Appendix 2 – Overview of U.S. Livestock, Poultry, and Aquaculture Production in 2010 and Statistics on Major Commodities

Available Statistics

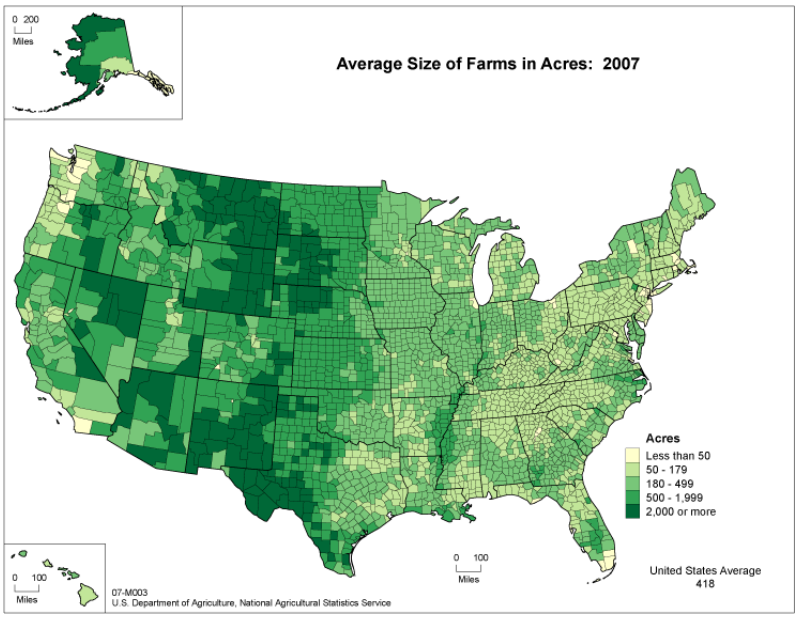
Official statistics for U.S. livestock, poultry, and aquaculture populations are published by the National Agricultural Statistics Service (NASS) of the U.S. Department of Agriculture (USDA). These statistics are based on the Census of Agriculture conducted every 5 years (e.g., 2002 and 2007) and sample surveys conducted monthly, quarterly, or annually as determined by the particular commodity.

The Census of Agriculture, which is a complete enumeration of the entire agricultural segment of the economy, is the only source of detailed, county-level data of all farms and ranches in all 50 States selling or intending to sell agricultural products worth $1,000 or more in a year. Census 2007 reports are available at: (http://www.agcensus.usda.gov/).

The massive data-collecting, editing, and summarizing effort required to prepare the Census naturally results in a publication lag. Sample survey estimates and final Census reports rarely show exactly the same numbers. However, the ongoing sample surveys provide the most up-to-date statistics between the Census years and are themselves subject to revision when current-year estimates are made. For these reasons, statistics in the 2009 Animal Health Report for one year compared to similar statistics published for 2009 in the 2010 Animal Health Report, may not always match.

Number of Farms

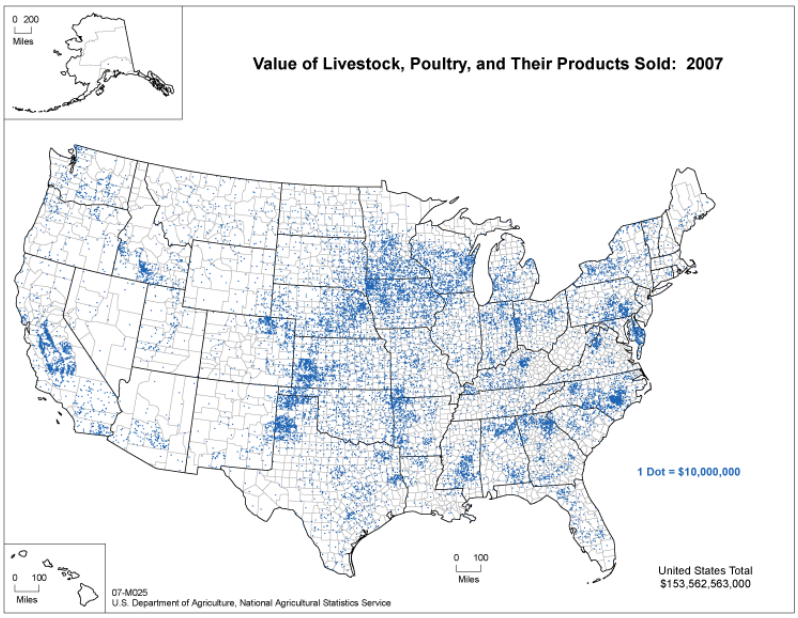
Estimates for the number of U.S. farms were based on the definition of a farm as "any establishment from which $1,000 or more of agricultural products were sold or would be normally sold during the year." In general, there were fewer farms in the western half of the United States; however, western farms and ranches were generally larger than those in the eastern half of the United States as reported by the 2007 Census of Agriculture (map 1). A higher percentage of land area in the Central United States was dedicated to land in farms. In 2010, there were 2.2 million farms, virtually unchanged from 2009. Total land in farms was 920.0 million acres in 2010, which represents an increase of 100,000 acres from 2009. The average farm size was 418 acres in 2010, unchanged from the previous year.



Map 1

Relative Magnitude of Industries, by Value of Production

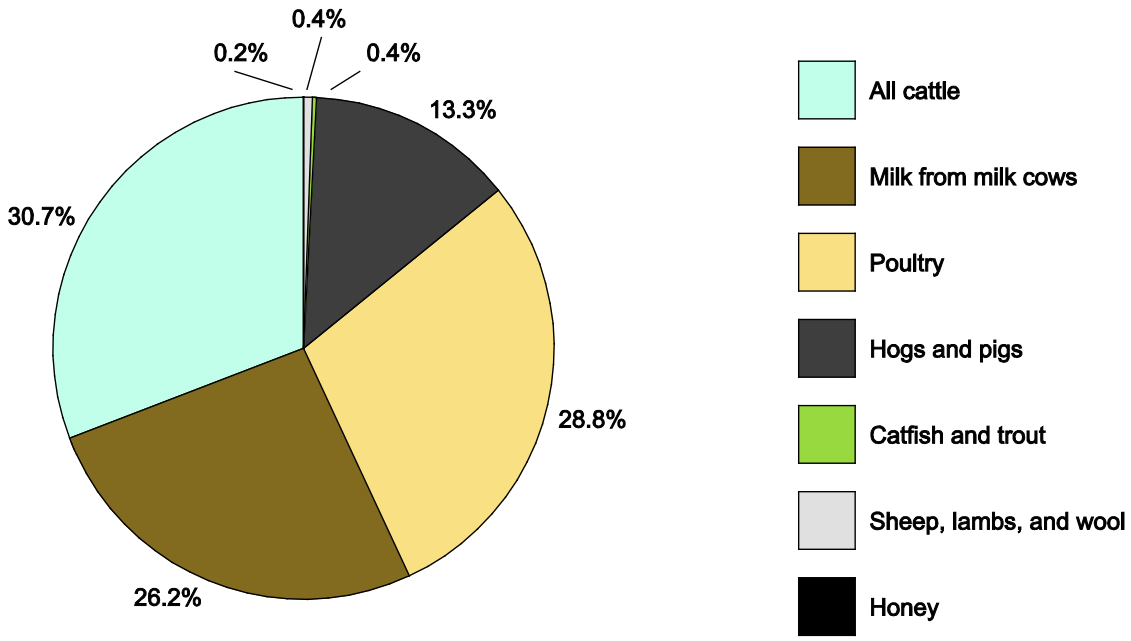
The 2007 Census of Agriculture showed the Central and Eastern States had a higher value of livestock and poultry compared with the Western States (map 2). In recent years, the total value of production has been split nearly equally between crop and livestock (and poultry) production. In the 2007 Census of Agriculture, 51.7 percent of total value of production came from livestock and poultry. The coastal areas and North Central portions of the United States generally made a smaller livestock and poultry contribution to the total market value. These areas had heavy concentrations of crop, fruit, and vegetable products.



Map 2

Figure A1.1 shows that poultry contributed 28.8 percent of the total value of livestock, poultry, and their products.

Fig. A1.1: Value of production in 2010: specific commodities as a percentage of respective total livestock, poultry, and their products

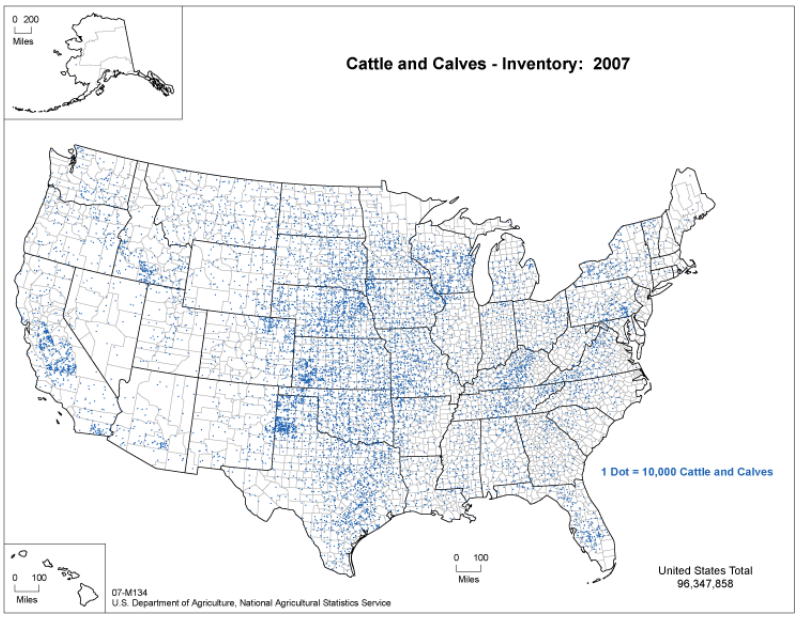


Introduction to the Livestock, Poultry, and Aquaculture Industries

In 2010, almost half of the farms in the United States had cattle and calves (935,000). (USDA defines a cattle operation as any place having one or more head of cattle on hand at any time during the year.) Only a small number of cattle operations (62,500) were dairies (milk production). The value of production for cattle and calves was roughly $37.0 billion. In addition, the value of milk production was about $31.5 billion, 28.8 percent higher than in 2009. The poultry industries were the next largest commodity in the United States, with production valued at around $34.7 billion. Numbers were roughly similar for operations with hogs and operations with sheep (69,100 and 81,000, respectively), although the comparative values of production were dissimilar.

Cattle and Calves (Beef and Dairy)

The Nation's nearly 100 million cattle and calves (beef and dairy) are dispersed widely across the country, with a greater concentration generally in the Central States (map 3).



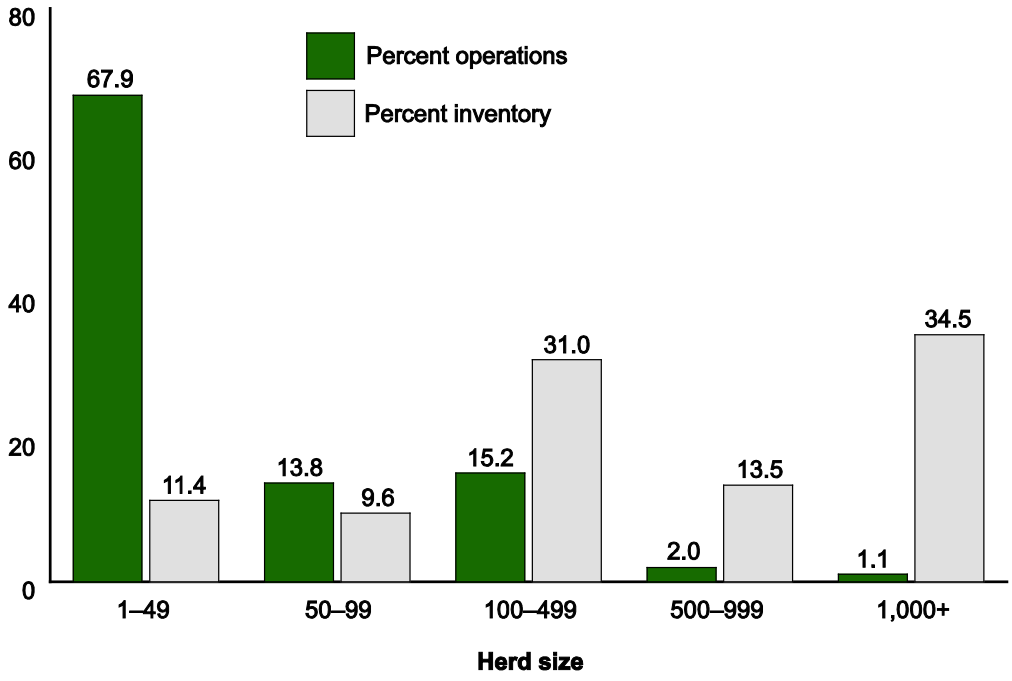
Map 3

Overall, the number of cattle and calves in the United States increased from 30.1 million in 1869 reaching a peak at 132.0 million in 1975. In the last 3 years, the Nation's inventory of cattle and calves has seen a steady decline to 92.6 million on January 1, 2011.

The number of operations with cattle (or calves) has declined steadily during the past 15 years, from 1.2 million in 1995 to 935,000 in 2010. A similar decline has also occurred in the number of beef cow operations, from 897,660 in 1995 to 742,000 in 2010. The decrease in the number of cattle operations is due primarily to the decline in the number of operations with fewer than 50 head of cattle.

In 2010, small cattle operations (1–49 head) accounted for 67.9 percent of all operations but only 11.4 percent of the total inventory of cattle and calves. Large operations (1,000 or more head) accounted for just 1.1 percent of all operations but accounted for 34.5 percent of the total U.S. inventory of cattle and calves (fig. A1.2).

Fig. A1.2: Cattle and calves: percent operations and inventory by herd size
2010 operations = 935,000
Jan. 1, 2011, inventory = 92.58 million

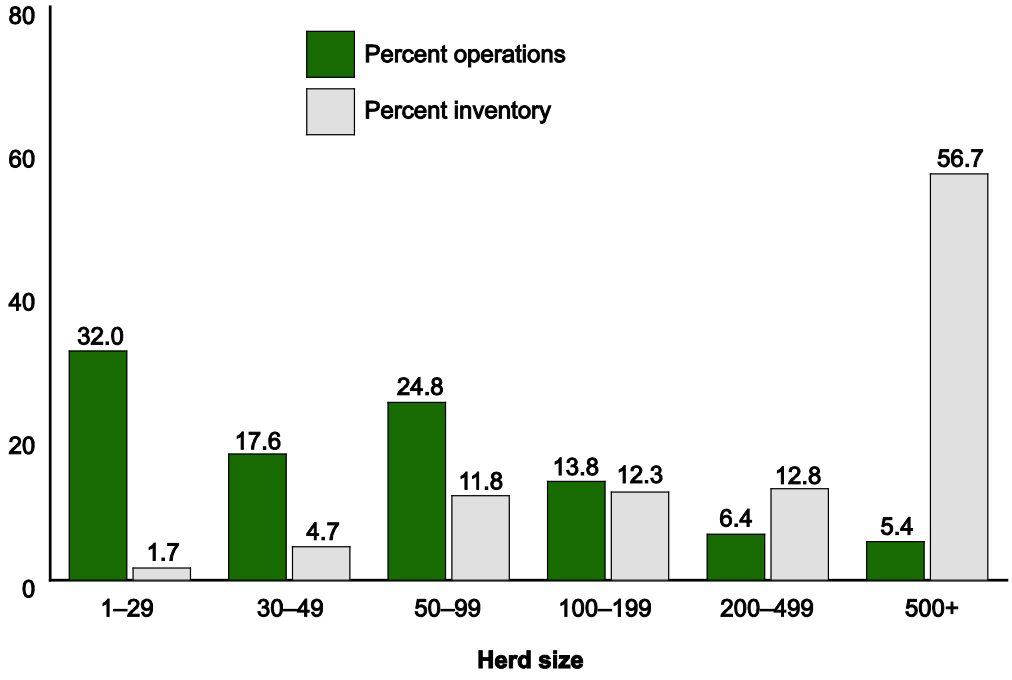


Milk Cows—Dairy

In the United States, milk cows are concentrated in California, Wisconsin, Minnesota, and States in the Northeast. The U.S. population of milk cows has remained relatively stable over the past 10 years; however, the January 1, 2011, inventory of 9.1 million head was up 1 percent from the previous year. Over the previous decade the number of milk cows has remained rather stable, ranging from 9.0 to 9.3 million. In contrast, the number of operations with milk cows in 2010

(62,500) was only 56.4 percent of the number of operations in 1999 (110,855). Large operations (500 or more milk cows) were a small percentage of all operations, but a large percentage of the total number of milk cows (fig. A1.3).

Fig. A1.3: Milk cows: percent operations and inventory by herd size
2010 operations = 62,500
Jan. 1, 2011, inventory = 9.15 million



Annual milk production per cow increased from 17,763 pounds in 1999 to 21,149 pounds in 2010, a 19 percent increase.

Beef Cows

Beef cows are distributed widely across the United States. In general, however, States in the central part of the Nation have a higher number of beef cows. The declining trend in the number of beef cows (30.9 million, down 2 percent from January 1, 2010) follows the overall trend shown for the total inventory of cattle and calves. Beef cows accounted for 77.1 percent of the total cow inventory on January 1, 2011.

In 2010, 742,000 operations in the United States had beef cows. The number of operations with beef cows has declined gradually since 1996 (1 to 2 percent per year). This decrease is most notable in the number of small operations (1–49 head). Following a common trend seen in other livestock commodities, the population of beef cows on large operations (100 or more head) has increased and now accounts for 54.6 percent of total U.S. beef cow inventory as of January 1, 2011. These large operations account for only 9.7 percent of all beef cow operations in the United States but have more than one-half the total beef cow inventory.

Cattle on Feed

Cattle on feed are fed a ration of grain or other concentrate in preparation for slaughter, and the majority are in feedlots in States with large grain supplies.

On January 1, 2011, three States (Kansas, Nebraska, and Texas) accounted for more than one-half (55.6 percent) of the inventory of cattle on feed in all feedlots. Large numbers of cattle on feed are in relatively few feedlots; 135 feedlots (0.2 percent of all feedlots) accounted for 41.4 percent of the total U.S. cattle-on-feed inventory. Inventory numbers in feedlots typically reach high points in December, January, and February and low points in August and September because of the seasonal availability of grazing resources and the predominance of spring-born calves. As a result, commercial cattle slaughter typically reaches a high point in May and June. Steers and heifers accounted for 79.1 percent of 2010 federally inspected cattle slaughter. Of the 34.2 million head of commercially inspected cattle slaughter, 98.4 percent were federally inspected.

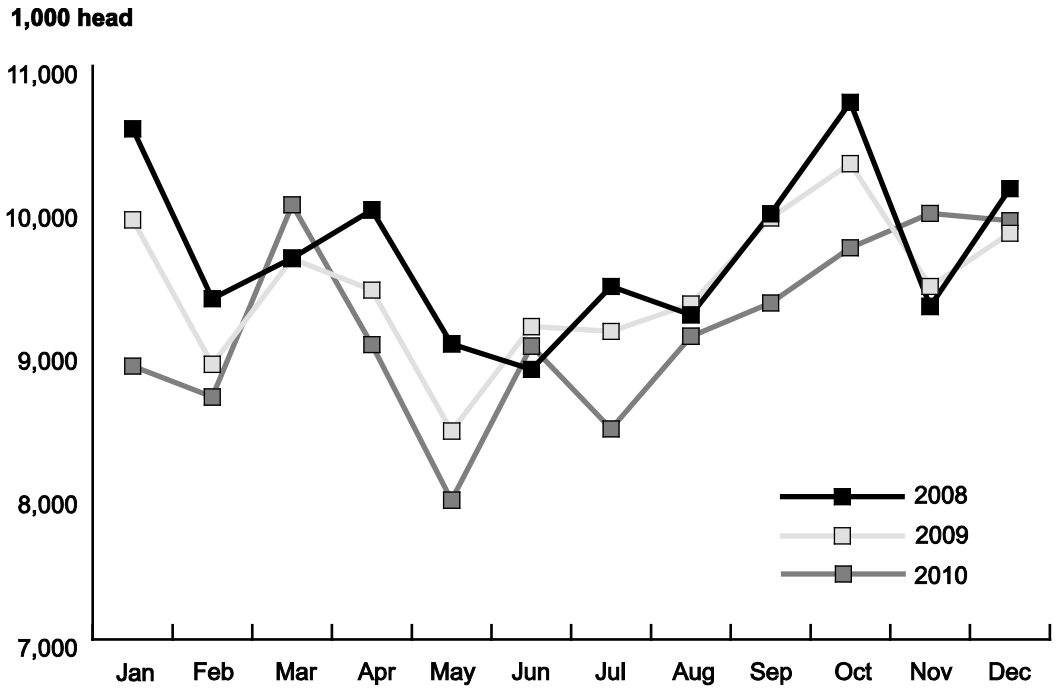
Hogs

Historically, hog production has been most common in the upper Midwest. On December 1, 2010, Iowa, the largest hog-producing State, had 29.4 percent of the U.S. inventory of all hogs and pigs. During the past two decades, North Carolina has increased its production and is now the Nation's second-largest hog-producing State, with 13.7 percent of the inventory. The practice of shipping pigs from production areas (e.g., North Carolina) to grower–finisher areas in the upper Midwest continued in 2010.

In the United States, hog and pig inventory levels are estimated and published quarterly (December, March, June, and September). Over the past decade, the U.S. inventory of all hogs and pigs has fluctuated from quarter to quarter. During the period from 1996 to 2001, a greater degree of change was shown from quarter to quarter, compared with the quarter-to-quarter variation shown in the last 5 years. Typically, inventory numbers reach a low point on March 1 and peak on September 1. The number kept for breeding decreased by 1.2 percent during the last decade to 5.78 million head on December 1, 2010.

In two of the past 3 years, the number of hogs slaughtered commercially reached a low point in June, then increased until peaking in October in preparation for the holiday season (fig. A1.4). Commercial hog slaughter totaled 110.3 million head in 2010, 3 percent lower than 2009.

Fig. A1.4: Hogs: U.S. commercial slaughter, by month, 2008–10



The number of operations with hogs (and pigs) declined steadily during the past decade, decreasing by 21.0 percent over the past 10 years (since 2000). The majority of hog operations (70.9 percent) had fewer than 100 head, but these operations accounted for only 0.8 percent of the inventory. During the past decade, there has been a steady increase in the number of large operations (5,000 or more head), with the exception of a slight decline in 2003. Large operations (4.5 percent of all operations) now maintain more than half (61.0 percent) of the U.S. hog inventory.

In 2010, the United States had 69,100 hog operations with a production value of $16.1 billion.

Sheep and Goats

The U.S. sheep industry is located primarily in the Western and Central States. Typically, the Western States are characterized by large range flocks, whereas those in the Central and Eastern States are mostly small, fenced flocks.

The number of sheep has declined steadily since the late 1980s (10.9 million head in 1988) with the exception of a brief peak in inventory in 1990 (11.4 million head); however, there were small increases noted on both January 1, 2005, and January 1, 2006, followed by decreases on January 1 of the next 4 years. Total sheep and lamb inventory on January 1, 2011, was 5.53 million head.

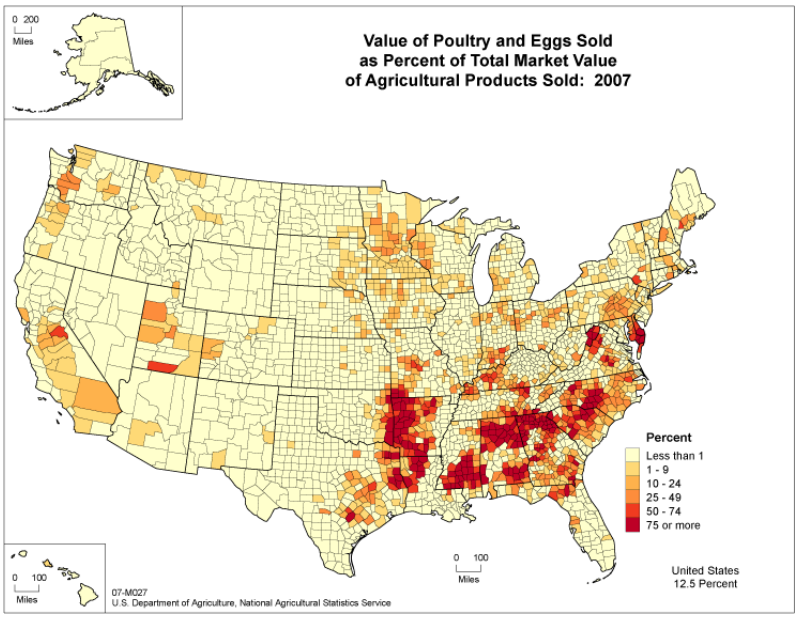
The number of operations with sheep since the late 1980s has declined gradually, from 113,640 in 1987 to 81,000 in 2010. However, only a 1 percent decrease was shown between 2009 and 2010.

More than one-third of the sheep and lamb inventory (35.8 percent) is located on small operations (1-99 head); 93.8 percent of the 81,000 total operations had fewer than 100 head of sheep and lambs . Commercial sheep and lamb slaughter totaled 2.5 million head in 2010. Slaughter typically peaks in March or April.

There were 3.00 million goats in the United States on January 1, 2011, which represents a 1 percent decrease from the January 1, 2010, population. Breeding goats accounted for 2.5 million head and there were 514,000 market goats and kids. Breeding goats were comprised of 1.8 million does, 185,000 bucks, and 459,000 replacement kids under 1 year old. The number of kids born during 2010 was estimated at 1.91 million head. The number of Angora goats increased 6.8 percent, while the number of milk goats increased 1.1 percent (172,000 and 360,000 head, respectively). Meat and other goats totaled 2.5 million head, down 2.1 percent from 2010.

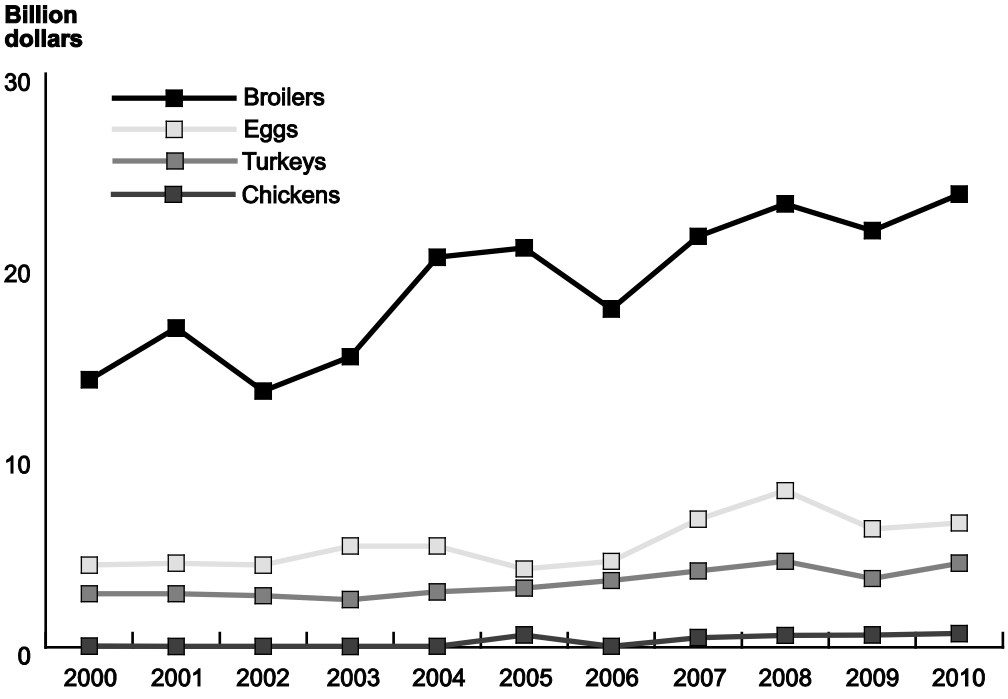
Poultry Industries

The poultry industries are economically important to the Eastern States—especially the Southeastern States (map 4). The value of poultry and eggs is a high percentage of the total value of agricultural products sold in these States. In terms of value of production, the broiler segment of the poultry industries dominates other segments—eggs, turkeys, and chickens (excluding broilers). Broilers account for over two-thirds of the value of production (fig. A1.5). The quantity of production for each segment has increased rapidly over the past 50 years.



Map 4

Fig. A1.5: U.S. value of production: broilers, eggs, turkeys, chickens, and total, 2000–10



Broiler production is concentrated heavily in the Southeast, whereas layers are dispersed more widely over the Central and Eastern States. Turkey production is concentrated in the eastern half of the United States. Arkansas, North Carolina, and Minnesota accounted for 43.0 percent of the 244 million turkeys raised in 2010.

The broiler and layer industries are characterized by a relatively small number of large companies. USDA does not provide annual estimates of the number of companies or production sites. The value of broiler production was 68.4 percent of the $34.7 billion poultry industries' production in 2010. Egg production accounted for 18.8 percent of the total value of production.

Hatchery statistics for 2010 include 9.28 billion broiler-type chickens hatched, 489 million egg-type chicks hatched, and 281 million poults hatched in turkey hatcheries. The collective capacity of the 312 chicken hatcheries on January 1, 2011, was 895 million eggs, and the capacity of the 50 turkey hatcheries was 38.0 million eggs.

More than 99 percent of total U.S. poultry slaughter of the major species is done in federally inspected slaughter plants. In 2010, approximately 310 plants slaughtered poultry under Federal inspection. Young chickens were slaughtered in 38 States and young turkeys were slaughtered in 26 States.

Slaughter of young chickens[1] accounted for 85.5 percent of the total live weight of poultry slaughtered in 2010. The average live weight of young chickens slaughtered has steadily increased over the previous decade, ranging from 4.99 pounds in 2000 to 5.70 pounds in 2010.

Equine Industry

Statistics on the demographics of the U.S. equine industry are sparse. USDA does not have an equine statistics program; the only estimates available for the entire domestic equine population date from 1998 and 1999.

The 2007 Census of Agriculture estimated 4.03 million horses and ponies reported on 575,942 farms. There is a broad and even distribution of horses and ponies across the United States. The 2007 Census also reported 283,806 mules, burros, and donkeys located on 99,746 farms. *Note:* These estimates do not include equids on nonfarm places. The current definition of a farm, first used in 1974, is a place that could or did actually sell $1,000 of agricultural products annually. In addition, as of 1987 any operation that has five or more equids (other than commercial enterprises such as race tracks) qualifies as a farm, even if it has no other agricultural activity.

[1] Young chickens are commercially grown broilers, fryers, and other young, immature birds (e.g., roasters and capons).

The Census figures may be compared with the last statistics published by USDA for equine inventories on all places. As of January 1, 1998, the inventory of equids on both farms and nonfarms totaled 5.25 million head. A year later, that figure was 5.32 million head. In addition, 39.1 percent of the January 1, 1998, total was estimated to be on nonfarm locations. The estimated value of equine sales was $1.64 billion for 1997 and $1.75 billion for 1998. USDA does not publish estimates for the number of all operations with equids and collects no information by size of equid operation for the United States.

Fish and Other Aquaculture Products

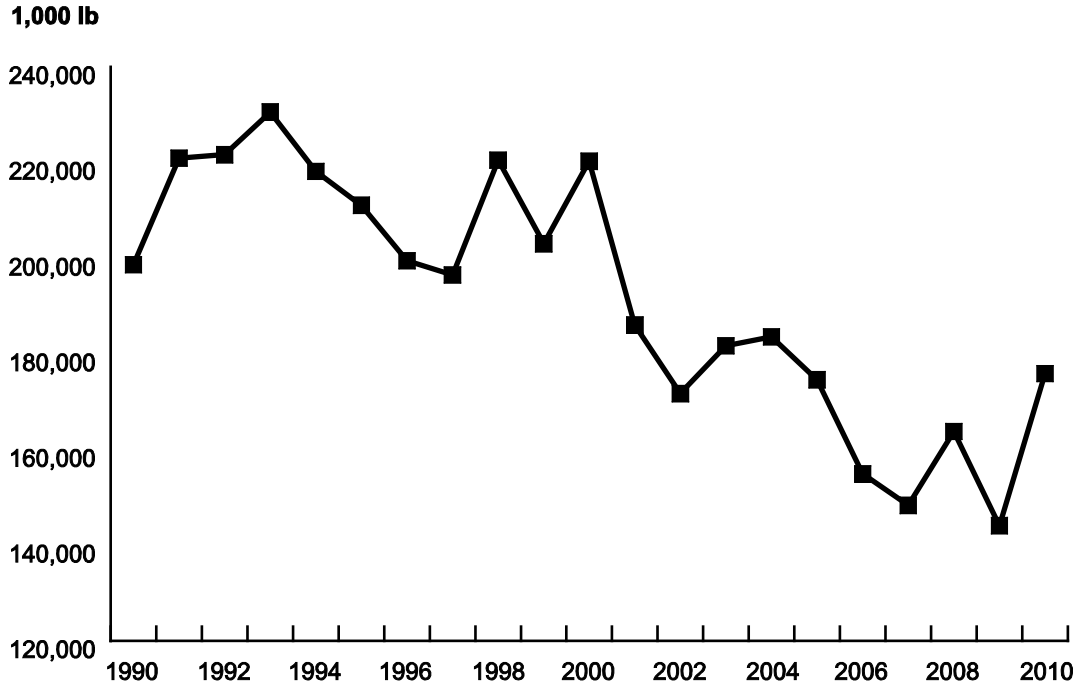
The 2007 Census of Agriculture estimated the value of aquaculture products (domestic farm-raised) sold at $1.4 billion or about 1 percent of the total $153.6 billion sales for all livestock, poultry, and their products in the United States. Combined catfish and trout sold accounted for 47.1 percent of the $1.4 billion total. NASS collects information on the catfish and trout industries through monthly catfish processing surveys, semiannual catfish production surveys, and an annual trout survey. Domestic catfish production in 2010 was concentrated in the Southern States, with Mississippi accounting for 54.1 percent of total sales. The total value of catfish sales for 2010 was $402.6 million, which was up 8.1 percent from 2010. Food-size catfish accounted for 93.2 percent of total sales.

Domestic trout production was dispersed more widely across the United States. Idaho accounted for 48.9 percent of total value of fish sold, followed by North Carolina at 8.7 percent. The total value of all trout sales, both fish and eggs, was $78.4 million in 2010—a decrease of 5.4 percent from 2009.

Honey Production

In 2010, honey production from producers with five or more colonies totaled 175.9 million pounds, which represents a 20.1 percent increase from 2009 (fig. A1.6). A 9 percent increase in honey prices resulted in a 2010 value of production of $282.0 million, up 30.7 percent from the previous year. The distribution of honey production is widespread across the United States, although North Dakota accounted for 26.4 percent of the total production.

Fig. A1.6: U.S. honey production, 1990–2010



Number of Livestock Slaughter Plants in the United States

On January 1, 2011, there were 841 federally inspected U.S. slaughter plants. Federally inspected plants are those that transport meat interstate and must employ Federal inspectors to ensure compliance with USDA standards. There are additional plants considered federally inspected, called Talmedge-Aiken plants. Although USDA is responsible for inspection in these plants, actual Federal inspection is carried out by State employees, who ensure that Federal regulations are being followed. During 2010, 632 plants slaughtered cattle and 14 of these plants slaughtered 55 percent of the total cattle slaughtered. Five of the 248 plants that slaughtered calves accounted for 56 percent of the total, and 4 of the 506 plants that slaughtered sheep or lambs in 2010 produced 64 percent of the total number of head slaughtered. In 2010, 421 plants slaughtered goats. Hogs were slaughtered at 611 plants; 12 of the largest plants accounted for 57 percent of the total.

Iowa, Kansas, Nebraska, and Texas accounted for 49.2 percent of U.S. commercial red-meat production in 2010. Monthly commercial red-meat production typically reaches a low point in

February. Beef and pork dominated commercial red-meat production in 2010 (53.6 and 45.8 percent, respectively).

On January 1, 2011, there were 1,891 State-inspected or custom-exempt slaughter plants in the United States, compared with 1,940 such plants on January 1, 2010. State-inspected plants sell and transport exclusively intrastate. State inspectors ensure compliance with individual State standards as well as with Federal meat and poultry inspection statutes. Custom-exempt plants do not sell meat but operate on a custom slaughter basis only. The animals and meat are not federally inspected, but the facilities must meet local health requirements.