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Economic Well-Being of Farm Households

Carol A. Jones, Hisham El-Osta, and Robert Green

Farm subsidy programs in the 1930s were largely prompted by concern for the chronically low, and highly variable, incomes of U.S. farm households. Seventy years later, commodity-based support programs are still prominent, even though the income and wealth of the average farm household now exceed those of the average nonfarm household—wealth by a large margin.

Farm households continue to face variability in income due to weather and natural disasters. Household income is most variable for the small segment that operates commercial farms (above $250,000 in annual sales). Relative to small farms, these farms achieve greater economies of scale, generate higher profit margins, and their households realize a larger share of their income from farming. However, the substantial net worth of these households acts as a cushion against uncertain farm income, much as off-farm income does for households operating smaller farms.

In a variable-income/high-wealth sector such as farming, economic well-being measures based on both income and wealth can provide a better signal of household capacity to support a consistent living standard than income measures alone. In 2003, 5 percent of farm households had both income and wealth below the respective U.S. household medians, and those households, on average, spent more on basic consumption than they earned in income. Households with low income and low wealth are less likely to receive farm payments, excluding conservation programs; by contrast, only 3 percent of households receiving payments had income and wealth below the U.S. household medians for each.

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Increasing Farm Household Participation in Off-Farm Employment and Investment is Key to Well-Being

The average income of farm households increased from half of nonfarm household income (per capita) in the 1930s to relative parity by the 1970s. In every year since 1996, average income for farm households has exceeded the average U.S. household income by 5 to 17 percent. Today, the economic portfolios of most farm operator households are highly diversified. Off-farm sources of income (including employment earnings, other business activities, other investments, and transfer payments) provided 85-95 percent of household income over 1999-2003, up from around 50 percent in 1960.

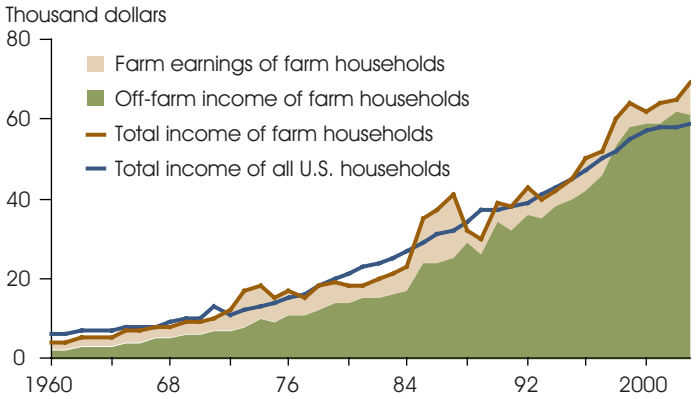
Operators of family farms in all sales classes had average household income exceeding the 2003 U.S. average for all households ($59,083). However, farm households are following diverse paths to economic well-being. Commercial farms (annual sales above $250,000, representing about 7 percent of U.S. farms) produce about 70 percent of total farm sales and have an average operating profit margin[1] greater than 10 percent, with economic performance and farm share of household income increasing with farm size within the commercial segment (see Economic Brief No. 6, *Growing Farm Size and the Distribution of Farm Payments*). Very large commercial farms (sales greater than $500,000) average household income about four times the U.S. household average. Though farm income provided 80 percent of household income for the average very large commercial farm operator in 2003, off-farm income still contributed around $44,033 per year.

[1]Operating profit refers to net farm income plus interest payments, minus the opportunity cost of operators' unpaid labor and management time.

Across all other sales classes, farms have negative farm operating profits, on average, and their households draw most of their income from off-farm sources. Farm operating profit margins become more negative and shares of household income from farm sources decrease as farm size diminishes. Households just below commercial farms ($100,000-$249,999 in sales) represent 8 percent of U.S. farms and produce 17 percent of sales. Their average household income was $67,275 in 2003. The remaining 85 percent of farms produce around 15 percent of sales, and earn negligible income from farming. The operators of these smaller farms (particularly those with less than $10,000 in sales) disproportionately identify their primary occupation as "other than farming or ranching" or as "retired." The "other occupation" group, who operate 42 percent of all farms, is more integrated into the off-farm economy than the farmer/rancher or the retired, and relies primarily on earned income (off-farm wages and salaries and off-farm business income.)

Figure 1

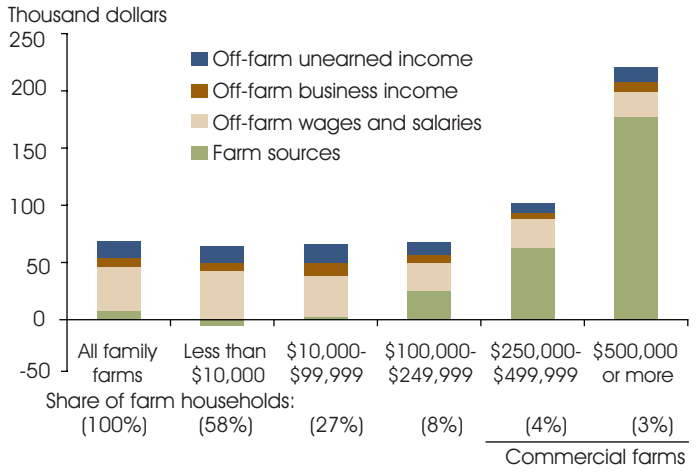
Average household income for farm households compared with all U.S. households, 1960-2003



Source: Various sources. For details, see www.ers.usda.gov/Briefing/FarmStructure/Data/historic.htm

Figure 2

Average household income varies by sales class of farm, 2003



Source: 2003 USDA Agricultural Resource Management Survey; Economic Research Service, USDA.

Farm Household Income is Most Variable for Households with Highest Net Worth

Farm households as a group no longer experience chronically low incomes relative to nonfarm households. On the other hand, farm households do continue to experience more variable income from year to year. However, it is the 7 percent of farm households operating commercial farms, who derive a majority of household income from the farm, that experience the greatest degree of variability in household income from year to year. The 8 percent of farm households operating the next size class of farms ($100,000-$249,999) also experience variability in household income, though the effect is dampened because about two-thirds of their income comes from off-farm activities.

Distribution of Income and Wealth Across Farm Households

Within a given year, the variability of income across farm households tends to mirror that for all U.S households. However, farm households tend to have lower incomes at the low end of the income spectrum than nonfarm households, and higher incomes at the high end. The share of farm households with negative household income was 6 percent in 2003, versus 1 percent of all U.S. households.

In contrast to all U.S. households, where wealth is highly concentrated at the top end of the distribution, wealth is more equally distributed across farm households. Nonetheless, differences exist by farm size and by age/retirement status. Across size classes, the variation in farm household wealth roughly mirrors the variation in income levels: farm net worth and, to some extent, nonfarm net worth are higher for households operating larger farms. So the larger farms can counter their greater exposure to variable income with higher net worth – on average in excess of $1 million, and closer to $2 million for very large commercial farms.

Again, the households operating larger farms (sales greater than $100,000) are the ones more likely to experience the effects on household income from variability in farm income: in 2003, around 13 percent of households operating larger farms had negative household income, compared with 4 percent of households operating smaller farms (fig. 3). In contrast, the likelihood of incurring losses from farm operations is highest among the smaller farms (less than $100,000 in sales). But these latter households acquire virtually all of their income from off-farm sources, so negative farm earnings seldom translate into negative household income.

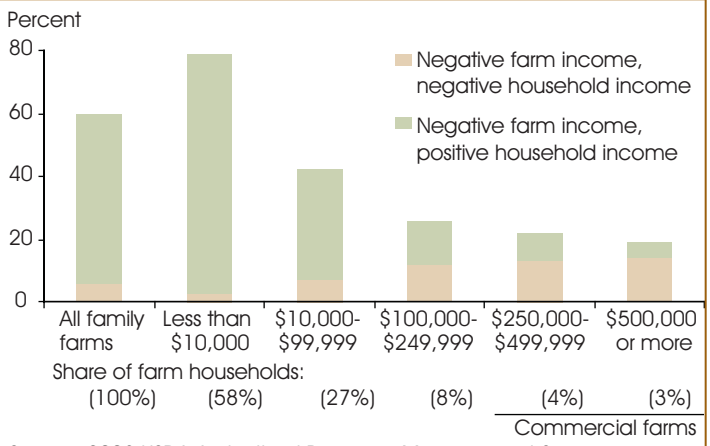
A Joint Income-Wealth Indicator is More Indicative of Farm Household Well-Being

In 2003, median wealth of farm households ($416,250) was five times the estimated median wealth of all U.S. households ($89,578). (By definition, 50 percent of households have wealth lower than the median—also known as the 50th percentile—of wealth). Seventy-three percent of farm household net worth is in farm equity (plus an unknown share is in nonfarm business equity), whereas 17 percent of the net worth of U.S. households is in business equity. Farmland, which has appreciated greatly in recent years, particularly near urban centers, currently represents about 60 percent of farm household wealth. Excluding farm wealth, median nonfarm wealth of farm households ($83,750) was almost as high as estimated median total wealth of all U.S. households.

Gauging what share of farm households has low economic well-being is challenging, because farming is characterized by variable income but also by high wealth. During periods of low income, farm households may be able to maintain living standards by borrowing against, or liquidating, assets. Consequently, household income for an individual year, the standard measure of economic well-being, is not necessarily a good indicator of a farm household's ability to support

Figure 3

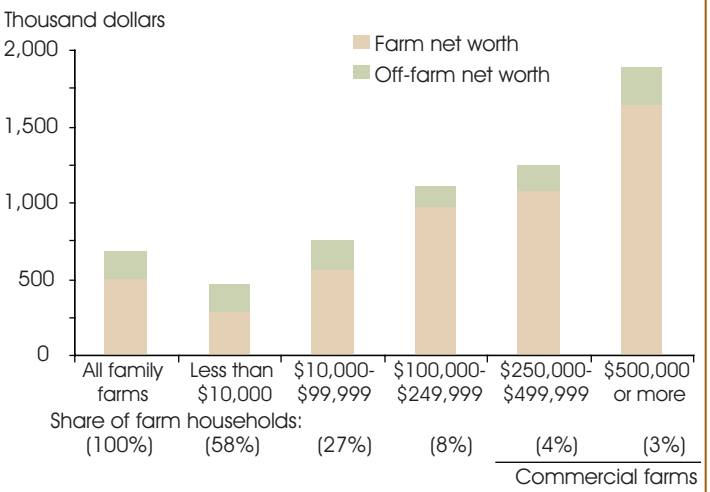
Share of farm households with negative farm income, by whether total household income is positive or negative, and by sales class, 2003



Source: 2003 USDA Agricultural Resource Management Survey; Economic Research Service, USDA.

Figure 4

Average farm household net worth, by sales class, 2003



Source: 2003 USDA Agricultural Resource Management Survey; Economic Research Service, USDA.

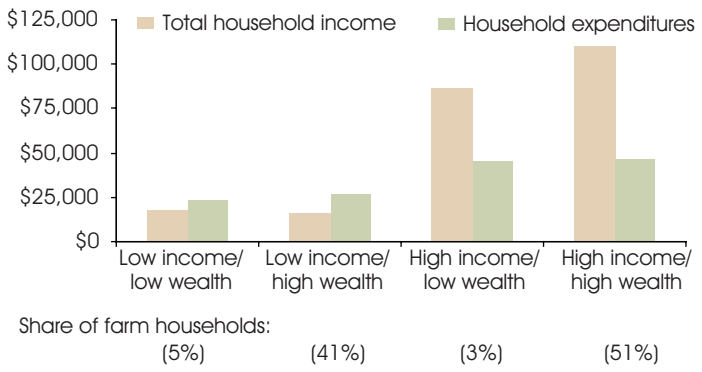
How We Developed the Data in this Brief

Data on farms and farm operator households are from USDA's Agricultural Resource Management Survey (ARMS). Income data for all U.S. households are from the U.S. Census Bureau's Current Population Reports, Series P-60. Wealth data for all U.S. households are derived from the Federal Reserve Board's Survey of Consumer Finances (SCF). SCF data are collected once every 3 years, and the most recent data available are from 2001. To provide a point of comparison with farm operator wealth in 2003, we estimated median wealth levels.

a given consumption level through time. And wealth is particularly important for the retired and near-retired, who may be drawing down wealth accumulated over their lifetime, rather than spending current income, to support their standard of living.

Figure 5

Average farm household income and expenditures by relative economic well-being group, 2003



Source: 2003 USDA Agricultural Resource Management Survey; Economic Research Service, USDA.

To create a well-being indicator that accounts for both income and wealth, we separate farm households by low and high income and low and high wealth, using the U.S. household medians for income and wealth as the dividing lines. By definition, 50 percent of U.S. households had income greater than the U.S. median income ($43,378) in 2003. In contrast, 54 percent of farm households had income greater than that level in 2003. However, the big difference is in the distribution of wealth across the groups: 92 percent of all farm households—in contrast to 50 percent of all U.S. households—had wealth greater than the U.S. median (estimated to be $89,578 in 2003).

So who is in the small group of low-wealth households? On average, the low-wealth group was younger (virtually none was retired), operated substantially fewer acres, and generated lower farm sales than the farm operator population as a whole. They reported substantial losses in the off-farm component of household wealth. Among low-wealth households, a major factor differentiating the high-income subgroup (3 percent of total households) from their low-income counterparts (5 percent of total households) is occupation: their primary occupation is disproportionately "other than farming/ranching," whereas the low-income group was more evenly split between operators declaring farming/ranching or "other" as their primary occupation.

Do households with variable income have sufficient equity to borrow against, or to liquidate, to maintain living standards when income is low? Among farm households with income lower than the U.S. median (46 percent), household wealth exceeded the U.S. median in 9 out of 10 households. Retired households are disproportionately represented in this low-income/high-wealth subgroup. Even in the low-wealth group, basic consumption expenditures exceeded income, though to a lesser extent than for the high-wealth group.

Farm Households that Receive Commodity Payments also Have High Incomes and Wealth

About 32 percent of all farm households receive farm program payments, excluding environmental payments (such as those received under the Conservation Reserve Program and the Environmental Quality Incentives Program.) The share is lowest (12 percent) for households operating the smallest farms (sales less than $10,000); over 50 percent of households operating farms in each of the larger size classes receive payments. The high-income high-wealth group is more likely to be receiving program payments (34 percent) than the low-income, low-wealth group (18 percent). Among recipients, payment levels increase with production levels, and so payments disproportionately go to farm households operating larger farms, with their higher average incomes and wealth.

This brief is drawn from . . .

Ted Covey, Robert Green et al., *Agricultural Income and Finance Outlook,* AIS-83, 45 pp, November 2005.

David E. Banker and James M. MacDonald, editors, *Structural and Financial Characteristics of U.S. Farms: 2004 Family Farm Report,* Agriculture Information Bulletin No. 797, 95 pp, March 2005

James MacDonald, Robert Hoppe, and David Banker, *Growing Farm Size and the Distribution of Farm Payments*, U.S. Dept. Agr., Econ. Res. Serv., EB-6, March 2006.