Ohio Farm Household
Longitudinal Study*

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Ohio Farm Household Income and Financial Condition

The Ohio Farm Household Longitudinal Study has been gathering production, financial, and household data from Ohio farm households since 1986. In early spring of 1991, approximately 1000 farm operators were surveyed by telephone regarding their 1990 farming experience. This report and others to follow summarize the 1991 information and compare it with information gathered for the previous years.

The sample of farm households was randomly chosen from operating farms to fully depict the 70,000-80,000 farm operator households in Ohio. Landlords and retired farmers who own land but were not currently operating farms were not included in the survey.

This report examines farm household income and the sources of this income. In general, the findings reported that (a) for the "average" farm household, 1990 net farm income remained constant with 1988 net farm income; (b) off-farm income decreased slightly from the 1988 level, but continued to be the primary source of income for the average farm operator household; and (c) for households operating "commercial" farms, which produce over two-thirds of Ohio farm products, the farm business generated most of the household income and earned a 7.4 percent rate of return for the capital invested in the business (Table 1).

Categories of Farms

Three categories of farm households, based upon the annual gross sales of their farm operations, are used in these surveys. The first group is comprised of those households with less than $40,000 gross farm sales. These operations are numerous; nearly two-thirds of all Ohio farms are in this group. However, they account for only 15 percent of farm products sold in the state. Their household income is primarily from off-farm sources. The term "Rural Residences" may more accurately define these operations than the term "farm." The second group includes farm households with gross sales of $40,000 to $99,999. These are typically "part-time farm operations." About one-sixth of Ohio farm operations fall into this category and they account for about 25 percent of the farm products sold in the state. The last group could be termed "commercial farms" with annual gross sales of $100,000 or more. Most of these operators are fully employed on the farm and most household income comes from the farm. Less than 17 percent of Ohio farms are in this group, yet they provide 60 percent of the farm product sales.

Since there are relatively large numbers of small farms in Ohio, averages for all farms need to be interpreted with caution. Averages are strongly influenced by numerous "rural residences." Commercial farms, producing most of the state's agricultural output, are not well represented by simple averages.

Net Farm Income

Net farm income is calculated by adding all receipts from farm operations, subtracting expenses including depreciation, and adjusting for inventory changes. It is the return to all resources owned by the family that contribute to the farm operation. Net farm income showed a slight improvement over the first three years of the study, but has remained constant since 1988. It averaged about $8,000 for all farms in 1990 compared with $8,100 in 1988 (Table 1).

For all farm operator households, non-farm income accounted for three-fourths of all

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household income in 1990, a similar proportion to the previous years although average non-farm income was less than in 1988. Average non-farm income for all farm operator households was about $23,700 in 1990, compared with $26,700 in 1988. Total household income was about $31,700 in 1990. Net farm income for the group with sales less than $40,000 was negative in 1990 (and in all other surveyed years).

However, for households operating commercial farms, income from the farm was the major source of income. These farms have a relatively small buffer of non-farm income to protect them from changes in weather, export markets, federal monetary and fiscal policies, and federal farm programs (Table 1).

Return on Assets

Rate of return on assets is probably the best indication of the economic success of farm businesses. Over the entire post World War II period, the average return to investments in U.S. farmland was 10.6 percent annually, which was slightly higher than the return received in other investments. But these rates can vary considerably from year to year.

Rate of return to assets has two components: operating return and change in asset values. The average Ohio farm household's operating returns improved during the 1986-1988 period reaching 0.6 in 1988, but decreased again in 1990 to -1.5 percent (Table 1).

Operating return on assets for commercial farms was 7.4 percent , which was approximately the same as the average return to non-farm assets. Commercial farms own most of the capital invested in agriculture, but they make up a small proportion of the farm households. Hence, the paradoxical statement can be made: the operating return to farm assets was "reasonable" for the average dollar invested, but it was "low" for the average farm operator household.

Farm Household's Balance Sheets

On December 31, 1990 the "average" farm household valued its owned assets at $453,000, reported debt of $52,000, and estimated its net worth (equity) to be $401,000(Table 2). Since 1986 the financial situation of the average farm household has improved considerably. Over the five years of this study, assets have increased by 39 percent, debt has remained constant since 1987, and net worth has increased by over fifty percent. This improvement can be attributed, therefore, to rising asset values, and a reluctance to assume new debt, more than to debt repayment (Table 2).

Financial stress is a term used when debt-to-asset ratios exceed 40 percent because, as the amount of debt increases beyond this point, debt servicing becomes more difficult. The term "severe financial stress" is used to describe farm households with debt-to-asset ratios of 70 percent or more. Households in this category generally have trouble making the interest and principal payments on their debt from the cash flow generated by the farm operation.

On December 31, 1990, nine percent of the farmers were in financial stress and two percent were in severe financial stress (Table 2). This indicates that problems continue in the agricultural community, although marked improvements have been made in the last five years. In 1986, the proportions of households in financial stress and severe financial stress were 18 percent and seven percent, respectively. Throughout the period of this study commercial farms have tended to be more highly leveraged and have experienced more financial stress than part-time farms or rural residences. The proportion of commercial farm households in financial stress has decreased by 22 percent (from 23 to 18 percent), and those in severe financial stress has decreased by 70 percent (from 10 to 3 percent) since 1988.

Summary

Net farm income has remained fairly constant during 1988-1990, while non-farm income decreased slightly, resulting in a decrease in total household income. Non-farm income remains an important source of income for farm families. Financial condition continued to show noticeable improvements and appeared sound for most farm operator households. Since fewer farms are in severe financial stress, fewer foreclosures are expected in the near term.

Table 1. Ohio Household Income, 1986-1990.

	1990, by Gross Sales			1986	1987	1988	1990
	less than $40,000	$40-100,000	$100,000 or more	All farms	All farms	All farms	All farms
Net Farm	-4.4	7.2	58.9	5.9	7.3	8.1	8
Non-Farm	26.6	23.0	12.9	21.8	25.2	26.7	23.7
Total Household	22.2	30.2	71.8	27.7	32.5	34.8	31.7
Return on Assets (%)	-3.8	-1.1	7.4	-3.4	-1.3	0.6	-1.5

[a]$1000/ farm.
[b] Return on assets includes only operating returns during previous year. Asset appreciation is not included.

Table 2. Measures of Ohio Farm Household Financial Condition, December 31, 1986-1990.

	1990, by Gross Sales			1986	1987	1988	1990
	Less than $40,000	$40 - 100,000	$100,000 or more	All Farms	All Farms	All Farms	All Farms
Assets	356	474	823	326	365	396	453
Liabilities	26	53	154	59	52	52	52
Equity	331	421	668	267	131	344	401
Debt/Asset (%)	7	11	19	18	14	13	11
Share of farms in							
-financial stress (%)	6	12	18	18	16	12	9
-severe financial stress (%)	1	2	3	7	5	4	2

[a] $1000/farm.
[b] Financial stress is defined as a debt-to-asset ratio of 0.4 or greater.
[c] Severe financial stress is defined as a debt-to-asset ratio of 0.7 or greater.