated loss in capacity of approximately 1.2 million head annually [Cargill Meat Solutions, 2005]).
- For other Nebraska neighbors, the largest change in slaughtering capacity occurred in South Dakota with the opening of North Beef Packers. The facility in Aberdeen, South Dakota, opened in late 2012. The number of fed cattle being slaughtered in early 2013 remains well below the plant's estimated capacity (Northern Beef Packers, 2013).

Table 2.6. Select State Share of U.S. Fed Cattle Slaughtering Capacity: 2003, 2008, and 2012

Region	Percent Share of Annual Slaughtering Capacity		
	2003	2008	2012
	(percent)	(percent)	(percent)
Top Five States			
Nebraska	**27.6**	**25.5**	**25.1**
Kansas	28.6	25.1	24.6
Texas	16.3	22.0	21.7
Colorado	10.3	10.9	10.6
Washington	3.4	3.7	3.7
Subtotal	86.2	87.4	85.7
Other Nebraska Neighbors			
Iowa	2.7	2.6	2.5
South Dakota	—	—	1.4
Missouri	—	—	—
Wyoming	—	—	—
Subtotal	2.7	2.6	4.0
Other States	11.0	10.0	10.3
United States	100.0	100.0	100.0

Source: Cattle Buyers Weekly

- Nebraska's share of the U.S. beef slaughter capacity has declined slightly during the past decade, but still accounts for over a quarter of the industry's slaughter production.
- In 2012, nearly 65 percent of the total U.S. beef slaughter capacity resided in Nebraska and neighboring states, a region that accounted for 56 percent of the U.S. cattle on feed in that same year. This would indicate a fairly strong relationship of beef cattle production in reasonable proximity to processing centered in Nebraska.
- Capacities for these facilities are representative estimates for their market shares. The actual head of fed cattle slaughtered in each state may exceed or fall short of estimated capacities.

Section 2.4 Fed Cattle Slaughtered

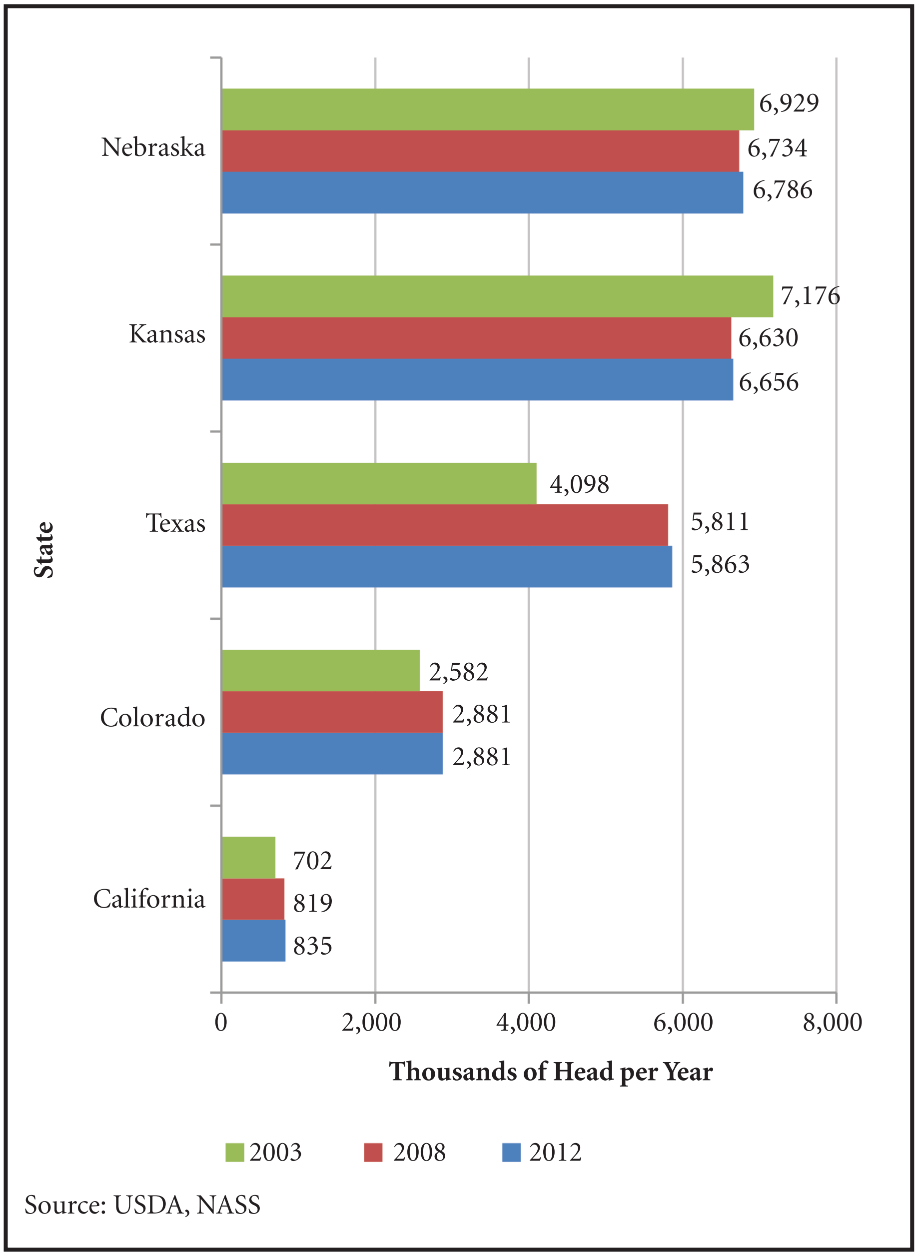


Figure 2.4. Fed Cattle Slaughtered in Top Five States of U.S.

- The fed cattle slaughtered represents the total number of head (excluding cull cows or bulls) annually slaughtered by the major packers of each state. In states where only one major packer slaughters fed cattle, the actual head of market beef cattle processed were suppressed to protect the confidentiality of the company.

Table 2.7. Select State Comparison of U.S. Fed Cattle Slaughtered: 2003, 2008, and 2012

Region	Inventory Year			Percent Change Between Periods		
	2003	2008	2012	2003-2008	2008-2012	2003-2012
	(1,000 head)	(1,000 head)	(1,000 head)	(percent)	(percent)	(percent)
Top Five States						
Nebraska	**7,661**	**7,113**	**6,730**	**-7.2**	**-5.4**	**-12.1**
Kansas	7,357	6,508	6,227	-11.5	-4.3	-15.4
Texas	6,495	6,740	6,527	3.8	-3.2	0.5
Colorado	2,480	2,509	2,498	1.2	-0.4	0.7
California	1,380	1,568	1,921	13.6	22.5	39.2
Subtotal	25,372	24,438	23,904	-3.7	-2.2	-5.8
Other Nebraska Neighbors						
Missouri	93	91	57	-2.0	-37.8	-39.1
Wyoming	8	7	7	-7.7	-1.4	-9.0
Iowa	810	(D)*	(D)*	0.0	—	0.0
South Dakota	(D)*	(D)*	(D)*	—	—	—
Subtotal	911	98	64	-89.2	-35.1	-93.0
Other States	8,809	7,578	7,953	-14.0	4.9	-9.7
United States	35,092	32,114	31,920	-8.5	-0.6	-9.0

*(D) value not disclosed due to confidentiality.
Source: USDA, NASS

- The annual head of fed cattle slaughtered in the U.S. has declined 9 percent over the past decade as the industry has responded to a variety of domestic and global market forces. The 9 percent decline represents about 3 million less head of fed cattle being slaughtered each year. However, because of upward trends in slaughter weights over the same time period, the total pounds of beef processed is down less than 6 percent.

- Among the top five states, California had the most significant percentage growth over the decade. In part, this is a reflection of the strong dairy industry in the state. Dairy steers are classed as fed cattle when raised and utilized comparably as standard beef breeds.

- Slaughter numbers in the top two states, Nebraska and Kansas, each experienced about a 5 percent decline in slaughter cattle numbers between 2008 and 2012. Third-ranked Texas experienced a slightly lower decline of about 4 percent. The actual head of fed cattle slaughtered in Texas for 2013 will likely decline by more than 1 million head with the recent closure of a packer in the state.

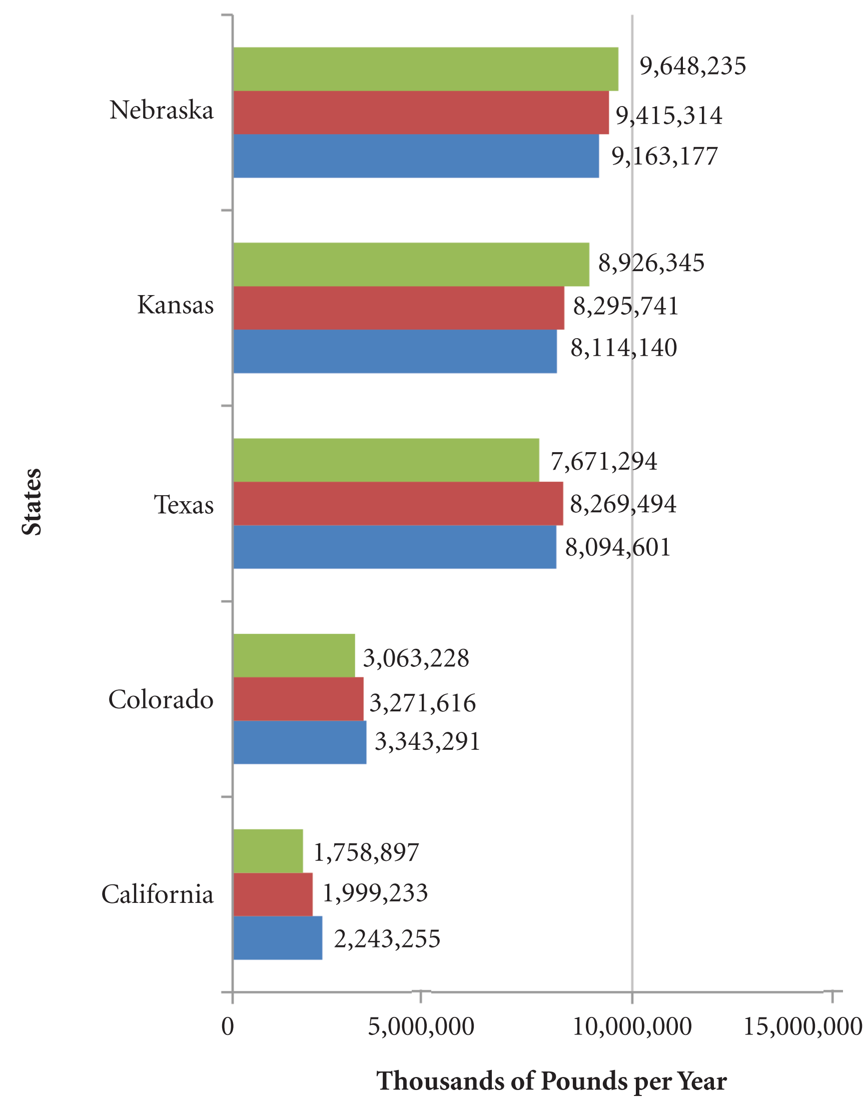
Table 2.8. Select State Share of U.S. Fed Cattle Slaughtered: 2003, 2008, and 2012

Region	*Percent Share of Fed Cattle Slaughtered*		
	2003	*2008*	*2012*
	(percent)	(percent)	(percent)
Top Five States			
Nebraska	**21.8**	**22.1**	**21.1**
Kansas	21.0	20.3	19.5
Texas	18.5	21.0	20.4
Colorado	7.1	7.8	7.8
California	3.9	4.9	6.0
Subtotal	72.3	76.1	74.9
Other Nebraska Neighbors			
Missouri	0.3	0.3	0.2
Wyoming	0.02	0.02	0.02
Iowa	2.3	—	—
South Dakota	—	—	—
Subtotal	2.6	0.3	0.2
Other States	25.1	23.6	24.9
United States	100.0	100.0	100.0

Source: USDA, NASS

- Nebraska continued to rank first in beef slaughter numbers over the past decade, accounting for just over one-fifth of the U.S. market share of fed cattle slaughtered, with neighboring Kansas a close second.
- Texas's share of U.S. fed slaughter cattle grew to 21 percent between 2003 and 2008, then fell to 20.4 percent in 2012.
- The top five states in the U.S. account for about 75 percent of the annual production of fed cattle slaughtered. Beef in these states typically comes from cattle breeds that produce higher-value cuts of meats compared to other states.
- Breeds and type differences of the various cattle used for beef lead to variations in the mature weight and quality of the carcass. These differences, when accounted for, amount to substantial differences in weight among the various regions.

Section 2.5 Total Pounds of Fed Beef Processed



Source: USDA, NASS

Figure 2.5. Total Pounds of Fed Beef Processed in Top Five States of U.S.

- The total pounds of fed beef processed is the annual amount of meat processed from the slaughtering of fed cattle (excluding cull cows or bulls) by the major packers of each state. To protect the confidentiality of packers where only one large fed cattle slaughtering and processing facility exists in a state, these estimates have not been disclosed.

Table 2.9. Select State Comparison of U.S. Total Pounds of Fed Beef Processed: 2003, 2008, and 2012

Region	*Year*			*Percent Change Between Periods*		
	2003	*2008*	*2012*	*2003-2008*	*2008-2012*	*2003-2012*
	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)	(percent)	(percent)	(percent)
Top Five States						
Nebraska	**9,648,235**	**9,415,314**	**9,163,177**	**-2.4**	**-2.7**	**-5.0**
Kansas	8,926,345	8,295,741	8,114,140	-7.1	-2.2	-9.1
Texas	7,671,294	8,269,494	8,094,601	7.8	-2.1	5.5
Colorado	3,063,228	3,271,616	3,343,291	6.8	2.2	9.1
California	1,758,897	1,999,233	2,243,255	13.7	12.2	27.5
Subtotal	31,067,999	31,251,398	30,958,464	0.6	-0.9	-0.4
Other Nebraska Neighbors						
Missouri	119,625	108,386	62,216	-9.4	-42.6	-48.0
Wyoming	9,362	8,637	8,214	-7.7	-4.9	-12.3
Iowa	1,001,550	(D)*	(D)*	—	—	—
South Dakota	(D)*	(D)*	(D)*	—	—	—
Subtotal	1,130,537	117,023	70,430	—	—	—
Other States	11,036,281	9,788,675	9,648,894	-11.3	-1.4	-12.6
United States	43,234,817	41,157,096	40,677,788	-4.8	-1.2	-5.9

*(D) value not disclosed due to confidentiality.
Source: USDA, NASS

- Nebraska continues to rank first in total pounds of fed beef processed. Over the last decade, Nebraska has seen a 5 percent decline in fed beef processed, but production still remains above 9 billion pounds.

- For the last decade, production in Kansas decreased by 9.1 percent, and Texas, Colorado, and California increased by 5.5, 9.1, and 27.5 percent respectively.

- While there have been shifts of beef production within the top five states, their overall production has remained relatively constant at an annual output of approximately 31 billion pounds of beef.

- California relies heavily on dairy steers for beef production. The ongoing out-migration of dairies from that state, due to volatile milk prices, increased regulatory pressure, and higher tax levels, is expected to continue. With reduced numbers of dairies, the pounds of beef will likely decline, reversing the last decade's trend.

Table 2.10. Select State Share of U.S. Annual Total Pounds of Fed Beef Processed: 2003, 2008, and 2012

Region	*Percent Share of Total Pounds of Fed Beef Processed*		
	2003	*2008*	*2012*
	(percent)	(percent)	(percent)
Top Five States			
Nebraska	**22.3**	**22.9**	**22.5**
Kansas	20.6	20.2	19.9
Texas	17.7	20.1	19.9
Colorado	7.1	7.9	8.2
California	4.1	4.9	5.5
Subtotal	71.9	75.9	76.1
Other Nebraska Neighbors			
Missouri	0.3	0.3	0.2
Wyoming	0.02	0.02	0.02
Iowa	2.3	—	—
South Dakota	—	—	—
Subtotal	2.6	0.3	0.2
Other States	25.5	23.8	23.7
United States	100.0	100.0	100.0

Source: USDA, NASS

- Over the last decade, Nebraska has maintained the state's market share of the U.S. annual total pounds of fed beef processed at approximately 22 percent.
- The other top states, Kansas, Texas, Colorado, and California, had percentages remaining relatively steady at about 20, 20, 8, and 5 percent, respectively. For the past 10 years, Texas had the largest percent market share increase of 2.2 percent, and Kansas showed the largest decline in share of 0.7 percent.
- Concentration in the fed beef packing industry remains extremely focused in the five states. Over the last decade, packers within these states have grown to control a market share greater than 75 percent.
- General forces in the fed cattle meat packing industry have trended toward carrying out the killing, slaughtering, and processing at one large integrated facility in an effort to improve efficiency and consistency. Given these trends, the market share of the top five fed cattle beef slaughtering states will likely grow in the future as less efficient or integrated plants exit the industry.

Section 2.6 Average Fed Cattle Slaughter Weight

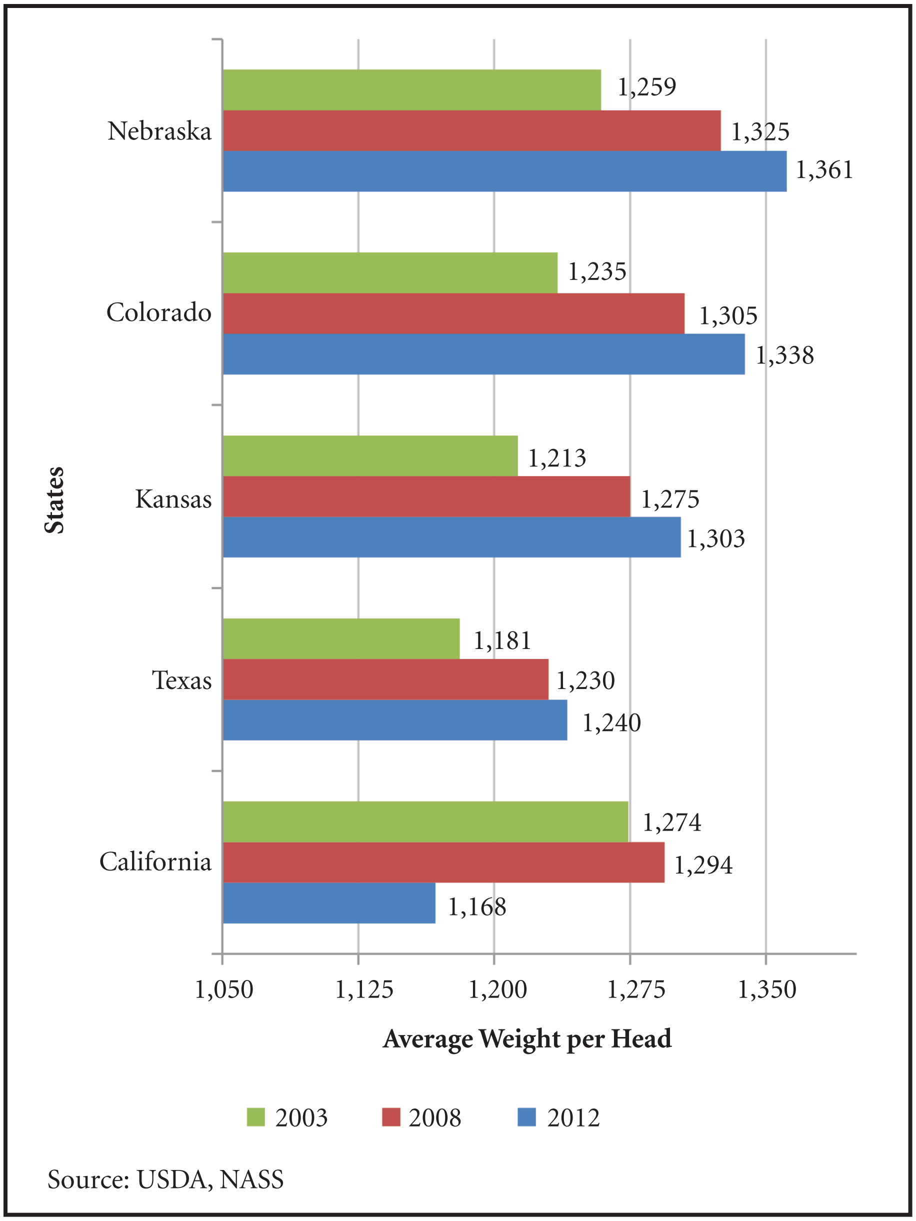


Figure 2.6. Average Fed Cattle Slaughter Weight in Select States for 2003, 2008, and 2012

- The average fed cattle slaughter weight is the average live slaughtering weight of fed cattle (excluding cull cows or bulls) by state, carried out by the respective major packers. In states where only one major packer slaughters fed cattle, the average slaughter weight has not been disclosed to protect confidentiality.

Table 2.11. Select State Comparison of U.S. Average Market Beef Slaughter Weight: 2003, 2008, and 2012

Region	*Year*			*Percent Change Between Periods*		
	2003	*2008*	*2012*	*2003-2008*	*2008-2012*	*2003-2012*
	(pounds/head)	(pounds/head)	(pounds/head)	(percent)	(percent)	(percent)
Top Five Beef States						
Nebraska	**1,259**	**1,325**	**1,361**	**5.2**	**2.8**	**8.1**
Colorado	1,235	1,305	1,338	5.7	2.6	8.4
Kansas	1,213	1,275	1,303	5.1	2.2	7.4
Texas	1,181	1,230	1,240	4.1	0.8	5.0
California	1,274	1,294	1,168	1.6	-9.8	-8.4
Average	1,232	1,286	1,282	4.3	-0.3	4.0
Other Nebraska Neighbors						
Missouri	1,288	1,198	1,099	-7.0	-8.2	-14.7
Wyoming	1,194	1,207	1,157	1.1	-4.2	-3.1
Iowa	1,236	(D)*	(D)*	—	—	—
South Dakota	(D)*	(D)*	(D)*	—	—	—
Average	1,239	1,203	1,128	-3.0	-6.2	-9.0
Other States	1,107	1,134	994	2.4	-12.4	-10.3
United States	1,135	1,157	1,274	1.9	10.1	12.3

*(D) value not disclosed due to confidentiality.
Source: USDA, NASS

- Concurrently with the decline in cattle numbers in the industry, there has been some increase in the average fed cattle slaughter weight. Nationally, the average slaughter weight for market beef has increased by 12.3 percent from 1,135 pounds in 2003 to 1,274 pounds in 2012.

- Nebraska leads the beef states in having the heaviest fed cattle slaughter for the decade in which the average fed cattle slaughter weight increased by 8.1 percent (102 pounds) to 1,361 pounds in 2012. Colorado and Kansas follow similar trends with weights of 1,338 and 1,303 pounds in 2012.

- The difference of over 100 pounds between the average slaughter weight of Nebraska and Texas may be explained by the types of the breeds being fed. Also, the availability and prices of forages, grains, or distillers grains have an effect on the slaughter weights.

- States such as Nebraska, Colorado, and Kansas at the edge of the western Corn Belt may also have a competitive edge over Texas in feeding livestock due to the availability and procurement costs for corn and ethanol by-products.

Section 2.7 Beef Industry Summary

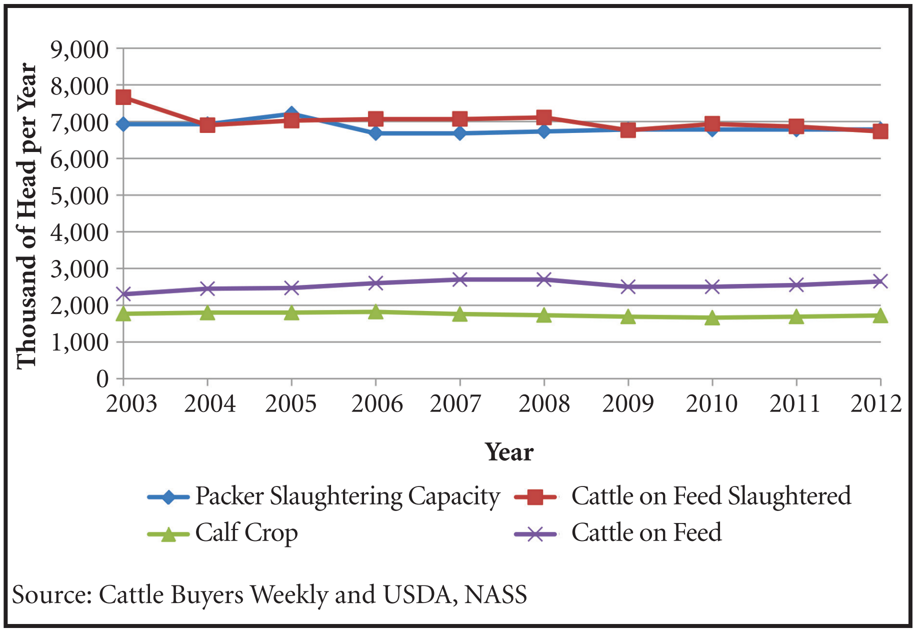


Figure 2.7. Summary of Beef Industry in Nebraska for 2003-2012

- For the prior decade in Nebraska, the packer slaughtering capacity and actual head of fed cattle slaughtered has remained fairly steady at about 7 million head. The difference between the estimated fed cattle slaughtering capacity for packers in Nebraska and the actual head processed remains fairly tight.
- Cattle on feed January 1 annual inventories have increased by about 250,000 head from 2.3 million head in 2003 to 2.6 million head in 2013. Strong fundamentals for cattle feeders in Nebraska due to the availability of corn and ethanol by-products create an environment where the industry may thrive and maintain a large inventory.
- The annual number of calves born in the state over the past decade has remained nearly constant. In 2003 the calf crop was estimated to be nearly 1.8 million head and a little over 1.7 million head in 2012. The drought in 2013 has likely decreased the size of Nebraska's cow herd and thus reduced the calf crop in Nebraska and other affected states.
- Opportunities for the beef industry will extend into the future for farmers and ranchers in Nebraska. Fundamentals, including the availability of feedstuffs coupled with the quality of the cattle produced in the state, create a very profitable environment for the industry.

Chapter 3: Pork Industry

Pork production in Nebraska represents the second strongest segment of the state's livestock industry. Nebraska's pork component accounted for about 10 percent of the state's total dollar value of livestock production in 2010.

Section 3.1 Annual Pig Crop

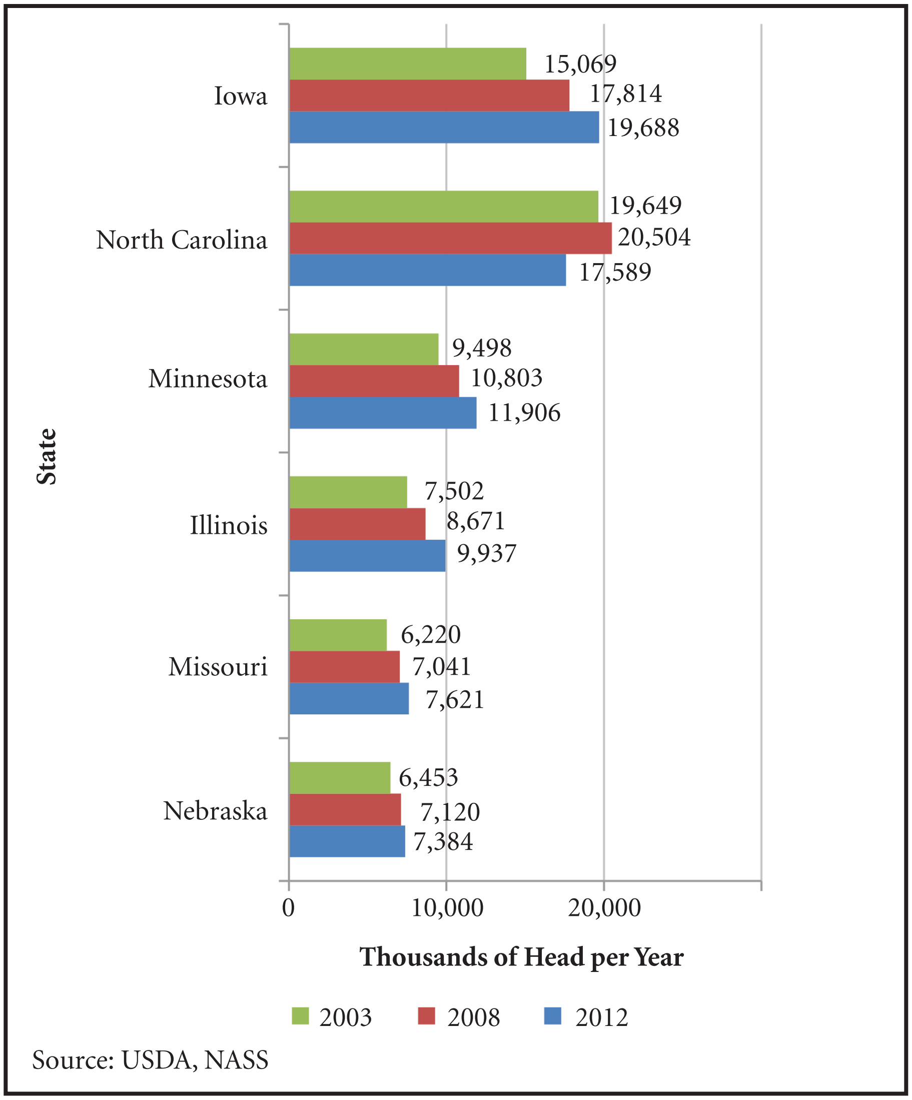


Figure 3.1. Annual Pig Crop in Top Five States of U.S. and Sixth Ranked Nebraska

- The annual pig crop represents the total head of market ready butcher hogs (excluding cull sows or boars) available for slaughter during a production year. To determine this estimate for each year, the pig crop farrowings for June-November of the prior year and December-May of the current year were summed.

Table 3.1. Select State Comparison of U.S. Annual Pig Crop: 2003, 2008, and 2012

Region	Inventory Year			Percent Change Between Periods		
	2003	2008	2012	2003-2008	2008-2012	2003-2012
	(1,000 head)	(1,000 head)	(1,000 head)	(percent)	(percent)	(percent)
Top Five States						
Iowa	15,069	17,814	19,688	18.2	10.5	30.7
North Carolina	19,649	20,504	17,589	4.4	-14.2	-10.5
Minnesota	9,498	10,803	11,906	13.7	10.2	25.4
Illinois	7,502	8,671	9,937	15.6	14.6	32.5
Missouri	6,220	7,041	7,621	13.2	8.2	22.5
Subtotal	57,938	64,833	66,741	11.9	2.9	15.2
Ranked Sixth						
Nebraska	**6,453**	**7,120**	**7,384**	**10.3**	**3.7**	**14.4**
Other Nebraska Neighbors						
South Dakota	2,403	2,991	3,697	24.5	23.6	53.8
Kansas	2,787	3,186	3,154	14.3	-1.0	13.2
Colorado	2,581	2,952	2,801	14.4	-5.1	8.5
Wyoming	(D)*	(D)*	(D)*	—	—	—
Subtotal	7,771	9,129	9,652	17.5	5.7	24.2
Other States	22,079	23,746	23,252	7.6	-2.1	5.3
United States	94,241	104,828	107,029	11.2	2.1	13.6

*(D) value not disclosed due to confidentiality.
Source: NASS, USDA

- Over the past decade, the annual U.S. pig crop has increased about 14 percent. Nebraska has kept pace with the national growth.
- North Carolina, which was the leading pig production state earlier in the decade, experienced a nearly 15 percent decline in annual pig crop production between 2008 and 2012. That decline represented nearly 3 million head — indicative of how swiftly regional shifts in production may occur.
- Neighboring state Iowa had robust growth in pig production throughout the past decade, with the annual crop growing by more than 4.5 million head (31 percent) between 2003 and 2012. Iowa is presently the leading state in annual pig production.
- Nebraska's neighbor to the north, South Dakota, also experienced a significant surge in hog production, with the state's annual pig crop increasing by nearly 700,000 head between 2008 and 2012, in contrast to Nebraska's increase of 264,000 head.

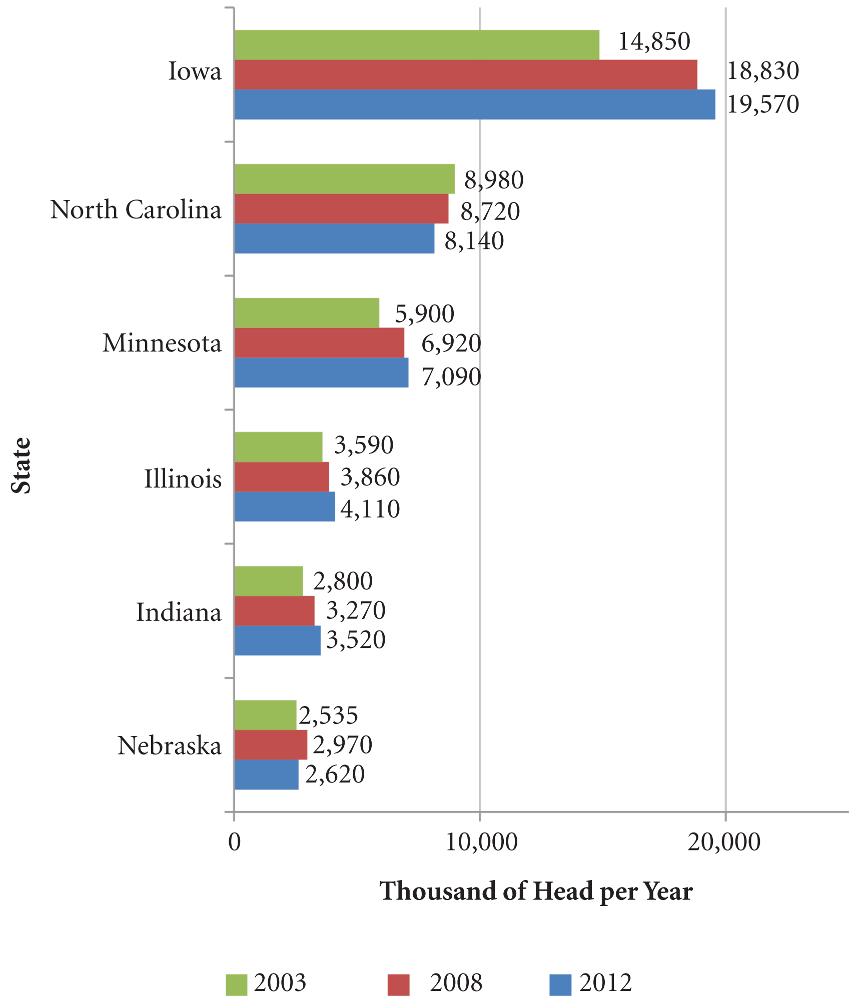
Table 3.2. Select State Share of U.S. Annual Pig Crop: 2003, 2008, and 2012

Region	Percent Share of U.S. Annual Pig Crop 2003	2008	2012
	(percent)	(percent)	(percent)
Top Five States			
Iowa	16.0	17.0	18.4
North Carolina	20.8	19.6	16.4
Minnesota	10.1	10.3	11.1
Illinois	8.0	8.3	9.3
Missouri	6.6	6.7	7.1
Subtotal	61.5	61.8	62.4
Ranked Sixth			
Nebraska	**6.8**	**6.8**	**6.9**
Other Nebraska Neighbors			
South Dakota	2.5	2.9	3.5
Kansas	3.0	3.0	2.9
Colorado	2.7	2.8	2.6
Wyoming	—	—	—
Subtotal	8.2	8.7	9.0
Other States	23.4	22.7	21.7
United States	100.0	100.0	100.0

Source: NASS, USDA

- Major geographic shifts in U.S. hog production have been under way as evidenced by the shifts in state shares.
- The most significant shifts in the last decade have been observed in North Carolina and Iowa. While North Carolina's overall share has decreased by about 4.4 percentage points, Iowa's share has risen by 2.4 percentage points over the most recent decade. These two states combined account for over one-third of the total annual pig crop in the U.S.
- Nebraska's share of the U.S. annual pig crop inventory has remained constant to slightly increasing over the last decade at just less than 7 percent. A relatively constant share signals the state's industry has not deviated from the national trend over the past decade.
- While Nebraska's share remained constant, the state's neighbors went from a combined share of 30.8 percent of the U.S. pig crop in 2003 to 34.5 percent in 2012.

Section 3.2 Market Hog Inventory



Source: USDA, NASS

Figure 3.2. Annual Market Hog Dec. 1 Inventory in Top Five States of U.S. and Sixth Ranked Nebraska

- The market hog December 1 inventory is the total head of hogs being fed for slaughter by state on the respective inventory date. This estimate includes the sum of the market hog weight categories of less than 50 pounds per head, 50 to 119 per head, 120 to 179 pounds per head, and greater than 180 pounds per head.

Table 3.3. Select State Comparison of U.S. Annual Market Hog Dec. 1 Inventory: 2003, 2008, and 2012

Region	*Inventory Year*			*Percent Change Between Periods*		
	2003	*2008*	*2012*	*2003-2008*	*2008-2012*	*2003-2012*
	(1,000 head)	(1,000 head)	(1,000 head)	(percent)	(percent)	(percent)
Top Five States						
Iowa	14,850	18,830	19,570	26.8	3.9	31.8
North Carolina	8,980	8,720	8,140	-2.9	-6.7	-9.4
Minnesota	5,900	6,920	7,090	17.3	2.5	20.2
Illinois	3,590	3,860	4,110	7.5	6.5	14.5
Indiana	2,800	3,270	3,520	16.8	7.6	25.7
Subtotal	36,120	41,600	42,430	15.2	2.0	17.5
Ranked Sixth						
Nebraska	**2,535**	**2,970**	**2,620**	**17.2**	**-11.8**	**3.4**
Other Nebraska Neighbors						
Missouri	2,610	2,780	2,400	6.5	-13.7	-8.0
South Dakota	1,140	1,125	1,035	-1.3	-8.0	-9.2
Kansas	1,490	1,575	1,740	5.7	10.5	16.8
Colorado	615	580	575	-5.7	-0.9	-6.5
Wyoming	105	60	51	-42.9	-15.0	-51.4
Subtotal	5,960	6,120	5,801	2.7	-5.2	-2.7
Other States	9,819	10,397	9,687	5.9	-6.8	-1.3
United States	54,434	61,087	60,538	12.2	-0.9	11.2

Source: NASS, USDA

- The U.S. annual market hog December 1 inventory has increased by 11.2 percent or about 6.5 million head from 2003 to 2012. The high in the national inventory for the years evaluated occurred during 2008 at approximately 61.1 million head.
- For the top five states, the largest percent increases in market hog December 1 inventories occurred in regions that lead the U.S. in corn and soybean production. Percent changes between 2003 and 2012 for these states — including Iowa, Minnesota, Illinois, and Indiana — were 31.8, 20.2, 14.5, and 25.7 percent. North Carolina's market hog December 1 inventory declined, however, by about 9.4 percent or nearly 1 million head from 2003 to 2012.
- Nebraska's market hog December 1 inventory slightly increased from 2003 to 2012 by about 100,000 hogs or 3.4 percent. During the first half of this period, the market head inventory increased by about 400,000 head, but declined by approximately 300,000 hogs for the second half of the decade.

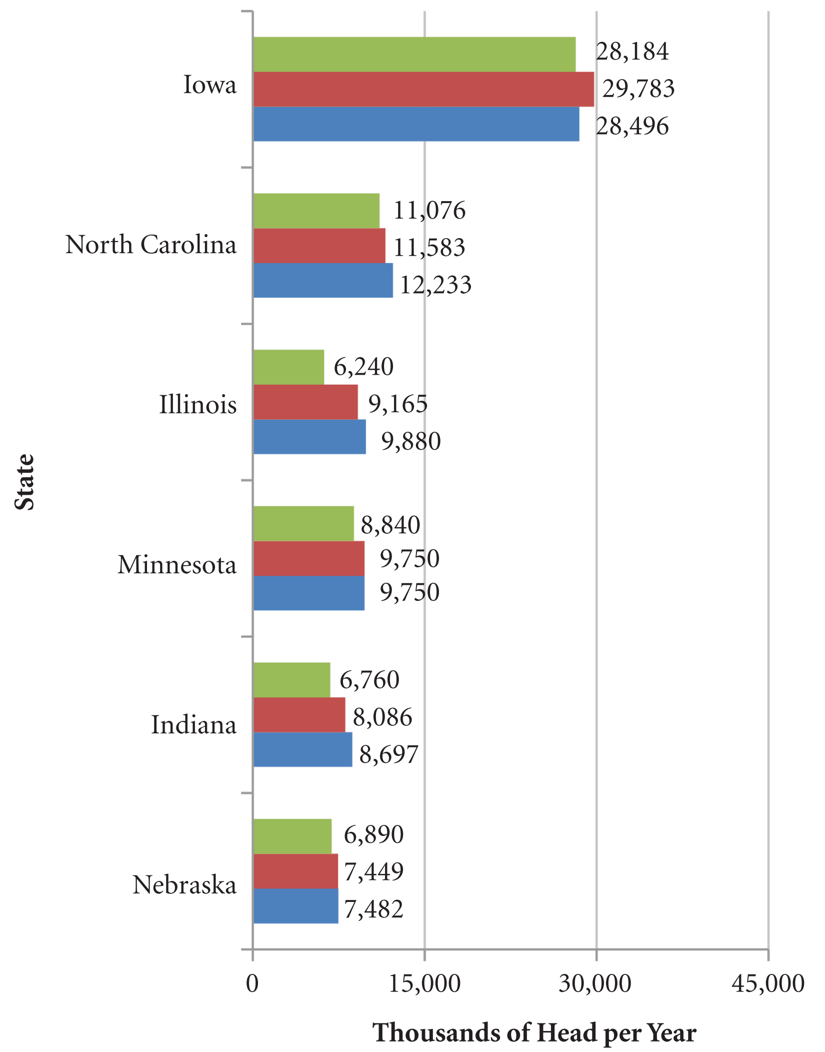
Table 3.4. Select State Share of U.S. Annual Market Hog Dec. 1 Inventory: 2003, 2008, and 2012

Region	Percent Share of U.S. Annual Market Hog Inventory		
	2003	2008	2012
	(percent)	(percent)	(percent)
Top Five States			
Iowa	27.3	30.8	32.3
North Carolina	16.5	14.3	13.4
Minnesota	10.8	11.3	11.7
Illinois	6.6	6.3	6.8
Indiana	5.1	5.4	5.8
Subtotal	66.4	68.1	70.1
Ranked Sixth			
Nebraska	4.7	4.9	4.3
Other Nebraska Neighbors			
Missouri	4.8	4.6	4.0
South Dakota	2.1	1.8	1.7
Kansas	2.7	2.6	2.9
Colorado	1.1	0.9	0.9
Wyoming	0.2	0.1	0.1
Subtotal	10.9	10.0	9.6
Other States	18.0	17.0	16.0
United States	100.0	100.0	100.0

Source: NASS, USDA

- Major shifts taking place in the share of the market hog December 1 inventory occurred within the top five states. Combined, these states have a market share of approximately 70 percent. Trends for each of the top five states will likely continue into the future with market shares for Iowa, Minnesota, Illinois, and Indiana increasing, while North Carolina may continue to decline.
- Nebraska's share of the annual market hog December 1 inventory declined by 0.4 percent from 2003 to 2012 to end the decade at 4.3 percent.
- Other Nebraska neighbors combined have a market hog December 1 inventory share that dropped by about 1 percent over the prior decade to about 10 percent.
- Other states in the U.S. had a combined market hog December 1 share that dropped by 2 percent from 2003 to 2012 to 16 percent.

Section 3.3 Butcher Hogs Slaughtering Capacity



Source: Daily Livestock Report

Figure 3.3. Butcher Hogs Slaughtering Capacity in Top Five States of U.S. and Seventh Ranked Nebraska

- The butcher hogs slaughtering capacity is an annual estimate for the total head of butcher hogs (excluding cull sows or boars) slaughtered in the respective state. To determine this estimate per state, the average daily slaughtering capacity of each major butcher hogs slaughtering plant was multiplied by 260 operating days per year and then summed together by region.

Table 3.5. Select State Comparison of U.S. Annual Butcher Hogs Slaughtering Capacity: 2003, 2007, and 2012

Region	*Capacity Year*			*Percent Change Between Periods*		
	2003	*2007*	*2012*	*2003-2007*	*2007-2012*	*2003-2012*
	(1,000 head)	(1,000 head)	(1,000 head)	(percent)	(percent)	(percent)
Top Five States						
Iowa	28,184	29,783	28,496	5.7	-4.3	1.1
North Carolina	11,076	11,583	12,233	4.6	5.6	10.4
Illinois	6,240	9,165	9,880	46.9	7.8	58.3
Minnesota	8,840	9,750	9,750	10.3	0.0	10.3
Indiana	6,760	8,086	8,697	19.6	7.6	28.7
Subtotal	61,100	68,367	69,056	11.9	1.0	13.0
Ranked Seventh						
Nebraska	**6,890**	**7,449**	**7,482**	**8.1**	**0.4**	**8.6**
Other Nebraska Neighbors						
Missouri	1,846	7,202	7,904	290.1	9.7	328.2
South Dakota	3,900	4,940	4,940	26.7	0.0	26.7
Colorado	—	—	—	—	—	—
Kansas	—	—	—	—	—	—
Wyoming	—	—	—	—	—	—
Subtotal	5,746	12,142	12,844	111.3	5.8	123.5
Other States	15,397	18,356	19,643	19.2	7.0	27.6
United States	89,133	106,314	109,025	19.3	2.5	22.3

*Estimates not provided for values noted with a dash (—).
Source: Daily Livestock Report

- Iowa clearly leads the U.S. in butcher hogs slaughtering capacity. For the past decade, Iowa has remained relatively steady, while other leading states have significantly increased their slaughtering capacities.
- North Carolina, Illinois, Minnesota, and Indiana all increased their butcher hogs slaughtering capacities by 10.4, 58.3, 10.3, 28.7, and 13.0 percent respectively. However, a stark difference exists between the annual pig crop and butcher hogs slaughtering capacity in North Carolina, suggesting that a large number of feeder pigs must exit the state for feeding and slaughtering.
- Nebraska's three butcher hogs slaughtering plants have a capacity of about 7.5 million head annually. For the past decade, the slaughtering capacity for butcher hogs in Nebraska has increased by about 9 percent.
- The largest change in slaughtering capacity for states neighboring Nebraska occurred in Missouri, where the capacity rose from 1.8 million head in 2003 to 7.9 million head in 2012, equating to a change of about 330 percent.

Table 3.6. Select State Share of U.S. Annual Butcher Hogs Slaughtering Capacity: 2003, 2007, and 2012

Region	Percent Share of Annual Butcher Hogs Slaughtering Capacity		
	2003	2007	2012
	(percent)	(percent)	(percent)
Top Five States			
Iowa	31.6	28.0	26.1
North Carolina	12.4	10.9	11.2
Illinois	7.0	8.6	9.1
Minnesota	9.9	9.2	8.9
Indiana	7.6	7.6	8.0
Subtotal	68.5	64.3	63.3
Ranked Seventh			
Nebraska	**7.7**	**7.0**	**6.9**
Other Nebraska Neighbors			
Missouri	2.1	6.8	7.2
South Dakota	4.4	4.6	4.5
Colorado	—	—	—
Kansas	—	—	—
Wyoming	—	—	—
Subtotal	6.4	11.4	11.8
Other States	17.3	17.3	18.0
United States	100.0	100.0	100.0

Source: Daily Livestock Report

- While maintaining a robust butcher hog slaughtering capacity of 28.5 million head annually over the last decade, Iowa has lost 5.5 percent of the national share. A decline in this share for Iowa shows that the U.S. butcher hogs slaughtering capacity has grown for this period.
- Nebraska's share of the annual capacity has remained steady over the last decade at about 7 percent, indicating that slaughter capacity has kept pace with national growth. Nebraska's capacity aligns with the state's share of the U.S. annual pig crop at about 7 percent. While slaughter capacity and the annual pig crop in Nebraska parallel one another closely, evidence suggests that a significant portion are actually shipped out of the state and finished elsewhere.
- Missouri is the Nebraska neighbor having the most notable change during the decade with the state's share of U.S. slaughter capacity jumping by more than 5 percentage points to about 7 percent of the national capacity in 2012.

Section 3.4 Butcher Hogs Slaughtered

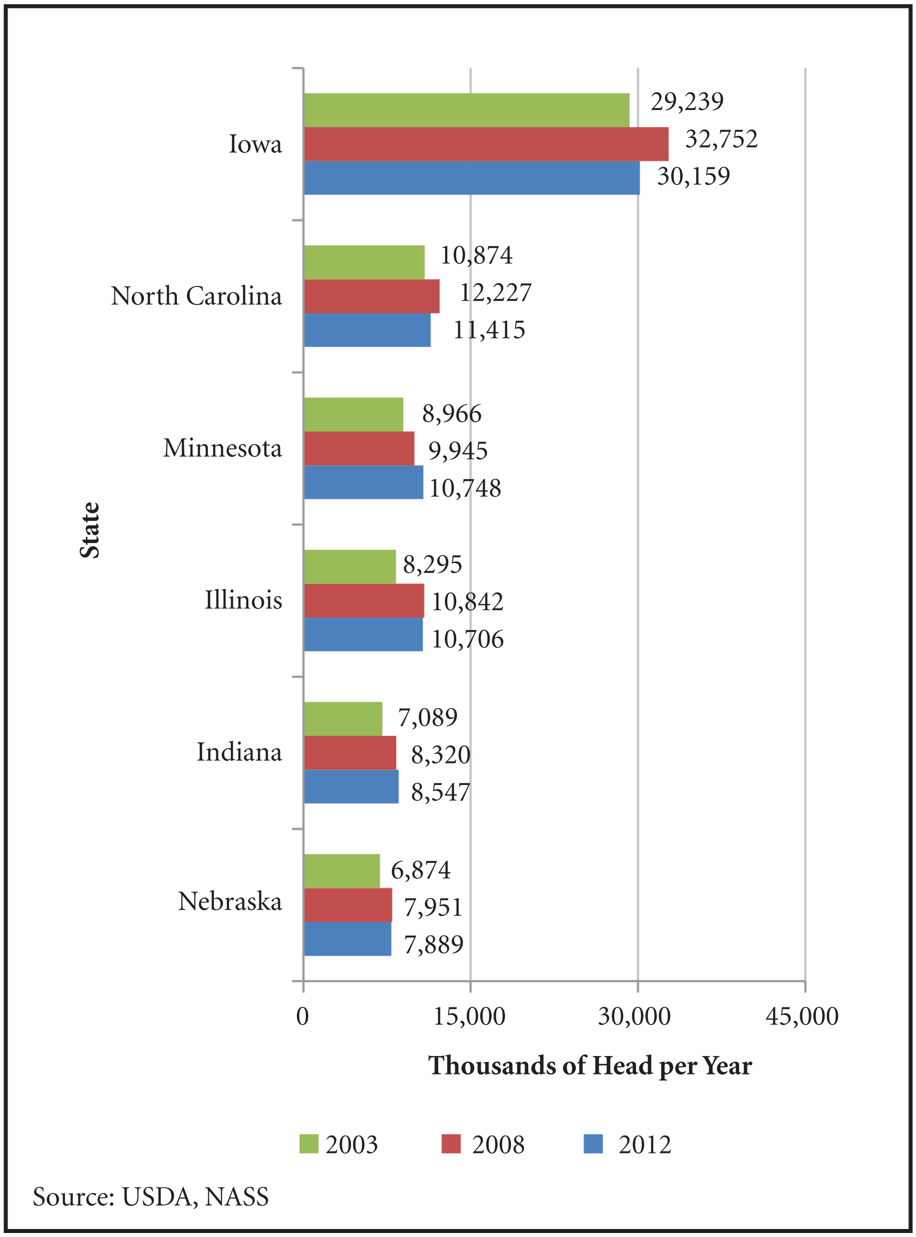


Figure 3.4. Butcher Hogs Slaughtered in Top Five States in U.S. and Seventh Ranked Nebraska

- Butcher hogs slaughtered represents the total head of butcher hogs (excluding cull sows or boars) annually slaughtered by the major packers of each state. In states where only one major packer slaughters butcher hogs, the actual head of market pork processed was suppressed to protect the confidentiality of the company.

Table 3.7. Select State Comparison of U.S. Annual Butcher Hogs Slaughtered: 2003, 2008, and 2012

Region	Inventory Year 2003	Inventory Year 2008	Inventory Year 2012	Percent Change Between Periods 2003-2008	Percent Change Between Periods 2008-2012	Percent Change Between Periods 2003-2012
	(1,000 head)	(1,000 head)	(1,000 head)	(percent)	(percent)	(percent)
Top Five States						
Iowa	29,239	32,752	30,159	12.0	-7.9	3.1
North Carolina	10,874	12,227	11,415	12.4	-6.6	5.0
Minnesota	8,966	9,945	10,748	10.9	8.1	19.9
Illinois	8,295	10,842	10,706	30.7	-1.3	29.1
Indiana	7,089	8,320	8,547	17.4	2.7	20.6
Subtotal	64,464	74,087	71,574	14.9	-3.4	11.0
Ranked Seventh						
Nebraska	**6,874**	**7,951**	**7,889**	**15.7**	**-0.8**	**14.8**
Other Nebraska Neighbors						
South Dakota	4,590	4,762	4,698	3.8	-1.3	2.4
Missouri	(D)*	7,912	8,195	—	3.6	—
Colorado	15	10	15	-32.2	45.6	-1.3
Wyoming	6	5	4	-12.7	-12.5	-23.6
Kansas	304	(D)*	(D)*	—	—	—
Subtotal	4,914	12,689	12,913	1.6	1.8	1.6
Other States	19,787	17,791	17,161	-10.1	-3.5	-13.3
United States	96,038	112,517	109,537	17.2	-2.6	14.1

*(D) value not disclosed due to confidentiality.
Source: NASS, USDA.

- Nationally, the annual head of butcher hogs slaughtered in the U.S. has risen about 15 percent over the past decade. Nebraska has kept pace with the national average for this period with the most growth occurring in the first half of the decade.
- Leading pork producing states have also seen the greatest growth in actual head of butcher hogs slaughtered at about 15 percent for the first half of the decade, but a slight decline for the latter half, making plant usage over 100 percent.
- Nebraska ranks seventh in butcher hogs slaughtered with 7.9 million head in 2012. In comparison to the slaughtering capacity for the state, the actual head slaughtered exceeds this estimate by about half a million head.
- Comparing the annual pig crop and butcher hogs slaughtered in Nebraska for the past decade shows that about 90 percent of the actual head processed are produced in the state. This difference shows a possible advantage for the industry to expand as pigs produced and fed in Nebraska would be closer to the state's slaughtering plants.

Table 3.8. Select State Share of U.S. Annual Butcher Hogs Slaughtered: 2003, 2008, and 2012

Region	*Percent Share of Butcher Hogs Slaughtered*		
	2003	*2008*	*2012*
	(percent)	(percent)	(percent)
Top Five States			
Iowa	30.4	29.1	27.5
North Carolina	11.3	10.9	10.4
Minnesota	9.3	8.8	9.8
Illinois	8.6	9.6	9.8
Indiana	7.4	7.4	7.8
Subtotal	67.1	65.8	65.3
Ranked Seventh			
Nebraska	**7.2**	**7.1**	**7.2**
Other Nebraska Neighbors			
South Dakota	4.8	4.2	4.3
Missouri	—	7.0	7.5
Colorado	0.02	0.009	0.01
Wyoming	0.005	0.004	0.004
Kansas	0.3	—	—
Subtotal	5.1	11.3	11.8
Other States	20.6	15.8	15.7
United States	100.0	100.0	100.0

Source: NASS, USDA

- Nearly two-thirds of butcher hogs slaughtered in the U.S. are concentrated in the top five states in terms of the national share of the actual head processed. Iowa alone accounts for nearly one-third of the national share.
- Nebraska's share of the annual head of butcher hogs slaughtered has remained steady for the last decade at about 7 percent.
- South Dakota and Missouri lead other Nebraska neighbors in terms of market share on the annual head of butcher hogs slaughtered at about 5 and 8 percent respectively. These annual market shares align fairly closely with their annual pig crop market share.
- Colorado, Wyoming, and Kansas combined have a market share of less than 1 percent of the annual head of butcher hogs slaughtered.

Section 3.5 Total Pounds of Fed Pork Processed

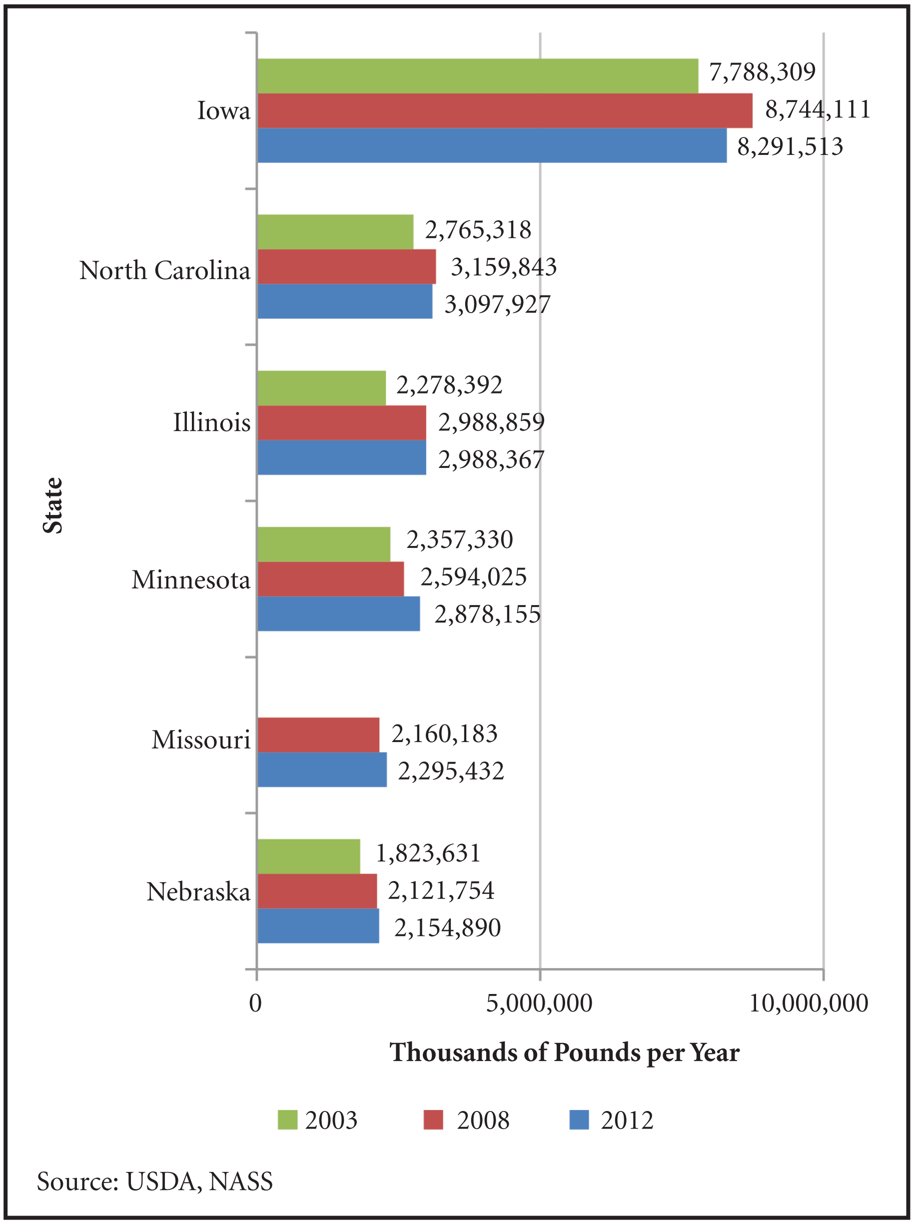


Figure 3.5. Total Pounds of Fed Pork Processed in Top Five States of U.S. and Seventh Ranked Nebraska

- The total pounds of fed pork processed represents the annual amount of meat processed from the slaughtering of butcher hogs (excluding cull sows or boars) by the major packers of each state. To protect the confidentiality of companies where only one large butcher hogs slaughtering and processing facility exists in a state, these estimates have not been disclosed.

Table 3.9. Select State Comparison of U.S. Annual Total Pounds of Pork Processed: 2003, 2008, and 2012

Region	Year			Percent Change Between Periods		
	2003	2008	2012	2003-2008	2008-2012	2003-2012
	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)	(percent)	(percent)	(percent)
Top Five States						
Iowa	7,788,309	8,744,111	8,291,513	12.3	-5.2	6.5
North Carolina	2,765,318	3,159,843	3,097,927	14.3	-2.0	12.0
Illinois	2,278,392	2,988,859	2,988,367	31.2	0.0	31.2
Minnesota	2,357,330	2,594,025	2,878,155	10.0	11.0	22.1
Missouri	(D)*	2,160,183	2,295,432	—	6.3	—
Subtotal	15,189,349	19,647,021	19,551,394	29.3	-0.5	28.7
Ranked Seventh						
Nebraska	**1,823,631**	**2,121,754**	**2,154,890**	**16.3**	**1.6**	**18.2**
Other Nebraska Neighbors						
South Dakota	1,199,512	1,217,290	1,264,025	1.5	3.8	5.4
Colorado	3,978	2,610	3,429	-34.4	31.4	-13.8
Wyoming	1,437	1,274	1,101	-11.3	-13.6	-23.4
Kansas	101,628	(D)*	(D)*	—	—	—
Subtotal	1,306,555	1,221,174	1,268,555	-6.5	3.9	-2.9
Other States	7,258,789	7,124,445	7,090,086	-1.9	-0.5	-2.3
United States	25,578,324	30,114,394	30,064,925	17.7	-0.2	17.5

*(D) value not disclosed due to confidentiality.
Source: NASS, USDA

- Iowa leads the nation in total pounds of fed pork processed at about 8.3 billion pounds in 2012, which is about a 6.5 percent increase since 2003. In net for the decade, the other top five states increased production 28.7 percent from 2003 to 2012, but the greatest growth occurred during the first half of the decade.

- Nebraska ranks seventh in total pounds of fed pork processed, at about 2.2 billion pounds in 2012. For the decade, Nebraska's increase in pounds of fed pork processed is comparable to the national trend of about 18 percent.

- Nationally, pounds of fed pork processed in the U.S. grew by about 5 billion pounds from 2003 to 2008 to approximately 30 billion pounds annually. The strong increase did not carry through to the second half of the decade as pounds of fed pork processed has stayed at about 30 billion pounds in 2012 for the U.S.

Table 3.10. Select State Share of U.S. Annual Total Pounds of Pork Processed: 2003, 2008, and 2012

Region	Percent Share of Total Pounds of Fed Pork Processed		
	2003	2008	2012
	(percent)	(percent)	(percent)
Top Five States			
Iowa	30.4	29.0	27.6
North Carolina	10.8	10.5	10.3
Illinois	8.9	9.9	9.9
Minnesota	9.2	8.6	9.6
Missouri	—	7.2	7.6
Subtotal	59.4	65.2	65.0
Ranked Seventh			
Nebraska	**7.1**	**7.0**	**7.2**
Other Nebraska Neighbors			
South Dakota	4.7	4.0	4.2
Colorado	0.02	0.009	0.01
Wyoming	0.006	0.004	0.004
Kansas	0.4	—	—
Subtotal	5.1	4.1	4.2
Other States	28.4	23.7	23.6
United States	100.0	100.0	100.0

Source: NASS, USDA

- The top five states, including Iowa, North Carolina, Illinois, Minnesota, and Missouri, in terms of market share for pounds of fed pork processed, remained fairly steady at about 30, 10, 10, 10, and 8 percent respectively for the prior decade. The combined market share for these states equates to just under two-thirds of the nation's total production, illustrating how heavily the pork packing industry is concentrated.

- Nebraska's share of the national pounds of fed pork processed has remained fairly constant for the prior decade at 7 percent. Maintaining this share shows that even as the industry grows nationally, Nebraska has continued to keep pace with trends in the U.S.

- South Dakota is the other Nebraska neighbor controlling the largest market share of about 4 percent. Colorado, Wyoming, and Kansas have only negligible market shares, which when combined are less than 1 percent.

Section 3.6 Average Butcher Hogs Slaughter Weight

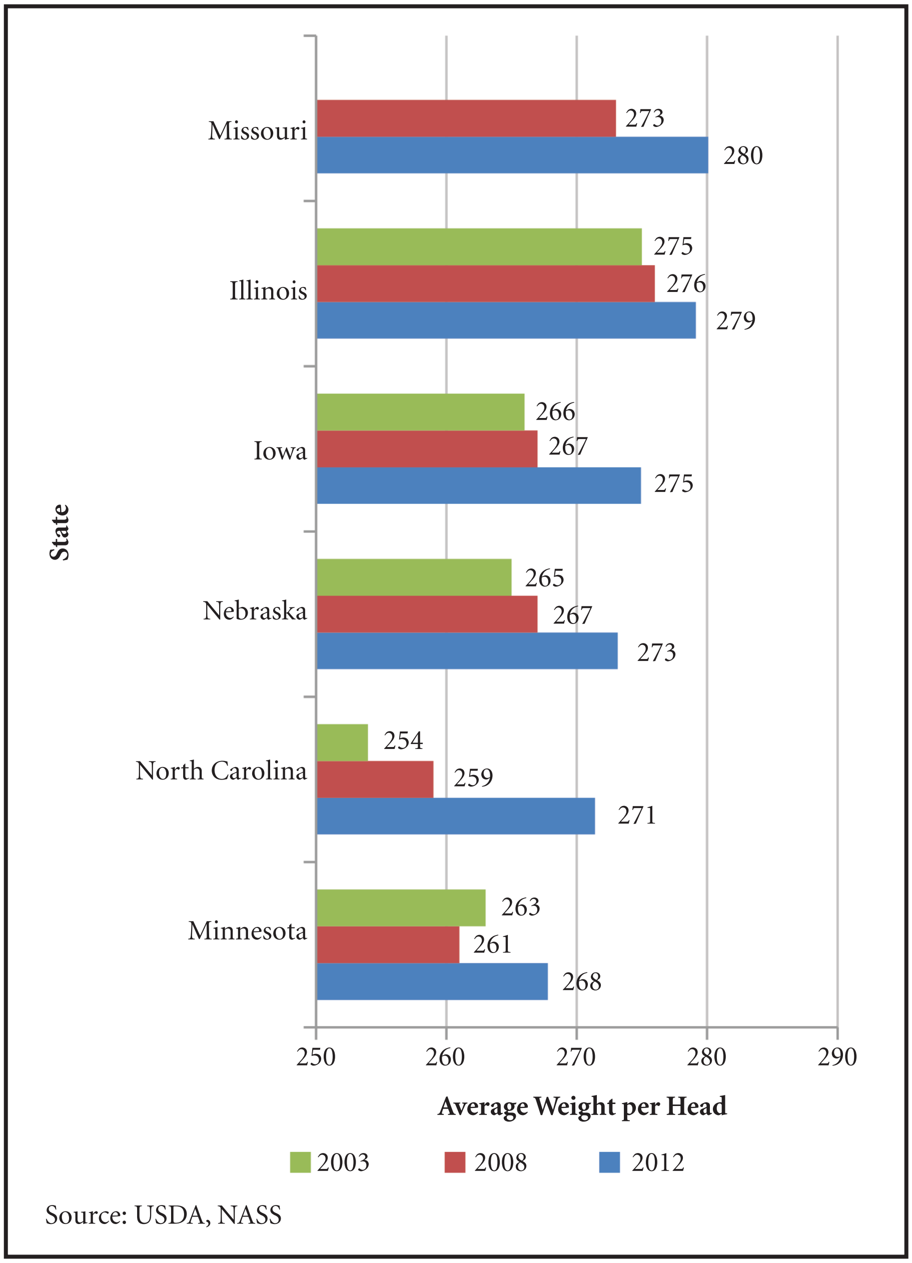


Figure 3.6. Average Butcher Hogs Slaughter Weight in Select Pork Producing States of U.S.

- The average butcher hogs slaughter weight is the average live slaughtering weight of butcher hogs (excluding cull sows or boars) by state carried out by the respective major packers. In states where only one major packer slaughters hogs, the slaughter weight has not been disclosed to protect confidentiality.

Table 3.11. Select State Comparison of U.S. Average Butcher Hogs Slaughter Weight: 2003, 2008, and 2012

Region	Year			Percent Change Between Periods		
	2003	2008	2012	2003-2008	2008-2012	2003-2012
	(pounds/head)	(pounds/head)	(pounds/head)	(percent)	(percent)	(percent)
Top Five Pork States						
Iowa	266	267	275	0.4	3.0	3.4
North Carolina	254	259	271	2.0	4.8	6.8
Illinois	275	276	279	0.4	1.1	1.5
Minnesota	263	261	268	-0.8	2.6	1.8
Missouri	(D)*	273	280	—	2.6	—
Average	265	267	275	1.0	2.8	3.8
Ranked Seventh						
Nebraska	**265**	**267**	**273**	**0.8**	**2.3**	**3.1**
Other Nebraska Neighbors						
South Dakota	261	256	269	-1.9	5.1	3.1
Colorado	262	254	229	-3.1	-10.0	-12.7
Wyoming	260	267	262	2.7	-1.8	0.8
Kansas	335	(D)*	(D)*	—	—	—
Average	280	259	253	-7.3	-2.2	-9.4
Other States	270	265	267	-1.6	0.7	-0.9
United States	266	268	274	0.5	2.6	3.1

*(D) value not disclosed due to confidentiality.
Source: NASS, USDA

- Uniformity and consistency of average live slaughter weights for butcher hogs are much more prevalent across states than the variability of fed cattle. The average butcher hogs slaughter weight in the U.S. has increased from 266 pounds in 2003 to 274 pounds in 2012, a gain of 3 percent.
- Differences in the average butcher hogs slaughter weight may be attributed to several different factors, but the biggest consideration involves pricing pigs on a grid system. Producers may gain premiums for delivering butcher hogs at a certain weight, which allows the packers to develop more consistent products for consumers.
- Nebraska has followed national trends and had an increase of over 3 percent in the last decade for the average butcher hogs slaughter weight, increasing to an average of 274 pounds per head in 2012.

Section 3.7 Pork Industry Summary

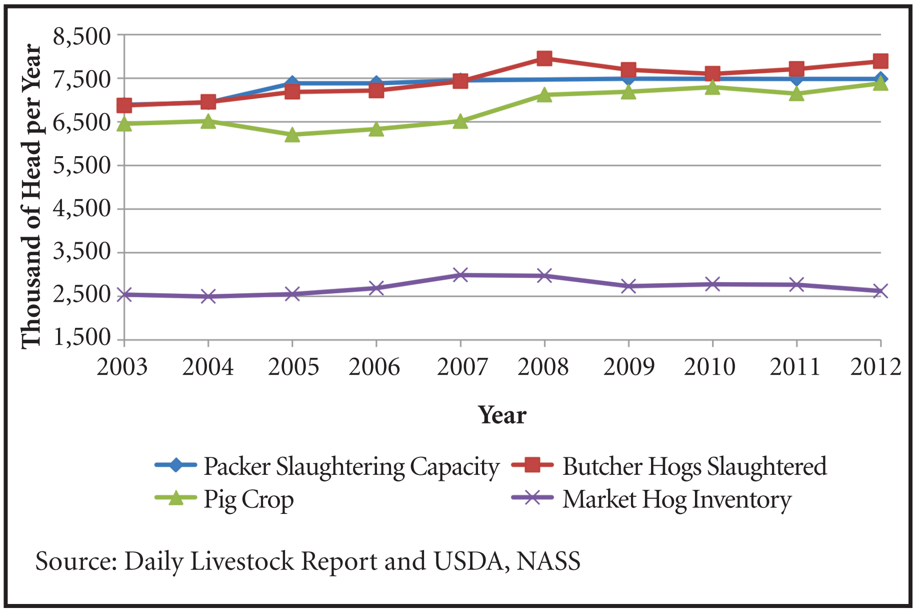


Figure 3.7. Summary of Pork Industry in Nebraska for 2003-2012

- For the prior decade in Nebraska, the annual pig crop increased from about 6.5 million head in 2003 to nearly 7.5 million head in 2012. For this period, the increase represents a healthy increase of nearly 1 million head, occurring mostly during the first half of the decade.
- Actual head of butcher hogs slaughtered during the prior decade also increased by about 1 million head, from approximately 6.8 to 7.8 million head from 2003 to 2012. Actual head of butcher hogs slaughtered exceeds estimated slaughtering capacity as packers can add extra shifts or pay overtime to employees of their operations.
- Feeder pigs and butcher hogs must be brought into Nebraska from neighboring states to fill the gaps between the annual pig crop and pigs slaughtered. Pigs are known to leave Nebraska in the form of feeders or butcher hogs. Since a void exists between the number of pigs raised in Nebraska and the actual head slaughtered in the state, some animals must be imported for processing.
- Opportunities exist in Nebraska to fill the gap between the annual pig crop and head of butcher hogs slaughtered in the state. Producers choosing to fill this void may have a competitive advantage over bringing these pigs in from other states in the form of lower transportation costs.

Chapter 4: Dairy Industry

The dairy sector in the U.S. has evolved in scale and efficiency over time, but Nebraska's dairy cow numbers have fallen behind national leaders. In 2010 Nebraska's dairy sector accounted for about 2.5 percent of the total dollar value of livestock production.

Section 4.1 Annual Dairy Cow Inventory

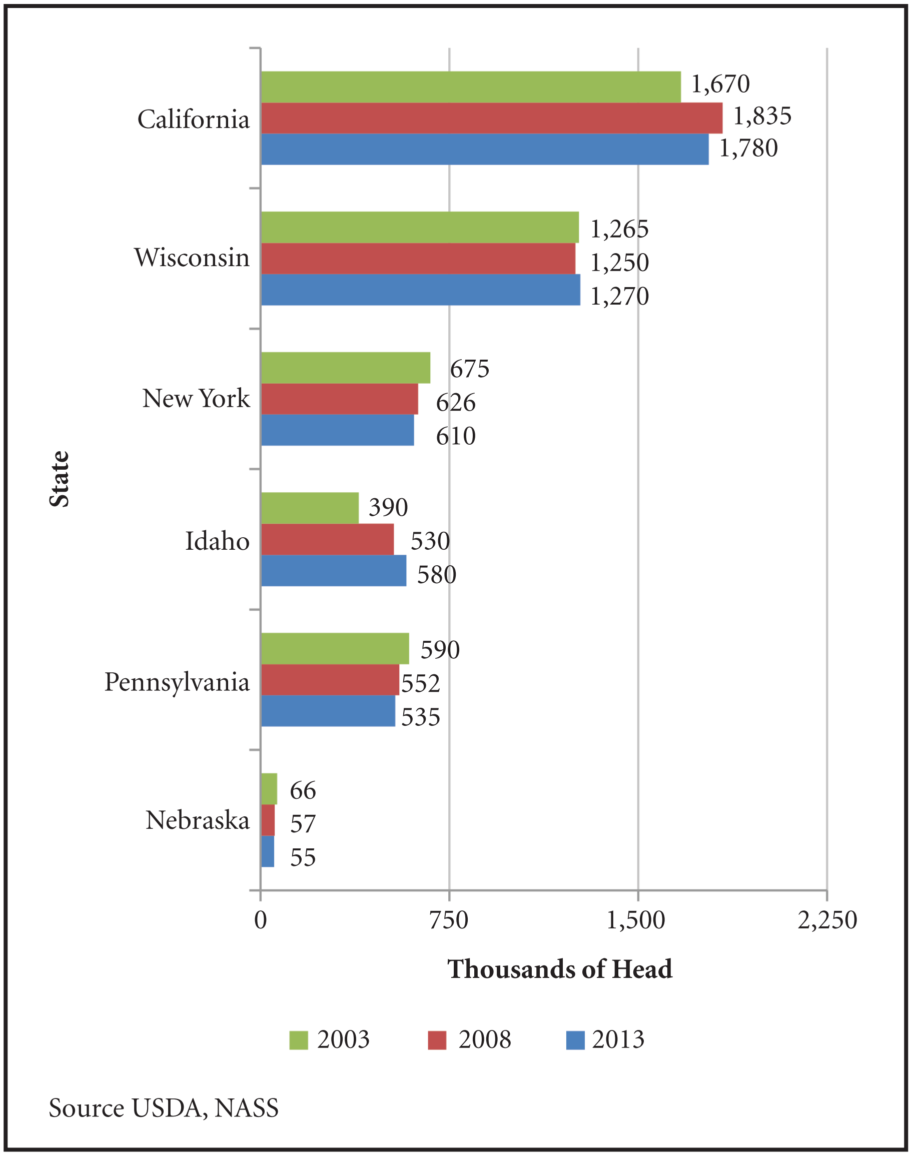


Figure 4.1. Annual Jan. 1 All Dairy Cow Inventory in Top Five States of U.S. and Twenty-Seventh Ranked Nebraska

- The annual dairy cow December 1 inventory is the total head of dairy cows (excluding replacement dairy heifers) by state on the respective inventory date.

Table 4.1. Select State Comparison of U.S. Dairy Cow Jan. 1 Inventory: 2003, 2008, and 2013

	Inventory Year			*Percent Change Between Periods*		
Region	*Jan. 1, 2003*	*Jan. 1, 2008*	*Jan. 1, 2013*	*2003-2008*	*2008-2013*	*2003-2013*
	(1,000 head)	(1,000 head)	(1,000 head)	(percent)	(percent)	(percent)
Top Five Dairy States						
California	1,670	1,835	1,780	9.9	-3.0	6.6
Wisconsin	1,265	1,250	1,270	-1.2	1.6	0.4
New York	675	626	610	-7.3	-2.6	-9.6
Idaho	390	530	580	35.9	9.4	48.7
Pennsylvania	590	552	535	-6.4	-3.1	-9.3
Subtotal	4,590	4,793	4,775	4.4	-0.4	4.0
Ranked Twenty-Seventh						
Nebraska	**66**	**57**	**55**	**-13.6**	**-3.5**	**-16.7**
Other Nebraska Neighbors						
Iowa	208	215	205	3.4	-4.7	-1.4
Colorado	98	126	135	28.6	7.1	37.8
Kansas	112	115	132	2.7	14.8	17.9
Missouri	134	110	93	-0.2	-0.2	-0.3
South Dakota	84	86	92	2.4	7.0	9.5
Wyoming	4	7	6	0.8	-0.1	0.5
Subtotal	640	659	663	3.0	0.6	3.6
Other States	3,846	3,748	3,727	-2.5	-0.6	-3.1
United States	9,142	9,257	9,220	1.3	-0.4	0.9

Source: USDA, NASS

- Dairy cow inventory numbers in the U.S. fluctuate slightly with milk prices but have remained relatively stable over the past decade at about 9.2 million head.
- The most notable regional shift in dairy production is the growth of the industry in Idaho, which has essentially built its dairy industry in the past 25 years, growing by 190,000 head, or nearly 50 percent, since 2003.
- Nebraska, ranking twenty-seventh in dairy cow numbers, has experienced a steady decline over the decade, reflecting the phasing out of smaller dairies and rather limited entry of larger dairy operations into the state.
- Over the same period, several of the states surrounding Nebraska have expanded dairy cow numbers — Colorado by 37,000 head, Kansas by 20,000 head, and South Dakota by 8,000 head.

Table 4.2. Select State Share of U.S. Dairy Cow Jan. 1 Inventory: 2003, 2008, and 2013

Region	Percent Share of U.S. Dairy Cow Inventory		
	Jan. 1, 2003	Jan. 1, 2008	Jan. 1, 2013
	(percent)	(percent)	(percent)
Top Five Dairy States			
California	18.3	19.8	19.3
Wisconsin	13.8	13.5	13.8
New York	7.4	6.8	6.6
Idaho	4.3	5.7	6.3
Pennsylvania	6.5	6.0	5.8
Subtotal	50.2	51.8	51.8
Ranked Twenty-Seventh			
Nebraska	**0.7**	**0.6**	**0.6**
Other Nebraska Neighbors			
Iowa	2.3	2.3	2.2
Colorado	1.1	1.4	1.5
Kansas	1.2	1.2	1.4
Missouri	1.5	1.2	1.0
South Dakota	0.9	0.9	1.0
Wyoming	0.04	0.1	0.1
Subtotal	7.0	7.1	7.2
Other States	42.1	40.5	40.4
United States	100.0	100.0	100.0

Source: USDA, NASS

- Despite possessing the key attributes for a viable dairy industry in the state (quality feed inputs, water, reasonable electricity rates, and a centralized location), Nebraska has experienced the slow demise of dairy production and processing over the past 20 years as reflected by having a 0.6 percent share of the U.S. dairy cow inventory in 2013.

- National leaders in the dairy industry, including California, Wisconsin, New York, Idaho, and Pennsylvania, have maintained a dominant market share in the national dairy cow inventory with a slight increase of 1.6 percent to a combined share of 51.8 percent.

- In recent years, the dairy industry has partially shifted into regions of the country not known for being the traditional "milk shed" areas, such as Idaho where the percent share of the national inventory has increased by 2 percent to 6.3 percent.

Section 4.2 Total Pounds of Milk Produced

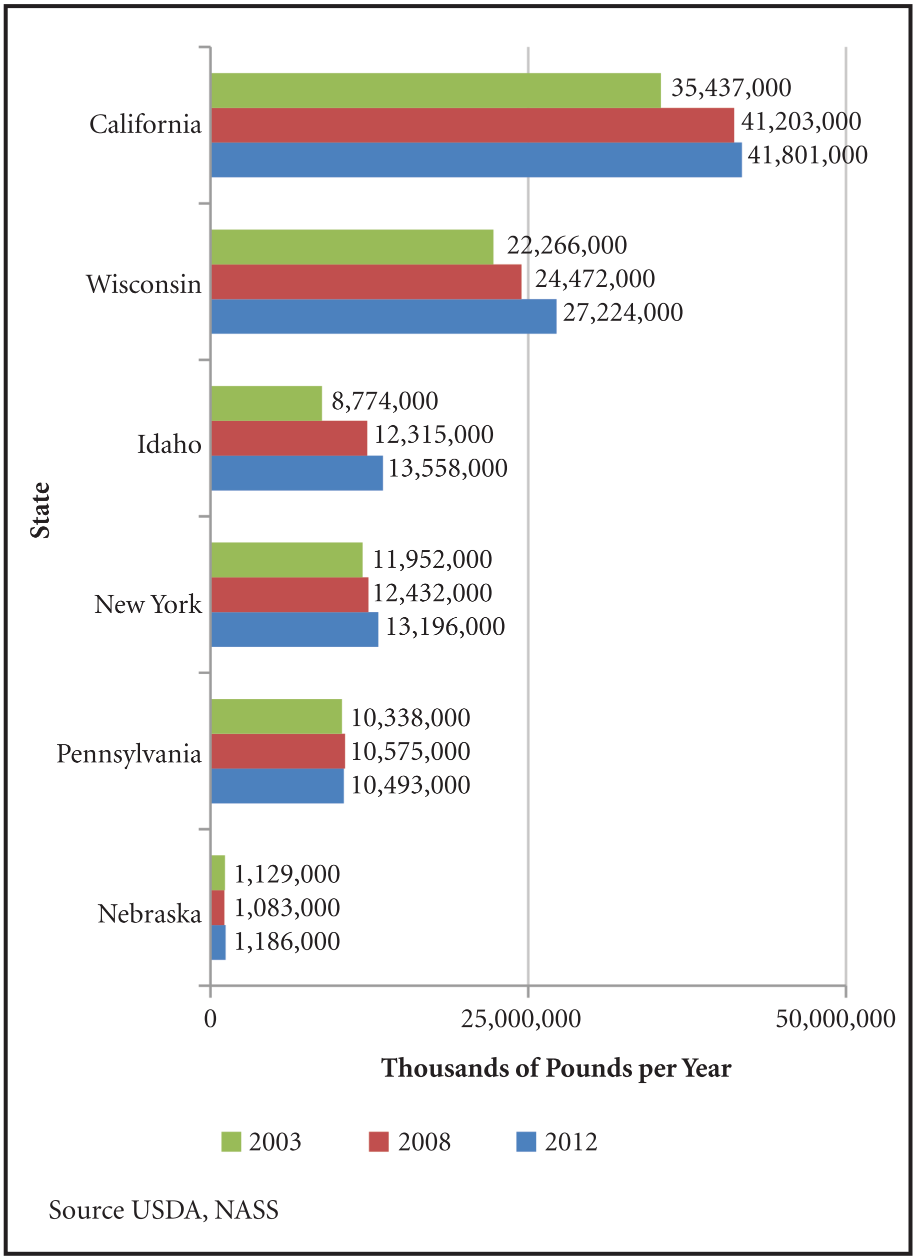


Figure 4.2. Total Pounds of Milk Produced in Top Five States of U.S. and Twenty-Sixth Ranked Nebraska

- The total pounds of milk produced is the annual amount of liquid fluid milk produced by lactating dairy cows (excluding hobby farms) of each state.

Table 4.3. Select State Comparison of U.S. Annual Total Pounds of Milk Produced: 2003, 2008, and 2012

Region	Inventory Year 2003	Inventory Year 2008	Inventory Year 2012	Percent Change Between Periods 2003-2008	Percent Change Between Periods 2008-2013	Percent Change Between Periods 2003-2013
	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)	(percent)	(percent)	(percent)
Top Five Dairy States						
California	35,437,000	41,203,000	41,801,000	16.3	1.5	18.0
Wisconsin	22,266,000	24,472,000	27,224,000	9.9	11.2	22.3
Idaho	8,774,000	12,315,000	13,558,000	40.4	10.1	54.5
New York	11,952,000	12,432,000	13,196,000	4.0	6.1	10.4
Pennsylvania	10,338,000	10,575,000	10,493,000	2.3	-0.8	1.5
Subtotal	88,767,000	100,997,000	106,272,000	13.8	5.2	19.7
Ranked Twenty-Sixth						
Nebraska	**1,129,000**	**1,083,000**	**1,186,000**	**-4.1**	**9.5**	**5.0**
Other Nebraska Neighbors						
Iowa	3,810,000	4,319,000	4,433,000	13.4	2.6	16.4
Colorado	2,153,000	2,935,000	3,213,000	36.3	9.5	49.2
Kansas	2,130,000	2,415,000	2,731,000	13.4	13.1	28.2
South Dakota	1,330,000	1,796,000	1,968,000	35.0	9.6	48.0
Missouri	1,886,000	1,615,000	1,404,000	-14.4	-13.1	-25.6
Wyoming	54,000	135,700	124,900	151.3	-8.0	131.3
Subtotal	11,363,000	13,215,700	13,873,900	16.3	5.0	22.1
Other States	69,090,000	74,686,600	78,991,200	8.1	5.8	14.3
United States	170,349,000	189,982,300	200,323,100	11.5	5.4	17.6

Source: USDA, NASS

- The total pounds of milk produced in the United States continued to increase over the past decade by over 17 percent even as the dairy cow inventory has stabilized. This can be attributed to the efficiency within the dairy industry in producing more milk per animal. The average milk produced per dairy cow in the United States increased 2,938 pounds from 18,759 pounds in 2003 to 21,697 pounds in 2012.
- Even with the decline in Nebraska's dairy cow inventory, the state has seen a 5 percent increase in milk production over the last decade. Nebraska's dairy cows produced on average 21,179 pounds of milk per cow in 2012, an increase of 3,538 pounds per cow since 2003 when the state average was 17,641 pounds per cow. Of Nebraska's neighboring states, Missouri is the only state that declined in milk production with a significant drop of over 25 percent.

Table 4.4. Select State Share of U.S. Annual Total Pounds of Milk Produced: 2003, 2008, and 2012

Region	Percent Share of Total Pounds of Milk Produced		
	2003	2008	2012
	(percent)	(percent)	(percent)
Top Five Dairy States			
California	20.8	21.7	20.9
Wisconsin	13.1	12.9	13.6
Idaho	5.2	6.5	6.8
New York	7.0	6.5	6.6
Pennsylvania	6.1	5.6	5.2
Subtotal	52.1	53.2	53.1
Ranked Twenty-Sixth			
Nebraska	**0.7**	**0.6**	**0.6**
Other Nebraska Neighbors			
Iowa	2.2	2.3	2.2
Colorado	1.3	1.5	1.6
Kansas	1.3	1.3	1.4
South Dakota	0.8	0.9	1.0
Missouri	1.1	0.9	0.7
Wyoming	0.03	0.1	0.1
Subtotal	6.7	7.0	6.9
Other States	40.6	39.3	39.4
United States	100.0	100.0	100.0

Source: USDA, NASS

- Over the last decade, Nebraska has remained relatively steady in the state's market share of total pounds of milk produced at about 0.6 percent.
- California continues to rank first with over 20 percent of the milk produced. Combined with the other top four dairy states, Wisconsin, Idaho, New York, and Pennsylvania, these regions have a combined market share that has increased by 1 percent over the last decade to 53.1 percent of the national total pounds of milk produced.
- Other Nebraska neighbors do hold a particularly strong share of the national pounds of milk produced. Market shares held by these states have remained relatively constant over the last decade at about 7 percent.

Section 4.3 Dairy Industry Summary

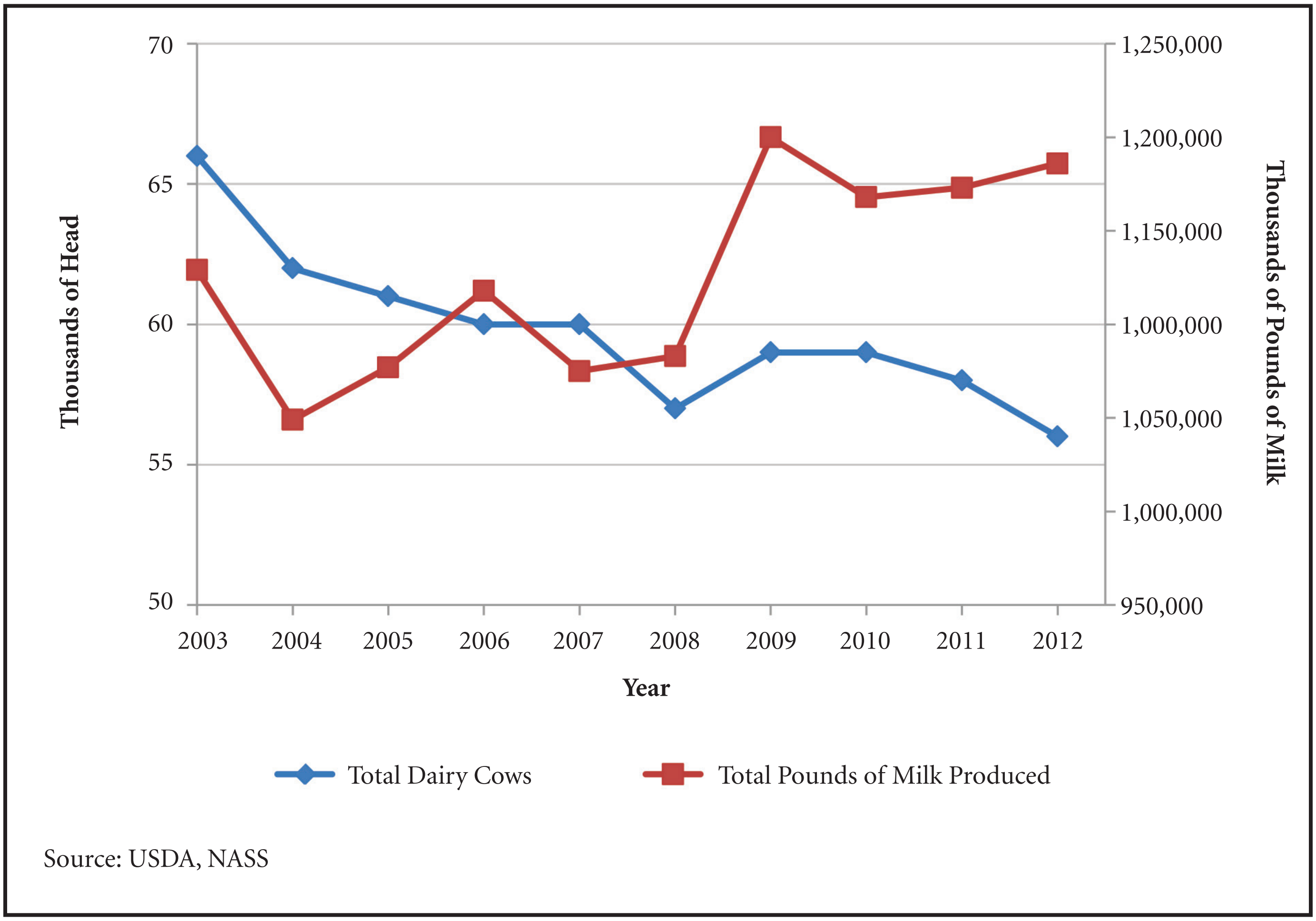


Figure 4.3. Summary of Dairy Industry in Nebraska for 2003-2012

- As the dairy industry in Nebraska has continued to decline in cow numbers, milk production has continued to rise. This is evidence of the continued increase in efficiency of the producers remaining in the industry.
- Over the last decade, the total average pounds of milk produced per cow increased nearly 25 percent.
- General trends in the dairy industry reflect a movement toward additional types and varieties of processed dairy products (cheeses, yogurt, ice cream, and dried milk). These types of products have a greater ease of transportation to distant markets from the processing plant.
- Processed dairy products would bode well for Nebraska should decision makers choose to re-enter the dairy industry in the future due to the geographical location of the state. However, these facilities are becoming larger and more costly to build, making incentives an enticing method to attract these new businesses.

Chapter 5: Poultry Industry

For 2010 in Nebraska, poultry production accounted for less than 2 percent of the total dollar value of livestock production in the state. The poultry industry is a minor component of the overall livestock sector in Nebraska.

Section 5.1 Annual Poultry Inventory

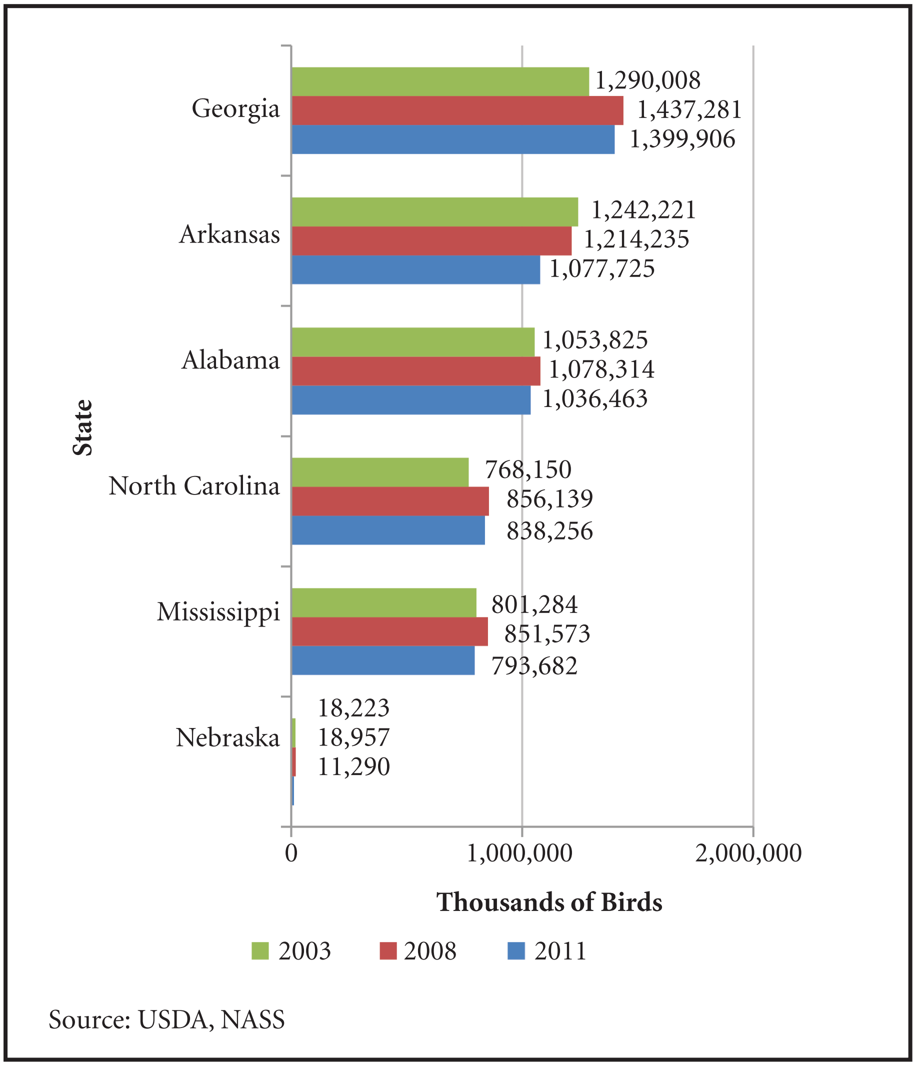


Figure 5.1. Annual Dec. 1 All Poultry Inventory in Top Five States of U.S. and Twenty-Seventh Ranked Nebraska

- The annual December 1 all poultry inventory represents the total number of birds, including chickens (egg laying hens), broilers (meat birds), and turkeys, by state for the respective inventory date. To protect the confidentiality of companies where only one large poultry production or processing facility exists in a state, these estimates have not been disclosed.

Table 5.1. Select State Comparison of U.S. Poultry Dec. 1 Inventory: 2003, 2008, and 2011

Region	Inventory Year			Percent Change Between Periods		
	Dec. 1, 2003	Dec. 1, 2008	Dec. 1, 2011	2003-2008	2008-2011	2003-2011
	(1,000 head)	(1,000 head)	(1,000 head)	(percent)	(percent)	(percent)
Top Five Poultry States						
Georgia	1,290,008	1,437,281	1,399,906	11.4	-2.6	8.5
Arkansas	1,242,221	1,214,235	1,077,725	-2.3	-11.2	-13.2
Alabama	1,053,825	1,078,314	1,036,463	2.3	-3.9	-1.6
North Carolina	768,150	856,139	838,256	11.5	-2.1	9.1
Mississippi	801,284	851,573	793,682	6.3	-6.8	-0.9
Subtotal	5,155,488	5,437,542	5,146,032	5.5	-5.4	-0.2
Ranked Twenty-Seventh						
Nebraska	**18,223**	**18,957**	**11,290**	**4.0**	**-40.4**	**-38.0**
Other Nebraska Neighbors						
Iowa	59,382	73,958	66,319	24.5	-10.3	11.7
Missouri	34,780	30,818	31,323	-11.4	1.6	-9.9
Colorado	5,100	4,887	5,641	-4.2	15.4	10.6
South Dakota	(D)*	(D)*	7,174	—	—	—
Wyoming	17	13	13	-23.5	0.0	-23.5
Kansas	(D)*	(D)*	(D)*	—	—	—
Subtotal	99,279	109,676	110,470	10.5	0.7	11.3
Other States	3,942,956	4,173,793	3,753,653	5.9	-10.1	-4.8
United States	9,215,946	9,740,781	9,303,351	5.7	-4.5	0.9

*(D) value not disclosed due to confidentiality.
Source: NASS, USDA

- Over the past decade, the national poultry inventory has remained relatively steady at about 9.2 to 9.3 billion birds. For the past nine years, the U.S. poultry inventory has increased by only about 0.9 percent.
- Poultry production in the U.S. is heavily concentrated in southeastern states, including Georgia, Arkansas, Alabama, North Carolina, and Mississippi. The sharpest increase in inventory for these states was in Georgia at 8.5 percent and the largest decline in Arkansas at 13.2 percent between 2003 and 2011.
- Nebraska's poultry inventory ranks twenty-seventh in the United States. Egg laying hens and some broiler production comprise the state's poultry industry. The dramatic decline in birds for the state, nearly 40 percent between 2003 and 2011, was due to the closure of the turkey slaughtering and processing plant in Gibbon, Nebraska, causing the number of growers commercially raising turkeys to significantly decline.

Table 5.2. Select State Share of U.S. Poultry Dec. 1 Inventory: 2003, 2008, and 2011

Region	*Percent Share of U.S. Annual Poultry Inventory*		
	Dec. 1, 2003	*Dec. 1, 2008*	*Dec. 1, 2011*
	(percent)	(percent)	(percent)
Top Five Poultry States			
Georgia	14.0	14.8	15.0
Arkansas	13.5	12.5	11.6
Alabama	11.4	11.1	11.1
North Carolina	8.3	8.8	9.0
Mississippi	8.7	8.7	8.5
Subtotal	55.9	55.8	55.3
Ranked Twenty-Seventh			
Nebraska	**0.2**	**0.2**	**0.1**
Other Nebraska Neighbors			
Iowa	0.6	0.8	0.7
Missouri	0.4	0.3	0.3
Colorado	0.1	0.1	0.1
South Dakota	—	—	0.1
Wyoming	0.0*	0.0*	0.0*
Kansas	—	—	—
Subtotal	1.1	1.1	1.2
Other States	42.8	42.8	40.3
United States	100.0	100.0	100.0

*0.0 values noted as an extremely small percentage of the overall share.
Source: NASS, USDA.

- Over the last decade, Georgia has continued to rank No. 1 in percent share of U.S. poultry inventory, increasing by 1 percent.
- The top five poultry states have approximately a 55 percent share of the national inventory. This high share shows how heavily concentrated the industry is in the southeastern U.S. due to the size and scale of vertical integration.
- Nebraska has a very small overall share in the poultry industry of approximately 0.1 percent in 2011. When combined with other Nebraska neighbors, this region only has about a 1 percent share of the U.S. poultry inventory, which has remained relatively constant over the period of analysis.

Section 5.2 Poultry Industry Summary

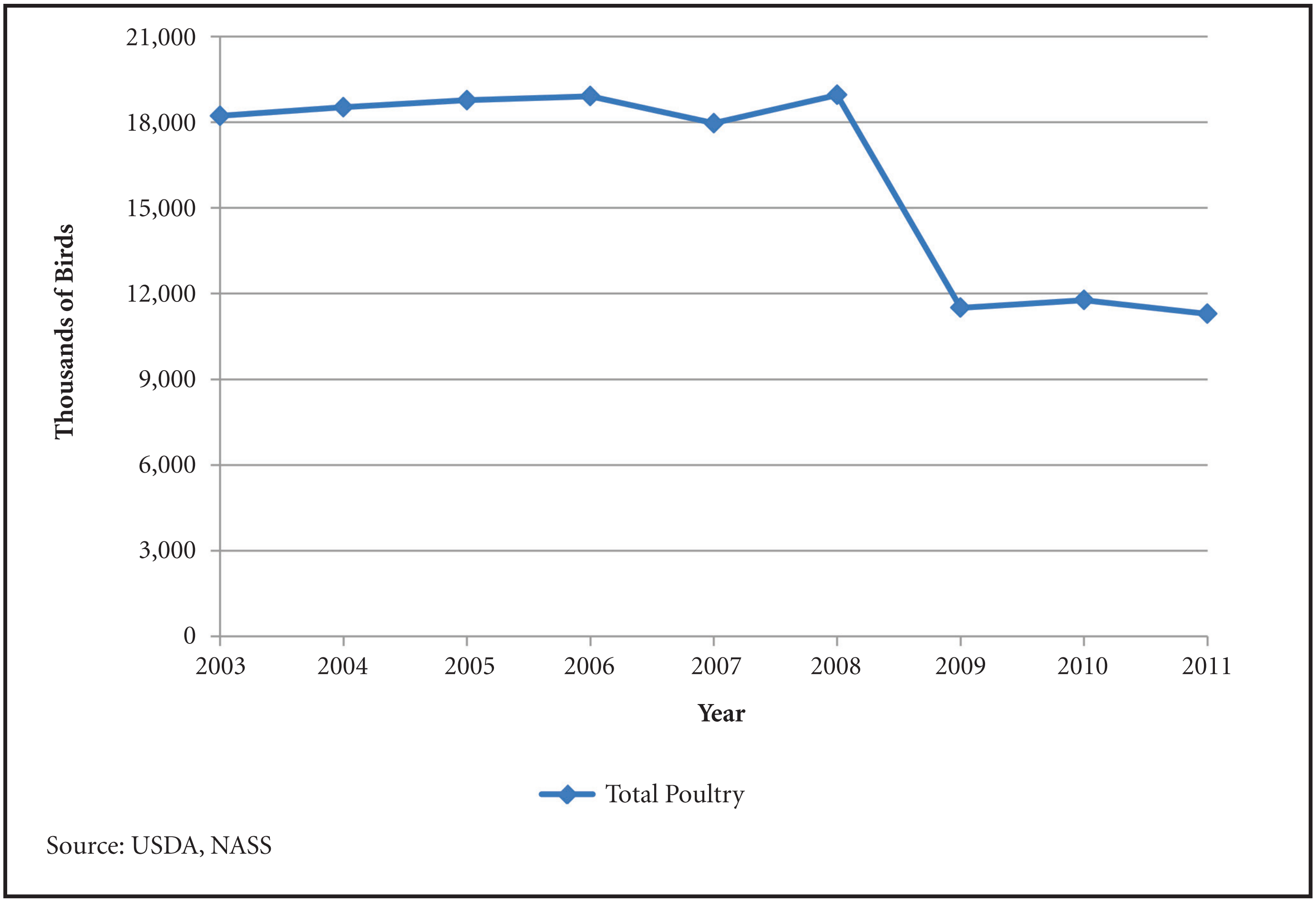


Figure 5.2. Summary of Poultry Industry in Nebraska for 2003-2011

- Prior to closure of the turkey slaughtering plant in Gibbon, Nebraska, the state's poultry inventory averaged around 18 million birds from 2003 to 2008. After the plant's closure in late 2008, the state's poultry inventory declined by about 6 million (or one-third) to about 12 million birds.
- The closed facility in Gibbon, Nebraska, started operating again in mid-2010 after a group of investors reopened the plant, but only at partial capacity. After reopening, the plant operated on financially challenging terms and eventually closed in early 2013 (Associated Press, 2013).
- Nebraska's poultry industry currently consists primarily of egg laying hens, and to a lesser extent broiler production. Integrators operating laying hen and egg processing facilities have been a fairly constant staple for the poultry industry in Nebraska.

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