

RESEARCH BULLETIN 888

JUNE, 1965

UNIVERSITY OF MISSOURI, COLLEGE OF AGRICULTURE
AGRICULTURAL EXPERIMENT STATION

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Developing Adequate Farms in the Eastern Ozarks of Missouri

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(Publication Authorized June 7, 1965)

COLUMBIA, MISSOURI

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SUMMARY AND CONCLUSIONS

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Low incomes from farming are typical in the Missouri Ozarks. This bulletin reports on 49 farms in the area that had adequate incomes in 1960. Farms were considered adequate if the net cash income from farming was at least \$2000. The farms studied each had a gross income of at least \$5,000 in 1960.

The objectives of the study were to determine the size of these farms, their organization, changes made in the organization since the present operator started farming, and the sources of capital and to identify some factors, including family help, which were important in determining the operators' incomes.

These farmers operated farms with average assets of \$58,132. Of this \$36,795 was in real estate, \$12,260 in livestock, and \$9,077 in machinery and equipment. The average net worth per operator was \$47,595. The average net return to labor and management from farming, after allowing five percent interest for capital invested, was \$2,594.

Of the 23 farmers in the sample who had net incomes of more than \$4,000 in 1960, 19 operated units valued at more than \$50,000. Sixteen farms were at least 300 acres in size and nine had over 500 acres. Fifteen had at least 80 animal units of livestock.

Of the 49 operators, 40 had a beef cow herd as their major enterprise. Those who had the largest net incomes also produced hogs, usually feeder pigs. Twenty-four operators had not changed their total acreage since they began farming full time. All of these farms were larger than 175 acres. Of the other 25, fifteen had enlarged their units to more than 400 acres by 1960.

Thirty-two operators (70 percent) received family help, ranging from gifts of farms to the use of family-owned resources such as land and equipment. Of the other 17 farmers, 10 saved the necessary capital to get established by working at non-farm jobs. The other seven rented land from non-relatives. Only one farmer rented land from non-relatives at the time of the survey. Only three of the operators who did not receive family help started to farm after 1951.

The farmers who received family help had units with higher value per acre, fewer hogs, more beef cattle, more expenses and lower net farm incomes than those without help. Also, they worked more often at nonfarm jobs.

In 1960, it was estimated that 50 percent of the farmland in this area was in units which would yield a net income of at least \$2,000. The other 50 percent would be sufficient to develop 1,200 adequate farms, but was held in 1960 as 7,000 small farms.

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Acknowledgement

The authors wish to express their appreciation to Dr. Frank Miller (Professor of Agricultural Economics, University of Missouri) for his help, particularly for organizing the field work for this study, and to Messrs. Herbert Hoover, Melvin R. Janssen and Alan R. Bird (USDA, Washington, D. C.) for their suggestions on analysis and presentation.

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Developing Adequate Farms in the Eastern Ozarks of Missouri

KENNETH E. BLASE AND RONALD BIRD*

INTRODUCTION

This report describes a sample of 49 adequate farms in the Missouri Ozarks¹ on which gross sales in 1960 were at least \$5,000. Farms were considered adequate if the net cash income from farming was at least \$2,000. Emphasis is on characteristics of the farm operators and how they started in farming, and gained control of sufficient resources to yield a gross income of at least \$5,000.

Need for Study

Chronic low incomes from farming are typical in the Missouri Ozarks. In 1949, 50 percent of the rural farm families in Economic Area 8² had annual cash incomes of less than \$1,000; and 78.5 percent had annual cash incomes of less than \$2,000.³ In 1959, despite improvements in the average income level of the area, 43 percent of these rural farm families still had net annual cash incomes of less than \$2,000 and 60 percent under \$3,000.⁴ For the State, 37 percent of rural farm families had incomes under \$2,000 and 54 percent under \$3,000 in the same year.

This is another report from studies of agricultural adjustments needed to raise farm incomes in the Eastern Ozarks of Missouri. A previous study by Bird and Miller indicated that the main reasons for low farm incomes in the area were (1) poor land, (2) small farms, (3) low management or work capacity of the operators, (4) small capital investment and failure to use credit, and (5) over-

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¹That part of the Ozark Ouachita Mountains in Missouri.

²Economic Area 8 includes St. Francois, Madison, Wayne, Ripley, Oregon, Shannon, Reynolds, Iron, Carter, and Dent Counties.

³Derived from United States Census of Population: 1950, tables 45 and 46.

⁴Derived from United States Census of Population: 1960, tables 65 and 93.

diversification of farm enterprises.⁵ They suggested that a farmer in this area should specialize in either a beef cow-calf enterprise or feeder pig production and expand to a size which would yield a satisfactory income. They suggested a unit of about 700 acres with 100 acres in crops was needed to have gross sales of \$5,000 and a net income of over \$2,000 from a beef cow-calf enterprise. This size of farm would support more than 50 beef cows. If all units in the area were this size, the land resource would support 2,700 farms. To yield an income of over \$2,000 from feeder pig production, they suggested a unit with more than 20 sows. The potential number of feeder pig producers in the area would be determined by market outlets.

Farm enlargement is occurring. The number of farms with gross sales of over \$5,000 increased from 426 in 1950 to 1,161 in 1959, whereas the total number of farms decreased from 12,514 in 1950 to 8,235 in 1959. The number of farms over 500 acres in size increased from 442 in 1950 to 590 in 1959.⁶

Although they indicated the size and type of unit needed for net incomes of at least \$2,000, Bird and Miller did not show how farmers gained control of the resources nor who they were. Information of this type is needed to guide young people who seek to enter farming and to counsel farmers who try to adjust businesses to yield better incomes.

Purpose of Study

The objectives of the study were to determine for the adequate farms, the size of units, farm organization, changes made in farm organization since the operator started farming, and the sources of capital and to identify some factors (including family help) which were important in determining their income.

Methods of Study

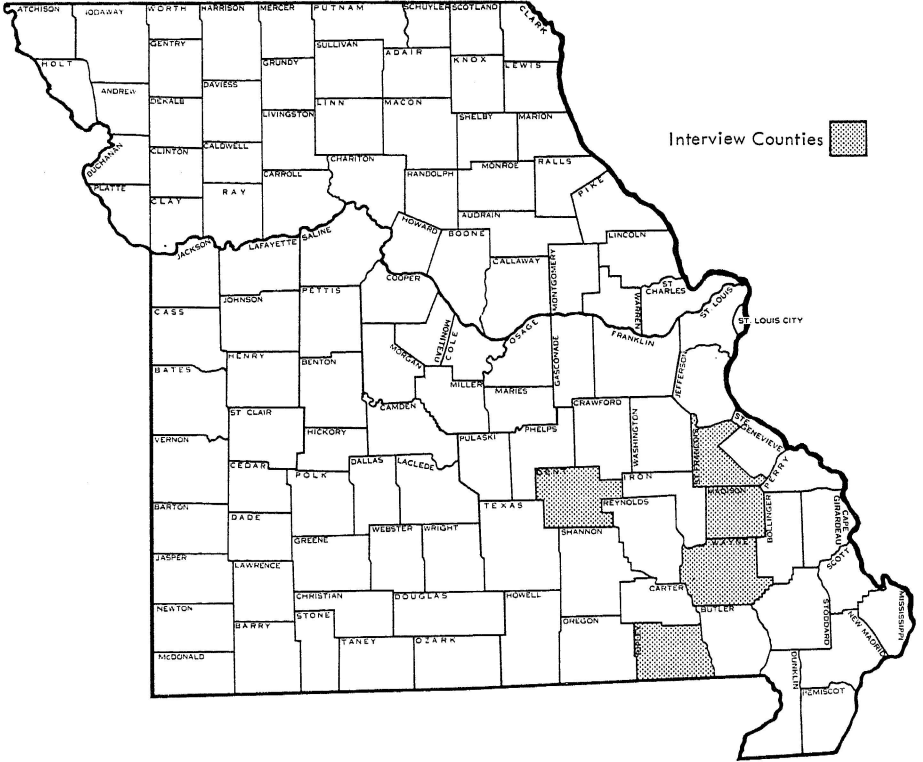
The influence of current economic conditions on the formation of adequate economic units is important. In order to study this influence, only younger farmers for whom farming was nearly a full-time job were selected.

Three criteria were established to determine who would be interviewed. In 1960, the operator had to (1) be under 45 years of age, (2) have worked less than 100 days a year at a nonfarm job, and (3) have had gross farm sales greater than \$5,000.

The study area consisted of Dent, Madison, St. Francois, Ripley, and Wayne Counties (Figure 1). The county agricultural agents in these counties assisted in locating the farmers to be interviewed. They listed 85 farmers whom they thought met the criteria, but 36 of them failed to meet one or more of the three requirements. Forty-nine interviews were completed.

⁵Bird, Ronald and Miller, Frank, "Profitable Adjustments on Farms in Eastern Ozarks of Missouri", Missouri Agricultural Experiment Station Research Bulletin 745, 1960, pp. 7-12, 32, 62-67.

⁶United States Census of Agriculture, Vol. I, Part 10, 1950, pp. 45-53, 54-61, 165-172, and Vol. I, Part 10, 1959, pp. 119-127, 129-137, 157-165.



CHARACTERISTICS OF FARMS WITH GROSS SALES OVER \$5,000

The Census of Agriculture reported 1,162 farms in Economic Area 8 with sales of farm products of \$5,000 and over in 1959. The 49 farmers interviewed were representative of this class. However, there will be some differences between sample farms and all farms with sales over \$5,000, because the sample was restricted to younger farmers and those who did not have full-time nonfarm jobs. Most of the farmers interviewed had been farming several years (Table 1) with few who had started to farm since 1951.

Most of the farmers had expanded their acreage, so that the average in 1960 was 525 acres. Of this 191 acres were in cropland. Resources available to operators had an average value of nearly \$60,000 which was generally considered enough to provide the basis for a modest level of farm income. The farmers had accumulated enough capital that debts were only 15 percent of total capital investment owned. Rented assets were only 5 percent of the total investment in farming.

Livesock enterprises were important on such farms. They included beef cow herds, feeder pigs, poultry, and dairy cattle.

All families had the advantage of virtually rent-free housing. Home produced food supplemented cash incomes in most cases. Therefore, the total cash family income was large enough to provide for a modest level of living and some debt retirement. However, data were not gathered on use of farm products in the household and no estimate was made of the rental value of the home.

TABLE 1--SUMMARY DATA FOR OPERATORS
(49 Adequate Commercial Farms, Eastern Ozarks, Missouri, 1960.)

Item	Unit	Average All Operators in Sample
Age	Years	37.0
Highest grade in school completed	Years	11.4
Number of years farmed	Years	12.3
Size of farm	Acres	525
Cropland	Acres	191
Livestock	Animal units	73.4
Farm assets used		
Farm real estate	Dollars	36,795
Livestock	Dollars	12,260
Machinery and equipment	Dollars	9,077
Total farm assets used	Dollars	58,132
Rented assets	Dollars	3,163
Total farm investment, owned	Dollars	54,969
Total farm debt	Dollars	8,496
Net farm investment owned	Dollars	46,473
Other assets	Dollars	1,122*
Net worth	Dollars	47,595
Income and expenses		
Farm sales	Dollars	15,812
Farm cash expenses	Dollars	10,894**
Net cash farm income	Dollars	4,918
Interest on net farm investment	Dollars	2,324
Return to labor and management	Dollars	2,594
Nonfarm family income		
Nonfarm work	Dollars	649
Nonwork income	Dollars	113
Total nonfarm income	Dollars	762
Total cash family income	Dollars	5,580

* Does not include tangible nonfarm personal property.

** Includes interest paid on debts.

Tenure

The farm operators in this study were divided into three classes: owners, partners, and tenants. Owner-operators included the operators who owned or were buying a farm and operated it independently. A few owners also rented additional acreage. Partners operated a farm with another person or persons, each owning physical assets, sharing in the management of the farm and supplying some labor. Partnerships were often arrangements between father and son. Tenants were those who rented all the land they farmed.

Eighteen of the 49 operators began to farm as owners (Table 2). Two inherited their farms, two were given land, three bought land from their parents or other relatives, and 11 bought from non-relatives. Of thirty-four owner-operators in 1960, four had inherited their farms; two were given their farms by their parents; eight bought their farms from relatives; and 20 bought from non-relatives.

Ten of the 20 men who began as partners with their parents or another family member were still partnership operators at the time of the survey, while the other ten had become owners. Four of the ten partnership operators owned some of the land they were farming, but in six cases, all of the land belonged to the senior partner. Eight of the ten partnership operators expected to inherit part of the land. In two cases, the land purchased from parents was being operated in partnership with brothers.

Eleven of the 49 respondents had begun to farm as renters. Five were still renters at the time of the survey, four from relatives.

In all, 23 of the 49 operators had inherited or expected to inherit part of the land they farmed. But considerable progress had been made toward owning enough land to have an adequate farm in the relatively short period the operators had farmed.

TABLE 2--TENURE STATUS WHEN BEGINNING TO FARM AND IN 1960

Tenure Status of Beginning Farmers	Beginning Status	1960 Status		
		Owner	Partner	Tenant
	Number	Number	Number	Number
Owner Operators	18	18	0	0
Partnership Operators	20	10	10	0
Tenant Operators	11	6	0	5
All Operators	49	34	10	5

Number of Years Farmed

At the time of the survey, owner-operators had been farming an average of 13.5 years, slightly above average for the group (Table 3). It took some time for the 16 operators who started as tenants or partners and became owners to achieve this status. Also, those who started as owners with a substantial debt on a small farm took several years to add additional land to their holdings.

On the other hand, a partnership can be formed from a going farm and achieve sufficient size for an adequate farm very quickly. One partnership had been formed only three years before the survey, but the average had been in operation 10.3 years.

Tenant operators can also start with an adequate farm, although it is often necessary to start with a small farm and rent additional land to have an adequate farm. The tenants averaged only 10.8 years in farming.

With the high proportion of owners, the average time in farming was 12.4 years. Few operators surveyed began farming after 1950. Apparently, it is difficult to put together enough resources from the many small farms in the area for an adequate farm in less than 10 years unless the operator inherits considerable resources or joins a partnership with extensive resources. While an operator is potentially capable of amassing rented land for an adequate unit, the small number who have done so suggests that there are restraints in the current ownership pattern.

TABLE 3--AVERAGE YEARS IN FARMING AND ACREAGE HISTORY

Tenure	Number	Average Years in Farming	Average Size of First Farm	Average Size of Present Farm
		Years	Acres	Acres
Owner Operators	34	13.4	269	448
Partnership Operators	10	10.3	701	869
Tenant Operators	5	10.8	327	381
Total	49	12.4	363	525

Size of Business

The operator's valuation of total business assets, land, livestock, and machinery, was used to measure size of farm. For the 49 farms studied, the value of the operating unit ranged from \$25,270 to \$189,270. The farms were grouped into three size classes based on total investment to study the relationship of size to net cash farm income (cash sales less cash expenses).

Twenty-one farms with an average value of \$37,551 were in the \$25,000 to \$49,999 class; their average net income was \$2,757 (Table 4). These data substantiate the minimum size suggested by Bird and Miller. They indicated that a beef farm with cow-calf enterprise would require capital investment of \$38,185 for an annual net return of \$2,000.⁷ Most of the farmers in the group with small capital investment had a beef cow-calf enterprise supplemented by a hog enterprise.

Bird and Miller based their estimates on 1953-57 prices. However, prices of feeder calves were higher in 1960, and therefore beef cow herds provided somewhat higher returns in 1960 than in the earlier period.

About one-third of the operators (16) had operating units valued from \$50,000 to \$74,999. This average of \$61,609 was 64 percent larger than the average for farms with \$25,000 to \$49,999 value. Net income averaged \$5,039 or 82 percent greater than the \$2,757 average for the other group.

⁷Bird and Miller, *op. cit.* pp. 64-65.

TABLE 4--CHARACTERISTICS OF FARMS BY CAPITAL INVESTMENT OF OPERATING UNIT

Item	Capital Investment of Operating Unit		
	\$25,000 to \$49,999	\$50,000 to \$74,999	\$75,000 and Over
Number of Farms	21	16	12
Operating Unit (average value)	\$37,551	\$61,609	\$100,802
Land and Buildings (average value)	\$24,238	\$41,906	\$ 65,783
Operating Unit (average acres)	339	568	787
Cropland (average acres)	140	204	264
Animal Units (average number)	49	72	118
Net Farm Income (average value)*	\$ 2,757	\$ 5,039	\$ 8,538

*Gross sales, less cash expenses and value of operator's labor and capital invested.

Twelve or about one-fourth of the farmers operated units valued at more than \$75,000. The average value in this category was \$100,802 which was 64 percent greater than the average of medium farms. The average net income of \$8,528 was 69 percent greater than the \$5,039 average of the medium size group.

These data seem to indicate increasing returns to capital with increased size of farm. However, the same value was imputed to operator's labor on all farms. Since operators with the larger investment are more fully employed with a beef cow-calf enterprise, a portion of the increased income results from a larger labor input by the operator.

Livestock Organization

Beef cow-calf production was the most important livestock enterprise (Table 5). Hog production was important on half of the farms and dairy enterprises were found on a few farms. A hog enterprise was usually in addition to the beef cow-calf enterprise. The beef cattle used the large quantities of roughage, while hogs consumed the small quantities of grain and provided better use of available labor.

TABLE 5--TYPES OF LIVESTOCK ORGANIZATION BY CAPITAL INVESTMENT OF OPERATING UNIT

Livestock Organization	Capital Investment of Operating Unit			Total
	\$25,000 to \$49,999	\$50,000 to \$74,999	\$75,000 and Over	
	<u>Number</u>	<u>Number</u>	<u>Number</u>	<u>Number</u>
Dairy	3	2	2	7
Beef Cow Only	3	5		8
Beef Cow and Hogs	12	6	8	26
Other Livestock Enterprises	3	3	2	8
Total	21	16	12	49

Changes in Farm Organization

Twenty-five operators had enlarged their farms since starting to farm (Table 6). Based on the capital investment of 1960, nearly equal numbers in each size group had increased the size of farm. However, the investment in the farm business increased in almost all cases, and the value of owned capital increased in all cases.

TABLE 6--CHARACTERISTICS OF FARMS WHICH ADDED LAND DURING THE TENURE OF OPERATOR COMPARED WITH THOSE WHICH DID NOT

Selected Characteristics	Acreage	
	Same	Increased
Capital Investment of Operating Unit \$25,000 to \$49,999		
Number of Farms	11	10
Operating Unit (average value)	38,600	36,397
Operating Unit (average acres)	314	567
Net Income (average value)	2,757	2,023
Capital Investment of Operating Unit \$50,000 to \$74,999		
Number of Farms	8	8
Operating Unit (average value)	59,882	63,712
Operating Unit (average acres)	496	641
Net Income (average value)	5,042	5,036
Capital Investment of Operating Unit \$75,000 and Over		
Number of Farms	5	7
Operating Unit (average value)	112,105	92,721
Operating Unit (average acres)	1,100	577
Net Income (average value)	6,441	10,037

Only 37 percent of those who had received family help had increased the acreage of their farm, while 70 percent of those who hadn't received family help increased the size of farm. But 10 in the latter group originally started with farms of less than 175 acres (Table 7). Only one farm that originally had less than 300 acres had not increased in size. Changes among larger farms were also dramatic. Originally, only two farms had more than 500 acres, but at the time of the study one-third were larger than 500 acres. Only one operator who had begun with less than 175 acres had enlarged his farm to more than 500 acres by 1960.

Thirty-eight operators had not changed the type of livestock enterprise since they started farming. Five had added a hog enterprise. Two had dropped a broiler enterprise and expanded their beef herds. Two farmers had changed from dairy to beef cattle, while two had added laying flocks. The beef-hog farms produced the largest net incomes.

TABLE 7--CHANGES IN ACREAGE IN FARMS BY BEGINNING SIZE

Initial Acreage*	Current Acreage (1960)			Total
	175 to 300	301 to 499	500 & Over	
	Number	Number	Number	Number
Same (no change)	9	9	6	24
40 to 174	4	5	1	10
175 to 300	1	2	4	7
301 to 499	-	3	3	6
500 and Over	-	-	2	2
Total	14	19	16	49

*All operators had been farming an average of 13.5 years.

Source of Capital

Thirty-five operators used credit to purchase their farms. Fourteen received loans from individuals, but in most of these cases, either a relative or the former owner extended the credit. Local banks financed 11; the Farmers Home Administration, eight; and Federal Land Bank, two.

Thirty-two operators received substantial family help ranging from gifts of farm land and buildings to partnerships. The other 17 received little or no family help. They either saved the necessary capital from non-farm earnings or rented land from non-relatives.

Fourteen worked at nonfarm jobs before becoming farm operators and financed their purchase of land partly from savings.

FAMILY FINANCIAL ASSISTANCE

In addition to favorable loans, varying degrees of other family assistance was given. Sixty-five percent of the farmers studied had some help from other members of the family (Table 8). This assistance consisted of outright gifts of land or livestock, joint use of machinery and equipment, or partnership in the farming business. In some instances, land was rented under favorable conditions to the operator by a relative.

Family help permitted operators to start farming at an earlier age. Those with family help started at an average 23 years of age compared with 27 for those without help. Only 3 of the farmers without financial assistance from relatives had started to farm since 1951.

There was little difference in age, farming experience, and educational level attained by farmers receiving assistance and those who did not. The value of land and buildings was also similar, but more than twice that of the average

commercial farm in the area. There was only a small difference in the value of livestock inventory. Those who received family help had 40 percent larger investment in equipment. The farm debt load was \$7,315 for those who had received help compared with \$10,718 for those without family help. In most cases, the average debt was small in relation to average net worth. The impression gained during interviews was that internal capital rationing kept debts at a low level and debt repayment was a major goal of many of those farmers with debts.

The farmers who received family help apparently had enough capital and small enough debts that the beef enterprise could be most important. Those who had no family assistance had more intensive livestock enterprises, with hogs most important and dairy and poultry found on some farms.

Operators who received family help had slightly lower gross sales (\$15,610 compared with \$16,193) and higher cash expenses (\$11,381 compared with \$9,979) and consequently lower cash farm incomes (\$4,229 compared with \$6,214).

Only four farmers shifted from poultry or dairy to beef, but seven added hogs or laying flocks. There were few changes in type of livestock enterprises.

Nonfarm income was received by 60 percent of farmers who had family help, but by only 40 percent of those who did not. Those with family help also had higher nonfarm earnings. When added to net cash farm income, those with family help had \$5,209 for family living and debt retirement, while those without family help had \$6,564.

As shown before, family help permitted families to start with larger units, and a small portion made changes in size of farm. With the larger unit, it was possible to have more extensive enterprises. Therefore, while incomes of families not receiving assistance may have averaged higher in 1960, they possibly averaged lower in earlier years.

Thus, inheritance and other family assistance not only helps an operator to start farming on a large scale sooner, but also permits more extensive enterprises. There is indication that the income available to the family for living and debt retirement is initially higher and changes little over time, while those who had no assistance had increasing incomes available for family living and debt retirement. But with larger debts, income for family living for those without help may still be smaller.

TABLE 8--CHARACTERISTICS, RESOURCES AVAILABLE, INCOME AND EXPENSES
OF OPERATORS WHO RECEIVED FAMILY HELP AND WHO DID NOT, WHEN STARTING
TO FARM, 49 COMMERCIAL FARMS, EASTERN OZARKS, MISSOURI, 1960.

Item	Unit	Farm Operators	
		With Family Assistance	Without Family Assistance
Number of farms	Number	32	17
Age of operator	Years	36	39
Farming experience of operator	Years	13	12
Highest grade in school completed	Years	12	10
Size of farm	Acres	603	378
Cropland	Acres	206	163
Value land per acre	Dollars	62	94
Farm assets used:			
Farm real estate	Dollars	37,388 ^a	35,679 ^a
Livestock	Dollars	12,807	11,240
Machinery and equipment	Dollars	10,089	7,174
Total farm assets used	Dollars	60,284	54,093
Farm assets rented	Dollars	2,974	3,528
Total farm investment owned	Dollars	57,310	50,565
Total farm debt	Dollars	7,315	10,718
Net farm investment owned	Dollars	49,995 ^b	39,847 ^b
Nonfarm assets	Dollars	1,010 ^c	1,332 ^c
Net worth	Dollars	51,005 ^c	41,179 ^c
Income and Expenses:			
Farm sales	Dollars	15,610	16,193
Farm cash expenses	Dollars	11,381 ^d	9,979 ^d
Net cash farm income	Dollars	4,229 ^a	6,214 ^a
Interest on net farm investment owned	Dollars	2,500	1,992
Return to labor and management	Dollars	1,729 ^e	4,222 ^e

Nonfarm family income:			
Number of families	Number	19	8
Nonfarm work	Dollars	1,405	638
Nonwork	Dollars	246	105
Total nonfarm income	Dollars	<u>1,651</u>	<u>743</u>
Average nonfarm incomes all families			
Nonfarm work	Dollars	834	300
Nonwork	Dollars	<u>146</u>	<u>50</u>
Total nonfarm income	Dollars	980	350
Total cash family income	Dollars	5,209	6,564

^aSignificantly different at the 10 percent level.

^bSignificantly different at the 1 percent level.

^cDoes not include tangible nonfarm personal property

^dIncludes interest paid on debts.

^eSignificantly different at the 5 percent level.

FACTORS AFFECTING NET FARM INCOME

Twenty-three of the 49 operators had net farm incomes greater than \$4,000 in 1960. Their farms were compared with those of the other 26 to learn characteristics of each group and determine factors affecting net farm income.

Capital Investment of Operating Unit

Only four of the 23 farms with incomes of over \$4,000 had total investment of less than \$50,000 in 1960, while 17 of 25 farms with incomes of less than \$4,000 had investments below this amount (Table 9). Twelve farmers had assets valued at more than \$75,000; only one of these received less than \$4,000 net income. It appears few farmers have earned \$4,000 net income with less than \$50,000 invested, but with \$75,000 invested, many have.

TABLE 9--RELATION OF SIZE OF UNIT TO NET INCOME

Size of Unit	Net Incomes		
	Under \$4,000	\$4,000 & Over	Total
	<u>Number</u>	<u>Number</u>	<u>Number</u>
Value of Operating Unit*			
\$25,000 to \$49,999	17	4	21
\$50,000 to \$74,999	8	8	16
Over \$75,000	1	11	12
Animal Units*			
Less than 40	7	6	13
41 to 80	16	2	18
Over 80	3	15	18

*Relationship to net income significant at the 5 percent level.

Investment in Land and Buildings

A large portion of total investment (63 percent) was in land and buildings (Table 1). Therefore, a similar relationship should apply between income and investment in land and buildings to that between income and total investment. Because of the variability in the investment in livestock and equipment among farms, the relationship was not statistically significant. Eleven of 14 operators with less than \$25,000 invested in land and buildings had net incomes of less than \$4,000 and 11 of 13 with over \$50,000 investment in land and buildings had incomes over \$4,000.

Total Acres

In an area with land of relatively uniform productivity and similar enterprises total acres in a farm is usually a good measure of farm size. However, in the Ozark area this is not true because of the rough terrain and ownership pattern. Cropland exists mainly in the narrow river valleys. Because of the rectangular type of ownership pattern, cropland acreage does not bear a close relationship to total acreage in the farm. Also, the quality of cropland varies considerably from farm to farm.

All of the farmers interviewed had at least 175 acres, and nearly three-fourths had units larger than 300 acres. The type of enterprises adopted varies with the quality and quantity of land present in each unit. The amount of net farm income was not related directly to acreage size.

Animal Units

Since the land resource is used mainly to graze livestock, the farms were compared on a basis of animal units.⁸ Total animal units were positively and significantly related to net farm income. For farms with more than 80 animal units, 83 percent had net incomes above \$4,000. Only farms with dairy or poultry as a major enterprise made more than \$4,000 with fewer than 80 animal units. Farmers with 41 to 80 animal units were more apt to have lower income than the farmers who had less than 40 units. More intensive dairy and poultry enterprises were located on farms with smaller numbers of animal units.

The number of animal units was closely related to the investment in the operating unit. Total capital investment per animal unit ranged from \$766 on small farms to \$855 on those with an investment over \$50,000. The smaller farms tended to adopt dairy and poultry enterprises which required a smaller investment per animal unit.

⁸Animal unit values are: Cow—1.0; heifer—.5; hog—.2; and chicken—.01.

CONCLUSIONS

The Ozark Area can provide adequate incomes from farming for a smaller number of farm families than now farm in the area. The resources of the many small farms could be combined into larger farms to provide better incomes. But this would require adjustments by operators to find other employment, usually in other areas. Such adjustments are likely to be slow and take considerable time unless some form of assistance such as family financial help can hasten gaining control of resources.

This study was limited to those operators who had succeeded in organizing an adequate farm. Little is known of those who started to farm at the same time but either quit farming or still operate a small unit with limited income. This study also does not give information on operators who successfully combined farming and nonfarm work for satisfactory family incomes. Research should be conducted to study adjustments made by these operators and potentials for further adjustments as a part of over-all area development.