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Farm Women Blend Farm and Off-Farm Work

Some farm women operate farms alone, more operate farms jointly with their husbands, and still others leave farm management decisions to their husbands. All three groups of farm women make substantial contributions to farm household income, most often by working both on and off the farm.

AMONG the more important trends in the analysis of the farm sector is the increasing attention paid to the inter-relationships between farming and the structure of the farm household. Farm families tend to incorporate aspects of the farming business into their social, residential, and economic lives. Today, as they have always, family members provide the majority of management and labor to their farms. These particular aspects of farming make it an especially intense form of family business.

Women have always played a large role in agriculture, although few statistics exist on their contributions. In pioneer days, women's roles were essential to the existence of the family farm because domestic needs were more demanding and diverse. Frontier families allocated female labor to gardening and small-scale care of poultry or dairy cows as part of the productive work required to sustain the farm family. But by the 20th century, many of the tasks formerly delegated to the farm wife were provided by larger scale producers specializing in eggs, milk, and fresh vegetables.

During the mid-20th century, mechanization profoundly affected the division of labor within farm families. Ironically, although physical strength became less important with mechanization, giving women more potential access to farm tasks, maintenance and use of farm equipment became firmly part of the male domain.

Today, farm women make a wide variety of significant economic contributions to the household and farm business. They often work at off-farm jobs, reducing the risk associated with unstable farm income. Many supply extra labor to the farm during planting or harvest. In addition to traditional household duties, women often tend the

animals, plant a garden, feed hired workers, take care of bookkeeping, and run errands. Women also manage farm businesses, jointly operating farms with their husbands, or making decisions as the primary operator.

Women make a difference on the farm and in the well-being of farm households. Our findings show:

- Women are participating in the management of farm businesses, but men still manage the majority of farms.
- Women farm operators spend fewer hours in farm and off-farm work than men who are farm operators, and women operate smaller farms.
- When women have managerial responsibilities on the farm, or when they work in off-farm employment, the household has a higher average income.

Gender/Management Classification Scheme

To analyze the work roles and economic contributions of women in farm operator households, we divided farm operator households into three categories:

- households with a female senior farm operator regardless of the marital status of the woman (group 1),
- households with joint operation of the farm business by a husband and wife team (group 2), and
- households with a married male operator whose wife is not a farm operator (group 3).

The 1.9 million farm operator households that contain a female farm operator or a married male farm operator are distributed across our three groups very unevenly (table 1). Female farm operator households, group 1, account for 6 percent of the total. Joint husband-wife farm operator households, group 2, account for 23 percent. And,

Janet Perry is an agricultural economist in the Rural Economy Division and Mary Ahearn is a branch chief in the Natural Resources and Environment Division, ERS.

husband-only farm operator households, group 3, account for the remaining 71 percent. There are approximately 200,000 additional farm operator households that are headed by unmarried men. Those farm households are excluded from this analysis.

Time Devoted to Farming

On average, female farm operators and wives in joint-operator and husband-operator farm households devoted many hours to farm work in 1991. Female operators worked an average of 862 hours during the year on their farms (fig. 1). That is significantly fewer hours of farm work than the averages for the husbands and wives on joint-operator farms and the average for husband-only operators. Wives in households where the husband was the sole operator averaged only 222 hours of farm work during the year.

Several characteristics of the female operators and their farms help explain why they spend fewer hours working on the farm than the other operators do. Most of the farms operated by women were small, but even after controlling for farm size, female operators worked fewer hours compared with other operators on the same sized farms. However, the female operators were more likely to specialize in less time-intensive livestock operations while the other farm operators specialized in more time-intensive dairy or cash grain operations. Also, a larger share of the female operators were elderly (37 percent aged 65 or older), which may constrain the number of hours they devote to farming.

Although the female operators worked fewer hours than the other operators, they supplied 51 percent of the labor hours expended on their farms, the same percentage as the husband-only operators supplied on their farms.

Over 70 percent of the female farm operators were not married (probably mostly widowed), and over a third of them lived alone. The absence of husbands and other household members from many female operator households helps explain the large share of hours they provide to their farms and the low average hours (90) provided by husbands. When averaged only over the households with husbands present, the husbands averaged many more hours of farm work, but not as many as their wives, the farm operators. Similarly, the low average hours worked by wives on husband-operated farms are caused by many of them reporting no farm work. When averaged only over those who reported working on the farm, the wives contributed an average of 638 hours to their husbands' farms.

Female-operated farms are smaller and require fewer hours of work. Total labor hours on female-operated farms were only 35 percent of the total hours worked on joint-operator farms and 60 percent of the total hours worked on husband-operator farms. Each group used paid and unpaid labor to supplement hours worked by operators and spouses. The female operators relied on unpaid labor for a higher percentage of hours while the other operators relied more on paid labor. Many of the female operators have children and other family members who work on the farms. The larger farms run by the other households may require more labor than the household can provide, causing them to use more paid labor.

Off-Farm Employment and Hours

Engaging in off-farm employment is one strategy used by farm families to adjust to changing economic circumstances, and, in two-thirds of all farm operator households, either the husband or wife or both work off-farm. Nearly 43 percent of female operators participated in the

Table 1
Distribution of farm households by gender/management category, 1991
Most women involved in farm management operate farms jointly with their husbands

Item	Gender/management category			All house- holds ¹
	Female operator	Joint operators	Husband operator	
	Number			
Farm operator households	111,098	432,356	1,330,318	1,873,772
	Percent			
Distribution by gender/management category	5.9	23.1	71.0	100.0

¹Approximately 200,000 farms operated by unmarried men were excluded from this analysis.
Source: Authors' analysis of data from the 1991 Farm Costs and Returns Survey, Farm Operator Resource version.

off-farm labor market. On average, when they were employed off-farm, female operators reported 1,278 hours of off-farm work, in addition to their management duties on the farm (fig. 2). Husbands of female operators, who reported working off the farm, worked full time (2,000 hours or more per year) on average. [There are too few husbands in female operator households who are working off farm to show them in the figure.]

Wives on joint operations are less likely than wives without management responsibilities to have off-farm jobs. Just over one-third of joint-operator wives reported off-farm employment compared with half of the wives on husband-operator farms. On average, the joint-operator wives spent 1,438 hours in off-farm employment in addition to their farm and household responsibilities. Those wives on husband-operator farms who worked off-farm averaged 1,568 hours at their off-farm jobs. Forty-six percent of the husbands on jointly operated farms worked off-farm, averaging 1,688 hours. And, 54 percent of husband-only operators worked off-farm, averaging 1,595 hours.

Farm and Off-Farm Hours Combined

To see the overall distribution of hours between farm and off-farm work, we calculated average hours worked for the total groups of men and women in the three farm operator categories, regardless of whether they reported any farm or off-farm work (fig. 3). Husbands in joint-operator households averaged 2,805 hours of work in 1991, 790 off-farm and 2,015 on the farm. Husband-only operators averaged slightly more off-farm hours, but fewer farm hours. Female farm operators averaged the same number of hours worked as wives in joint-operator households; however, the female farm operators worked more hours off the farm while the wives worked more hours on the farm. On average, the wives on husband-operator farms make their largest contribution through off-farm work as do the husbands on female-operator farms.

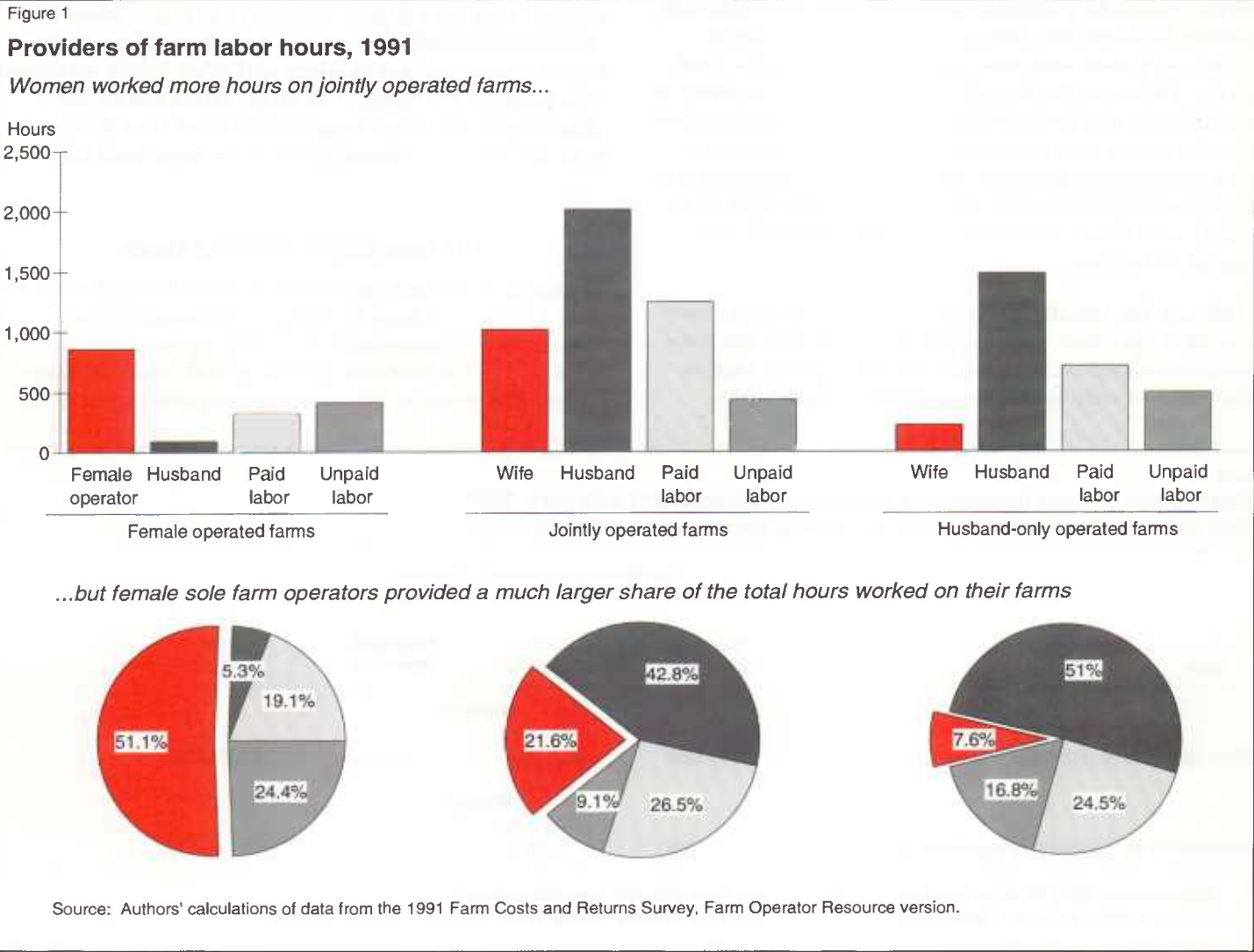
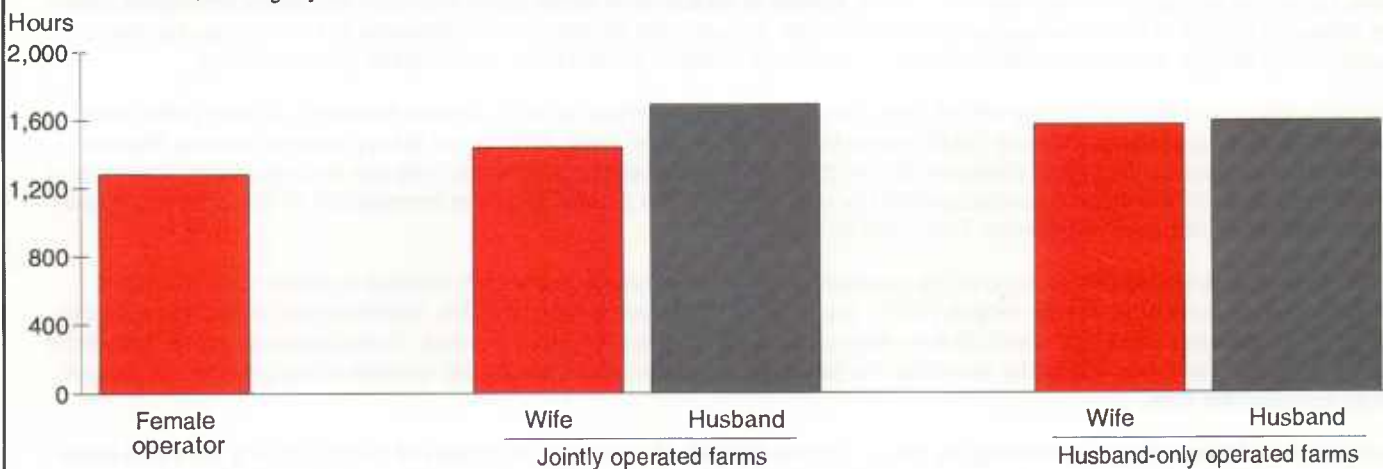


Figure 2

Average off-farm labor hours for those who worked off farm

Wives on husband-only operated farms who worked off farm spent more hours at their jobs than other farm women, but slightly less time than farm husbands who worked off farm



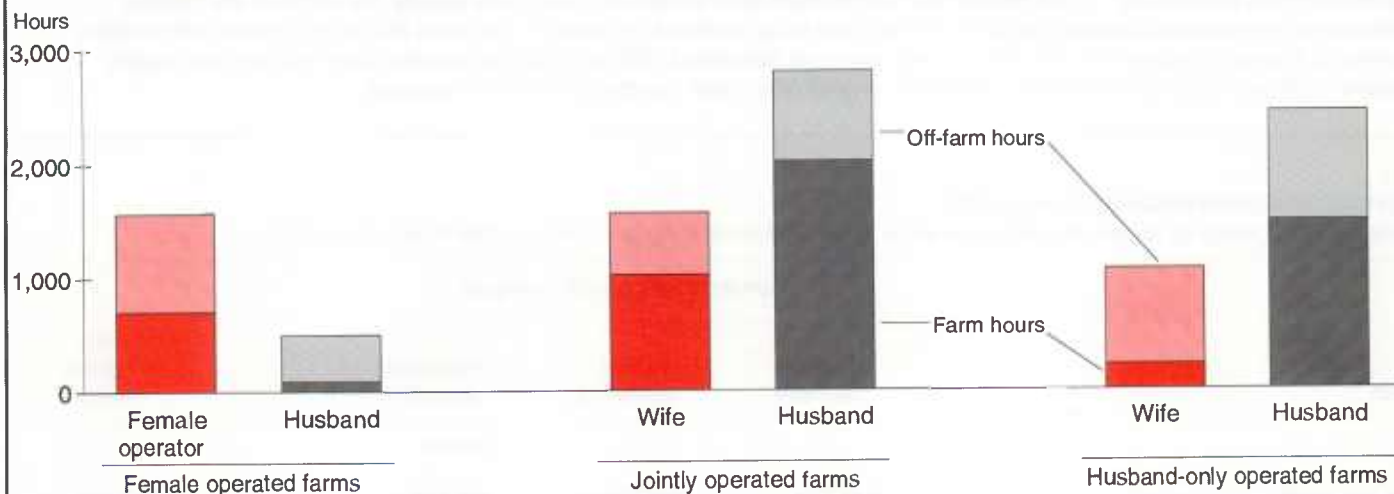
Note: There are too few husbands on female operator farms who work off farm to report without violating disclosure requirements.

Source: Authors' calculations of data from the 1991 Farm Costs and Returns Survey, Farm Operator Resource version.

Figure 3

Average farm and off-farm labor hours

The average farm woman works many hours at an off-farm job, even when she manages the farm



Source: Authors' calculations of data from the 1991 Farm Costs and Returns Survey, Farm Operator Resource version.

Farm Financial Status

Along with hours spent farming, the size and scale of the operation affects expected income. In 1991, farms operated by women had lower net worth and gross sales than the other farms (table 2). The female sole operator farms averaged \$219,000 in net worth compared with \$307,000 for husband-operated farms and \$356,000 for joint husband-wife operations. Less than 8 percent of female operator farms grossed \$50,000 or more from farm sales compared with 25 percent of the husband-operated and 36 percent of the joint-operated farms. Only 41 percent of the female-operated farms could be considered to be in favorable financial condition (positive net farm income

and a debt/assets ratio under 0.4) compared with 44 percent of husband-operated farms and 55 percent of joint-operated farms.

The larger number of hours spent farming by joint operator couples appears to pay off in terms of the financial soundness of the business. However, the previously mentioned characteristics of the three types of farms also influence their financial status. The smaller farms operated by the female farm operators cannot be expected to be valued as highly as the larger farms operated by the others. Also, small farms on average lose money every year regardless of who operates them, which helps explain

Data Sources and Considerations

Most farm households include both a husband and a wife, and often the wife as well as the husband provides farm labor. For some farms, the woman is the farm operator. While farming is an activity in which family members can jointly participate, statistics present a picture of farm businesses operated by men. In part, data showing male dominance in farming may be due to questionnaire design, as surveys collect information from one operator per farm, the self-reported senior operator.

The Farm Costs and Returns Survey (FCRS) has been a cooperative project of the Economic Research Service (ERS) and National Agricultural Statistics Service (NASS) since the survey began in 1984. The annual survey collects national financial data on farm businesses and basic characteristics of the farm operator and household such as age and education attainment of the operator and off-farm income (undistinguished by who earns it). For a comprehensive examination of farm operator households based on FCRS data see Ahearn, Perry, and El-Osta.

In addition, each year different versions of the questionnaire containing special questions address a unique topic of interest. The 1991 Farm Operator Resource version (FOR), the source of information reported here, collected data about the hours the operator and spouse spent in farm and off-farm work and the off-farm income each received. It also gathered information about women managing farm businesses by recording the gender of the operator and asking the operator about whether the spouse jointly operated the farm.

Definitional problems arise in delineating the target farm household. Households are groups of people sharing the same physical dwelling and, for students away from home, the same financial resources. Other persons, such as adult children or partners, may have a stake in the farm business but do not live in the same household as the senior farm operator. While others may have an interest in the farm business, the FOR collects data only for the senior farm operator household. Thus, we have limited data about other people who operate and work on farms.

Household income includes income from both farm and off-farm sources. Farm families are like many other U.S. families in that they have income from a variety of sources and from more than one earner. Farm income to households is lower than net farm income to farm businesses. USDA defines self-employment farm income to households exactly the same as the Census defines self-employment income, including depreciation as an expense. In addition, for farms that share income with multiple partners, shares of income are allocated to each partner's household. Off-farm income includes cash income from wages, salaries, off-farm businesses, interest, dividends, and all other cash income from off-farm sources.

Table 2

Financial characteristics of farms, 1991

Farms operated jointly by husbands and wives were larger and more likely to be in favorable financial condition

Item	Gender/management category			All households ¹
	Female operator	Joint operators	Husband operator	
	Dollars			
Farm net worth	218,728	355,739	306,755	312,839
	Percentage of households			
In favorable financial position	41.1	54.6	44.4	46.6
By gross sales class:				
Less than \$50,000	92.5	64.3	75.0	73.5
\$50,000 and more	7.5	35.7	25.0	26.4

¹Approximately 200,000 farms operated by unmarried men were excluded from this analysis.

Source: Authors' analysis of data from the 1991 Farm Costs and Returns Survey, Farm Operator Resource version.

why more of the female operator farms are in less favorable financial positions. Livestock operations (in which female operator farms are concentrated) tend to have lower net income than grains operations (in which

husband-only operator farms are concentrated), which in turn tend to have lower net income than dairy operations (in which the joint operations are concentrated).

Total Household Income

Typical of all small farms, many farms operated by a female operator lost money on a cash basis and most relied heavily on off-farm income (table 3). Farm losses combined with low off-farm income caused three quarters of households with female operators to have total income less than \$25,000, with over a third having income below \$10,000 (see "Data Sources and Considerations," p. 28, for how total household income is calculated).

When couples jointly operate the farm, the household depends more on farm income for its economic well-being than do other households. Joint operator households received the highest average income from farming of the three groups, \$10,120, and their total household income was approximately \$37,000. The group was widely distributed across income classes, however, with about a quarter having incomes under \$10,000 while over 50 percent had incomes above \$25,000.

Household income in the husband-operator group averaged \$44,600, much higher than the other household types' incomes. More than half of these households had income of \$25,000 or more. Farms commonly lose money in any given year, and 54 percent of farms operated by

husbands alone did so. Even so, on average this group's households made about \$8,300 from their farms in 1991. The larger shares of husbands and wives in this group that worked off farm show up in the \$36,000 the households average in off-farm income.

Summary and Discussion

The economic contribution that women make to the farm business and to the farm operator household is sizable. Farming is generally considered to be men's work. However, many women participate in the management of farm businesses, in addition to their traditional role in the household and their expanding role in the off-farm labor market. More specifically, when women have managerial responsibilities on the farm, or when they work in off-farm employment, the household has a higher average income.

Farm women are actually more likely to be in the labor force than other women in the United States. By virtue of being a farm operator, all farmers are considered as being in the labor force. When one considers women who reported doing farm work, whether paid or unpaid, and

Table 3

Household income characteristics, 1991

On average, households of sole women operators lost money farming and had the lowest household income

Item	Gender/management category			All households ¹
	Female operator	Joint operators	Husband operator	
	Dollars			
Total household income	33,403	37,160	44,599	42,218
Farm-related income	-1,537	10,213	8,301	8,159
Off-farm income	34,940	26,947	36,298	34,060
Female operator's or wife's earnings	20,521	4,481	7,794	7,784
Husband's earnings	4,561	12,868	15,490	14,238
Other household members' earnings	943	500	1083	941
Interest and dividends	2,152	2,422	2,896	2,743
Other off-farm income ²	6,762	6,676	9,030	8,353
Percentage of households				
Lost money farming	63.4	43.8	54.2	52.4
Made \$0-25,000 farming	75.6	48.8	41.1	44.9
Made more than \$25,000 farming	24.4	51.2	58.9	55.1
Both husband and wife worked off farm	14.1 ³	23.0	32.7	29.4
Female operator or wife only worked off farm	40.8	12.8	14.0	15.3
Husband only worked off farm	— ³	22.9	21.9	20.8

¹ Approximately 200,000 farms operated by unmarried men were excluded from this analysis.

² Other off-farm income includes Social Security, Medicare, Medicaid, pensions, royalties, gifts, alimony, and other nonfarm cash income.

³ Categories combined due to disclosure requirements.

Source: Authors' analysis of data from the 1991 Farm Costs and Returns Survey, Farm Operator Resource version.

those who worked off the farm, approximately 75 percent of farm women were employed. In the national labor market, 53 percent of all women work outside the home.

Several factors have contributed to the lack of adequate recognition of women's work contributions to the farm. Data gathering creates some bias towards men because the administration of the survey traditionally requires that only one person answer as the farm operator. Since one operator is reporting for the farm and the operator is usually male, bias in the reporting of women's contribution to farm work is a concern. Evidence exists in the literature which shows respondents under-estimate the amount of work that is done by others (see Hill, Bokemeier and Monroe, and Buttel and Gillespie in "For Further Reading..."). The Farm Costs and Returns Survey does not distinguish between management labor and other labor, so it is left to the respondent to determine if the spouse is a joint operator.

Many women contribute nonmanagement labor to farms, but it is difficult to discern whether a task is farm work or connected to traditional household tasks. Examples of this invisible farm work are running farm errands while in town doing household shopping, food preparation for hired help along with family meals, and filling in during heavy demand for labor or when the husband is unavailable.

Why do farm women not participate more in farm work? One explanation is the same reason many nonfarm women do not participate in the general labor market. Farm women, like their nonfarm counterparts, continue to be more involved in the traditional roles of childrearing and household management than men. Traditional allocations of labor within the household are a result of the household's optimization decisions. Given women's childbearing and often the greater ability of men to earn income in the labor market, traditional labor allocations may be efficient for many households. Research shows women's employment outside the home correlates strongly with the ages and number of children in the household (see Deseran, Li, and Wojtkiewicz, and Knutson). This may, in part, be why male farmers who do not jointly operate their farms with their wives are somewhat younger on average than other operators.

Other explanations that are relevant for the majority of U.S. farms are that the farms are too small to fully employ more than one individual. And, it may be more efficient from the household's perspective, including a critical way of managing the significant financial risks of farming, to

have a household member in the nonfarm market. Off-farm employment may provide more than tangible financial security; it may also provide health and life insurance for the family. The prevalence of off-farm employment of both farm men and women is evidence of its importance. When women are not needed in household activities, they may make a greater economic contribution to the household by supplying labor hours off the farm.

A certain influence, but one difficult to document, is the role played by the culture of farming. Because capital investment requirements pose barriers to entry into the farming occupation, a farming occupation is generally "inherited." Farm operators commonly pass on the farm, and occupation, to their children. Farm numbers continue to decline, as they have since 1935. Therefore, farming does not provide many opportunities for new entrants. Because of this lack of mobility within the occupation, the movement away from traditional gender roles has not affected farming in the same way as the general economy.

Although mechanization has greatly minimized, perhaps even eradicated, the physical advantage of men in farm labor activities, women continue to spend a smaller proportion of their farm labor hours in physical labor than men (see Rosenfeld). Farm girls may not receive the same training or have the same opportunities for farm-related work experiences as do farm boys. They may not want the experiences due to socialization into the farm and general culture, or girls who do want the experiences may not be provided with them. Many of these experiences are equivalent to an apprenticeship for farming. If these barriers do exist, it may mean that more women would become farm operators if they were removed.

Female children of farm operators often share in the financial inheritance of the family farm, but the operation of the farm is more commonly left to the male children. In fact, some women may inherit their families' farms but transfer operation to their husbands. It is not uncommon for a woman to become a recognized operator of the family farm only after her husband dies (see Rosenfeld and Effland and Rogers). Since 1981, when inheritance tax laws ceased penalizing the surviving widow, it has been financially easier for women to hold on to their farms. Changes to other laws concerning women's ability to obtain the financing necessary to operate today's farms facilitate their access to credit. While more women are taking an active role in the management aspect of farming, there are no strong reasons to expect allocations of labor within the farm household to significantly change in the near future.

For Further Reading...

M.C. Ahearn, J.E. Perry, and H. El-Osta. *The Economic Well-Being of Farm Operator Households, 1988-1990*, AER-666, USDA-ERS, 1993.

J. Bokemeier and P. Monroe. "Continued reliance on one respondent in family decision making studies: A Content analysis," paper presented at the annual meetings of the American Sociological Association, Toronto, Canada, Aug. 1983.

F.H. Buttel and G.W. Gillespie, Jr. "The Sexual Division of Farm Household Labor: An Exploratory Study of the Structure of On-Farm and Off-Farm Labor Allocation Among Farm Men and Women," *Rural Sociology*, Vol. 49, No. 2, 1984, pp. 183-209.

F.A. Deseran, J.H. Li, and R.A. Wojtkiewicz. *Labor Market Performance, Household Structure, and Women's Labor Force Participation*, RSRR-3, Louisiana State University Agricultural Center, Baton Rouge, 1991.

A. Effland and D. Rogers. "Women as Agricultural Landowners: What Do We Know About Them?" Paper presented at the Fourth Conference of Rural/Farm Women in Agriculture, University of California, Davis, June 26-28, 1992.

F. Hill. "Farm Women: A Challenge to Scholarship," *The Rural Sociologist*, Vol. 1, Nov. 1981, pp. 370-87.

M.A. Knutson. *A Woman in the Labor Force: Factors Affecting Both Her Labor Force Decision and the Time She Is Willing to Supply in the Labor Market*, unpublished master's thesis, Department of Agricultural Economics, Oklahoma State University, Stillwater, 1974.

W. Reimer. "Women as Farm Labor," *Rural Sociology*, Vol. 51, No. 2, 1986, pp. 143-155.

R. Rosenfeld. *Farm Women: Work, Farm and Family in the United States*, University of North Carolina Press, Chapel Hill, 1985.

F.M. Shaver. *Farm and Nonfarm Women in Rural Quebec: A Preliminary Analysis*, Research Report Number 8, Project Cap-St.-Ignace, Department of Sociology and Anthropology, Concordia University, 1980.