*Chapter 2*

# Farm Household Income, Farm Structure, and Off-Farm Work

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*Farm structure is closely intertwined with farm households' uses of off-farm employment, in ways that greatly reduce what we can learn from aggregate statistics. One major component of the farm sector, very large family farms, specializes in farm activities and draws little or no income from off-farm employment but accounts for almost half of all farm output. At the same time, residential/lifestyle farms account for a growing share (nearly half) of all U.S. farms and dominate average off-farm income measures because of their number and high household income, even though they account for a very small share of farm output. Falling between these two groups are family farms whose sales range from $10,000 to nearly $1 million a year. For these farms, off-farm earnings—often from jobs held by spouses—are an important component of household income.*

## Introduction

More than half of all U.S. farm households lose money farming, and many of those show off-farm employment as an important component of their household income. However, some households, usually operating large farms, report large income from farming and receive relatively little off-farm income. Many farm households combine income from farming, off-farm employment, and other sources. In this chapter, we use the ERS farm typology to link the structure of farming to the sources of household income, and trace recent changes in those sources.

We begin by reporting mean household income in 2001 for all farm households and for the seven family farm typology groups (table 2-1). Operator household income is defined to be consistent with the Census Bureau's definition of money income used in the Current Population Survey.[1] Operator household income is divided into three components: farm earnings, earned off-farm income, and unearned off-farm income. Earned off-farm income comes from off-farm self-employment or wage and salary jobs. Unearned off-farm income includes interest and dividends, benefits from Social Security and other public programs, alimony, annuities, net income of estates or trusts, and private pensions.[2]

In the aggregate, farm households cannot be considered a low-income group. Across all family farms, mean household income in 2001—$64,500—was 11 percent greater than the mean for all U.S. households. For all family farms, most income ($58,900 or 91 percent) was derived from off-farm sources, with earned off-farm income amounting to more than

[1] For more detail, see Appendix II, "Measuring Farm Operator Household Income."

[2] The word "unearned" is not derogatory; it simply identifies income from sources other than employment. Unearned income often reflects earned income received earlier in life. For example, elderly people might receive interest income because they saved earned income when they were younger.

$43,000, on average. Operators of residential/lifestyle, large, or very large farms received income significantly above the mean for all U.S. households, while operators in the limited-resource, retirement, and low-sales groups had mean income that fell below it.

Mean income may not always be the best choice for comparison because a few very high-income households can raise the mean well above the income earned by most households. For that reason, we also show median income in figure 2-1. Median income falls at the midpoint of the distribution of income for all households: half of all households have incomes above the median, while the other half have incomes that are below that level. Median income for all farm households, at $45,100, falls 30 percent below the mean for all farm households (fig. 2-1), and most farm operator households (64 percent) report income below the mean reported for their group in table 2-1. Similarly, the median U.S. household income, $42,200 in 2001, also falls well below the corresponding mean of $58,200. However, the median income for all farm households still exceeds the median for all U.S. households.[3]

[3] The wide gap between median and mean incomes for very large family farms and residential/lifestyle farms (fig. 2-1) indicates that, within each type, a relatively small number of households with quite substantial incomes raise the mean significantly. Sixty-eight percent of residential/lifestyle farms and 69 percent of very large farms report incomes below the means for their category.

**Table 2-1—Operator household income, by farm typology group, 2001**

| Item | Small family farms: Limited-resource | Retire-ment | Residential/ lifestyle | Farming-occupation: Low-sales | High-sales | Large family farms | Very large family farms | All family farms |
|---|---|---|---|---|---|---|---|---|
| | | | | *Number* | | | | |
| Total households | 94,249 | 244,200 | 940,291 | 501,192 | 165,485 | 85,155 | 62,199 | 2,092,772 |
| | | | | *Dollars per household* | | | | |
| Mean household income | 7,948 | 47,602 | 81,252 | 35,866 | 53,617 | 70,194 | 213,982 | 64,465 |
| Farm earnings | -3,165 | **-1,070 | -5,694 | *-2,552 | 26,497 | 37,182 | 181,660 | 5,571 |
| Off-farm income | 11,113 | 48,672 | 86,947 | 38,417 | 27,120 | 33,011 | 32,321 | 58,894 |
| Earned[1] | 6,272 | 10,341 | 77,333 | 17,493 | 18,788 | 18,915 | 20,407 | 43,286 |
| Unearned[1] | 4,841 | 38,330 | 9,614 | 20,925 | 8,332 | *14,096 | 11,914 | 15,608 |
| | | | | *Percent* | | | | |
| Mean household income compared with U.S. mean[2] | 13.7 | 81.8 | 139.6 | 61.6 | 92.1 | 120.6 | 367.6 | 110.7 |
| Share from off-farm sources[3] | 139.8 | 102.2 | 107.0 | 107.1 | 50.6 | 47.0 | 15.1 | 91.4 |
| Share of off-farm income from earnings | 56.4 | 21.2 | 88.9 | 45.5 | 69.3 | 57.3 | 63.1 | 73.5 |
| Households with: | | | | | | | | |
| Positive household income and— | | | | | | | | |
| Loss from farming | 57.3 | 54.2 | 75.6 | 48.0 | 9.5 | 11.5 | 5.5 | 55.7 |
| Gain from farming | *23.9 | 44.1 | 23.5 | 39.9 | 77.3 | 73.6 | 78.6 | 37.8 |
| Negative household income | *18.8 | d | d | 12.1 | 13.2 | 14.9 | 15.9 | 6.5 |

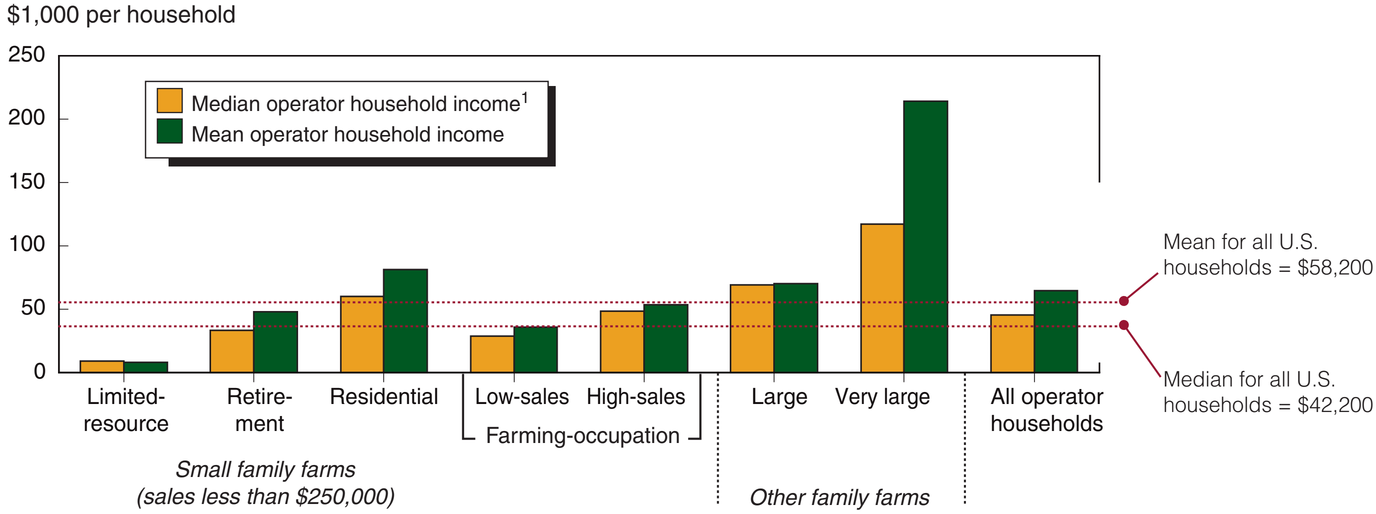
d = Data suppressed due to insufficient observations. * = Standard error is between 25 and 50 percent of the estimate.
** = Standard error is between 51 and 75 percent of the estimate.
[1] Earned income comes from off-farm self-employment or wage and salary jobs. Unearned income includes interest and dividends, benefits from Social Security and other public programs, alimony annuities, net income of estates or trusts, and private pensions.
[2] Mean farm household income divided by U.S. mean household income ($58,208).
[3] Income from off-farm sources can be more than 100 percent of total household income if earnings of the operator household from farming are negative.

Source: USDA, Economic Research Service, 2001 Agricultural Resource Management Survey, Phase III, version 1, for operator households. Current Population Survey (U.S. Department of Commerce, Bureau of the Census, 2002) for all U.S. households.

Figure 2-1

**Median and mean operator household income, 2001**

*Households operating residential/lifestyle, large, or very large farms have income above the median or mean for all U.S. households*




[1]Half of the households have income below the indicated level, and half have income above the indicated level.

Source: USDA, Economic Research Service, 2001 Agricultural Resource Management Survey, Phase III, version 1, for operator households. Current Population Survey (U.S. Department of Commerce, Bureau of the Census, 2002) for all U.S. households.

Households operating residential farms have much higher earned off-farm income than do other farm households (table 2-1). Mean earned off-farm income, when measured across all farm households, amounted to $43,300 in 2001. However, six of the seven farm typology groups have means that are less than half that amount; earned income ranges from just over $6,000 a year for limited-resource farm households to $20,400 for households operating very large family farms. Households running residential farms, with mean off-farm earned income of $77,300, have a large effect on the overall average across all households.

Income also varies across households within a farm type. Even among households operating very large family farms, who report mean farm earnings of $181,700, 6 percent report a loss from farming that is counterbalanced by off-farm income, while another 16 percent report negative household income, usually accompanied by a loss from farming.

Earned off-farm income and the value of farm output varies inversely. For households operating very large family farms—which accounted for 44 percent of the value of farm output in 2001 (chapter 1, fig. 1-7)—earned off-farm income accounts for just 10 percent of their household income. Earned off-farm income accounted for much larger shares of household income for farms with sales between $100,000 and $500,000 per year. Households in these two sales categories obtained about a third of their household income, on average, from earned off-farm income, and their farm operations accounted for about 15 percent of the value of farm output in 2001. Residential farms, in comparison, accounted for only 5 percent of the value of farm output, while their farm households obtained about 95 percent of their income from off-farm employment.

Finally, residential farm households report considerable losses from farming. Given the large number of residential households, these losses totaled over $5 billion in 2001.

## An Anatomy of Recent Growth In Off-Farm Income

While farmers have worked off the farm for decades, the frequency of this practice has grown substantially over the last 75 years. In 1929, only 1 farmer in 16 reported 200 or more days of off-farm labor. By 1947, one in six reported that much off-farm work, and by 1997, the figure had grown to one in three farmers (Gardner, 2002).

Several factors contributed to the longrun increase in off-farm work, including better education and economic growth in the nonfarm economy. Transportation improvements made it easier for farm operators and their spouses to work off the farm, and better infrastructure and changing regulatory and labor environments led to more manufacturing jobs in rural areas.

Today, off-farm income is the primary means of support for many farm operator households, and appears to have grown rapidly in recent years. Between 1997 and 2001, mean household income grew significantly, and that growth was entirely accounted for by changes in off-farm income, which grew by 27 percent (table 2-2). Unearned income grew by 32 percent while earned off-farm income grew by 25 percent. Inflation, as measured by the Consumer Price Index, rose by 10 percent over the 4 years, so real (inflation-adjusted) off-farm income also grew substantially. In contrast, mean household income for the U.S. as a whole grew 17 percent, before adjusting for inflation, during this 4-year period.

Growth in off-farm income largely reflects changes in residential/lifestyle farms. We use the ERS farm typology to provide a closer look, in table 2-3. The table covers 1997-2001 and reports mean farm earnings for households in each farm type, as well as mean off-farm household income from all sources (earned and unearned) and off-farm income from earned sources only.

**Table 2-2—Farm operator household income and U.S. household income, 1997-2001**

| Item | 1997 | 1998 | 1999 | 2000 | 2001 |
|---|---|---|---|---|---|
| | *Dollars per household* | | | | |
| Farm household income | 52,562 | 59,734 | 64,166 | 62,290 | 64,465 |
| Earnings from farming | 6,205 | 7,106 | 6,178 | 3,062 | 5,571 |
| Total off-farm income | 46,358 | 52,628 | 57,988 | 59,228 | 58,894 |
| Earned[1] | 34,552 | 39,148 | 44,658 | 43,269 | 43,286 |
| Unearned[1] | 11,806 | 13,480 | 13,330 | 15,959 | 15,608 |
| U.S. household income | 49,642 | 51,855 | 54,842 | 57,045 | 58,208 |

[1] Earned income comes from off-farm self-employment or wage and salary jobs. Unearned income includes interest and dividends, benefits from Social Security and other public programs, alimony annuities, net income of estates or trusts, and private pensions.

Source: USDA, Economic Research Service, Agricultural Resource Management Survey, Phase III, for farm operator households. Current Population Survey (U.S. Department of Commerce, Bureau of the Census, 2002) for all U.S. households.

**Table 2-3—Selected components of farm household income by farm typology group, 1997-2001**

| Item | 1997 | 1998 | 1999 | 2000 | 2001 |
|---|---|---|---|---|---|
| | *Dollars per household* | | | | |
| Farm earnings: | | | | | |
| Limited-resource | -3,229 | *-3,230 | -3,571 | *-2,978 | -3,165 |
| Retirement | ***1,157 | ***-1,499 | *-1,434 | *-1,304 | **-1,070 |
| Residential/lifestyle | -3,668 | -4,309 | -4,106 | -5,842 | -5,694 |
| Farming occupation/low-sales | ***1,216 | *-2,413 | ***-338 | *-2,067 | *-2,552 |
| Farming occupation/high-sales | 22,047 | 21,463 | 26,336 | 14,194 | 26,497 |
| Large | 45,233 | 59,288 | 50,553 | 44,483 | 37,182 |
| Very large | 169,034 | 175,866 | 164,543 | 139,222 | 181,660 |
| Total off-farm income: | | | | | |
| Limited-resource | 11,833 | 13,153 | 13,108 | 13,981 | 11,113 |
| Retirement | 39,358 | 47,158 | 41,991 | 44,456 | 48,672 |
| Residential/lifestyle | 69,426 | 76,390 | 87,818 | 84,325 | 86,947 |
| Farming occupation/low-sales | 32,917 | 37,186 | 39,926 | 48,412 | 38,417 |
| Farming occupation/high-sales | 28,916 | 28,717 | 26,621 | 31,243 | 27,120 |
| Large | 34,460 | 47,252 | 34,598 | 39,577 | 33,011 |
| Very large | 36,289 | 33,240 | 35,572 | 38,525 | 32,321 |
| Earned off-farm income:[1] | | | | | |
| Limited-resource | 5,226 | 7,035 | 5,861 | 5,917 | 6,272 |
| Retirement | 8,609 | 16,445 | 11,254 | 11,981 | 10,341 |
| Residential/lifestyle | 63,034 | 67,752 | 79,963 | 75,578 | 77,333 |
| Farming occupation/low-sales | 22,870 | 21,468 | 22,409 | 25,015 | 17,493 |
| Farming occupation/high-sales | 14,654 | 20,759 | 19,193 | 20,645 | 18,788 |
| Large | 24,887 | 31,054 | 24,020 | 23,495 | 18,915 |
| Very large | 22,656 | 21,639 | 23,360 | 25,485 | 20,407 |

* = Standard error is between 25 and 50 percent of the estimate. ** = Standard error is between 51 and 75 percent of the estimate. *** = Standard error is above 75 percent of the estimate.

[1] Earned income comes from off-farm self-employment or wage and salary jobs.

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

Growth in off-farm income occurred primarily among households with residential/lifestyle farms, where mean earned off-farm income grew by 22 percent between 1997 and 2001. Comparing income growth among all farm households (table 2-2) with that for specific farm types (table 2-3) shows that earned off-farm income grew more rapidly, by 25 percent between 1997 and 2001, when measured across all farms than it does when measured within any farm type. That difference reflects the growing share of all farm households that are residential/lifestyle. The rapid growth in mean earned off-farm income among residential households probably reflects, to a great extent, turnover, with new entrants possessing noticeably higher income than exiting households.

Off-farm income also varies by farm size, as measured by the gross value of sales. Households with large and small farms differed substantially in levels and growth of off-farm income (table 2-4). In 2001, the mean off-farm income for households operating farms producing more than $100,000 of agricultural products ranged between $31,000 and $35,000, depending on size class. None of the larger size classes showed any systematic growth of off-farm income over the 4-year period.

**Table 2-4—Selected components of farm household income by farm sales class, 1997-2001**

| Item | 1997 | 1998 | 1999 | 2000 | 2001 |
|---|---|---|---|---|---|
| | *Dollars per household* | | | | |
| Farm earnings with farm sales of: | | | | | |
| $9,999 or less | -4,287 | -5,664 | -4,876 | -5,824 | -5,755 |
| $10,000-$99,999 | **1,936 | ***-345 | *1,131 | ***-630 | **-1,365 |
| $100,000-$249,999 | 20,970 | 22,772 | 25,596 | *13,352 | 25,321 |
| $250,000-$499,999 | 45,233 | 59,288 | 50,553 | 44,483 | 37,182 |
| $500,000-$999,999 | 103,501 | 85,160 | 87,499 | 72,808 | 87,994 |
| $1,000,000+ | 307,841 | 352,411 | 286,171 | 281,527 | 332,494 |
| Total off-farm income with farm sales of: | | | | | |
| $9,999 or less | 50,474 | 56,870 | 65,987 | 65,180 | 67,892 |
| $10,000-$99,999 | 44,442 | 51,782 | 55,534 | 58,319 | 55,638 |
| $100,000-$249,999 | 38,852 | 40,521 | 31,874 | 40,016 | 33,949 |
| $250,000-$499,999 | 34,460 | 47,252 | 34,598 | 39,577 | 33,011 |
| $500,000-$999,999 | 36,396 | 30,207 | 36,452 | 35,825 | 30,825 |
| $1,000,000 or more | 36,062 | 39,143 | 34,183 | 44,309 | 34,731 |
| Earned off-farm income[1] with farm sales of: | | | | | |
| $9,999 or less | 39,265 | 42,704 | 52,740 | 48,234 | 52,034 |
| $10,000-$99,999 | 32,911 | 38,747 | 39,927 | 42,820 | 38,041 |
| $100,000- $249,999 | 22,666 | 30,139 | 23,762 | 27,767 | 24,433 |
| $250,000-$499,999 | 24,887 | 31,054 | 24,020 | 23,495 | 18,915 |
| $500,000-$999,999 | 23,051 | 21,693 | 25,267 | 23,365 | 19,841 |
| $1,000,000 or more | 21,818 | 21,534 | 20,350 | 30,028 | 21,318 |

* = Standard error is between 25 and 50 percent of the estimate. ** = Standard error is between 51 and 75 percent of the estimate. *** = Standard error is above 75 percent of the estimate.

[1] Earned income comes from off-farm self-employment or wage and salary jobs.

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

In contrast, households operating farms with less than $100,000 of sales had significantly higher average off-farm income in 2001 than in 1997. Households with very small farms (sales below $10,000) reported mean off-farm income, at nearly $68,000, that was double that reported by households running large farms, and that grew significantly between 1997 and 2001. Households operating farms with sales between $10,000 and $99,999 also reported significant growth in mean off-farm income from 1997 to 2001.

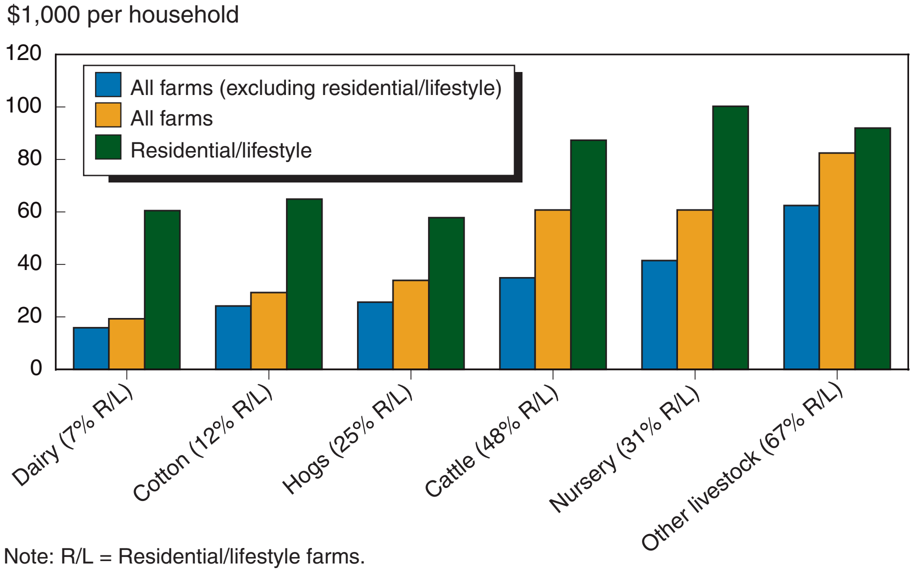
## Commodity Specialization Affects Off-Farm Earning Opportunities

Some commodities are more suited for part-time farming, and off-farm income is more common for households specializing in them. Figure 2-2 compares off-farm income in 2001 for households specializing in each of six major commodities (dairy, cotton, hogs, cattle, nursery, and "other livestock") and shows how mean off-farm income is affected by the presence of residential/lifestyle farms.

Dairy farming usually requires a large time commitment. Two consequences follow: there are few residential/lifestyle dairy farms (approximately 7

Figure 2-2

**Mean off-farm income and share of farms that are residential/lifestyle by commodity specialization, 2001**




Note: R/L = Residential/lifestyle farms.

Source: USDA, Economic Research Service, 2001 Agricultural Resource Management Survey, Phase III.

percent of all dairy farms), and the average off-farm income of large dairy farmers is modest. Thus, including residential dairy farms in the calculation does not significantly increase the overall level of dairy farm households' off-farm income. In contrast, cattle raising does lend itself to part-time farming, and overall mean off-farm income for cattle farms increases significantly with the addition of residential/lifestyle cattle farmers. The relatively large size of the residential farmers' off-farm income and the large numbers of such farms in cattle production combine to create this change.

Dairy, cotton, and hog farms exhibit economies of scale and/or labor-intensive production practices. The difficulty of running such large-scale operations or practices requiring such high levels of labor limits successful part-time farming. Residential/lifestyle farmers operated very few of these farms. Instead, they operate many more farms engaged primarily in cattle, nursery, or other livestock operations. Nursery farms have an added advantage for part-time farmers: they usually locate in or around large metropolitan areas. Therefore, these farmers have greater access to off-farm labor opportunities than do rural farmers, which helps them to attain higher levels of off-farm income.

## Both Operators and Spouses Contribute to Off-Farm Earnings

Do operators take time away from running the farm to generate another source of income? Or do spouses supplement the operator's income by going off the farm to produce an income stream? Or both?

Across all farms, operators earned about 64 percent of all earned off-farm income, while spouses earned almost 33 percent. Therefore, other household members earned about 3 percent, on average. But that breakdown is also driven by the distinctive pattern in residential farms, where spouses—

although they earn more on average than spouses in other categories—earn only 28 percent of mean earned off-farm income compared with nearly 50 percent or higher for other typology groups (table 2-5).

Why do households seek off-farm work? Operators and spouses that worked off the farm were each asked in the 2001 ARMS to specify their 2 main reasons for seeking off-farm employment, from a list of 10 potential reasons. The most common response given by the operator, irrespective of farm type, was to increase the income of the farm household (table 2-5). At least 60 percent of operators in each farm type offered that as the primary reason, with the response rising to 70 percent for operators of farms with sales less than $100,000.

**Table 2-5—Earned off-farm income and selected reasons for working off-farm by farm typology group in 2001**

| Item | Farm typology | | | | |
|---|---|---|---|---|---|
| | Residential/ lifestyle | Farming occupation/ low-sales | Farming occupation/ high-sales | Large | Very large |
| | *Dollars per household* | | | | |
| Earned off-farm income[1] | | | | | |
| Household | 77,333 | 17,493 | 18,788 | 18,915 | 20,407 |
| Operator | 53,935 | 7,694 | 6,331 | 6,850 | 10,403 |
| Spouse | 21,430 | 8,525 | 11,747 | 11,390 | 9,349 |
| | *Percent selecting reason* | | | | |
| Reasons for working off-farm:[2] | | | | | |
| Operator reason 1: | | | | | |
| Increase income | 71.6 | 70.8 | 65.5 | 61.4 | 67.3 |
| Health insurance | 8.6 | d | d | d | d |
| Operator reason 2: | | | | | |
| Increase income | 17.1 | 15.2 | d | d | d |
| Health insurance | 35.6 | d | d | d | d |
| Farm expenses | 13.2 | 31.3 | d | d | d |
| Spouse reason 1: | | | | | |
| Increase income | 73.0 | 58.3 | 48.6 | 51.2 | 57.9 |
| Health insurance | 9.8 | 23.8 | 24.8 | 19.6 | *17.4 |
| Personal satisfaction | 4.2 | d | 9.5 | *15.2 | *12.8 |
| Spouse reason 2: | | | | | |
| Increase income | 14.2 | 30.2 | 27.0 | 33.3 | 21.1 |
| Health insurance | 32.3 | 20.7 | 20.5 | 21.8 | 24.7 |
| Personal satisfaction | 20.3 | 21.1 | 19.4 | 16.7 | 24.9 |
| Farm expenses | 7.7 | 11.3 | *14.1 | d | d |

Note: No estimates are shown for limited-resource and retirement farms, due to insufficient observations.
d = Data suppressed due to insufficient observations. * = Standard error is between 25 and 50 percent of the estimate.
[1] Earned income comes from off-farm self-employment or wage and salary jobs.
[2] Respondents were offered 10 choices: using skills; health insurance; other nonfarm job benefits; increase income; extra time available; diversification of income sources; personal satisfaction; opportunity to get discounts on inputs; cover farm expenses; and repay farm debt.

Source: USDA, Economic Research Service, 2001 Agricultural Resource Management Survey, Phase III.

While spouses primarily offered increased income as the primary reason, again irrespective of farm type, many cited health insurance and personal satisfaction as the primary reason for seeking off-farm employment. All three factors also ranked high on the list of secondary reasons for taking a job off the farm.

## Summary and Conclusions

Farm structure is closely related to farm households' off-farm employment. Residential/lifestyle farms, whose operators report a major occupation outside of farming, account for a growing share (nearly half) of all farms, even though they account for a very small share of farm output. The average off-farm earned income of households operating these farms has grown rapidly. This growth may reflect the purchase of small farms by more affluent households, rather than off-farm income growth among continuing farm households.

In contrast, another major group—very large family farms—mostly specializes in farm activities, and draws little or no income from off-farm employment. These farms account for nearly half of all farm output. For the most part, these farmers and their households operate independently of off-farm employment concerns.

Falling between these two groups are family farms whose operators report farming as their major occupation, but whose sales cover a wide range, from $10,000 to $1 million a year. Off-farm earned income for households operating these farms, often contributed from jobs held by spouses, provides a significant share of income. Off-farm employment options are closely linked to farm operating decisions for these farmers. For many of the smaller farms in this category—those with sales less than $250,000—off-farm employment is the primary source of income.

Many of today's farm households allocate their labor (and other resources) between farming and other pursuits, much as nonfarm households allocate their resources among different economic activities. Farm households are often dual-career, with operators and/or spouses combining farm and off-farm work (Hoppe, 2001).

Although this chapter focuses on the flow of income from off-farm sources to operator households, income also flows the other way, from the farm to households other than the operator household (Harrington et al., 1998). The operator households considered in this chapter are the principal operator households, one of which exists for each family farm. However, there are additional households associated with some farms that receive income from the farm business: households of partners (both formal and informal) and those of stockholders in farms organized as corporations (both family and nonfamily). In addition, other nonfarm businesses share income generated by farming. These businesses include nonfarm landlords and nonfarm contractors, both of which generate gross income, pay expenses, and distribute net income to the households that own them. As a result of these reverse income flows, the number of households involved in agriculture is larger than the number of operator households.