U.S. Farms: Numbers, Size, and Ownership

According to the Census of Agriculture, the number of U.S. farms fell sharply until the early 1970s after peaking at 6.8 million in 1935 (fig. 2). Falling farm numbers during this period reflected growing productivity in agriculture and increased nonfarm employment opportunities (Hoppe, 1994, p. 1). Growing productivity led to excess capacity in agriculture, farm consolidation, and farm operators leaving farming to work in the nonfarm economy. The decline in farm numbers slowed in the 1980s and nearly stopped in the 1990s. By 2002, about 2.1 million farms remained.[5]

Because the amount of farmland did not decrease as much as the number of farms, the remaining farms have more acreage, on average. Farms averaged 441 acres in 2002 versus 155 acres in 1935. But averages can be deceiving. Because of the diversity of today's farms, very few are near the average.

[5]For a discussion of shifts in the distribution of farms and agricultural sales by farm size over time, see Hoppe and Korb (2005).

Share of Farms, Production, and Assets

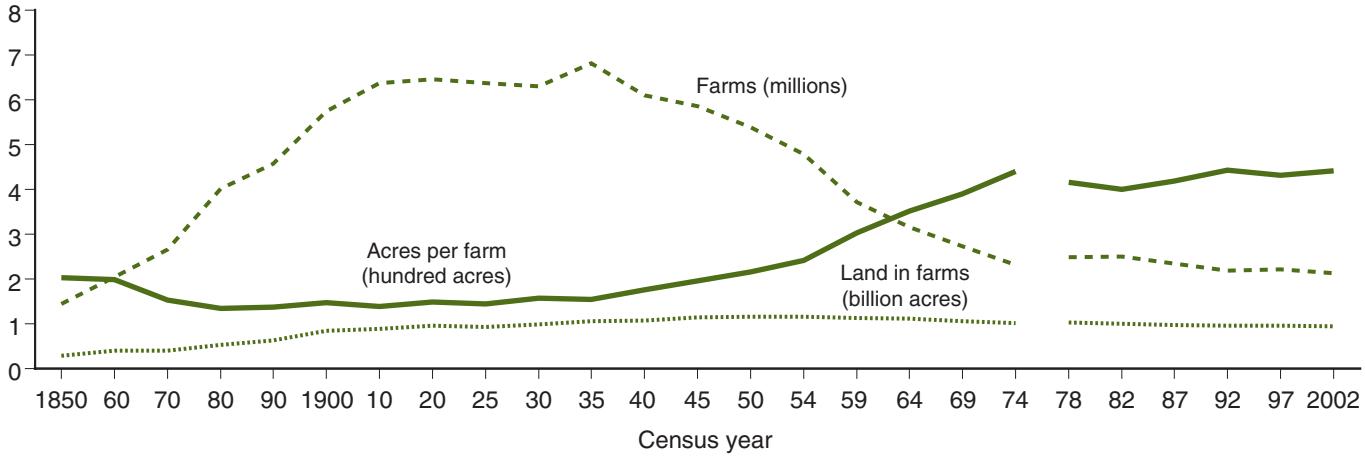
Ninety-eight percent of U.S. farms are family farms. The remaining 2 percent are nonfamily farms, which produce 14 percent of total agricultural output (fig. 3). Two features of family farms stand out. First, small family farms make up 91 percent of all U.S. farms. Second, large-scale family farms account for 59 percent of all production.

Nevertheless, small farms make significant contributions to the production of specific commodities. Small farms account for 63 percent of the value of production for hay, 58 percent for tobacco, 39 percent for cash grains (including soybeans), 37 percent for dairy products, and 33 percent for beef

Figure 2

Farms, land in farms, and average acres per farm, 1850-2002

Most of the decline in farms occurred between 1935 and 1974



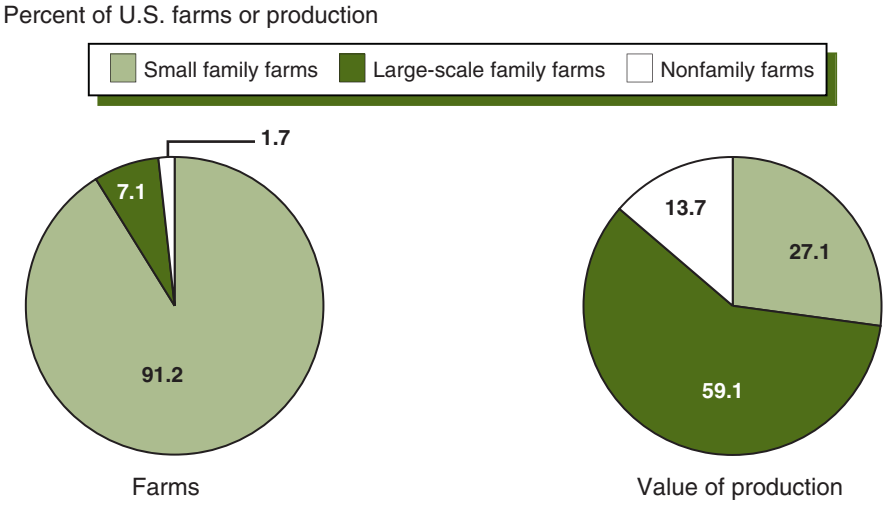
Note: The break in the lines after 1974 reflects the introduction of an adjustment to estimates of the farm count and land in farms. Beginning in 1978, the data are adjusted to compensate for undercoverage by the census of agriculture. For more information, see Allen (2004).

Source: USDA, Economic Research Service, compiled from Census of Agriculture data.

Figure 3

Share of total farms and value of production, 2003

Large-scale family farms and nonfamily farms account for 73 percent of production



Source: USDA, Economic Research Service, 2003 Agricultural Resource Management Survey, Phase III.

cattle. At the other extreme, small farms account for only 8 percent of the value of production for hogs and 4 percent for poultry. Most small-farm production is concentrated among farming-occupation farms, which account for 19 percent of total U.S. production.

The share of assets and land held by small farms is substantially more than indicated by their 27-percent share of production. Small farms hold about 71 percent of all farm assets, including 70 percent of the land owned by farms (fig. 4). Because of their large land holdings—in aggregate—small farms are important in conservation efforts. Small farms account for 82 percent of the land enrolled in the Conservation Reserve Program (CRP) and Wetlands Reserve Program (WRP).

Shifting Shares

The 2003 ARMS data in figure 3 provide a current picture of distribution of farms and production among various types of farms. The 2003 distribution is different from the distribution in the recent past. Although we cannot extend the current ERS farm classification back before 2003,[6] a condensed classification consistent with the current one can be extended to earlier years, as shown in table 2. Large, very large, and nonfamily farms are defined the same as in the 2003 version of the classification. Small family farms are classified into two subtypes, those with sales less than $10,000 and those with sales between $10,000 and $249,999. Note that farm types for all years in table 2 are defined in 2003 dollars. Sales in 1989 and 1995 were adjusted using the Producer Price Index for farm products.[7]

Farm numbers and production. Two major changes occurred between 1989 and 2003. First, farm size shifted toward the smallest and the largest sales classes. Specifically, small farms with annual sales of less than $10,000, very large farms, and nonfamily farms increased in number. At the

[6]Beginning in 2003, limited-resource farmers are defined as having low household income during the current year (2003) and during the previous year (2002). Earlier versions of the ARMS and FCRS did not collect household income for the previous year.

[7]The year 1989 was selected for analysis because it was the earliest year with data consistent with the current ARMS. The year 1995 was selected because it is midway between 1989 and 2003.

Table 2

Farms, value of production, operator age, and profit margin, by condensed farm type, 1989, 1995, and 2003

Item	1989	1995	2003
		Number	
Number of farms	2,148,740	2,068,000	2,121,107
Small family farms	1,996,845	1,915,246	1,935,109
Less than $10,000 in sales	1,063,672	1,000,825	1,213,378
$10,000-$249,999 in sales	933,173	914,422	721,731
Large-scale family farms	127,083	121,563	150,950
Large family farms	87,369	75,153	84,294
Very large family farms	39,714	46,410	66,656
Nonfamily farms	24,812	31,190	35,048
		Percent	
Distribution of farms:			
Small family farms	92.9	92.6	91.2
Less than $10,000 in sales	49.5	48.4	57.2
$10,000-$249,999 in sales	43.4	44.2	34.0
Large-scale family farms	5.9	5.9	7.1
Large family farms	4.1	3.6	4.0
Very large family farms	1.8	2.2	3.1
Nonfamily farms	1.2	1.5	1.7
Distribution of value of production:			
Small family farms	42.3	37.6	27.1
Less than $10,000 in sales	2.1	2.0	1.6
$10,000-$249,999 in sales	40.2	35.6	25.5
Large-scale family farms	51.5	48.0	59.1
Large family farms	19.9	14.9	14.4
Very large family farms	31.6	33.1	44.7
Nonfamily farms	6.2	14.5	13.7
Operator 65 years old or more	24.4	25.1	26.7
Small family farms	25.5	26.3	27.8
Less than $10,000 in sales	28.8	28.5	28.0
$10,000-$249,999 in sales	21.6	23.8	27.4
Large-scale family farms	10.6	9.8	13.5
Large family farms	9.5	8.3	14.0
Very large family farms	12.8	12.3	12.8
Nonfamily farms	*8.8	d	*22.9
Operating profit margin[1]	5.3	d	d
Small family farms	-5.8	-18.1	-28.5
Less than $10,000 in sales	-57.3	-68.7	-98.0
$10,000-$249,999 in sales	d	-10.4	-13.3
Large-scale family farms	18.0	15.1	14.7
Large family farms	14.6	11.5	10.6
Very large family farms	20.3	16.9	16.4
Nonfamily farms	**12.8	*9.5	15.3

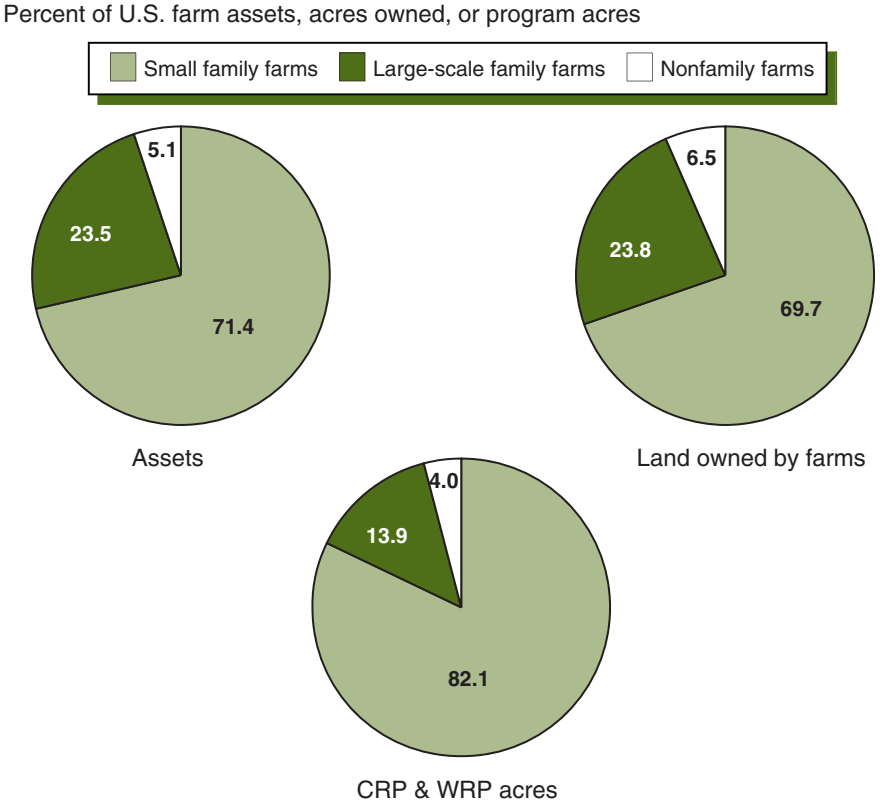
Note: The 1989 and 1995 farm types are defined in 2003 constant dollars. Sales were adjusted using the Producer Price Index (PPI) for farm products.
d = Data suppressed due to insufficient observations or because the standard error was greater than 75 percent of the estimate.
* = Standard error is between 25 percent and 50 percent of the estimate.
** = Standard error is between 51 percent and 75 percent of the estimate.
[1]Operating profit margin = 100 percent X (net farm income + interest -charge for unpaid operators' labor and management)/gross farm income.

Source: USDA, Economic Research Service, 1989 and 1995 Farm Costs and Returns Survey and 2003 Agricultural Resource Management Survey, Phase III.

Figure 4

Share of farm business assets, acres owned, and acres enrolled in the Conservation Reserve and Wetlands Reserve Programs (CRP & WRP), 2003

Small farms account for most farm assets (including land)



Source: USDA, Economic Research Service, 2003 Agricultural Resource Management Survey, Phase III.

same time, the number of small farms with annual sales between $10,000 and $249,999 declined.

Second, production shifted sharply to very large family farms and nonfamily farms. These types accounted for 58 percent of the value of production in 2003, compared with 38 percent in 1989, shifting mainly from farms with annual sales between $10,000 and $249,999 and—to a lesser extent—large family farms. Most of the shift in production to nonfamily farms occurred between 1989 and 1995, while the shift to large family farms occurred later, between 1995 and 2003. Shifts in production away from farms in the $10,000 to $249,999 sales class are likely to continue, given their negative operating profit margin—on average—and the large (and growing) share of their operators who are at least 65 years old.[8]

Concentration. Production shifts to very large farms are consistent with trends in concentration presented in figure 5. Concentration is measured here by the smallest percent of farms (starting with the largest farms and working down) needed to account for half of agricultural sales. During the 1987 to 2002 period in figure 5—roughly equivalent to the 1989 to 2003 period in table 2—the share of farms accounting for half of sales declined

[8]Changes in the distribution of farm assets followed a pattern similar to shifts in production. The share of assets held by very large farms increased from 9 percent in 1989 to 14 percent in 2003. At the same time, the share of assets held by farms with sales between $10,000 and $249,999 declined from 48 percent to 41 percent.

by more than half, from the largest 3.6 percent of farms to the largest 1.6 percent. Most of the longrun increase in concentration, however, occurred between 1900 and 1987.

Farm Size and Tenure

Variation in size—measured in either sales or acres—helps explain the distribution of agricultural production. The 1.4 million limited-resource, retirement, and residential/lifestyle farms account for only 8 percent of production because most of these farms are very small. Roughly three-fourths of the farms in each of the three groups have annual sales of less than $10,000 (table 3). The average acreage operated by farms in these three groups is also small, ranging from 167 to 189 acres.

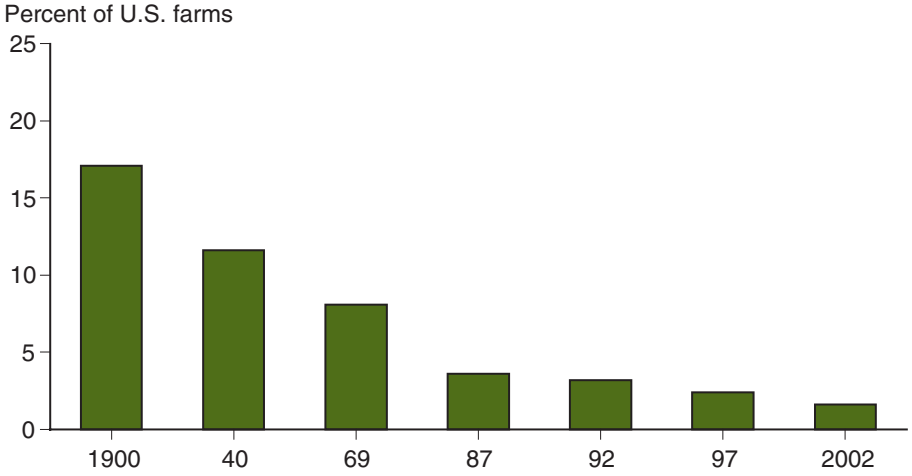
Although only 37 percent of farming-occupation/low-sales farms have sales of less than $10,000, nearly three-fourths have sales of less than $50,000. On average, low-sales farms operate 463 acres, or more than double the averages for the limited-resource, retirement, or residential/lifestyle farms. This acreage is small, however, compared with those for medium-sales small farms and the two types of large-scale farms, which ranged from 1,200 to 2,400 acres. Thirty-seven percent of very large family farms and 10 percent of nonfamily farms have sales of at least $1 million. These "million-dollar" farms number 28,300, 1.3 percent of all U.S. farms, but they account for 42 percent of the value of U.S. farm production.

Nonfamily farms. More than half of nonfamily farms have annual sales of less than $50,000. Owners of these smaller nonfamily farms may have acquired their farms through an inheritance or as an investment and then contracted out the operation of the farm to a manager who—most likely—

Figure 5

Percentage of U.S. farms accounting for half of U.S. farm product sales, selected census years from 1900 to 2002

Concentration has increased during the past century



Note: This figure shows the percent of farms (starting with the largest and working down) accounting for 50% of farm product sales in a given census year. For example, the largest 2 percent of farms accounted for 50% of sales in 2002. In contrast, one needed to count down to the largest 17 percent of farms to get to 50% of sales in 1900.

Source: USDA, Economic Research Service, compiled from Census of Agriculture data and Peterson and Brooks (1993, p. 5).

Table 3

Farm size, and tenure, by farm type, 2003

Item	Small family farms					Large-scale farms		Nonfamily farms	All farms
				Farming-occupation					
	Limited-resource	Retire-ment	Residential/ lifestyle	Low-sales	Medium-sales	Large	Very large		
				Number					
Total farms	235,030	308,832	892,602	363,812	134,833	84,294	66,656	35,048	2,121,107
				Percent of U.S. total					
Distribution of:									
Farms	11.1	14.6	42.1	17.2	6.4	4.0	3.1	1.7	100.0
Value of production	1.4	1.5	5.2	6.6	12.3	14.4	44.7	13.7	100.0
				Percent of group					
Sales class:									
Less than $10,000	71.8	75.6	75.8	37.0	na	na	na	31.9	57.7
$10,000 to $49,999	22.2	19.1	17.8	33.6	na	na	na	21.9	18.8
$50,000 to $99,999	6.0	3.6	4.0	29.4	na	na	na	*10.2	8.1
$100,000 to $174,999	na	1.3	1.8	na	61.2	na	na	*7.6	5.0
$175,000 to $249,999	na	*0.4	*0.5	na	38.8	na	na	*5.0	2.8
$250,000 to $499,999	na	na	na	na	na	100.0	na	5.7	4.1
$500,000 to $999,999	na	na	na	na	na	na	62.8	*7.5	2.1
$1,000,000 or more	na	na	na	na	na	na	37.2	10.1	1.3
				Acres per farm					
Land operated per farm	189	182	167	463	1,165	1,676	2,379	1,471	437
Owned	146	189	124	315	584	780	1,046	*1,053	268
Rented in	57	27	60	170	601	916	1,408	*471	191
Rented out	*14	*34	d	22	19	20	d	53	*23
				Percent of group					
Tenure:									
Full owner	68.8	79.0	70.6	54.9	19.1	20.9	24.1	65.5	62.1
Part owner	24.3	19.4	25.5	36.5	68.2	66.4	58.7	23.7	31.7
Tenant[1]	*6.9	1.6	3.9	8.6	12.7	12.6	17.2	10.8	6.1

d = Data suppressed due to insufficient observations or because the standard error was greater than 75 percent of the estimate.
na = Not applicable.
* = Standard error is between 25 percent and 50 percent of the estimate.
[1]Farms that rent all the land they operate. Also includes farms owning less than 1 percent of the land they operate.

Source: USDA, Economic Research Service, 2003 Agricultural Resource Management Survey, Phase III.

manages several such farms at the same time. Because these farms have a hired manager, they are classified as nonfamily farms. The relatively high average acreage for nonfamily farms reflects a small share of farms in the group with a large acreage.

Tenure. Renting land is no longer considered primarily a method for entry into farming. It has become a way to expand by controlling additional land without the debt and commitment of capital associated with ownership (Reimund and Gale, 1992, pp. 7-8). About two-thirds of the medium-sales farms and large-scale farms are part-owners, meaning that they own part of the land they operate and rent the rest. In addition, about 17 percent of very large family farms are tenants that own none of the land they farm. This is a larger tenancy percentage than is true for any other type of farm.

Specialization

Specialization varies by farm size. Small farms tend to specialize in raising beef cattle, other grazing livestock, and various crops (table 4). Poultry, hogs and high-value crops tend to be produced on larger farms. Medium-sales small farms and large family farms are most likely to specialize in grain.

Beef cattle. Beef cattle are by far the most common specialization among small farms, accounting for 35 percent to 41 percent of limited-resource, retirement, residential/lifestyle, and low-sales farms (table 4). Beef cattle—commonly cow-calf enterprises in the case of small farms—offer three advantages to operators of small-farms:

(1) Cattle are less labor-intensive than many other enterprises, which may be attractive to an operator who is retired or holds a full-time job off the farm.

(2) Cattle enterprises tend to be low-cost, which limits cash requirements.

(3) Producing calves has the potential to produce losses that can be written off against off-farm income.

(For more details, see box “Why Beef Cattle?”)

Other Specializations. Other small-farm specializations vary by type of farm. One-fourth of limited-resource and residential/lifestyle farms specialize in “other livestock,” including horses, sheep, and goats. “Other field crops” is a common specialization for limited-resource, retirement, residential/lifestyle farms, and low-sales farms. This category also includes farms with all their crop acres in the CRP and WRP.

Some specializations are more common among farms with sales greater than $100,000 (medium-sales and the two types of large-scale farms). Farms specializing in cash grains and soybeans account for more than 40 percent of medium-sales farms and large family farms. In addition, 20 percent of medium-sales farms specialize in dairy, approximately double the percentage for any other type. Very large family farms are at least twice as likely as any other type to specialize in poultry or hogs, accounting for 75 percent of poultry production and 61 percent of hog production.

Table 4

Farm specialization and diversification, by farm type, 2003

Item	Small family farms					Large-scale farms			
				Farming-occupation					
	Limited-resource	Retire-ment	Residential/ lifestyle	Low-sales	Medium-sales	Large	Very large	Nonfamily farms	All farms
					Number				
Total farms	235,030	308,832	892,602	363,812	134,833	84,294	66,656	35,048	2,121,107
					Percent				
Commodity specialization:[1]									
Cash grain[2]	11.7	6.5	8.7	18.1	42.5	42.3	27.1	10.7	14.4
Other field crops[3]	17.8	32.6	20.5	14.8	9.0	9.6	10.9	33.0	19.7
High-value crops[4]	5.5	4.9	3.8	8.4	7.0	10.6	13.1	17.5	5.9
Beef	35.4	40.8	38.4	38.6	15.3	13.1	9.3	19.9	34.7
Hogs	d	d	*0.8	d	1.4	3.1	6.9	d	0.9
Dairy	2.5	d	d	5.7	20.0	11.0	10.4	*3.3	3.5
Poultry	d	d	*1.0	*0.9	2.1	7.6	20.4	d	1.8
Other livestock[5]	26.3	14.3	26.5	13.1	*2.6	2.8	*1.9	*12.5	19.0
					Number				
Average number of commodities[6]	1.8	1.3	1.4	2.2	3.6	3.4	3.3	1.5	1.9
					Percent				
Number of commodities:[6]									
No commodities[7]	11.8	22.6	17.1	6.3	d	d	d	23.5	13.3
One commodity	39.1	38.4	42.1	29.8	12.1	14.1	19.7	40.4	35.4
Two commodities	29.0	28.2	29.2	37.5	23.6	23.4	19.4	19.1	29.4
Three commodities	10.9	7.5	7.6	10.6	16.7	21.0	22.9	7.7	10.1
Four or more commodities	9.2	3.3	4.0	15.8	47.5	41.5	37.8	9.3	11.9

d = Data suppressed due to insufficient observations.

* = Standard error is between 25 percent and 50 percent of the estimate.

[1]Commodity that accounts for at least half of the farm's value of production.

[2]Includes wheat, corn, soybeans, grain sorghum, rice, and general cash grains, where no single cash grain accounts for the majority of production.

[3]Tobacco, peanuts, cotton, sugar beets, sugar cane, corn for silage, sorghum for silage, hay, canola, and general crops, where no single crop accounts for the majority of production. Also includes farms with all cropland in the Conservation Reserve or Wetlands Reserve Programs (CRP & WRP).

[4]Vegetables, fruits and tree nuts, and nursery and greenhouse.

[5]Includes sheep, goats, horses, mules, ponies, fur-bearing animals, bees, fish, and any other livestock. Also includes farms where no single livestock species accounts for the majority of production.

[6]Based on 26 commodities or commodity groups: barley, oats, wheat, corn for grain, corn silage, soybeans, sorghum for grain, sorghum silage, canola, fruit, vegetables, nursery products, peanuts, sugar cane, sugar beets, rice, potatoes, cotton, tobacco, hay, other crops, cattle, hogs, dairy, poultry, and other livestock.

[7]Includes farms with no production due to drought, other adverse weather, crop and livestock disease, etc. Also includes farms with all cropland in CRP & WRP.

Source: USDA, Economic Research Service, 2003 Agricultural Resource Management Survey, Phase III.

Why Beef Cattle?

Beef cattle—particularly cow-calf enterprises—are a common specialization among small farms (Cash, 2002, p. 21). In a cow-calf enterprise, a breeding herd is operated with a few bulls. To generate revenue, the farmer sells steer calves, some of the heifer calves, and culled cows.

Nearly half of the farms with sales between $10,000 and $49,000 specialize in beef cattle (see the table below). About one-third of farms with sales less than $10,000 also specialize in beef, as well as a similar share of farms with sales between $50,000 and $99,000. The two remaining sales classes classified as small farms are less likely to specialize in beef cattle. Even so, about one out of six of those farms also specialize in beef.

Small farms prefer beef cattle

Sales class	Percent of farms specializing in beef
Less than $10,000	36.8
$10,000 to $49,999	46.5
$50,000 to $99,999	31.5
$100,000 to $174,999	17.6
$175,000 to $249,999	15.1
$250,000 to $499,999	13.2
$500,000 to $999,999	8.5
$1,000,000 or more	10.8
All farms	34.7

Source: USDA, ERS, 2003 ARMS.

Why do so many small farms, particularly those with sales less than $100,000, specialize in beef cattle? Beef cattle have three main advantages for small farms:

- Cattle operations are less labor-intensive than many other enterprises, making it easier to combine them with off-farm employment (Cash, 2002, p. 21). In contrast to hogs and chickens, cattle roam freely with little need for direct supervision, except when calving. Cattle are fairly self-sufficient, except in winter when forage is not available.
- Cattle operations tend to be low-cost, which limits cash requirements (Cash, 2002, p. 21). Variable costs generally are lower than those for field crop enterprises. Cattle eat grass and require little additional feed, except during the winter. Fixed costs for land, water access, and fencing make up a large share of the expenses for cow-calf enterprises. These costs, however, represent long-lived assets that only require repair.
- Under the existing tax code, losses from farming can be written off against income from other sources. The writeoff is unlimited, if the farm has the potential to be profitable and the filer is materially involved in operating the farm (Freshwater and Reimer, 1995, p. 220). Some farmers may take advantage of the writeoff by producing a commodity—such as calves—that allows them to group their expense and sales in different years to generate small profits in some years and large losses in others.

High-value crops. Production of high-value crops is heavily concentrated among very large family farms and nonfamily farms, which together account for 76 percent of the total. Although high-value crop enterprises are sometimes suggested as ways to boost the earnings of small farmers, no more than 9 percent of any small-farm type specializes in these crops. High-value crops can generate large sales per acre, but they require substantially more labor than cattle and they may require more effort to market.

Diversification

Farms today tend to be specialized, with individual farms typically producing very few commodities. Only 22 percent of U.S. farms produced more than two commodities in 2003. Sixty-five percent of U.S. farms produced only one or two commodities in 2003, and 13 percent had no production at all. Farms with no production include those with all their cropland in the CRP or WRP, as well as farms experiencing crop failure or loss of livestock from disease or other causes.

Farms become more diversified as size increases. Many small farms specialize in a single commodity or produce nothing at all. Medium-sales farms and large-scale farms are more likely to produce multiple commodities: three-fifths of farms in these groups produce three or more commodities.

Operator Age and Educational Attainment

One of the most striking characteristics of U.S. agriculture is the advanced age of principal farm operators compared with other self-employed workers. About 27 percent of farm operators report their age as 65 years or more (table 5). In contrast, the Bureau of Labor Statistics (BLS) estimates that only 7 percent of self-employed workers in nonagricultural industries in 2003 were that old (U.S. Dept. Labor, 2004, p. 219).[9] Each farm type—except residential/lifestyle—also had a substantially larger share of operators who were at least 65 years of age than was true for the nonfarm self-employed. Only 6 percent of all principal farm operators were under age 35.

The advanced age of farm operators is understandable, given that the farm is the home for most farmers and that farmers can phase out of farming gradually over a decade or more (Ahearn et al., 1993, p. 7). Younger farmers enter the business a very slow rate, which tends to increase the average age for farmers as a whole. Improved health and advances in farm equipment allow farmers to farm later in life than in previous generations (Mishra et al., 2005, p. 14).

Operator age varies considerably by farm type. As one would expect, operators of retirement farms have the highest average age (69 years), and 94 percent are age 55 or more. Average ages for limited-resource and low-sales farms (62 years and 57 years, respectively) are high when compared with the averages for the other types of family farms. The limited-resource, retirement, and low-sales types each have a relatively large percentage of operators at least 65 years old.

[9]Nineteen percent of operators have retirement farms, but are still counted as farmers because they have sales of at least $1,000. BLS excludes these operators from their estimates, because they are not—technically speaking—in the labor force. Excluding these operators from the ARMS estimate to be consistent with BLS methodology lowers the portion of operators at least 65 years of age to 14 percent. This is still double the 7-percent BLS estimate.

Table 5

Age and education of principal operators, by farm type, 2003

Item	Small family farms					Large-scale farms			
				Farming occupation					
	Limited-resource	Retirement	Residential/lifestyle	Low-sales	Medium-sales	Large	Very large	Nonfamily farms	All farms
					Number				
Total principal operators	235,030	308,832	892,602	363,812	134,833	84,294	66,656	35,048	2,121,107
					Years				
Average age	62	69	50	57	52	51	51	55	56
					Percent				
Age:									
Younger than 35 years	**9.2	d	6.5	5.9	7.7	6.9	6.7	**9.9	5.9
35 to 44 years	6.2	d	21.9	12.3	20.9	21.2	21.0	11.0	15.1
45 to 54 years	18.5	5.5	38.6	25.4	32.0	35.9	37.2	37.8	28.7
55 to 64 years	12.2	23.1	26.4	25.4	23.7	22.0	22.3	18.4	23.6
65 years or older	53.8	70.6	6.6	30.9	15.7	14.0	12.8	*22.9	26.7
Education:									
Some high school or less	33.8	15.8	5.0	13.7	8.8	5.8	5.0	d	11.6
Completed high school	45.6	43.3	41.2	49.1	46.7	41.0	35.9	*26.1	43.3
Some college	10.5	22.9	30.1	22.2	23.7	29.6	29.3	23.7	25.0
Completed college	10.0	18.0	23.7	15.1	20.8	23.6	29.8	40.1	20.2

d = Data suppressed due to insufficient observations.
* = Standard error is between 25 percent and 50 percent of the estimate.
** = Standard error is between 51 percent and 75 percent of the estimate.

Source: USDA, Economic Research Service, 2003 Agricultural Resource Management Survey, Phase III.

The advanced age of farmers raises concerns about the exit of large numbers of farmers from agriculture in the near future and finding younger farmers to replace them (Gale, 2002, p. 30). Finding replacement operators, however, may not be as hard as it seems. Older farmers can be replaced with younger farmers who will produce more on larger farms, and some replacement farmers already work as secondary operators on multiple-generation farms (Hoppe et al., 1996, p. 45; Gale, 1994, pp. 5, 34-35; Gale, RDP).

Educational attainment varies sharply by type of farm. Very few operators of limited-resource farms attended or completed college, compared with over half of residential/lifestyle farms. Educational attainment also increases with farm size. About 44 percent of medium-sales operators attended or completed college, a number that jumps to nearly 60 percent for operators of very large farms.