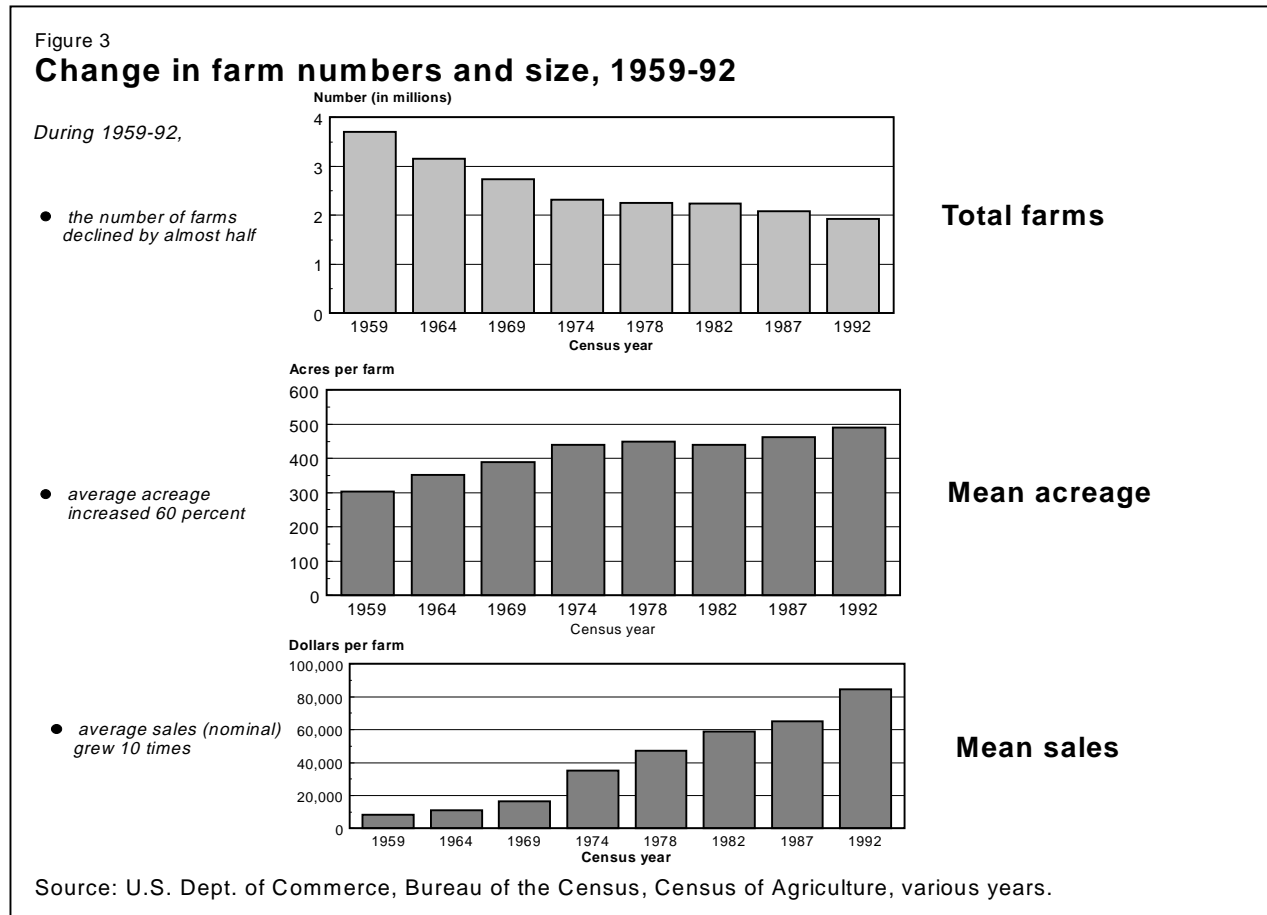


Characteristics of Farm Businesses

The number of farms in the United States declined from the 1935 peak (6.8 million farms) to near 2 million farms in the mid-1990's, although land in farms remained near 1 billion acres. Data from the census of agriculture show that in approximately three decades, 1959-92, the number of farms declined by 48 percent, average acreage per farm increased by 62 percent, and average farm sales (nominal) per farm increased tenfold (fig. 3).



Distribution of Farms

Along with fewer farms came a changing distribution of farms. Census figures show that, during 1978-92, when the total number of farms decreased 15 percent (falling below 2 million farms for the first time), farms with sales under \$100,000 accounted for the entire decrease (fig. 4). Although the number of farms in the lowest sales class (gross sales under \$10,000) decreased, the share of farms in that sales class remained fairly stable (just under half). At the same time, the number of farms and the share of farms with sales of \$100,000 or more increased.

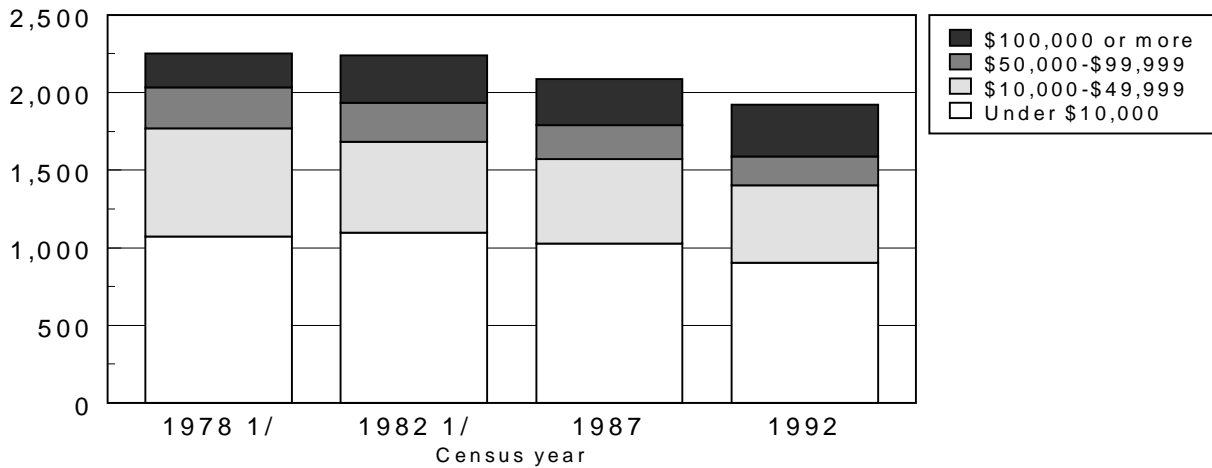
The increase in the number of farms with sales over \$100,000 could be the result of a variety of factors, including expansion of existing farms (adding resources), technological advances (increasing yield), changing labor/capital mix (increasing efficiency), and price changes (inflation) that could boost a farm's gross value of sales over \$100,000. For example, based on the index of prices received by farmers for cotton (1990-92=100), on average, \$1 of cotton sold by an operator in 1986 would be priced at \$1.41 in 1995.

Figure 4

Distribution of farms, by sales class, 1978-92

As the number of farms decreased, the share of farms with sales over \$100,000 increased.

Number of farms (in thousands)



1/ Excludes abnormal farms, such as research farms, farms operated by penitentiaries or schools, and Indian reservations.

Source: Dept. of Commerce, Bureau of the Census, Census of Agriculture, 1992.

Concentration

Despite fewer farms in the United States, agricultural output (measured in both physical volume and value of sales) has increased over the years with advances in production technology and practices. Concentration in agricultural production increased as larger, generally more efficient farms produced greater shares of total output. As farm output increased and the number of farms decreased over the last 9 decades, the largest farms that produced half of the total U.S. market value of sales output decreased from 17 percent of all farms (983,563 farms) in 1900 to 3 percent of all farms (162,608 farms) in 1992 (fig. 5). Average sales for the farms that produced half of total U.S. sales increased from less than \$2,500 in 1900 to more than \$1.3 million in 1992 (nominal dollars) and average acreage from 369 acres in 1900 to 3,008 acres in 1992.

Farm Size

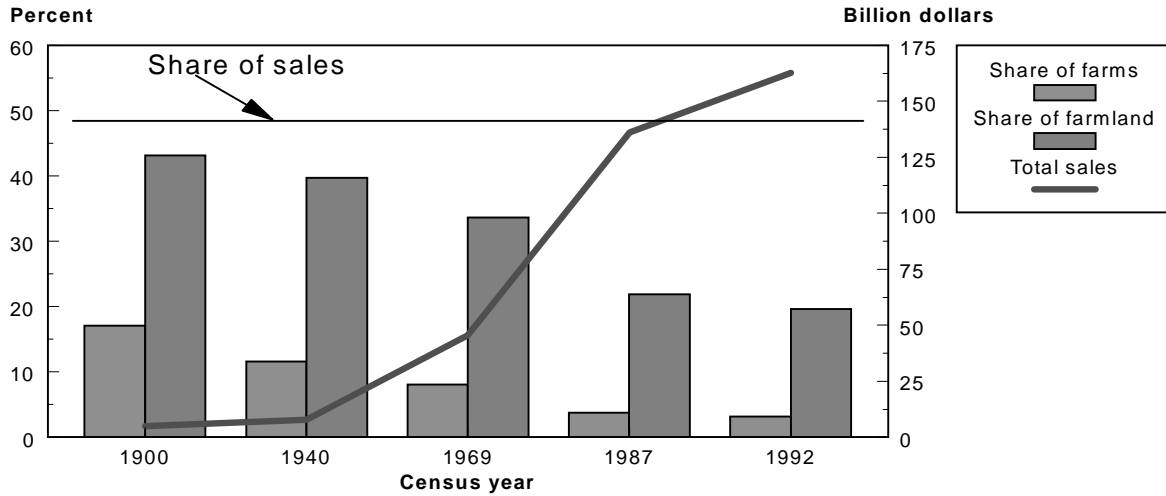
Based on the 1995 ARMS, sales per farm in the United States averaged \$80,621 and acres per farm averaged 434 (table 1). Noncommercial farms (sales under \$50,000) made up the bulk of farms (74 percent), but commercial farms (sales \$50,000 or more) produced most (91 percent) of the Nation's agricultural output (fig. 6). On average, commercial farms had sales 28 times as high as noncommercial farms (\$281,978 v. \$10,130) and acreage 5 times as great (1,082 acres v. 207 acres). Commercial farms in the \$1,000,000-and-over sales class (average sales near \$3 million) accounted for less than 1 percent of farms and 7 percent of farmland acres but about 30 percent of farm income and sales.

Although 60 percent of U.S. farms were under 180 acres, those farms accounted for just 9 percent of farmland acres (fig. 7). In contrast, the 9 percent of farms with 1,000 acres or more controlled 61 percent of farmland acres. However, the land of the very large acreage farms produced less than its proportional share of sales and income, indicating, in general, that the largest farms used the land less intensively (produced commodities such as wheat or range-fed cattle that generated lower sales per acre) than many smaller-acreage farms that grew higher-value commodities such as nursery/greenhouse products or fruits and vegetables.

Figure 5

Concentration in agricultural production, 1900-92

A declining share of U.S. farms and land resources produced half of the Nation's increasing agricultural output in the last 9 decades.



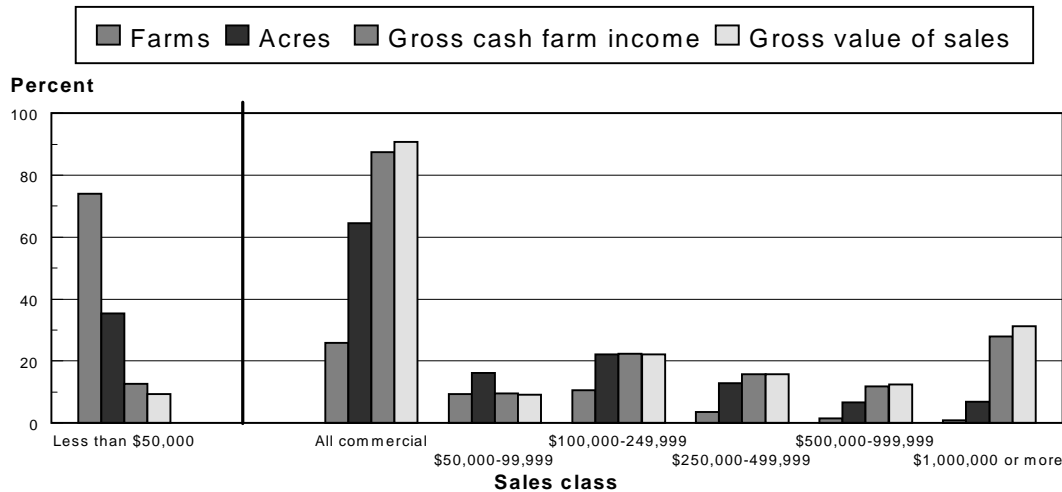
Note: The share of sales in 1900, 1940, and 1969 was calculated by summing share of sales by sales class from census data, and totaled slightly over 50 percent. The share of sales in 1987 and 1992 was calculated by the Census Bureau using farm-level data and therefore totaled exactly 50 percent.

Source: Calculated by ERS using data from the U.S. Dept. of Commerce, Bureau of the Census, Census of Agriculture, various years.

Figure 6

Distribution of farms, acres operated, gross cash farm income, and gross value of sales, by sales class, 1995

Although noncommercial farms dominated farm numbers, commercial farms accounted for most of farm income and sales.



Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study.

Table 1--Farms, acres operated, gross cash income, and gross value of sales, by size, majority enterprise type, and location, 1995

Item	Farms	Mean acres operated	Mean gross cash farm income	Mean gross value of sales
	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Dollars</i>
All farms	2,068,000	434	73,474	80,621
Sales class:				
Less than \$50,000	1,531,760	207	12,482	10,130
\$50,000 or more	536,240	1,082	247,697	281,978
\$50,000 - \$99,999	194,462	744	74,484	78,418
\$100,000 - \$249,999	218,968	905	155,361	169,125
\$250,000 - \$499,999	75,210	1,525	317,963	349,136
\$500,000 - \$999,999	30,234	1,992	593,005	681,875
\$1,000,000 or more	17,366	3,583	2,446,149	2,997,382
Acreage class:				
49 or fewer acres	578,127	23	21,441	29,168
50 - 179 acres	670,378	104	29,326	34,217
180 - 499 acres	439,630	308	74,413	82,190
500 - 999 acres	196,752	680	170,176	191,222
1,000 or more acres	183,113	2,979	293,222	290,353
Majority enterprise type: ¹				
Wheat	65,320	1,214	87,427	89,788
Corn	104,908	499	111,469	119,732
Soybeans	93,960	337	51,755	56,732
Grain sorghum	7,291	511	51,866	52,531
Rice	5,755	512	172,391	162,388
Tobacco	64,660	142	29,556	32,574
Cotton	19,309	958	261,596	227,050
Peanuts	6,245	409	79,691	74,173
Fruits or tree nuts	54,083	188	198,418	171,902
Vegetables	31,474	271	273,708	266,191
Nursery or greenhouse	58,897	63	163,400	157,063
Beef	690,916	575	37,825	45,934
Hogs	81,812	164	78,619	105,077
Poultry	29,684	118	166,931	492,299
Dairy	107,458	362	226,630	222,252
Farm production region:				
Northeast	138,000	185	73,884	74,555
Lake States	221,000	247	72,386	70,026
Corn Belt	420,000	281	67,342	74,656
Northern Plains	187,000	969	98,885	102,370
Appalachian	296,000	178	28,812	37,992
Southeast	153,000	248	64,561	76,387
Delta	111,000	275	46,238	73,760
Southern Plains	273,000	516	48,610	69,297
Mountain	114,500	1,730	125,468	131,930
Pacific	154,500	375	179,937	163,864

¹ The commodity or commodity group that accounts for at least 50 percent of a farm's gross value of production. Farms that do not meet the 50-percent criterion for 1 of the 15 majority enterprise types are not included.

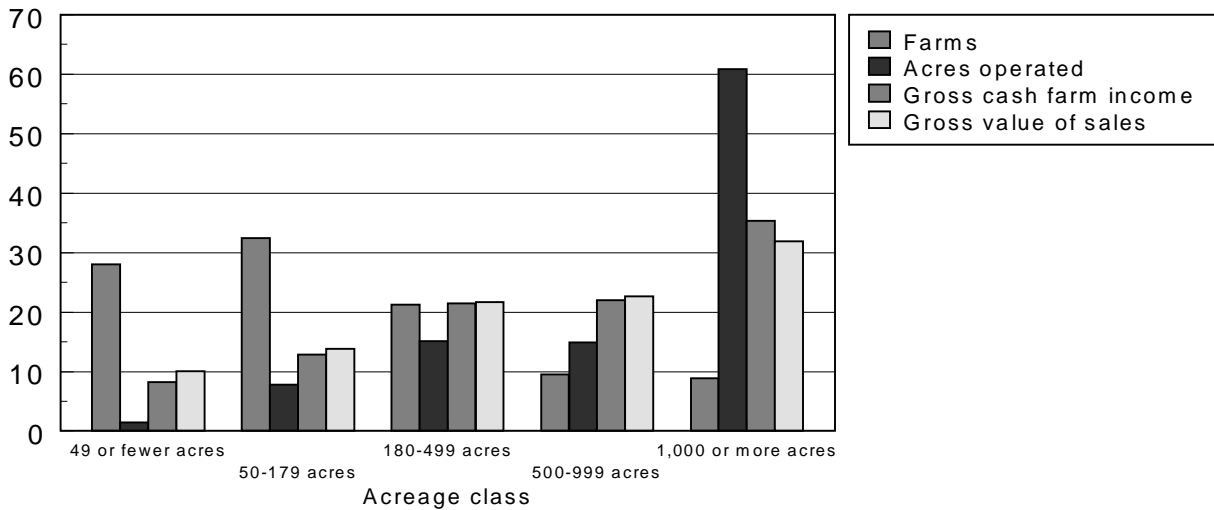
Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study, all versions.

Figure 7

Distribution of farms, acres operated, gross cash farm income, and gross value of sales, by acreage class, 1995

Farms with 500 acres or more accounted for a disproportionately large share of income and sales.

Percent



Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study.

Majority Enterprise Type

Majority enterprise type indicates a farm operation’s commodity specialty, i.e. the commodity or commodity group that represents 50 percent or more of the operation’s value of production. Beef farms were the dominant majority enterprise type in 1995, accounting for one-third of all farms. Beef farms were generally large in acreage, averaging 575 acres compared with the U.S. average of 434 acres, but beef farms were low in income and sales, with income averaging under \$40,000 and sales averaging under \$50,000, both about half the U.S. average.

Of the 277,000 farms where a single cash grain accounted for at least half of all production, more than two-thirds specialized in corn or soybeans. Although wheat farms were the largest acreage farms, they were relatively low in gross cash income and sales. Poultry farms showed the highest gross value of sales, but production contracting is very common in poultry farming and a large part of the value of sales for poultry farms accrues to the contractor, not the contractee (the farm operation). Therefore, average income for poultry farms was much lower than average sales, but still twice as high as the U.S. average.

Location

Farms in the Pacific farm production region showed the highest average gross cash income and gross value of sales, about twice the U.S. average. The Pacific region was followed by the Mountain region and the Northern Plains, but these three were the top producing regions for very different reasons. Farms in the Pacific region, dominated largely by California, produced high-value products such as fruits, vegetables, and dairy on relatively small farms (averaging 375 acres compared with 434 acres nationwide). In contrast, farms in the Mountain and Northern Plains regions produced relatively low-value products such as cash grains and range livestock on very large acreage farms (averaging 1,730 acres in the Mountain region and 969 acres in the Northern Plains).

Risk Management Strategies

Farm operators use risk management strategies to enhance the farm's ability to survive despite swings in weather, markets, and the economy. Operators may diversify production or use specialized technology (e.g., irrigation) to deal with risks of market and weather uncertainty. They may also try to limit fixed costs (e.g., rent rather than own production assets), protect personal assets from claims on the business (e.g., incorporate the business), or share exposure to price and production variability (e.g., enter into contracts) in order to minimize exposure to perceived risks.

Renting v. Owning

Renting production assets (land and equipment) decreases the capital required to enter into farming and the long-term fixed payments on borrowed capital that may strain cash flow during a bad year. Renting may also offer some flexibility to adjust production levels in response to market shifts or changing economic situation by allowing an operator to move in or out of production quickly. However, renting may also limit the short-term borrowing capacity of an operation because of the absence of collateral to back a loan or perhaps insufficient equity to borrow against. In 1995, 91 percent of farm operators owned at least part of the land they operated, while 9 percent of operators owned no land at all (table 2).

Table 2--Farms, acres operated, gross cash farm income, and gross value of sales, by farm business characteristics, 1995

Item	Farms	Mean acres operated	Mean gross cash farm income	Mean gross value of sales
	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Dollars</i>
All farms	2,068,000	434	73,474	80,621
Land tenure:				
Full owner	1,137,109	223	38,063	47,708
Part owner	744,593	714	112,063	114,443
Tenant	186,298	602	135,383	146,335
Rental arrangement:				
No rentals	1,077,377	204	30,024	39,434
Land only	777,153	630	84,026	89,331
Land and other assets	153,739	1,001	282,048	280,032
Other assets only ¹	59,732	570	183,053	196,932
Legal organization: ²				
Sole proprietorship	1,891,987	351	50,161	54,287
Partnership	102,220	1,154	220,328	218,795
Corporation	71,110	1,608	477,555	576,925
Family corporation	61,516	1,453	424,809	458,620
Nonfamily corporation	9,594	2,606	815,763	1,335,494
Contracting arrangement:				
Cash sales only	1,806,043	400	49,657	47,879
Contracts (with or without cash sales)	261,957	669	237,682	306,357
Production contracts ³	46,782	357	178,130	617,858
Marketing contracts ³	220,993	740	251,172	242,888

¹ Other assets include buildings, equipment, machinery, vehicles, and livestock. ² Excludes cooperative farms. ³ Includes some farms that have both production and marketing contracts.

Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study, all versions.

Operators of more than half of U.S. farms owned all the acreage farmed by their operations in 1995 (fig. 8). Overall, full-owner farms accounted for less than their proportional shares of farmland, income, and sales in contrast with farms that rented some or all of their farmland.



Full-owner farms were about one-third the size (in acres), on average, of farms that rented either part or all of their farmland acres. They were also smaller in income and sales, averaging about three-fifths the U.S. average. In contrast, full-tenant farms averaged sales that were 80 percent higher than the U.S. average. Two extreme examples are the Delta and Pacific regions, where tenant-operated farms averaged more than twice the regional average sales (app. table 1).

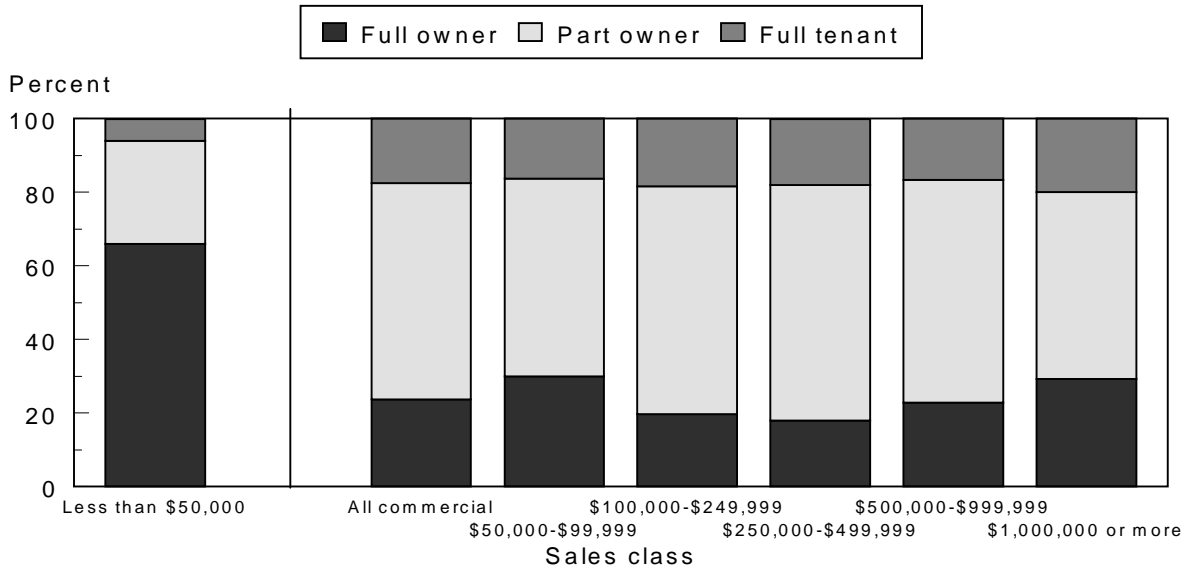
Less than one-fourth of commercial farms were full-owner farms, compared with almost two-thirds of noncommercial farms (fig. 9). Commercial farm operators owned about half the acres they operated, while noncommercial farm operators owned 85 percent of their operated acres (app. table 11). Similarly, farm operators who identified farming as their major occupation owned a smaller share of their acres operated than did operators whose occupation was “retired” or “other,” and younger operators owned fewer of their acres operated compared with older operators.

Farm operations that rented neither land nor other production assets were smaller in acreage, income, and sales than farms that rented both land and other assets. Farms that rented both land and other production assets operated more than twice the U.S. average acreage, and had income and sales 3.5-4 times the U.S. average. Even full-owner farms that rented other production assets but not land had significantly higher income and sales than farms that rented land only. While almost two-thirds of noncommercial farms rented none of their production assets, just one-fifth of commercial farms owned all the assets they used in production (fig. 10).

Figure 9

Tenure by sales class, 1995

Less than one-fourth of commercial farms (sales \$50,000 or more) owned all the land they operated.

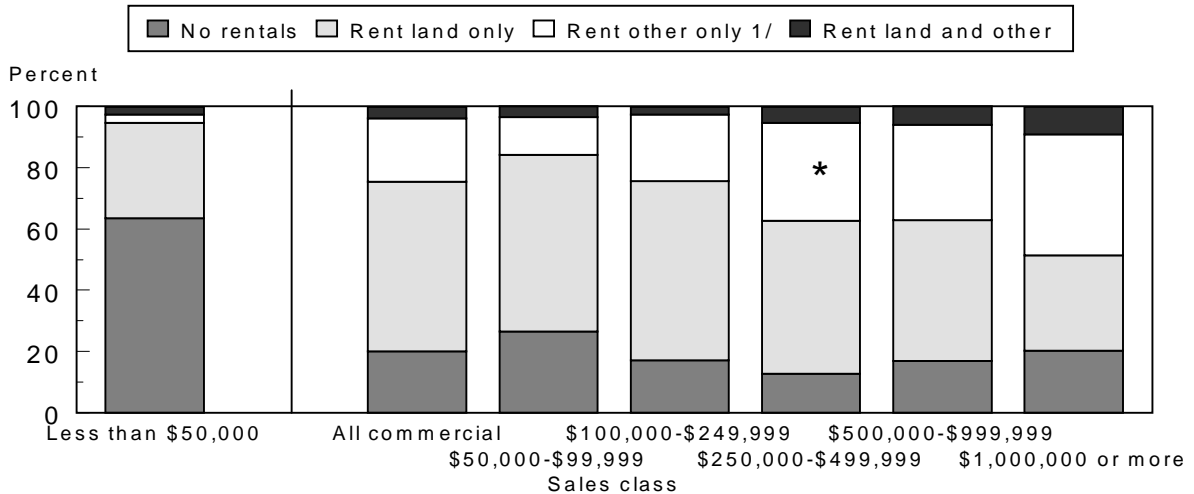


Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study.

Figure 10

Rental arrangement by sales class, 1995

Eighty percent of commercial farms rented some assets used in production compared with 37 percent of noncommercial farms.



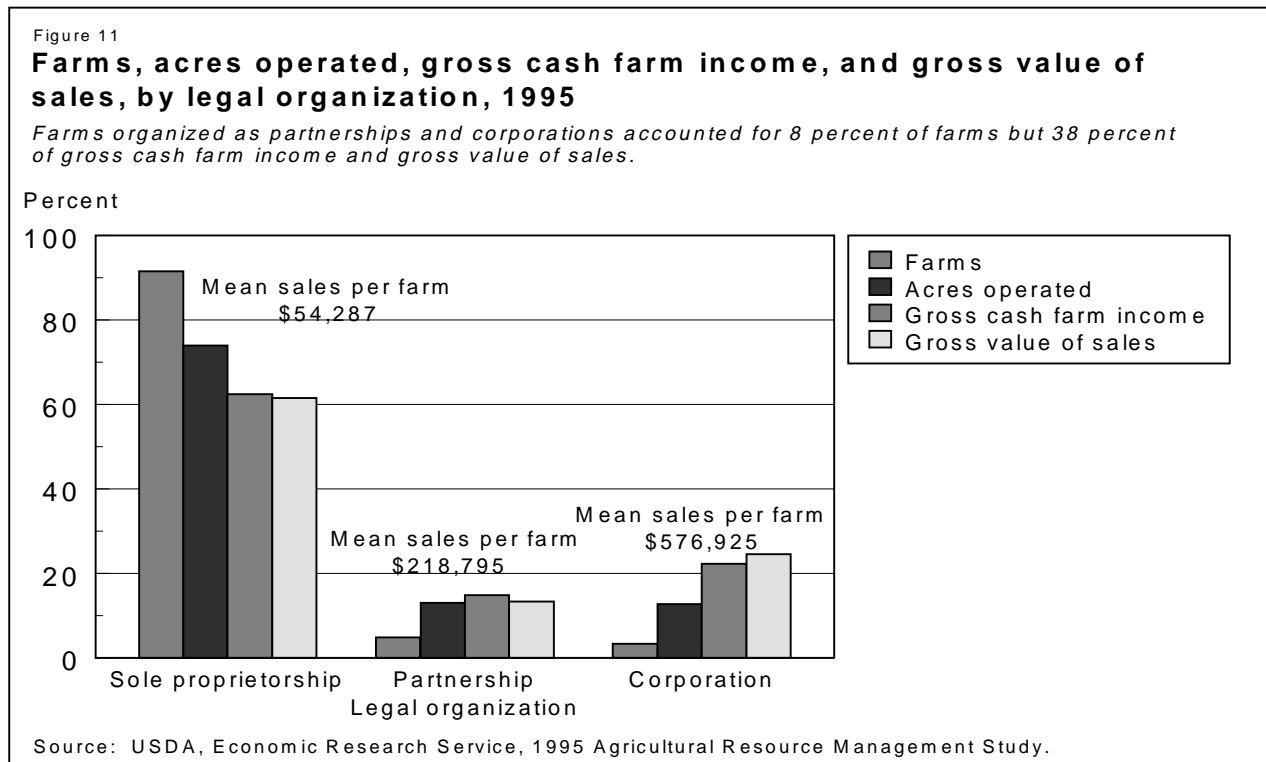
1/ Includes livestock, equipment, buildings, and machinery.

* The relative standard error exceeds 25 percent but is no more than 50 percent.

Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study.

Legal Organization

Sole proprietorships made up the largest share (more than 90 percent) of U.S. farms in 1995 (fig. 11). Sole proprietorships are farms that are closely held by one or more families, but not organized as corporations or legal partnerships.



About 5 percent of farms were legally organized as partnerships. A legal partnership agreement between two or more persons generally details their contributions (capital and labor) to the business and the distribution of profits, and may also indicate the decisionmaking arrangement and the sharing of liabilities of the business.

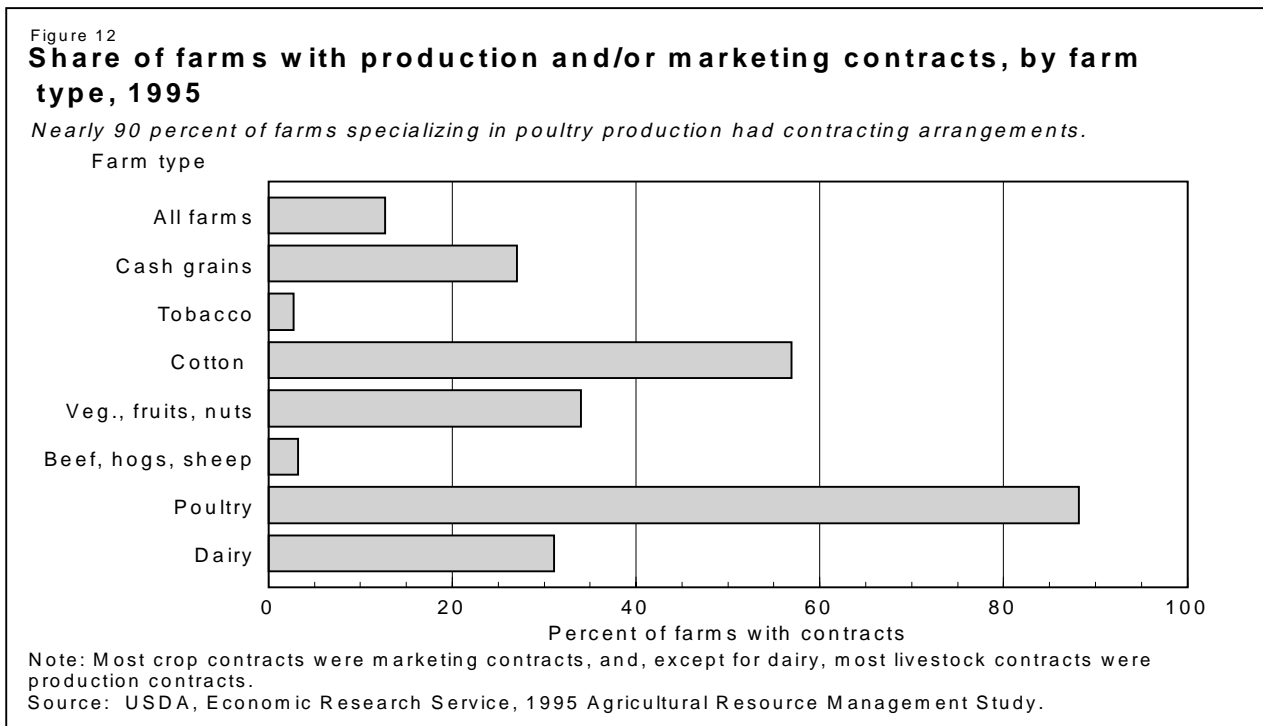
About 3 percent of U.S. farms were classified as corporations, and 86 percent of those corporations were closely held by one or more families. By organizing a farm as a corporation, stockholders may share in the ownership of a business but protect personal assets from liabilities of the business. In this report, all sole proprietorships, partnerships, and family-held corporations are considered family farms.

Although sole proprietorships controlled three-fourths of land resources, they accounted for less than two-thirds of farm gross income and sales. Average sales of farms operated as proprietorships were about one-tenth the sales of farms organized as corporations (\$54,287 v. \$576,925). Sole proprietorships were also far smaller in acreage than farms organized as partnerships or corporations (351 acres, on average, compared with well over 1,000 acres).

Contracting

A contract is a legal agreement between a farm operator (contractee) and another party (contractor) to sell (purchase) or produce a specific type, quantity, and quality of agricultural commodity. Contracts may be used to lessen exposure to market price swings (marketing contract) or to share the costs and risks inherent in production (production contract). A marketing contract generally stipulates a commodity price or pricing mechanism for delivered goods while the production contract usually details a cost-sharing arrangement and/or payment for grower services.

Thirteen percent of operators engaged in contracting in 1995. Contracting was far more common for some farm types, such as poultry and cotton farms, than for farms whose income was mainly from cash grains or dairy (fig. 12). Nearly 9 out of 10 poultry farms produced under contract and 6 out of 10 cotton farms had marketing contracts. Contracting was least common on beef/hog/sheep farms and tobacco farms.



Farms with marketing contracts far outnumbered farms with production contracts. Farms with contracts tended to have more acreage and higher sales and income than farms with cash sales only. For farms with production contracts, the difference between gross cash income and gross value of sales reflects primarily the large share of sales that accrues to the contractor while the contractee (farm operator) generally gets a fixed fee for services. Figure 13 shows that the share of total gross cash farm income for farms with production contracts was just over one-fourth their share of total gross cash farm sales. Note that these values are estimates of all income and sales for these farms, not just income and sales from commodities produced under contract.

Farm Type

Farm type indicates the commodity or commodity group that accounts for the largest, but not necessarily majority, share of a farm's gross cash income. Thus, farm type and majority enterprise type may be different for farms with a diverse enterprise mix.

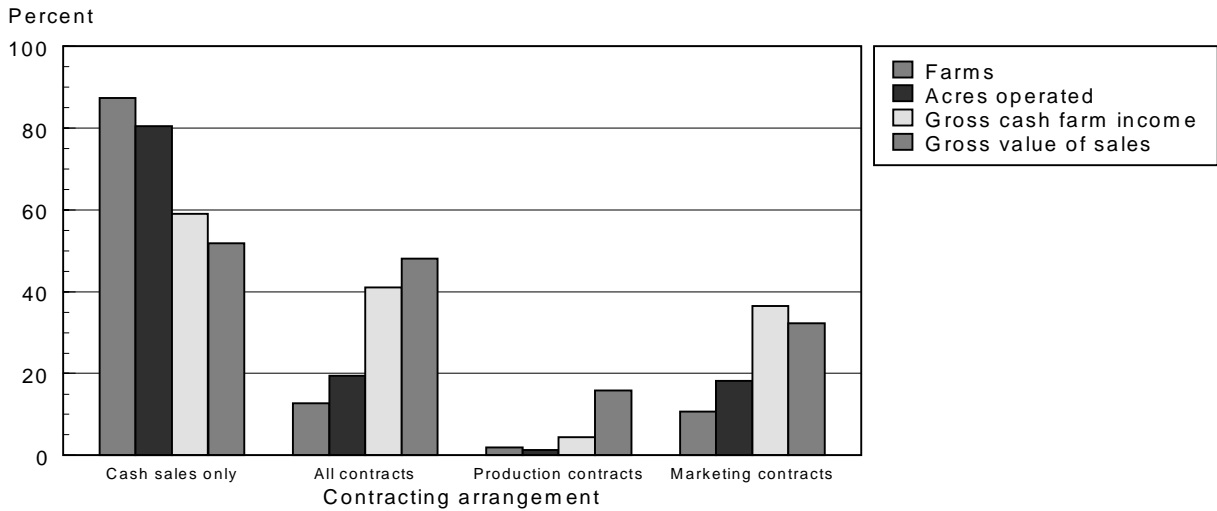
Beef/hog/sheep farms represented the largest share of farms by type, followed by cash grain farms (table 3). While these two farm types were relatively large in terms of acreage (only cotton farms averaged higher acreage), they were low in terms of sales per acre (fig. 14). Farms that produced poultry and nursery/greenhouse products, both relatively high-value products, had the highest average sales and sales per acre, but relatively low acres per farm.

Nearly 90 percent of U.S. farms (1.8 million farms) were in the lowest value-of-production quartile (minimum number of farms, ranked by value of production, that accounted for one-fourth of total U.S. value of production) and beef/hog/sheep farms accounted for half of farms in that quartile.

Figure 13

Distribution of farms, acres operated, gross cash farm income, and gross value of sales, by contracting arrangement, 1995

More than 10 percent of farm operators used contracting to reduce their risks of production and marketing.



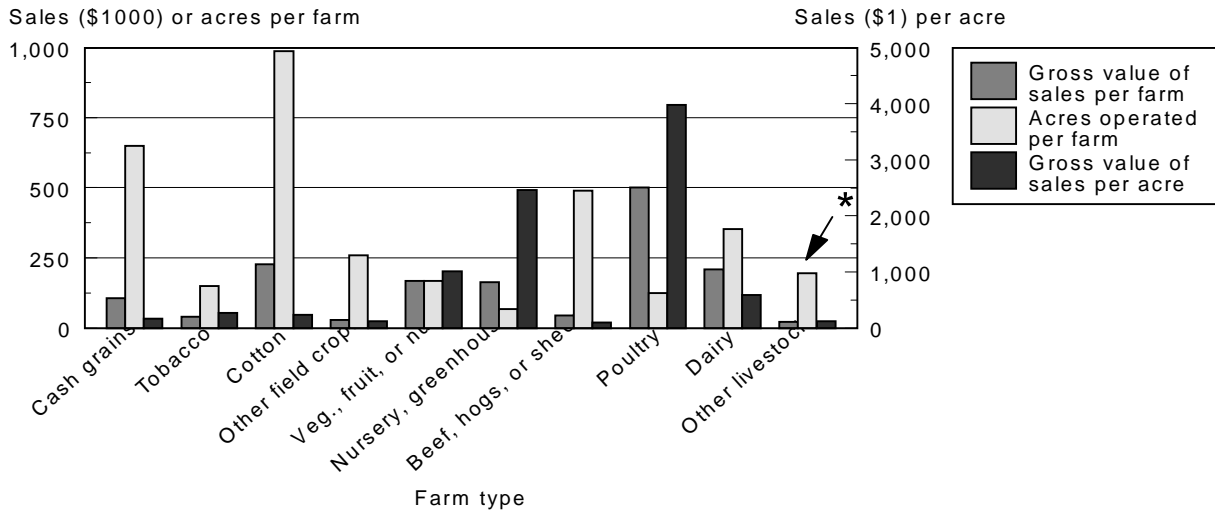
Note: A small share of farms had both production and marketing contracts.

Source: USDA, Economic Research Service. 1995 Agricultural Resource Management Study.

Figure 14

Farm size and per acre sales, by farm type, 1995

Farms that produced nursery and greenhouse products and poultry farms were among the smallest farms (acres), but had the highest value of sales per acre.



* The relative standard errors for other livestock exceed 25 percent but are no more than 50 percent.

Note: Farm type indicates the commodity or commodity group that accounts for the largest share of a farm's gross income.

Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study.

Table 3--Farm type, by total value of production, 1995

Item	Value-of-production quartile ¹				
	Lowest	United States			Highest
		Second	Third		
Farms	1,832,792	172,717	<i>Number</i> 54,091	8,400	2,068,000
Share of farms	88.6	8.4	<i>Percent</i> 2.6	0.4	100.0
Share of total value of production	25.0	25.0	24.5	25.5	100.0
Share of farms by farm type:					
All	100.0	100.0	100.0	100.0	100.0
Cash grains	16.9	38.2	24.5	d	18.8
Tobacco	3.9	1.1	* 1.4	d	3.6
Cotton	0.6	4.8	7.5	d	1.1
Other field crops ²	12.2	3.8	6.4	7.9	11.3
Vegetables, fruits, or tree nuts	4.2	5.2	8.2	21.3	4.5
Nursery or greenhouse	2.7	* 3.8	5.6	* 14.6	2.9
Beef, hogs, or sheep	49.8	16.5	21.1	15.7	46.1
Poultry	* 0.5	5.8	11.6	* 12.9	1.3
Dairy	4.4	19.2	12.1	20.2	5.9
Other livestock	4.8	d	d	d	4.4

¹ Quartiles are made up of the minimum number of farms (ranked from lowest to highest) required to account for 25 percent of total value of production. The highest quartile is made up of the largest farms, and the share of farms in this quartile is smaller than the share of total value of production. The opposite is true of the lowest quartile. Because whole farms must be assigned to a quartile, cumulative value of production may not sum to exactly 25 percent.

² Includes farms for which Conservation Reserve Program (CRP) payments were the sole source of gross farm income.

* = The relative standard error (RSE) of the estimate exceeds 25 percent, but is not more than 50 percent. The RSE provides a means of evaluating the survey results. A smaller RSE indicates greater reliability of the data. Estimates with RSE's of 25 percent or less are not marked.

d = Data insufficient for disclosure.

Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study, all versions.

Of the 0.4 percent of farms (8,400 farms) that were in the highest value-of-production quartile, vegetable/fruit/nut and dairy farms accounted for one-fifth each. The share of vegetable/fruit/nut farms in the highest quartile was five times as high as the share in the lowest quartile. In general, farms producing higher-value products were better represented in the highest value-of-production quartile and those producing lower-value products were more often in the lowest quartile.

Farms specializing in cash grain production represented the largest share (39 percent) of farms receiving government payments (table 4). Cash grain farms alone accounted for 63 percent of farms in the highest government payments quartile. The 3.8 percent of farms in the highest quartile produced 17 percent of the total value of production of farms that received government payments, compared with 68.4 percent of farms that made up the lowest quartile and produced 39 percent of payment recipients' total value of production.

Income from Government Payments

In 1995, farm operators received Federal government payments from programs authorized by the 1990 Food, Agriculture, Conservation, and Trade Act. Program payments included deficiency payments, disaster payments, diversion payments, conservation incentive or cost-share payments, Conservation Reserve Program payments, and others. Many Federal programs were changed, or in some cases discontinued, under the 1996 Federal Agriculture Improvement and Reform Act. For example, income support through deficiency payments was replaced by the 7-year fixed but declining production flexibility contract payments. However, the discussion of government payments under the 1990 legislation presented here remains relevant since it can serve as a baseline for analysis of government payments in subsequent years under the 1996 Act.

Table 4--Farm type, by income from government payments, 1995

Item	Government payments quartile ¹				All payment farms ²
	Lowest	Second	Third	Highest	
	<i>Number</i>				
Farms	466,976	127,910	62,252	25,742	682,880
	<i>Percent</i>				
Share of farms with payments	68.4	18.7	9.1	3.8	100.0
Share of government payments	24.5	25.4	24.9	25.1	100.0
Share of payment farms' value of production	38.9	20.9	23.4	16.8	100.0
Share of total U.S. value of production	17.4	9.4	10.5	7.5	44.9
Share of farms by farm type:					
All	100.0	100.0	100.0	100.0	100.0
Cash grains	33.7	43.3	59.6	63.3	39.0
Tobacco	1.1	d	d	d	0.8
Cotton	2.2	2.1	* 5.3	* 4.8	2.5
Other field crops ³	22.4	28.1	12.3	* 17.0	22.3
Vegetables, fruits, or tree nuts	0.9	d	d	d	0.9
Nursery or greenhouse	d	d	d	d	na
Beef, hogs, or sheep	28.2	19.3	17.6	10.2	24.9
Poultry	* 0.7	d	d	d	* 0.6
Dairy	9.2	6.2	3.3	na	7.8
Other livestock	d	d	d	d	* 0.8

¹ Quartiles are made up of the minimum number of farms (ranked from lowest to highest) required to account for 25 percent of total government payments. Thus, the highest quartile is made up of the largest payment farms, and the share of the farms in this quartile is smaller than the share of government payments. The opposite is true of the lowest quartile. Because whole farms must be assigned to a quartile, cumulative government payments may not sum to exactly 25 percent.

² Includes only farms that received at least one Federal, State, or local government payment in 1995.

³ Includes farms for which Conservation Reserve Program (CRP) payments were the sole source of gross farm income.

* = The relative standard error (RSE) of the estimate exceeds 25 percent, but is not more than 50 percent. The RSE provides a means of evaluating the survey results. A smaller RSE indicates greater reliability of the data. Estimates with RSE's of 25 percent or less are not marked.

d = Data insufficient for disclosure.

Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study, all versions.

ARMS data on government payments received by farm operators in 1995 included Federal program payments as well as payments from State and local programs. One-third of the Nation's farms received income from at least one Federal, State, or local government program in 1995 (table 5). Data from the 1992 Census of Agriculture show that in many counties of the Northern and Southern Plains, and the Corn Belt, plus counties along the Mississippi Valley, more than 48 percent of farms received direct cash payments from the Federal government alone (fig. 15). ¹ However, many counties with the highest average Federal payment per farm were farther west as well as along the Mississippi Valley (fig. 16).

Twenty-four percent of noncommercial farms received government payments compared with almost 60 percent of commercial farms. One reason that noncommercial farms showed a lower program participation rate is that a large

¹ Government payments reported in the 1992 Census of Agriculture include deficiency and diversion payments, wool payments, payments from the Conservation Reserve Program, the Wetlands Reserve Program, other conservation programs, and all other Federal farm programs under which payments were made directly to farm operators in 1992.

Table 5--Income from government payments, by selected characteristics, 1995

Item	Farms receiving government payments				
	U.S. farms	Participating farms	Percent of U.S. farms	Mean government payment	Percent of gross cash farm income
	<i>Number</i>	<i>Number</i>	<i>Percent</i>	<i>Dollars</i>	<i>Percent</i>
Farms	2,068,000	682,880	33.0	8,225	7.4
Sales class:					
Less than \$50,000	1,531,760	367,288	24.0	4,453	24.0
\$50,000 or more	536,240	315,592	58.9	12,614	5.7
\$50,000 - \$99,999	194,462	100,426	51.6	6,484	8.5
\$100,000 - \$249,999	218,968	139,434	63.7	11,174	7.1
\$250,000 - \$499,999	75,210	50,971	67.8	20,048	6.1
\$500,000 - \$999,999	30,234	18,543	61.3	28,466	4.5
\$1,000,000 or more	17,366	6,218	35.8	35,716	1.9
Acreage class:					
49 or fewer acres	578,127	44,569	7.7	1,631	7.2
50 - 179 acres	670,378	170,097	25.4	3,192	15.0
180 - 499 acres	439,630	211,709	48.2	5,631	8.1
500 - 999 acres	196,752	127,858	65.0	11,111	7.3
1,000 or more acres	183,113	128,648	70.3	18,561	6.4
Farm type:					
Cash grains	389,081	266,078	68.4	11,045	8.6
Tobacco	74,106	5,668	7.6	3,713	3.1
Cotton	23,752	17,388	73.2	11,906	4.5
Other field crops ¹	234,567	152,539	65.0	7,018	21.8
Vegetables, fruits, or tree nuts	92,214	6,002	6.5	11,479	3.3
Nursery or greenhouse	60,993	d	3.5	d	d
Beef, hogs, or sheep	953,649	170,119	17.8	5,775	5.3
Poultry	26,502	3,805	14.4	3,316	1.6
Dairy	121,891	53,452	43.9	5,432	2.9
Other livestock	91,244	5,673	6.2	2,863	3.9
Farm production region:					
Northeast	138,000	25,011	18.1	4,479	3.4
Lake States	221,000	118,243	53.5	6,868	7.6
Corn Belt	420,000	203,985	48.6	8,317	7.8
Northern Plains	187,000	136,995	73.3	9,329	7.9
Appalachian	296,000	45,177	15.3	3,068	5.5
Southeast	153,000	21,646	14.1	5,118	4.3
Delta	111,000	20,745	18.7	12,903	9.6
Southern Plains	273,000	56,228	20.6	8,637	8.8
Mountain	114,500	38,835	33.9	11,083	7.3
Pacific	154,500	16,015	10.4	17,773	5.8
Legal organization: ²					
Sole proprietorship	1,891,987	601,915	31.8	7,280	8.4
Partnership	102,220	45,310	44.3	16,126	5.8
Corporation	71,110	35,390	49.8	14,043	4.3
Land tenure:					
Full owner	1,137,109	298,872	26.3	5,402	14.0
Part owner	744,593	301,697	40.5	10,423	6.1
Tenant	186,298	82,312	44.2	10,417	6.3

See footnotes at end of table.

Continued--

Table 5--Income from government payments, by selected characteristics, 1995--continued

Item	U.S. farms	Farms receiving government payments			
		Participating farms	Percent of U.S. farms	Mean government payment	Percent of gross cash farm income
		<i>Number</i>	<i>Percent</i>	<i>Dollars</i>	<i>Percent</i>
Financial position:					
Favorable ³	1,123,290	422,031	37.6	8,356	7.8
Marginal income ⁴	708,994	146,906	20.7	6,579	7.5
Marginal solvency ⁵	105,403	65,415	62.1	10,760	5.9
Vulnerable ⁶	130,314	48,528	37.2	8,641	6.7
Operator major occupation:					
Farming	905,770	414,568	45.8	10,055	6.2
Hired farm manager	21,791	9,531	43.7	12,543	6.1
Other occupation	805,134	161,655	20.1	4,759	14.7
Retired	335,305	97,127	29.0	5,755	32.4
Operator age:					
Younger than 35 years	171,256	51,838	30.3	8,419	5.7
35 - 44 years	418,049	142,455	34.1	8,939	5.9
45 - 54 years	485,732	153,803	31.7	8,763	6.6
55 - 64 years	474,100	157,593	33.2	8,708	8.3
65 years or older	518,863	177,191	34.1	6,696	11.5
Operator education:					
Less than high school	427,656	84,097	19.7	6,487	8.7
High school	831,251	284,903	34.3	7,759	7.7
Some college	450,334	173,294	38.5	8,781	6.9
College	358,759	140,586	39.2	9,522	7.0

¹ Includes farms for which Conservation Reserve Program (CRP) payments were the sole source of gross farm income.

² Excludes cooperative farms.

³ Debt-to-asset ratio 0.40 or less and positive net farm income.

⁴ Debt-to-asset ratio 0.40 or less and negative net farm income.

⁵ Debt-to-asset ratio greater than 0.40 and positive net farm income.

⁶ Debt-to-asset ratio greater than 0.40 and negative net farm income.

d = Data insufficient for disclosure.

Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study, all versions.

share of noncommercial farms specialized in the production of livestock commodities while a large share of commercial farms specialized in crop production, and most government programs, with the exception of dairy, were aimed at crop production.

In like manner, looking at commercial farms alone, the participation rate was related to commodity specialty. Thirty-six percent of commercial farms with sales of \$1 million or more participated in government programs compared with 60 percent of commercial farms with sales under \$1 million, partly because a large share of the largest commercial farms (sales \$1,000,000 or more) were livestock operations (beef cattle and feedlots), while a large share of the smaller commercial farms specialized in the production of program crops such as cash grains, cotton, and tobacco.

While the average payment to commercial farms was nearly three times the average payment to noncommercial farms, the payment represented 6 percent of gross cash farm income for commercial farms but 24 percent to noncommercial farms. In general, the average government payment increased as sales class increased, but the importance of that payment to income decreased.

Figure 15

Share of farms receiving government payments, by county, 1992

Counties with the largest share of farms receiving payments were in the Northern and Southern Plains and Corn Belt.

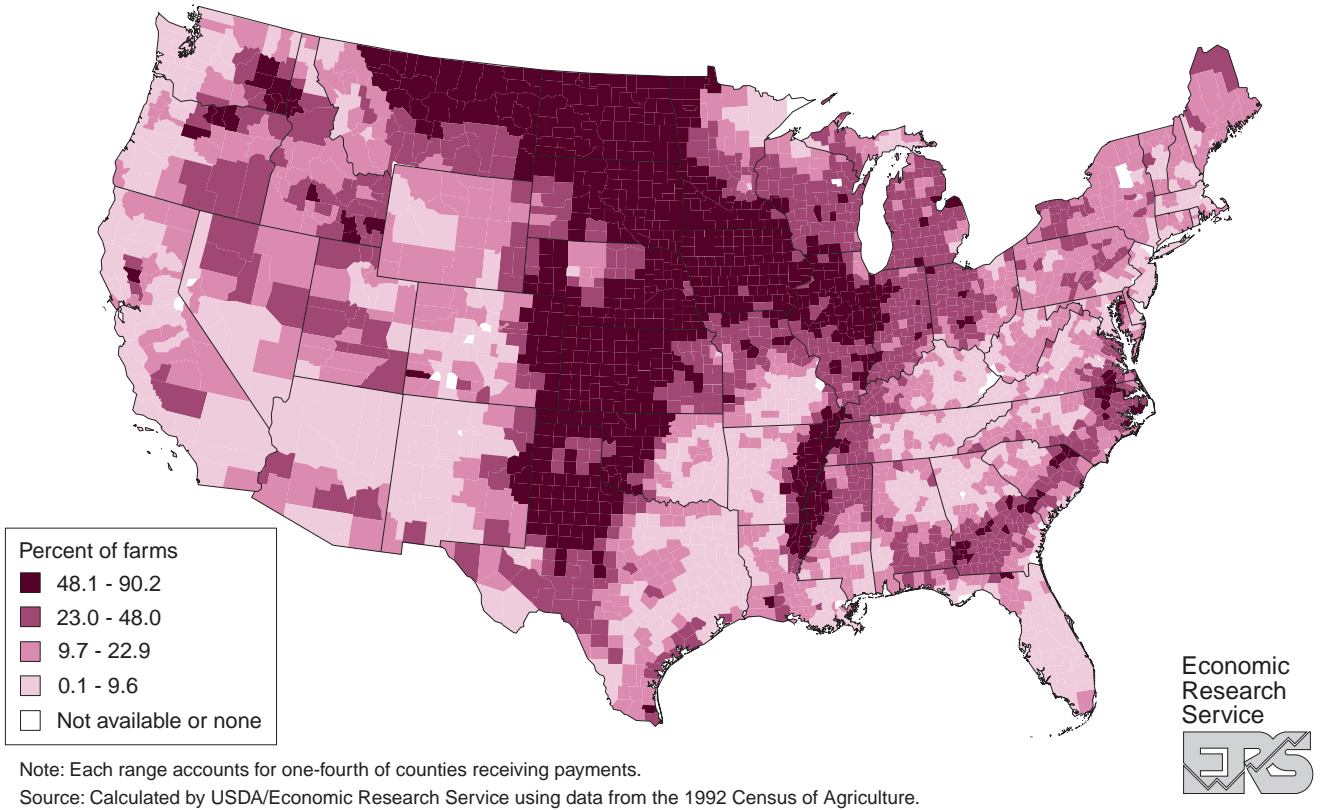
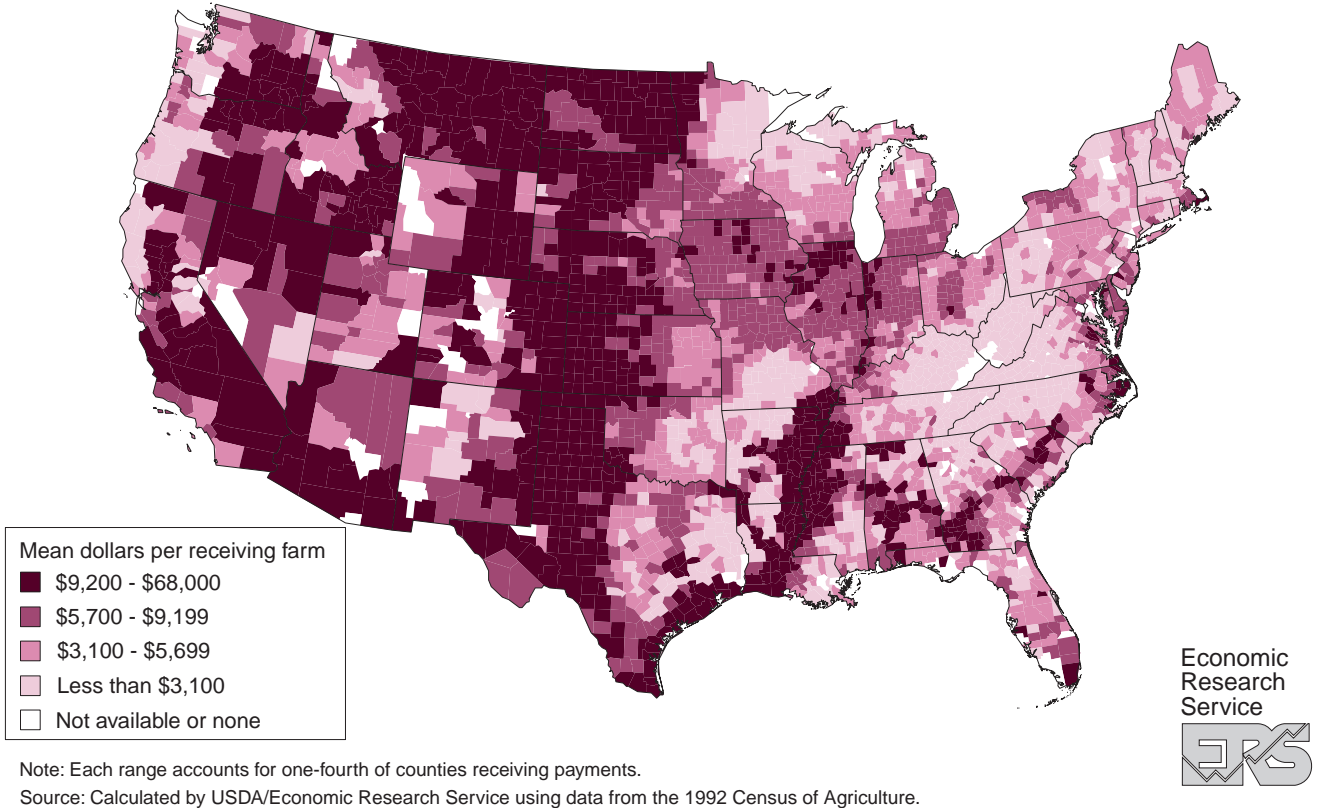


Figure 16

Average government payment per farm, by county, 1992

The highest payments per farm were in the Northern and Southern Plains, the Pacific region, and the Mississippi Valley.



Participation in government programs increased as acreage class increased. The distribution by farm type confirms that farms that specialized in commodities that are typically grown on large acreage, such as cash grains and cotton, had high enrollment rates in government programs and relatively high average payments. However, government payments were far more important to farms producing other field crops (22 percent of gross cash income) than other farm types (9 percent or less). Note that the “other field crops” category includes operations for which Conservation Reserve Program (CRP) payments were the sole source of gross farm income.

High participation rates in the Northern Plains (73 percent), Lake States (54 percent), and Corn Belt (49 percent) provide additional evidence of the connection between large acreage farms, grain production, and government program participation. Nevertheless, the contribution of government payments to gross cash farm income was less than 10 percent, on average, for farms in all regions.

Fifty percent of corporations and over 40 percent of farms organized as partnerships participated in government programs in 1995, compared with 32 percent of farms organized as sole proprietorships. Average payments to corporations and partnerships were twice the average payment to sole proprietorships, but payments were twice as important to gross cash farm income of sole proprietorships as to income of corporations, on average.

More than 40 percent of farms that rented part or all of the land they operated received government program payments which averaged just over \$10,000 per farm. Although full-owner farms received payments that averaged just half of that amount, the payments were more than twice as important to gross cash farm income.

Operators whose primary occupation was farming were more likely to enroll in government programs than retired operators (46 percent v. 29 percent), and their average payment was 75 percent higher. However, the \$5,755 average payment received by retired operators accounted for nearly one-third of retired operators’ average gross cash farm income because of their lower farm income. In contrast, income from government payments averaged \$10,055 and accounted for 6 percent of gross cash farm income for operators whose primary occupation was farming.

In like manner, government payments were more important to gross cash farm income of operators 65 years or older than to farm income of younger operators. Operators with less than a high school education, who are generally older than operators with more education, were also the least likely to be enrolled in government programs and had the lowest average payment.

Financial Characteristics

Financial characteristics discussed in this section include farm income and expenses, assets and debt, and farm financial position. We analyze these characteristics for all farms as well as farms grouped by sales class, value-of-production quartile, net farm income quartile, and government payments quartile. When we study farms in these subsets, we can look for patterns of variation in financial characteristics.

Net farm income is a measure of the farm’s ability to service debt and pay other expenses, while providing a return to the factors of production, including the operator’s unpaid labor. The debt-to-asset ratio is a measure of the farm’s level of indebtedness and vulnerability to income swings. Financial position combines the debt-to-asset ratio with net farm income. The two measures together provide an indicator of the farm’s long-term financial health and viability.

Distribution by Sales

Distributing farms by sales class illustrates that the importance of the components of gross cash farm income varies across sales class, that the level of indebtedness is generally associated with farm size, and that farm financial stability is often related to farm size.

Farm Income. Crop and livestock sales provided 84 percent of gross cash farm income nationwide in 1995, but ranged from 67 percent, on average, for noncommercial farms (sales under \$50,000) to 91 percent for commercial

farms that had sales of \$1 million or more (table 6). In contrast, other farm-related income, which includes income from renting out farmland, was 2-3 times as high for noncommercial farms as for commercial farms. Government payments accounted for 3.7 percent of gross cash farm income for all farms but were more important to noncommercial farms (8.5 percent) than to very large (sales \$1 million or more) commercial farms (0.5 percent). However, government payments were much higher for very large commercial farms, averaging \$12,789 compared with \$1,067 for noncommercial farms.

Net cash farm income was negative, on average, for noncommercial farms, since average cash expenses exceeded average gross cash farm income. Because a farm business cannot survive very low or negative farm income indefinitely, many small noncommercial farm operations rely on the operator's off-farm income sources to sustain the business as well as provide adequate income for the household.

Average net cash farm income was positive for all commercial farm sales classes, and net cash farm income averaged more than 20 percent of gross cash farm income for commercial farms with sales of \$100,000 or more.

Assets and Debt. Assets of noncommercial farms exceeded one-quarter million dollars, on average, while average assets of the largest commercial farms (sales of \$1 million or more) exceeded \$4 million. Noncommercial farms typically carried less debt relative to assets (7.5 percent, on average) than the largest commercial farms (21 percent). Debt relative to assets generally increased with sales class, as did the absolute value of the average debt load. While debt averaged \$20,000 for noncommercial farms, average debt for commercial farms ranged from \$70,000 for farms in the \$50,000-\$99,999 sales class to more than \$850,000 for the \$1-million-and-over sales class.

Financial Position. More than half of U.S. farms were in a favorable financial position in 1995, characterized by a debt-to-asset ratio of 0.40 or less and positive net farm income. While 39 percent of noncommercial farms were in the marginal income category (debt-to-asset ratio 0.40 or less and negative net farm income), 23 percent of commercial farms were classified as marginal income with the share of marginal income farms generally decreasing with sales class. The opposite was true of farms classified as marginal solvency (debt-to-asset ratio above 0.40 and positive net farm income), which accounted for 5 percent of farms nationwide, but a smaller share of noncommercial farms (3 percent) than commercial farms (12 percent) and shares generally increasing with sales class (fig. 17).

Marginal income farms may survive a period of negative net farm income by additional borrowing against equity or by supplementing farm income with off-farm income. Marginal solvency farms may survive a high debt load because their positive net farm income provides sufficient cash to pay the cost of borrowing and other expenses. Common sense leads us to conclude that farms in a vulnerable financial position (6 percent of farms nationwide) would be the least likely to survive an economic shock because they might not have access to additional borrowing or sufficient retained earnings income to pay expenses indefinitely. However, 68 percent of farms in a vulnerable financial position were noncommercial farms whose survival is more likely to be a function of the level and continuity of off-farm income than income from the farm business (fig. 18).

Distribution by Value of Production

Ranking farms by gross value of production identifies farms that contribute the largest share to the Nation's agricultural output. If we then group these ranked farms so that each group accounts for an equal share of output, we can see how the groups differ from each other. Table 7 shows that the 8,400 largest farms in the United States (0.4 percent of all farms) produced one-fourth of all agricultural commodities in 1995, compared with the 1,832,792 smallest farms (88.6 percent of all farms) that also produced one-fourth of the Nation's agricultural commodities.

Farm Income. Farms in the highest value-of-production quartile averaged close to \$4 million in gross cash farm income, while farms in the lowest value-of-production quartile averaged near \$26,000. Commodity sales were evenly divided between crops and livestock for farms in the highest and lowest value-of-production quartiles. Sales of crops and livestock were a larger share of gross cash farm income for farms in the highest quartile (89 percent) than for farms in the lowest quartile (79 percent), so that government payments and other farm-related income were more important to smaller farms.

Table 6--Selected farm business financial characteristics, by sales class, 1995

Item	Sales class						All
	Less than \$50,000	\$50,000 to \$99,999	\$100,000 to \$249,999	\$250,000 to \$499,999	\$500,000 to \$999,999	\$1,000,000 or more	
<i>Number</i>							
Farms	1,531,760	194,462	218,968	75,210	30,234	17,366	2,068,000
<i>Dollars per farm</i>							
Gross cash farm income	12,482	74,484	155,361	317,963	593,005	2,446,149	73,474
Livestock sales	4,671	27,971	61,843	110,963	172,542	1,147,026	28,828
Crop sales	3,662	33,679	68,492	159,633	327,434	1,081,058	32,802
Government payments	1,067	3,349	7,115	13,587	17,459	12,789	2,715
Other farm-related income	3,082	9,485	17,912	33,779	75,571	205,275	9,129
Cash expenses	14,184	62,024	122,701	246,010	444,884	1,935,599	61,035
Net cash farm income	* -1,702	12,459	32,661	71,954	148,121	510,549	12,439
Net farm income	^a 511	* 6,056	21,688	55,635	108,897	426,123	10,438
Farm assets	264,784	495,482	634,846	1,051,689	1,619,307	4,073,701	406,068
Farm equity	244,861	424,817	514,999	854,804	1,297,384	3,217,173	352,916
Capital investments ¹	3,792	9,854	18,410	31,938	54,685	130,779	8,744
<i>Percent of gross cash farm income</i>							
Gross cash farm income	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Livestock sales	37.4	37.6	39.8	34.9	29.1	46.9	39.2
Crop sales	29.3	45.2	44.1	50.2	55.2	44.2	44.6
Government payments	8.5	4.5	4.6	4.3	2.9	0.5	3.7
Other farm-related income	24.7	12.7	11.5	10.6	12.7	8.4	12.4
Cash expenses	113.6	83.3	79.0	77.4	75.0	79.1	83.1
Net cash farm income	* -13.6	16.7	21.0	22.6	25.0	20.9	16.9
Net farm income	^b 4.1	* 8.1	14.0	17.5	18.4	17.4	14.2
<i>Percent of assets</i>							
Farm assets	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Liabilities (debt/asset ratio)	7.5	14.3	18.9	18.7	19.9	21.0	13.1
Farm equity	92.5	85.7	81.1	81.3	80.1	79.0	86.9
<i>Percent of farms</i>							
Farm financial position:							
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Favorable ²	52.5	57.8	59.6	63.5	61.7	53.7	54.3
Marginal income ³	39.1	25.7	19.2	16.4	13.0	14.7	34.4
Marginal solvency ⁴	2.6	8.7	13.6	12.8	16.9	21.0	5.1
Vulnerable ⁵	5.7	7.7	7.6	7.3	* 8.4	* 10.6	6.2

¹ Excludes real estate purchases.

² Debt-to-asset ratio 0.40 or less and positive net farm income.

³ Debt-to-asset ratio 0.40 or less and negative net farm income.

⁴ Debt-to-asset ratio greater than 0.40 and positive net farm income.

⁵ Debt-to-asset ratio greater than 0.40 and negative net farm income.

* = The relative standard error (RSE) of the estimate exceeds 25 percent, but is not more than 50 percent. The RSE provides a means of evaluating the survey results. A smaller RSE indicates greater reliability of the data. Estimates with RSE's of 25 percent or less are not marked.

^a = The RSE is 103 percent.

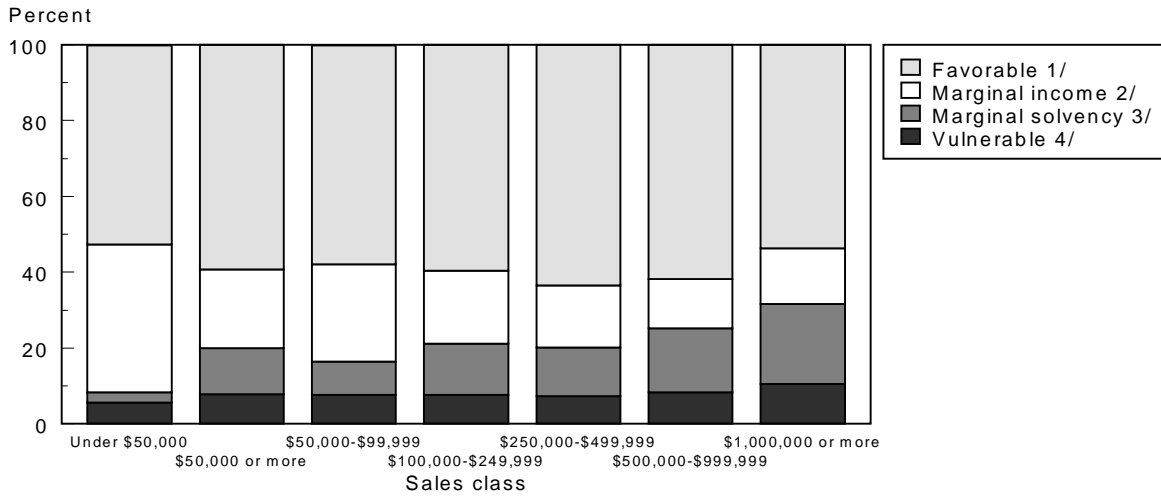
^b = The RSE is 100 percent.

Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study, all versions.

Figure 17

Financial position of U.S. farms, by sales class, 1995

The share of farms with relatively high debt increased with sales class.



1/ Debt-to-asset ratio 0.40 or less and positive net farm income. 2/ Debt-to-asset ratio 0.40 or less and negative net farm income. 3/ Debt-to-asset ratio greater than 0.40 and positive net farm income. 4/ Debt-to-asset ratio greater than 0.40 and negative net farm income.

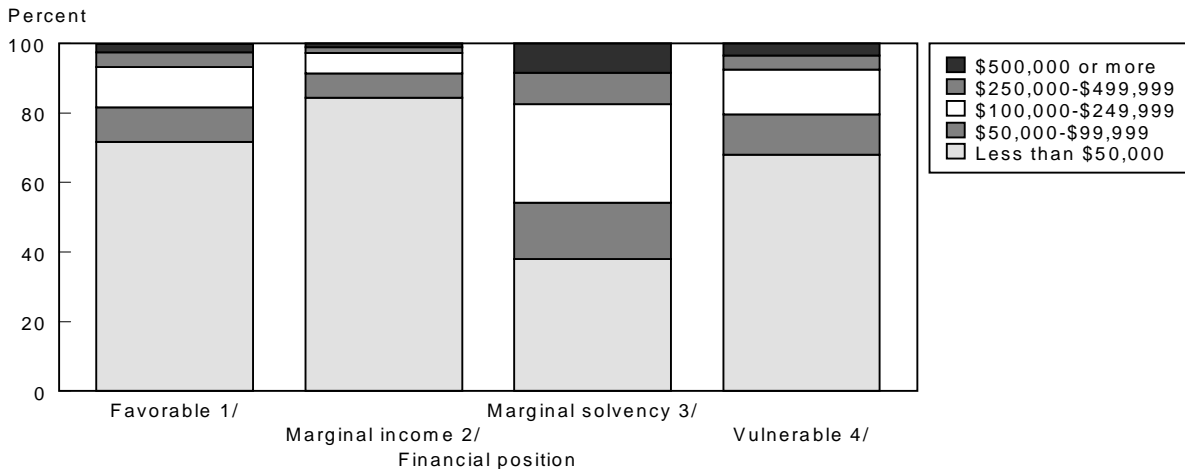
* The relative standard error exceeds 25 percent but is no more than 50 percent.

Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study.

Figure 18

Sales class of farms, by financial position, 1995

More than two-thirds of financially vulnerable farms had gross sales under \$50,000.



1/ Debt-to-asset ratio 0.40 or less and positive net farm income. 2/ Debt-to-asset ratio 0.40 or less and negative net farm income. 3/ Debt-to-asset ratio greater than 0.40 and positive net farm income. 4/ Debt-to-asset ratio greater than 0.40 and negative net farm income.

Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study.

Table 7--Selected farm business characteristics, by total value of production, 1995

Item	Value-of-production quartile ¹				All
	Lowest	Second	Third	Highest	
	<i>Number</i>				
Farms	1,832,792	172,717	54,091	8,400	2,068,000
	<i>Percent</i>				
Share of farms	88.6	8.4	2.6	0.4	100.0
Share of total value of production	25.0	25.0	24.5	25.5	100.0
	<i>Dollars per farm</i>				
Gross cash farm income	26,129	227,186	617,764	3,738,172	73,474
Livestock sales	10,101	84,277	224,505	1,714,598	28,828
Crop sales	10,387	106,679	309,839	1,620,594	32,802
Government payments	1,666	9,923	14,407	8,231	2,715
Other farm-related income	3,975	26,307	69,013	394,748	9,129
Cash expenses	24,101	180,698	481,123	2,954,119	61,035
Net cash farm income	2,028	46,488	136,642	784,053	12,439
Net farm income	2,276	35,113	105,910	669,205	10,438
Farm assets	305,130	828,635	1,589,399	6,120,915	406,068
Farm equity	275,291	670,167	1,258,804	4,933,228	352,916
Capital investments	5,126	23,876	54,240	193,893	8,744
	<i>Percent of gross cash farm income</i>				
Gross cash farm income	100.0	100.0	100.0	100.0	100.0
Livestock sales	38.7	37.1	36.3	45.9	39.2
Crop sales	39.8	47.0	50.2	43.4	44.6
Government payments	6.4	4.4	2.3	0.2	3.7
Other farm-related income	15.2	11.6	11.2	10.6	12.4
Cash expenses	92.2	79.5	77.9	79.0	83.1
Net cash farm income	7.8	20.5	22.1	21.0	16.9
Net farm income	8.7	15.5	17.1	17.9	14.2
	<i>Percent of assets</i>				
Farm assets	100.0	100.0	100.0	100.0	100.0
Liabilities (debt-to-asset ratio)	9.8	19.1	20.8	19.4	13.1
Farm equity	90.2	80.9	79.2	80.6	86.9
	<i>Percent of farms</i>				
Farm financial position:					
All	100.0	100.0	100.0	100.0	100.0
Favorable ²	53.5	61.1	60.2	55.8	54.3
Marginal income ³	36.6	17.6	14.7	13.0	34.4
Marginal solvency ⁴	3.9	12.7	17.0	* 24.1	5.1
Vulnerable ⁵	5.9	8.6	8.1	7.1	6.2

¹ Quartiles are made up of the minimum number of farms (ranked from lowest to highest) required to account for 25 percent of total value of production. The highest quartile is made up of the largest farms, and the share of farms in this quartile is smaller than the share of total value of production. The opposite is true of the lowest quartile. Because whole farms must be assigned to a quartile, cumulative value of production may not sum to exactly 25 percent. ² Debt-to-asset ratio 0.40 or less and positive net farm income. ³ Debt-to-asset ratio 0.40 or less and negative net farm income. ⁴ Debt-to-asset ratio greater than 0.40 and positive net farm income. ⁵ Debt-to-asset ratio greater than 0.40 and negative net farm income. * = The relative standard error (RSE) of the estimate exceeds 25 percent, but is not more than 50 percent. The RSE provides a means of evaluating the survey results. A smaller RSE indicates greater reliability of the data. Estimates with RSE's of 25 percent or less are not marked. Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study, all versions.

The average government payment was highest (\$14,407) for farms in the third quartile, one-fourth of which were cash grain farms. Since gross cash farm income averaged more than \$600,000 for farms in this quartile, government payments accounted for 2.3 percent of gross cash farm income, on average. Government payments were a larger share of gross cash income for smaller farms.

Cash expenses for the lowest quartile averaged 92 percent of gross cash farm income, in contrast to less than 80 percent for farms in the other three quartiles. In fact, many farms in the lowest quartile had cash expenses exceeding income, a situation common to noncommercial farms.

Assets and Debt. Farms in the highest quartile averaged assets of more than \$6 million, almost four times as much as assets of farms in the third quartile. The debt load relative to assets was about the same for the top three quartiles (near 20 percent), twice the debt-to-asset ratio for the lowest quartile. This translates to an average debt load of more than \$1 million for farms in the highest quartile.

Financial Position. Negative net farm income characterizes farms in the marginal income and vulnerable financial position categories. In 1995, more than 40 percent of farms in the lowest quartile had negative net farm income, compared with 20 percent in the highest quartile. However, 37 percent of farms in the lowest quartile had a low debt-to-asset ratio along with a negative net farm income (marginal income farms), compared with 13 percent of marginal income farms in the highest quartile. The share of farms in the marginal solvency category (positive net farm income and high debt-to-asset ratio) increased by value-of-production quartile. A larger share of farms in the highest quartile than the lowest quartile may be in the marginal solvency category because they may have greater need for outside capital (assets averaged more than \$6 million), and because they may have more incentive to borrow (larger farms generally realize greater efficiencies in production and generate more revenue, and perhaps profit, from a dollar's worth of assets [7, p. 21]).²

Distribution by Net Farm Income

Ranking farms by net farm income highlights differences in farms based on how much income they retain after deducting cash expenses, depreciation, and other nonmoney adjustments. Net farm income represents the return (or loss) to unpaid labor, unpaid management, and equity capital. Just 2 percent of all farms accounted for 75 percent of net farm income in 1995 (table 8).

Farm Income. Relatively few (2,278) very large farms made up the highest net farm income quartile. These farms averaged net farm income of \$2.4 million, or 42 percent of an average gross cash farm income near \$6 million. In contrast, many smaller farms (98 percent of all farms) realized an average net farm income of \$2,650, or 9 percent of gross cash farm income averaging less than \$55,000.

Because beef/hog/sheep farms made up more than half of farms in the lowest quartile, livestock sales accounted for a larger share of gross cash farm income for farms in the lowest quartile than for farms in other quartiles. Although the average government payment was lowest for farms in the lowest quartile, the importance of government payments to gross cash farm income was still highest for farms in that quartile (4.5 percent).

Average cash expenses, which ranged from near \$50,000 for farms in the lowest quartile to \$3.5 million for farms in the highest quartile, equaled 91 percent of gross cash farm income in the lowest quartile but near 60 percent for the other three quartiles. Thus, both net cash farm income and net farm income were a much larger portion of gross cash farm income for farms in the three upper quartiles.

Assets and Debt. Assets for farms in the lowest quartile averaged \$369,457 while assets for farms in the higher quartiles averaged \$1.5 million or more. Although the absolute value of debt varied by quartile, the average

² Italicized numbers in brackets identify literature cited in Appendix F: References.

Table 8--Selected farm business characteristics, by net farm income, 1995

Item	Net farm income quartile ¹				All
	Lowest	Second	Third	Highest	
	<i>Number</i>				
Farms	2,031,264	24,045	10,413	2,278	2,068,000
	<i>Percent</i>				
Share of farms	98.2	1.2	0.5	0.1	100.0
Share of net farm income	24.9	24.5	25.4	25.1	100.0
Share of farms by farm type:					
All	100.0	100.0	100.0	100.0	100.0
Cash grains	18.6	41.5	18.0	d	18.8
Tobacco	3.6	d	d	d	3.6
Cotton	1.0	10.0	d	d	1.1
Other field crops	11.4	4.0	* 18.1	d	11.3
Vegetables, fruits, or tree nuts	4.3	* 7.6	* 17.7	d	4.5
Nursery or greenhouse	2.9	* 5.8	* 10.5	d	2.9
Beef, hogs, or sheep	46.6	* 20.9	* 13.6	d	46.1
Poultry	1.3	d	d	d	1.3
Dairy	5.8	7.0	12.8	d	5.9
Other livestock	4.5	d	d	d	4.4
	<i>Dollars per farm</i>				
Gross cash farm income	54,481	555,960	1,425,155	5,737,653	73,474
Livestock sales	22,453	145,697	496,871	2,340,435	28,828
Crop sales	23,295	282,819	711,609	2,767,707	32,802
Government payments	2,456	18,258	15,842	* 10,256	2,715
Other farm-related income	6,277	109,186	200,832	* 619,255	9,129
Cash expenses	49,362	339,358	942,930	3,501,189	61,035
Net cash farm income	5,119	216,602	482,225	2,236,464	12,439
Net farm income	2,650	219,997	527,234	2,379,972	10,438
Farm assets	369,457	1,518,272	3,456,249	* 7,368,512	406,068
Farm equity	321,801	1,274,953	3,024,103	* 6,155,051	352,916
Capital investments	7,608	48,307	90,861	228,817	8,744
	<i>Percent of gross cash farm income</i>				
Gross cash farm income	100.0	100.0	100.0	100.0	100.0
Livestock sales	41.2	26.2	34.9	40.8	39.2
Crop sales	42.8	50.9	49.9	48.2	44.6
Government payments	4.5	3.3	1.1	* 0.2	3.7
Other farm-related income	11.5	19.6	14.1	10.8	12.4
Cash expenses	90.6	61.0	66.2	61.0	83.1
Net cash farm income	9.4	39.0	33.8	39.0	16.9
Net farm income	4.9	39.6	37.0	41.5	14.2
	<i>Percent of assets</i>				
Farm assets	100.0	100.0	100.0	100.0	100.0
Liabilities (debt/asset ratio)	12.9	16.0	12.5	* 16.5	13.1
Farm equity	87.1	84.0	87.5	83.5	86.9

See footnotes at end of table.

Continued--

Table 8--Selected farm business characteristics, by net farm income, 1995--continued

Item	Net farm income quartile ¹				All
	Lowest	Second	Third	Highest	
	<i>Number</i>				
Farms	2,031,264	24,045	10,413	2,278	2,068,000
	<i>Percent of farms</i>				
Farm financial position:					
All	100.0	100.0	100.0 ²	²	100.0
Favorable ³	53.7	87.7	82.4 ²	²	54.3
Marginal income ⁴	35.0	0	0 ²	²	34.4
Marginal solvency ⁵	4.9	12.3	17.6 ²	²	5.1
Vulnerable ⁶	6.3	0	0 ²	²	6.2

¹ Quartiles are made up of the minimum number of farms (ranked from lowest to highest) required to account for 25 percent of net farm income. The highest quartile is made up of the largest farms, and the share of farms in this quartile is smaller than the share of net farm income. The opposite is true of the lowest quartile. Because whole farms must be assigned to a quartile, cumulative net farm income may not sum to exactly 25 percent.

² Data for farms in the third and highest quartiles are combined in order to avoid disclosure. ³ Debt-to-asset ratio 0.40 or less and positive net farm income. ⁴ Debt-to-asset ratio 0.40 or less and negative net farm income. ⁵ Debt-to-asset ratio greater than 0.40 and positive net farm income. ⁶ Debt-to-asset ratio greater than 0.40 and negative net farm income. * = The relative standard error (RSE) of the estimate exceeds 25 percent, but is not more than 50 percent. The RSE provides a means of evaluating the survey results. A smaller RSE indicates greater reliability of the data. Estimates with RSE's of 25 percent or less are not marked. d = Data insufficient for disclosure.

Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study, all versions.

debt-to-asset ratio was somewhat similar (13-17 percent) across all groups. Average debt for farms in the lowest quartile was under \$50,000, compared with more than \$240,000 for other farms.

Financial Position. Not surprisingly, given a ranking variable of net farm income, all farms above the lowest net farm income quartile had positive net farm income. In addition, more than 80 percent of them also had relatively low debt, so their financial position was classified as favorable. In contrast, just over half of farms in the lowest quartile were in a favorable financial position. More farms in the higher quartiles were in a marginal solvency category (positive net farm income and relatively high debt-to-asset ratio), not only because they chose to borrow, but also because their high net farm income enabled them to qualify for loans and to support more indebtedness.

Distribution by Government Payments

Grouping farms by level of government payments highlights variation in the financial attributes of farms receiving the largest and smallest shares of payments, and variation in the contribution of government payments to farm income. Although one-third of U.S. farms received government payments in 1995, less than 4 percent of those farms received one-fourth of all payments, averaging more than \$50,000 per farm (table 9). Farms that received government payments in 1995 accounted for nearly half of the total U.S. value of production. Average gross cash farm income was highest in the highest government payments quartile and lowest in the lowest quartile.

Farm Income. The highest quartile of farms grouped by total government payments was made up of farms that averaged more than \$500,000 in gross cash farm income and averaged total payments of \$54,805. About two-thirds of farms receiving government payments made up the lowest quartile of farms ranked by government payments, and these farms averaged \$61,730 in gross cash farm income and \$2,948 in government payments. The largest payments went to the largest farms because, in 1995, a substantial share of payments were tied to production levels.

The average government payment for farms in the highest quartile accounted for 11 percent of average gross cash farm income, compared with 5 percent for the lowest quartile.

Table 9--Farm business characteristics, by government payments, 1995

Item	Government payments quartile ¹				All payment farms ²
	Lowest	Second	Third	Highest	
			<i>Number</i>		
Farms receiving government payments	466,976	127,910	62,252	25,742	682,880
			<i>Percent</i>		
Share of all farms receiving payments	68.4	18.7	9.1	3.8	100.0
Share of government payments	24.5	25.4	24.9	25.1	100.0
Share of government payment farms' value of production	38.9	20.9	23.4	16.8	100.0
Share of U.S. value of production	17.4	9.4	10.5	7.5	44.9
			<i>Dollars per farm</i>		
Gross cash farm income	61,730	127,491	283,220	524,142	111,670
Livestock sales	25,980	40,653	81,052	150,792	38,454
Crop sales (includes net CCC loans)	25,120	61,690	143,203	259,532	51,571
Government payments	2,948	11,168	22,496	54,805	8,225
Other farm-related income	7,682	13,980	36,470	59,012	13,421
Cash expenses	50,244	99,095	223,888	403,706	88,548
Net cash farm income	11,486	28,396	59,333	120,436	23,122
Net farm income	9,510	21,793	40,793	101,337	18,124
Farm assets	378,042	591,439	947,928	1,430,712	509,648
Farm equity	325,545	495,068	756,554	1,110,490	426,180
Capital investments	8,693	14,723	28,172	45,845	12,999
			<i>Percent of gross cash farm income</i>		
Gross cash farm income	100.0	100.0	100.0	100.0	100.0
Livestock sales	42.1	31.9	28.6	28.8	34.4
Crop sales (includes net CCC loans)	40.7	48.4	50.6	49.5	46.2
Government payments	4.8	8.8	7.9	10.5	7.4
Other farm-related income	12.4	11.0	12.9	11.3	12.0
Cash expenses	81.4	77.7	79.1	77.0	79.3
Net cash farm income	18.6	22.3	20.9	23.0	20.7
Net farm income	15.4	17.1	14.4	19.3	16.2
			<i>Percent of assets</i>		
Farm assets	100.0	100.0	100.0	100.0	100.0
Liabilities (debt-to-asset ratio)	13.9	16.3	20.2	22.4	16.4
Farm equity	86.1	83.7	79.8	77.6	83.6
			<i>Percent of farms</i>		
Farm financial position:					
All	100.0	100.0	100.0	100.0	100.0
Favorable ³	60.7	67.4	57.7	63.2	61.8
Marginal income ⁴	23.8	15.1	20.6	13.6	21.5
Marginal solvency ⁵	8.8	9.7	13.1	15.3	9.6
Vulnerable ⁶	6.7	7.8	8.6	* 7.8	7.1

¹Quartiles are made up of the minimum number of farms (ranked from lowest to highest) required to account for 25 percent of total government payments. Thus, the highest quartile is made up of the largest payment farms, and the share of the farms in this quartile is smaller than the share of government payments. The opposite is true of the lowest quartile. Because whole farms must be assigned to a quartile, cumulative government payments may not sum to exactly 25 percent. ² Includes only farms that received at least one Federal, State, or local government payment in 1995. ³ Debt-to-asset ratio 0.40 or less and positive net farm income. ⁴ Debt-to-asset ratio 0.40 or less and negative net farm income. ⁵ Debt-to-asset ratio greater than 0.40 and positive net farm income. ⁶ Debt-to-asset ratio greater than 0.40 and negative net farm income.

* = The relative standard error (RSE) of the estimate exceeds 25 percent, but is not more than 50 percent. The RSE provides a means of evaluating the survey results. A smaller RSE indicates greater reliability of the data. Estimates with RSE's of 25 percent or less are not marked.

Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study.

Commodity sales were about evenly divided between crops and livestock for farms in the lowest quartile, but were more heavily weighted toward crops for farms in the upper three quartiles. This result is not unexpected since payments under crop programs make up the largest share of government outlays to farm operators.

Assets and Debt. Farms that received government payments in 1995 averaged more than \$500,000 in assets. The highest quartile farms averaged assets nearer \$1.4 million while the lowest quartile farms averaged assets of \$378,042. Heavily weighted by farms in the lowest quartile, the debt-to-asset ratio for all farms receiving government payments averaged 16.4 percent. In the highest quartile, average debt was over \$300,000, making the debt-to-asset ratio 22.4 percent.

Financial Position. Over 60 percent of farms receiving government payments were in a favorable financial position in 1995, with positive net farm income and relatively low debt-to-asset ratio. Less than 30 percent of farms had negative net farm income (marginal income and vulnerable farms). A larger share of farms were in the marginal solvency category (positive net farm income and debt-to-asset ratio 0.40 or more) in the highest quartile (15.3 percent) than in the lowest quartile (8.8 percent).

Sources of Farm Business Loans

Farm operators receive credit from many sources and for many different purposes. Differentiating farms by their business characteristics and operator characteristics, and then identifying their sources of funds, enables us to discern who is meeting the credit needs of various groups of farmers. For example, in 1995, the Federal guaranteed loan program, which targets operators who may not otherwise have access to credit, backed loans for 8 percent of commercial farms compared with 3 percent of noncommercial farms (table 10).

If the operation had one or more farm loans outstanding as of Dec. 31, 1995, the ARMS Farm Operator Resources version of the questionnaire collected detailed information on the four loans with the largest end-of-year balances. However, the extent of lender debt may be somewhat underestimated from ARMS data, because operators had the option to refuse to answer lender debt questions.

Half of all U.S. farms reported carrying debt from one or more lenders at year's end. A larger share of commercial farms than noncommercial farms reported lender debt (74.6 percent v. 40.7 percent), and a larger share of commercial farms had loans guaranteed by the Farm Service Agency (FSA, formerly the Farmers Home Administration or FmHA) than did noncommercial farms (fig. 19).³ Operators of commercial farms may borrow more often than noncommercial farm operators not only because they require more physical and financial resources for their larger businesses, but also because they have more cash flow to service debt.

More operators reported borrowing from banks than from any other credit source (32 percent of all U.S. farms). Half of commercial farms and one-fourth of noncommercial farms reported at least one bank loan outstanding at the close of 1995. Over 20 percent of all commercial farms reported loans made through the Farm Credit System compared with 6 percent of all noncommercial farms, and 10 percent of all commercial farms reported owing money to FSA compared with 2 percent of all noncommercial farms.

Nationwide, 10 percent of farms reported loans from the Farm Credit System, but about 17 percent of farms organized as corporations or partnerships reported loans outstanding from the Farm Credit System at the end of 1995, compared with 10 percent of farms organized as sole proprietorships.

Thirty-six percent of farms in a favorable financial position reported lender debt, compared with 55 percent of farms with marginal income and nearly all of marginal solvency and vulnerable farms. Marginal solvency farms had the highest level of guaranteed debt (18 percent) and vulnerable farms the second highest level, because without government guarantees to the lender, they may not have had access to credit.

³ Besides originating loans, the FSA may guarantee loans (promise to repay the lender if the borrower defaults) originated by other lenders, such as commercial banks.

Table 10--Sources of farm business loans, by selected characteristics, 1995 ¹

Item	Farms reporting		Farms reporting loan from				
	Lender debt ²	Guaranteed loan	Farm Credit System ³	Banks	Merchants and dealers ⁴	Other lenders ⁵	Farm Service Agency
	<i>Number</i>						
Farms ⁶	1,024,894	86,695	214,931	658,550	100,952	293,404	87,586
	<i>Percent of all U.S. farms</i>						
Share of all U.S. farms	49.6	4.2	10.4	31.8	4.9	14.2	4.2
Sales class:							
Less than \$50,000	40.7	2.8	6.3	25.3	2.6	11.7	2.4
\$50,000 or more	74.6	8.2	22.0	50.5	11.4	21.4	9.5
\$50,000-\$99,999	67.3	7.7	16.2	48.2	9.2	17.3	8.2
\$100,000-\$249,999	78.3	8.3	23.7	50.4	11.9	24.3	12.1
\$250,000-\$499,999	78.5	9.0	29.1	54.3	14.3	21.2	8.4
\$500,000-\$999,999	82.3	9.1	28.2	55.5	14.9	25.8	5.7
\$1,000,000 or more	79.8	7.8	24.5	54.3	11.3	23.9	d
Type of farm:							
Cash grains	59.4	6.9	15.3	39.2	8.6	16.9	7.3
Tobacco	59.9	d	d	* 50.8	d	d	d
Cotton	70.2	d	* 16.1	42.8	* 15.8	* 15.2	d
Other field crops	35.3	d	7.7	19.1	* 2.1	11.0	* 3.9
Vegetables, fruits, tree nuts	51.0	d	11.4	26.8	d	22.6	d
Nursery or greenhouse	40.6	d	* 3.6	25.3	d	* 14.9	d
Beef, hogs, or sheep	45.0	3.2	7.7	30.2	3.2	12.1	2.7
Poultry	75.9	* 3.7	* 31.4	43.4	d	* 11.1	* 14.2
Dairy	74.0	8.8	24.6	46.1	11	23.9	10.4
Other livestock	45.7	d	d	* 22.2	d	d	d
Legal organization:							
Sole proprietorship	48.8	4.0	9.8	31.3	4.7	13.8	4.3
Partnership	58.3	6.5	17.5	38.1	7.5	16.2	4.2
Corporations	58.6	d	17.4	35.3	6.7	22.9	d
Farm financial position:							
Favorable ⁷	36.2	2.7	8.9	23.4	3.9	8.5	2.3
Marginal income ⁸	54.9	3.7	9.5	34.4	4.5	17.0	3.1
Marginal solvency ⁹	96.9	* 18.1	25.3	61.9	7.9	28.2	22.0
Vulnerable ¹⁰	94.3	7.9	16.0	64.0	* 12.1	35.1	11.7
Operator major occupation:							
Farm or ranch work	59.5	5.7	15.5	39.1	8.0	16.0	6.9
Hired manager	37.5	d	* 6.0	24.9	d	* 15.8	d
Other	52.5	3.7	7.9	34.4	3.1	15.6	2.6
Retired	16.0	d	d	* 6.5	d	d	d
Operator age:							
Less than 35 years	74.8	* 6.4	10.6	52.7	7.4	* 19.8	* 4.0
35-44 years	67.4	7.3	12.6	44.3	8.1	22.3	7.3
45-54 years	58.3	3.8	12.6	36.1	5.3	19.3	5.1
55-64 years	43.7	3.3	10.7	28.1	3.5	10.7	2.8
65 years or older	24.1	* 2.2	6.2	14.3	* 2.4	4.2	2.3

See footnotes at end of table.

Continued--

Table 10--Sources of farm business loans, by selected characteristics, 1995 ¹--continued

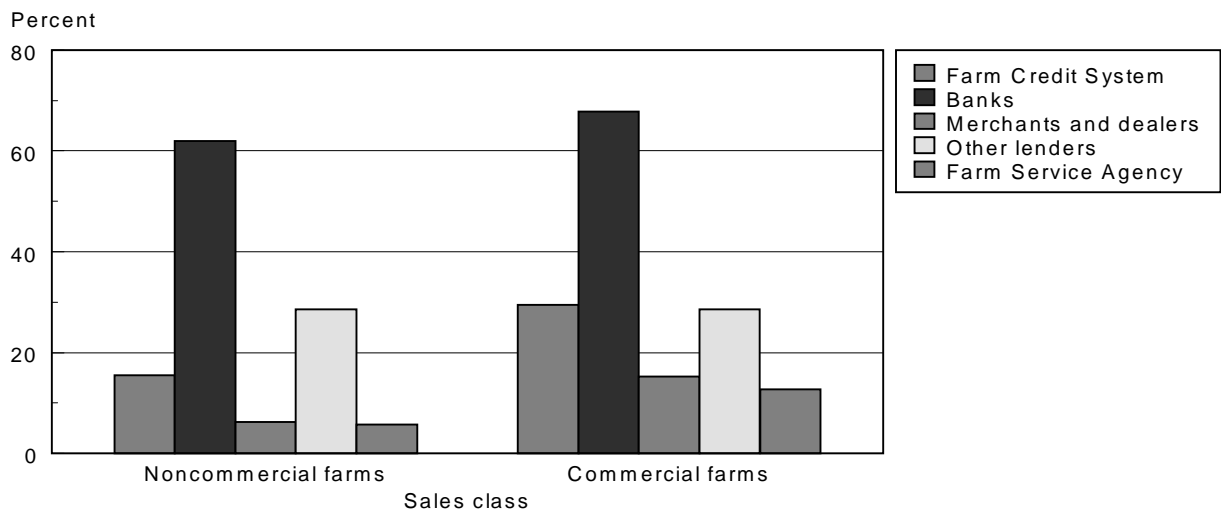
Item	Farms reporting		Farms reporting loan from				
	Lender debt ²	Guaranteed loan	Farm Credit System ³	Banks	Merchants and dealers ⁴	Other lenders ⁵	Farm Service Agency
	<i>Number</i>						
Farms	1,024,894	86,695	214,931	658,550	100,952	293,404	87,586
	<i>Percent of all U.S. farms</i>						
Operator education:							
Less than high school	39.2	* 2.5	7.3	26.1	* 4.2	8.3	2.5
High school	49.4	5.3	9.9	31.9	4.9	14.2	4.3
Some college	59.6	4.1	11.4	38.9	6.1	18.5	5.8
College or higher	49.6	* 3.7	14.1	29.7	4.3	15.7	4.1

¹ Based on all loans outstanding as of Dec. 31, 1995. ² Lender debt is not identical to the accounting definition of total debt used in determining farm financial position. ³ Borrowing from the Farm Credit System includes loans from Federal Land Bank Associations, Production Credit Associations, Agricultural Credit Associations, and other entities within the Farm Credit System. ⁴ Includes input suppliers, cooperatives and other merchants, implement dealers, and financing corporations. ⁵ Includes life insurance companies, State and county lenders, individuals and other lenders. ⁶ Excludes farms with no lender debt or farms whose operators refused to answer questions related to lender debt. The 1995 ARMS questionnaire collects details on up to four loans (the largest) of the operation's lender debt. ⁷ Debt-to-asset ratio 0.40 or less and positive net farm income. ⁸ Debt-to-asset ratio 0.40 or less and negative net farm income. ⁹ Debt-to-asset ratio greater than 0.40 and positive net farm income. ¹⁰ Debt-to-asset ratio greater than 0.40 and negative net farm income. * = The relative standard error (RSE) of the estimate exceeds 25 percent, but is not more than 50 percent. The RSE provides a means of evaluating the survey results. A smaller RSE indicates greater reliability of the data. Estimates with RSE's of 25 percent or less are not marked. d = Data insufficient for disclosure.
Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study, Farm Operator Resources version only.

Figure 19

Where farms with lender debt get their loans, by sales class, 1995

Two-thirds of commercial farms with lender debt reported loans from banks and nearly one-third reported loans from entities of the Farm Credit System.



Note: Information on lender debt is based on all loans outstanding as of Dec. 31, 1995.
Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study, Farm Operator Resources version only.

Marginal solvency and vulnerable farms also had the highest shares of farms reporting indebtedness to the FCS (25 percent and 16 percent, respectively) and reporting outstanding loans from banks (more than 60 percent). In addition, marginal solvency farms and vulnerable farms had the highest shares of farms reporting direct loans from FSA (22 percent of marginal solvency farms and 12 percent of vulnerable farms).

Farms with operators whose principal occupation was farming had the highest share of farms reporting any lender debt (60 percent) and the highest share of farms reporting loans from the Farm Credit System (16 percent). Farms with retired operators had the lowest share reporting lender debt (16 percent).

In like manner, the age category with the smallest share of operators reporting lender debt was the 65-years-or-older group (24.1 percent). The share of operators reporting lender debt generally rose as the age group got younger, with the share of operators under 35 years carrying debt three times the share of operators 65 or older. Bank debt followed the same pattern, with just 14 percent of operators 65 or over reporting bank debt compared with nearer 50 percent for operators age 44 or younger.

Characteristics of Farm Operators

Although responsibility for operation of a farm may be shared among two or more people, only one person is identified as the operator for ARMS data collection purposes. We define the operator as the person who makes most of the day-to-day decisions about the farm business, although management and work shares may be difficult to quantify and may lead to underestimation of the contributions of some participants in farming, especially women. It should be noted that ownership is not a factor in determining who operates the farm.

Demographic Characteristics

Assessing the characteristics of persons currently engaged in farming and the characteristics of their farms gives us some insight into the expectations and attitudes of those engaged in farming, and prospects for the future of resources currently devoted to farming. For example, operators whose principal occupation is something other than farming or who describe themselves as retired may have a different attitude toward assessing risk, adopting new technology, and maximizing income generated by the farm, compared with operators who identify themselves as primarily farmers.

Major Occupation

Less than half of farm operators reported farming as their major occupation (accounting for more than half of working hours) in 1995 (fig. 20). However, farms of operators whose principal occupation was farming averaged \$132,550 in gross cash farm income, while 'retired' and 'other' operators averaged less than \$16,000, likely too small to support a family without some off-farm source of income (table 11).

Farms of operators who reported farming as their major occupation averaged more than four times the acreage of farms of 'retired' and 'other' operators, and they controlled more than 70 percent of farmland acres, along with 79 percent of farm income and sales (fig. 21).

Age

Less than 10 percent of farm operators were under 35 years old in 1995. They were outnumbered three to one by operators 65 years or older. Although operators age 65 or older controlled about the same share of farmland as each of the three groups of operators age 35 to 64, they had a significantly smaller share of total gross farm income and sales (fig. 22). They also averaged less than half the income and sales per farm of the youngest group of operators.