



Overview of the United States Hog Industry

ISSN:

Released October 29, 2015, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA).

Breeding Herd Efficiency Continues to Increase

The *Overview of the United States Hog Industry* report provides an official periodic review of efficiency trends and changes in the structure of the United States swine breeding herd. This report will also note changes in hog inventory, compare historic hog prices and review live hog imports and marketings. This report compares the current 2014 production year data to the 2008 production year data previously released in the *Overview of the U.S. Hog Industry* report, published in October 2009.

The efficiency of the United States breeding herd increased significantly from 1994 through 2012. However, due to the effects of the Porcine Diarrhea Virus (PEDv), the average number of pigs per breeding animal declined in 2013 and 2014 (page 6). The average number of annual pigs per breeding herd animal (including sows, gilts and boars) was 19.5 in 2014, down from 19.8 in 2013, but up from 18.7 in 2008. The steady increase in the average number of pigs per breeding animal prior to 2013 was due to the increase in the number of litters per sow per year and the increase in litter rates. Producers were able to increase pig crop while decreasing breeding herd and farrowings as a percent of the total inventory until the introduction of PEDv to the domestic herd in 2013 (pages 6 and 7). The average utilization of breeding females was 49 percent in 2014, up from 42 percent in 1994, but down from 50 percent in 2012 (page 7). The size of the annual domestic pig crop increased 13 percent between 1994 and 2014 while the number of farrowings decreased 7 percent during the same period (page 7).

The influence of large operations, those with inventories of 5,000 or more hogs and pigs, on the United States annual litter rate has increased greatly since 1994 (page 8). During that year, the average number of pigs weaned on operations with less than 5,000 head was 8.00. The average number weaned on all operations was 8.19 pigs per litter and the average on operations with 5,000 or more head was 8.73. By 2008, operations with 5,000 or more head weaned 9.48 pigs per litter while the average for all operations was 9.41 and the average for operations with less than 5,000 head was 8.93 pigs per litter. For the 2014 production year, operations with 5,000 or more head weaned 9.97 pigs per litter while the national average was 9.93 pigs per litter and operations with less than 5,000 head weaned 9.41 pigs per litter.

Historically, the majority of the annual pig crop was produced on operations with fewer than 5,000 hogs and pigs. By 1996, due to industry consolidation and the loss of many small operations, the percentages of the annual pig crop raised by operations with fewer than 5,000 head and by operations with at least 5,000 head were near equilibrium (page 8). For the 2014 production year, 93 percent of the annual pig crop was produced on operations with at least 5,000 head, up from 27 percent in 1994 and up from 88 percent in 2008. From information collected for the 2012 Census of Agriculture, only 5 percent of hog and pig operations had 5,000 or more head, but accounted for 68 percent of the nation's inventory (page 9). Conversely, 95 percent of operations had fewer than 5,000 head, but accounted for only 32 percent of the inventory.

Producers have increased production of total hogs and pigs over the last 20 years while decreasing the size of the breeding herd (page 9). The breeding herd accounted for 12 percent of the total United States hogs and pigs inventory in 1994, but only accounted for 9 percent in 2014. From 1994 to 2014 the total United States hogs and pigs inventory increased 7 percent while the breeding herd decreased 19 percent.

Iowa continues to be the largest pork producing state in the country (page 10). As of December 1, 2014, Iowa accounted for 31.4% of the total United States hog and pig inventory. North Carolina (13.0%), Minnesota (12.0%), Illinois (6.9%)

and Indiana (5.5%) round out the top five pork producing states. A detailed 2012 Census of Agriculture map showing concentrations of hogs and pigs throughout the United States can be found on page 10.

The hog Market Year Average price was at or below \$50 every year between 1998 and 2009 before increasing to \$76.50 in 2014 (page 11). The corn market year average price increased from \$2.00 per bushel in 2005 to \$6.89 per bushel in 2012. This resulted in a marketing year hog to corn ratio of 9.3 for 2012. The market year average price per bushel of corn in 2014 was \$3.65 leading to a marketing year hog to corn ratio of 21.0 for 2014 compared to a ratio of 11.6 in 2008 (page 11).

Federally Inspected slaughter weights and dressing percentages have increased steadily for the last twenty years (page 12). In 1994, Federally Inspected live weights averaged 256 pounds per head. Dressed weights averaged 185 pounds resulting in an annual dressing percentage of 72 percent. For 2014, the average live weight had increased to 285 pounds while the average dressed weight increased to 214 pounds. This resulted in an average annual dressing percentage of 75 percent.

A product of increased slaughter weights and increased Market Year Average prices for hogs and pigs is an increased value per head. Although there has been fluctuation in the value per head, it has trended higher since 2008 (page 13). The average value per head of all hogs and pigs in 2008 was \$88.74. This resulted in a total value of 5.95 billion dollars for all hogs and pigs raised in the United States during that production year. The average value per head increased to \$143.93 in 2014, resulting in a total value of 9.52 billion dollars for all hogs and pigs raised in the United States during that production year.

Gross income for United States hog and pig producers increased from 16.1 billion dollars in 2008 to 26.5 billion dollars in 2014 (page 13). Additionally, gross income for meat animals (hogs and cattle) increased from 64.9 billion dollars in 2008 to 108.3 billion dollars in 2014.

Live imports into the United States continue to be important to the domestic hog industry, but have declined significantly since 2008 (page 14). Imports of all hogs and pigs into the United States during 2014 totaled 4.9 million head, down 51 percent from the peak in 2007 (Source: USDA's Foreign Agricultural Service). Feeder pig imports from Canada during 2014 accounted for 3.9 million head, or 79.5 percent of the total 2014 imports into the United States (Source: USDA's Agricultural Marketing Service). The feeder pig imports accounted for approximately 15 percent of Canada's annual pig crop (Source: Statistics Canada, Agricultural Division). These feeder pigs, if produced domestically, would require about 3 percent more breeding herd annually in the United States.

The majority of the annual hogs and pigs disposition is made up of marketings, which include custom slaughter for use on farms where produced and State outshipments, but exclude interfarm sales within the State. Marketings for the 2014 production year were 148.3 million head, up 47 percent from 101.1 million head in 1994 but down slightly from 148.8 million head in 2008 (page 14).

Terms and definitions associated with the hog industry can be found on page 15 of this report.

Survey Procedures and Methodology

The *Quarterly Hogs and Pigs* reports are based on probability surveys. A probability survey assumes everyone in the target population has a positive probability of being selected. These probabilities do not have to be equal but they must be known and used in the sample selection and survey estimation process. Because a sample is used in the survey process, sampling errors are associated with the numbers. However, since the probabilities of selection are known, sampling errors can be calculated to determine levels of precision. In other words, it allows an objective evaluation of the reliability of a statistic.

Hog owners, including contractors, are the target population for the quarterly hog surveys. The sampling universe for the hog estimation program is all hog operations with the capacity to raise breeding or market hogs. A sample of hog operations from the list frame maintained by NASS is supplemented by a sample of area tracts to ensure complete coverage.

A random sample of roughly 10,900 United States hog producers is surveyed to provide data for the December report. A sample size of approximately 8,100 is sampled for each March, June and September survey. Survey procedures ensure that all hog and pig producers, regardless of size, have a chance to be included in the survey. Large producers are sampled more heavily than small operations.

The December *Quarterly Hogs and Pigs* report includes published estimates for each of the 50 states. The *Quarterly Hogs and Pigs* reports in March, June and September include individual published state estimates for the 16 major producing states, combined with 14 non-published states. Estimates from the remaining 20 states, which are only published in December, are carried forward each quarter.

Hog and pig estimates are prepared by the Agricultural Statistics Board after reviewing recommendations and analysis submitted by each field office. National and state survey data are reviewed for reasonableness with each other, with estimates from past years and using a balance sheet. The balance sheet begins with the previous inventory estimate, adds the estimates of births and imports and subtracts the estimates of slaughter, exports and deaths. This indicated ending inventory level is compared to the Agricultural Statistics Board estimate for reasonableness.

Revisions to previous estimates are made to improve quarter to quarter relationships. In December, estimates for all quarters of the current and previous year are reviewed. In March, June and September, estimates for the previous four quarters are subject to revision when the current quarter estimates are made. The reviews are based on slaughter, death loss and current import and export data. Estimates are also reviewed after data from the Department of Agriculture five-year Census of Agriculture are available. No revisions are made after that date.

Notes

This special release is only available on the NASS website at: www.nass.usda.gov

Quarterly Hogs and Pigs reports are available at: www.nass.usda.gov

Hogs and Pigs Inventory Executive Briefings are available at: www.nass.usda.gov/Newsroom/Executive_Briefings

United States and Canadian Hogs reports are available at: www.nass.usda.gov

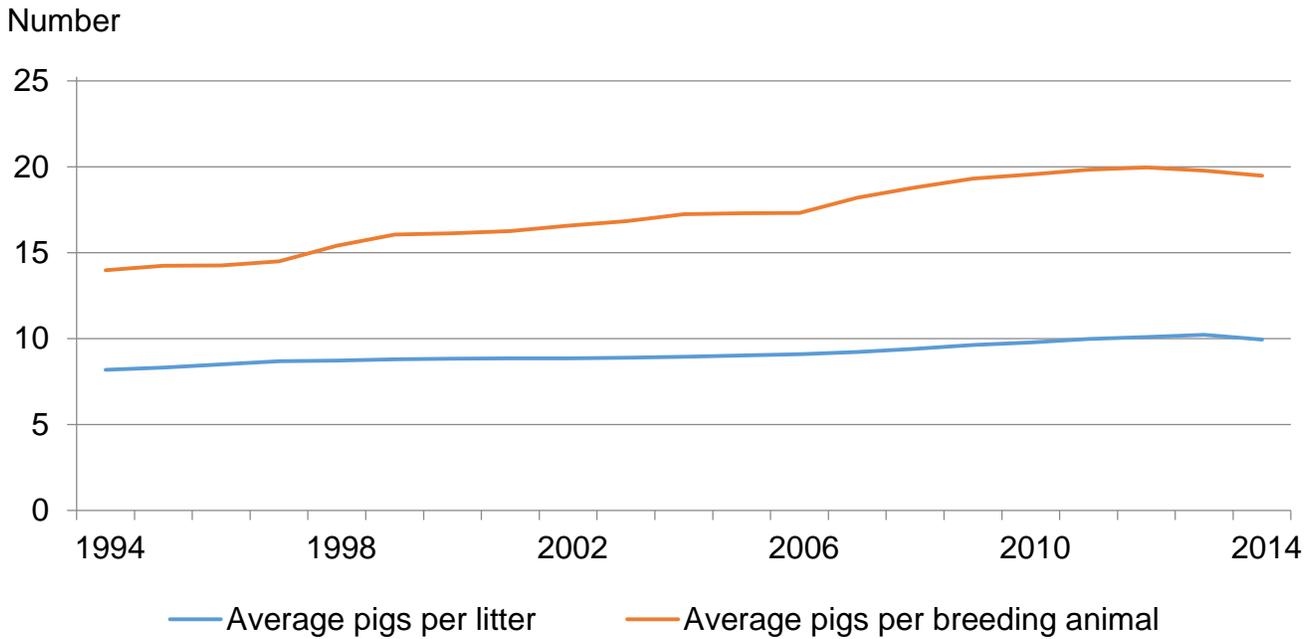
Meat Animals Production, Disposition, and Income Annual Summaries are available at: www.nass.usda.gov

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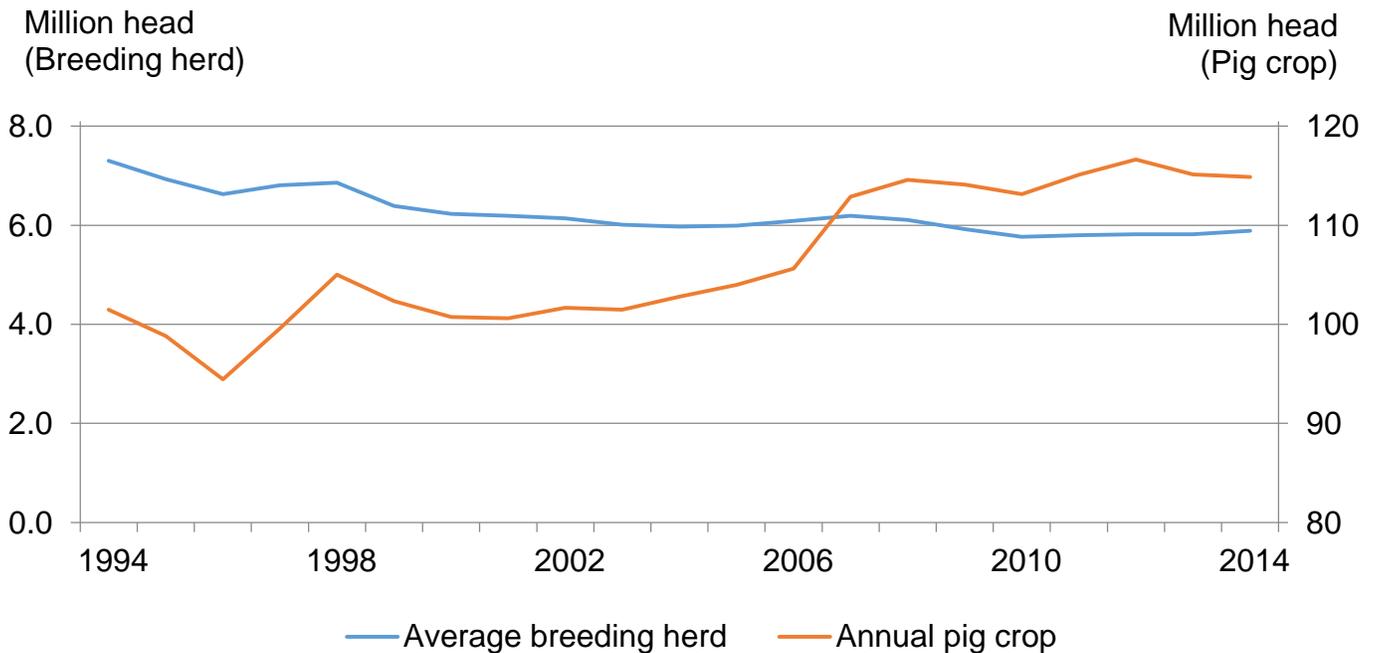
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Average Pigs per Litter and per Breeding Animal – United States: 1994-2014

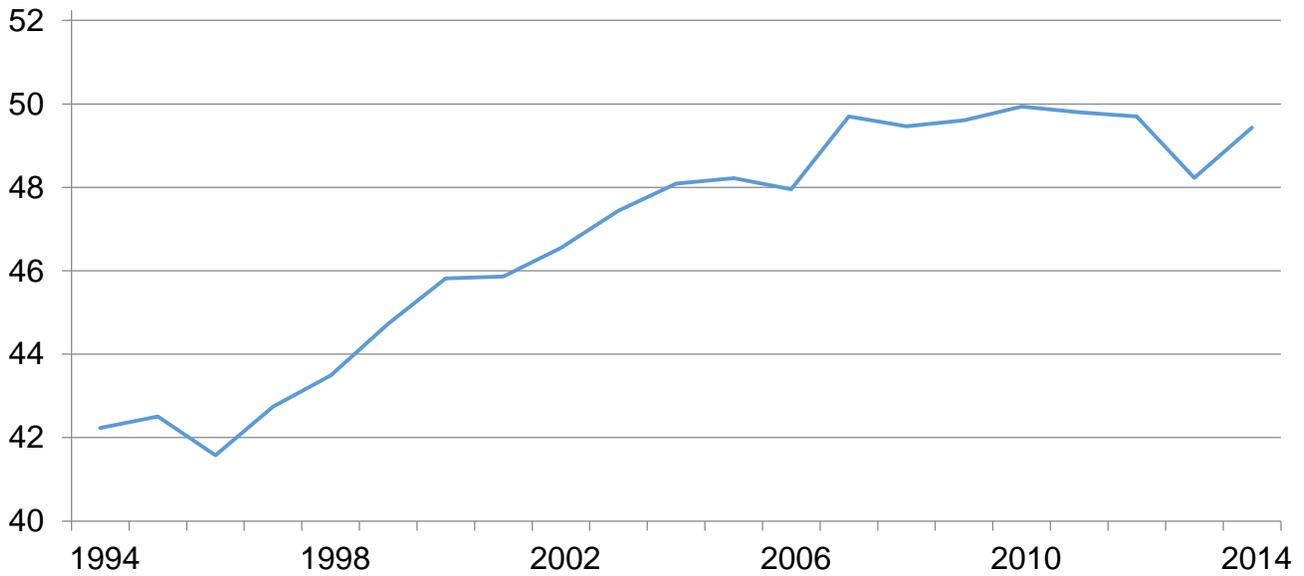


Average Breeding Herd and Annual Pig Crop – United States: 1994-2014



Average Sow Utilization – United States: 1994-2014

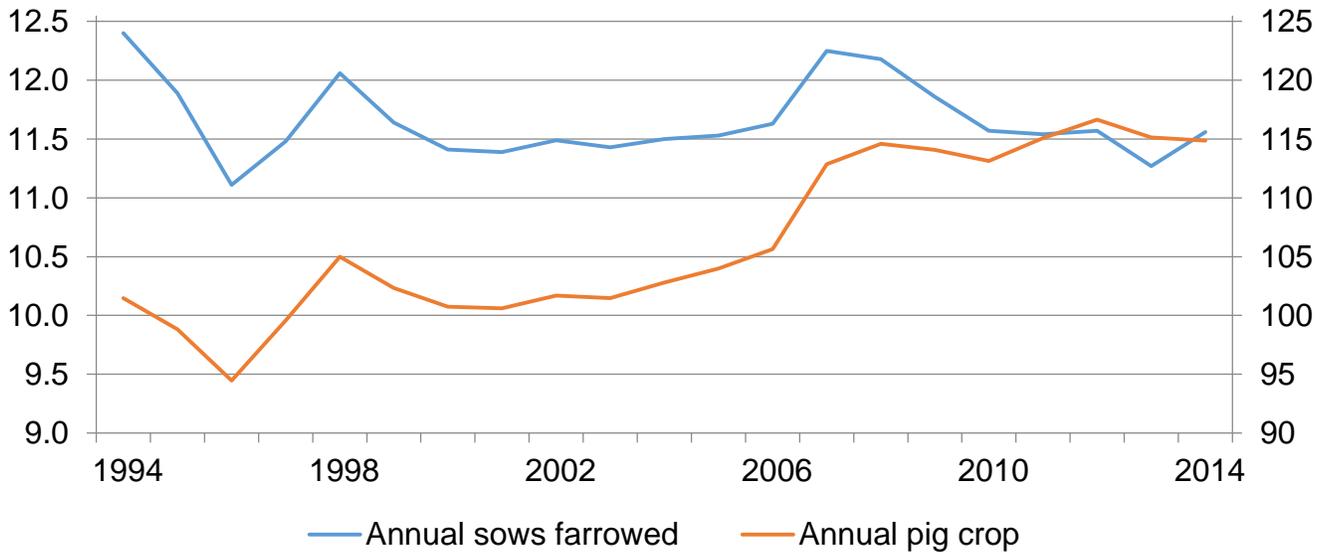
Percent



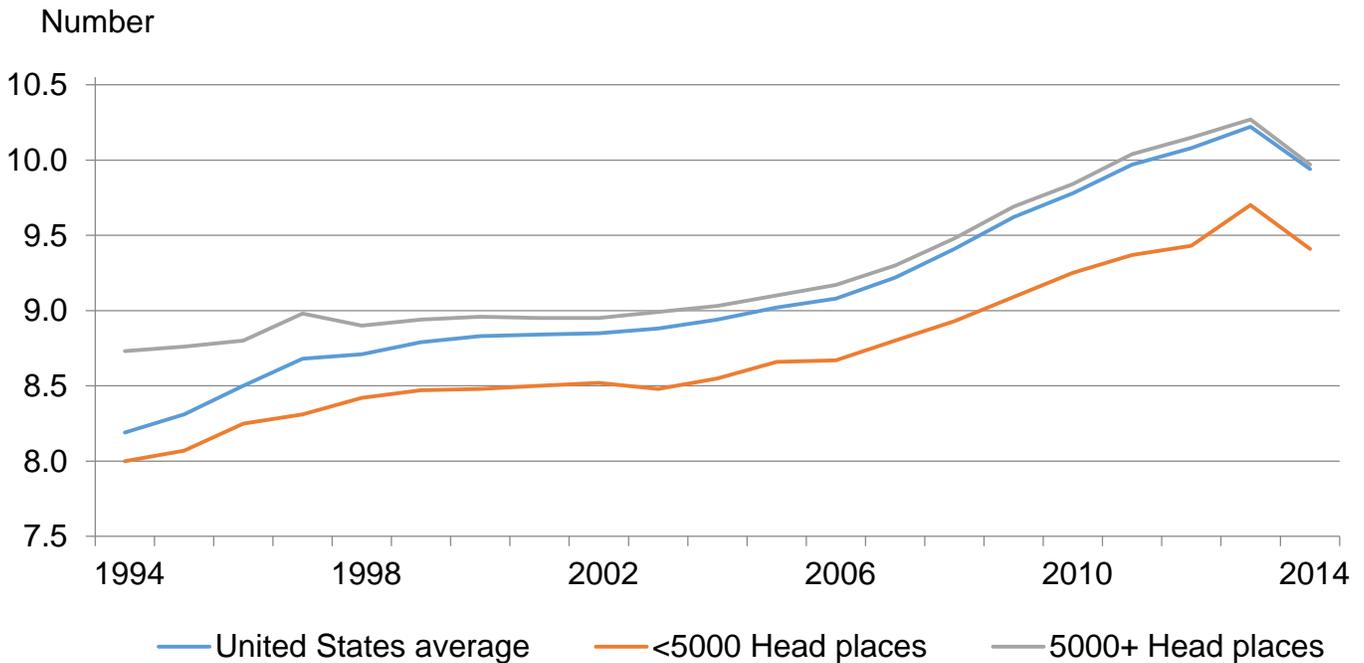
Annual Sows Farrowed and Annual Pig Crop – United States: 1994-2014

Million head
(Sows farrowed)

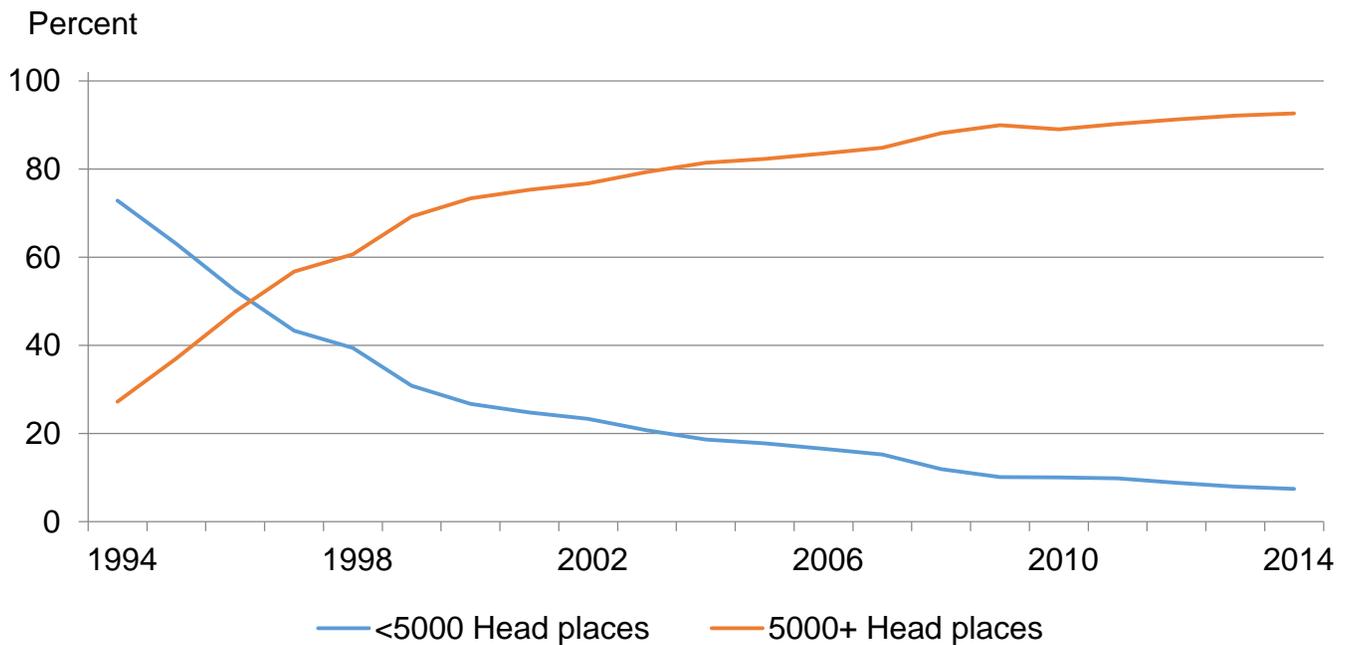
Million head
(Pig crop)



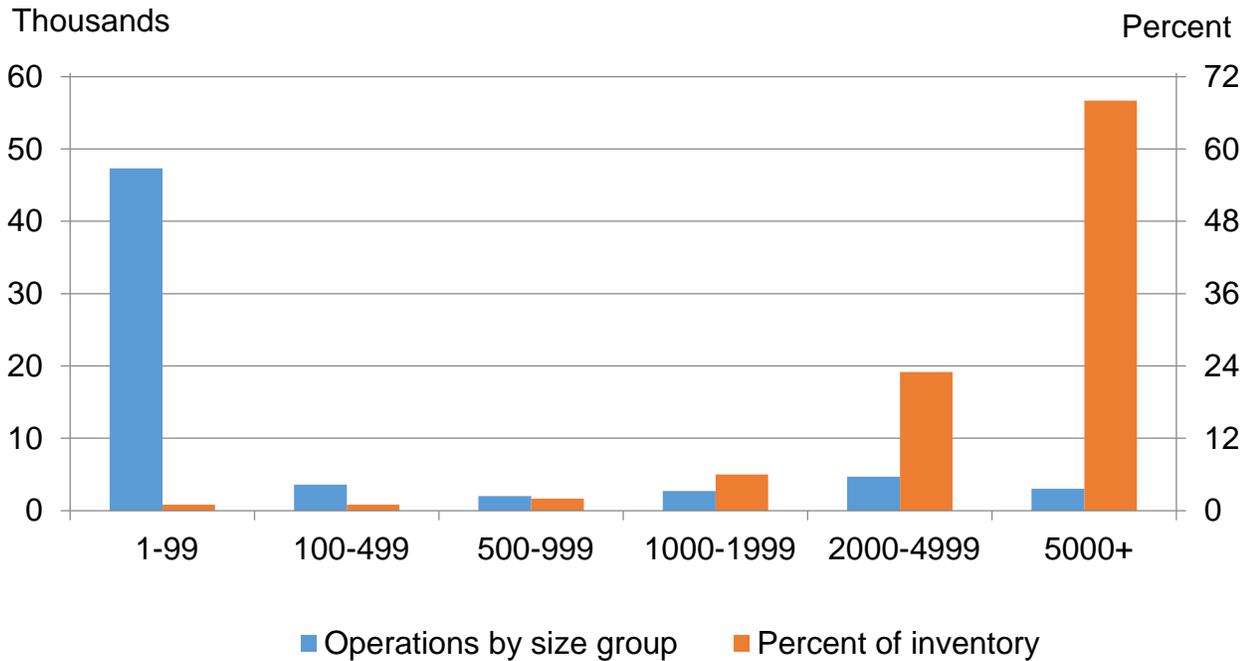
Annual Litter Rate by Size of Operation – United States: 1994-2014



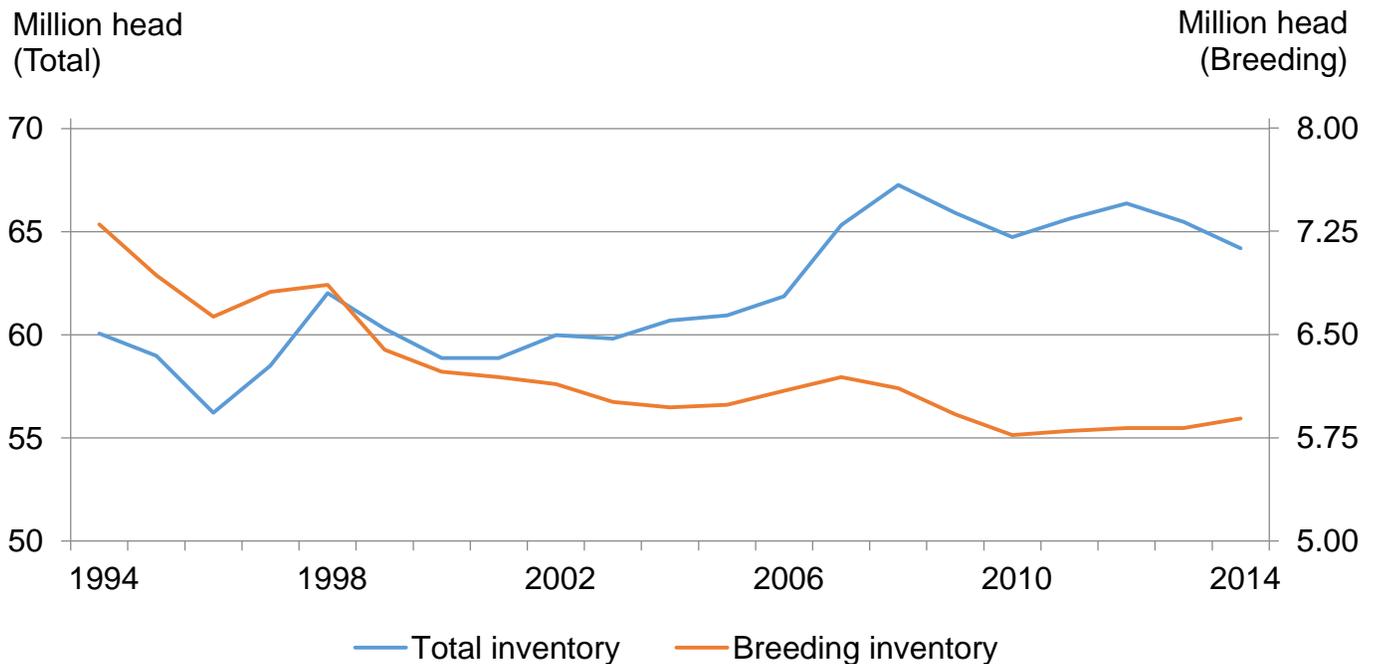
Annual Pig Crop Distribution by Size of Operation – United States: 1994-2014



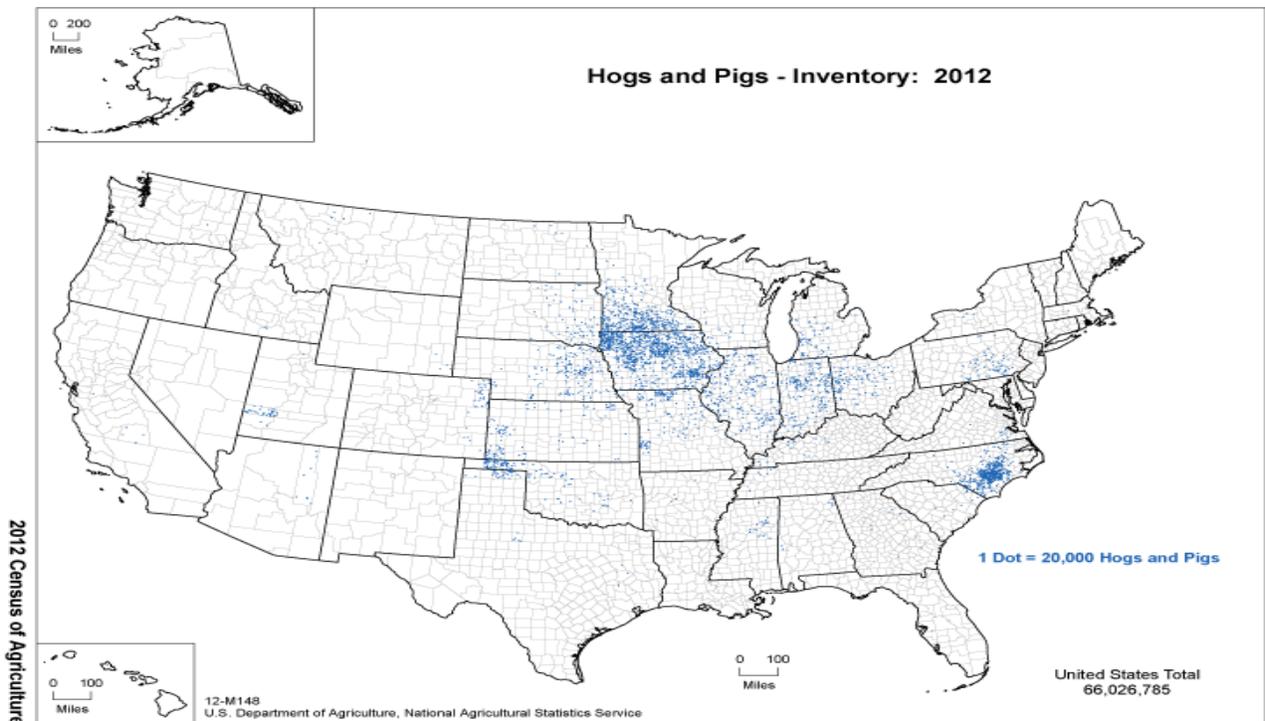
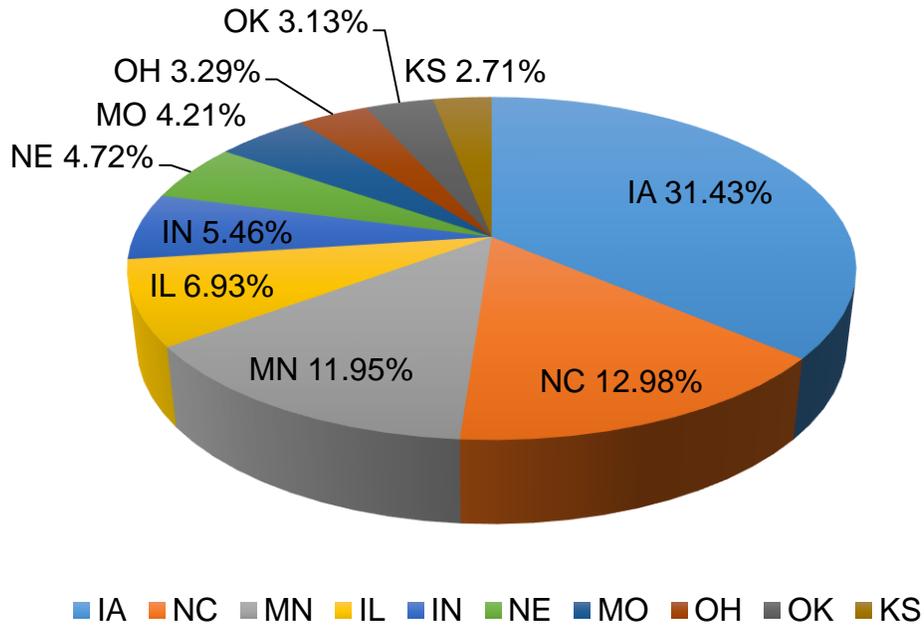
Hog Operations by Size Group and Percent of Inventory – United States: 2012



Average Hogs and Pigs Inventory – United States: 1994-2014

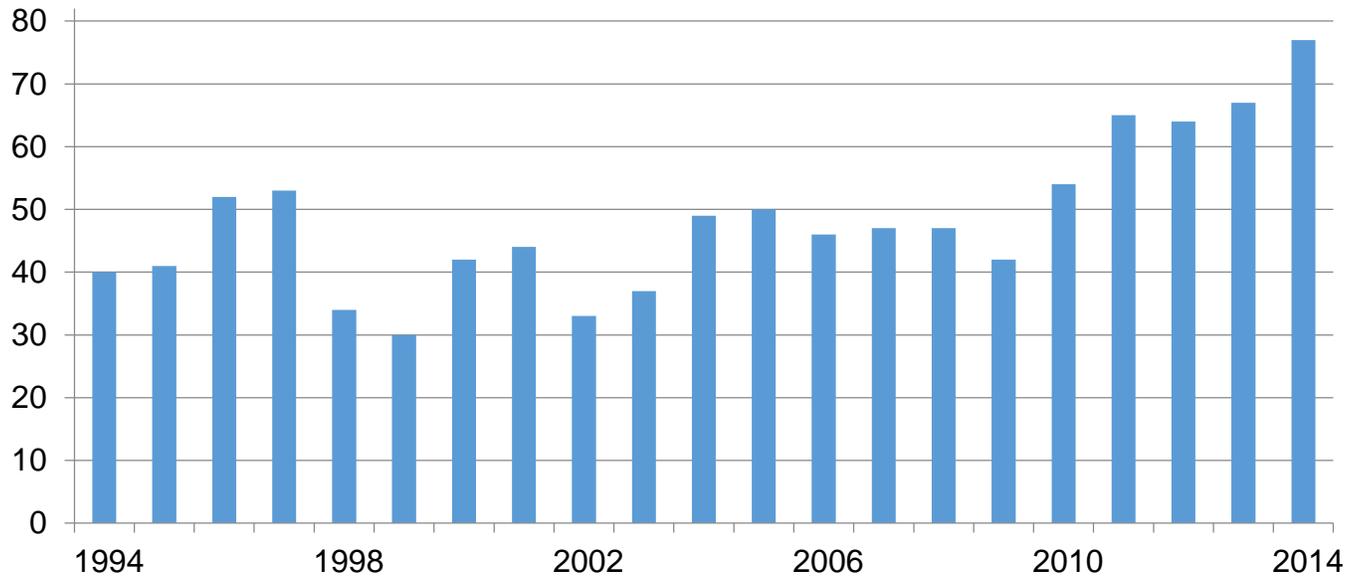


Percent of Inventory by State – Top 10 States: December 1, 2014



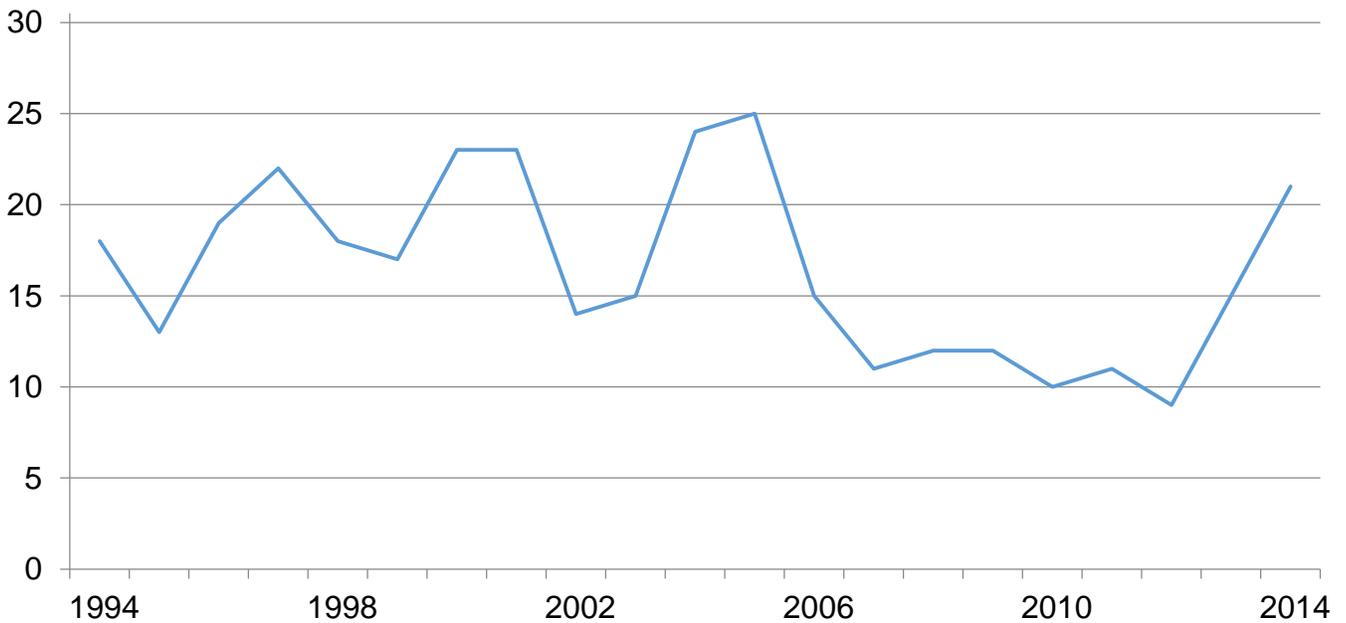
All Hog Market Year Average Price – United States: 1994-2014

Dollars per cwt

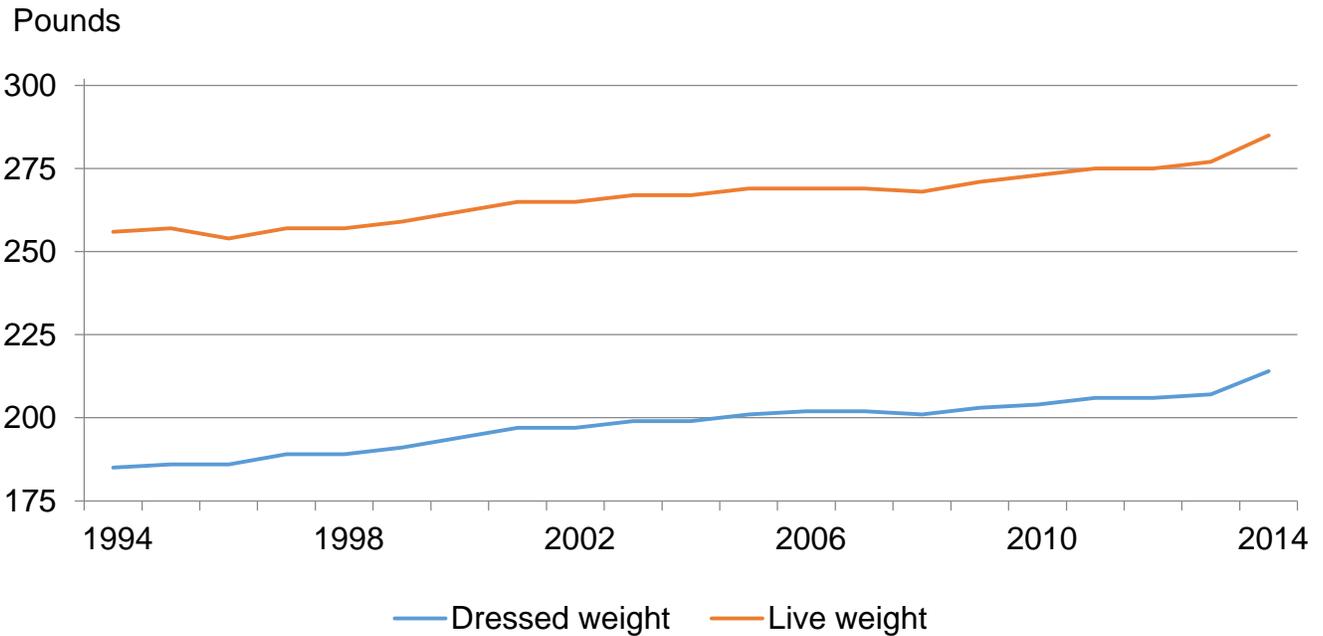


Hog to Corn Ratio – United States: 1994-2014

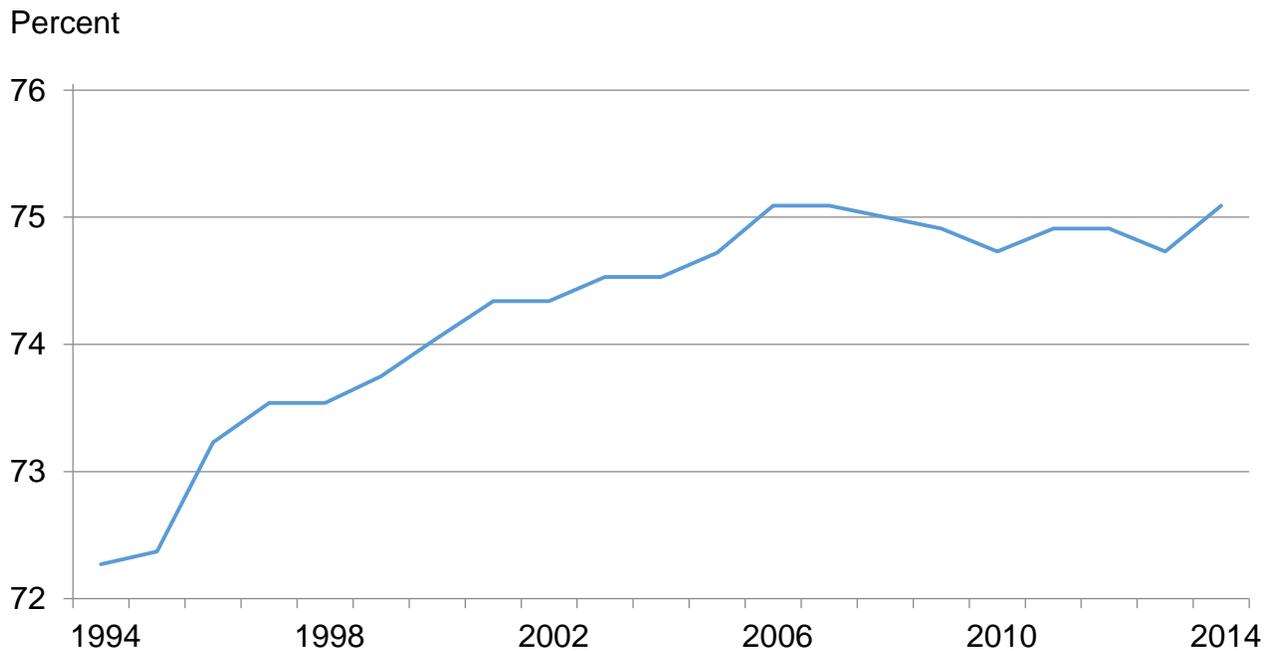
Number



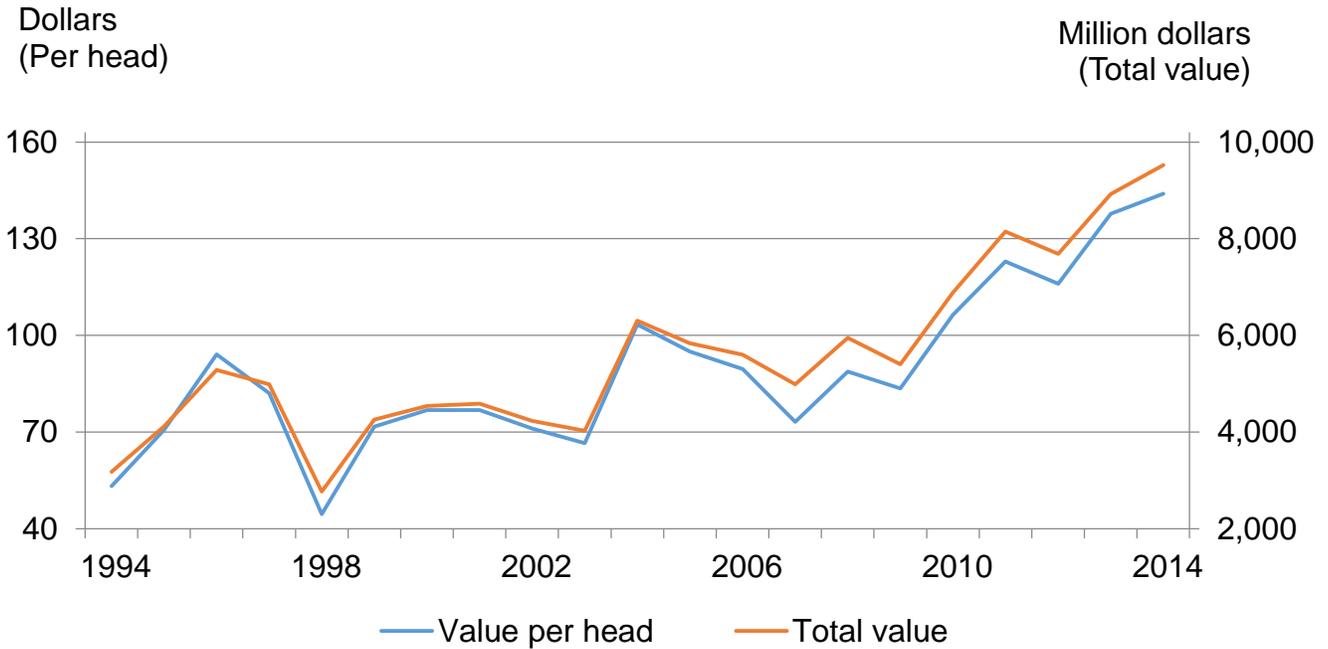
Federally Inspected Slaughter Weights – United States: 1994-2014



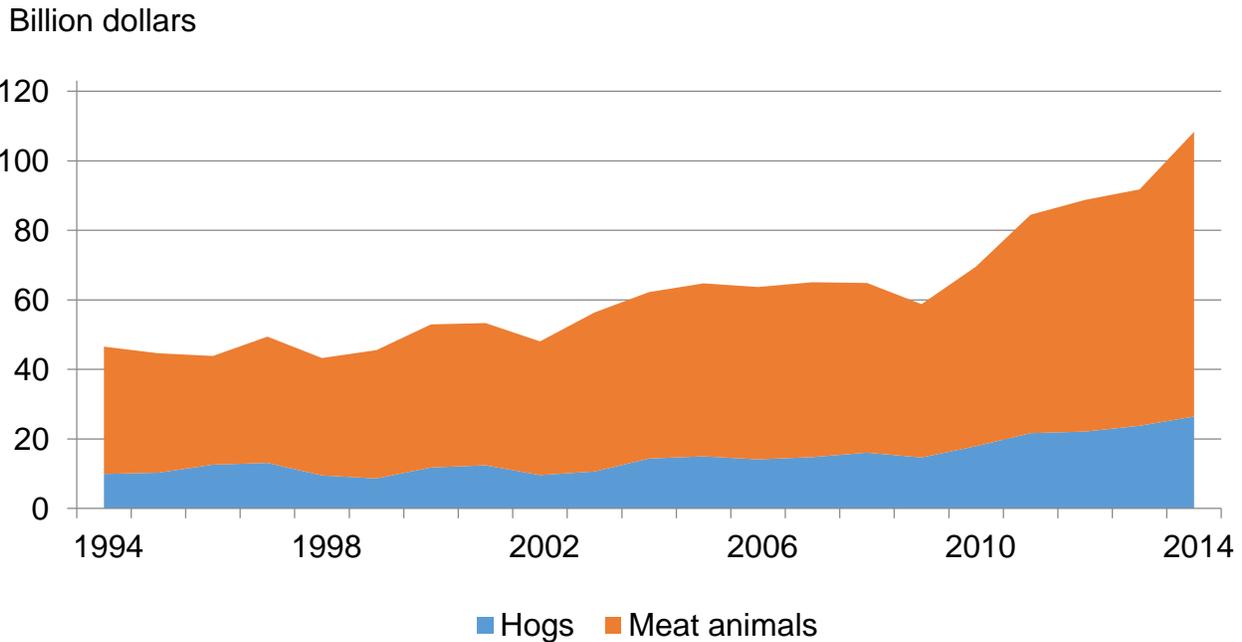
Federally Inspected Slaughter Dressing Percent – United States: 1994-2014



Value per Head and Total Value – United States: 1994-2014

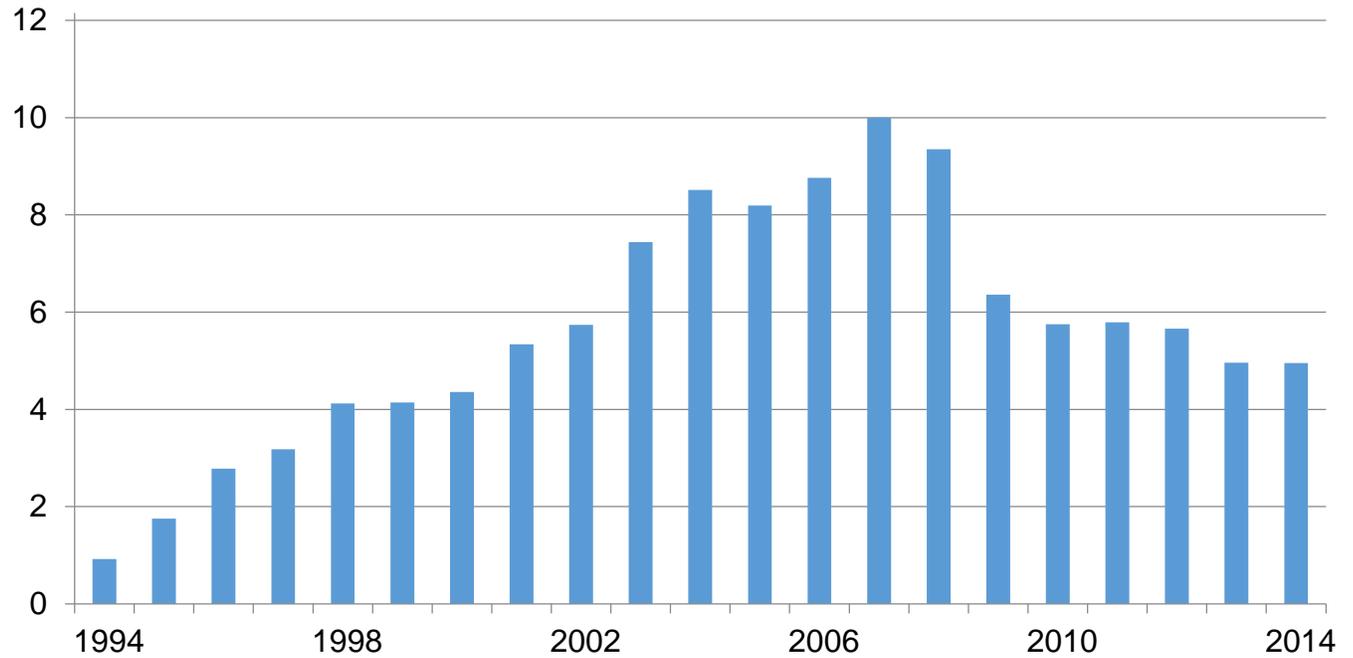


Meat Animals Gross Income – United States: 1994-2014



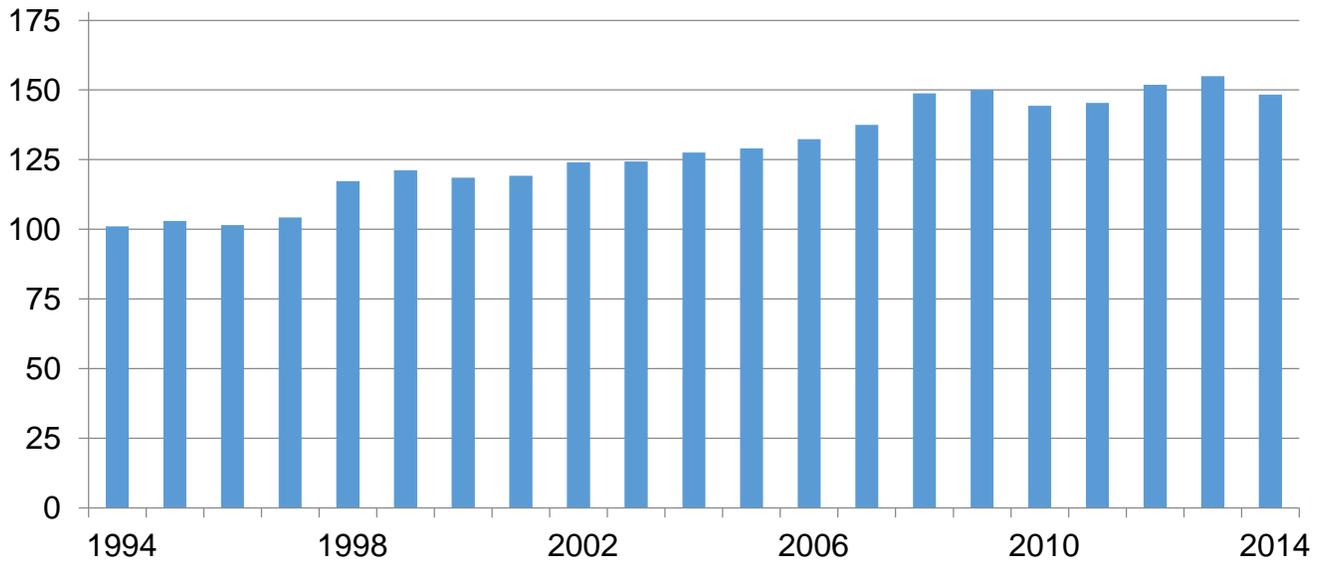
Live Hog and Pig Imports – United States: 1994-2014

Million head



Hog and Pig Marketings – United States: 1994-2014

Million head



Terms and Definitions

Boar: A male hog, usually kept for breeding purposes.

Bred: A pregnant female animal.

Breeding herd: Animals used for reproduction, including sows, gilts, and boars.

Farrowing: The process of giving birth in hogs.

Feeder Pig: A recently weaned young pig, at least 8 weeks old or 40-100 pounds in weight, to be fed for slaughter.

Gestation Period: The time during embryo and fetus development, from conception to birth. 112-115 days for swine (approximately 3 months, 3 weeks, 3 days for hogs).

Gilt: A female pig that has never farrowed.

Herd: A group of animals, collectively, considered as a unit in farming or grazing practice.

Hog Operation Types:

1. Nursery: A swine facility where weaned pigs are raised until they reach the size of feeder pigs.

2. Farrow-to-Wean: A swine facility that includes breeding stock and new born pigs that are not yet weaned. The weaned pigs are sold to other producers to raise until they are sold for feeder pigs (see “Nursery”) or are raised until they are marketed for slaughter (see “Finish”).

3. Farrow-to-Feeder: A swine facility that includes breeding stock and pigs ranging from newborn to feeder pig size. The feeder pigs are sold to the producers (see “Finish”) to raise until they are marketed for slaughter.

4. Farrow-to-Finish: A swine facility that includes breeding stock pigs and are raised from birth until sold for slaughter.

5. Finish: A swine facility that includes market hogs, but not breeding stock, that are fed until they are sold for slaughter.

Hog Places: An operation having one or more hog or pig on hand at any time during the year.

Imports: The goods and products that a country buys from foreign countries.

Litter: A group of pigs farrowed by a sow in one farrowing.

Litter Rate: Number of pigs saved per farrowing, normal 6-14, range 0-16 pigs, average 9-12.

Pig: A young hog weighing less than 120 pounds.

Pig Crop: The number of pigs produced by a given number of sows, usually expressed as percent of pigs weaned to sows farrowed.

Sow: Female pig that has farrowed at least once.

Swine: A hog or a pig.

Information Contacts

Listed below are the commodity specialists in the Livestock Branch of the National Agricultural Statistics Service to contact for additional information. E-mail inquiries may be sent to nass@nass.usda.gov.

Dan Kerestes, Chief, Livestock Branch	(202) 720-3570
Scott Hollis, Head, Livestock Section	(202) 690-2424
Sherry Bertramsen – Livestock Slaughter	(202) 720-3240
Doug Bounds – Hogs and Pigs	(202) 720-3106
David Colwell – Sheep and Goats	(202) 720-8784
Donnie Fike – Dairy Products	(202) 690-3236
Michael Klamm – Cattle, Cattle on Feed	(202) 720-3040
Mike Miller – Milk Production and Milk Cows	(202) 720-3278

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- Both national and state specific reports are available via a free e-mail subscription. To set-up this free subscription, visit <http://www.nass.usda.gov> and click on “National” or “State” in upper right corner above “search” box to create an account and select the reports you would like to receive.

For more information on NASS surveys and reports, call the NASS Agricultural Statistics Hotline at (800) 727-9540, 7:30 a.m. to 4:00 p.m. ET, or e-mail: nass@nass.usda.gov.

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