

Off-Farm Income and Farm/Household Characteristics

Like their nonfarm counterparts, many farm households are dual career. While operators and spouses across all sizes and typologies work off-farm or manage nonfarm businesses, the level of off-farm income varies with farm size, region, farm type, and the human capital of operators and spouses.

Off-Farm Income and Farm Size

Off-farm income varies inversely with farm size; operators of smaller farms have higher off-farm incomes, both earned and total.¹⁰ Farm households with gross farm sales less than \$10,000 had total off-farm income averaging nearly \$74,000 in 2004 (\$54,600 of which was earned), while households with farm sales between \$250,000 and \$499,999 had total off-farm income averaging about \$45,000 (\$33,200 earned) (table 3). While off-farm income constitutes the largest component of farm household income on average, its share decreases with farm size. For farms with gross sales higher than \$250,000 (less than 8 percent of U.S. farms), off-farm income is no longer the largest component of household income (table 4).

Off-farm household income earned by the operators is more variable across farm sizes (\$27,500 for operators of smaller farms versus less than \$10,000 for operators of the largest farms) than that earned by spouses (between \$12,000 and \$14,000 across all sizes in 2004). Off-farm income earned by other household members averages around \$1,000.

To a large extent, the inverse relationship between off-farm earned income and farm size is due to greater off-farm employment (and more hours worked off the farm) by operators of smaller farms. More than 55 percent of operators with farm sales less than \$100,000 reported off-farm hours in 2004 versus 20 percent or less for operators of farms with sales above \$250,000 (table 4). On the other hand, off-farm income earned by farm operators who work off-farm does not vary much with size, averaging \$47,000 for operators of the smallest farms and \$39,000 for operators of the largest farms.

¹⁰Smaller farms represent a very large share of farm population but a small share of the farm sales. For example, about 44 percent of the farms have sales less than \$10,000 and more than 80 percent of the farms have sales below \$100,000 (table 3). This distribution, however, is dependent on the definition of farm. In the United States, a farm is currently defined, for statistical purposes, "as any place from which \$1,000 or more of agricultural products were sold or normally would have been sold during the year under consideration." (USDA, 2005).

Table 3

Off-farm household income by farm size, 2004

Farm sales	Share of farms	Income earned by the operator	Income earned by the spouse	Income earned by other members	Off-farm business income	Total earned income	Unearned income	Total off-farm income
	Percent	Dollars						
\$9,999 or less	43.7	27,457	14,756	1,219	11,209	54,641	19,392	74,033
\$10,000-\$99,999	40.7	24,295	13,095	1,142	9,889	48,422	19,549	67,971
\$100,000-\$249,999	7.9	11,074	14,722	1,158	8,493	35,445	11,467	46,913
\$250,000-\$499,999	4.2	7,559	13,439	836	11,404	33,238	11,633	44,870
\$500,000-\$999,999	2.0	7,790	12,816	1,110	8,371	30,086	21,991	52,077
\$1,000,000 or more	1.5	4,898	12,017	612	10,744	28,271	12,811	41,082
All farms	100.0	23,318	13,943	1,156	10,402	48,818	18,461	67,279

Source: 2004 ARMS data.

Table 4

Farm household income by farm size, 2004

Farm size (annual sales)	Number of farms	Share of farms income	Total household farming	Income from income	Share of farm	Off-farm income
	<i>Number</i>	<i>Percent</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Percent</i>	<i>Dollars</i>
\$9,999 or less	901,333	43.7	71,155	-2,878	-8.9	74,033
\$10,000-\$99,999	838,912	40.7	72,061	4,091	11.7	67,971
\$100,000-\$249,999	162,782	7.9	80,912	33,999	18.9	46,913
\$250,000-\$499,999	86,087	4.2	124,386	79,516	23.4	44,870
\$500,000-\$999,999	41,424	2.0	168,844	116,766	16.5	52,077
\$1,000,000 or more	30,284	1.5	411,266	370,184	38.3	41,082
All farms	2,060,822	100.0	81,480	14,201	100.0	67,279

Farm size (annual sales)	Earned off-farm income	Share of operators reporting off-farm hours	Off-farm earned income by operators who worked	Off-farm earned income of operators	Share of spouses reporting off-farm hours	Off-farm income earned by spouses	Off-farm earned income of spouses who worked off-farm
	<i>Dollars</i>	<i>Percent</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Percent</i>	<i>Dollars</i>	<i>Dollars</i>
\$9,999 or less	54,641	58.7	27,457	46,775	44.1	14,756	33,460
\$10,000-\$99,999	48,422	55.5	24,295	43,775	45.5	13,095	28,780
\$100,000-\$249,999	35,445	31.1	11,074	35,608	54.4	14,722	27,063
\$250,000-\$499,999	33,238	20.4	7,559	37,054	45.2	13,439	29,732
\$500,000-\$999,999	30,086	18.6	7,790	41,882	44.8	12,816	28,607
\$1,000,000 or more	28,271	12.6	4,898	38,873	37.2	12,017	32,304
All farms	48,818	52.1	23,318	44,756	45.4	13,943	30,711

Source: 2004 ARMS data.

The inverse relationship between farm size and off-farm work still holds after controlling for other factors, as demonstrated econometrically by many researchers (Lass et al., 1989, 1991; Yee et al., 2004). In addition, Goodwin and Bruer (2003) and Fernandez-Cornejo et al. (2005) showed that the inverse relationship holds for both operator and spouse.

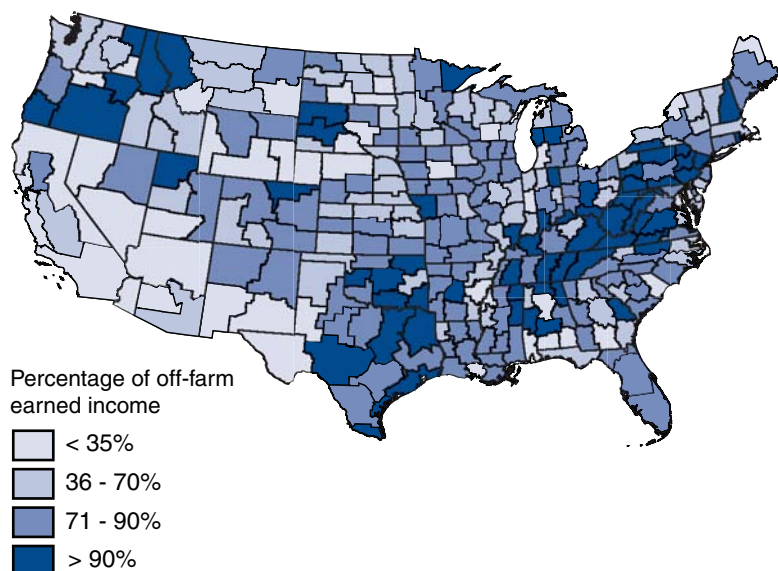
Time allocation between onfarm and off-farm activities by household members appears to be the underlying reason for the inverse relationship between farm size and off-farm work. This relationship appears to be valid regardless of the sequence in which time is allocated between farm and off-farm work. As Olfert (1984) notes, it may be the case that farmers choose farm size and type after knowing the time commitments required by an off-farm job, or farmers may choose the type and amount of off-farm work after taking into account the nature of the labor requirements on the farm.¹¹

Off-Farm Income and Farm Location

Off-farm employment also varies geographically, with widely differing shares of off-farm income (to total income) even within States (fig. 2). In general, high ratios of off-farm earned income to total income are exhibited in the four regions—the Northeast, Appalachian, Southern Plains, and Northwest—where job opportunities tend to be highest or farm income lowest. In many cases, one family member may focus on the farm operation while the spouse and children work off the farm. In other situations, the farm operation may be a side job and a refuge from urban stress. The supply of off-farm labor has been shown to be positively related to urban proximity (Lass et al., 1991). Moreover, Gardner (2001) found that farmers’ income growth is inversely related to the rural share of a State’s population. Gardner observed that this finding supports Schultz’s (1950) hypothesis that “a larger presence of nonfarm people in a State is good for

¹¹The tradeoff between time spent in onfarm and off-farm activities also manifests itself in Conservation Reserve Program (CRP) participation. Boisvert and Chang (2006) found empirical evidence that a household’s decision to participate in the CRP and to work off the farm are made jointly rather than independently. Participation in off-farm work with higher wages provides an incentive for operators to work less on the farm and to take land out of production and commit it to the CRP. As a result, participation in the CRP and off-farm work increase household income.

Figure 2
The importance of off-farm income by ASD*, 2001
(off-farm earned income/total income)



*ASD = Agricultural Statistics District.
 Source: 2001 ARMS data.

the growth of farmers' incomes, because it increases their off-farm earnings opportunities and increases the demand for the goods and services that farmers produce." This may be particularly true for agricultural States with large urban populations such as Texas, where off-farm opportunities increase near one of that State's four major cities—Dallas-Fort Worth, Houston, San Antonio, and Austin.

Off-Farm Income, Type of Enterprise, and Human Capital

Off-farm work is less likely on farms with labor-intensive enterprises such as dairy (Leistriz et al., 1985) and other livestock (Lass et al., 1991; Goodwin and Bruer, 2003). Moreover, dairy farmers who do work off the farm tend to require higher "wages" (the opportunity cost of labor is higher) to work off farm than farmers working in other enterprises.

The supply of off-farm labor has also been shown to be positively related to human capital such as education and experience of the operator and spouse (Lass et al., 1991). The number of children is positively associated with off-farm employment for farm men, but the association is negative for farm women. More children may imply more need for additional income but also additional child care at home.