

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 ¹	Percent of U.S. average household income ²
	<i>Number</i>	<i>Dollars</i>	<i>Percent</i>	<i>Percent</i>
All farm operator households ³	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: ⁴				
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

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

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

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

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

na = Not applicable.

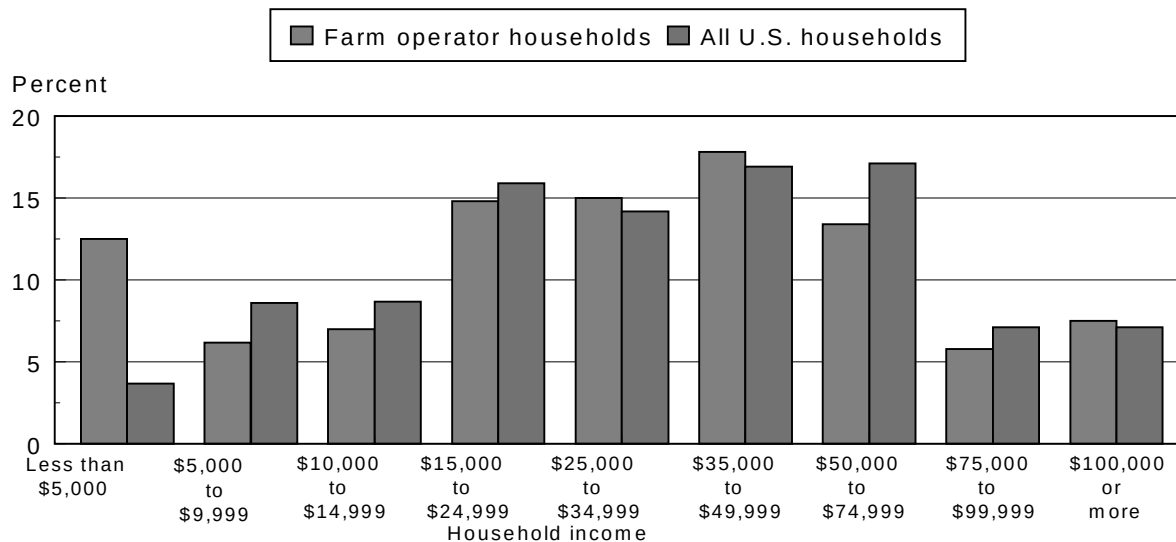
nc = Not calculated.

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

Figure 28

Distribution of farm operator 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.

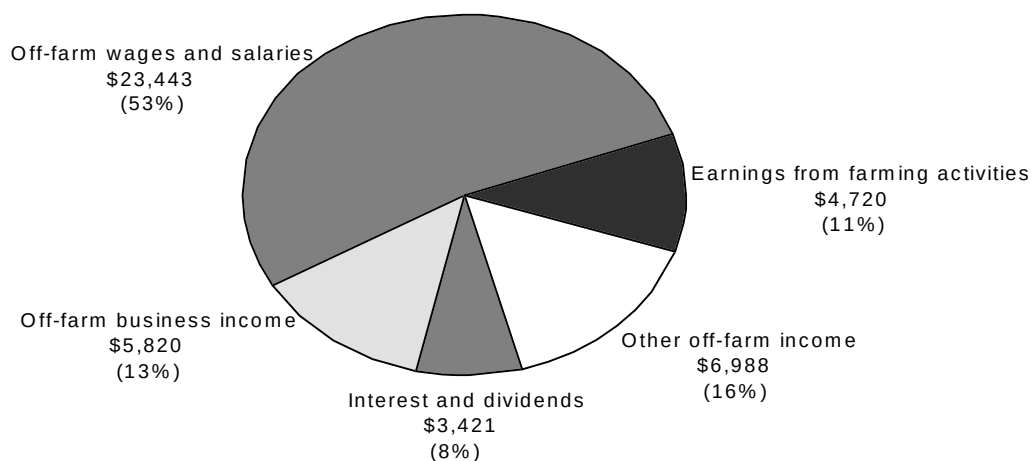


Source: Calculated by ERS using data from the 1995 Agricultural Resource Management Study and the Bureau of the Census Current Population Survey.

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.

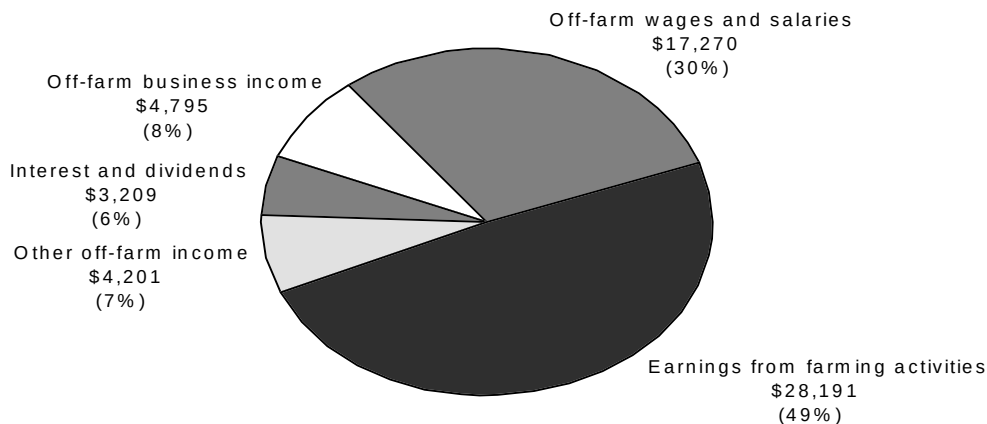
Partly because the average earnings from farming activities were negative for noncommercial farm households, their average total household income was 11 percent below the U.S. average household income. Considering off-farm income alone, noncommercial farm household income averaged 96 percent of the average 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.

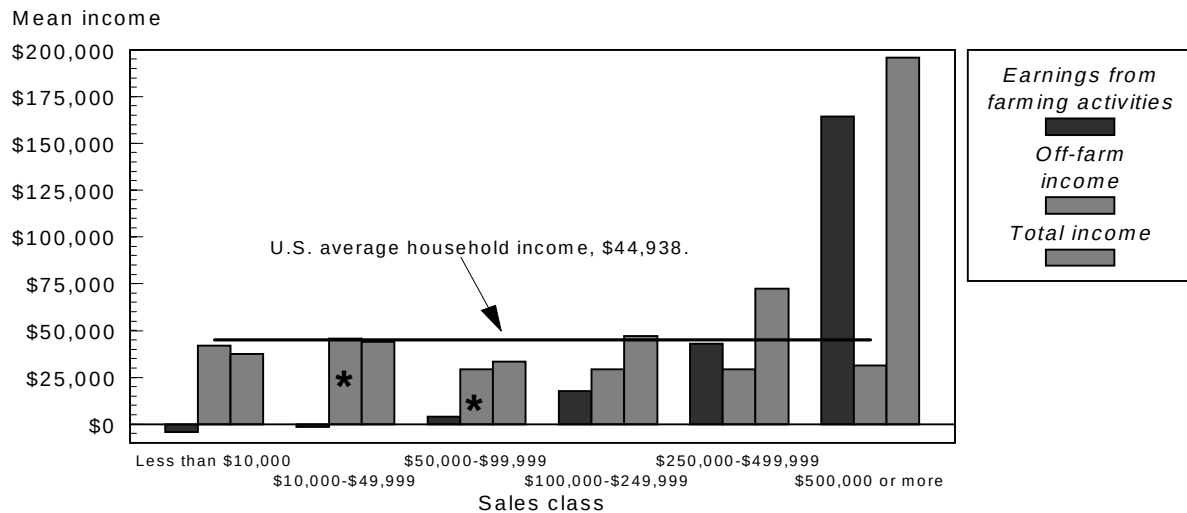


Source: USDA, Economic Research Service, 1995 Agricultural Resource Management Study.

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 ¹	Percent of U.S. average household income ²
	<i>Number</i>	<i>Dollars</i>	<i>Percent</i>	<i>Percent</i>
All farm operator households ³	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

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

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

³ 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 ^{1, 2}				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 ³	* -2.8	43.2	76.3	91.0	na	10.6
Farm operator household farm dependency category: ⁴						
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 ⁵						
	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 ^{1, 2}				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 ⁶	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 ⁷	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

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

² 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.

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

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

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

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

⁷ 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.