

FARM EXPENSES INCURRED BY OHIO FARM HOUSEHOLDS
January 1, 1987

This is the fifth in a series of articles exploring the condition of Ohio farm operator households. Nearly 1000 households, representative of all operating farms in Ohio, provided information for this series. This particular report concentrates on farm expenses: their type, amounts incurred, and the market area in which farmers acquire inputs.

Earlier reports in this series discussed the low net farm income experienced by farm households with small farm operations. Smaller farm operations, or those with annual sales of less than \$40,000, actually received negative net farm income during 1986 (Figure 1). Larger farms, or those with more than \$40,000 annual sales, had positive net farm income; however, most incomes were rather modest considering the amount of unpaid family and operator labor and capital that was devoted to the farm operation.

Economies of size is a phenomenon experienced in many industries, including farming. Average cost per unit of production decreases as more units are produced. For a multi-product industry like Ohio agriculture, average cost per dollar of sales is used to represent the economies of size concept. As farm size increases, average cost per dollar sales tends to decrease and then becomes nearly constant (Figure 2).

In general, small farm operations are at a disadvantage due to high costs for inputs such as fertilizer, chemicals, seed, feed, and other cash expenses. A number of factors may be responsible: high prices paid for farm supplies, relatively low prices for products, low yields, or inefficient use of inputs. The last report examined crop yields and livestock productivity and estimated that these were slightly less on smaller farms than on

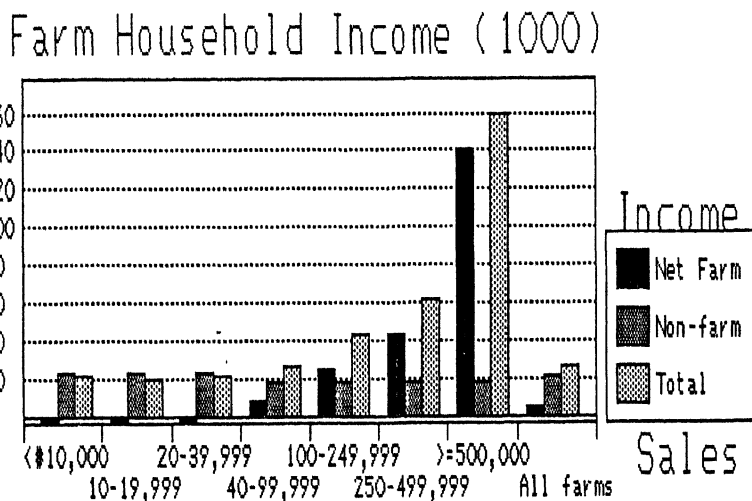


Figure 1.

*Ohio Farm Household Longitudinal Study is supported by the Ohio Agricultural Research and Development Center and U.S. Department of Agriculture (Economic Research Service). Project staff are Lynn Forster, Robert Munoz, Linda Reif, Tom Stout, Nate Asplund, Tony Dryak, and Alex White.

larger, more profitable ones. Most likely, the unfavorable prices paid and received are responsible for much of the negative net farm income from smaller farms.

In addition, depreciation expenses associated with farm equipment, machinery, and buildings are relatively high for these small operations. It is difficult to equip a small farm economically as shown by their large depreciation per dollar sales (Figure 2). Many operators of smaller farms overcome this problem by custom hiring or leasing some operations rather than purchasing the necessary machinery.

Farm operators' allocation of expenses between various inputs is surprisingly consistent across farm size (Figure 3). Interest, cash rent, and depreciation account for about one-third of all expenses regardless of size. Fertilizer, chemicals, and seed comprise another 20 percent of expenses, as do miscellaneous expenses. Those components affected the most by farm size are feed, hired labor, fuel and repairs. Larger farms have a larger share of their expenses in purchased feed for two reasons: first, they tend to purchase more and raise less, and second, farms producing livestock tend to fall in the larger sales classes. Larger farms tend to rely more on a paid labor force rather than unpaid family labor, which accounts for the larger labor expenses on these farms. The use of larger, more fuel efficient equipment may explain the relatively low fuel and repair expenses incurred by larger farms.

Operators of larger farms buy their inputs from more distant sources. Figure 4 illustrates the average distant from the farm to fertilizer, chemicals, seed, and

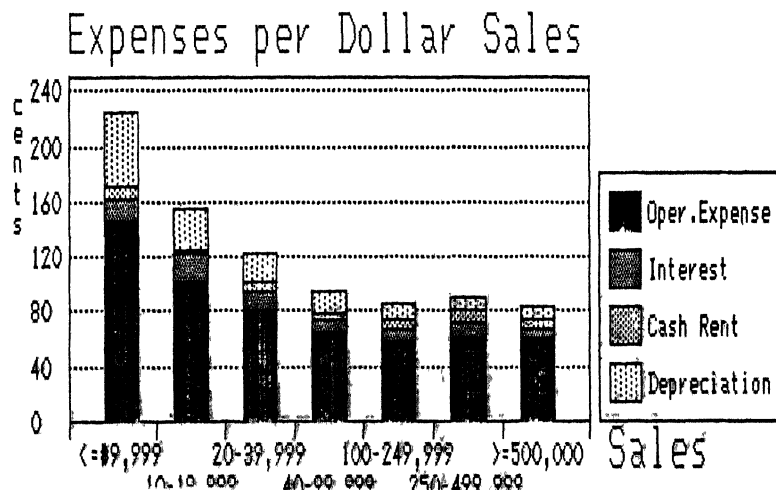
feed dealers. This distance is over twice as far for the largest farms (over \$250,000 in annual sales) as it is for the smallest ones (less than \$40,000 annual sales). Operators of larger farms appear to shop over a much wider market area and probably are paying lower per unit prices as a result.

Of course, the propensity of larger farmers to purchase from more distant sources has important impacts for local communities. As farm size increases, local dealers face increased competition from dealers in neighboring counties. Operators of larger farms may purchase seed, fertilizer, parts, and fuel over a 3 or 5 county area and look for bargains from even more distant sources. On the other hand, the operator of the smaller farm may do little searching outside the closest farm supply center.

Another interesting difference between operators is their purchase of management services from off the farm (Figure 4). Accountants, lawyers, consultants, and computer services are purchased regularly by the largest farms and infrequently by the smallest. The most striking difference is in the use on computer services, where practically none of the operators of smallest farms claim to use computers compared to over one-third of the operators of the largest farms using them in their business.

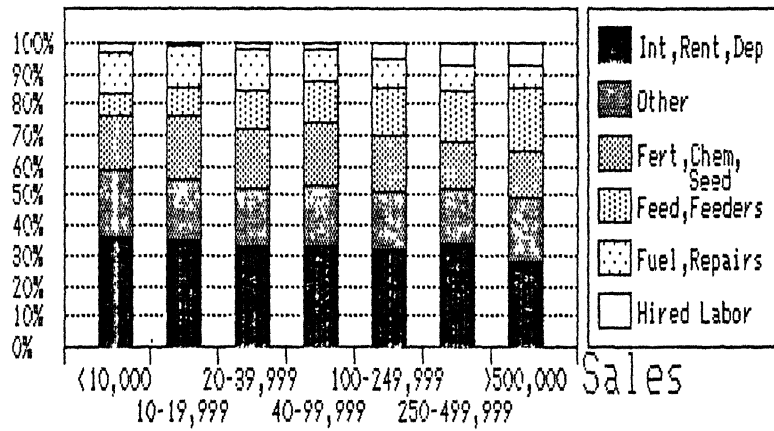
The next report will survey marketing farm products on the representative farms: where products are marketed, what marketing tools are used, and distances between farmers and buyers.

Figure 2.



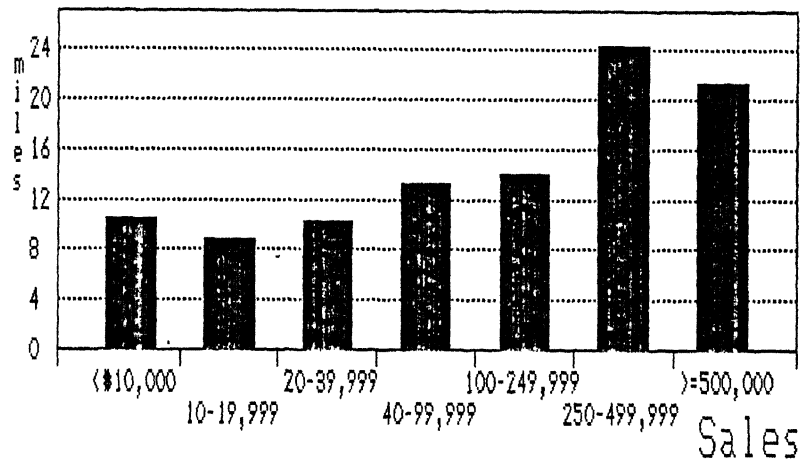
Allocation of Expenses

Figure 3.



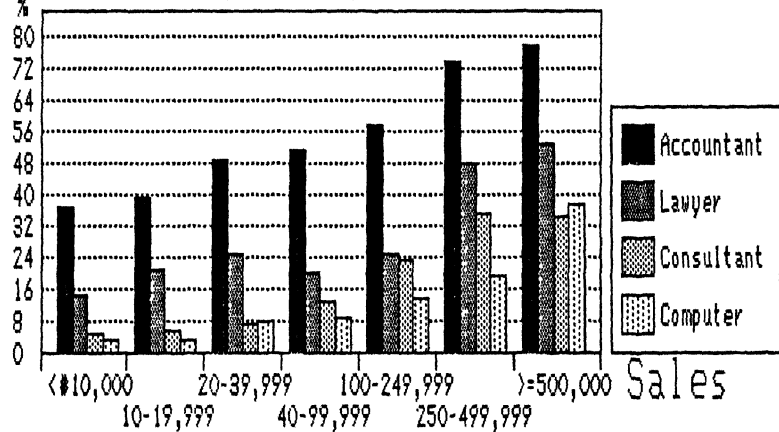
Inputs: Distance to Source

Figure 4.



Farms Using Management Service

Figure 5.



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