

**Structural and Financial Characteristics of U.S. Farms, 1995: 20th Annual Family Farm Report to the Congress.** By Judith E. Sommer, Robert A. Hoppe, Robert C. Green, and Penelope J. Korb. Resource Economics Division, Economic Research Service, U.S. Department of Agriculture. Agriculture Information Bulletin No. 746.

### **Abstract**

Farming in the United States is both diverse and complex, and national averages often mask the variation and interactions that are key to understanding the major participants in agricultural production, i.e., farm businesses, farm operators, and farm operator households. Farm businesses vary with respect to such characteristics as size (sales and acres), product mix, legal organization, land tenure, and financial performance. Farm operators show diversity in demographic characteristics, in the hours they spend working on and off the farm, and in their managerial practices. Farm operator households differ in their financial well-being and sources of income, particularly in their level of dependence on earnings generated from the farm operation. This report, based primarily on USDA's 1995 Agricultural Resource Management Study (formerly the Farm Costs and Returns Survey), brings together these components of farming to describe them and examine their roles in agricultural production.

**Keywords:** Farm structure, farm income, financial performance, farm management, farm business, government payments, farm loans, computer use, minority farmers, female farm operators, farm operator household, family farm, small farm.

### **Preface**

This report is the 20th in a series of reports to the Congress on the status of family farms. These reports have been submitted annually by the U.S. Department of Agriculture in accordance with the Food and Agriculture Act of 1977 and subsequent farm legislation.

### **Acknowledgments**

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## Highlights

The 20th Family Farm Report to the Congress presents the most recent comprehensive information available on the structural and financial characteristics of U.S. farms. The report is based primarily on USDA's 1995 Agricultural Resource Management Study (ARMS), an annual survey of farm and ranch operators in the 48 contiguous States. The 1995 ARMS, conducted in the spring of 1996, collected information from nearly 8,800 operations across the Nation.

The report describes the characteristics of farm businesses, farm operators, and farm operator households, and assesses their financial performance. This edition also provides new information on sources of farm business loans, farm operators' use of computer technology, characteristics of minority farm operators, and a new typology of small farms developed in response to the report of the USDA National Commission on Small Farms.

In 1995, more than 98 percent of the Nation's 2,068,000 farms were classified as family operations. While 3 percent of farms were legally organized as corporations, 86 percent of corporations were closely held by the operators' families and therefore are classified as family farms. Other family farms were legally organized as sole proprietorships (91 percent of all farms) and partnerships (5 percent of all farms).

Overall, the Nation's farms generated an average \$80,621 per farm in sales of agricultural products, but commercial farms (farms with sales of \$50,000 or more) averaged \$281,978 in gross sales compared with an average \$10,130 for noncommercial farms (farms with sales under \$50,000). Although commercial farms accounted for just 26 percent of farms, they produced 91 percent of the total U.S. value of sales and generated 87 percent of gross cash farm income.

Gross cash farm income averaged \$73,474 per farm nationwide, but commercial farms averaged \$247,697 while noncommercial farms averaged \$12,482. Average gross cash farm income was made up of crop sales (39 percent), livestock sales (45 percent), government payments (4 percent), and other farm-related income (12 percent).

While one-third of U.S. farms received income from government payments in 1995, commercial farms participated in programs at twice the rate of noncommercial farms (59 percent v. 24 percent). Although payments to noncommercial farms participating in government programs were smaller than payments to commercial farms (\$4,453, on average, compared with \$12,614), government payments were a larger share of farm income for noncommercial farms (24 percent of gross cash farm income compared with 6 percent for commercial farms). Payments for the 4 percent of farms with the highest government payments averaged \$54,805 or 11 percent of average gross cash farm income, and their payments accounted for 25 percent of all government payments.

More than two-thirds of farms depended on a single commodity or commodity group for 50 percent or more of total sales. Nearly half of these highly specialized farms produced primarily beef cattle and their gross cash income averaged \$37,825, just over half the U.S. average. One in five of the highly specialized farms produced primarily a cash grain crop (corn, wheat, soybeans, sorghum, or rice), which generated income ranging from \$51,755 for soybean farms to \$172,391 for rice farms.

Farms with operators who rented all or part of the land they operated (45 percent of all farms) produced gross sales 2-3 times as high as the average \$47,708 for full-owner farms. Operators who rented other production assets (including buildings, equipment, machinery, vehicles, and livestock), as well as land, generated average sales more than three times the average \$89,331 for operators who rented land only.

Thirteen percent of farms managed risk through production or marketing contracts. Farms with contracts averaged gross sales (\$306,357) and gross cash farm income (\$237,682) approximately 5-6 times the average for farms using cash sales only (\$47,879 sales and \$49,657 income).

Farm assets averaged \$264,784 for noncommercial farms and \$809,641 for commercial farms. Since noncommercial farms carried little debt (\$19,923, on average, compared with \$148,067 for commercial farms), they had a relatively low debt-to-asset ratio (0.08 compared with 0.18 for commercial farms).

More than half of commercial farms (59 percent) and noncommercial farms (53 percent) were in a favorable financial position in 1995, with positive net farm income and a debt-to-asset ratio of 0.40 or less. However, 45 percent of noncommercial farms were in the marginal income or vulnerable category because of negative net farm income, compared with 29 percent of commercial farms that had negative net farm income.

Seventy-five percent of commercial farm operators reported lender debt outstanding at the end of 1995, compared with 41 percent of noncommercial farm operators. Half of commercial farms and one-fourth of noncommercial farms had loans from banks. One in 5 commercial farms had credit through the Farm Credit System and 1 in 10 had a loan through the Farm Service Agency. One in four marginal solvency farms (positive net farm income and debt-to-asset ratio over 0.40) reported debt outstanding to the Farm Credit System and/or the Farm Service Agency, while three out of five marginal solvency farms owed money to banks.

Nearly one-third of all commercial farm operators, but well over half of those with operations exceeding \$500,000 gross sales, used computers for bookkeeping and/or financial analysis. Computers were used for recordkeeping by one in five operators whose major occupation was farming and one in three operators who graduated from college used computers for recordkeeping. One in two farms with sales of \$1 million or more used computer software to make production decisions and one in five utilized computer-aided field operations.

Farms with operators who identified farming as their major occupation were four times as large in acreage (718 acres, on average) and generated income eight times as high (\$132,550) as farms with operators whose major occupation was "other" or "retired." Farms with operators 65 years of age and older outnumbered farms with operators younger than 35 years of age by three to one.

Of the 2 percent of farms with operators who identified themselves as nonwhite, 43 percent were operated by blacks. The 18,800 farms operated by blacks were small relative to the U.S. average, and fewer than half of black operators designated farming as their primary occupation (44 percent v. 55 percent).

Farms with Hispanic operators accounted for 1 percent of all farms, and average sales (\$115,200) were one-third higher than the average U.S. farm. About 72 percent of farms operated by Hispanics were located in five States: California, Colorado, Florida, New Mexico, and Texas.

About 8 percent of all farms were operated by females. Female-operated farms generated sales averaging \$35,281, less than half the U.S. average, and 36 percent of female operators were 65 or over, compared with 25 percent of operators who were 65 or over nationwide.

On average, farm households fared as well as all U.S. households in total household income, but 89 percent of their income came from off-farm sources. However, households associated with very large farms (sales \$500,000 or more) had income more than 4 times as high (\$195,825) as the average U.S. household and only 16 percent of their total household income came from off-farm sources.

In like manner, households that depended on earnings from the farm for 75 percent or more of their total income had higher income than less dependent households, and nearly twice the U.S. average for all households. Farm households with operators who were under 35 and 65 and over had income averaging about three-fourths the U.S. average household income, while other operator households (operators age 35-64) averaged more than 100 percent of the U.S. average.

# Structural and Financial Characteristics of U.S. Farms, 1995

## 20th Annual Family Farm Report to the Congress

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### Introduction

This report is the 20th in a series of annual reports prepared by the U.S. Department of Agriculture's Economic Research Service to inform the Congress on the status of family farms. Family farms in the United States are all farms except those with hired managers or those organized as nonfamily corporations or cooperatives. The family farm report was first mandated by the Food and Agriculture Act of 1977, which required the Department to provide information on trends in family and nonfamily farms, and the effects of government programs and Federal laws on the family farm system.

To describe farming in the United States today requires more than a compilation of facts on farm numbers, farm sizes, and farm production. Farming is both diverse and complex, and national averages often mask the variation and interactions that are key to understanding the major participants in agricultural production, i.e., farm businesses, farm operators, and farm operator households. Such an understanding is essential to assessing the economic health of the sector and estimating the effects of changes in government policies and programs.

Farms differ in their natural resource endowments (land, water, and climate). Farm businesses vary with respect to such characteristics as size (sales and acres), product mix, legal organization, land tenure, and financial performance. They range from small operations run by families that supply all the labor for the farm but get most of their income from off-farm work, to multimillion-dollar incorporated farms that control vast resources, hire paid farmworkers, and provide a better-than-average income to the operator household.

Farm operators show diversity in demographic characteristics, in the hours they spend working on and off the farm, and in their managerial practices. Farm operator households differ in their financial well-being and sources of income, particularly in their level of dependence on the earnings generated from the farm operation.

Complexity in farming stems from business interactions that restrict farm operators' independent decisionmaking, such as contractual arrangements for output or regulations related to government program participation. While production or marketing contracts generally decrease production and price risks, they may also limit farmers' choices in what and how to produce, and when and where to sell. In like manner, government programs may enhance income, but may also impose constraints such as conservation compliance.

Another element adding complexity to farming is the global nature of agricultural production and marketing, because economic events in the rest of the world add an element of unpredictability, along with opportunity, to domestic and foreign trade. Finally, changing technology adds complexity as new crops and new production practices offer both opportunity and challenge to farm operators. Complexity in agriculture increases the need for operator management expertise in order for farm businesses to survive.

This report describes the Nation's farm businesses as well as the operators who run them and their associated households. It presents information not just for the Nation, but for regional groupings and major subcategories of farms.

## **Background**

In the mid-1990's, most U.S. farms are still controlled by families, primarily as sole proprietorships but with a small but growing share legally organized as (family) corporations. While technological advances have generally decreased the farm labor requirement, costly new technologies have increased the capital investment required for farming. At the same time, part-time farming coupled with substantial off-farm income has become increasingly common, although full-time commercial operators continue to produce the bulk of agricultural output.

A significant share of farm operators use government program participation and other risk management strategies to deal with an increasingly challenging economic environment. Environmental concerns and conservation compliance demand additional efforts from farm management. In 1995, Federal program participation requirements continued to play a significant role in farm operators' production decisions, although government payments provided a relatively small share of gross farm income.

In order to understand the elements that underlie these general observations, we look at the farms, operators, and households that are the primary actors in production agriculture. Note that this report is based primarily on 1995 data, when farm programs were administered according to provisions of the 1990 Food, Agriculture, Conservation, and Trade Act. Therefore, implications of the 1996 Farm Act are not considered. However, this report can be used as a baseline to assess changes resulting from the new farm legislation.

## **About the Data**

USDA's Agricultural Resource Management Study (ARMS) is designed to capture the physical, financial, demographic, and managerial attributes of farm businesses and people engaged in farming. The survey was formerly called the Farm Costs and Returns Survey (FCRS). The ARMS is an annual survey of farms conducted jointly by the Economic Research Service (ERS) and the National Agricultural Statistics Service (NASS). The survey covers farm and ranch operations in the 48 contiguous States.

In 1995, nearly 8,800 farm operators nationwide participated in the ARMS. This sample is representative of the more than 2 million farm businesses that produced the Nation's food and fiber. This report is the sixth in the family farm report series to use data from the ARMS as the primary information source, and uses data from the 1995 ARMS, collected in the spring of 1996, and from the 1992 Census of Agriculture, the most current information available.

## ***USDA's Agricultural Resource Management Study***

The ARMS is a multiframe, probability-based survey in which sample farms are randomly selected from groups of farms stratified (sorted into groups) by attributes such as economic size, type of production, and land use. Each selected farm represents a known number of farms with similar attributes. Weighting (multiplying) the data for each surveyed farm by the number of farms it represents is the basis for calculating estimates for all U.S. farms.

The survey collects data to measure the financial condition and operating characteristics of farm businesses, the costs of producing agricultural commodities, and the well-being of farm operator households. Specially trained interviewers contact each selected operator personally, so that questions are asked and interpreted the same way throughout the Nation.

Several versions of the survey questionnaire are used in a given year, one whole-farm version and several rotating commodity-specific versions. For example, in 1995, four questionnaires were used: the Farm Operator Resources (FOR or whole-farm) version, the sorghum cost-of-production (COP) version, the burley tobacco COP version, and the peanuts COP version. The FOR version provides greater detail on some survey items that describe the overall farm



operation and includes unique questions on farm operator household characteristics. The COP versions contain indepth questions on production practices for the selected commodity, but have less detailed information about the overall farm business.

Each year, the survey questions are evaluated and revised to reflect changes in agriculture and to address new topics of interest to the agricultural community. Two topics introduced in the 1995 FOR version are sources of farm business loans and operators' use of computer technology in the office and in the field.

### ***Statistical Measures***

Many possible samples can be drawn from a population of all farms. In spite of the soundness of the sampling technique and the data collection procedures, each of those samples may yield different results. Thus, we refer to values derived from the sample data as "estimates" and we know that the "true" value for the total population is more likely to be a value that lies within some range around our estimate. We therefore use statistical measures to assess the validity and reliability of the estimates. Two statistical measures used in this analysis, the relative standard error (RSE) and the t-statistic (or t-test), are summarized below.

The RSE provides a perspective on how well the data represent a particular sample. The RSE of an estimated mean (average) is the standard error of the mean divided by the mean itself, expressed as a percent. The standard error of the mean measures the amount of variation between individual farms in the group and the group mean. When we divide the standard error by the mean, we eliminate the units of denomination (such as dollars or acres), and the effects of scale (the relative size of numbers used in measuring, such as dollars or millions of dollars).

A small RSE for a mean implies that the mean represents the underlying data better than a mean with a large RSE. In general, an RSE that exceeds 25 percent indicates that the information should be used with caution. Although we calculate RSE's for all estimates, we do not publish them in the report tables. Instead, we identify estimates with RSE's above 25 percent with one or more asterisks.

We use the t-statistic to determine whether or not observed differences between means are statistically significant. A lower t-statistic indicates less likelihood that the two means are actually different. In general, the higher the RSE's, the lower the t-statistic.

The standard used to identify significantly different means in this report is the 5-percent level of significance. This means that if we calculated means and the associated t-statistics for a large (infinite) number of samples, there is a 5-percent chance that the test would lead us to conclude that the means are different when they actually are not.

For additional discussion of statistical methodology, see Appendix B.

### **Comparing Farm Business Estimates to Farm Sector Estimates**

Financial measures presented in this report are based on information provided through the ARMS by operators of farm businesses that comprise a representative sample of all farming and ranching operations in the contiguous United States. These measures, which relate strictly to farm businesses, differ conceptually from official USDA sector estimates for the 50 States and are not directly comparable. The difference is basically whose economic activity is being measured.

For example, the ARMS income estimates use the income of farm businesses, which includes the income of all those with an ownership interest in the operation--farm operators, partners, and shareholders. USDA's official sector income estimates include not only those participants, but also others, such as landlords and contractors, who share in the risks of production. The ARMS income estimate is an aggregation of farm-level data, weighted appropriately.

The official USDA farm sector income estimate is developed from a complex process involving many data sources, such as production and price estimates from NASS data collection, government program payments from administrative records of USDA agencies, and income and expense information from the ARMS.

## **Commonly Used Terms**

Some terms that are often used in general discussions of farming have very specific definitions in this report. A few examples are given below. Additional information is available in Appendix A, the glossary.

### ***Farm***

Since 1850, when minimum criteria defining a farm for census purposes were first established, the farm definition has changed nine times, as the Nation has grown and changed. A farm is currently defined, for statistical purposes, as any place from which \$1,000 or more of agricultural products (crops and livestock) were sold or normally would have been sold during the census year. This definition has been in place since August 1975--by joint agreement among USDA, the Office of Management and Budget, and the Bureau of the Census--and is used in determining the suitability of a farm for inclusion in the ARMS. According to NASS data, U.S. farms numbered just over 2 million in 1995.

### ***Type of Farm***

Type of farm generally refers to the commodity that best characterizes the farm's primary production activity, for example, cash grain farm or dairy farm. Using ARMS data, we construct two enterprise indicators related to type of farm, namely farm type and majority enterprise type. Farm type is the commodity or commodity group that accounts for the largest share of the farm's gross sales. Farm type is selected by the operator from a list of choices on the ARMS questionnaire, such as cash grains or dairy.

Majority enterprise type is the commodity or commodity group that accounts for at least half of the operation's estimated gross value of production. Majority enterprise type is, in some cases, more specific than farm type. For example, instead of grouping all cash grains together as in farm type, majority enterprise type identifies five separate cash grain commodities: wheat, corn, soybeans, grain sorghum, and rice.

A farm that does not meet the 50-percent criterion for any one of the 15 specific majority enterprise types could be classified as either a general crop farm (crops account for at least 50 percent of the value of production) or general livestock farm (livestock accounts for at least 50 percent of the value of production) based on the crop and livestock components of the value-of-production estimate.

### ***Family Farms and Farm Households***

Most U.S. farms are organized as sole proprietorships, partnerships, or family corporations, and they account for 98 percent of all farms (fig. 1). Because these farms are generally controlled by one or more households (including the operator's household), we consider them to be family farms. A farm household includes all persons living in the same dwelling with the operator, or living away but still dependent on support from the household.

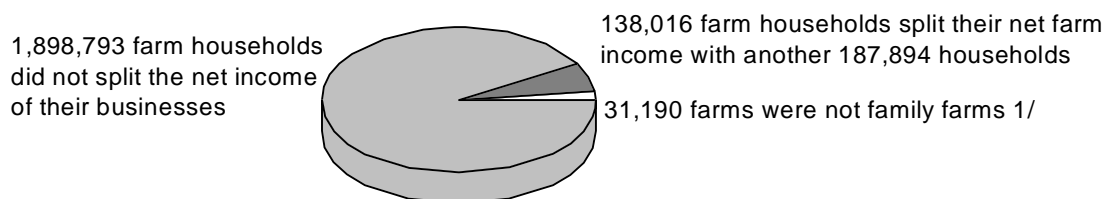
In multifamily operations, the operator is the person who makes most of the day-to-day decisions about the farm. Household information is collected only for the operator's household. Collecting information on both the farm and off-farm components of farm family household income allows us to make valid comparisons of financial well-being between farm households and all U.S. households.

Farms that are nonfamily corporations, cooperatives, or run by a hired manager are classified as nonfamily farms. Nonfamily farms account for only 2 percent of all U.S. farms. Nonfamily farms are not represented in estimations related to farm operator households, but they are included in the rest of the analysis.

Figure 1

## Family farms in the United States, 1995

*More than 98 percent of farms in the U.S. were family farms, and 7 percent of family farm operator households shared the net farm income of the business with an additional 187,894 households.*



1/ Includes nonfamily corporations, cooperative farms, and farms operated by hired managers. These farms are not closely held by an operator household.

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

### **Farm Sales**

Gross value of farm sales is an indicator of economic farm size. Gross value of sales measures what the farm sold during a year, including sales from inventory, regardless of whether the proceeds were received by the operation, landlord(s), or contractor(s). Gross value of farm sales includes cash sales of all agricultural commodities, sales under marketing contracts, the value of share rent, the value of commodities produced under production contracts, and government payments related to output. The definition of gross value of sales used for ARMS purposes is the same definition used by USDA to establish its official estimates of number of farms by economic size (sales class).

Farms with a gross value of sales under \$50,000 are referred to as noncommercial-size farm businesses in this report, while farms with sales of \$50,000 or more are called commercial-size operations.

### **Farm Income**

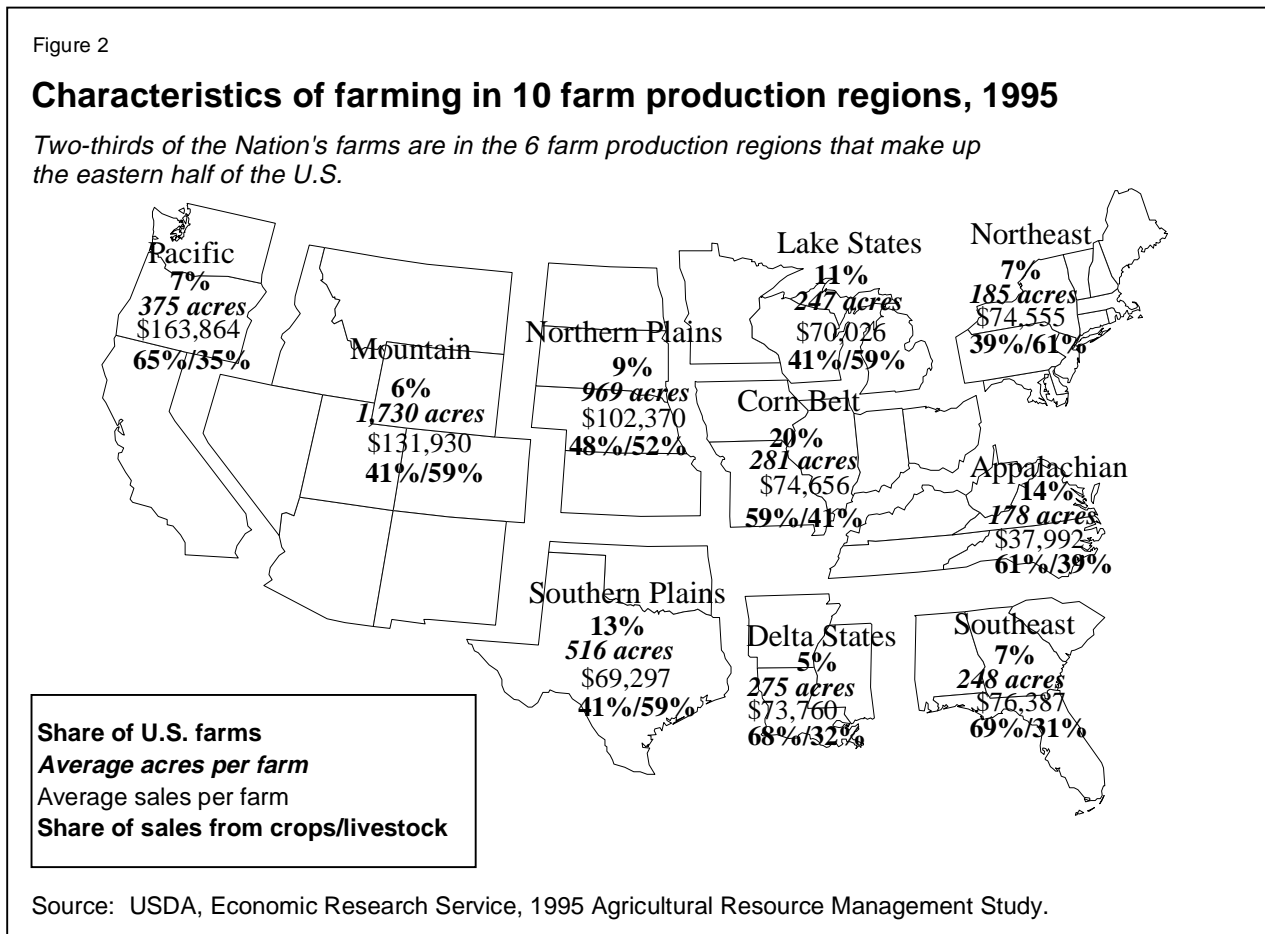
One measure of farm income is gross cash farm income. In contrast to gross value of farm sales, gross cash farm income is only the farm operation's share of receipts from gross value of sales. Because gross cash income excludes any shares of production accruing to landlords and contractors, it may be lower than the gross value of farm sales.

Another measure of farm income is net cash farm income, which is gross cash farm income less cash expenses. Farm operators use net cash income from farming to purchase farm capital items, reduce farm debt, and meet family obligations.

Earnings of the operator household from farming activities is primarily the household's share of net cash farm income less depreciation. This definition is largely consistent with the Census Bureau's Current Population Survey (CPS) definition of farm self-employment income and allows us to directly compare the income position of farm households with the average for all U.S. households (for further explanation, see Appendix C). Earnings of the operator household from farming activities does not include some resources the farm business may provide to the household, such as unspent depreciation expense, nonmoney or in-kind receipts, and additions to inventory.

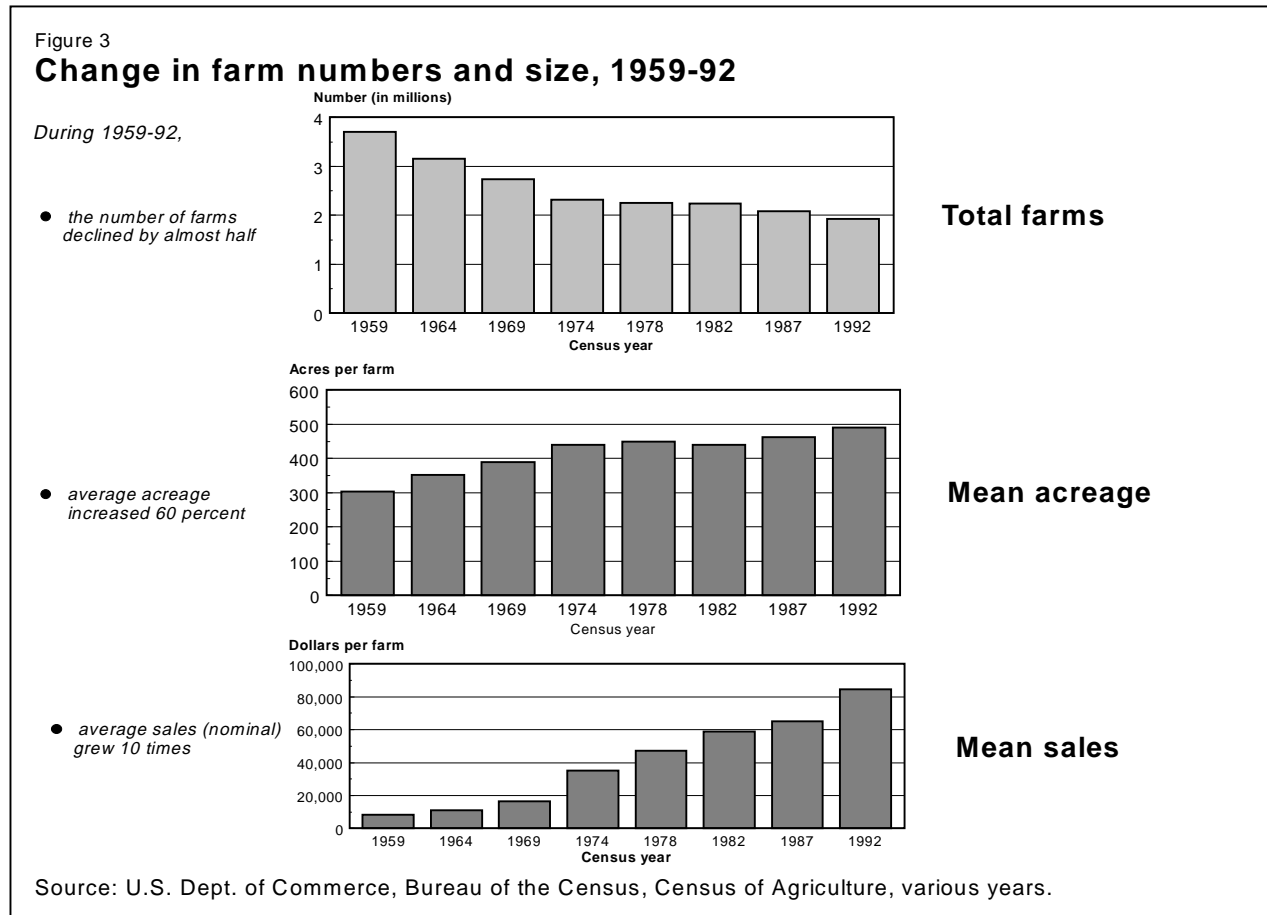
### Farm Structure

Farm structure or agricultural structure refers to a broad set of characteristics that describe U.S. farms, as well as the distribution of farm production resources and returns to those engaged in farm production activities. For example, producing units (farms and ranches) may be categorized by farm size (value of sales or number of acres), primary output, and geographic location. Farm businesses may be delineated by form of legal organization, degree of land ownership, marketing or production contractual arrangements, and financial position. Farm operators may be described by age, education, and primary occupation. Finally, farm households may be characterized by features of their associated farm businesses and interaction with the nonfarm sector, such as off-farm employment or income from nonfarm sources. Any or all of these elements can be used to construct a structural portrait of farming in the Nation. Figure 2 illustrates some elements of agricultural structure by describing the 10 farm production regions using share of all farms, average acres operated and value of sales, and crop/livestock share of farm sales.



## 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.

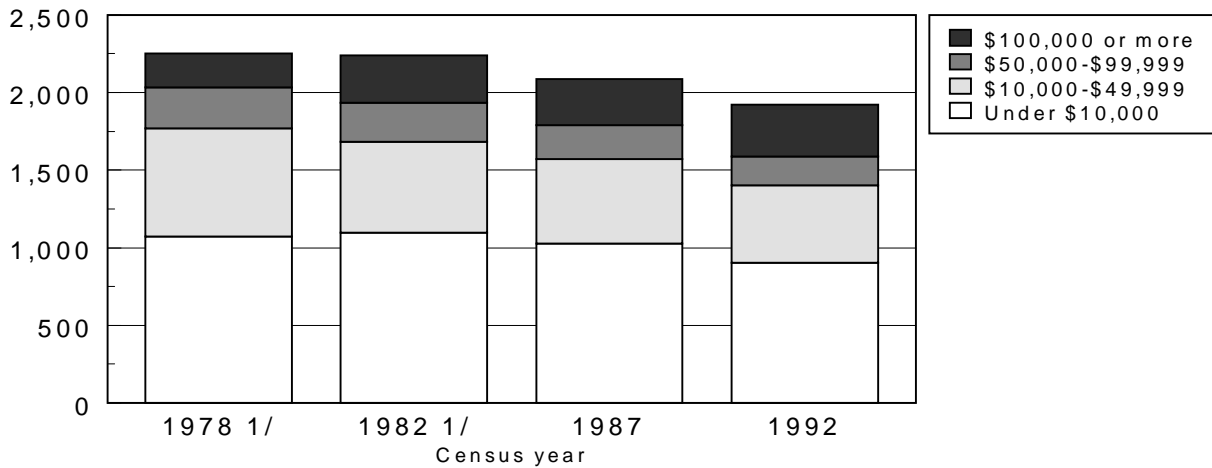
The increase in the number of farms with sales over \$100,000 could be the result of a variety of factors, including expansion of existing farms (adding resources), technological advances (increasing yield), changing labor/capital mix (increasing efficiency), and price changes (inflation) that could 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

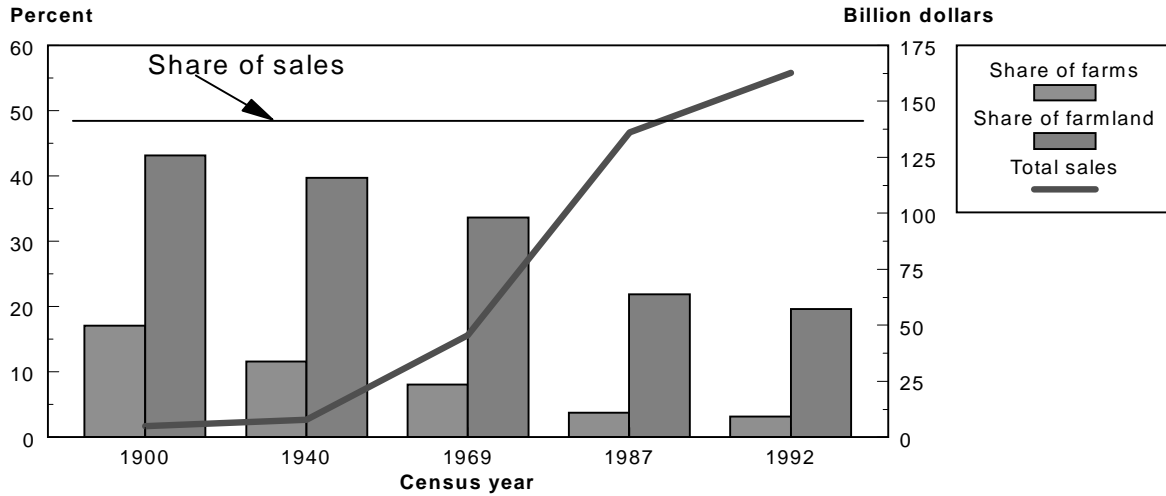
Based on the 1995 ARMS, sales per farm in the United States averaged \$80,621 and acres per farm averaged 434 (table 1). Noncommercial farms (sales under \$50,000) made up the bulk of farms (74 percent), but commercial farms (sales \$50,000 or more) produced most (91 percent) of the Nation's agricultural 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.*



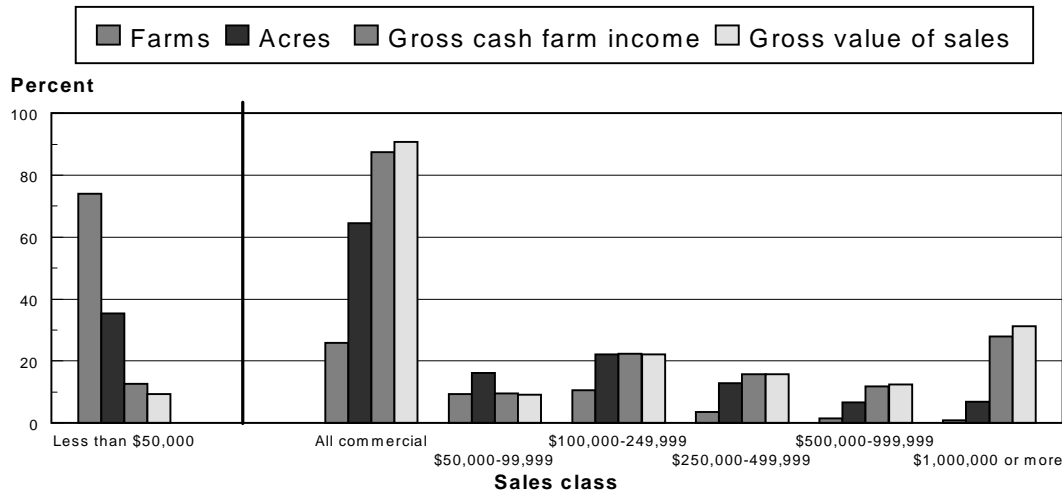
Note: The share of sales in 1900, 1940, and 1969 was calculated by summing share of sales by sales class from census data, and totaled slightly over 50 percent. The share of sales in 1987 and 1992 was calculated by the Census Bureau using farm-level data and therefore totaled exactly 50 percent.

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: <sup>1</sup>				
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

<sup>1</sup> 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.

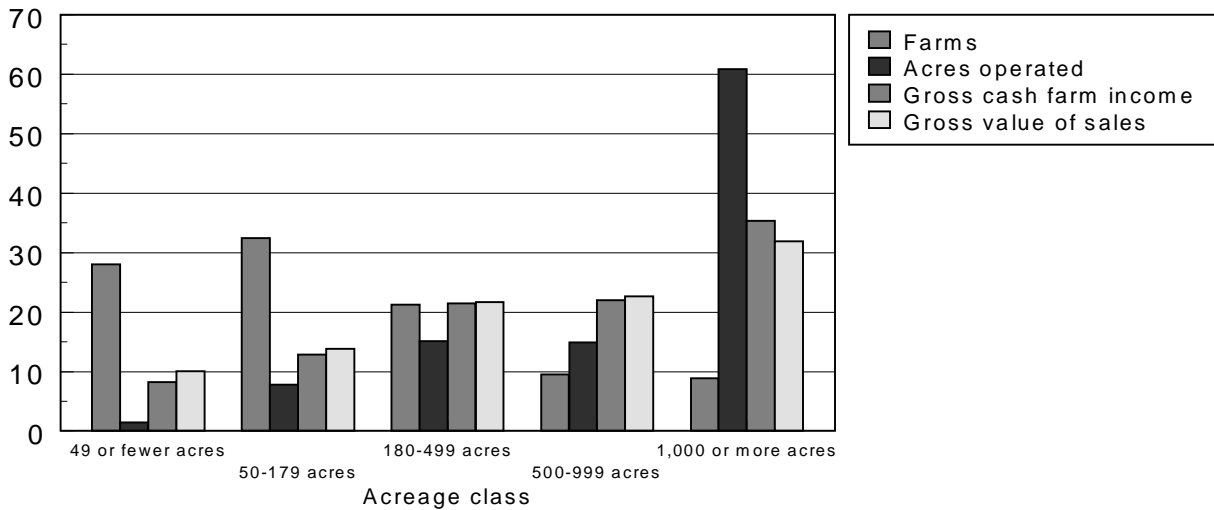


Figure 7

### 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).

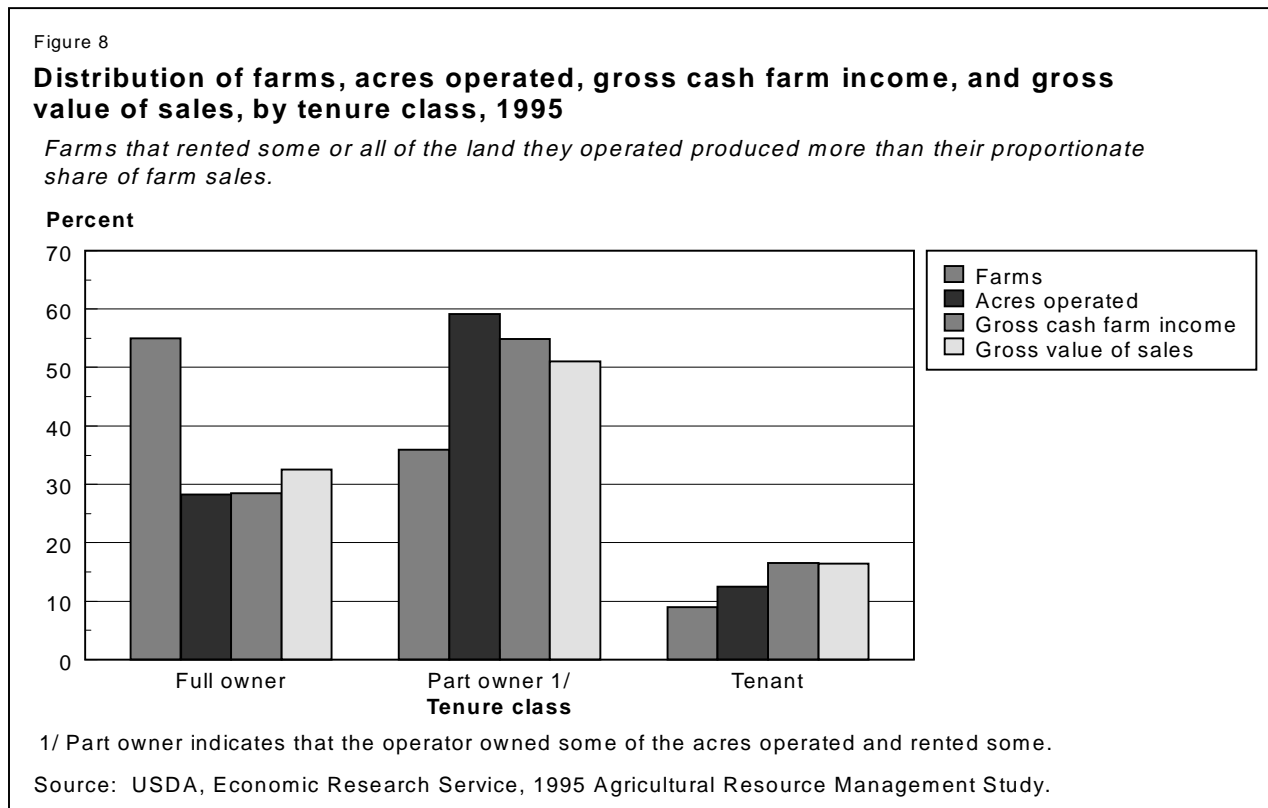
**Table 2--Farms, acres operated, gross cash farm income, and gross value of sales, by farm business characteristics, 1995**

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 <sup>1</sup>	59,732	570	183,053	196,932
Legal organization: <sup>2</sup>				
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 <sup>3</sup>	46,782	357	178,130	617,858
Marketing contracts <sup>3</sup>	220,993	740	251,172	242,888

<sup>1</sup> Other assets include buildings, equipment, machinery, vehicles, and livestock. <sup>2</sup> Excludes cooperative farms. <sup>3</sup> 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).

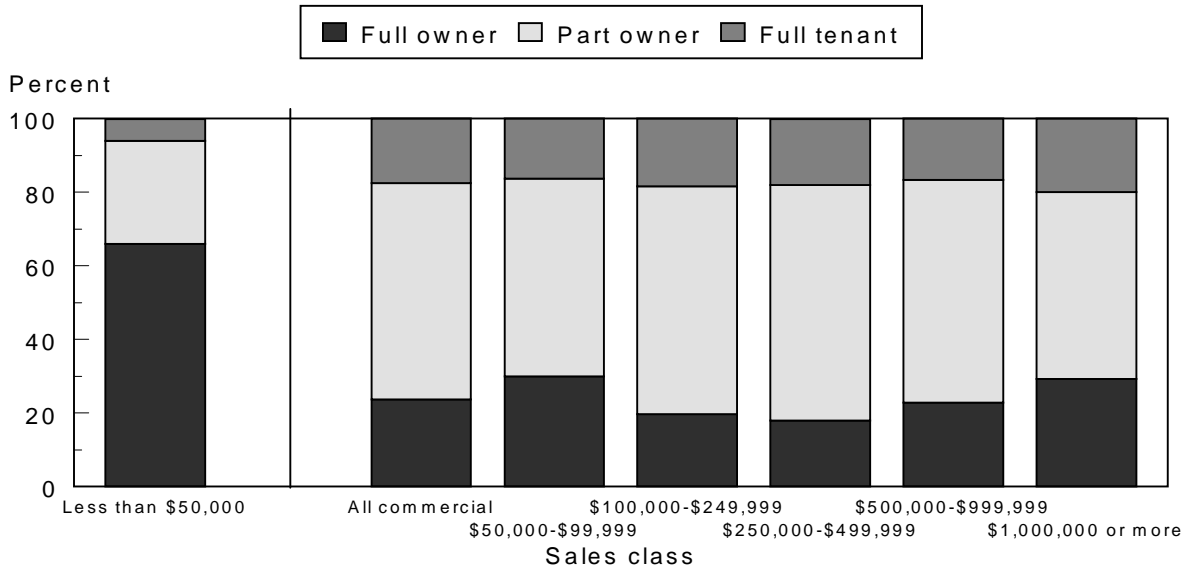
Less than one-fourth of commercial farms were full-owner farms, compared with almost two-thirds of noncommercial farms (fig. 9). Commercial farm operators owned about half the acres they operated, while noncommercial farm operators owned 85 percent of their operated acres (app. table 11). Similarly, 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.*

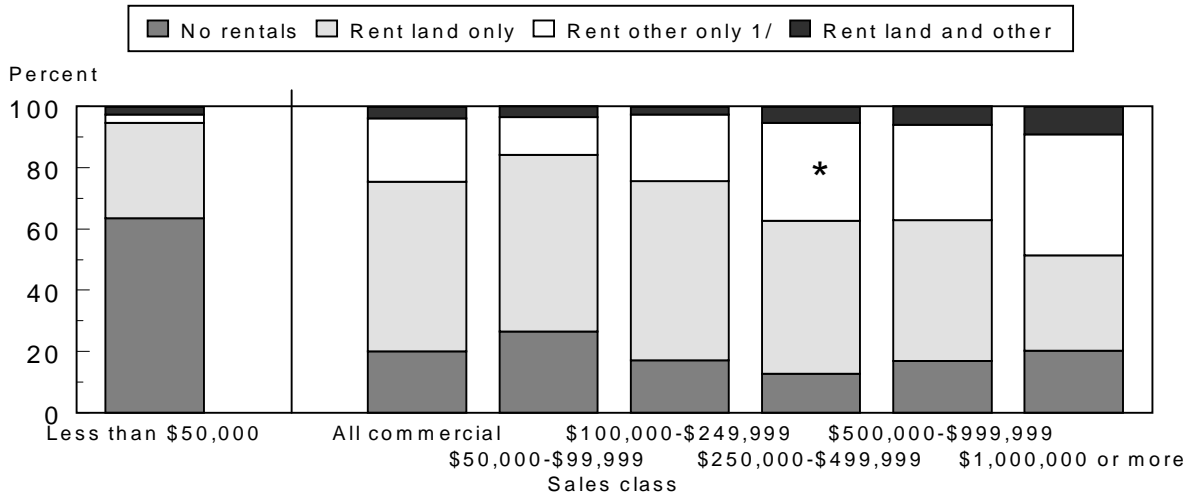


Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study.

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.*



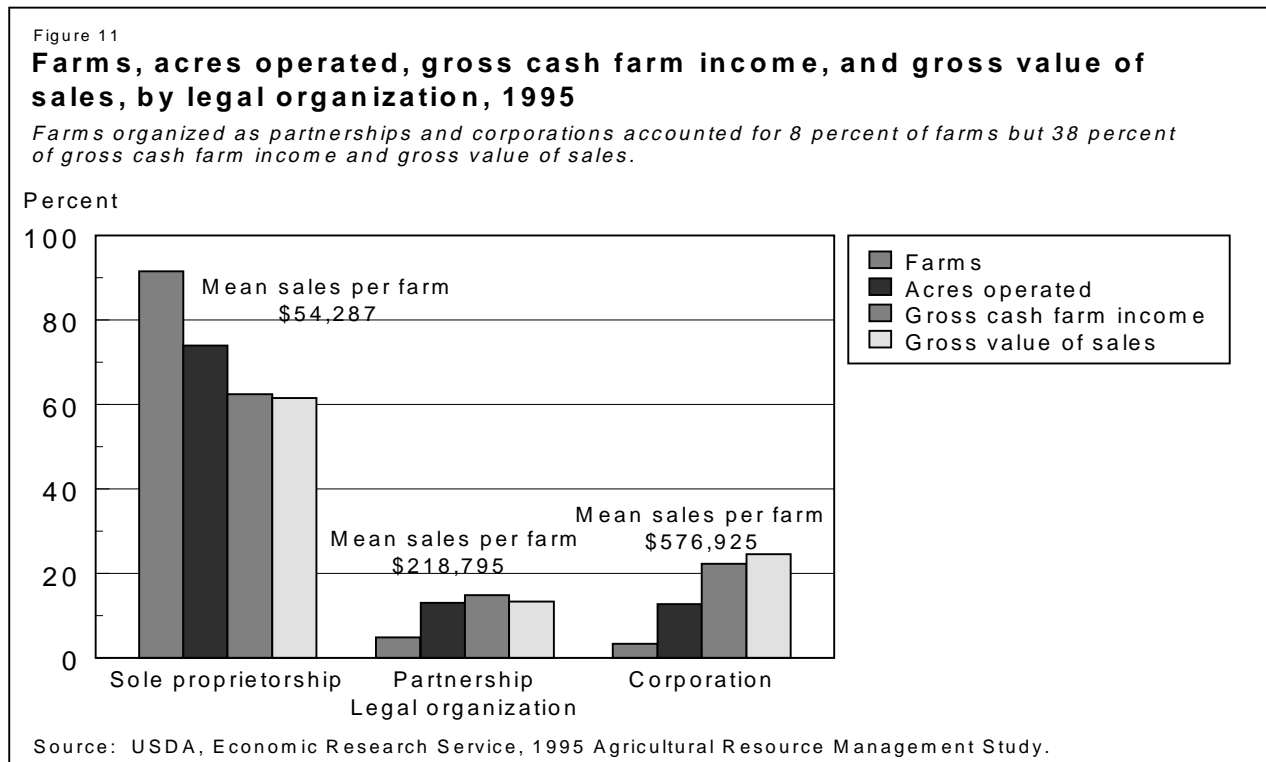
1/ Includes livestock, equipment, buildings, and machinery.

\* 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.

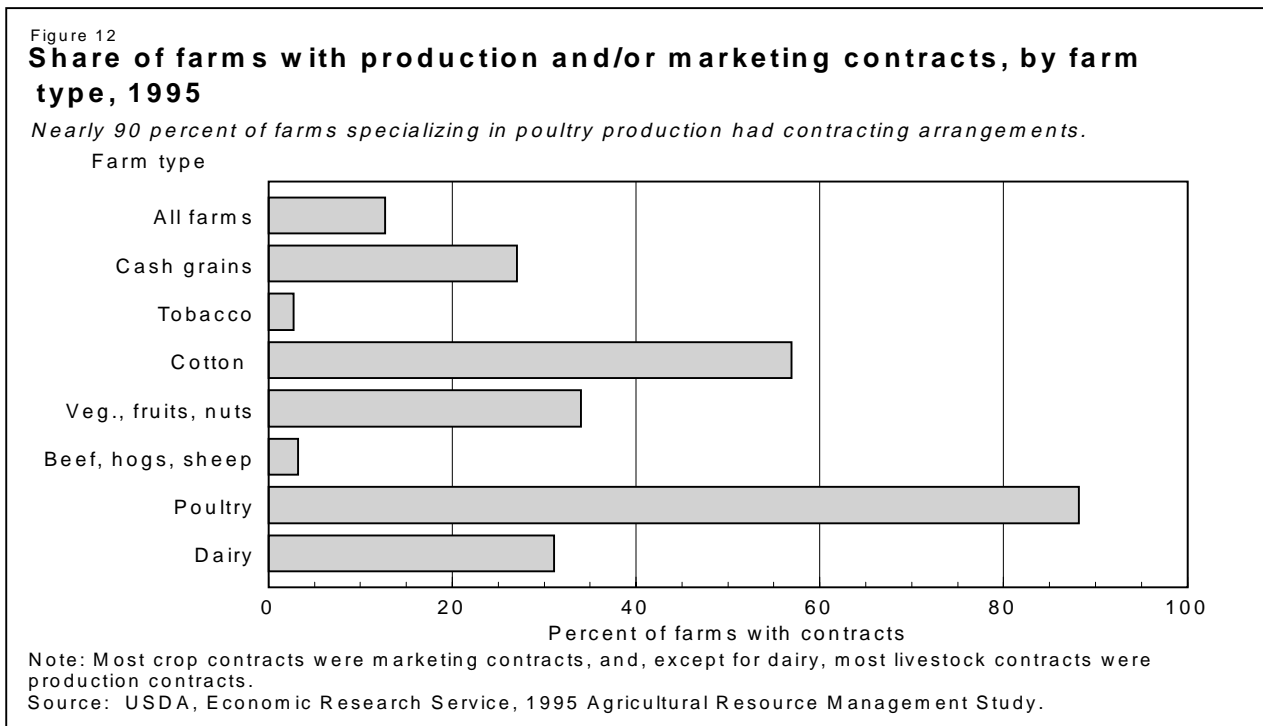
About 3 percent of U.S. farms were classified as corporations, and 86 percent of those corporations were closely held by one or more families. By organizing a farm as a corporation, stockholders may share in the ownership of a business but protect personal assets from liabilities of the business. In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

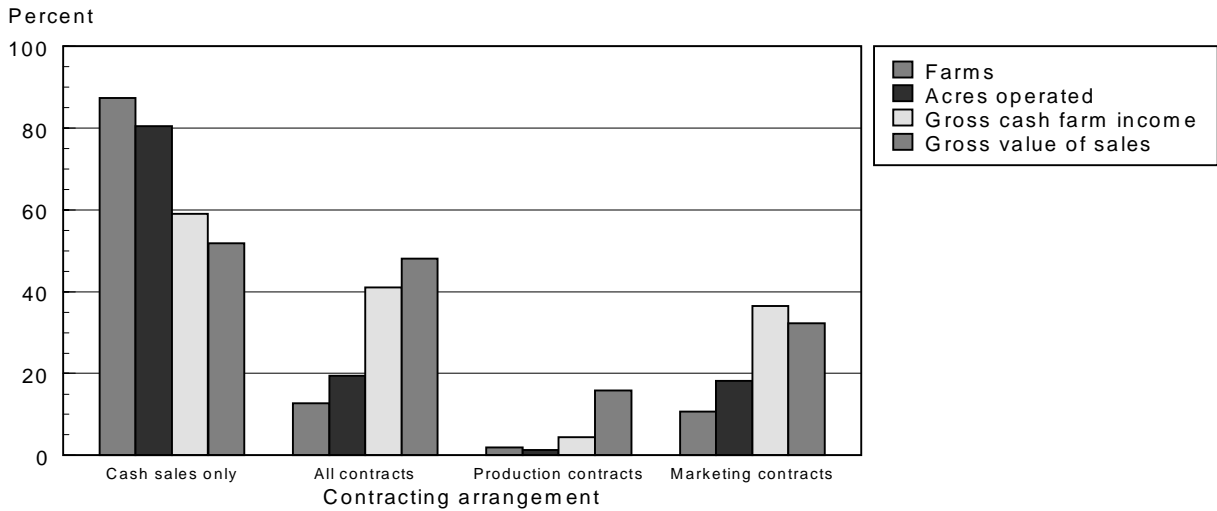
Beef/hog/sheep farms represented the largest share of farms by type, followed by cash grain farms (table 3). While these two farm types were relatively large in terms of acreage (only cotton farms averaged higher acreage), they were low in terms of sales per acre (fig. 14). Farms that produced poultry 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.



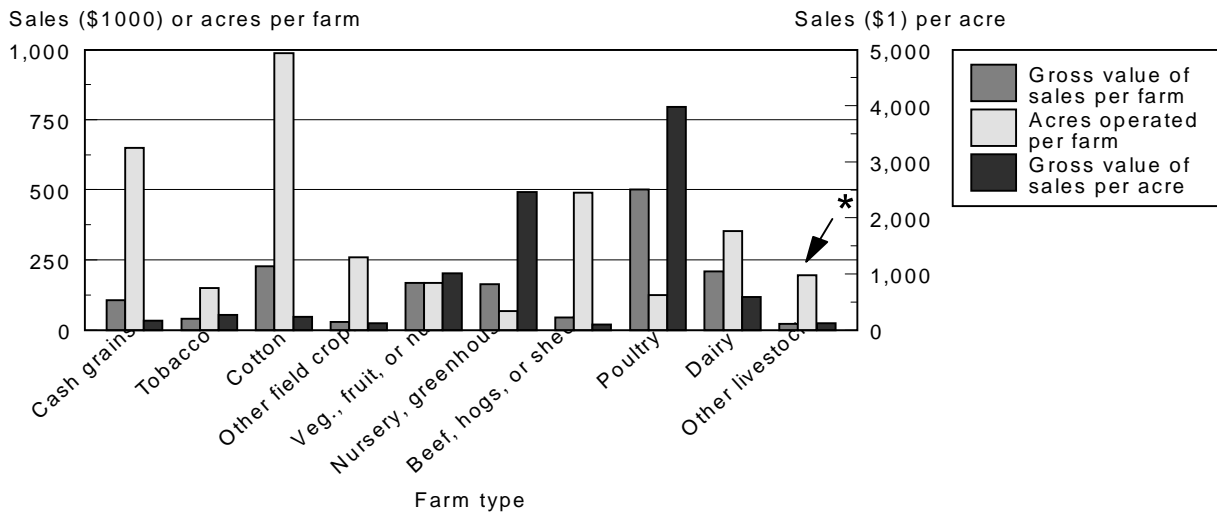
Note: A small share of farms had both production and marketing contracts.

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 <sup>1</sup>				
	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 <sup>2</sup>	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

<sup>1</sup> 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.

<sup>2</sup> 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 <sup>1</sup>				All payment farms <sup>2</sup>
	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 <sup>3</sup>	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

<sup>1</sup> 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.

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

<sup>3</sup> 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). <sup>1</sup> 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

<sup>1</sup> 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 <sup>1</sup>	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: <sup>2</sup>					
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>
<b>Financial position:</b>					
Favorable <sup>3</sup>	1,123,290	422,031	37.6	8,356	7.8
Marginal income <sup>4</sup>	708,994	146,906	20.7	6,579	7.5
Marginal solvency <sup>5</sup>	105,403	65,415	62.1	10,760	5.9
Vulnerable <sup>6</sup>	130,314	48,528	37.2	8,641	6.7
<b>Operator major occupation:</b>					
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
<b>Operator age:</b>					
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
<b>Operator education:</b>					
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

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

<sup>2</sup> Excludes cooperative farms.

<sup>3</sup> Debt-to-asset ratio 0.40 or less and positive net farm income.

<sup>4</sup> Debt-to-asset ratio 0.40 or less and negative net farm income.

<sup>5</sup> Debt-to-asset ratio greater than 0.40 and positive net farm income.

<sup>6</sup> 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.

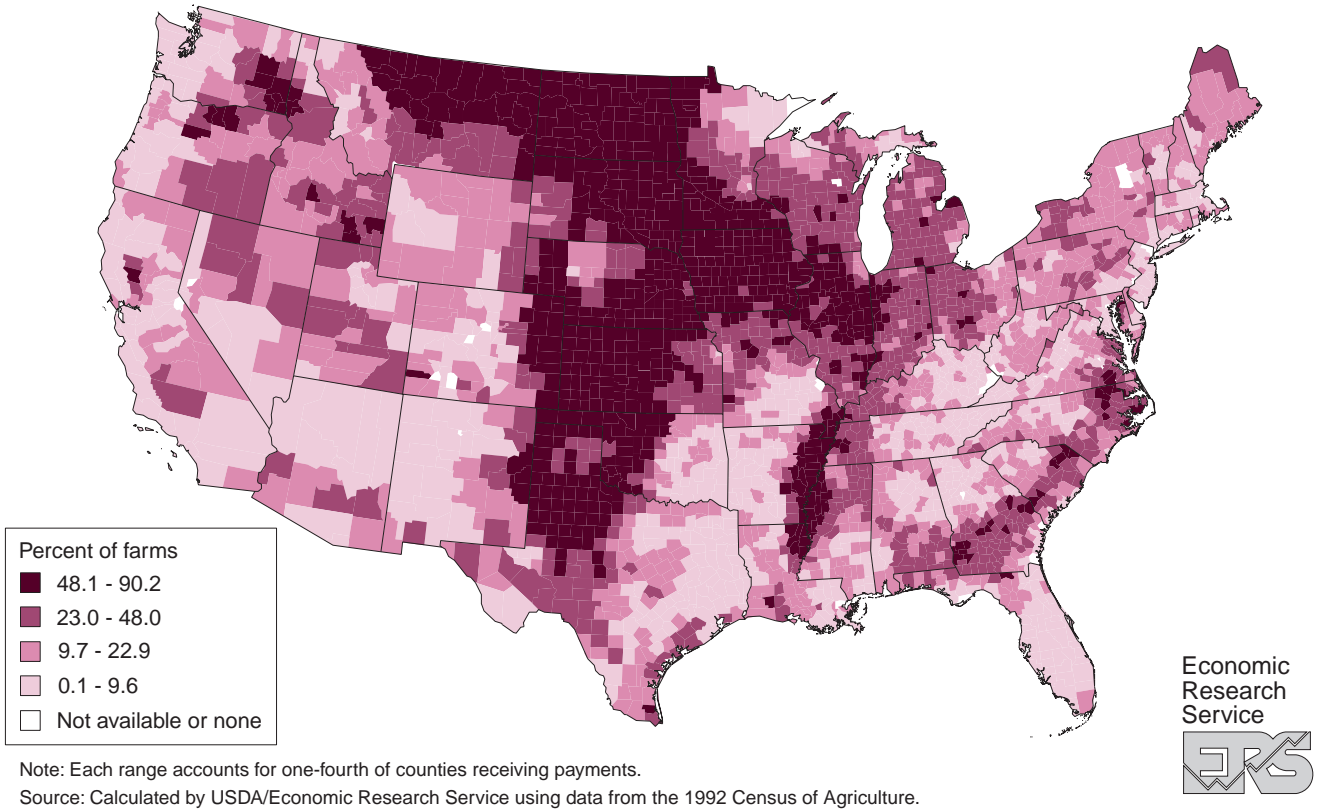
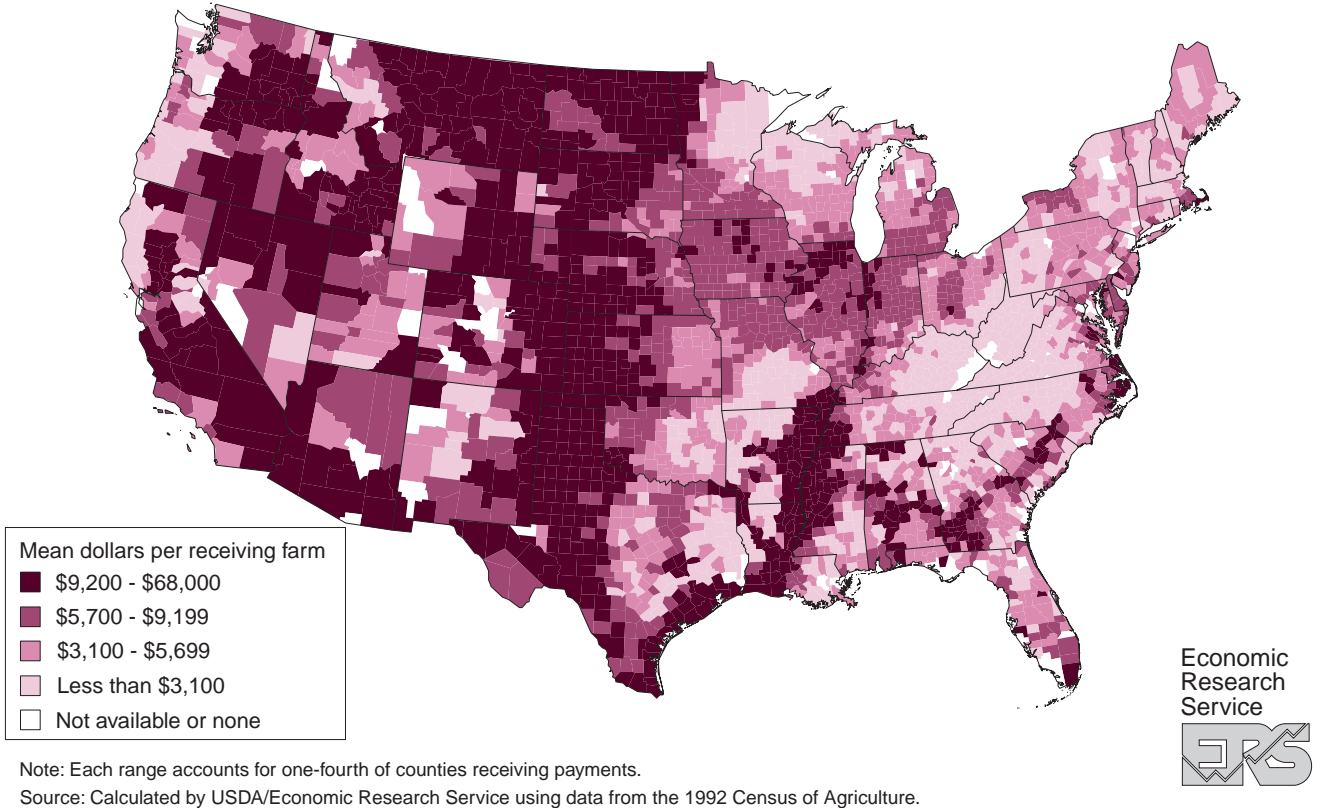


Figure 16

### 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	<sup>a</sup> 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 <sup>1</sup>	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	<sup>b</sup> 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 <sup>2</sup>	52.5	57.8	59.6	63.5	61.7	53.7	54.3
Marginal income <sup>3</sup>	39.1	25.7	19.2	16.4	13.0	14.7	34.4
Marginal solvency <sup>4</sup>	2.6	8.7	13.6	12.8	16.9	21.0	5.1
Vulnerable <sup>5</sup>	5.7	7.7	7.6	7.3	* 8.4	* 10.6	6.2

<sup>1</sup> Excludes real estate purchases.

<sup>2</sup> Debt-to-asset ratio 0.40 or less and positive net farm income.

<sup>3</sup> Debt-to-asset ratio 0.40 or less and negative net farm income.

<sup>4</sup> Debt-to-asset ratio greater than 0.40 and positive net farm income.

<sup>5</sup> 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.

<sup>a</sup> = The RSE is 103 percent.

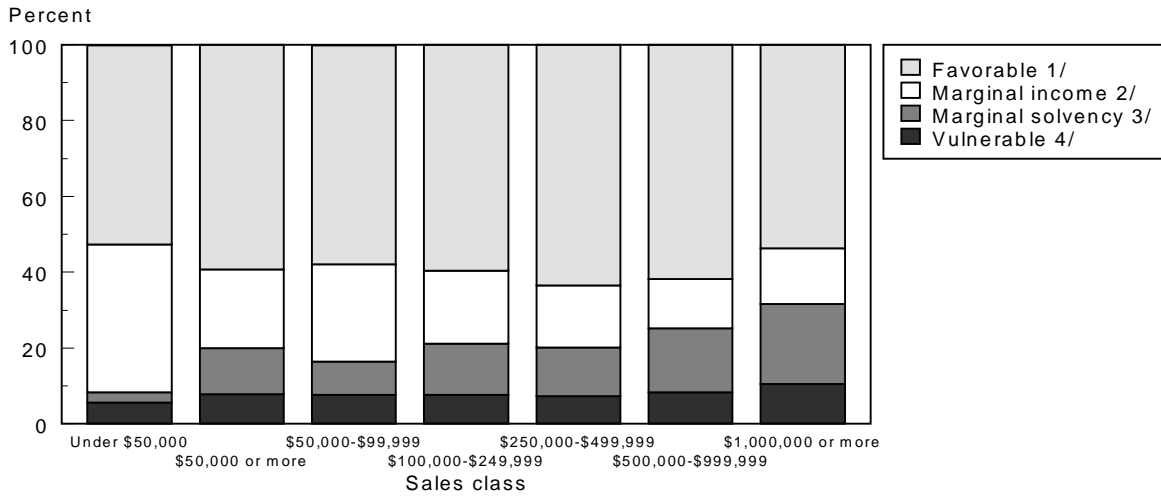
<sup>b</sup> = The RSE is 100 percent.

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.

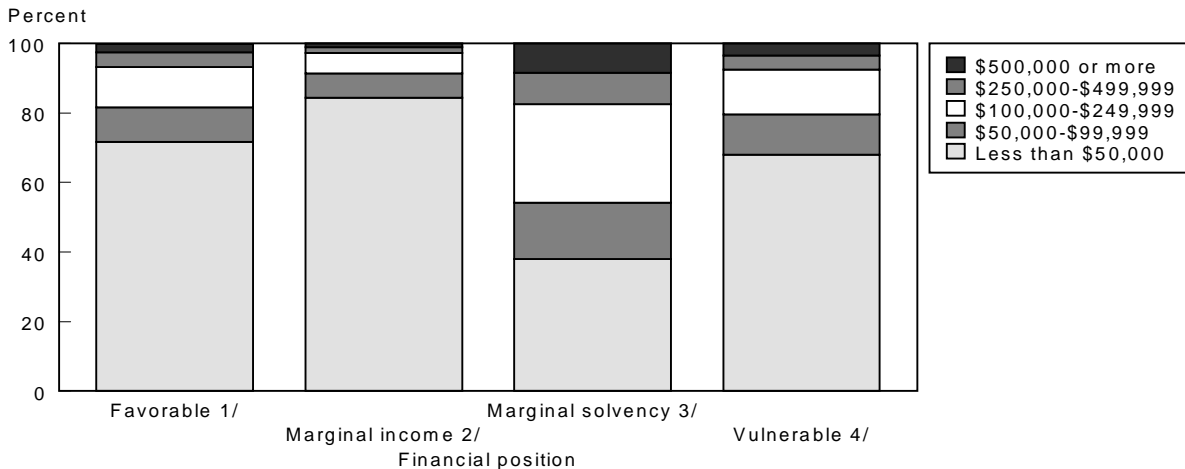
\* The relative standard error exceeds 25 percent but is no more than 50 percent.

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 <sup>1</sup>				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 <sup>2</sup>	53.5	61.1	60.2	55.8	54.3
Marginal income <sup>3</sup>	36.6	17.6	14.7	13.0	34.4
Marginal solvency <sup>4</sup>	3.9	12.7	17.0	* 24.1	5.1
Vulnerable <sup>5</sup>	5.9	8.6	8.1	7.1	6.2

<sup>1</sup> 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. <sup>2</sup> Debt-to-asset ratio 0.40 or less and positive net farm income. <sup>3</sup> Debt-to-asset ratio 0.40 or less and negative net farm income. <sup>4</sup> Debt-to-asset ratio greater than 0.40 and positive net farm income. <sup>5</sup> 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]).<sup>2</sup>

### ***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

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<sup>2</sup> 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 <sup>1</sup>				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 <sup>1</sup>				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 <sup>2</sup>	<sup>2</sup>	100.0
Favorable <sup>3</sup>	53.7	87.7	82.4 <sup>2</sup>	<sup>2</sup>	54.3
Marginal income <sup>4</sup>	35.0	0	0 <sup>2</sup>	<sup>2</sup>	34.4
Marginal solvency <sup>5</sup>	4.9	12.3	17.6 <sup>2</sup>	<sup>2</sup>	5.1
Vulnerable <sup>6</sup>	6.3	0	0 <sup>2</sup>	<sup>2</sup>	6.2

<sup>1</sup> 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.

<sup>2</sup> Data for farms in the third and highest quartiles are combined in order to avoid disclosure. <sup>3</sup> Debt-to-asset ratio 0.40 or less and positive net farm income. <sup>4</sup> Debt-to-asset ratio 0.40 or less and negative net farm income. <sup>5</sup> Debt-to-asset ratio greater than 0.40 and positive net farm income. <sup>6</sup> 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 <sup>1</sup>				All payment farms <sup>2</sup>
	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 <sup>3</sup>	60.7	67.4	57.7	63.2	61.8
Marginal income <sup>4</sup>	23.8	15.1	20.6	13.6	21.5
Marginal solvency <sup>5</sup>	8.8	9.7	13.1	15.3	9.6
Vulnerable <sup>6</sup>	6.7	7.8	8.6	* 7.8	7.1

<sup>1</sup>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. <sup>2</sup> Includes only farms that received at least one Federal, State, or local government payment in 1995. <sup>3</sup> Debt-to-asset ratio 0.40 or less and positive net farm income. <sup>4</sup> Debt-to-asset ratio 0.40 or less and negative net farm income. <sup>5</sup> Debt-to-asset ratio greater than 0.40 and positive net farm income. <sup>6</sup> Debt-to-asset ratio greater than 0.40 and negative net farm income.

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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).<sup>3</sup> 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.

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<sup>3</sup> 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 <sup>1</sup>**

Item	Farms reporting		Farms reporting loan from				
	Lender debt <sup>2</sup>	Guaranteed loan	Farm Credit System <sup>3</sup>	Banks	Merchants and dealers <sup>4</sup>	Other lenders <sup>5</sup>	Farm Service Agency
	<i>Number</i>						
Farms <sup>6</sup>	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 <sup>7</sup>	36.2	2.7	8.9	23.4	3.9	8.5	2.3
Marginal income <sup>8</sup>	54.9	3.7	9.5	34.4	4.5	17.0	3.1
Marginal solvency <sup>9</sup>	96.9	* 18.1	25.3	61.9	7.9	28.2	22.0
Vulnerable <sup>10</sup>	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 <sup>1</sup>--continued**

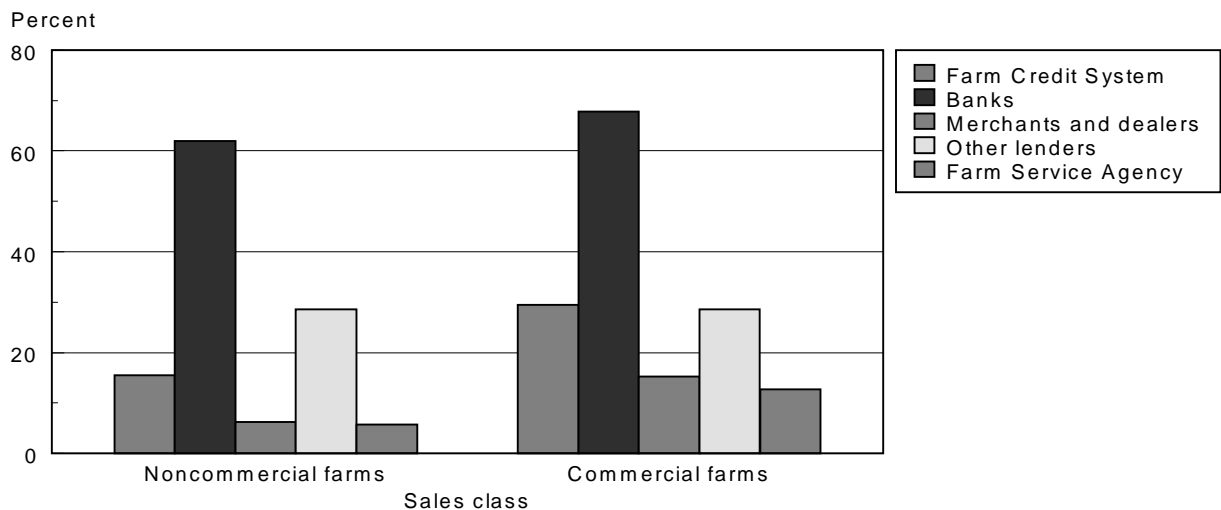
Item	Farms reporting		Farms reporting loan from				
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	<i>Number</i>						
Farms	1,024,894	86,695	214,931	658,550	100,952	293,404	87,586
	<i>Percent of all U.S. farms</i>						
Operator education:							
Less than high school	39.2	* 2.5	7.3	26.1	* 4.2	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

<sup>1</sup> Based on all loans outstanding as of Dec. 31, 1995. <sup>2</sup> Lender debt is not identical to the accounting definition of total debt used in determining farm financial position. <sup>3</sup> 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. <sup>4</sup> Includes input suppliers, cooperatives and other merchants, implement dealers, and financing corporations. <sup>5</sup> Includes life insurance companies, State and county lenders, individuals and other lenders. <sup>6</sup> 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. <sup>7</sup> Debt-to-asset ratio 0.40 or less and positive net farm income. <sup>8</sup> Debt-to-asset ratio 0.40 or less and negative net farm income. <sup>9</sup> Debt-to-asset ratio greater than 0.40 and positive net farm income. <sup>10</sup> 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.

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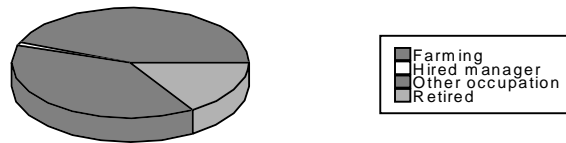
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Figure 20

**Characteristics of farm operators, 1995**

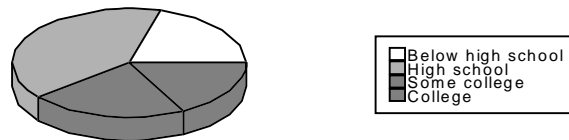
*More than half of farm operators identified their primary occupation as 'other' or 'retired.'*



*About half of farm operators were under 55 years old.*



*Four out of five farm operators had at least a high school education.*



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

**Table 11--Farms, acres operated, gross cash farm income, and gross value of sales, by operator 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
Operator major occupation:				
Farming	905,770	718	132,550	145,591
Hired manager	21,791	* 2,931	654,518	* 778,117
Other occupation	805,134	163	15,951	17,248
Retired	335,305	156	14,251	11,957
Operator age:				
Less than 35 years	171,256	407	82,400	88,668
35 to 44	418,049	467	104,883	118,870
45 to 54	485,732	489	84,488	102,179
55 to 64	474,100	432	67,378	68,300
65 years or older	518,863	367	40,481	38,225
Operator education:				
Less than high school	427,656	238	33,718	35,904
High school	831,251	387	65,507	73,500
Some college	450,334	524	87,391	95,469
College	358,759	665	121,856	131,788

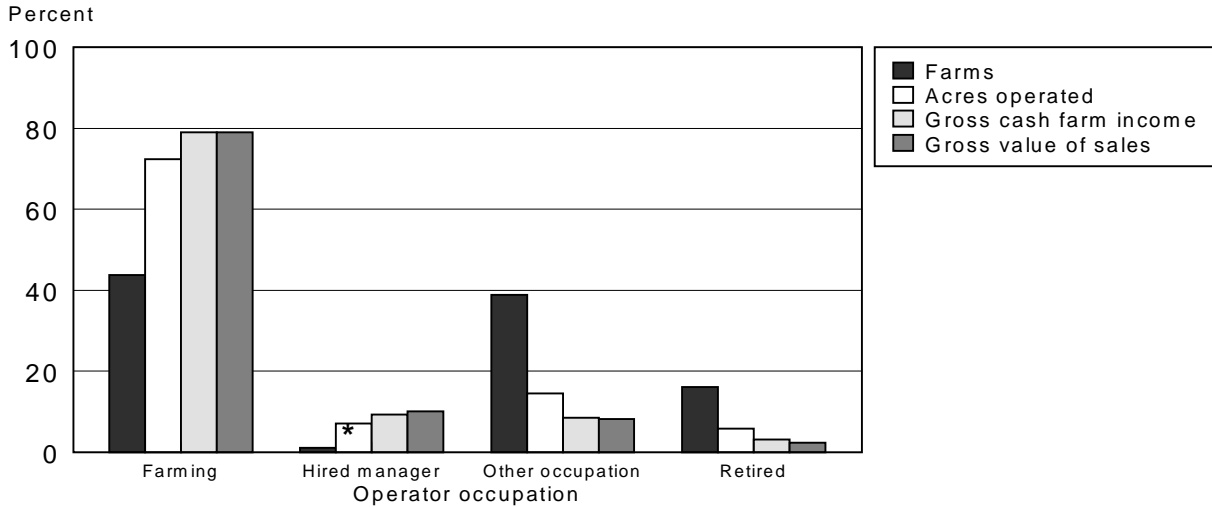
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Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study, all versions.

Figure 21

**Distribution of farms, acres operated, gross cash farm income, and gross value of sales, by operator occupation, 1995**

*Farm operators whose primary occupation is farming accounted for about three-fourths of farm acres, income, and sales*



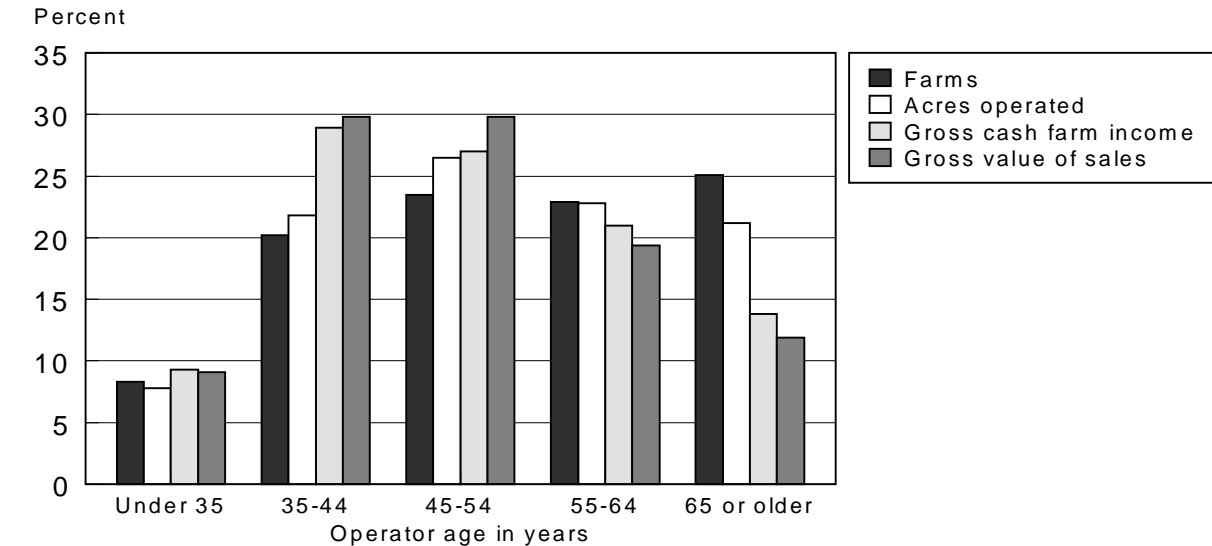
\* The relative standard error exceeds 25 percent but is no more than 50 percent.

Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study, Farm Operator Resources version only.

Figure 22

**Distribution of farms, acres operated, gross cash farm income, and gross value of sales, by operator age, 1995**

*Operators 65 years or older outnumbered those under 35 years by 3 to 1.*



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

Nationwide, operators with the highest average gross cash farm income and sales were those 35 to 44 years old, who averaged more than \$100,000 per farm. However, in the Northeast and Southeast farm production regions, operators under age 35 had higher average sales than the other age groups (app. table 2).

Younger operators were the most likely to use contracting as a risk management strategy. Operators 65 years or older were the least likely to engage in contracting as a risk management strategy and operators under age 45 the most likely (fig. 23). While 13 percent of operators nationwide had production and/or marketing contracts, 6 percent of operators in the oldest age group, compared with 19 percent of operators age 35 to 44 and 17 percent of operators under 35, were contractees.

### Education

Nearly 80 percent of farm operators had at least a high school education and half of those had some college. Of the 20 percent of operators with less than a high school education, nearly half were 65 years or older and thus were more likely to be retired (fig. 24). Operators with less than a high school education had the lowest average farm income and sales of operators grouped by educational attainment, and their farms were the smallest in acreage, on average. In contrast, college-educated operators had the highest average gross cash farm income and gross value of sales as well as the largest acreage, more than half again as large as the U.S. average.

Operators with less than a high school education accounted for half their proportional share of acres operated, farm income, and sales, whereas operators who had completed college accounted for more than their proportional share (fig. 25).

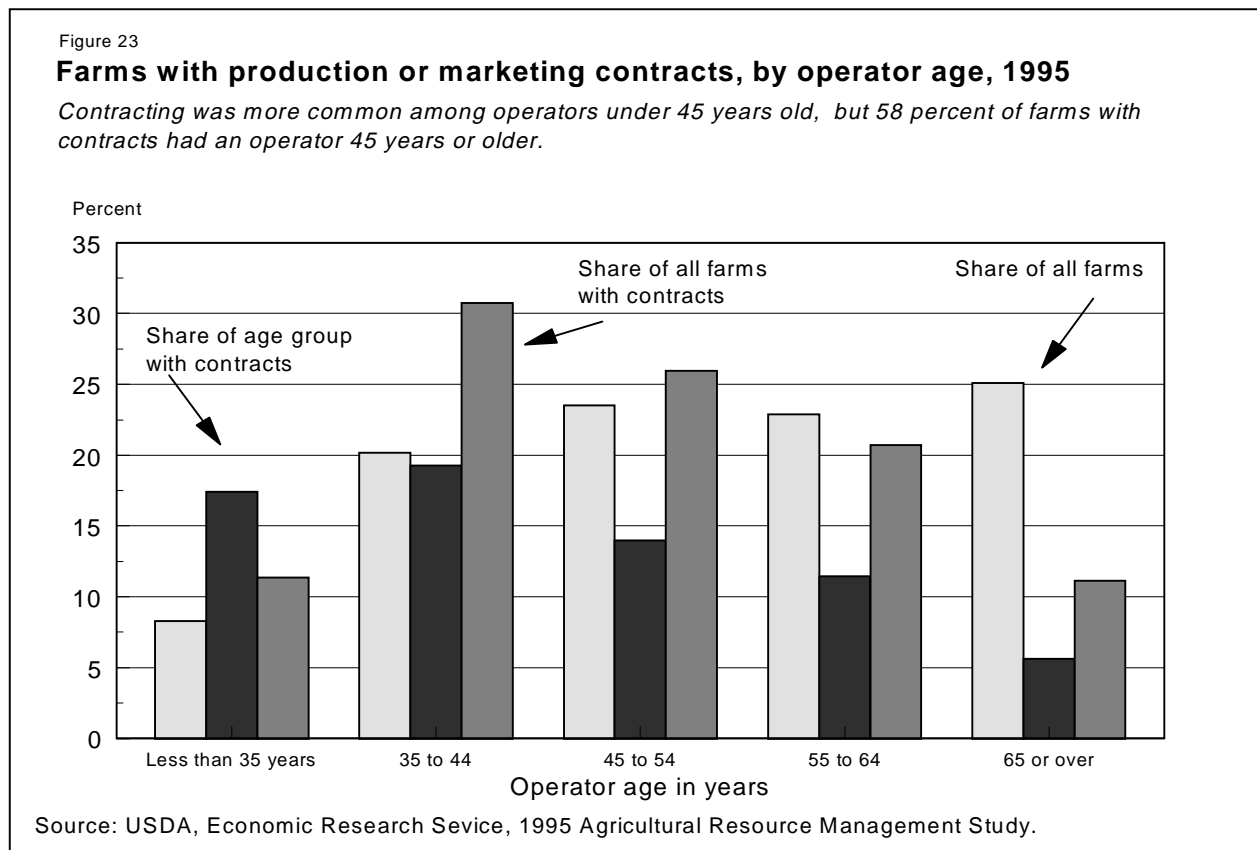
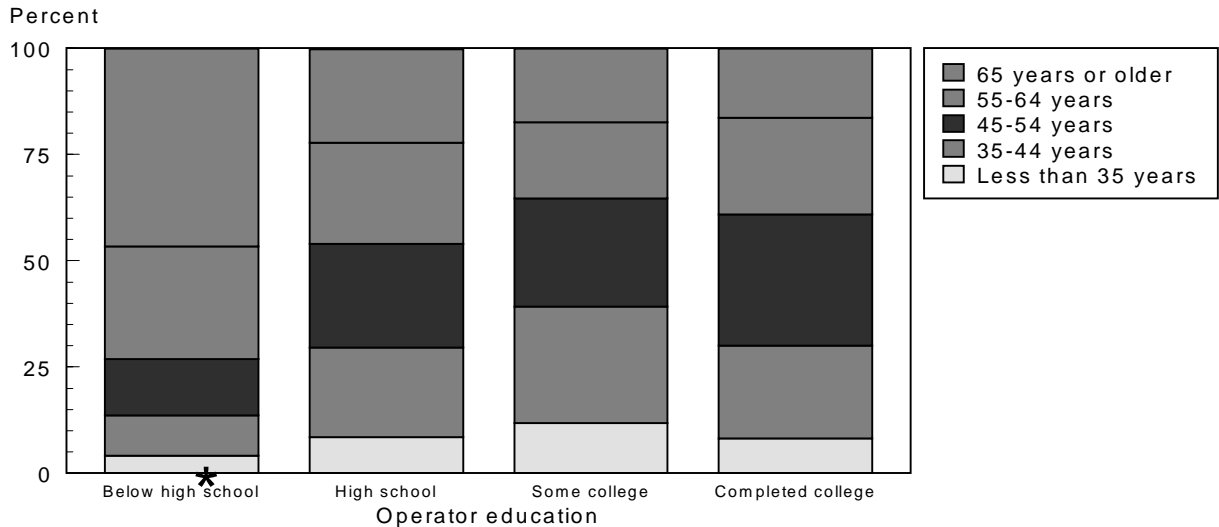


Figure 24

### Age distribution of farm operators, by education level, 1995

*Almost half of farm operators with less than a high school education were at least 65 years old.*

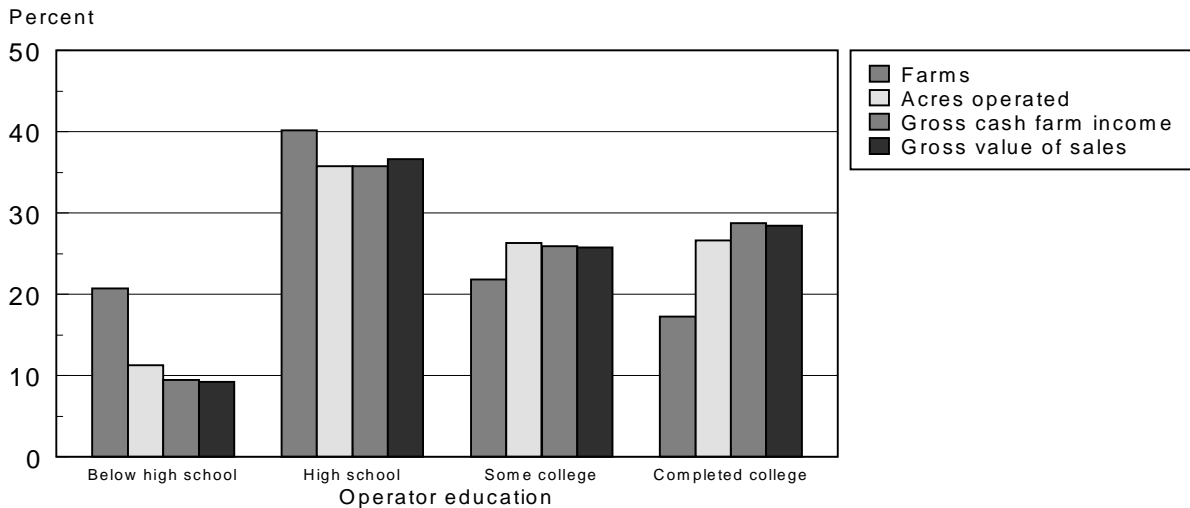


\* The relative standard error exceeds 25 percent but is no more than 50 percent.  
 Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study.

Figure 25

### Distribution of farms, acres operated, gross cash farm income, and gross value of sales, by operator education level, 1995

*Operators who continued their education beyond high school accounted for more than their proportional share of gross farm income and sales.*



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

## Minority Operators

We examine the characteristics of several groups of minority farm operators in order to assess how they differ from the larger population of farmers, because minority operators may be affected disproportionately by policy changes. For example, a proposed change in the census of agriculture definition of a farm from a minimum of \$1,000 of annual sales to a minimum of \$10,000 of annual sales would result in a 47-percent decrease in the number of U.S. farms, but black-operated farms would decrease 76 percent and female-operated farms would decrease by 65 percent.

In this report, the minority status of farm operators is determined by race, ethnicity, or gender. Some operators may be in more than one minority category. For example, a female farm operator may also be black and Hispanic. Given that race, ethnicity, and gender may overlap, but that information released by the Bureau of the Census does not indicate the extent of overlap, calculating a single figure that represents the total number of minority farmers is not possible from census of agriculture data. Instead, we discuss several groups of minority operators separately, and the groups are not mutually exclusive.

Although the ARMS sample includes farms run by minority operators, the small minority sample size presents disclosure problems for analysis with ARMS data. Therefore, in this section, we use data from the census of agriculture. Because the agricultural census collects data for the entire population of farms, census data provide reliable statistics for even very small farm operator minorities across the Nation.

### **Racial Minorities**

According to the 1992 Census of Agriculture, 43,500 farm operators were nonwhite, including 18,800 blacks (table 12). Other nonwhite operators included American Indians (8,300), Asians or Pacific Islanders (8,100), and 'other races' (8,200). Members of these racial groups accounted for 2.3 percent of the 1.9 million farm operators in the United States in 1992.

**Black Farmers.** The number of black farmers peaked at 925,700 in 1920, when they accounted for 14.3 percent of all U.S. farm operators (fig. 26). By 1992, the 18,800 black farmers in the United States accounted for just 1 percent of all farmers.

Some factors that affected the long-term decline in the number of black farmers are (1) the predominance of tenant farming among black operators in the early part of the century, (2) black farmers' historic dependence on cotton, and (3) the small size of black-owned farms [2]. Many tenant farmers lost their opportunity to farm when cotton production was mechanized and relocated to the irrigated West. With cutbacks in cotton production, landowners shifted to commodities that were not as well suited to small-scale sharecropping. For blacks who owned their own farms, the small size of their farms often made adoption of new technology prohibitively expensive.

Farms operated by blacks in 1992 were small relative to other minority groups or the U.S. average. Black-run farms averaged 123 acres and less than \$20,000 per farm in gross sales, compared with the U.S. average of 491 acres and \$84,459 in gross sales. The largest share (35 percent) of black-operated farms was in the \$2,500-\$9,999 sales class, and 12 percent had sales greater than \$25,000, compared with 37 percent of U.S. farms.

The largest specialization for black-run farms was beef cattle (40 percent). Blacks were more likely to specialize in tobacco than the other groups, but tobacco farms accounted for only 10 percent of all farms run by blacks.

Black operators tended to be older than operators in other minority groups and U.S. farm operators in general. Their average age was 59 years, and 38 percent were 65 years old or older. Only 44 percent of black farm operators reported farming as their principal occupation, which is related to black farmers' heavy specialization in beef cattle. Beef cattle production often has relatively flexible labor requirements that fit well with an off-farm job. Approximately 93 percent of black farmers lived in the South.

**Table 12--Selected characteristics of minority operators and their farms, 1992**

Item	Unit	Farms operated by nonwhite racial groups					Hispanic operators <sup>1</sup>	Female operators <sup>2</sup>	All U.S. farms
		Black	American Indian	Asian or Pacific Islander	Other <sup>3</sup>	Total			
Farms	Number	18,816	8,346	8,096	8,229	43,487	20,956	145,156	1,925,300
Share of all U.S. farms	Percent	1.0	0.4	0.4	0.4	2.3	1.1	7.5	100.0
Market value of sales	\$/farm	19,431	49,338	192,156	89,887	70,659	115,200	35,281	84,459
Land per farm	Acres	123	5,791	140	421	1,270	591	309	491
Farms by value of sales:									
Less than \$1,000 <sup>4</sup>	Percent	18.9	18.3	11.7	20.3	17.7	18.4	19.0	11.0
\$1,000 to \$2,499	do.	21.5	15.8	9.7	16.8	17.3	14.8	15.5	10.9
\$2,500 to \$9,999	do.	35.3	30.3	19.5	27.3	29.9	26.6	30.8	25.1
\$10,000 to \$19,999	do.	10.1	11.1	10.7	10.5	10.5	10.3	11.7	12.1
\$20,000 to \$24,999	do.	2.3	3.0	3.4	2.9	2.8	2.9	3.1	3.6
\$25,000 or more	do.	11.9	21.5	45.0	22.2	21.8	27.0	19.8	37.2
Farms by specialization:									
Cash grains	Percent	13.3	8.8	3.1	4.1	8.8	6.7	10.3	21.0
Field crops, except cash grains	do.	18.9	11.4	6.8	11.2	13.8	11.2	13.2	13.0
Cotton	do.	2.6	0.5	0.3	2.6	1.8	2.3	0.6	1.1
Tobacco	do.	10.4	3.3	0.2	0.1	5.2	1.1	5.3	4.7
Other	do.	5.9	7.6	6.3	8.4	6.8	7.8	7.3	7.2
High-value crops <sup>5</sup>	do.	6.5	6.6	75.6	27.5	23.3	23.5	11.6	8.2
General farms, primarily crops	do.	2.8	2.5	1.1	2.5	2.4	2.3	2.5	2.5
Beef cattle, except feed lots	do.	40.0	50.1	6.4	40.0	35.7	38.9	34.0	31.8
Other livestock	do.	17.7	18.7	6.7	13.5	15.0	16.1	26.5	22.1
General farms, primarily livestock	do.	0.9	1.9	0.3	1.2	1.1	1.3	2.0	1.3
Tenure:									
Full owner	do.	61.5	60.4	61.9	61.2	61.3	61.7	77.8	57.7
Part owner	do.	27.6	27.9	13.9	23.8	24.4	25.1	15.0	31.0
Tenant	do.	10.9	11.7	24.2	15.0	14.3	13.2	7.2	11.3
Average age of operator:	Years	59	52	55	51	55	53	58	53
Operator at least 65 years old	Percent	38.0	20.0	29.8	17.3	29.1	21.5	36.0	24.8
Operators by principal occupation:									
Farming	do.	44.0	45.9	62.0	45.7	48.1	49.7	50.6	54.7
Other	do.	56.0	54.1	38.0	54.3	51.9	50.3	49.4	45.3

<sup>1</sup> Hispanic operators may be of any race.

<sup>2</sup> Female operators may be any race or Hispanic or both.

<sup>3</sup> This category is primarily limited to persons native to or of ancestry from Mexico, the Caribbean, and Central and South America.

<sup>4</sup> These are point farms. See Appendix A: Glossary.

<sup>5</sup> Includes farms that specialize in vegetables and melons, fruits and tree nuts, or horticultural specialties.

Source: Economic Research Service, compiled from the 1992 Census of Agriculture.

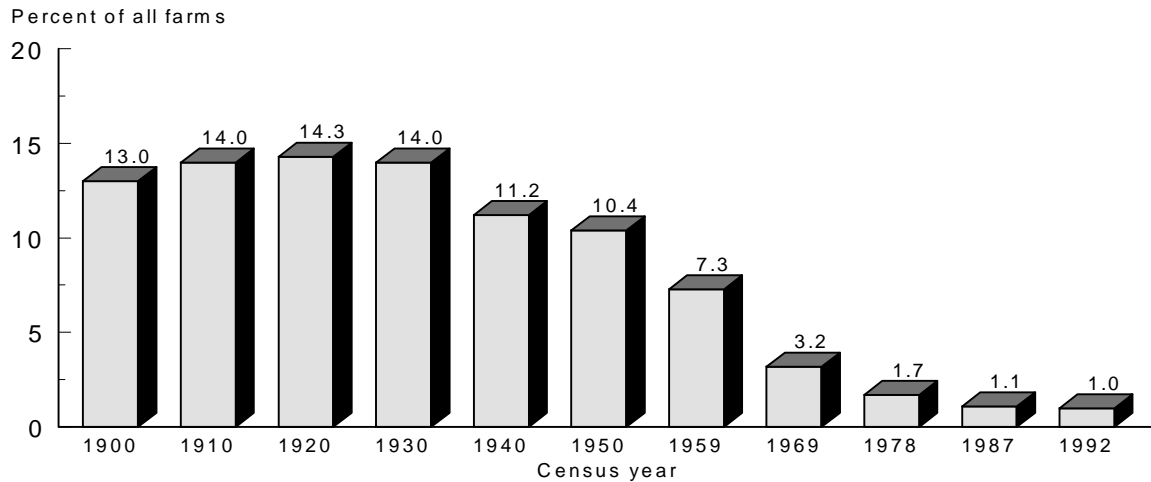
**American Indian Farmers.** The 8,346 farms operated by American Indians in 1992 include reservation-owned farms, which can be extensive. Therefore, in terms of acres, the average Indian-run farm was very large, 5,791 acres. In terms of sales, however, farms run by Indians averaged \$49,300, substantially less than the \$84,500 national average. Barely one farm in five realized sales of \$25,000 or more.



Figure 26

**Share of farms operated by blacks, selected census years, 1910-1992**

*Black-run farms declined from 14 percent of U.S. farms in 1920 to 1 percent in 1992.*



Source: U.S. Dept. of Commerce, Bureau of the Census, Census of Agriculture, various years.

More than 50 percent of American Indian farms specialized in beef cattle production and another 21 percent were highly dependent on some combination of livestock production. Most American Indian operators (81 percent) lived west of the Mississippi River. Oklahoma alone had 2,507 farms operated by American Indian, the largest concentration in the United States. However, North Carolina had 600 American Indian operators (mostly Lumbee), many of whom specialized in tobacco.

American Indian operators, on average, were slightly younger than the U.S. average in 1992. Twenty percent were 65 years or older, compared with 25 percent of all U.S. operators. Forty-six percent of Indian operators reported farming as their principal occupation, about 9 percentage points less than the U.S. average.

**Asian and Pacific Islander Farmers.** Although farms operated by Asians and Pacific Islanders were relatively small in terms of acreage (140 acres, on average), they tended to be large in terms of sales in 1992. These farms averaged \$192,200 in sales, more than double the U.S. average. About 45 percent of farms operated by Asians and Pacific Islanders had sales greater than \$25,000, compared with 37 percent of all U.S. farms.

About three-fourths of farms operated by Asians and Pacific Islanders specialized in high-value crops, which helps explain the high average sales per farm. Four Pacific States--California, Hawaii, Oregon, and Washington--accounted for 84 percent of Asian and Pacific Islander operators. Census of population data suggest that farm operators of Japanese descent were the largest single group among Asian and Pacific Islander farm operators.

Asian and Pacific Islander operators tended to be older than U.S. farm operators in 1992. They averaged 55 years of age, compared with 53 years for all operators, and about 30 percent were at least 65 years of age, compared with 25 percent of all U.S. operators. Asian and Pacific Islanders were more likely to report farming as their major occupation than the other minority groups or U.S. operators in general.

**'Other Races' Farmers.** According to the Census Bureau, the 'other races' category of operators in the census of agriculture "... is primarily limited to persons native to or of ancestry from Mexico, the Caribbean, and Central and South America" [17]. The 'other races' category is largely Hispanics who do not regard themselves as white, black, or American Indian. In 1992, 82 percent of farms in this group were located in California, Colorado, New Mexico, and

Texas. A portion of this group of operators descended from the original settlers who moved from Mexico during the Spanish colonial period. This group has characteristics similar to the total Hispanic group discussed below, but with somewhat smaller operations.

### ***Hispanic Operators***

About 21,000 Hispanics operated farms in the United States in 1992. Some of the Hispanic operators, however, were also included in the nonwhite count, since Hispanics may be of any race.

On average, farms with an Hispanic operator were 20 percent larger than U.S. farms (591 acres v. 491 acres), and their sales were 36 percent higher (\$115,200, on average, v. \$84,459). The share of Hispanic farms with sales of \$25,000 or more was 27 percent, compared with 37 percent for all U.S. farms.

Beef cattle was the most common production specialty (39 percent) of Hispanic farms. Farms that specialized in high-value crops accounted for 24 percent of Hispanic farms, three times the share for all U.S. farms, which helps explain the relatively high sales per farm.

Average age of Hispanic operators was 53 years in 1992, about the same as the U.S. average. However, 22 percent of Hispanic operators were at least 65 years old, less than the 25 percent for all operators. About half of Hispanic operators reported farming as their principal occupation, less than the 55-percent U.S. average. Approximately 72 percent of Hispanic operators lived in five States: California, Colorado, Florida, New Mexico, and Texas.

### ***Female Farm Operators***

Regardless of how many persons share work and responsibility for operating a farm, only one person is designated the operator for census of agriculture and ARMS data collection purposes. In the case of a “traditional family farm” operated by a married couple, historically it has been the male who was usually identified as the operator. Thus, women who had primary responsibility for running farms may have been undercounted.

In 1992, the 145,200 female farm operators in the United States accounted for 7.5 percent of all farm operators, an increase from the 6.3-percent share in 1987. In 1992, their farms were small in terms of acres and sales, compared with U.S. averages. One in five female-operated farms generated sales of \$25,000 or more, compared with more than one in three farms nationwide.

Like operators in other minority groups, female farm operators were highly dependent on sales of livestock, especially beef cattle. Ten percent of female-operated farms specialized in cash grains, compared with 21 percent of all operators. More than three-fourths of female operators were full owners of their farms, the highest share compared with all other minority groupings and all U.S. farms.

Female operators' average age was 58 years in 1992, about 5 years more than the U.S. average. About 36 percent of female operators were at least 65 years old, 11 percentage points higher than the U.S. average. Like Hispanic operators, female operators were evenly divided between farming and other occupations.

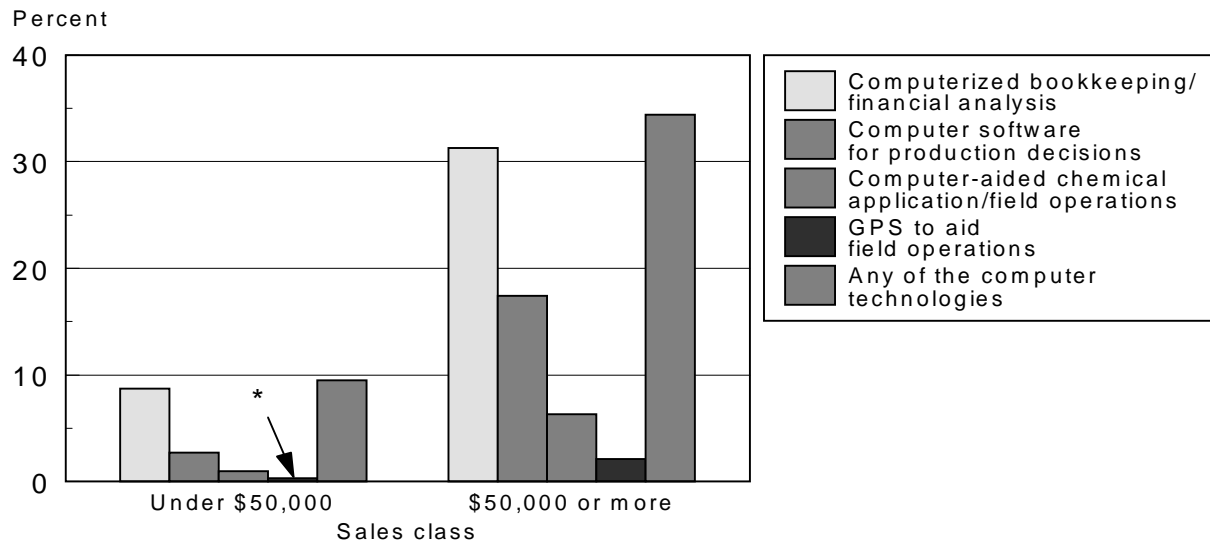
### ***Use of Computer Technology***

At the same time that farming has become more complex and capital-intensive, computer hardware and software have become more user-friendly and affordable. The need for detailed analysis to make financial and production decisions has provided the impetus for farmers to add computer technology to their stock of business tools. In 1995, more than 30 percent of commercial farm operators and nearly 10 percent of noncommercial farm operators used computer applications for some facet of their business (fig. 27).

Figure 27

**Farm operator use of computer technology, by sales class, 1995**

Operators of commercial farms (sales \$50,000 or more) were more likely to use computer technology.



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

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

### **Computerized Bookkeeping and Financial Analysis**

The operator of any business needs to keep accurate, detailed records for such purposes as applying for a bank loan, filing a tax return, and assessing the firm's financial condition. In 1995, nearly one-sixth of all operators of farm businesses, but well over one-half of operators of farms with sales of at least \$500,000, used computers for recordkeeping and financial analysis (table 13). Forty-six percent of farmers of operations organized as corporations and 29 percent of operators of farms organized as partnerships used computers for recordkeeping, compared with 13 percent of operators of individually operated farms. Operators whose farms were in a marginal solvency or vulnerable financial position also showed a high level of computerized recordkeeping, perhaps because those farms tended to be larger or because high levels of debt might require more detailed financial reporting.

Computer usage for bookkeeping was highest among operators whose primary occupation was farming, who were younger, and who were more highly educated. While one in five operators whose principal occupation was farming used computerized recordkeeping, the figure was one in eight for those whose occupation was "other." Twenty percent of operators under 55 used computers for financial records compared with 8 percent of those 55 and over. Finally, compared with the rate of computer usage for recordkeeping for high school graduates (10 percent), the rate was double for those who had some college (20 percent), and triple for those who completed college (33 percent).

### **Computer-Assisted Production Decisions**

About half as many operators used computer software to help make production decisions as used computers for recordkeeping (6.5 percent v. 14.6 percent), but the pattern of usage based on farm and operator characteristics was similar. Software usage for analyzing production choices increased with farm size, and farms organized as corporations used software more than partnerships or sole proprietorships. Farms in a marginal solvency or vulnerable financial position (debt-to-asset ratio greater than 0.40, regardless of net farm income) used computers in production decisionmaking more often than farms with lower debt-to-asset ratios. In like manner, operators whose primary occupation was farming, who were younger, and who were more highly educated were more likely to get information from analysis based on computer software.

**Table 13--Farm operator use of computer technology, by selected characteristics, 1995**

Item	Computerized bookkeeping/ financial analysis	Computer software for production decisions	Computer-aided chemical application/ field operations	Global Positioning System to aid field operations
	<i>Number</i>			
Farms using technology	290,485	129,947	47,540	15,611
Farms responding <sup>1</sup>	1,995,056	1,996,115	1,995,644	1,995,946
	<i>Percent of responding farms</i>			
Farms using technology	14.6	6.5	2.4	0.8
Sales class:				
Less than \$50,000	8.7	2.7	1.0	* 0.3
\$50,000 or more	31.3	17.4	6.3	2.1
\$50,000 - \$99,999	20.1	11.5	* 3.7	** 1.6
\$100,000 - \$249,999	31.6	16.3	5.3	* 1.4
\$250,000 - \$499,999	43.5	22.7	10.5	3.7
\$500,000 - \$999,999	54.2	35.3	14.6	6.2
\$1,000,000 or more	71.2	51.6	20.3	* 4.2
Type of farm:				
Cash grains	21.8	11.7	6.6	2.0
Tobacco	* 1.0	* 1.0	* 0.1	0.0
Cotton	21.5	* 9.7	d	d
Other field crops	10.5	* 4.0	* 1.5	* 0.9
Vegetables, fruits, or tree nuts	25.4	11.0	d	d
Nursery or greenhouse	23.2	* 11.0	** 1.3	0.0
Beef, hogs, or sheep	11.0	3.7	0.8	** 0.4
Poultry	* 10.7	* 2.6	** 0.3	0.0
Dairy	23.1	13.2	3.4	* 0.3
Other livestock	* 13.2	* 8.6	d	d
Legal organization: <sup>2</sup>				
Sole proprietorship	12.9	5.6	2.1	0.6
Partnership	29.1	13.8	5.3	** 2.6
Corporation	46.0	25.0	7.9	* 3.1
Farm financial position:				
Favorable <sup>3</sup>	13.8	5.7	2.5	0.8
Marginal income <sup>4</sup>	12.8	6.3	1.6	* 0.6
Marginal solvency <sup>5</sup>	24.8	11.3	4.1	** 1.2
Vulnerable <sup>6</sup>	21.5	10.4	* 3.7	** 1.1
Operator major occupation:				
Farming	19.7	10.4	3.7	1.0
Other occupation	12.2	4.4	* 1.4	* 0.5
Retired	* 6.1	** 0.9	** 1.1	** 0.8
Operator age:				
Less than 35 years	21.3	11.4	5.3	* 1.8
35 to 44	23.3	12.2	2.9	* 0.9
45 to 54	17.4	7.0	2.5	* 0.5
55 to 64	11.6	4.7	1.9	* 0.9
65 years or older	5.4	1.5	* 1.3	** 0.5

See footnotes at end of table.

Continued--

**Table 13--Farm operator use of computer technology, by selected characteristics, 1995--continued**

Item	Computerized bookkeeping/ financial analysis	Computer software for production decisions	Computer-aided chemical application/ field operations	Global Positioning System to aid field operations
	<i>Number</i>			
Farms using technology	290,485	129,947	47,540	15,611
Farms responding <sup>1</sup>	1,995,056	1,996,115	1,995,644	1,995,946
	<i>Percent of responding farms</i>			
Operator education:				
Less than high school	2.5	* 1.5	* 0.8	** 0.1
High school	9.6	4.1	1.5	* 0.5
Some college	20.2	9.1	3.8	* 1.4
College	33.3	14.8	4.5	* 1.4

<sup>1</sup> About 3.5 percent of farm operators refused to answer these questions.

<sup>2</sup> Excludes cooperative farms.

<sup>3</sup> Debt-to-asset ratio 0.40 or less and positive net farm income.

<sup>4</sup> Debt-to-asset ratio 0.40 or less and negative net farm income.

<sup>5</sup> Debt-to-asset ratio greater than 0.40 and positive net farm income.

<sup>6</sup> 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 no 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.

\*\* = The relative standard error of the estimate exceeds 50 percent, but is no more than 75 percent.

d = Data insufficient for disclosure.

Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study, Farm Operator Resources version only.

### ***Computer-Aided Chemical Application and Field Operations***

Farmers and ranchers may use computers to track information--such as crop yield, soil composition, moisture level and nutrient content, and pest infestation--in order to plan the application of chemicals and other field operations and to evaluate the results. Careful monitoring of the elements underlying agricultural production is sometimes referred to as 'precision farming,' and it is intended to enhance financial results as well as address ecological concerns.

A relatively small number of farmers (fewer than 50,000 operators) used such tracking systems in 1995. Nevertheless, the survey results show that, in general, the higher the farm sales, the more likely the operator would use such a system. In addition, farm operators who identified their primary occupation as farming, who were younger and had more education, and who operated farms organized as corporations or partnerships relied more than other operators on computer aids for field operations.

### ***Global Positioning Systems***

Global positioning systems (GPS) use satellite transmissions to determine the latitude and longitude of any location on earth. Measurements taken at various locations can be mapped to provide a profile of a farm or field, for example, fertility, moisture content, or crop yield. Other datasets can be merged with the mapped data to calculate elevations, evaluate runoff patterns, or estimate irrigation needs. With GPS, information can be plotted so that every square foot of a field can have a customized cropping plan tailored to specific needs. Thus, with GPS, farmers have the ability to practice "precision farming."

Because the technology was new and relatively expensive, few operators (less than 1 percent) used GPS in 1995. Although survey results were generally inconclusive with regard to the characteristics of farms or operators employing GPS, commercial farms, especially those with sales of \$250,000 - \$999,999, appeared more likely than noncommercial farms to have begun using GPS.

## Characteristics of Farm Operator Households

Farm operator households are the households associated with family-owned farms, and include all persons either living in the operator's dwelling or living elsewhere but dependent on the operator household for support (for example, a student away at college). Family-owned farms accounted for 98 percent of all farms in 1995. Most were legally organized as sole proprietorships, but 8 percent were family-owned partnerships or corporations (table 14).

Although more than one family may share in an operation's net farm income and more than one person may have managerial responsibility, only one person is designated as the operator (the person who makes most of the day-to-day decisions about the farm business), and only the operator's household is surveyed for ARMS data collection.

### Farm Operator Household Income

Household income is one indicator of economic well-being. The Current Population Survey (CPS) of the Bureau of the Census is the source of official income statistics for all U.S. households. Since farm households account for just 2 million households out of nearly 100 million total U.S. households, national figures are dominated by nonfarm households.

The CPS does not publish a separate income figure for farm households. Therefore, ERS uses methodology consistent with CPS income concepts to estimate farm operator household income from ARMS data. Thus, we can compare the ARMS average farm household income estimate with the CPS average income for all U.S. households.

Comparison of various segments of the population provides a measure of their relative well-being. On average, farm operator households in 1995 had income from all sources that was similar to income for all U.S. households, near \$45,000. However, 13 percent of farm operator households had total household income below \$5,000, compared with 4 percent of all U.S. households (fig. 28).

Earnings from farming activities accounted for 11 percent of that income, but most farm household income came from off-farm sources, including 53 percent from wages and salaries earned by working at off-farm jobs and 13 percent from off-farm business income (fig. 29).

### *Income Estimation*

Farm operator household income is composed of three major components: (1) the operator's farm self-employment income, (2) other farm-related earnings of the household, and (3) household earnings from off-farm sources. The CPS definition of farm self-employment income is net money income from the operation of a farm by a person on his or her own account, as an owner, renter, or sharecropper. Income includes any income received as cash, but excludes in-kind receipts. However, the CPS definition departs from a strictly cash concept by deducting depreciation, a noncash business expense, from self-employment income.

Thus, earnings of the operator household from farming activities may not measure all the resources the farm business provides to the farm household to cover household expenses. For example, additional sources of cash for living expenses may be (1) some part of depreciation expense that is not actually spent on capital replacement during the year; (2) nonmoney income, such as the rental value of a farm-owned dwelling, that frees cash income for other spending; or (3) an increase in inventory that could be sold for cash as needed.

Earnings of the household from farming activities averaged \$4,270 per operator household in 1995, well below the \$11,218 in average net cash farm income. Most of the difference is due to subtracting the allowance for depreciation in order to be consistent with CPS methodology.

For further discussion of farm household income estimation, see Appendix C.

**Table 14--Farm operator household income, by selected characteristics, 1995**

Item	Households	Mean household income	Share from off-farm sources <sup>1</sup>	Percent of U.S. average household income <sup>2</sup>
	<i>Number</i>	<i>Dollars</i>	<i>Percent</i>	<i>Percent</i>
All farm operator households <sup>3</sup>	2,036,810	44,392	89.4	98.8
Sales class:				
Less than \$50,000	1,514,542	39,814	108.5	88.6
\$50,000 or more	522,268	57,667	51.1	128.3
\$50,000 - \$99,999	192,476	33,367	87.9	74.3
\$100,000 - \$249,999	215,375	47,093	62.2	104.8
\$250,000 - \$499,999	71,674	72,307	40.5	160.9
\$500,000 or more	42,743	195,825	16.0	435.8
Type of farm:				
Cash grains	383,554	48,922	73.7	108.9
Other crops	468,177	53,476	79.5	119.0
Beef, hogs, or sheep	947,190	37,605	108.5	83.7
Dairy	121,506	47,707	47.8	106.2
Other livestock	116,383	44,695	109.0	99.5
Legal organization:				
Sole proprietorship	1,880,516	42,354	93.3	94.2
Partnership	100,226	64,387	68.0	143.3
Family corporation	56,067	76,978	49.5	171.3
Farm production region:				
Northeast	135,899	44,583	91.0	99.2
Lake States	220,451	41,427	87.0	92.2
Corn Belt	412,522	46,049	85.2	102.5
Northern Plains	180,989	39,148	73.9	87.1
Appalachian	295,109	40,416	94.3	89.9
Southeast	150,529	48,724	96.9	108.4
Delta	109,622	37,532	101.7	83.5
Southern Plains	270,893	42,853	100.1	95.4
Mountain	111,797	42,133	89.2	93.8
Pacific	148,997	63,421	80.1	141.1
Farm operator household farm dependency category: <sup>4</sup>				
Positive household income and--				
Loss from farming	999,623	42,147	na	93.8
0-24 percent from farming	378,881	56,635	na	126.0
25-49 percent from farming	146,731	46,179	na	102.8
50-74 percent from farming	130,372	53,267	na	118.5
75 percent or more from farming	210,872	85,559	na	190.4
Negative household income	170,331	-28,968	na	nc

<sup>1</sup> Off-farm income can be more than 100 percent of total household income, if farm income is negative.

<sup>2</sup> Mean operator household income divided by 1995 U.S. mean household income (\$44,938).

<sup>3</sup> Excludes operator households associated with farms organized as nonfamily corporations and cooperatives and farms with a hired manager.

<sup>4</sup> Farm dependency is based on total operator household income and share of household income from earnings from farming activities.

na = Not applicable.

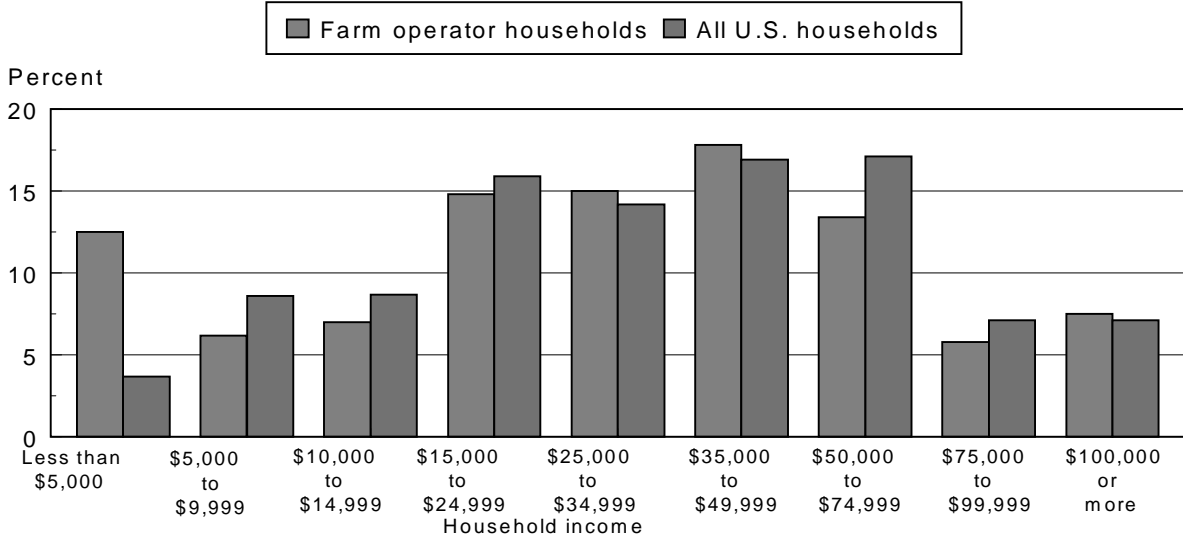
nc = Not calculated.

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

Figure 28

**Distribution of farm households and all U.S. households, by total household income, 1995**

*Farm households and households in general had similar income distributions, except that a much larger share of farm operator households was in the lowest income category.*

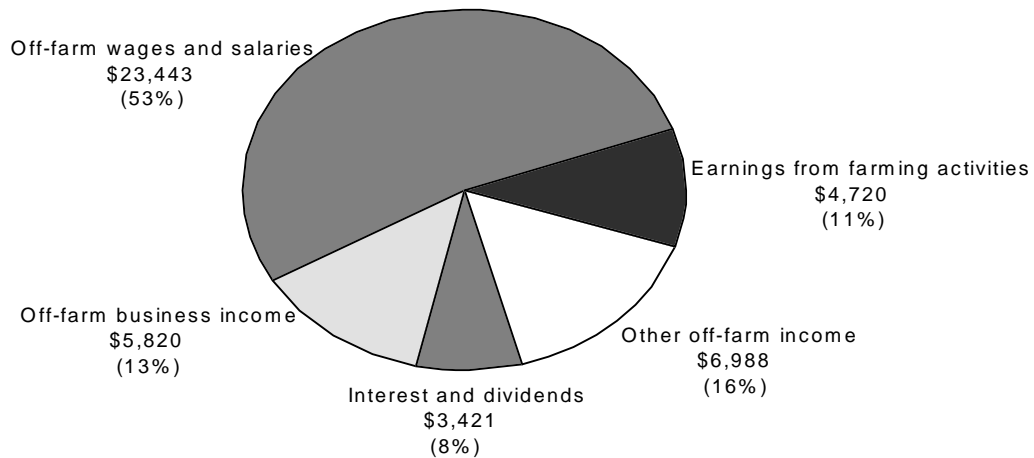


Source: Calculated by ERS using data from the 1995 Agricultural Resource Management Study and the Bureau of the Census Current Population Survey.

Figure 29

**Sources of income for average farm operator household, 1995**

*Average farm operator household income (\$44,392) was about equal to the average U.S. household income (\$44,938). Earnings from farming activities averaged 11 percent of total farm household income.*



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



## Farm Characteristics

Operator households grouped by characteristics of their farms show variation from national averages. For example, average income for all farm households does not accurately portray the situation of households associated with farms that produce the bulk of U.S. agricultural commodities--that is, commercial farms. The national average is heavily weighted by the very large number of noncommercial farms, many of which have negative earnings from farming activities and which are too small to support a family.

In contrast to the national average, earnings from farming activities for the average commercial farm household (gross farm sales \$50,000 or more) accounted for 49 percent of household income (fig. 30). Not only was total income for the average commercial farm household one-fourth higher than average total income for all farm households (\$57,667 v. \$44,392), but earnings from farming activities were six times higher.

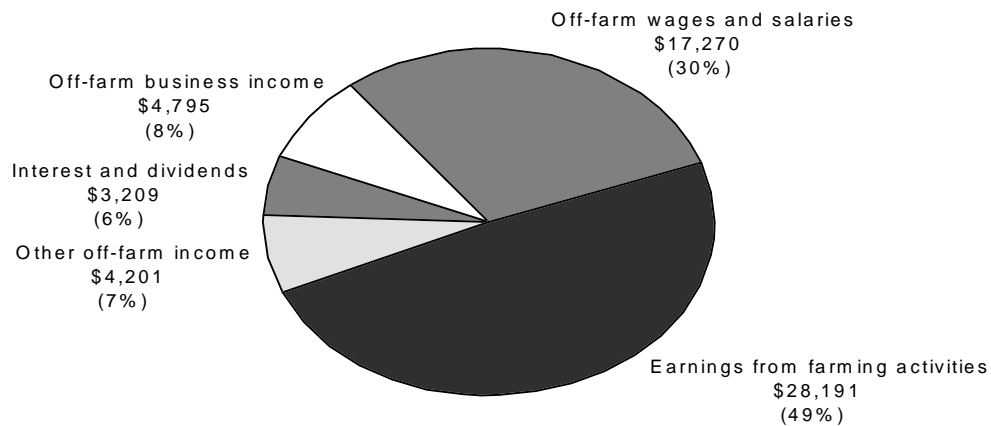
Partly because the average earnings from farming activities were negative for noncommercial farm households, their average total household income was 11 percent below the U.S. average household income. Considering off-farm income alone, noncommercial farm household income averaged 96 percent of the average income for all U.S. households. Commercial farm households, on the other hand, had average total income 28 percent higher than the average U.S. household.

Variation by sales class further illuminates the contrast between incomes of commercial and noncommercial farm households. In general, as sales class increased, average household income increased and farm income went from a drain on family income (negative farm income) to the primary source of family income (fig. 31). At the high end, average household income for operators of farms with sales of \$500,000 or more was more than four times the average U.S. household income, and 84 percent of that income came from farming. Although the absolute value of off-farm income was about the same for all commercial farm sales classes (just under \$30,000), farm income increased and therefore the dependence on off-farm income decreased as farm sales increased.

Figure 30

### Sources of income for average commercial farm operator household, 1995

Average commercial farm operator household income (\$57,667) was 28 percent higher than the average U.S. household income (\$44,938). Earnings from farming activities averaged 53 percent of total farm household income.

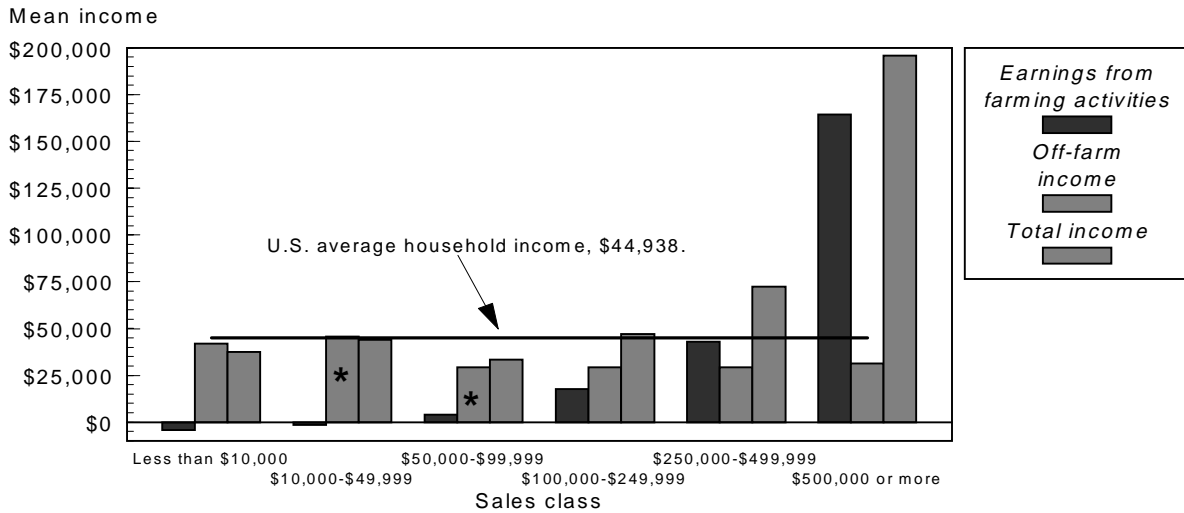


Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study.

Figure 31

### Sources of farm operator household income, by sales class, 1995

*On average, the households of small farms were very dependent on off-farm income, while the households of larger farms depended mostly on earnings from farming activities.*



\* The relative standard error exceeds 25 percent but is no more than 50 percent.  
 Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study.

The decision to produce a commodity may impose some limits on the ability to pursue off-farm employment and income. For example, households associated with dairy farms had average income similar to “other livestock” producers. However, less than half of average dairy farm household income came from off-farm sources, compared with a net loss from farming and considerable off-farm income for “other livestock” producers. The difference may be primarily the time constraint imposed by dairy production, and the compatibility of other kinds of livestock production with part-time farming.

Although 57 percent of farm operator households realized a net loss from operation of their farms, farming had a positive effect on household income for 43 percent of operator households. For those households, income from the farm along with off-farm income provided a total income as high as, or in many cases higher than, the U.S. average. The operator households most dependent on the income generated by their farm businesses, those that took in 75 percent or more of their total household income from farming activities, had average income of \$85,559, almost twice as high as the average for all U.S. households.

Operator households of farms legally organized as corporations or partnerships were more likely to be dependent on the income from the farm businesses. Forty-one percent of households associated with incorporated farms and 30 percent of households associated with farm partnerships received at least half of their total household income from the farm, compared with 15 percent of businesses organized as sole proprietorships (app. table 6).

### Operator Characteristics

Grouping farm operator households by operator characteristics showed that operators who had a primary occupation outside of farming and who were not “retired,” who were in the 35-64 age range, and who had some years of schooling beyond high school had generally higher incomes than the average U.S. household (table 15).

**Table 15--Farm operator household income, by farm operator characteristics, 1995**

Item	Households	Mean household income	Share from off-farm sources <sup>1</sup>	Percent of U.S. average household income <sup>2</sup>
	<i>Number</i>	<i>Dollars</i>	<i>Percent</i>	<i>Percent</i>
All farm operator households <sup>3</sup>	2,036,810	44,392	89.4	98.8
Operator major occupation:				
Farming	903,820	40,342	64.8	89.8
Other occupation	797,718	53,425	108.9	118.9
Retired	335,272	33,815	94.9	75.2
Operator age:				
Less than 35 years	168,825	32,506	93.4	72.3
35 to 44	407,345	47,266	89.3	105.2
45 to 54	476,807	51,953	91.6	115.6
55 to 64	469,052	50,421	87.7	112.2
65 years or older	514,780	33,518	87.2	74.6
Operator education:				
Less than high school	425,612	30,173	94.4	67.1
High school	819,087	41,479	87.3	92.3
Some college	443,374	48,726	85.8	108.4
College	348,736	63,075	93.1	140.4

<sup>1</sup> Off-farm income can be more than 100 percent of total household income, if farm income is negative.

<sup>2</sup> Mean operator household income divided by 1995 U.S. mean household income (\$44,938).

<sup>3</sup> Excludes operator households associated with farms organized as nonfamily corporations and cooperatives, and farms with a hired manager.

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

Less than half of operators associated with family farms (sole proprietorships, partnerships, and closely held family corporations) described their major occupation as farming and those households received, on average, about one-third of their household income from the farm business. Still, average income for these operator households was 10 percent below the U.S. average.

Households of operators with a major occupation as “other” or “retired” were the least dependent on farm income, with “other” operator households averaging a loss (negative income) from farming and “retired” operator households averaging 5 percent of total household income from the farm. Government payments (which include CRP payments) were an important addition to the farm income of “retired” operators, providing 12 percent of gross cash farm income, compared with 6 percent for “other” and 3.5 percent for those who were primarily farmers (app. table 9).

Nevertheless, average income for the “retired” group was 25 percent below the U.S. average household, while the “other” occupation group averaged income 19 percent higher. Because the “other” households had relatively high off-farm income that more than covered the loss from farming, but the “retired” group had low farm income to add to relatively low off-farm income, the “other” households were, on average, better off financially than the “retired.”

Although dependence on off-farm income did not vary by age, households of operators under 35 years and 65 or older were relatively worse off in terms of income than the U.S. average household, while the rest of operator households were somewhat better off. Dependence on income from farming did vary by education level with the most and least educated operators showing the least dependence on farm income. Still, the addition of farm income brought total household income only up to an average \$30,173 (67 percent of the average for all households) for households of operators who did not finish high school, but up to \$63,075 (40 percent higher than the U.S. average) for households where the operator completed college or beyond.

Households of black farm operators had household income that was not quite half the U.S. average, and these households were highly dependent on off-farm income. Black farm operator households accounted for about 2 percent of all farm households in 1995, and Hispanic farm operator households accounted for 1 percent.

### **Distribution by Value of Production**

Grouping farm operator households by total value of production of their farms allows us to compare farm families that are highly committed, both professionally and financially, to businesses engaged in agricultural production with those whose association is less intense. Farm businesses run by operator households accounted for 98.5 percent of all U.S. farms and their farms produced 85 percent of the total value of production (table 16). However, some 225,000 farm operator households (11 percent of all farm households) made up the three highest quartiles of operator households ranked by their farms' total value of production, and they controlled farm businesses that accounted for 60 percent of the total U.S. value of production in 1995.

With 61 percent of farm households in the lowest quartile realizing a net loss from farming, average earnings from farming activities were negative for the group. In contrast, two-thirds or more of farms in the upper three quartiles realized positive earnings from farming activities, with average earnings from farming activities ranging from \$26,193 to \$419,502. Thus, earnings from farming activities for the lowest quartile represented a drain on household income, while earnings from farming activities added to total operator household income for households in the three highest quartiles.

Although off-farm income for the lowest quartile of farm households was near the average for all farm households, total household income was lower. Average operator household income for the lowest quartile was also below the average for all U.S. households. On the other hand, average household income for the three upper quartiles was above the U.S. average, reaching 10 times as high for the highest quartile.

Household dependence on earnings from the farm generally increased as farm size increased. Large shares of households (40 to 67 percent) in the upper three quartiles were highly dependent (75 percent or more of total household income) on income realized from their farm businesses, compared with a small share (6 percent) of highly farm-dependent households in the lowest quartile.

More than 90 percent of operators in the upper three quartiles identified farming as their major occupation, and their farm work hours constituted nearly 1.5 times a full-time-equivalent off-farm job. Operator spouses in the upper three quartiles were also more involved in the farm business, averaging more than twice as many hours on farm work as spouses in the lowest quartile.

Because of the tremendous investment required to engage in large-scale farming, many families share the costs and returns of the business enterprise with other households. In 1995, nearly one-third of households in the third and highest quartiles shared assets, debt, and income with other households. Such financial sharing was far less likely for households in the lowest quartile.

**Table 16--Selected farm operator household characteristics, by total value of production, 1995**

Item	Household farms by value-of-production quartile <sup>1,2</sup>				Nonhousehold farms	All
	Lowest	Second	Third	Highest		
	<i>Number</i>					
All farms	1,811,534	168,347	50,510	6,418	31,190	2,068,000
	<i>Percent</i>					
Share of all farms	87.6	8.1	2.4	0.3	1.5	100.0
Share of total value of production	24.6	24.2	22.7	14.0	14.5	100.0
Share of all farm assets	65.5	15.9	8.9	2.9	6.8	100.0
	<i>Number</i>					
Farm operator households	1,811,534	168,347	50,510	6,418	na	2,036,810
	<i>Percent</i>					
Share of all operator households	88.9	8.3	2.5	0.3	na	100.0
	<i>Dollars per operator household</i>					
Earnings from farming activities	* -1,093	26,193	88,952	419,502	na	4,720
Earnings from off-farm sources	40,480	34,503	27,674	41,361	na	39,671
Total operator household income	39,387	60,696	116,626	460,863	na	44,392
	<i>Percent</i>					
Share of operator household income from farming activities <sup>3</sup>	* -2.8	43.2	76.3	91.0	na	10.6
Farm operator household farm dependency category: <sup>4</sup>						
Positive household income and--						
Loss from farming	54.1	9.2	6.6	d	na	49.1
0-24 percent from farming	20.0	8.4	3.4	d	na	18.6
25-49 percent from farming	7.2	8.0	6.9	d	na	7.2
50-74 percent from farming	5.2	17.1	14.3	d	na	6.4
75 percent or more from farming	6.2	39.5	53.5	67.1	na	10.4
Negative household income	7.3	17.8	15.4	12.9	na	8.4
Average operator household income compared with average income for all U.S. households <sup>5</sup>	87.6	135.1	259.5	1,025.6	na	98.8
Operator major occupation:						
Farming	38.4	91.6	95.4	95.0	* 6.3	43.8
Hired manager	na	na	na	na	69.9	1.1
Other occupation	43.3	7.0	* 3.1	d	d	38.9
Retired	18.3	d	d	d	d	16.2

See footnotes at end of table.

Continued--

**Table 16--Selected farm operator household characteristics, by total value of production, 1995--continued**

Item	Household farms by value-of-production quartile <sup>1,2</sup>				Nonhousehold farms	All
	Lowest	Second	Third	Highest		
	<i>Number</i>					
All farms	1,811,534	168,347	50,510	6,418	31,190	2,068,000
	<i>Hours per farm</i>					
Hours worked on farm by:						
Operator	1,452	3,071	2,991	2,895	1,420	1,626
Spouse <sup>6</sup>	321	810	627	726	178	368
	<i>Percent</i>					
Operator households that share:						
Farm income	5.1	16.3	30.1	32.2	na	6.8
Farm assets	5.4	17.4	30.7	34.4	na	7.1
Farm debt	2.9	12.9	26.9	31.8	na	4.4
	<i>Dollars per operator household</i>					
Operator household net worth <sup>7</sup>	318,259	622,964	986,169	2,306,213	na	366,271
Farm net worth	258,125	563,290	898,835	2,147,528	na	305,190
Nonfarm net worth	60,134	59,675	87,335	158,685	na	61,081

<sup>1</sup> Household farms are closely held (legally controlled) by operators and their households.

<sup>2</sup> Quartiles are made up of the minimum number of all U.S. farms (ranked from lowest to highest) required to account for 25 percent of total U.S. value of production. Thus, 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.

<sup>3</sup> Share of income from farming activities may be a negative percentage, if earnings from farming activities is negative.

<sup>4</sup> Farm dependency is based on total operator household income and share of household income from earnings from farming activities.

<sup>5</sup> Mean operator household income divided by 1995 U.S. mean household income (\$44,938).

<sup>6</sup> Spousal hours are distinguished from all household labor hours only on the Farm Operator Resources version of the survey.

<sup>7</sup> Includes only the operator household's share of farm net worth.

\* = The relative standard error (RSE) of the estimate exceeds 25 percent, but is no 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.

na = Not applicable.

d = Data insufficient for disclosure.

Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study, all versions except as noted in footnote 6.

## Appendix A: Glossary

**Acreage class** - a structural indicator of farm size based on acres operated. The five acreage classes generally used in this report are: 1-49 acres, 50-179 acres, 180-499 acres, 500-999 acres, and 1,000 acres or more. See also **acres operated** and **agricultural structure**.

**Acres operated** - all farmland under a given operating arrangement, regardless of location, for which the operator made day-to-day decisions. Includes land that is owned by the operation, plus land rented in, less land rented out, plus land that is used part of the year and rented out during another part of the year. Rental may be for cash, for a share of production, or free-of-charge. Excludes land rented in on an animal-unit-month (AUM) basis.

**Agricultural structure** - a concept that can be freely defined as characteristics and patterns that describe the participants in agricultural production, including farm businesses, farm operators, and farm households. For example, farms may be described by average size (acres or sales), sales class, form of legal organization, type of production, geographic location, and financial position. Farm operators and operator households may be described by age, education, and dependence on off-farm income. These are just some of the descriptors that may be included in a list of components of agricultural structure. Structural indicators are used in analyses such as tracking changes in farms and farming over time, and assessing the impact of changes in farm programs and policies.

**Capital investments** - total operator expenditures during the reporting year for depreciable items such as vehicles, machinery and equipment, buildings and improvements, and breeding stock. Excludes real estate purchases.

**Cash expenses** - variable expenses for livestock purchases, feed, veterinary services and supplies, other livestock-related expenses, seed and plants, fertilizer and chemicals, labor, fuels and oils, repairs and maintenance, machine-hire and custom work, utilities, and other variable expenses, as well as fixed expenses including real estate and property taxes, interest, insurance, and rent and lease payments.

**Commercial farms** - farms with gross value of sales of \$50,000 or more during the year. Commercial farms are often divided into five sales classes. See also **sales class**.

**Contracting arrangement** - indicates whether any of the commodities making up the operation's gross value of sales were produced or sold under contract. A contract is generally a written, legally binding agreement between two or more parties. The contracting arrangement may be: (1) no contracts (cash sales only), (2) production contract(s) with or without cash sales, (3) marketing contract(s) with or without cash sales, or (4) some combination of (2) and (3). See also **production contract** and **marketing contract**.

**Crop sales** - gross cash income from all crops sold from the farm or ranch during the calendar year. Includes sales of crops under marketing contracts. Also includes net Commodity Credit Corporation (CCC) loans (value of crops placed under CCC loan during the year less the value of CCC loans repaid). Payments received in the current year for crops produced in previous years are included. A component of gross cash farm income.

**Earnings of the operator household from farming activities** - a measure of the farming component of operator household income based on methodology used by the Bureau of the Census using the Current Population Survey (CPS) to estimate income of self-employed people. The CPS estimate includes only cash income, not in-kind or nonmoney income, but subtracts depreciation, a noncash expense. Although earnings from farming activities may not include some resources available to the household from the farm business, it allows comparison of average total income of farm households to average income of all U.S. households. Household earnings from farming activities are calculated as the operator household's share of adjusted farm business income (100 percent if other households do not share the farm business income) plus (1) wages paid to the operator by the farm business, and (2) other farm-related earnings, which include wages paid to other household members by the farm business and income from any other farm business. For additional explanation, see Appendix C: Measuring Farm Operator Household Income. See also **farm operator household income**.

**Earnings of the operator household from off-farm sources** - off-farm wages and salaries of all household members, plus the net income of any nonfarm businesses, interest and dividends, rental income from all properties (including farmland rented out), and all other cash off-farm income of household members. See also **farm operator household income**.

**Equity** - the difference between farm assets and farm liabilities.

**Family farm** - a farm that is closely held by one or more households, generally including the operator's household. A family farm may be a sole proprietorship, partnership, or family corporation. Farms that are **not** family farms are farms operated by a hired manager and farms organized as nonfamily corporations or cooperatives. See also **farm legal organization**.

**Farm** - any establishment from which \$1,000 or more of agricultural products were sold or normally would have been sold during the year under consideration. See also **point farm** and **family farm**.

**Farm assets** - estimated market value of all physical and financial assets owned by the farm operation on December 31 of the survey year. Assets include items such as land and buildings, farm share of vehicles, machinery and equipment, and livestock, and production inputs on hand, as well as cash, CD's, and savings or checking accounts.

**Farm household** - see **farm operator household** and **family farm**.

**Farm income** - see **gross cash farm income**, **gross farm income**, **net cash farm income**, **net farm income**, **earnings of the operator household from farming activities**, or **earnings of the operator household from off-farm sources**.

**Farmland** - all cropland, farmstead land, government program land, idle land, orchards, pasture, wasteland, wetland, and woodland. See also **acres operated**.

**Farm legal organization** - identifies the legal status of the farm operation. A farm may be a sole proprietorship, a legal partnership, a family-held corporation, a nonfamily corporation, or a cooperative. Because so few cooperatives were sampled, cooperative farms were not included in tabulations pertaining to legal organization. See also **family farm**.

**Farm liabilities** - total amount of debt owed by the farm or ranch on December 31 of the reporting year. Includes outstanding principal plus unpaid interest owed to any banks, individuals, co-ops, merchants, or Federal agencies.

**Farm operator** - the person who makes most of the day-to-day decisions about the farm, regardless of whether or not others share management responsibility. Thus, for the ARMS as for the census of agriculture, the number of farm operators equals the number of farms.

**Farm operator household** - all persons living in the house with the operator of a farm organized as a sole proprietorship, partnership, or family corporation. Also includes persons dependent on the household for support even though living elsewhere, such as a student at college. Farm operator households exclude households associated with farms organized as nonfamily corporations or cooperatives, as well as households where the operator is a hired manager. Thus, the number of farm households counted by the ARMS equals the number of farms organized as sole proprietorships, partnerships, or family corporations.

**Farm operator household farm dependency category** - the ratio of earnings from farming activities to total operator household income. Indicates the importance of earnings from farming activities to total household income. Farms with a positive household income despite a loss from farming earn sufficient off-farm income to cover farm losses. Farms with a negative household income usually have farm losses that exceed off-farm earnings.



**Farm operator household income** - the sum of earnings of the operator household from farming activities and earnings from all off-farm sources received by household members in the reporting year. Estimating total household income allows income comparisons between farm households and all U.S. households. Both earnings from farming activities and earnings from off-farm sources may be negative.

**Farm production regions** - 10 multi-State areas in the contiguous 48 States that are somewhat homogeneous with respect to agriculture. Alaska and Hawaii are not surveyed for the ARMS and are excluded from this report. The States that make up the 10 farm production regions are:

- *Northeast*: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont
- *Lake States*: Michigan, Minnesota, Wisconsin
- *Corn Belt*: Illinois, Indiana, Iowa, Missouri, Ohio
- *Northern Plains*: Kansas, Nebraska, North Dakota, South Dakota
- *Appalachian*: Kentucky, North Carolina, Tennessee, Virginia, West Virginia
- *Southeast*: Alabama, Florida, Georgia, South Carolina
- *Delta*: Arkansas, Louisiana, Mississippi
- *Southern Plains*: Oklahoma, Texas
- *Mountain*: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming
- *Pacific*: California, Oregon, Washington

**Farm structure** - see **agricultural structure**.

**Farm type** - a structural indicator that identifies the commodity that represents the largest portion of the farm's gross cash income. Farm operators themselves choose the farm type from a list of selected agricultural commodity groups. (See also **agricultural structure** and **majority enterprise type**).

In 1995, 14 choices for farm type were presented in the survey; and these were aggregated into 10 farm types for this report. The 10 farm types are:

- *cash grains*: corn, soybeans, other grains (such as wheat, oats, barley, rye, and sorghum), dry edible beans and peas, and rice
- *tobacco*
- *cotton*: cotton and cottonseed
- *other field crops*: peanuts, Irish potatoes, sunflowers, sweet potatoes, sugarcane, broomcorn, popcorn, sugar beets, mint, hops, seed crops, hay, silage, forage, and any remaining field crops. Also includes farms for which Conservation Reserve Program (CRP) payments were the operation's sole source of gross farm income.
- *vegetables, fruits, or nuts*: vegetables, fruits, tree nuts, and berries
- *nursery or greenhouse*: nursery and greenhouse products. Also includes farms whose only production is

Christmas trees.

- *beef, hogs, or sheep*: cattle (except dairy breeding stock), hogs, pigs, sheep, goats, wool, mohair, and lambs
- *poultry*: broilers, other chickens, turkeys, other poultry, and eggs
- *dairy*: milk and dairy products
- *other livestock*: mules, horses, foals and ponies, fur-bearing animals, bees and honey, fish, minnows, and any remaining livestock

**Favorable financial position** - see **financial position**.

**Financial measures** - financial information that relates solely to the farm operation as a business and to those with a stake in it (operators, partners, and shareholders). Others who may be participants in the business of the farm (such as share landlords and contractors) are excluded. Financial measures referred to in this report include gross cash farm income (includes livestock sales, crop sales, government payments, and other farm income), cash expenses, net cash farm income, net farm income, farm assets, farm liabilities, equity, and capital investments. See also **financial position**.

**Financial position** - describes the financial health of the farm business using income (net farm income) and solvency (debt-to-asset ratio) measures. The four categories of financial position are:

- *favorable* - debt-to-asset ratio no more than 0.40 and positive net farm income. These farms are generally considered financially stable.
- *marginal income* - debt-to-asset ratio no more than 0.40 and negative net farm income. Periods of negative income may not pose financial difficulties if the farm is carrying a low debt load and can either borrow against equity or obtain income from off-farm sources.
- *marginal solvency* - debt-to-asset ratio greater than 0.40 and positive net farm income. A high debt-to-asset ratio may be acceptable if the farm can generate enough income to service its debt and meet other financial obligations.
- *vulnerable* - debt-to-asset ratio greater than 0.40 and negative net farm income. These farms are generally considered financially unstable.

**Government payments** - value of all government (State or Federal) agricultural payments received during the calendar year, excluding wool and unshorn lamb payments, CCC loans, and crop insurance payments. Includes such payments as deficiency payments, disaster payments, storage payments, and Conservation Reserve Program (CRP) payments. A component of gross cash farm income.

**Gross cash farm income** (or **gross cash income**) - the sum of four components--crop sales, livestock sales, government payments, and other farm income.

**Gross farm income** - gross cash farm income plus: the net change in both the value of crop, livestock, feed, and fertilizer inventory, and accounts receivable; the value of farm products used or consumed on the farm; and the gross imputed rental value of the farm operator dwelling if it was owned by the operation.

**Gross value of sales** - a measure of output often used as an indicator of farm size. Gross value of sales measures, in dollars, how much the farm produces, regardless of who has a claim on that production. Gross value of sales is calculated as the operation's crop and livestock sales plus any shares of production received by share landlords or production contractors. Gross value of sales also includes government payments received by the operation and share landlord(s). Sometimes referred to as gross farm sales or gross sales. See also **sales class**.

**Livestock sales** - gross cash income from all livestock items sold from the farm or ranch during the calendar year, net of marketing charges. Includes sales of livestock and livestock products under marketing contracts. Payments received in the current year for livestock items produced in previous years are included. A component of gross cash farm income.

**Majority enterprise type** - a structural indicator that identifies the commodity or commodity group that accounts for at least half of the operation's estimated gross value of production. A farm that does not meet the 50-percent criterion for any 1 of the 15 specific majority enterprise types could be classified as either a general crop farm (crops account for at least 50 percent of the gross value of production) or general livestock farm (livestock accounts for at least 50 percent of the gross value of production) based on the crop and livestock components of the value-of- production estimate. See also **farm type**.

**Marginal income** - see **financial position**.

**Marginal solvency** - see **financial position**.

**Marketing contract** - the type of contract used to guarantee a market for a commodity and negotiate a price in advance of actual delivery. The contract may set a price or at least establish a procedure to arrive at a price. For example, fruit may be priced according to quality, or a livestock price at delivery will be a function of grade and yield. The contractee (farm operator) owns the commodity while it is being produced, makes most of the production decisions, and supplies most of the inputs. Contracts, for ARMS purposes, must be in place before harvest or before the commodity is ready to be marketed. Futures contracts obtained for the purpose of hedging are not considered marketing contracts, but rather marketing strategies for cash sales. See also **contracting arrangement** and **production contract**.

**Net cash farm income** - gross cash farm income less cash expenses. Represents income available to those who have a stake in the farm business (operators, partners, and shareholders) for living expenses, principal payment, reinvestment in the farm, or other obligations.

**Net farm income** - net cash farm income less depreciation and other nonmoney expenses plus the value of inventory change and nonmoney income. Represents the return (or loss) to unpaid labor, unpaid management, and equity capital. See also **net cash farm income**.

**Noncommercial farms** - farms with gross value of sales less than \$50,000 during the year. Most of these farms are 'family' farms. Many have negative farm income and associated farm households are often highly dependent on off-farm earnings. See also **sales class**.

**Other farm income** - income from custom work, machine hire, livestock grazing, farmland rental, contract production fees, timber sales, outdoor recreation, hedging profits or losses, tobacco allotment leases, road tax refunds, and any other farm-related income. A component of gross cash farm income.

**Point farm** - any operation that did not have at least \$1,000 in agricultural sales during the year, but had enough agricultural activity based on a point system to qualify as a farm. Points are assigned for acres of various crops and

head of various livestock species to estimate a normal level of sales. Both the Agricultural Resource Management Study (ARMS) and the census of agriculture use the point system as a substitute for dollar sales to identify farms meeting the current definition.

**Production contract** - the type of contract used primarily in livestock production. The contractor usually owns the commodity being produced and makes most of the production decisions. The contractee (farm operator) generally provides such inputs as labor, housing, utilities, and machinery. The farm mainly provides a service for a fee. Although the farm does not own the commodity, gross value of sales for the operation reflects the full market value of the commodity produced, but gross cash income includes only the service fee, excluding the value of production received by the contractor. See also **contracting arrangement** and **marketing contract**.

**Quartiles** - four sets of farms grouped by first ranking all farms according to a selected measure (such as sales or acres), and then determining the number of farms that account for one-fourth of the total for the measure. For example, value-of-production quartiles are determined by first ranking farms (from low to high) according to their value of production, and then grouping farms sequentially until the cumulative total of each group's value of production is one-fourth the total U.S. value of production. Many small farms will make up the lowest value-of- production quartile compared with relatively few large farms in the highest value-of-production quartile.

**Rental arrangement** - refers to the ownership status of not only land operated, but also all the other assets used in production (including buildings, vehicles, machinery, equipment, and livestock). The four classes of rental arrangements are: (1) no rental at all, (2) land rental only, (3) land rental and other asset rental, (4) other assets only (no land rental). See also **tenure class**.

**Sales class** - a structural indicator of farm size based on gross value of sales. In this report, farms are generally grouped into six sales classes. The two major subsets of farms based on sales class are noncommercial farms (gross sales under \$50,000) and commercial farms (gross sales \$50,000 or more). Commercial farms are further divided into five sales classes: \$50,000-\$99,999, \$100,000-\$249,999, \$250,000-\$499,999, \$500,000-\$999,999, and \$1,000,000 or more. See also **noncommercial farms**, **commercial farms**, and **agricultural structure**.

**Tenure class** - a structural indicator that characterizes the extent of land ownership of the operated acres. Farms are classified as (1) full-owner operations (the operator owns all of the land operated), (2) part-owner operations (the operator owns at least 1 percent of the land operated and rents the rest) or (3) full-tenant operations (the operator owns less than 1 percent of the land operated). See also **agricultural structure**.

**Type of farm** - see **farm type** and **majority enterprise type**.

**Value of production** - the dollar value of all commodities produced on the farm in a given year, excluding commodities used on the farm. For example, if corn grown on a farm is fed to hogs, then the value of hogs, not corn, is included in the total value of production. Commodities included in the value of production may be sold or added to inventory. Value of sales differs from value of production in that the value of sales includes commodities sold in the current year but produced in previous years (drawing down inventory) and also includes government payments received.

**Vulnerable financial position** - see **financial position**.

## Appendix B: ARMS Coverage and Statistical Measures

Nearly 8,800 farm and ranch operators in the 48 contiguous States provided useable data for the Agricultural Resource Management Study (formerly called the Farm Costs and Returns Survey) during February and March of 1996 for the 1995 calendar year. The sample is drawn from two types of sources, one called a list frame and the other an area frame. The list frame is a list of known operators of farms stratified (sorted into groups) by farm size and other attributes. The list frame contains larger, more specialized operations. Maintaining a current list for smaller operations is difficult. Thus, an area frame is used to compensate for any incompleteness in the list frame. The area frame sample consists of land segments located within the 48 contiguous States stratified by land use. Rigorous procedures are followed to prevent the inclusion of any one operator in both sample frames.

The ARMS is a probability-based survey, where each respondent represents a number of farms of similar size and type. Thus, the sample data can be expanded by using appropriate weights to represent all farms in the 48 contiguous States. Estimates based on the expanded sample differ from what would have occurred if a complete enumeration had been taken. These differences result from nonsampling and sampling errors [5].

Nonsampling errors can be attributed to such sources as questionnaire design and data processing. Sampling errors may be related to sample selection, estimation, or nonresponse adjustment procedures. Although nonsampling errors cannot be measured directly, sampling error can be measured statistically.

One measure of sampling error is the relative standard error (RSE), a measure of relative dispersion of the data. The RSE, also called the coefficient of variation (CV) when computed for means, is calculated by dividing the standard error of the estimate by the estimate itself and multiplying the result by 100.

The standard error is a measure of variation within the sample. The standard error itself can be used to calculate a range of values around an estimate (such as a mean), which is likely to include the 'true' value for the population from which the sample is drawn with a given degree of confidence. This range of values is called the confidence interval. For example, while the national average acres operated in 1995 was estimated at 434 acres, the 95-percent confidence interval was 402 to 466. This means that, given the variation of the data in our sample, we are 95 percent confident that if we had data for every farm in the 48 contiguous States, the mean acres operated would lie between 402 acres and 466 acres.

Dividing the standard error of the mean by the mean itself eliminates the units of denomination (such as dollars or bushels) and eliminates the effects of scale (such as dollars or millions of dollars). Thus, the RSE is expressed as a percentage of the mean, allowing us to compare the relative dispersion of the data across items of different denominations and, at the same time, to infer the reliability of the estimate.

The higher the RSE, the less well the estimate represents individual items in the sample. For example, a sample of two items weighted equally with values of 0 and 100 has a mean of 50, as does a sample of two items with values of 48 and 52. However, the RSE of the first sample is high compared with the second sample, confirming a common-sense observation that a value of 50 does not represent 0 or 100 as well as it represents 48 or 52. Estimates with RSE's exceeding 25 percent are generally used with caution.

Because of space limitations, RSE's are not published in the tables, but estimates with RSE's higher than 25 percent are identified. One asterisk (\*) preceding an estimate indicates an RSE greater than 25 percent but no more than 50 percent, while 2 asterisks (\*\*) indicate an RSE greater than 50 percent but no more than 75 percent. Estimates with RSE's greater than 75 percent are not printed and are denoted with an "r."

We use the t-statistic to evaluate whether or not observed differences between means are statistically significant. Although t-statistics are not published in this report, the text generally makes comparisons between groups only when estimates are different at the 5-percent level of significance. This means that if we calculated a large number of sample means and the associated t-statistics, there is a 5-percent chance that the t-statistic would lead us to conclude that the means are different when they actually are not.

The relationship between the RSE and the t-statistic is, in general, the higher the RSE's, the lower the t-statistic and the less likely the means are different. This can be seen from the formula:

$$t = (\text{Mean}_A - \text{Mean}_B) / (\text{RSE}_A^2 + \text{RSE}_B^2)^{0.5}$$

When the t-statistic is less than 1.96, the difference between means is not significant at the 5-percent level of significance.

Survey data are also influenced by nonsampling errors. In order to minimize nonsampling errors, data are collected by personal interview and data collection procedures are made uniform and consistent across the Nation by extensively training and supervising data collectors [13]. Efforts are also undertaken to minimize other types of potential nonsampling errors by extensive editing of the data [14]. Questionnaires are edited by hand in NASS State offices and by NASS computerized routines in Washington, DC.

NASS personnel in Washington, DC, combine the data collected in the various States and use the reported information to construct farm size, geographic location, and production specialty variables for each farm operation, as well as the survey expansion factors used as weights. ERS constructs additional variables to classify farms and to summarize expenses, income, assets, debt, and other items related to farming.

## Appendix C: Measuring Farm Operator Household Income

The Current Population Survey (CPS) of the Bureau of the Census is the source of official U.S. household income statistics. ERS calculates an estimate of farm household income from the ARMS that is consistent with CPS methodology in order to make meaningful income comparisons between farm operator households and all U.S. households. Farm operator household income from the ARMS is composed of three major components: (1) the operator's farm self-employment income, (2) other farm-related earnings of the household, and (3) household earnings from off-farm sources (table C).

The operator of a farm, for ARMS purposes, is the person who makes most of the day-to-day decisions about the farm, whether or not others share management responsibility. Thus, for the ARMS, as for the census of agriculture, the number of farm operators is the same as the number of farms. Information on operator characteristics and occupation is collected only for the operator.

ARMS household information, such as off-farm income, is collected for the operator household only if the farm is organized as a sole proprietorship, partnership, or family corporation. Information is collected for one household per farm, the operator's household, even if the farm business income is shared among multiple households.

The CPS definition of farm self-employment income is net money income from the operation of a farm by a person on his or her own account, as an owner, renter, or sharecropper. CPS self-employment income includes income received as cash, but excludes in-kind or nonmoney receipts. The CPS definition departs from a strictly cash concept by deducting depreciation, a noncash business expense, from the income of self-employed people.

Farm self-employment income from ARMS is the sum of the operator household's share of adjusted farm business income, wages paid by the farm business to the operator, and farmland rental income net of expenses. Adding other farm-related earnings of the operator household, we get earnings of the operator household from farming activities. However, earnings of the operator household from farming activities may leave out some resources the farm business makes available to the household.

For example, an additional source of cash may be depreciation expense that is not actually spent during the current year, or an increase in inventory that could be sold to raise cash. Nonmoney income, such as the imputed rental value of a farm-owned dwelling, represents a business contribution to household income because it frees up household cash that would otherwise be spent on housing.

In 1995, earnings of the household from farming activities averaged \$4,720 per operator household. Clearly, this was well below net cash farm income per farm (\$11,218), a measure of cash generated by the farm business. Most of this apparent disparity is due to subtracting depreciation from net cash farm income in order to be consistent with the CPS methodology. The remainder of the difference is attributable to the sharing of adjusted farm business income with other households.

For households of commercial farm operators, earnings of the operator household from farming activities averaged \$28,191, almost half of total household income. In contrast, households associated with noncommercial farms lost an average of \$3,373 from farming. Although household earnings from off-farm sources for operators of the larger farms (sales \$50,000 or more) were lower than for operators of smaller farms, total household income for operators of the large farms was higher, and their average total income was 28 percent more than the average for all U.S. households.

**Table C--Deriving ARMS farm operator household income estimates consistent with Current Population Survey (CPS) methodology for self-employment income, by farm size, 1995 <sup>1</sup>**

	Farms with gross value of sales		All farms
	Less than \$50,000	\$50,000 or more	
	<i>Dollars per farm</i>		
Net cash farm business income <sup>2</sup>	* -1,687	48,434	11,218
Less depreciation <sup>3</sup>	2,216	20,072	6,795
Less wages paid to operator <sup>4</sup>	* 75	1,819	522
Less farmland rental income <sup>5</sup>	* 743	844	769
Less adjusted farm business income due to other household(s) <sup>6</sup>	* -111	2,853	649
	<i>Dollars per farm operator household</i>		
Equals adjusted farm business income	-4,609	23,055	2,484
Plus wages paid to operator	* 75	1,819	522
Plus net income from farmland rental <sup>7</sup>	942	1,373	1,053
Equals farm self-employment income	-3,592	26,247	4,059
Plus other farm-related earnings <sup>8</sup>	219	1,944	661
Equals earnings of the operator household from farming activities	-3,373	28,191	4,720
Plus earnings of the operator household from off-farm sources <sup>9</sup>	43,187	29,476	39,671
Equals average farm operator household income comparable to U.S. average household income, as measured by the CPS	39,814	57,667	44,392
	<i>Percent</i>		
Average farm operator household income as percent of U.S. average household income <sup>10</sup>	88.6	128.3	99.8
Average operator household earnings from farming activities as percent of average operator household income	a	48.9	10.6

\* = The relative standard error (RSE) is more than 25 percent but less than 50 percent. The RSE provides a means of evaluating the survey results. A smaller RSE indicates greater reliability of the estimate.

<sup>1</sup> This table derives farm operator household income estimates from the Agricultural Resource Management Study (ARMS) that are consistent with Current Population Survey (CPS) methodology. The CPS, conducted by the Census Bureau, is the source of official U.S. household income statistics. The CPS defines income to include any income received as cash. The CPS definition departs from a strictly cash concept by including depreciation as an expense that farm operators and other self-employed people subtract from gross receipts when reporting net money income.

<sup>2</sup> A component of farm sector income. Excludes income of contractors and landlords as well as the income of farms organized as nonfamily corporations or cooperatives, and farms run by a hired manager. Thus, represents the income of farms organized as proprietorships, partnerships, and family corporations.

<sup>3</sup> Consistent with the CPS definition of self-employment income, reported depreciation expenses are subtracted from net cash income. The ARMS collects farm business depreciation used for tax purposes.

<sup>4</sup> Wages paid to the operator are subtracted here because they are not shared among other households that have claims on farm business income. These wages are later added back in to the operator household's adjusted farm business income to obtain farm self-employment income.

<sup>5</sup> Gross rental income is subtracted here because net rental income from the farm operation is added below to income received by the household.



<sup>6</sup> More than one household may have a claim on the income of a farm business. On average, 1.1 households share the income of a farm business.

<sup>7</sup> Includes net farmland rental income from the farm business and from farmland held by household members that is not part of the farm business.

<sup>8</sup> Wages paid to other operator household members by the farm business and net income from a farm business other than the one being surveyed.

<sup>9</sup> Wages, salaries, net income from nonfarm businesses, interest, dividends, transfer payments, etc.

<sup>10</sup> U.S. average household income, as reported in the CPS, was \$44,938 in 1995.

a = The negative average earnings from farming activities decreased average operator household income 8 percent.

Sources: U.S. Dept. of Agriculture, Economic Research Service, 1995 Agricultural Resource Management Study (ARMS), for farm operator household data. U.S. Dept. of Commerce, Bureau of the Census, Current Population Survey (CPS), for U.S. average household income.

## Appendix D: ARMS Estimates and Other Sources of Agricultural Data

The 1995 Agricultural Resource Management Study (ARMS) provided most of the data for this report. The U.S. Department of Agriculture's (USDA) Economic Research Service (ERS) and National Agricultural Statistics Service (NASS) conduct this survey (previously called the Farm Costs and Returns Survey or FCRS) each year. The ARMS is the most comprehensive national annual data source available on farm financial and operating characteristics. A major advantage of the ARMS over other data sources is that details on expenses, income, assets, debt, and many other items can be disaggregated by farm production region, farm size, production specialty, and other characteristics. Such detail is essential for a thorough understanding of farming, because farms are diverse enterprises.

Both ERS and NASS use ARMS data extensively for income, cost, and expenditure estimates, for measuring farm financial performance and farm household well-being, and for a wide variety of staff analyses. ERS annually produces cost-of-production estimates for crops, livestock, and dairy, as well as farm business and farm household income and balance sheet estimates [8,9]. NASS annually releases ARMS statistics on farm production expenses [15] that are used for weighting in the construction of prices-paid indexes. ERS periodically publishes detailed summaries of financial and related characteristics of U.S. farms [10, 11], farm operators [4, 6, 10], and farm operator households [1]. ERS also provides information on the financial status of farms and farm operator households on the internet via the ERS World Wide Web Site (Farm Business Economics Briefing Room) [12], as well as in professional journals, conference presentations, and other outlets.

### Comparability With Other Sources of Agricultural Data

ARMS estimates, for various reasons, often differ from other agricultural data sources. Therefore, direct comparisons between ARMS estimates published in this report and other available data should be made only with careful consideration to sample design, data collection procedures, and underlying variable definitions.

**Previous ERS/NASS Surveys.** The procedures that NASS uses to expand the ARMS (formerly called FCRS) sample to create national estimates were rewritten in 1992 to more accurately account for coverage of farms and nonresponse. The data for calendar year 1991 were adjusted and resummarized using these new procedures [3]. Earlier estimates from the ARMS did not represent the entire farm population; the number of farms represented in the ARMS was usually between 1.7 million and 1.8 million. The new procedures, however, adjust the expanded number of farms to match the official estimates of approximately 2 million farms. Estimates since 1991, therefore, are not comparable with those for earlier years.

**Census of Agriculture.** Both the census of agriculture and the ARMS gather economic and physical agricultural data from the same target population, that is, all farms that sold or normally would have sold at least \$1,000 worth of agricultural products. Despite using the same definition to identify a farm, there are several differences that limit the comparability of information obtained from these data sources.

The most obvious differences pertain to sample design and data collection procedures. Participation in the census of agriculture is mandatory for all farm operators, while the ARMS relies on voluntary response from a selected sample of farm operators. As a result, the census has a nearly complete enumeration of farms (approximately 91 percent of farms and 96 percent of agricultural production for the last five censuses) [17]. In contrast, the ARMS uses a probability-based, multiframe sampling approach, which provides estimates that are representative of the U.S. population of farms based on the selected sample.

Census of agriculture questionnaires are mailed to all farms identified on the census mail list and are completed by respondents using detailed instructions for completing the report form. ARMS data are collected through personal interviews by trained enumerators. The ARMS is conducted in the 48 contiguous States, while the census includes

Alaska and Hawaii. The census of agriculture also includes institutional farms, which are excluded from the ARMS. And, the census of agriculture is conducted every 5 years, while the ARMS is conducted annually.

Sometimes there are also conceptual differences associated with specific pieces of information obtained from these surveys due to the wording of questions or the instructions associated with collecting the information. For example, the census obtains a combined estimate of expenses paid by all participants in the farm business, which includes stakeholders in the operation (operators, partners, and shareholders), landlords, and contractors. This estimate is subtracted from the estimated total value of products sold to obtain an estimate of the net cash returns to all participants in the business. The ARMS, however, obtains separate estimates of income and expense items for the farm operation. This allows computation of net cash income and other detailed financial information for the farming operation as a separate entity. Also, the level of detail may differ between the types of questions asked, which prohibits direct comparisons.

**Other USDA Agricultural Data Series.** Estimates of income, expenses, assets, and debt of the U.S. farm sector reported in the *Farm Business Economics Report* (FBER) [9] are not directly comparable with estimates from this report. The estimates in those publications represent a combination of several data sources. In many instances, procedures used and assumptions made are dictated by the format of available data. Since the ARMS estimates represent farm operations, these estimates are typically below those of the FBER, which represent the entire farm sector (farm operations, landlords, contractors, and others). In addition, FBER estimates cover all 50 States, compared with the 48 contiguous States covered by the ARMS.

## Appendix E: New Typology of Small Farms

In July 1997, Secretary of Agriculture Dan Glickman appointed a 30-member National Commission on Small Farms (the Commission) “to examine the status of small farms in the U.S., and to determine a course of action for USDA to recognize, respect, and respond to their needs” [16, p. 14]. In its January 1998 report, *A Time To Act*, the Commission classified farms with gross sales of less than \$250,000 as small farms, and suggested that USDA give special emphasis to small farms with the greatest need to improve their net farm incomes. Further, the Commission proposed eight policy goals, along with recommendations for achieving those goals, to guide farm policy decision-making into the next century.

The Commission acknowledged that its “description of small farms includes approximately 94 percent of all U.S. farms” [16, p. 28]. In explaining the \$250,000 cutoff, the Commission noted that even sales as high as \$250,000 were “barely sufficient to provide a net farm income comparable to the income of the average nonfarmer and farms up to that size are among those whose survival is most endangered” [16, p. 28].

Such a broad category--which includes nearly all U.S. farms--can be subdivided for policy discussions, based on farm and operator household characteristics. Our categorization focuses on ‘family farms,’ defined here as farms organized as sole proprietorships, partnerships, and family corporations. Nonfamily farms are those organized as nonfamily corporations or cooperatives, as well as farms with hired managers. Family farms are closely held (legally controlled) by the operator and the operator’s family, while operators of nonfamily farms have limited say over the distribution of their farms’ net income or equity. Family farms made up 98.5 percent of all U.S. farms in 1995, and produced about 85 percent of the total U.S. value of agricultural production (table E).

### Small Family Farms

We delineate four groups of small family farms using household, farm business, and occupational characteristics. The four major groups are: (1) limited-resource farms, (2) retirement farms, (3) residential/lifestyle farms, and (4) primary occupation farms. First, we identify limited-resource farms based on characteristics of the operator household and the farm business. Then, we subdivide the remainder of small family farms based on the primary occupation of the operator (farming, retired, or ‘other occupation’). Farms with an operator whose primary occupation is farming are further subdivided by gross value of sales.

#### *Limited-Resource Farms*

Farms identified as limited-resource farms meet three criteria: (1) total operator household income under \$20,000, (2) total farm assets under \$150,000, and (3) gross sales under \$100,000. This definition is consistent with limited-resource definitions used by USDA’s Risk Management Agency and Natural Resources Conservation Service. Although the difficulties that limited-resource farms face are not unique to them, they are not as well positioned as other small family farms to overcome them in order to remain in farming.

In 1995, limited-resource farms averaged under \$10,000 in gross cash farm income on 132 acres operated. Forty percent specialized in beef, and another 16 percent specialized in other livestock. While 39 percent of operators of limited-resource farms reported farming as their primary occupation, the majority were evenly divided between “retired” and “something else.”

Because average off-farm income was near \$12,000, and limited-resource farms, on average, lost money, average total household income for limited-resource farms was \$8,937, one-fifth of the U.S. average household income and the lowest of all the small family farm subgroups. About 63 percent of limited-resource farms were located in the South.

## ***Retirement Farms***

Retirement farms are small farms with operators who reported “retired” as their primary occupation. About 13 percent of all farms were classified as retirement farms and they accounted for 1.4 percent of total U.S. production. Although retired operators continue to farm, they often scale back their work hours and their production. About one in five retired farm operators had also retired their land, and Conservation Reserve Program (CRP) payments were their operations’ sole source of gross farm income.

Gross cash farm income of retirement farms averaged \$14,531, and land operated averaged 174 acres, both well below the U.S. average. Income from government payments averaged 13 percent of gross cash farm income, making government payments more important to retirement farms than to any other small family farm category.

Three-fourths of retired operators were full-owners of the land they operated. About 26 percent of retirement farms had land enrolled in the CRP in 1995, accounting for 26 percent of all farms enrolled in CRP and 24 percent of all CRP land. Retirement farms were most likely to specialize in livestock production. (Note that most retirement farms in ‘other field crops’ were actually farms for which Conservation Reserve Program (CRP) payments were the sole source of gross farm income.) Average household income for retired operators was \$40,500, mostly from off-farm sources.

## ***Residential/Lifestyle Farms***

Operators of these farms reported a principal occupation other than “farming” or “retired.” For these operators, a farm lifestyle and the chance to build wealth through accumulation of farm assets may have been more important than agricultural production and the income that production generates. Residential farms accounted for 35 percent of all farms, but only 6 percent of production. Over half of these farms were livestock operations, primarily beef.

Like retirement farms, residential/lifestyle farms controlled a large share of land enrolled in the CRP. Residential/lifestyle farms enrolled in the CRP accounted for 28 percent of farms enrolled in CRP and 22 percent of all CRP land. Although 70 percent of residential/lifestyle farms had negative net cash farm income (cash expenses exceeded gross cash farm income), this group had the highest average household income (\$57,242) of all the small family farm categories because of high off-farm income.

## ***Primary Occupation Farms***

Operators of primary occupation farms reported farming as their major occupation. Because of the substantial variation among farms in this group, we divided primary occupation farms into two more homogeneous subgroups, low-sales farms (gross sales under \$100,000) and high-sales farms (gross sales \$100,000-\$249,999). A major difference between low-sales and high-sales farms was dependence on off-farm income, 103 percent for low-sales farms (because average earnings from farming activities was negative) compared with 54 percent for high-sales farms. Also, operator age averaged 58 years for low-sales farms, compared with 47 years for high-sales farms.

***Low-Sales Farms.*** Low-sales farms averaged substantially higher sales and acreage than limited-resource, retirement, and residential/lifestyle farms. Only 28 percent of these farms had sales less than \$10,000, compared with 69 to 76 percent of the three other groups. Although more than half generated positive net cash farm income, average total income was lower for households operating low-sales farms than for households operating retirement or residential/lifestyle farms, because off-farm income was too low to offset low or negative earnings from farming activities. Thus, average household income for the low-sales group was only about 68 percent of the average U.S. household.

**High-Sales Farms.** Although primary occupation farms with high sales made up 9 percent of all farms, they accounted for about 20 percent of the value of agricultural production. Compared with other groups of small family farms, high-sales farms had much higher gross cash farm income (\$157,500) and more farms with positive net cash farm income (84 percent). Thus, this was the only small farm group in which average earnings from farming activities provided a substantial share of average total household income (46 percent). Nevertheless, total household income for operator households of high-sales farms averaged 10 percent less than the average for all U.S. households.

Unlike other groups of small family farms, cash grain and dairy were the most common commodity specializations (37 percent and 23 percent) in the high-sales group, and more than 80 percent rented at least part of the land they farmed. About 61 percent of high-sales farms were located in the Corn Belt, Great Plains, and Lake States.

## **Implications**

This new typology shows that while there is some commonality among small family farms, there is also variation. Thus, some policy needs may be the same across subgroups of small family farms, and some may differ. For example, because operator households in all categories rely heavily on off-farm income, the health of the nonfarm economy is an important factor to small family farm viability. Therefore, policies and programs aimed at the general economy, such as those affecting employment levels or interest rates, may be more important than farm policy to the economic well-being of many small farm households. In like manner, nonfarm programs, such as Social Security and Medicare, which address the needs of the elderly, may be critical to the segment of small farm operators who are older and/or retired.

Some farm programs affect small farms disproportionately, and changes in such programs can be evaluated in light of differential impacts on groups of farms. For example, CRP payments totaled more than \$1.7 billion in FY1994, and more than 85 percent of acres enrolled in the CRP in 1995 were controlled by small family farm operators.

Program initiatives aimed at helping farm operators improve their net farm income would be especially appropriate for small farm operators. These could include extension education structured to address small farm issues, innovative marketing programs, and credit assistance. For example, direct farm marketing holds promise for some farm entrepreneurs as a way to bolster farm income, especially for farms located near urban areas. By selling directly to consumers, farmers may be able to get premium prices for their products but also retain a larger share of consumers' food expenditures.

**Table E--Characteristics of small family farms and their operators: a new typology based on the National Commission on Small Farms definition, 1995**

Item	Units	Small family farms <sup>1</sup>					Large family farms <sup>1</sup>	Nonfamily farms <sup>2</sup>	All farms
		Limited-resource <sup>3</sup>	Retirement <sup>4</sup>	Residential/lifestyle <sup>4</sup>	Primary occupation <sup>4</sup>				
					Low-sales (less than \$100,000)	High-sales (\$100,000 to \$249,999)			
Farms	Number	249,624	257,994	716,332	503,578	194,864	114,417	31,190	2,068,000
Share of U.S. farms	Percent	12.1	12.5	34.6	24.4	9.4	5.5	1.5	100.0
Share of U.S. production	do.	1.5	1.4	6.0	11.3	19.7	45.4	14.5	100.0
Share of total acres operated	do.	3.7	5.0	13.5	29.0	20.4	20.8	* 7.6	100.0
Land operated per farm	Acres	132	174	169	518	939	1,633	* 2,188	434
Share of farms with sales under \$10,000	Percent	72.7	75.8	68.9	27.5	na	na	* 34.4	49.3
Farms enrolled in CRP	Number	20,564	67,733	71,565	54,527	20,310	13,444	8,935	257,077
Share of all CRP farms	Percent	* 8.0	26.4	27.8	21.2	7.9	5.2	** 3.5	100.0
Share of total CRP acres	do.	* 4.9	23.5	21.5	25.5	11.8	8.3	** 4.5	100.0
Mean gross cash farm income	\$/farm	9,630	14,531	14,409	38,155	157,476	597,986	549,834	73,474
Livestock sales	do.	4,101	4,827	5,322	14,645	64,287	239,364	* 203,159	28,828
Crop sales	do.	3,912	3,304	5,690	14,494	68,731	288,041	265,497	32,802
Government payments	do.	661	1,889	984	1,953	7,305	14,826	4,949	2,715
Other farm income	do.	957	* 4,512	2,413	7,243	17,153	55,756	* 76,229	9,129
Share of farms with positive net cash income	Percent	37.1	46.1	30.0	55.9	83.8	88.4	68.9	48.1
Farms by majority enterprise type: <sup>5</sup>									
Cash grain <sup>6</sup>	do.	12.6	7.9	15.0	22.9	37.3	32.0	* 17.7	18.8
Other field crops <sup>7</sup>	do.	18.8	29.3	17.8	10.7	7.6	10.6	** 29.8	16.4
High value crops <sup>8</sup>	do.	* 4.6	7.5	4.0	10.3	6.6	10.7	26.3	7.0
Beef	do.	39.6	39.0	39.3	34.2	10.2	10.8	17.3	33.4
Hogs	do.	d	d	* 5.2	1.8	5.1	6.8	d	4.0
Dairy	do.	d	d	d	6.9	23.1	15.4	d	5.2
Other livestock <sup>9</sup>	do.	* 16.3	14.4	18.5	13.2	10.2	13.7	* 4.8	15.2
Farms by tenure:									
Full owner	do.	56.4	77.0	64.1	52.2	17.3	18.9	* 65.5	55.0
Part owner	do.	24.5	20.1	30.3	41.6	64.5	63.0	23.5	36.0
Tenant	do.	19.1	d	5.6	6.2	18.2	18.1	* 11.0	9.0
Average operator age	Years	56	68	48	58	47	49	49	54
Operator primary occupation:									
Farming	Percent	38.8	na	na	100.0	100.0	94.7	76.1	44.9
Something else	do.	30.7	na	100.0	na	na	d	d	38.9
Retired	do.	30.5	100.0	na	na	na	d	d	16.2
Total household income	\$/household	8,937	40,454	57,242	30,478	40,254	118,450	na	44,392
Share from off-farm sources <sup>10</sup>	Percent	134.2	93.8	108.5	103.3	54.0	25.4	na	89.4
Percent of U.S. average household income <sup>11</sup>	do.	19.9	90.0	127.4	67.8	89.6	263.6	na	89.8
Household net worth	\$/household	80,693	400,915	283,835	423,010	514,122	925,782	na	366,271

<sup>1</sup> Family farms are farms organized as sole proprietorships, partnerships, or family corporations. Small family farms include those with gross sales under \$250,000, while large family farms include those with gross sales of \$250,000 or more.

<sup>2</sup> Nonfamily farms are farms organized as nonfamily corporations or as cooperatives, as well as farms operated by hired managers.

<sup>3</sup> Limited-resource farms meet three conditions: operator household income under \$20,000, farm assets under \$150,000, and gross sales under \$100,000.

<sup>4</sup> Small family farms other than limited-resource farms are classified according to the major occupation of their operators. Operators of retirement farms are retired. Operators of residential/lifestyle farms report a nonfarm occupation. Operators of primary occupation farms report farming as their major occupation. Primary occupation farms are further subdivided by gross sales.

<sup>5</sup> The commodity or commodity group that accounts for at least 50 percent of a farm's gross value of production.

<sup>6</sup> Includes wheat, corn, soybeans, grain sorghum, rice and 'other grains' majority enterprise types.

<sup>7</sup> Includes tobacco, cotton, peanuts, and 'other field crops' majority enterprise types. The category 'other field crops' includes farms with Conservation Reserve Program (CRP) payments the sole source of gross farm income.

<sup>8</sup> Includes fruit/tree nuts, vegetables, and nursery/greenhouse majority enterprise types.

<sup>9</sup> Includes poultry and 'other livestock' majority enterprise types.

<sup>10</sup> Income from off-farm sources can be more than 100 percent of total household income if earnings from farming activities is negative.

<sup>11</sup> Average farm household income divided by U.S. average household income (\$44,938).

\* = 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.

\*\* = The relative standard error of the estimate exceeds 50 percent, but is no more than 75 percent.

d = Data withheld to avoid disclosure.

na = Not applicable.

Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study for farm operator and farm household data. Current Population Survey (CPS) for U.S. average household income.



## Appendix F: References

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## Appendix G: Appendix Tables

The appendix tables supplement information in the text. As in the text tables, relative standard errors (RSE's) are not given, but indications of their magnitude are provided by asterisks (\*). Estimates with RSE's below 25 percent are not marked.

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**Appendix table 1--Farms, gross value of sales, and acres operated, by farm characteristics and region, 1995**

Item	All			Northeast			Lake States		
	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross value of sales
	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>
All farms	2,068,000	434	80,621	138,000	185	74,555	221,000	247	70,026
Sales class:									
Less than \$50,000	1,531,760	207	10,130	99,330	121	8,225	151,032	141	11,291
\$50,000 or more	536,240	1,082	281,978	38,670	348	244,935	69,968	474	196,812
\$50,000 - \$99,999	194,462	744	78,418	13,270	223	74,430	25,768	273	73,165
\$100,000 - \$249,999	218,968	905	169,125	16,800	334	156,997	31,800	454	158,637
\$250,000 - \$499,999	75,210	1,525	349,136	5,000	327	338,089	8,700	832	337,056
\$500,000 - \$999,999	30,234	1,992	681,875	2,347	840	660,108	2,647	1,107	719,472
\$1,000,000 or more	17,366	* 3,583	2,997,382	1,253	1,010	2,080,728	1,053	1,426	1,903,050
Acreage class:									
49 or fewer acres	578,127	23	29,168	37,341	24	* 40,054	43,823	25	* 34,673
50 - 179 acres	670,378	104	34,217	59,802	103	37,733	77,497	104	22,894
180 - 499 acres	439,630	308	82,190	32,527	316	108,675	71,337	282	71,570
500 - 999 acres	196,752	680	191,222	6,024	660	233,319	20,901	646	187,410
1,000 or more acres	183,113	2,979	290,353	2,306	1,801	692,173	7,442	1,567	424,544
Farm type:									
Cash grains	389,081	649	105,820	14,658	245	44,518	50,206	393	81,482
Tobacco	74,106	149	40,846	d	d	d	d	d	d
Cotton	23,752	987	228,328	d	d	d	d	d	d
Other field crops	234,567	259	29,980	16,634	175	* 18,767	40,314	194	20,917
Vegetables, fruits, or tree nuts	92,214	168	169,389	11,446	160	109,846	* 10,085	* 94	* 42,234
Nursery or greenhouse	60,993	67	163,739	13,601	* 90	* 94,610	d	d	d
Beef, hogs, or sheep	953,649	489	45,748	31,992	120	* 16,181	71,861	175	42,280
Poultry	26,502	126	502,419	* 2,620	* 77	418,429	d	d	d
Dairy	121,891	352	208,586	31,153	333	163,607	38,421	330	143,040
Other livestock	91,244	* 195	* 22,966	d	d	d	d	d	d
Legal organization: <sup>1</sup>									
Individual	1,891,987	351	54,287	124,681	162	49,672	202,766	228	56,613
Partnership	102,220	1,154	218,795	8,011	383	208,254	* 12,886	367	* 142,162
Corporation	71,110	1,608	576,925	* 5,308	* 419	457,284	5,207	690	409,742
Tenure class:									
Full owner	1,137,109	223	47,708	73,513	107	38,038	124,612	126	28,174
Part owner	744,593	714	114,443	56,401	287	118,097	77,708	422	122,482
Tenant	186,298	602	146,335	8,086	179	102,835	18,680	321	131,003
Farm financial position:									
Favorable	1,123,290	396	85,611	70,656	202	94,887	127,738	242	71,913
Marginal income	708,994	455	42,019	54,008	157	27,019	54,522	220	34,836
Marginal solvency	105,403	575	258,962	* 6,663	252	225,201	22,218	310	145,762
Vulnerable	130,314	535	103,383	* 6,673	163	* 93,586	* 16,521	287	69,717

See footnotes at end of table.

Continued--

**Appendix table 1--Farms, gross value of sales, and acres operated, by farm characteristics and region, 1995--continued**

Item	Corn Belt			Northern Plains			Appalachian		
	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross value of sales
	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>
All farms	420,000	281	74,656	187,000	969	102,370	296,000	178	37,992
Sales class:									
Less than \$50,000	285,582	124	12,036	100,175	423	15,966	259,536	143	9,392
\$50,000 or more	134,418	615	207,696	86,825	1,599	202,059	36,464	433	241,555
\$50,000 - \$99,999	45,718	330	71,698	35,825	978	73,313	15,364	372	68,130
\$100,000 - \$249,999	58,900	550	164,951	36,700	1,637	163,384	13,000	357	195,293
\$250,000 - \$499,999	21,000	1,035	359,437	9,700	2,780	340,553	5,100	680	363,602
\$500,000 - \$999,999	7,163	1,511	616,617	3,019	4,333	688,631	1,511	679	694,755
\$1,000,000 or more	1,637	1,638	1,807,980	* 1,581	2,351	2,238,030	* 1,489	* 630	1,557,097
Acres class:									
49 or fewer acres	105,501	26	12,438	d	d	d	96,593	22	21,468
50 - 179 acres	130,630	105	23,408	38,169	124	* 22,414	113,912	106	23,678
180 - 499 acres	115,802	308	72,261	39,098	344	46,950	60,139	290	47,672
500 - 999 acres	46,177	683	197,637	36,476	711	98,777	* 19,887	635	107,617
1,000 or more acres	21,891	1,573	433,577	56,941	2,404	218,595	5,468	1,562	268,397
Farm type:									
Cash grains	169,131	430	108,576	86,906	1,028	114,241	10,855	387	84,214
Tobacco	d	d	d	d	d	d	65,309	147	38,594
Cotton	d	d	d	d	d	d	* 1,361	* 624	* 251,891
Other field crops	50,015	130	5,786	d	d	d	24,452	227	10,378
Vegetables, fruits, or tree nuts	d	d	d	d	d	d	d	d	d
Nursery or greenhouse	d	d	d	d	d	d	d	d	d
Beef, hogs, or sheep	162,366	191	51,310	67,752	1,037	107,984	158,852	166	17,942
Poultry	d	d	d	d	d	d	* 6,965	* 73	* 276,659
Dairy	22,763	256	125,857	7,928	696	148,009	7,717	329	138,026
Other livestock	d	d	d	d	d	d	d	d	d
Legal organization: <sup>1</sup>									
Individual	377,957	250	60,967	173,396	863	78,655	281,682	163	30,496
Partnership	19,378	630	205,590	9,126	1,922	315,174	10,996	435	118,439
Corporation	20,599	560	209,838	4,396	* 3,130	* 576,089	3,322	599	* 407,346
Tenure class:									
Full owner	219,044	134	24,976	76,674	336	27,014	168,665	136	22,990
Part owner	156,637	453	126,040	86,259	1,546	155,808	113,371	237	57,738
Tenant	44,318	403	138,590	24,067	920	150,913	* 13,963	218	* 58,889
Farm financial position:									
Favorable	247,462	295	84,175	95,038	885	105,880	190,019	169	39,405
Marginal income	114,544	234	38,250	57,158	1,056	72,212	90,809	201	20,572
Marginal solvency	31,647	319	121,500	16,939	1,088	167,955	3,409	263	337,627
Vulnerable	26,347	313	87,258	17,865	1,030	117,998	* 11,763	* 131	d

See footnotes at end of table.

Continued--

**Appendix table 1--Farms, gross value of sales, and acres operated, by farm characteristics and region, 1995--continued**

Item	Southeast			Delta			Southern Plains		
	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross value of sales
	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>
All farms	153,000	248	76,387	111,000	275	73,760	273,000	516	69,297
Sales class:									
Less than \$50,000	123,191	136	7,572	88,285	156	7,514	232,643	295	8,195
\$50,000 or more	29,809	710	360,777	22,715	737	331,234	40,357	1,791	421,521
\$50,000 - \$99,999	9,809	** 523	* 104,869	6,515	na	na	17,148	1,658	72,118
\$100,000 - \$249,999	11,100	382	166,428	9,200	604	165,791	15,100	1,233	* 229,063
\$250,000 - \$499,999	4,300	* 795	370,135	4,100	645	372,518	4,810	2,777	328,073
\$500,000 - \$999,999	3,193	881	707,284	* 2,261	* 1,080	723,813	2,332	3,078	670,016
\$1,000,000 or more	1,407	** 3,959	2,863,861	639	2,124	2,361,551	* 968	* 4,844	9,482,289
Acreage class:									
49 or fewer acres	58,424	25	42,937	31,874	28	* 60,565	69,562	21	d
50 - 179 acres	59,236	102	39,913	44,388	102	* 47,214	89,141	99	*12,165
180 - 499 acres	21,490	300	88,043	19,596	319	52,654	48,780	320	** 63,819
500 - 999 acres	7,860	710	195,039	9,986	699	120,185	30,994	673	* 246,553
1,000 or more acres	5,990	3,065	565,832	5,156	2,307	374,160	34,523	2,729	162,865
Farm type:									
Cash grains	* 3,885	* 350	* 56,525	13,006	601	124,980	16,486	1,092	120,213
Tobacco	* 4,211	* 263	* 105,609	d	d	d	d	d	d
Cotton	4,653	823	261,547	4,166	869	238,938	11,077	1,137	156,587
Other field crops	14,987	339	* 55,370	* 5,078	* 310	* 39,121	* 18,259	264	* 16,929
Vegetables, fruits, or tree nuts	13,541	** 373	* 155,471	d	d	d	d	d	d
Nursery or greenhouse	7,211	* 63	157,771	d	d	d	d	d	d
Beef, hogs, or sheep	91,852	212	* 17,807	62,852	222	* 19,246	201,715	512	54,341
Poultry	5,006	146	535,396	* 6,767	* 113	* 468,618	d	d	d
Dairy	* 1,177	* 388	* 492,586	d	492	d	* 3,079	429	* 353,717
Other livestock	d	d	d	* 12,594	* 113	* 17,446	d	d	d
Legal organization: <sup>1</sup>									
Individual	138,782	170	50,698	104,937	207	54,474	262,323	447	38,817
Partnership	* 8,289	485	* 146,012	* 4,903	* 1,491	* 301,602	* 7,599	* 2,248	* 160,311
Corporation	5,779	* 1,782	590,308	* 1,095	1,401	* 815,212	* 3,078	* 2,144	* 2,442,358
Tenure class:									
Full owner	88,114	203	68,839	60,057	* 196	* 70,651	163,011	267	61,391
Part owner	52,583	323	84,668	42,440	310	58,888	83,552	871	79,841
Tenant	* 12,302	248	* 95,052	8,503	664	169,951	26,437	936	84,723
Farm financial position:									
Favorable	85,736	244	92,220	51,753	302	81,349	121,538	442	* 74,472
Marginal income	60,604	233	33,327	47,622	237	25,768	132,187	472	* 43,766
Marginal solvency	* 2,705	* 429	* 321,896	* 4,855	* 398	* 381,623	5,941	1,311	* 455,267
Vulnerable	3,955	430	* 225,071	* 6,770	249	** 132,549	13,334	1,278	103,260

See footnotes at end of table.

Continued--

**Appendix table 1--Farms, gross value of sales, and acres operated, by farm characteristics and region, 1995--continued**

Item	Mountain			Pacific		
	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross value of sales
	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>
All farms	114,500	1,730	131,930	154,500	375	163,864
Sales class:						
Less than \$50,000	78,477	714	12,742	113,510	123	8,960
\$50,000 or more	36,023	3,942	391,586	40,990	1,072	592,821
\$50,000 - \$99,999	13,655	1,884	69,626	11,390	* 1,305	77,557
\$100,000 - \$249,999	13,168	3,506	155,570	13,200	488	168,197
\$250,000 - \$499,999	5,400	4,365	333,898	7,100	1,505	342,224
\$500,000 - \$999,999	2,377	5,286	677,359	3,383	1,598	753,288
\$1,000,000 or more	1,423	** 23,862	5,407,391	5,917	1,108	2,740,981
Acreage class:						
49 or fewer acres	30,821	23	* 17,850	87,872	17	41,130
50 - 179 acres	23,645	102	* 58,765	33,959	97	157,923
180 - 499 acres	15,583	332	* 288,701	15,277	325	254,390
500 - 999 acres	11,404	682	169,291	7,043	693	727,790
1,000 or more acres	33,047	5,507	203,863	10,348	4,182	708,097
Farm type:						
Cash grains	18,352	1,485	111,223	5,597	1,494	242,137
Tobacco	d	d	d	d	d	d
Cotton	d	d	d	d	d	d
Other field crops	29,134	406	62,478	14,437	413	125,276
Vegetables, fruits, or tree nuts	* 3,825	** 213	d	41,825	120	236,991
Nursery or greenhouse	d	d	d	* 15,715	* 56	* 208,864
Beef, hogs, or sheep	50,449	2,988	* 126,989	53,958	* 647	* 25,225
Poultry	d	d	d	d	d	d
Dairy	3,153	* 630	* 724,783	4,129	266	1,293,099
Other livestock	d	d	d	d	d	d
Legal organization: <sup>1</sup>						
Individual	95,801	1,151	63,841	129,662	270	82,640
Partnership	10,516	* 3,658	185,570	10,517	832	460,592
Corporation	8,085	6,045	* 852,653	* 14,242	* 981	* 669,960
Tenure class:						
Full owner	54,393	1,117	127,606	109,026	169	84,979
Part owner	50,697	2,425	137,267	24,943	1,030	349,824
Tenant	9,410	* 1,530	128,179	* 20,532	** 674	* 356,843
Farm financial position:						
Favorable	61,461	1,526	126,715	71,889	367	179,986
Marginal income	39,569	* 2,079	63,638	57,970	* 458	77,720
Marginal solvency	4,196	2,296	** 912,207	* 6,829	* 301	* 799,373
Vulnerable	9,274	1,335	104,837	* 17,812	* 166	* 135,494

\* = The relative standard error of the estimate exceeds 25 percent, but is no more than 50 percent. \*\* = The relative standard error of the estimate exceeds 50 percent, but is no more than 75 percent. d = Data insufficient for disclosure. <sup>1</sup> Excludes cooperative farms. Therefore, subcategories may not sum to all farms. Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study.

**Appendix table 2--Farms, acres operated, and gross value of sales, by operator and household characteristics and region, 1995**

Item	All			Northeast			Lake States		
	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross mean of sales
	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>
All farms	2,068,000	434	80,621	138,000	185	74,555	221,000	247	70,026
All farm households	2,036,810	407	70,404	135,899	182	72,339	220,451	246	68,177
Operator major occupation:									
Farming	905,770	718	145,591	71,115	246	125,651	120,799	330	111,861
Hired farm manager	21,791	* 2,931	* 778,117	d	d	d	d	d	d
Other occupation	805,134	163	17,248	52,240	110	* 14,993	79,989	138	16,774
Retired	335,305	156	11,957	* 12,994	* 124	d	* 19,795	166	* 12,867
Operator age:									
Under 35 years	171,256	407	88,668	6,630	135	117,227	21,634	292	95,365
35 - 44 years	418,049	467	118,870	36,005	194	93,210	55,458	281	101,206
45 - 54 years	485,732	489	102,179	36,930	184	87,067	59,993	235	66,814
55 - 64 years	474,100	432	68,300	30,290	186	59,130	43,499	252	56,951
65 years or older	518,863	367	38,225	28,144	185	40,821	40,415	186	32,519
Operator education:									
Less than high school	427,656	238	35,904	25,045	193	65,978	43,175	183	32,150
High school	831,251	387	73,500	58,016	191	86,325	101,580	238	74,630
Some college	450,334	524	95,469	25,850	197	56,939	51,598	294	83,041
College	358,759	665	131,788	29,089	156	74,120	24,647	295	90,155
Positive household income and:									
Loss from farming	999,623	219	17,001	74,492	119	14,543	83,562	159	19,542
0 - 24 percent from farming	378,881	255	35,573	15,572	188	* 56,818	57,635	183	25,676
25 - 49 percent from farming	146,731	503	82,895	10,092	200	89,494	14,263	319	92,331
50 - 74 percent from farming	130,372	699	148,227	6,170	* 411	155,769	18,912	383	142,147
75 percent or more from farming	210,872	882	287,264	16,082	329	298,222	29,425	413	209,554
Negative household income	170,331	957	122,493	13,491	232	89,121	16,653	381	104,811

See footnotes at end of table.

Continued--

**Appendix table 2--Acres operated and gross value of sales, by operator and household characteristics and region, 1995--continued**

Item	Corn Belt			Northern Plains			Appalachian		
	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross value of sales
	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>
All farms	420,000	281	74,656	187,000	969	102,370	296,000	178	37,992
All farm households	412,522	279	73,788	180,989	973	103,364	295,109	177	37,259
Operator major occupation:									
Farming	176,838	472	150,471	118,716	1,344	147,830	98,111	260	90,448
Hired farm manager	d	d	d	d	d	d	d	d	d
Other occupation	176,512	134	19,562	42,616	255	20,553	147,584	137	12,151
Retired	64,889	145	12,748	na	na	na	49,468	130	6,911
Operator age:									
Under 35 years	44,113	223	73,432	* 23,725	* 760	* 113,605	27,706	143	* 37,732
35 - 44 years	86,967	339	110,464	41,549	1,060	118,590	40,731	238	73,000
45 - 54 years	96,112	288	80,735	43,378	1,126	123,686	62,970	213	48,195
55 - 64 years	95,258	312	71,791	33,675	1,115	88,894	92,810	154	31,736
65 years or older	97,551	219	40,096	44,672	733	70,776	71,783	160	17,368
Operator education:									
Less than high school	65,483	185	33,934	27,205	822	68,743	104,563	123	18,592
High school	208,531	277	70,790	76,943	797	81,858	127,310	177	32,733
Some college	76,414	341	103,247	51,378	1,044	115,758	30,041	259	74,362
College	69,573	320	93,171	31,475	1,396	159,723	34,085	284	* 85,098
Positive household income and:									
Loss from farming	168,005	146	24,394	49,136	598	33,562	159,037	141	9,692
0 - 24 percent from farming	95,378	166	29,748	37,547	475	45,319	72,859	168	19,342
25 - 49 percent from farming	40,328	280	71,663	21,492	762	78,239	16,458	228	91,084
50 - 74 percent from farming	35,695	506	151,648	22,545	1,107	122,778	14,075	234	110,882
75 percent or more from farming	50,861	635	238,885	28,889	1,556	254,707	18,916	291	195,505
Negative household income	22,256	584	137,073	21,380	1,990	166,014	13,763	* 351	* 93,501

See footnotes at end of table.

Continued--



**Appendix table 2--Acres operated and gross value of sales, by operator and household characteristics and region, 1995--continued**

Item	Southeast			Delta			Southern Plains		
	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross value of sales
	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>
All farms	153,000	248	76,387	111,000	275	73,760	273,000	516	69,297
Operator major occupation:									
Farming	53,219	295	147,385	47,733	436	132,970	96,249	1,036	138,333
Hired farm manager	2,316	* 3,837	* 838,567	d	d	d	d	d	d
Other occupation	62,373	136	* 19,754	44,602	139	* 18,939	106,139	282	11,101
Retired	35,091	138	** 19,061	17,385	137	* 11,433	69,024	140	5,335
Operator age:									
Under 35 years	* 6,309	297	* 121,869	* 9,708	* 242	* 94,353	* 14,398	* 784	* 67,786
35 - 44 years	28,978	231	92,988	17,997	305	* 149,772	41,890	538	* 109,426
45 - 54 years	33,042	* 311	111,626	31,097	235	* 89,367	57,963	517	* 130,977
55 - 64 years	40,608	* 229	63,086	24,321	267	43,809	55,060	607	* 69,338
65 years or older	44,063	221	44,791	27,878	* 321	26,239	103,689	422	18,794
Operator education:									
Less than high school	48,923	116	* 30,309	26,543	* 280	39,209	62,302	154	16,199
High school	48,182	* 275	93,659	45,761	221	* 83,054	85,929	571	* 61,943
Some college	23,704	277	134,818	24,302	324	* 84,239	76,095	584	* 81,165
College	32,191	* 386	77,538	14,394	357	90,235	48,674	778	* 131,692
All farm households	150,529	192	60,615	109,622	268	67,030	270,893	513	42,819
Positive household income and:									
Loss from farming	87,201	124	* 16,477	64,944	* 198	* 18,514	169,364	302	12,778
0 - 24 percent from farming	23,931	183	33,453	15,565	152	* 29,704	34,721	500	** 52,782
25 - 49 percent from farming	9,115	369	* 140,748	6,629	452	* 69,716	14,226	* 809	45,471
50 - 74 percent from farming	* 7,084	304	* 129,210	* 5,566	* 228	* 321,223	6,195	1,724	127,579
75 percent or more from farming	11,582	414	301,481	7,391	771	329,766	13,206	1,549	331,212
Negative household income	11,616	295	* 103,048	9,528	435	104,527	33,181	838	53,986

See footnotes at end of table.

Continued--

**Appendix table 2--Acres operated and gross value of sales, by operator and household characteristics and region, 1995--continued**

Item	Mountain			Pacific		
	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross value of sales
	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>
All farms	114,500	1,730	131,930	154,500	375	163,864
Operator major occupation:						
Farming	57,208	2,461	158,557	65,780	720	301,226
Hired farm manager	2,612	** 15,999	* 2,016,177	3,466	* 764	* 906,727
Other occupation	35,076	286	13,869	58,002	90	* 32,729
Retired	* 19,604	* 278	* 14,396	* 27,252	* 99	* 16,934
Operator age:						
Under 35 years	* 7,642	* 1,698	** 195,552	** 9,392	* 220	** 128,779
35 - 44 years	20,429	1,948	* 275,255	48,045	311	158,611
45 - 54 years	37,924	1,646	101,372	26,322	* 638	317,008
55 - 64 years	23,859	* 1,958	* 113,162	* 34,719	* 301	* 149,492
65 years or older	24,646	1,466	58,595	36,022	* 379	81,967
Operator education:						
Less than high school	14,328	* 1,059	38,290	* 10,089	* 380	* 217,719
High school	33,539	1,564	90,559	* 45,460	* 433	* 145,339
Some college	42,883	1,227	92,302	48,070	346	120,413
College	23,750	* 3,275	* 318,397	50,881	350	210,787
All farm households	111,797	1,390	87,671	148,997	367	137,750
Positive household income and:						
Loss from farming	53,001	585	16,077	90,880	* 161	14,676
0 - 24 percent from farming	13,873	* 706	** 63,919	11,799	* 280	* 100,242
25 - 49 percent from farming	8,822	1,782	78,131	5,307	* 407	149,126
50 - 74 percent from farming	7,765	2,204	136,849	6,366	* 600	216,364
75 percent or more from farming	13,743	2,784	282,806	20,777	796	588,053
Negative household income	14,594	2,983	166,110	13,869	* 1,029	261,102

\* = The relative standard error of the estimate exceeds 25 percent, but is no more than 50 percent.

\*\* = The relative standard error of the estimate exceeds 50 percent, but is no more than 75 percent.

d = Data insufficient for disclosure.

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

**Appendix table 3--Farm income and assets on reporting farms, by region, 1995**

Item	All		Northeast		Lake States		Corn Belt	
	Reporting farms	Income and assets	Reporting farms	Income and assets	Reporting farms	Income and assets	Reporting farms	Income and assets
	<i>Number</i>	<i>1,000 dollars</i>	<i>Number</i>	<i>1,000 dollars</i>	<i>Number</i>	<i>1,000 dollars</i>	<i>Number</i>	<i>1,000 dollars</i>
Gross cash farm income	1,933,060	151,944,277	128,118	10,195,961	217,556	15,997,404	402,838	28,283,755
Livestock sales	1,233,015	59,616,267	72,815	5,495,502	129,592	8,223,629	233,589	10,009,261
Crop sales	970,852	67,834,696	71,274	3,525,058	109,485	5,765,076	246,168	14,210,582
Government payments	684,168	5,615,194	25,011	112,035	118,243	812,058	203,985	1,696,588
Other farm-related income	902,837	18,878,119	69,928	1,063,365	138,199	1,196,641	196,997	2,367,323
Cash expenses	2,067,449	126,221,075	138,000	8,361,795	221,000	13,120,705	420,000	22,763,917
Net cash farm income	2,066,733	25,723,201	138,000	1,834,166	221,000	2,876,699	420,000	5,519,838
Net farm income	2,067,693	21,585,401	138,000	1,689,944	221,000	2,876,341	420,000	5,236,632
<i>Percent of reporting farms or gross cash farm income</i>								
Gross cash farm income	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Livestock sales	63.8	39.2	56.8	53.9	59.6	51.4	58.0	35.4
Crop sales	50.2	44.6	55.6	34.6	50.3	36.0	61.1	50.2
Government payments	35.4	3.7	19.5	1.1	54.4	5.1	50.6	6.0
Other farm-related income	46.7	12.4	54.6	10.4	63.5	7.5	48.9	8.4
Cash expenses	107.0	83.1	107.7	82.0	101.6	82.0	104.3	80.5
Net cash farm income	106.9	16.9	107.7	18.0	101.6	18.0	104.3	19.5
Net farm income	107.0	14.2	107.7	16.6	101.6	18.0	104.3	18.5
<i>Percent of reporting farms or farm assets</i>								
Farm assets	2,064,364	839,747,803	138,000	61,548,504	221,000	72,715,500	420,000	157,747,690
Farm liabilities	2,015,895	109,917,754	132,139	6,614,476	215,969	13,297,618	412,627	23,143,446
Farm equity	2,065,796	729,830,049	138,000	54,934,029	221,000	59,417,882	420,000	134,604,244
Farm assets	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Farm liabilities	97.7	13.1	95.8	10.7	97.7	18.3	98.2	14.7
Farm equity	100.1	86.9	100.0	89.3	100.0	81.7	100.0	85.3

See footnotes at end of table.

Continued--

**Appendix table 3--Farm income and assets on reporting farms, by region, 1995--continued**

Item	Northern Plains		Appalachian		Southeast		Delta	
	Reporting farms	Income and assets	Reporting farms	Income and assets	Reporting farms	Income and assets	Reporting farms	Income and assets
	<i>Number</i>	<i>1,000 dollars</i>	<i>Number</i>	<i>1,000 dollars</i>	<i>Number</i>	<i>1,000 dollars</i>	<i>Number</i>	<i>1,000 dollars</i>
Gross cash farm income	180,190	18,491,583	285,950	8,528,452	138,763	9,877,902	97,272	5,132,456
Livestock sales	110,875	7,601,427	197,688	2,826,595	95,122	2,556,425	68,156	1,226,242
Crop sales	121,736	7,143,737	134,749	4,446,677	55,120	5,722,350	30,055	2,606,192
Government payments	138,283	1,276,808	45,177	138,599	21,646	110,776	20,745	267,670
Other farm-related income	138,525	2,469,610	117,591	1,116,581	42,269	1,488,352	30,737	1,032,353
Cash expenses	187,000	14,867,504	296,000	6,777,007	153,000	8,454,698	110,562	4,532,734
Net cash farm income	186,336	3,624,079	295,986	1,751,445	152,797	1,423,204	110,614	* 599,723
Net farm income	187,000	2,188,448	295,700	2,057,357	152,993	*889,174	111,000	d
<i>Percent of reporting farms or gross cash farm income</i>								
Gross cash farm income	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Livestock sales	61.5	41.1	69.1	33.1	68.6	25.9	70.1	23.9
Crop sales	67.6	38.6	47.1	52.1	39.7	57.9	30.9	50.8
Government payments	76.7	6.9	15.8	1.6	15.6	1.1	21.3	5.2
Other farm-related income	76.9	13.4	41.1	13.1	30.5	15.1	31.6	20.1
Cash expenses	103.8	80.4	103.5	79.5	110.3	85.6	113.7	88.3
Net cash farm income	103.4	19.6	103.5	20.5	110.1	14.4	113.7	* 11.7
Net farm income	103.8	11.8	103.4	24.1	110.3	*9.0	114.1	d
<i>Percent of reporting farms or farm assets</i>								
Farm assets	187,000	84,857,921	294,474	78,288,375	153,000	67,751,085	111,000	30,546,858
Farm liabilities	183,951	16,439,462	289,562	5,470,603	147,776	5,656,401	102,282	3,531,953
Farm equity	187,000	68,418,459	294,474	72,817,772	153,000	62,094,684	111,000	27,014,905
Farm assets	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Farm liabilities	98.4	19.4	98.3	7.0	96.6	8.3	92.1	11.6
Farm equity	100.0	80.6	100.0	93.0	100.0	91.7	100.0	88.4

See footnotes at end of table.

Continued--

**Appendix table 3--Farm income and assets on reporting farms, by region, 1995--continued**

Item	Southern Plains		Mountain		Pacific	
	Reporting farms	Income and assets	Reporting farms	Income and assets	Reporting farms	Income and assets
	<i>Number</i>	<i>1,000 dollars</i>	<i>Number</i>	<i>1,000 dollars</i>	<i>Number</i>	<i>1,000 dollars</i>
Gross cash farm income	237,149	13,270,424	110,110	14,366,124	135,113	27,800,217
Livestock sales	191,199	6,385,078	69,770	7,155,726	64,209	8,136,381
Crop sales	75,848	4,475,675	58,987	4,966,901	67,430	14,972,448
Government payments	56,228	485,621	38,835	430,405	16,015	284,634
Other farm-related income	63,617	1,924,050	56,431	1,813,091	48,543	4,406,754
Cash expenses	273,000	12,047,253	114,500	11,598,610	154,388	23,696,854
Net cash farm income	273,000	*1,223,171	114,500	2,767,514	154,500	4,103,363
Net farm income	273,000	d	114,500	* 2,346,808	154,500	3,640,248
<i>Percent of reporting farms or gross cash farm income</i>						
Gross cash farm income	100.0	100.0	100.0	100.0	100.0	100.0
Livestock sales	80.6	48.1	63.4	49.8	47.5	29.3
Crop sales	32.0	33.7	53.6	34.6	49.9	53.9
Government payments	23.7	3.7	35.3	3.0	11.9	1.0
Other farm-related income	26.8	14.5	51.2	12.6	35.9	15.9
Cash expenses	115.1	90.8	104.0	80.7	114.3	85.2
Net cash farm income	115.1	*9.2	104.0	19.3	114.3	14.8
Net farm income	115.1	d	104.0	* 16.3	114.3	13.1
<i>Number</i> <i>1,000 dollars</i> <i>Number</i> <i>1,000 dollars</i> <i>Number</i> <i>1,000 dollars</i>						
Farm assets	272,322	89,835,809	113,068	88,412,137	154,500	108,043,922
Farm liabilities	265,097	9,815,920	112,712	10,329,319	153,778	15,618,557
Farm equity	272,322	80,019,890	114,500	78,082,818	154,500	92,425,365
<i>Percent of reporting farms or farm assets</i>						
Farm assets	100.0	100.0	100.0	100.0	100.0	100.0
Farm liabilities	97.3	10.9	99.7	11.7	99.5	14.5
Farm equity	100.0	89.1	101.3	88.3	100.0	85.5

\* = The relative standard error of the estimate exceeds 25 percent, but is no more than 50 percent.

\*\* = The relative standard error of the estimate exceeds 50 percent, but is no more than 75 percent.

d = Data insufficient for disclosure.

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

**Appendix table 4--Distribution of acres operated, by farm characteristics and region, 1995**

Item	All		Northeast		Lake States		Corn Belt	
	Reporting farms	Acres operated	Reporting farms	Acres operated	Reporting farms	Acres operated	Reporting farms	Acres operated
	<i>Number</i>	<i>Acres</i>	<i>Number</i>	<i>Acres</i>	<i>Number</i>	<i>Acres</i>	<i>Number</i>	<i>Acres</i>
All farms	2,068,000	897,674,146	138,000	25,492,745	221,000	54,477,477	420,000	118,185,221
	<i>Percent of reporting farms or acres operated</i>							
Sales class:								
Less than \$50,000	74.1	35.4	72.0	47.3	68.3	39.2	68.0	30.0
\$50,000 or more	25.9	64.6	28.0	52.7	31.7	60.8	32.0	70.0
\$50,000 - \$99,999	9.4	16.1	9.6	11.6	11.7	12.9	10.9	12.8
\$100,000 - \$249,999	10.6	22.1	12.2	22.0	14.4	26.5	14.0	27.4
\$250,000 - \$499,999	3.6	12.8	3.6	6.4	3.9	13.3	5.0	18.4
\$500,000 - \$999,999	1.5	6.7	1.7	* 7.7	1.2	5.4	1.7	9.2
\$1,000,000 or more	0.8	* 6.9	0.9	5.0	0.5	2.8	0.4	2.3
Legal organization: <sup>1</sup>								
Individual	91.5	74.0	90.3	79.3	91.7	84.7	90.0	79.9
Partnership	4.9	13.1	5.8	12.0	* 5.8	8.7	4.6	10.3
Corporation	3.4	12.7	* 3.8	* 8.7	2.4	6.6	4.9	9.8
Tenure class:								
Full owner	55.0	28.3	53.3	30.8	56.4	28.8	52.2	24.8
Part owner	36.0	59.2	40.9	63.5	35.2	60.2	37.3	60.1
Tenant	9.0	12.5	5.9	5.7	8.5	11.0	10.6	15.1
Acres operated:								
Acres owned	92.3	62.7	94.7	69.7	92.3	65.3	90.3	54.5
Acres rented in	45.0	43.0	46.7	33.1	43.6	39.3	47.8	50.9
Cash rent	31.4	27.8	30.6	25.3	32.9	30.5	32.3	25.1
Share rent	13.6	12.6	* 2.4	* 1.8	7.1	5.1	21.7	24.9
Free use	9.9	2.6	21.1	6.0	* 9.6	* 3.7	6.4	0.9
Acres rented out	11.8	5.8	12.3	* 2.8	13.0	4.6	13.7	5.4
Acres idled by government programs <sup>2</sup>	25.5	6.1	13.4	3.1	44.9	9.6	43.0	7.3
Conservation Reserve Program	12.4	4.2	* 3.1	* 0.9	21.9	7.3	17.1	5.1
Acreage Reduction Program	14.3	1.3	10.0	0.9	26.0	1.5	29.4	2.0

See footnotes at end of table.

Continued--

**Appendix table 4--Distribution of acres operated, by farm characteristics, tenure class, and region, 1995--continued**

Item	Northern Plains		Appalachian		Southeast		Delta	
	Reporting farms	Acres operated	Reporting farms	Acres operated	Reporting farms	Acres operated	Reporting farms	Acres operated
	<i>Number</i>	<i>Acres</i>	<i>Number</i>	<i>Acres</i>	<i>Number</i>	<i>Acres</i>	<i>Number</i>	<i>Acres</i>
All farms	187,000	181,279,897	296,000	52,783,934	153,000	37,903,118	111,000	30,561,361
	<i>Percent of reporting farms or acres operated</i>							
Sales class:								
Less than \$50,000	53.6	23.4	87.7	70.1	80.5	44.2	79.5	* 45.2
\$50,000 or more	46.4	76.6	12.3	29.9	19.5	55.8	20.5	** 54.8
\$50,000 - \$99,999	19.2	19.3	5.2	10.8	6.4	* 13.5	* 5.9	15.5
\$100,000 - \$249,999	19.6	33.1	4.4	8.8	7.3	11.2	8.3	18.2
\$250,000 - \$499,999	5.2	14.9	1.7	6.6	2.8	* 9.0	3.7	8.6
\$500,000 - \$999,999	1.6	7.2	* 0.5	1.9	2.1	7.4	* 2.0	8.0
\$1,000,000 or more	* 0.8	* 2.1	* 0.5	1.8	0.9	* 14.7	0.6	4.4
Legal organization: <sup>1</sup>								
Individual	92.7	82.6	95.2	87.2	90.7	62.2	94.5	71.0
Partnership	4.9	9.7	3.7	9.1	* 5.4	10.6	* 4.4	* 23.9
Corporation	2.4	7.6	1.1	3.8	3.8	* 27.2	* 1.0	* 5.0
Tenure class:								
Full owner	41.0	14.2	57.0	43.4	57.6	47.2	54.1	38.5
Part owner	46.1	73.6	38.3	50.8	34.4	44.7	38.2	43.0
Tenant	12.9	12.2	* 4.7	5.8	8.0	8.0	7.7	18.5
Acres operated:								
Acres owned	88.7	62.7	96.4	70.5	94.9	75.2	94.6	60.8
Acres rented in	59.0	51.3	43.0	31.8	42.4	28.4	45.9	42.8
Cash rent	43.6	29.5	24.0	18.9	32.6	25.2	26.8	24.0
Share rent	35.8	21.5	13.3	6.4	* 1.0	* 0.9	7.7	15.4
Free use	* 3.9	* 0.4	15.7	6.5	14.9	* 2.4	18.0	3.4
Acres rented out	29.0	* 14.4	8.5	* 2.3	8.7	3.6	* 4.5	* 3.7
Acres idled by government programs <sup>2</sup>	52.8	8.3	11.1	3.5	10.6	* 6.2	8.9	4.1
Conservation Reserve Program	27.3	6.2	* 7.1	* 2.8	7.6	* 4.9	* 4.8	* 2.0
Acreage Reduction Program	30.0	1.7	3.6	* 0.5	3.4	1.2	3.6	* 1.9

See footnotes at end of table.

Continued--

**Appendix table 4--Distribution of acres operated, by farm characteristics, tenure class, and region, 1995--continued**

Item	Southern Plains		Mountain		Pacific	
	Reporting farms	Acres operated	Reporting farms	Acres operated	Reporting farms	Acres operated
	<i>Number</i>	<i>Acres</i>	<i>Number</i>	<i>Acres</i>	<i>Number</i>	<i>Acres</i>
All farms	273,000	141,003,707	114,500	198,055,320	154,500	57,931,365
	<i>Percent of reporting farms or acres operated</i>					
Sales class:						
Less than \$50,000	85.2	48.7	68.5	28.3	73.5	24.1
\$50,000 or more	14.8	51.3	31.5	71.7	26.5	75.9
\$50,000 - \$99,999	6.3	20.2	11.9	13.0	7.4	* 25.7
\$100,000 - \$249,999	5.5	13.2	11.5	23.3	8.5	11.1
\$250,000 - \$499,999	1.8	9.5	4.7	11.9	4.6	18.4
\$500,000 - \$999,999	0.9	5.1	2.1	6.3	2.2	* 9.3
\$1,000,000 or more	* 0.4	* 3.3	1.2	** 17.1	3.8	11.3
Legal organization: <sup>1</sup>						
Individual	96.1	83.2	83.7	55.7	83.9	60.5
Partnership	* 2.8	* 12.1	9.2	* 19.4	6.8	15.1
Corporation	* 1.1	* 4.7	7.1	24.7	9.2	24.1
Tenure class:						
Full owner	59.7	30.8	47.5	30.7	70.6	31.8
Part owner	30.6	51.6	44.3	62.1	16.1	44.3
Tenant	9.7	17.5	8.2	* 7.3	* 13.3	* 23.9
Acres operated:						
Acres owned	92.4	55.0	92.7	69.9	87.0	53.0
Acres rented in	40.3	47.6	52.5	33.2	29.4	50.5
Cash rent	32.5	34.9	33.8	24.7	24.9	31.1
Share rent	8.8	10.2	19.4	6.7	5.1	9.7
Free use	* 5.6	* 2.5	* 10.8	* 1.8	* 2.0	** 9.6
Acres rented out	7.6	2.7	11.3	* 3.4	6.6	3.6
Acres idled by government programs <sup>2</sup>	13.9	5.8	21.1	4.7	5.7	4.1
Conservation Reserve Program	7.7	* 3.1	15.6	3.5	* 2.8	* 2.0
Acreage Reduction Program	4.7	1.3	6.3	0.6	2.8	* 1.2

\* = The relative standard error of the estimate (RSE) exceeds 25 percent, but is no more than 50 percent.

\*\* = The RSE of the estimate exceeds 50 percent, but is no more than 75 percent.

d = Data insufficient for disclosure.

<sup>1</sup> Excludes cooperative farms. Therefore, subcategories may not sum to all farms.

<sup>2</sup> Acres idled by government programs includes acres idled by Conservation Reserve Program, Acreage Reduction Program, and other government programs. Therefore, subcategories may not sum to all acres idled.

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



**Appendix table 5--Acres operated and gross value of sales, by farm characteristics and legal organization, 1995**

Item	All <sup>1</sup>			Individual			Partnership		
	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross value of sales
	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>
All farms	2,068,000	434	80,621	1,891,987	351	54,287	102,220	1,154	218,795
Sales class:									
Less than \$50,000	1,531,760	207	10,130	1,461,002	197	9,986	44,706	459	13,574
\$50,000 or more	536,240	1,082	281,978	430,985	873	204,462	57,514	1,694	378,316
\$50,000 - \$99,999	194,462	744	78,418	171,785	696	79,379	16,471	840	71,495
\$100,000 - \$249,999	218,968	905	169,125	184,520	831	168,405	18,974	977	168,573
\$250,000 - \$499,999	75,210	1,525	349,136	51,348	1,345	345,482	11,393	1,717	366,699
\$500,000 - \$999,999	30,234	1,992	681,875	16,481	1,554	692,911	7,202	d	696,647
\$1,000,000 or more	17,366	* 3,583	2,997,382	6,851	1,263	2,080,009	3,473	d	2,357,269
Acreage class:									
49 or fewer acres	578,127	23	29,168	539,763	23	19,630	16,648	19	120,692
50 - 179 acres	670,378	104	34,217	639,718	104	28,307	22,129	106	82,613
180 - 499 acres	439,630	308	82,190	407,414	308	60,287	21,961	307	159,723
500 - 999 acres	196,752	680	191,222	166,438	676	132,477	17,298	688	201,745
1,000 or more acres	183,113	2,979	290,353	138,654	2,505	197,576	24,185	3,996	476,767
Farm type:									
Cash grains	389,081	649	105,820	350,699	571	89,266	20,703	1,414	265,664
Tobacco	74,106	149	40,846	72,124	139	36,079	* 1,877	488	* 212,254
Cotton	23,752	987	228,328	19,431	893	181,907	2,989	1,525	482,580
Other field crops	234,567	259	29,980	213,635	233	20,429	* 12,496	* 417	* 82,179
Vegetables, fruits, or tree nuts	92,214	168	169,389	73,444	87	83,410	9,820	227	218,158
Nursery or greenhouse	60,993	67	163,739	49,005	59	* 88,441	d	d	d
Beef, hogs, or sheep	953,649	489	45,748	901,450	369	26,413	31,192	* 2,137	164,058
Poultry	26,502	126	502,419	23,687	117	368,483	d	d	d
Dairy	121,891	352	208,586	103,619	310	160,654	13,677	571	379,415
Other livestock	91,244	* 195	* 22,966	84,891	* 119	* 14,818	d	d	d
Tenure class:									
Full owner	1,137,109	223	47,708	1,059,179	177	27,636	41,692	622	105,364
Part owner	744,593	714	114,443	675,409	584	87,899	43,142	1,696	265,723
Tenant	186,298	602	146,335	157,399	525	89,397	17,386	1,085	374,360
Financial position:									
Favorable	1,123,290	396	85,611	1,025,864	324	58,190	56,259	868	213,957
Marginal income	708,994	455	42,019	657,660	352	27,080	29,862	* 1,720	120,704
Marginal solvency	105,403	575	258,962	92,618	513	185,556	7,682	876	482,136
Vulnerable	130,314	535	103,383	115,844	458	69,225	* 8,417	* 1,309	* 358,790

See footnotes at end of table.

Continued--

**Appendix table 5--Acres operated and gross value of sales, by farm characteristics and legal organization, 1995--continued**

Item	Corporation		
	Farms	Mean acres operated	Mean gross value of sales
	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>
All farms	71,110	1,608	576,925
Sales class:			
Less than \$50,000	23,985	* 368	13,058
\$50,000 or more	47,125	2,240	863,916
\$50,000 - \$99,999	6,206	* 1,834	70,183
\$100,000 - \$249,999	15,148	1,727	177,952
\$250,000 - \$499,999	12,346	2,098	347,688
\$500,000 - \$999,999	6,473	2,532	638,083
\$1,000,000 or more	6,951	* 3,701	4,194,676
Acreage class:			
49 or fewer acres	* 19,355	22	* 212,687
50 - 179 acres	* 8,523	100	* 351,630
180 - 499 acres	10,193	325	* 788,538
500 - 999 acres	12,991	711	924,246
1,000 or more acres	20,048	5,015	691,689
Farm type:			
Cash grains	15,554	1,461	279,727
Tobacco	d	d	d
Cotton	* 1,326	1,099	305,490
Other field crops	* 8,423	* 692	* 191,913
Vegetables, fruits, or tree nuts	* 8,867	** 768	* 806,960
Nursery or greenhouse	6,542	* 156	740,434
Beef, hogs, or sheep	20,896	* 3,176	* 697,295
Poultry	** 2,012	** 167	* 1,926,556
Dairy	4,571	663	779,956
Other livestock	d	d	d
Tenure class:			
Full owner	34,050	* 1,169	597,184
Part owner	25,849	2,471	544,983
Tenant	11,211	954	589,042
Financial position:			
Favorable	38,884	1,628	623,485
Marginal income	21,284	1,842	* 378,700
Marginal solvency	* 5,067	* 1,232	* 1,263,365
Vulnerable	* 5,874	953	* 394,832

\* = The relative standard error of the estimate exceeds 25 percent, but is no more than 50 percent. \*\* = The relative standard error of the estimate exceeds 50 percent, but is no more than 75 percent.

d = Data insufficient for disclosure. <sup>1</sup> Excludes cooperative farms. Therefore, subcategories may not sum to all farms.

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

**Appendix table 6--Acres operated and gross value of sales, by farm operator and household characteristics and legal organization, 1995**

Item	All <sup>1</sup>			Individual			Partnership		
	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross value of sales	Farms	Mean acres operated	Mean gross value of sales
	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>
All farms	2,068,000	434	80,621	1,891,987	351	54,287	102,220	1,154	218,795
All farm households	2,036,810	407	70,404	1,880,516	349	54,251	100,226	966	205,594
Operator major occupation:									
Farming	905,770	718	145,591	804,934	616	108,999	60,047	1,334	314,880
Hired farm manager	21,791	2,931	* 778,117	* 11,470	* 674	* 60,097	1,995	d	* 882,164
Other occupation	805,134	163	17,248	753,680	148	14,882	29,870	* 488	38,063
Retired	335,305	156	11,957	321,903	152	9,530	* 10,310	d	* 54,459
Operator age:									
Under 35 years	171,256	407	88,668	156,871	308	66,797	9,365	1,272	229,004
35 - 44 years	418,049	467	118,870	372,494	389	81,491	24,787	931	293,288
45 - 54 years	485,732	489	102,179	442,263	387	61,216	21,361	975	221,131
55 - 64 years	474,100	432	68,300	436,733	329	49,445	22,844	* 1,786	186,209
65 years or older	518,863	367	38,225	483,626	323	27,312	23,863	895	166,515
Operator education:									
Less than high school	427,656	238	35,904	411,858	211	29,941	12,550	772	144,452
High school	831,251	387	73,500	766,198	344	58,428	38,662	851	213,064
Some college	450,334	524	95,469	411,081	443	62,460	24,560	1,041	265,503
College	358,759	665	131,788	302,850	436	65,825	26,448	* 1,883	219,079
Positive household income and:									
Loss from farming	999,623	219	17,001	958,873	193	14,567	32,820	783	* 60,232
0 - 24 percent from farming	378,881	255	35,573	351,058	245	30,239	17,524	403	61,476
25 - 49 percent from farming	146,731	503	82,895	134,063	455	68,606	8,861	737	223,560
50 - 74 percent from farming	130,372	699	148,227	111,276	602	120,692	12,804	991	267,497
75 percent or more from farming	210,872	882	287,264	176,984	749	225,926	17,261	1,434	531,736
Negative household income	170,331	957	122,493	148,263	843	99,989	10,955	1,836	270,859

See footnotes at end of table.

Continued--

**Appendix table 6--Acres operated and gross value of sales, by operator and household characteristics and legal organization, 1995--continued**

Item	Corporation		
	Farms	Mean acres operated	Mean gross value of sales
	<i>Number</i>	<i>Acres</i>	<i>Dollars</i>
All farms	71,110	1,608	576,925
All farm households	56,067	1,354	370,517
Operator major occupation:			
Farming	40,503	1,814	614,235
Hired farm manager	8,006	* 4,366	1,780,567
Other occupation	* 19,507	* 251	* 77,412
Retired	d	d	d
Operator age:			
Under 35 years	4,848	* 1,926	* 516,323
35 - 44 years	18,483	1,456	641,743
45 - 54 years	22,026	* 2,057	799,108
55 - 64 years	14,498	1,375	445,334
65 years or older	* 11,254	* 1,144	* 231,252
Operator education:			
Less than high school	* 3,122	* 1,487	* 351,831
High school	26,366	945	303,973
Some college	12,292	2,291	872,183
College	29,330	* 1,932	722,517
Positive household income and:			
Loss from farming	7,929	* 1,016	* 132,434
0 - 24 percent from farming	* 10,299	** 352	* 173,296
25 - 49 percent from farming	3,807	* 1,638	258,645
50 - 74 percent from farming	6,292	* 1,817	392,490
75 percent or more from farming	16,627	1,726	686,374
Negative household income	11,113	* 1,608	276,473

\* = The relative standard error of the estimate exceeds 25 percent, but is no more than 50 percent.

\*\* = The relative standard error of the estimate exceeds 50 percent, but is no more than 75 percent.

d = Data insufficient for disclosure.

<sup>1</sup> Excludes cooperative farms. Therefore, subcategories may not sum to all farms.

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

**Appendix table 7--Farm income and assets on reporting farms, by legal organization, 1995**

Item	All <sup>1</sup>		Individual		Partnership		Corporation	
	Reporting farms	Income and assets	Reporting farms	Income and assets	Reporting farms	Income and assets	Reporting farms	Income and assets
	<i>Number</i>	<i>1,000 dollars</i>	<i>Number</i>	<i>1,000 dollars</i>	<i>Number</i>	<i>1,000 dollars</i>	<i>Number</i>	<i>1,000 dollars</i>
Gross cash farm income	1,933,060	151,944,277	1,764,152	94,903,196	97,727	22,522,000	68,498	33,958,836
Livestock sales	1,233,015	59,616,267	1,141,278	37,156,658	58,531	9,658,373	32,881	12,613,145
Crop sales	970,852	67,834,696	866,960	41,394,879	58,817	9,421,819	42,585	16,696,222
Government payments	684,168	5,615,194	603,203	4,380,843	45,310	730,686	35,390	496,997
Other farm-related income	902,837	18,878,119	803,108	11,970,816	57,313	2,711,123	42,179	4,152,471
Cash expenses	2,067,449	126,221,075	1,891,436	79,650,437	102,220	18,234,323	71,110	27,786,119
Net cash farm income	2,066,733	25,723,201	1,891,383	15,252,759	101,556	4,287,677	71,110	6,172,717
Net farm income	2,067,693	21,585,401	1,891,680	13,719,403	102,220	3,421,522	71,110	4,479,045
<i>Percent of reporting farms or gross cash farm income</i>								
Gross cash farm income	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Livestock sales	63.8	39.2	64.7	39.2	59.9	42.9	48.0	37.1
Crop sales	50.2	44.6	49.1	43.6	60.2	41.8	62.2	49.2
Government payments	35.4	3.7	34.2	4.6	46.4	3.2	51.7	1.5
Other farm-related income	46.7	12.4	45.5	12.6	58.6	12.0	61.6	12.2
Cash expenses	107.0	83.1	107.2	83.9	104.6	81.0	103.8	81.8
Net cash farm income	106.9	16.9	107.2	16.1	103.9	19.0	103.8	18.2
Net farm income	107.0	14.2	107.2	14.5	104.6	15.2	103.8	13.2
<i>Percent of reporting farms or farm assets</i>								
Farm assets	2,064,364	839,747,803	1,889,782	646,153,166	100,789	88,457,312	71,110	103,995,622
Farm liabilities	2,015,895	109,917,754	1,844,678	81,653,273	98,233	13,762,714	70,307	14,233,671
Farm equity	2,065,796	729,830,049	1,889,782	564,499,892	102,220	74,694,598	71,110	89,761,951
Farm assets	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Farm liabilities	97.7	13.1	97.6	12.6	97.5	15.6	98.9	13.7
Farm equity	100.1	86.9	100.0	87.4	101.4	84.4	100.0	86.3

<sup>1</sup> Excludes cooperative farms. Therefore, subcategories may not sum to all farms.

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

**Appendix table 8--Distribution of acres operated, by farm characteristics, tenure class, and legal organization, 1995**

Item	All <sup>1</sup>		Individual		Partnership		Corporation	
	Reporting farms	Acres operated	Reporting farms	Acres operated	Reporting farms	Acres operated	Reporting farms	Acres operated
	<i>Number</i>	<i>Acres</i>	<i>Number</i>	<i>Acres</i>	<i>Number</i>	<i>Acres</i>	<i>Number</i>	<i>Acres</i>
All farms	2,068,000	897,674,146	1,891,987	664,393,098	102,220	117,963,051	71,110	114,374,830
	<i>Percent of reporting farms or acres operated</i>							
Sales class:								
Less than \$50,000	74.1	35.4	77.2	43.4	43.7	17.4	33.7	* 7.7
\$50,000 or more	25.9	64.6	22.8	56.6	56.3	82.6	66.3	92.3
\$50,000 - \$99,999	9.4	16.1	9.1	18.0	16.1	11.7	8.7	* 10.0
\$100,000 - \$249,999	10.6	22.1	9.8	23.1	18.6	15.7	21.3	22.9
\$250,000 - \$499,999	3.6	12.8	2.7	10.4	11.1	16.6	17.4	22.6
\$500,000 - \$999,999	1.5	6.7	0.9	3.9	7.0	15.2	9.1	14.3
\$1,000,000 or more	0.8	6.9	0.4	1.3	3.4	23.4	9.8	22.5
Legal organization: <sup>1</sup>								
Individual	91.5	74.0	100.0	100.0	0.0	0.0	0.0	0.0
Partnership	4.9	13.1	0.0	0.0	100.0	100.0	0.0	0.0
Corporation	3.4	12.7	0.0	0.0	0.0	0.0	100.0	100.0
Tenure class:								
Full owner	55.0	28.3	56.0	28.2	40.8	22.0	47.9	34.8
Part owner	36.0	59.2	35.7	59.3	42.2	62.0	36.4	55.8
Tenant	9.0	12.5	8.3	12.4	17.0	16.0	15.8	9.4
Acres operated:								
Acres owned	92.3	62.7	93.0	61.1	84.6	60.8	84.9	73.5
Acres rented in	45.0	43.0	44.0	44.3	59.2	48.1	52.1	30.2
Cash rent	31.4	27.8	30.2	27.7	47.4	35.0	39.9	21.0
Share rent	13.6	12.6	13.0	13.5	21.4	12.3	18.8	8.2
Free use	9.9	2.6	10.2	3.2	7.5	0.8	* 5.6	* 1.1
Acres rented out	11.8	5.8	12.0	5.5	9.2	9.2	12.0	* 3.9
Acres idled by government programs <sup>2</sup>	25.5	6.1	24.7	6.8	35.1	4.3	34.2	4.0
Conservation Reserve Program	12.4	4.2	12.2	4.8	14.7	2.4	15.2	* 2.5
Acreage Reduction Program	14.3	1.3	13.5	1.3	22.0	1.4	23.5	1.0

\* = The relative standard error of the estimate exceeds 25 percent, but is no more than 50 percent.

d = Data insufficient for disclosure. <sup>1</sup> Excludes cooperative farms. Therefore, subcategories may not sum to all farms.

<sup>2</sup> Acres idled by government programs includes acres idled by Conservation Reserve Program, Acreage Reduction Program, and other government programs. Therefore, subcategories may not sum to all acres idled.

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

**Appendix table 9--Distribution of farm income and assets, by farm, operator, and household characteristics, 1995**

Item	Gross cash farm income	Livestock sales	Crop sales	Government payments	Other farm related income	Cash expenses	Net cash farm income	Net farm income
	<i>1,000 dollars</i>							
All farms	151,944,277	59,616,267	67,834,696	5,615,194	18,878,119	126,221,075	25,723,201	21,585,401
	<i>Percent of gross cash farm income</i>							
Sales class:								
Less than \$50,000	19,118,958	37.4	29.3	8.5	24.7	113.6	* -13.6	d
\$50,000 or more	132,825,318	39.5	46.8	3.0	10.7	78.7	21.3	15.7
\$50,000 - \$99,999	14,484,262	37.6	45.2	4.5	12.7	83.3	16.7	* 8.1
\$100,000 - \$249,999	34,019,250	39.8	44.1	4.6	11.5	79.0	21.0	14.0
\$250,000 - \$499,999	23,913,868	34.9	50.2	4.3	10.6	77.4	22.6	17.5
\$500,000 - \$999,999	17,929,173	29.1	55.2	2.9	12.7	75.0	25.0	18.4
\$1,000,000 or more	42,478,765	46.9	44.2	0.5	8.4	79.1	20.9	17.4
Acreage class:								
49 or fewer acres	12,395,642	37.1	45.0	* 0.6	17.3	93.1	** 6.9	17.8
50 - 179 acres	19,659,553	48.4	35.5	2.8	13.3	92.4	* 7.6	12.8
180 - 499 acres	32,714,046	49.9	34.8	3.6	11.6	79.4	20.6	17.7
500 - 999 acres	33,482,367	36.5	48.0	4.2	11.2	81.2	18.8	13.4
1,000 or more acres	53,692,668	31.5	51.8	4.4	12.2	80.7	19.3	12.2
Farm type:								
Cash grains	39,003,955	10.3	69.5	7.5	12.7	76.4	23.6	20.9
Tobacco	2,415,603	8.9	83.4	0.9	6.8	73.4	26.6	27.8
Cotton	6,230,710	1.5	73.0	3.3	22.1	76.4	23.6	16.7
Other field crops	8,655,904	3.3	60.8	12.4	23.5	77.9	22.1	26.4
Vegetables, fruits, or tree nuts	16,960,044	* 0.4	81.7	0.4	17.4	81.9	18.1	15.4
Nursery or greenhouse	10,395,971	** 0.3	95.5	** 0.1	4.0	78.0	22.0	21.8
Beef, hogs, or sheep	35,304,018	75.0	11.2	2.8	11.0	97.1	d	d
Poultry	4,661,452	59.9	* 2.1	* 0.3	37.8	79.8	* 20.2	* 17.3
Dairy	25,722,533	91.9	3.9	1.1	3.1	77.9	22.1	15.7
Other livestock	2,594,087	76.5	* 2.8	* 0.6	20.0	119.2	** -19.2	** -19.3
Legal organization: <sup>1</sup>								
Individual	94,903,196	39.2	43.6	4.6	12.6	83.9	16.1	14.5
Partnership	22,522,000	42.9	41.8	3.2	12.0	81.0	19.0	15.2
Corporation	33,958,836	37.1	49.2	1.5	12.2	81.8	18.2	13.2
Tenure class:								
Full owner	43,281,726	46.7	33.1	3.7	16.4	86.7	13.3	16.4
Part owner	83,441,000	37.9	47.2	3.8	11.1	81.4	18.6	13.6
Tenant	25,221,551	30.9	55.9	3.4	9.8	82.3	17.7	12.4

See footnotes at end of table.

Continued--

**Appendix table 9--Distribution of farm income and assets, by farm, operator, and household characteristics, 1995--continued**

	Gross cash farm income	Livestock sales	Crop sales	Government payments	Other farm related income	Cash expenses	Net cash farms income	Net farm income
<i>1,000 dollars</i>								
All farms	151,944,277	59,616,267	67,834,696	5,615,194	18,878,119	126,221,075	25,723,201	21,585,401
<i>Percent of gross cash farm income</i>								
Operator major occupation:	<i>1,000 dollars</i>							
Farming	120,060,139	39.4	45.8	3.5	11.3	79.8	20.2	15.5
Hired farm manager	14,262,835	41.9	43.4	0.8	13.8	81.4	18.6	* 12.7
Other occupation	12,842,922	34.3	43.2	6.0	16.5	117.0	-17.0	** -5.7
Retired	4,778,380	39.6	22.0	11.7	26.7	79.4	* 20.6	40.1
Operator age:	<i>1,000 dollars</i>							
Under 35 years	14,111,488	38.9	49.0	3.1	9.0	84.6	15.4	* 11.3
35 - 44 years	43,846,177	42.2	43.9	2.9	11.0	83.3	16.7	13.0
45 - 54 years	41,038,362	37.4	46.0	3.3	13.3	83.9	16.1	13.1
55 - 64 years	31,944,101	35.3	46.9	4.3	13.5	82.5	17.5	14.2
65 years or older	21,004,149	42.7	37.3	5.6	14.3	80.7	19.3	20.7
Operator education:	<i>1,000 dollars</i>							
Less than high school	14,419,529	49.7	34.4	3.8	12.1	82.9	17.1	18.0
High school	54,452,515	40.7	44.0	4.1	11.3	82.2	17.8	15.0
Some college	39,355,335	37.3	44.6	3.9	14.2	82.1	17.9	14.5
College	43,716,898	35.7	48.9	3.1	12.3	85.0	15.0	11.8
<i>1,000 dollars</i>								
All farm households	134,794,676	53,279,646	59,553,713	5,460,819	16,500,498	111,945,293	22,849,383	19,583,126
<i>Percent of gross cash farm income</i>								
Positive household income and:	<i>1,000 dollars</i>							
Loss from farming	15,103,458	47.3	36.1	4.5	12.0	140.5	-40.5	-28.3
0 - 24 percent from farming	11,643,801	38.3	40.6	7.7	13.4	75.2	24.8	26.6
25 - 49 percent from farming	10,946,360	37.1	44.1	5.4	13.4	68.7	31.3	26.3
50 - 74 percent from farming	17,578,626	38.8	41.9	5.1	14.2	67.1	32.9	28.8
75 percent or more from farming	60,058,781	35.5	49.9	2.7	11.9	64.2	35.8	32.2
Negative household income	19,463,650	48.7	37.0	3.9	10.4	123.8	-23.8	-33.5

See footnotes at end of table.

Continued--



**Appendix table 9--Distribution of farm income and assets, by farm, operator, and household characteristics, 1995--continued**

	Farm assets	Farm liabilities	Farm equity
	<i>1,000 dollars</i>		
All farms	839,747,803	109,917,754	729,830,049
	<i>1,000 dollars</i>	<i>Percent of farm assets</i>	
Sales class:			
Less than \$50,000	405,585,779	7.5	92.5
\$50,000 or more	434,162,024	18.3	81.7
\$50,000 - \$99,999	96,352,649	14.3	85.7
\$100,000 - \$249,999	139,011,300	18.9	81.1
\$250,000 - \$499,999	79,097,106	18.7	81.3
\$500,000 - \$999,999	48,958,837	19.9	80.1
\$1,000,000 or more	70,742,132	21.0	79.0
Acreage class:			
49 or fewer acres	116,336,386	10.3	89.7
50 - 179 acres	180,522,725	9.1	90.9
180 - 499 acres	185,190,517	13.1	86.9
500 - 999 acres	132,453,188	15.7	84.3
1,000 or more acres	225,244,987	16.2	83.8
Farm type:			
Cash grains	182,478,253	16.0	84.0
Tobacco	15,628,012	8.8	91.2
Cotton	13,142,629	21.3	78.7
Other field crops	77,513,892	10.0	90.0
Vegetables, fruits, or tree nuts	69,888,566	12.6	87.4
Nursery or greenhouse	28,185,201	12.3	87.7
Beef, hogs, or sheep	334,713,557	10.0	90.0
Poultry	13,637,307	23.2	76.8
Dairy	76,703,174	21.1	78.9
Other livestock	27,857,211	13.0	87.0
Legal organization: <sup>1</sup>			
Individual	646,153,166	12.6	87.4
Partnership	88,457,312	15.6	84.4
Corporation	103,995,622	13.7	86.3
Tenure class:			
Full owner	407,280,238	9.4	90.6
Part owner	398,135,545	15.7	84.3
Tenant	34,332,020	25.8	74.2

See footnotes at end of table.

Continued--

**Appendix table 9--Distribution of farm income and assets, by farm, operator, and household characteristics, 1995--continued**

	Farm assets	Farm liabilities	Farm equity
		<i>1,000 dollars</i>	
All farms	839,747,803	109,917,754	729,830,049
	<i>1,000 dollars</i>	<i>Percent of farm household assets</i>	
Operator major occupation:			
Farming	498,880,347	15.7	84.3
Hired farm manager	49,196,733	10.4	89.6
Other occupation	199,564,202	12.1	87.9
Retired	92,106,520	2.5	97.5
Operator age:			
Under 35 years	57,693,815	19.0	81.0
35 - 44 years	176,757,807	19.9	80.1
45 - 54 years	211,369,511	14.5	85.5
55 - 64 years	200,705,162	10.8	89.2
65 years or older	193,221,508	5.9	94.1
Operator education:			
Less than high school	116,658,196	8.8	91.2
High school	318,261,627	12.7	87.3
Some college	200,475,634	15.5	84.5
College	204,352,346	13.8	86.2
		<i>1,000 dollars</i>	
All farm households	782,906,496	103,393,757	679,512,739
	<i>1,000 dollars</i>	<i>Percent of farm household assets</i>	
Positive household income and:			
Loss from farming	273,352,416	10.7	89.3
0 - 24 percent from farming	101,175,794	9.2	90.8
25 - 49 percent from farming	64,709,926	9.9	90.1
50 - 74 percent from farming	73,467,645	13.4	86.6
75 percent or more from farming	160,491,591	17.0	83.0
Negative household income	109,709,125	19.3	80.7

\* = The relative standard error of the estimate exceeds 25 percent, but is no more than 50 percent.

\*\* = The relative standard error of the estimate exceeds 50 percent, but is no more than 75 percent.

d = Data insufficient for disclosure.

<sup>1</sup> Excludes cooperative farms. Therefore, subcategories may not sum to all farms.

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

**Appendix table 10--Farms reporting farm income and assets, by farm, operator, and household characteristics, 1995**

	Gross cash farm income	Livestock sales	Crop sales	Government payments	Other farm related income	Cash expenses	Net cash farm income	Net farm income
<i>Number of reporting farms</i>								
All reporting farms	1,933,060	1,233,015	970,852	684,168	902,837	2,067,449	2,066,733	2,067,693
Sales class:								
Less than \$50,000	1,396,819	894,307	558,931	368,576	510,212	1,531,209	1,530,507	1,531,460
\$50,000 or more	536,240	338,709	411,921	315,592	392,624	536,240	536,226	536,233
\$50,000 - \$99,999	194,462	129,543	146,602	100,426	123,139	194,462	194,448	194,455
\$100,000 - \$249,999	218,968	142,080	169,061	139,434	169,696	218,968	218,968	218,968
\$250,000 - \$499,999	75,210	42,989	60,894	50,971	61,077	75,210	75,210	75,210
\$500,000 - \$999,999	30,234	14,863	23,847	18,543	25,616	30,234	30,234	30,234
\$1,000,000 or more	17,366	9,235	11,518	6,218	13,097	17,366	17,366	17,366
Acreage class:								
49 or fewer acres	494,797	282,946	203,829	44,569	117,838	578,127	577,742	578,127
50 - 179 acres	624,653	395,690	257,746	171,386	258,972	670,117	670,175	670,378
180 - 499 acres	434,416	301,783	235,110	211,709	244,594	439,341	439,630	439,330
500 - 999 acres	196,081	127,128	144,659	127,858	139,302	196,752	196,073	196,745
1,000 or more acres	183,113	125,470	129,509	128,648	142,130	183,113	183,113	183,113
Farm type:								
Cash grains	388,852	146,436	380,470	267,367	271,725	389,081	389,081	389,081
Tobacco	74,106	32,227	73,073	5,668	19,331	74,106	74,092	73,807
Cotton	23,752	4,547	22,189	17,388	17,457	23,752	23,752	23,752
Other field crops	230,045	21,244	94,012	152,539	95,663	234,017	234,567	234,567
Vegetables, fruits, or tree nuts	82,167	* 8,807	75,903	6,002	37,775	92,214	92,214	92,214
Nursery or greenhouse	59,024	d	58,735	d	15,250	60,993	60,993	60,986
Beef, hogs, or sheep	856,161	823,988	196,828	170,119	304,132	953,649	953,264	953,649
Poultry	26,502	14,805	* 3,988	* 3,805	23,583	26,502	26,502	26,502
Dairy	120,532	119,302	54,962	53,452	88,779	121,891	121,227	121,891
Other livestock	71,919	60,399	* 10,692	* 5,673	29,141	91,244	91,041	91,244
Legal organization: <sup>1</sup>								
Individual	1,764,152	1,141,278	866,960	603,203	803,108	1,891,436	1,891,383	1,891,680
Partnership	97,727	58,531	58,817	45,310	57,313	102,220	101,556	102,220
Corporation	68,498	32,881	42,585	35,390	42,179	71,110	71,110	71,110
Tenure class:								
Full owner	1,029,333	599,726	397,974	300,160	387,127	1,136,558	1,136,905	1,136,802
Part owner	729,538	534,389	444,994	301,697	416,869	744,593	743,915	744,593
Tenant	174,189	98,900	127,885	82,312	98,840	186,298	185,912	186,298

See footnotes at end of table.

Continued--

**Appendix table 10--Farms reporting farm income and assets, by farm, operator, and household characteristics, 1995--continued**

	Gross cash farm income	Livestock sales	Crop sales	Government payments	Other farm related income	Cash expenses	Net cash farms income	Net farm income
<i>Number of reporting farms</i>								
Operator major occupation:								
Farming	878,610	573,844	575,298	415,856	551,873	905,331	904,705	905,463
Hired farm manager	21,769	8,876	11,042	* 9,531	10,456	21,791	21,791	21,791
Other occupation	730,190	486,959	293,342	161,655	245,972	805,134	805,134	805,134
Retired	302,490	163,337	91,171	97,127	94,535	335,193	335,102	335,305
Operator age:								
Under 35 years	159,078	117,753	86,347	51,838	71,947	171,256	171,256	171,256
35 - 44 years	402,982	278,210	232,216	142,455	201,149	418,049	418,034	418,049
45 - 54 years	442,047	275,171	233,480	155,091	203,413	485,555	485,346	485,732
55 - 64 years	435,637	258,659	211,860	157,593	215,115	474,100	474,100	473,800
65 years or older	493,316	303,222	206,949	177,191	211,213	518,489	517,995	518,856
Operator education:								
Less than high school	400,295	287,618	167,043	84,097	161,610	427,395	426,789	427,656
High school	782,956	506,658	400,523	286,191	367,155	830,962	830,865	831,251
Some college	412,627	246,254	221,573	173,294	203,812	450,334	450,334	450,334
College	337,181	192,486	181,713	140,586	170,260	358,759	358,745	358,452
All reporting farm households	1,901,891	1,223,265	953,337	670,476	890,290	2,036,259	2,035,542	2,036,503
Positive household income and:								
Loss from farming	874,894	634,892	337,122	180,143	297,823	999,623	998,741	999,623
0 - 24 percent from farming	375,026	186,931	183,815	161,195	158,350	378,591	378,495	378,574
25 - 49 percent from farming	146,731	84,694	94,667	69,231	95,656	146,470	146,731	146,731
50 - 74 percent from farming	130,372	74,586	78,468	76,258	94,204	130,372	130,372	130,372
75 percent or more from farming	210,872	129,469	162,042	114,459	147,792	210,872	210,872	210,872
Negative household income	163,996	112,693	97,224	69,190	96,465	170,331	170,331	170,331

See footnotes at end of table.

Continued--

**Appendix table 10--Farms reporting farm income and assets, by farm, operator, and household characteristics, 1995--continued**

	Farm assets	Farm liabilities	Farm equity
<i>Number of reporting farms</i>			
All reporting farms	2,064,364	2,015,895	2,065,796
Sales class:			
Less than \$50,000	1,528,802	1,491,593	1,530,233
\$50,000 or more	535,562	524,302	535,562
\$50,000 - \$99,999	194,462	185,988	194,462
\$100,000 - \$249,999	218,290	216,062	218,290
\$250,000 - \$499,999	75,210	74,693	75,210
\$500,000 - \$999,999	30,234	30,211	30,234
\$1,000,000 or more	17,366	17,348	17,366
Acreage class:			
49 or fewer acres	574,491	553,817	575,923
50 - 179 acres	670,378	657,923	670,378
180 - 499 acres	439,630	427,442	439,630
500 - 999 acres	196,752	194,432	196,752
1,000 or more acres	183,113	182,282	183,113
Farm type:			
Cash grains	389,081	375,961	389,081
Tobacco	72,580	70,653	72,580
Cotton	23,752	22,920	23,752
Other field crops	234,567	230,572	234,567
Vegetables, fruits, or tree nuts	90,783	91,146	92,214
Nursery or greenhouse	60,993	57,680	60,993
Beef, hogs, or sheep	953,649	933,464	953,649
Poultry	25,824	25,813	25,824
Dairy	121,891	121,689	121,891
Other livestock	91,244	85,997	91,244
Legal organization: <sup>1</sup>			
Individual	1,889,782	1,844,678	1,889,782
Partnership	100,789	98,233	102,220
Corporation	71,110	70,307	71,110
Tenure class:			
Full owner	1,137,109	1,115,482	1,137,109
Part owner	744,593	739,897	744,593
Tenant	182,662	160,515	184,093

See footnotes at end of table.

Continued--

**Appendix table 10--Farms reporting farm income and assets, by farm, operator, and household characteristics, 1995--continued**

	Farm assets	Farm liabilities	Farm equity
<i>Number of reporting farms</i>			
Operator major occupation:			
Farming	905,770	878,697	905,770
Hired farm manager	21,791	21,250	21,791
Other occupation	802,929	785,234	802,929
Retired	333,874	330,714	335,305
Operator age:			
Under 35 years	171,256	166,205	171,256
35 - 44 years	417,371	403,476	417,371
45 - 54 years	484,206	475,334	484,206
55 - 64 years	474,100	465,567	474,100
65 years or older	517,431	505,314	518,863
Operator education:			
Less than high school	427,656	415,117	427,656
High school	829,724	810,616	829,724
Some college	450,334	439,131	450,334
College	356,649	351,032	358,081
All reporting farm households	2,033,173	1,985,246	2,034,605
Positive household income and:			
Loss from farming	998,191	987,283	999,623
0 - 24 percent from farming	376,676	358,684	376,676
25 - 49 percent from farming	146,731	141,968	146,731
50 - 74 percent from farming	130,372	125,931	130,372
75 percent or more from farming	210,872	201,867	210,872
Negative household income	170,331	169,513	170,331

\* = The relative standard error of the estimate exceeds 25 percent, but is no more than 50 percent.

<sup>1</sup> Excludes cooperative farms. Therefore, subcategories may not sum to all farms.

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

**Appendix table 11--Distribution of acres operated, by farm, operator, and household characteristics, 1995**

	Total acres operated	Acres owned	Acres cash rented	Acres share rented	Acres free use	Acres rented out	Total acres idled <sup>1</sup>	Conservation Reserve Program	Acreage Reduction Program
<i>Acres</i>									
All farms	897,674,146	562,482,244	249,264,774	113,293,211	23,241,412	51,841,335	54,996,007	37,866,430	11,310,365
<i>Acres</i>									
<i>Percent of acres operated</i>									
Sales class:									
Less than \$50,000	317,593,804	84.5	19.6	4.1	3.6	* 12.0	8.8	7.7	0.6
\$50,000 or more	580,080,341	50.7	32.2	17.3	* 2.0	2.4	4.7	2.3	1.6
\$50,000 - \$99,999	144,702,339	57.3	27.9	11.5	** 6.2	3.5	5.4	3.6	0.9
\$100,000 - \$249,999	198,195,605	46.0	35.4	20.1	0.6	2.1	5.1	2.5	2.0
\$250,000 - \$499,999	114,724,722	46.6	29.6	24.8	* 1.1	** 2.1	4.5	1.7	2.0
\$500,000 - \$999,999	60,236,434	48.2	33.3	19.4	* 0.3	1.2	4.8	1.6	2.2
\$1,000,000 or more	* 62,221,241	60.2	36.1	* 6.0	** 0.3	** 2.6	* 1.5	* 0.5	* 0.7
Acreage class:									
49 or fewer acres	13,204,964	* 175.0	8.6	* 1.6	4.8	** 90.3	* 5.0	* 4.8	** 0.0
50 - 179 acres	69,902,886	93.2	13.3	3.9	4.3	14.8	10.0	9.4	0.5
180 - 499 acres	135,464,017	72.6	21.0	9.6	4.5	7.7	8.1	5.9	1.2
500 - 999 acres	133,693,192	56.1	28.3	18.1	1.9	* 4.5	7.6	4.8	2.1
1,000 or more acres	545,409,088	55.2	31.7	13.4	* 2.0	2.4	4.8	3.0	1.2
Farm type:									
Cash grains	252,431,252	43.1	* 27.7	31.8	* 0.9	3.6	7.1	3.3	2.8
Tobacco	11,024,493	59.1	23.9	* 14.2	* 5.3	** 2.6	* 1.7	* 0.8	** 0.9
Cotton	23,432,909	31.3	35.1	35.8	** 0.4	** 2.5	* 11.6	* 8.1	3.0
Other field crops	60,815,124	113.9	15.3	5.4	* 2.6	* 37.4	32.5	31.1	* 0.9
Vegetables, fruits, or tree nuts	15,492,310	84.6	19.2	* 3.7	* 2.0	* 9.9	** 5.4	** 4.9	d
Nursery or greenhouse	4,065,460	93.8	* 13.2	** 1.3	* 2.1	* 10.5	** 1.7	** 0.5	d
Beef, hogs, or sheep	466,303,829	66.9	29.5	3.3	* 3.5	3.4	2.6	1.5	0.5
Poultry	3,346,111	71.9	15.3	d	** 2.0	* 3.5	* 2.9	* 1.3	** 1.2
Dairy	42,956,427	62.5	32.7	4.3	2.6	2.1	2.8	* 1.1	1.1
Other livestock	17,806,232	70.0	* 21.4	d	* 3.5	* 2.4	* 1.3	** 0.2	** 0.9
Legal organization: <sup>2</sup>									
Individual	664,393,098	61.1	27.7	13.5	3.2	5.5	6.8	4.8	1.3
Partnership	117,963,051	60.8	35.0	12.3	* 0.8	d	4.3	2.4	1.4
Corporation	114,374,830	73.5	21.0	8.2	* 1.1	* 3.9	4.0	* 2.5	1.0
Tenure class:									
Full owner	253,903,799	113.0	0.0	0.0	0.0	* 13.1	10.0	8.8	0.7
Part owner	531,634,892	51.8	34.7	14.1	2.6	3.4	4.8	2.7	1.4
Tenant	112,135,454	0.1	58.0	34.1	* 8.4	* 0.6	3.8	1.0	2.1

See footnotes at end of table.

Continued--

**Appendix table 11--Distribution of acres operated, by farm, operator, and household characteristics, 1995--continued**

	Total acres operated	Acres owned	Acres cash rented	Acres share rented	Acres free use	Acres rented out	Total acres idled <sup>1</sup>	Conservation Reserve Program	Acreage Reduction Program
	<i>Acres</i>			<i>Percent of acres operated</i>					
<b>Operator major occupation:</b>									
Farming	650,188,471	54.2	30.9	15.9	* 2.0	3.2	4.9	2.7	1.5
Hired farm manager	* 63,870,422	79.5	* 21.6	0.9	** 1.7	** 3.8	* 3.4	** 2.4	** 0.5
Other occupation	131,381,769	78.7	22.0	6.3	5.7	** 13.0	7.8	6.5	0.7
Retired	52,233,484	106.4	10.5	* 1.9	* 3.4	** 22.3	20.7	19.5	* 0.5
<b>Operator age:</b>									
Under 35 years	69,622,760	42.7	36.2	17.8	* 4.9	* 1.6	3.8	* 1.9	1.7
35 - 44 years	195,249,686	49.5	33.0	18.6	1.9	* 3.2	4.8	2.0	1.7
45 - 54 years	237,615,977	62.4	27.5	12.8	** 3.8	** 6.7	5.1	3.7	1.2
55 - 64 years	204,574,686	64.2	26.7	11.4	* 2.1	4.5	6.7	5.0	1.1
65 years or older	190,611,036	82.1	20.9	5.8	1.4	10.2	8.9	7.1	0.9
<b>Operator education:</b>									
Less than high school	101,805,148	72.6	22.5	9.1	2.2	6.5	6.7	5.8	0.7
High school	321,365,235	62.2	27.1	12.3	* 4.2	5.8	6.0	4.0	1.3
Some college	235,839,187	59.0	30.2	16.2	* 2.0	* 7.7	5.6	3.5	1.5
College	238,664,575	62.7	28.4	11.0	1.2	3.5	6.6	4.5	1.3
<i>Acres</i>									
All farm households	829,440,071	508,923,677	234,008,168	112,525,893	22,113,390	49,289,966	52,591,897	36,160,529	10,942,388
<i>Acres</i>									
<i>Percent of acres operated</i>									
<b>Positive household income and:</b>									
Loss from farming	219,028,670	63.8	28.6	6.7	3.7	3.1	3.4	2.0	0.8
0 - 24 percent from farming	96,557,744	74.3	22.9	11.1	* 2.8	* 11.3	12.9	10.7	1.2
25 - 49 percent from farming	73,766,134	72.7	21.5	14.0	* 0.9	9.6	9.5	8.0	1.2
50 - 74 percent from farming	91,122,958	58.6	26.9	19.5	** 2.6	7.6	10.4	8.1	1.6
75 percent or more from farming	185,944,734	54.3	29.8	22.0	* 0.8	** 6.9	5.6	2.9	1.9
Negative household income	163,019,830	54.8	32.8	11.0	** 4.2	2.9	3.5	* 1.8	1.2

\* = The relative standard error of the estimate exceeds 25 percent, but is no more than 50 percent.

\*\* = The relative standard error of the estimate exceeds 50 percent, but is no more than 75 percent.

d = Data insufficient for disclosure.

<sup>1</sup> Total acres idled includes acres idled by programs other than Conservation Reserve Program and Acreage Reduction Program. Therefore, subcategories may not sum to the total acres idled.

<sup>2</sup> Excludes cooperative farms. Therefore, subcategories may not sum to all farms.

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



**Appendix table 12--Farms reporting acres operated, by farm, operator, and household characteristics, 1995**

	Total acres operated	Acres owned	Acres cash rented	Acres share rented	Acres free use	Acres rented out	Total acres idled <sup>1</sup>	Conservation Reserve Program	Acreage Reduction Program
<i>Number of reporting farms</i>									
All reporting farms	2,068,000	1,908,216	648,440	281,224	204,236	244,803	527,137	257,077	294,949
Sales class:									
Less than \$50,000	1,531,760	1,450,486	334,685	101,270	164,275	192,013	287,923	197,427	94,035
\$50,000 or more	536,240	457,729	313,754	179,955	39,962	52,790	239,214	59,650	200,914
\$50,000 - \$99,999	194,462	168,192	94,006	52,253	17,904	22,101	70,977	23,092	53,160
\$100,000 - \$249,999	218,968	184,753	137,553	81,624	15,389	18,178	108,503	22,445	96,344
\$250,000 - \$499,999	75,210	64,337	51,408	32,345	4,246	6,427	40,767	9,266	35,074
\$500,000 - \$999,999	30,234	26,281	19,672	10,617	1,894	3,018	14,573	3,567	12,916
\$1,000,000 or more	17,366	14,166	11,116	3,116	d	3,066	4,393	1,281	3,420
Acreage class:									
49 or fewer acres	578,127	541,140	72,148	d	54,240	46,559	d	d	d
50 - 179 acres	670,378	631,679	149,343	39,843	67,701	100,260	135,604	91,333	44,962
180 - 499 acres	439,630	400,707	186,483	71,848	57,105	53,736	166,834	62,582	108,663
500 - 999 acres	196,752	173,181	116,764	70,518	14,466	21,592	100,286	33,835	78,918
1,000 or more acres	183,113	161,508	123,702	76,336	10,725	22,656	91,775	41,011	61,443
Farm type:									
Cash grains	389,081	323,870	184,418	158,395	15,121	54,029	208,288	48,759	173,871
Tobacco	74,106	69,957	16,064	23,122	8,296	d	3,741	d	2,569
Cotton	23,752	16,987	14,664	12,639	d	1,701	10,090	4,511	6,595
Other field crops	234,567	229,815	28,573	9,912	14,737	54,203	145,647	139,402	11,017
Vegetables, fruits, or tree nuts	92,214	85,133	18,639	1,561	11,723	11,695	2,182	d	d
Nursery or greenhouse	60,993	57,318	9,219	d	d	6,350	d	d	d
Beef, hogs, or sheep	953,649	910,071	279,592	58,619	119,768	94,048	114,368	54,088	64,869
Poultry	26,502	25,213	4,144	d	d	2,715	2,004	d	d
Dairy	121,891	107,536	74,807	13,069	16,426	9,374	35,624	6,351	30,624
Other livestock	91,244	82,316	18,321	d	d	d	d	d	d
Legal organization: <sup>2</sup>									
Individual	1,891,987	1,758,922	571,329	245,931	192,365	226,878	466,797	231,269	255,613
Partnership	102,220	86,510	48,462	21,912	7,666	9,398	35,866	14,984	22,535
Corporation	71,110	60,402	28,392	13,346	3,992	8,505	24,340	10,789	16,719
Tenure class:									
Full owner	1,137,109	1,137,109	d	d	d	168,449	242,904	184,699	67,352
Part owner	744,593	744,593	513,968	213,479	167,610	72,752	228,567	66,910	177,396
Tenant	186,298	26,513	134,472	67,745	36,626	3,602	55,666	5,468	50,201

See footnotes at end of table.

Continued--

**Appendix table 12--Farms reporting acres operated, by farm, operator, and household characteristics, 1995--continued**

	Total acres operated	Acres owned	Acres cash rented	Acres share rented	Acres free use	Acres rented out	Total acres idled <sup>1</sup>	Conservation Reserve Program	Acreage Reduction Program
<i>Number of reporting farms</i>									
Operator major occupation:									
Farming	905,770	811,419	410,490	212,321	74,873	108,405	304,534	96,565	229,281
Hired farm manager	21,791	19,495	6,056	d	d	2,162	7,850	d	2,398
Other occupation	805,134	759,180	184,555	61,083	91,260	77,339	129,574	77,396	49,839
Retired	335,305	318,121	47,338	6,674	35,947	56,897	85,180	77,260	13,432
Operator age:									
Under 35 years	171,256	131,744	78,004	34,697	25,030	11,935	39,116	9,195	30,867
35 - 44 years	418,049	364,804	169,295	77,439	48,009	32,148	105,104	24,050	81,570
45 - 54 years	485,732	462,649	160,005	73,415	45,104	40,040	113,231	53,916	63,656
55 - 64 years	474,100	447,459	135,394	59,489	43,578	59,109	133,682	77,340	67,576
65 years or older	518,863	501,560	105,742	36,184	42,515	101,571	136,005	92,576	51,280
Operator education:									
Less than high school	427,656	405,042	114,891	40,431	51,811	59,220	63,263	35,974	29,780
High school	831,251	768,864	261,567	124,452	82,206	93,423	220,412	103,967	126,213
Some college	450,334	409,043	149,979	68,068	40,989	54,669	131,833	59,033	77,566
College	358,759	325,267	122,002	48,274	29,231	37,490	111,630	58,103	61,390
All reporting farm households	2,036,810	1,880,459	640,193	279,538	201,987	242,406	515,635	248,142	291,640
Positive household income and:									
Loss from farming	999,623	952,320	258,329	70,500	118,621	80,490	130,343	64,797	66,026
0 - 24 percent from farming	378,881	349,940	75,926	48,496	30,876	61,400	135,508	97,282	44,569
25 - 49 percent from farming	146,731	133,284	52,679	30,725	8,097	34,670	52,949	24,468	34,692
50 - 74 percent from farming	130,372	114,484	52,141	32,545	10,671	28,391	61,443	27,789	39,023
75 percent or more from farming	210,872	175,105	112,870	66,819	17,635	21,107	86,890	22,769	68,929
Negative household income	170,331	155,326	88,248	30,452	16,089	16,348	48,502	11,038	38,402

d = Data insufficient for disclosure.

<sup>1</sup> Total acres idled includes acres idled by programs other than Conservation Reserve Program and Acreage Reduction Program. Therefore, subcategories may not sum to the total acres idled.

<sup>2</sup> Excludes cooperative farms. Therefore, subcategories may not sum to all farms.

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



DEPARTMENT OF AGRICULTURE  
OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20250

AUG 10 1998

Honorable Richard G. Lugar  
Chairman  
Committee on Agriculture, Nutrition, and Forestry  
United States Senate  
328A Russell Senate Office Building  
Washington, D.C. 20510-6000

Dear Dick:

The enclosed report relating to the status of family farms in the United States is submitted in accordance with Section 102 of the Food and Agriculture Act of 1977, as amended.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Glickman".

DAN GLICKMAN  
Secretary

Enclosure



DEPARTMENT OF AGRICULTURE  
OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20250

AUG 10 1998

Honorable Tom Harkin  
Ranking Minority Member  
Committee on Agriculture, Nutrition, and Forestry  
United States Senate  
328A Russell Senate Office Building  
Washington, D.C. 20510-6000

Dear Tom:

The enclosed report relating to the status of family farms in the United States is submitted in accordance with Section 102 of the Food and Agriculture Act of 1977, as amended.

Sincerely,

A handwritten signature in black ink, reading "Dan Glickman".

DAN GLICKMAN  
Secretary

Enclosure



DEPARTMENT OF AGRICULTURE  
OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20250

AUG 10 1998

Honorable Bob Smith  
Chairman  
Committee on Agriculture  
U.S. House of Representatives  
1301 Longworth House Office Building  
Washington, D.C. 20515-6001

Dear Bob:

The enclosed report relating to the status of family farms in the United States is submitted in accordance with Section 102 of the Food and Agriculture Act of 1977, as amended.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Glickman".

DAN GLICKMAN  
Secretary

Enclosure



DEPARTMENT OF AGRICULTURE  
OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20250

AUG 10 1998

Honorable Charles Stenholm  
Ranking Minority Member  
Committee on Agriculture  
U.S. House of Representatives  
1301 Longworth House Office Building  
Washington, D.C. 20515-6001

Dear Charlie:

The enclosed report relating to the status of family farms in the United States is submitted in accordance with Section 102 of the Food and Agriculture Act of 1977, as amended.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Glickman".

DAN GLICKMAN

Secretary

Enclosure