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# *Low-Income Farmers in Missouri:*

*Situation and Characteristics of 459 Farm Operators  
in Four Social Area B Counties*

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## SUMMARY

This bulletin presents some significant characteristics and attitudes of 459 low-income farm operators living in four counties representative of Social Area B, one of the better farming areas of the State. Other bulletins dealing with the diffusion and use of farm and home information will follow.

These farmers represent the lower one-third from the standpoint of the value of the farm products sold from their farms. One-fourth of them had gross farm incomes of less than \$500 per year in 1945. Their average receipts were \$763 per year which was less than half that of all farmers in the area. Three out of four owned their farms, four-fifths of which were located on land suited to cultivation. On the average they farmed 18 acres less than Area B farmers.

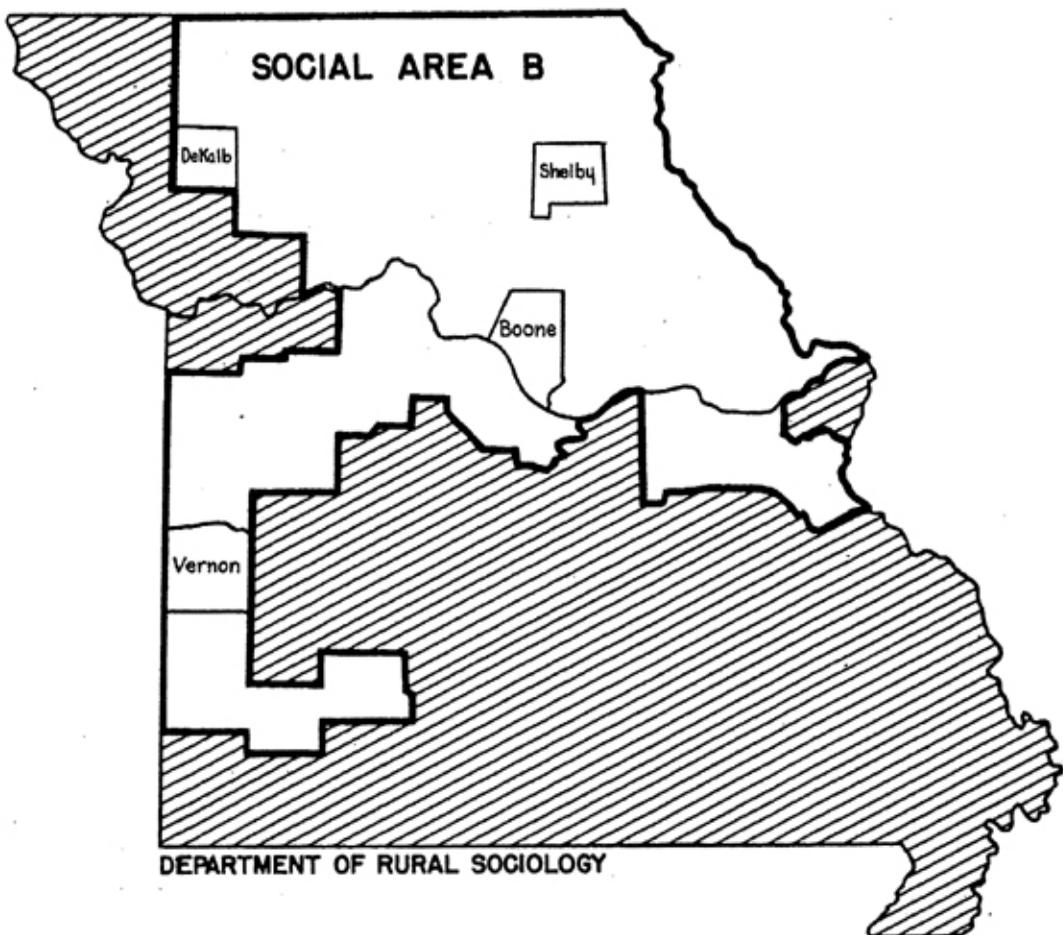
Four households out of five had radios and three out of five had telephones, which was about the same as for all farm households in the area. About one-fifth of the survey farm households had electricity compared to one-third of all Area B households. The proportion owning automobiles was about the same but only about half as many low-income farmers owned tractors and two-thirds as many lived on all-weather roads.

Almost one-fifth of the operators were 65 years of age or older. The median age was 56 years. Three out of four were native Missourians and one-half of them were still living in the county of their birth. Most of them had completed 8 years schooling but only one in five had completed more than the eight grades. Less than one-third were members of a farm organization but two out of three were church members. Half of them had farmed for 30 or more years.

Nineteen out of 20 said that they liked to farm and three-fourths of them said they would choose farming again if they had the choice to make over. Almost one-half of them would not consider moving to the city for any price and another 30 per cent imposed conditions which perhaps could not be met. The farm problems most frequently mentioned were declining soil fertility or soil conservation, quality and scarcity of feed, lack of farm machinery and poor health. Six out of seven expressed a desire for more information on farming and about three-fifths of those desiring more information thought it could best be furnished through some branch of the College of Agriculture. Only one farmer in nine recommended as little as a grade school education for boys expecting to farm. Two out of three considered vocational agriculture valuable training and nine-tenths of them viewed 4-H club work in the same light.

Forty-three per cent of the daughters and 56 per cent of the sons

were still at home. Seventy per cent of the sons and 77 per cent of the daughters out of school had completed more than 8 years of schooling. This compares very favorably to the educational attainment of both urban youth and all farm youth of comparable age in the State. About one-fourth of them were in school. One-fourth of the sons aged 18-24 were still in the U. S. armed services or the merchant marine, one-sixth were working at home, and three-tenths were engaged in non-farm occupations. Only about one in ten were operating farms. Three of the 47 who had taken vocational agriculture were operating farms. Two of the daughters out of five, 18 through 24 years of age, were housewives, one-fifth of them were in school, one-fifth were engaged in non-farm occupations and about one-twelfth were working at home.



Map 1.—Rural Social Area B, State of Missouri, 1940 and Counties Selected for Sampling Low-Income Farm Operator Population.

# Low-Income Farmers in Missouri:

## *Situation and Characteristics of 459 Farm Operators in Four Social Area B Counties*

HERBERT F. LIONBERGER<sup>1</sup>

### I. INTRODUCTION

During recent years questions have arisen regarding the situation and prospects of low-income farmers in Missouri and their legitimate role in a state or national farm policy. Suggestions have included the ill-advised proposal that they be removed from their farms and the equally untenable one that they simply be ignored. Public funds are being spent on extensive research by state and federal agencies for the special benefit of farmers, but many still plow up and down the hill, a large number still raise scrub livestock, and in many farm homes Dr. Miles almanac still serves as a ready guide to farm and home operations. Although living close to a wealth of free information, farmers persist in many traditional and outmoded production and marketing methods. Such conditions prevail despite a system of techniques and agencies centered about the Land Grant colleges making it possible for farmers to obtain information free. It further appears that low-income farmers who need up-to-date information most actually get the least.

There, however, remains much to be learned about the actual situation of low-income farmers and of their attitudes toward it. For example, we do not know what information, if any, reaches them or how it gets there. We know little or nothing of their attitude toward the College of Agriculture and other agricultural agencies. We do not even know whether they want to be helped. It is the purpose of this study to explore some of the foregoing and other pertinent questions as they relate to the better farming area of the State of Missouri. The ultimate objective is to determine and suggest better ways and means of reaching low-income farmers with educational materials. This bulletin is devoted exclusively to the consideration of selected attitudes and characteristics of the farmers interviewed. Subsequent bulletins will be concerned with their contacts with useful sources of information and with the use they make of the information secured.

<sup>1</sup>This study was conducted under the general supervision and guidance of Professor C. E. Lively to whom the writer is indebted for much help and many valuable suggestions. Acknowledgment is also expressed to C. L. Gregory, Zetta Bankert and Lawrence M. Hepple of the staff of the Department of Rural Sociology for their constructive criticism in preparing the manuscript.

## II. SCOPE AND METHOD

During the late spring months of 1946 a corps of interviewers, mostly staff members of the Department of Rural Sociology and vocational agriculture teachers interviewed 459 full-time<sup>2</sup> farm operators and their spouses who were rated in the lower one-third from the standpoint of gross cash value of farm products sold off their farms. Households were selected from DeKalb, Shelby, Boone and Vernon counties taken as representative of a relatively homogeneous area with respect to social and cultural characteristics. This area, designated as Social Area B by Lively and Gregory, is comprised of 52 north and west central Missouri counties (See Map 1).

The possibilities for agricultural development and for improvement of farm life generally are great in Area B. Farm incomes, levels of living and standards of education are relatively high. Indexes relating to farm production suggest that agriculture is of a higher type than that found in most southern sections of the State. The soil is moderately fertile and is generally suited to cultivation. Putnam, Lindley, Shelby and Grundy loams prevail in the three survey counties located north of the Missouri River while Cherokee and Bates silt loams predominate in Vernon County south of the river. The rainfall and the length of the growing season are favorable to the production of pasture and grain crops and a ready market is found for the grain, hay and animal products grown.

Although Area B is relatively homogeneous from a cultural standpoint,<sup>3</sup> counties were selected to represent both the average and such extremes as did exist. The farmers interviewed were selected from all major soil types in each county in direct proportion to the extent of these types. The proportion of the county samples selected from each township was determined by the estimated percentage of full-time farmers living there in 1945, but in no case was more than 15 per cent of the entire county sample taken from any one township.

In each area a committee, usually composed of successful farmers, who were well acquainted with the people, assisted in the selection of low-income farmers to be interviewed. They eliminated all those who were not really farmers and rated the remainder into lower, middle and upper one-thirds on the basis of farm products sold from their farms. Although the committeemen made their preliminary selections independently, the lists were surprisingly similar. Little

<sup>2</sup>Defined as farmers who were engaged more than half-time in farm operations on farms they rented or owned. Rural dwellers receiving old age assistance and those persons, who because of age, were no longer actively engaged in farming were excluded from the sample.

<sup>3</sup>Lively, C. E. and Gregory, C. L., *Rural Social Areas in Missouri*, Research Bulletin 305, Agricultural Experiment Station, College of Agriculture, University of Missouri, Columbia, Missouri, 1939, pp. 8-11.

difficulty was experienced in obtaining a uniform list approved by a majority of the committeemen. This method of selecting low-income farmers departs from the more conventional procedure of setting a specified upper income limit as the demarcation point.<sup>4</sup>

### III. CHARACTERISTICS OF THE OPERATORS

#### Age

The low-income farmers of Area B are older than the farm operators of Area B, the median ages being 56.1 and 52.6 years, respectively. This relationship holds generally true for all counties except Vernon where the low-income farm operators interviewed were about two years younger than the average for all farmers in the county. (See Table 1.) In Shelby and Boone counties the median ages were

Table 1. - Median Age of Low-Income Farm Operators<sup>(a)</sup> and all Farm Operators<sup>(b)</sup> Classified by County

County	Median Age	
	All Farm Operators	Low-Income Farm Operators
Total	52.6	56.1
DeKalb	51.3	56.1
Shelby	52.9	59.2
Boone	53.9	58.9
Vernon	52.1	50.3

(a) 1946

(b) 1945

59.2 and 58.9 years, respectively, very closely approaching the expected age of retirement for many occupations. Over 23 per cent of them were 65 or more years of age. In each of Shelby and Boone counties considerably more than one-fifth of them had attained that age. Young men were noticeably lacking among the farmers interviewed except in Vernon county where approximately 16 per cent of them were under 35 years of age. For the group as a whole only slightly more than 11 per cent were under 35 years of age. (Table 1, Appendix I.)

As may be expected there was a wide difference in the ages of farm owner and renter operators. The median ages were 58.4 and 45.0 years, respectively.

<sup>4</sup>The assumptions are: (1) that in any sizeable area, the lower economic third or approximation thereof is regarded by the more successful as low-income farmers and are so treated, even though their income may be higher than similar farmers in other areas; (2) that the category "low-income" does not represent an actual number of dollars, but is related to certain other characteristics which possess socio-economic significance; and (3) that such differentiating factors as do occur are to some degree responsible for the fact that low-income farmers are less effectively reached by educational materials than their more prosperous neighbors. In this and subsequent studies these assumptions are regarded as hypotheses to be tested.

### Race, Nativity and Mobility

The Area B low-income farm operators interviewed were almost exclusively of native white origin. One-half of them were still living in the county of their birth and another 16 per cent were living in adjacent counties. Over three-fourths of them were native born Missourians. The greatest proportion born outside the state was found in Vernon county where 38 per cent were natives of a state other than Missouri. At the other extreme Boone county had less than one-tenth who were born outside of the State. Corresponding figures for Shelby and DeKalb counties were 16 and 18 per cent respectively.

Movement from farm to farm during the 10 years previous to interview was not excessive. Half of the 405 farm operators who had been farming for 10 years or longer had not moved during the 10 years previous to interview. Another one-fifth had moved only once. Boone county farmers were most stable; sixty per cent of them had not moved during the previous 10 years. Vernon county low-income farmers showed the greatest mobility with 57 per cent having moved during the past 10 years. Renter operators were more mobile than owner operators. Two-thirds of the renters had moved one or more

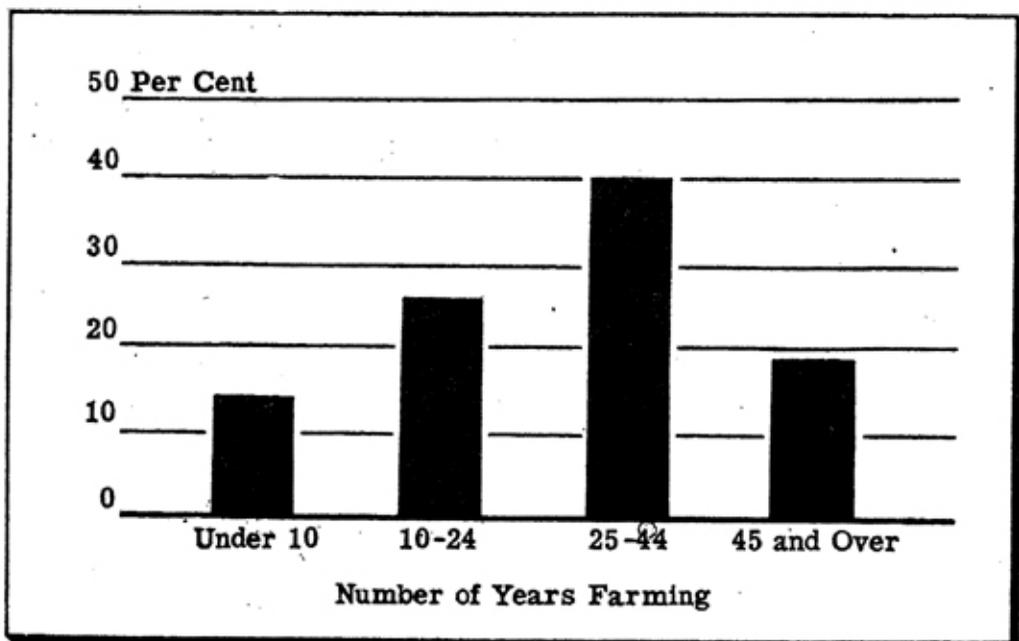


Figure 1.—Per Cent of Low Income Farm Operators Classified by Number of Years Engaged in Farming.

times during the preceding 10 years as compared to 41 per cent of the owner operators. One-fourth of the tenants had moved three or more times while less than one-tenth of the owners had moved that often.

Occupationally these farmers were relatively stable. Approxi-

mately six out of 10 had farmed 25 years or more. Only 14 per cent had farmed less than 10 years. (See Figure 1.) The median number of years engaged in farming was 29.9. Owner operators had been farming a median 33.0 years compared to 22.7 years for the renter operators. No great variation occurred by county except in Vernon where the average was 22.7 years. This figure reflects the presence of younger farm operators in that county.

### Schooling

The farmers of this survey compare very favorably with all farmers in Area B and with all people in the State 25 years of age and over with respect to amount of schooling they have had. The median school attainment of 8.4 years showed practically no variation by county (See Table 2) or by tenure status. The median years

Table 2. - Low-Income Farm Operators Classified by County and Years Schooling Completed

County	Total		Years Schooling Completed								Me- dian
			Under 5		5-8		9-12		13 & over		
	No.	%	No.	%	No.	%	No.	%	No.	%	
Total	459	100.0	52	11.3	314	68.4	79	17.2	5	1.1	8.4
DeKalb	85	100.0	7	8.2	55	64.7	20	23.5	1	1.2	8.6
Shelby	84	100.0	9	10.7	60	71.4	11	13.1	0	0.0	8.4
Boone	145	100.0	22	15.2	99	68.3	19	13.1	4	2.8	8.4
Vernon	145	100.0	14	9.7	100	69.0	29	20.0	0	0.0	8.4

school attendance in 1940 for all farm people 25 years of age and over in Area B was 8.1 years.<sup>5</sup> The corresponding figures were 8.3 for all persons in the State and 7.9 years for farmers alone. There was no great difference between the survey farmers and the total adult farm population in Area B, either from the standpoint of those having less than 5 years schooling or from the standpoint of those having more than a grade school education. Approximately 11 per cent of the low-income farm operators had gone to school less than 5 years compared to 8 per cent of all farm operators. About 18 per cent of the low-income farmers had more than a grade school education as compared to one-fourth of all farmers living in Area B. In both cases the number who had attended college was small.

The younger farmers were better educated than the older ones.

<sup>5</sup>It is likely that comparable figures for 1945 are somewhat higher due to the gradual replacement of the farm population by people who have increasingly more education.

The median years schooling of low-income farm operators under 35 years of age was 8.8 years while the median for those 65 years of age and over was 8.1 years. Age made a considerable difference in the percentages having less than five years schooling and those with some high school training. All of the operators under 35 years of age had completed five or more grades but over a fifth of those 65 years of age and over had failed to do so. Well over a third of the younger farmers had gone to high school but only 6 per cent of those past 65 years of age had such training.

Some successful farmers have contended that it is easy to get too much schooling, the assumption being that education beyond a certain point predisposes to impractical thinking. If there is such a point, these farmers apparently have never reached it if one may judge by the relation of years of schooling to gross cash receipts. Such a relationship reveals a small but significant increase in income with educational attainment. The difference becomes considerable when a median gross farm income of \$713 for those with eight or less years schooling is compared to a median gross farm income of \$1019 for those with more than the eight grades.<sup>6</sup>

Perhaps three-fourths of these farmers began their farming careers before 4-H club work and agricultural education had become a reality in most rural communities. It is not surprising therefore to find that only 3 per cent of them had studied vocational agriculture and that only 5 per cent had had any 4-H club work.

### Tenure Status

The proportion of low-income farm operators in the sample who owned all or part of the land they operated was only slightly lower than the proportion for all farmers in the four sample counties, and for all farmers in Area B as a whole. (See Figure 2.) The percentages were 70 and 74, respectively. Farm ownership was highest in DeKalb county, where 85 per cent of the farmers owned their farms, and lowest in Vernon county where only 55 per cent owned their farms. Percentages for Boone and Shelby counties were about the same as the four-county average.

### Group Membership

A nationwide poll of farmers by Fortune Magazine in 1943 revealed that 50 per cent of the farmers classed as "well-to-do" were members of some farm organization extending to the National level as

<sup>6</sup>This difference is found at all age levels where the number of cases available make valid comparisons possible. For the 51 farm operators under 35 years of age the median receipts were \$979 for those with 8 or less years schooling and \$1250 for those with over 8 years schooling. The corresponding figures were \$708 and \$1125, respectively, for the 166 farm operators 35-54 years of age and \$804 and \$875, respectively, for the 134 operators 55-64 years of age. Only 6 farmers over 64 years of age had completed more than the first eight grades.

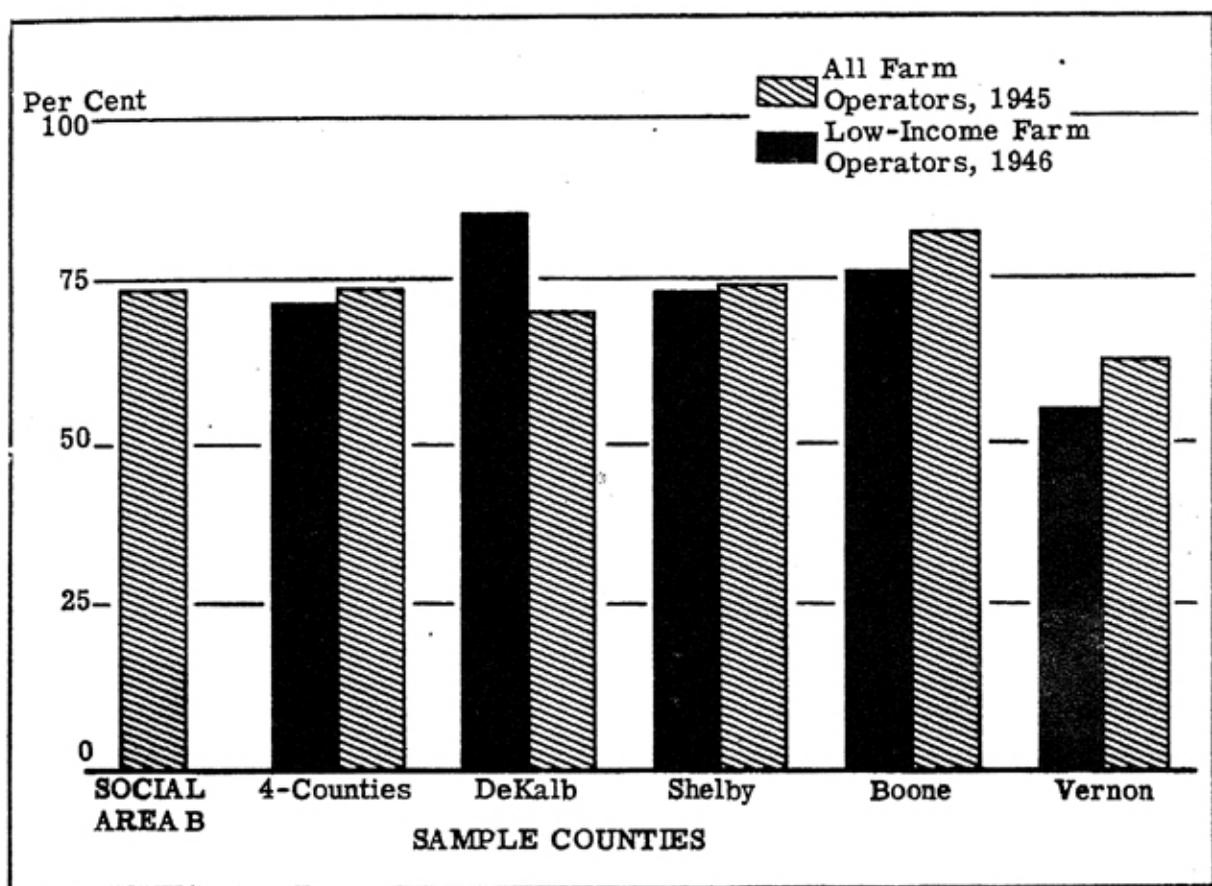


Figure 2.—Per Cent of Low-Income Farm Operators and All Farm Operators Owning Their Farms Classified by Area.

compared to only 15 per cent of those classed as "poor".<sup>7</sup> Although comparable membership figures are not available for the counties under consideration, the facts relating to farm organization membership alone tell their story of poor representation. Only about three in ten of the farm operators interviewed were members of any farm organization. The proportion belonging to one or more such organizations ranged from 22 per cent in DeKalb county to 36 per cent in Boone county. The corresponding percentages for Shelby and Vernon counties were 31 and 32, respectively. (See Table II, Appendix I.) Farm operators with more schooling and with higher farm incomes were members of more farm organizations than the ones with less schooling and with lower farm incomes. (See Figure 3.) Farm organization membership was little related to age.

About one-fifth of the operators were members of the Missouri Farmers' Association which had a greater membership than any other farm organization in each of the counties except DeKalb where Extension Association Membership headed the list. (See Tables IIIa and

<sup>7</sup>"Farmers II: They Appraise the Farm Bloc, Labor, Management and Government", *Fortune Magazine*, Vol. XXVII, No. 4, April, 1943, p. 8.

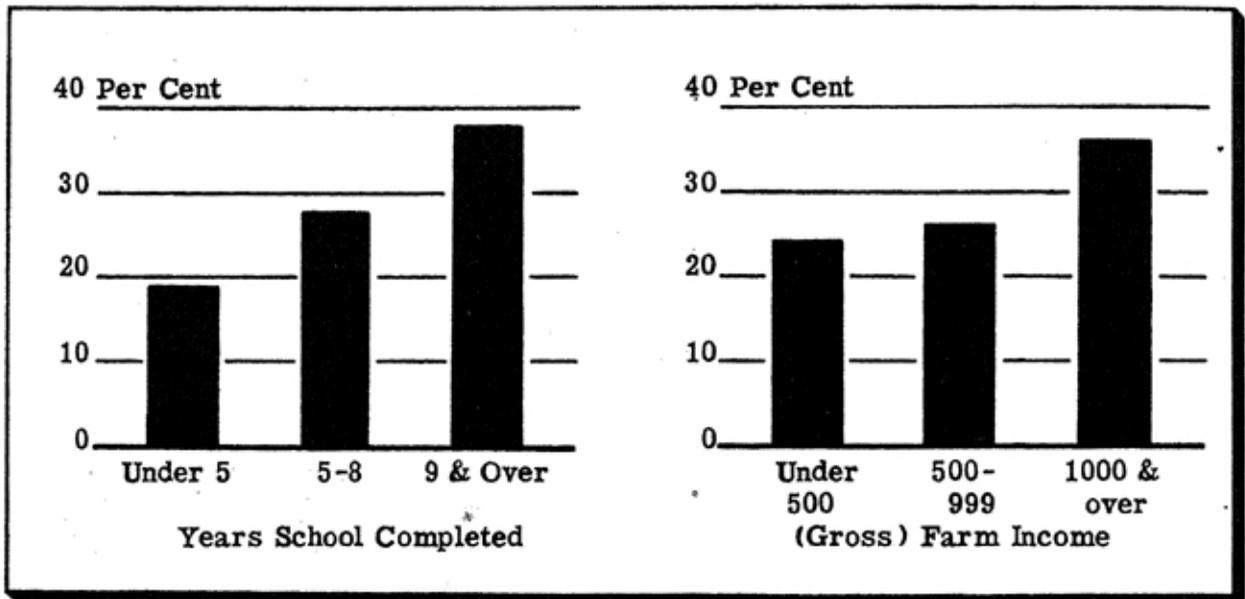


Figure 3.—Per Cent of Low-Income Farm Operators Belonging to One or More Farm Organizations, by Years School Completed and by Farm Income.

IIIb, Appendix I.) At all income levels M. F. A. membership was higher than for any other farm organization. This was especially true among the farmers with the lowest incomes. The fact that M. F. A. membership may be earned rather than paid in cash may appeal more to farmers with low-incomes than to those with higher incomes. About 7 per cent of all the farmers interviewed were members of the Farm Bureau which ranked second in membership among farm organizations for the group as a whole. In all counties except Boone, membership was below 6 per cent. About one-sixth of the farmers in Boone county belonged to the Farm Bureau. Grange membership was confined to 3 per cent of the farm operators in Shelby county. There were three Farmers' Union members and they were found exclusively in DeKalb and Vernon counties. Approximately two-thirds of the operators were church members and about 13 per cent of their wives were members of agricultural extension clubs.

#### IV. FAMILY AND HOUSEHOLD

##### Size of Household

Many of the children once living in low-income farm households had grown to maturity and had moved away from home leaving an average 3.2 persons per household. In DeKalb, Shelby and Boone counties the households were smaller than the four-county average, while in Vernon county the average was 3.8 persons. No doubt this difference may be partially attributed to the presence of younger

farm operators in Vernon county. Although the households visited were almost identical in size with all farm households in Area B, it should be remembered that the low-income operators were older, on the average, and a higher proportion of their children had left home.

### The Youth

Approximately half of the 317 youth 15-24 years of age were still living at home. Almost half of these were attending school. More daughters than sons had left home despite the fact that almost one-fifth of the sons had entered the U. S. armed forces or the merchant marine. About 56 per cent of the latter were still at home compared to 43 per cent of the former. (See Table 3.) Of those

Table 3. - Farm Youth at Home and Away Classified by Sex

Sex	At Home		Away From Home	
	No.	%	No.	%
Total	156	49.2	161	50.8
Male	90	55.6	72	44.4
Female	66	42.6	89	57.4

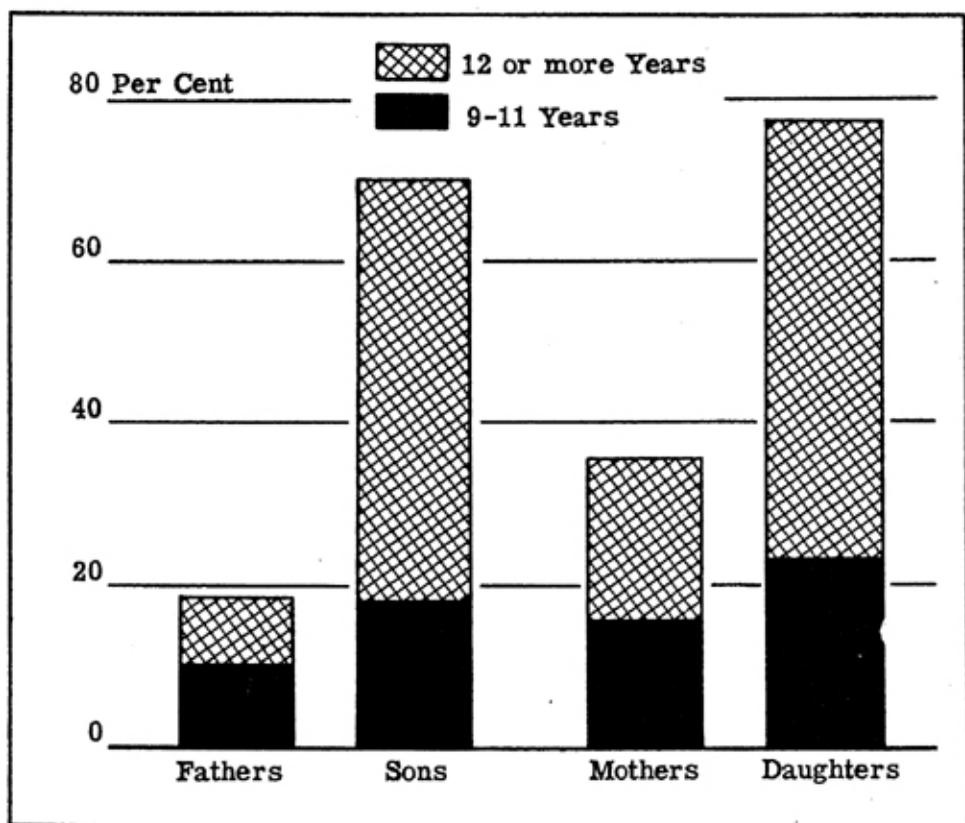


Figure 4.—Years Schooling Completed by Parents, and Farm Youth Out of School.

youth out of school, 70 per cent of the sons and 77 per cent of the daughters had completed more than the first eight grades of school. This compares very favorably with the educational attainment of the urban youth of the State,<sup>8</sup> and far exceeds the schooling completed by their parents. (See Figure 4.) Only 18 per cent of their fathers<sup>9</sup> and 35 per cent of their mothers<sup>10</sup> had gone beyond the eighth grade.

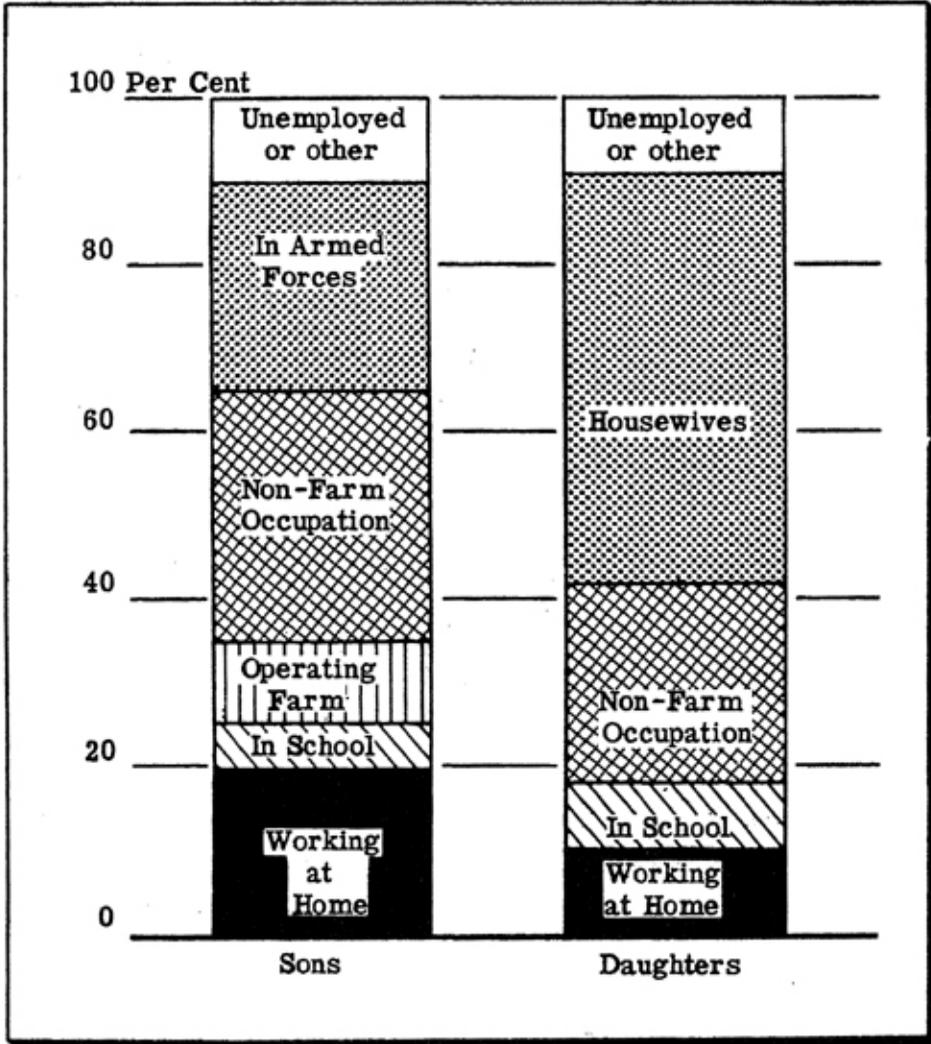


Figure 5.—Farm Youth of Low-Income Farm Families, Age 18-24 Years, Classified by Sex and Occupation.

Despite this, low-income farm operators are strong believers in education and have gone to school about as long as their more prosperous neighbors. Only one in nine recommended as little as an eighth grade education for boys who intend to farm. The relatively high educa-

<sup>8</sup>According to the U. S. Census for 1940, 79 per cent of the urban female youth, of the State of Missouri, age 15-24 and 65 per cent of the male youth of the same age, out of school had completed 9 or more years schooling. However, 30 per cent of the urban youth were still in school as compared to 24 per cent of the low-income farm youth.

<sup>9</sup>Farm operators.

<sup>10</sup>Female spouses of farm operators.

tional attainment of their sons, as compared to all youth and to urban youth in the State, is concrete expression of their attitudes toward education of rural youth.

One-fourth of the sons 18 through 24 years of age were still in some branch of the U. S. armed forces or the merchant marine. About a fourth of the daughters and 30 per cent of the sons of this age had found jobs away from home. (See Figure 5.) Only one in ten of them were operating farms. Almost half of the daughters were housewives. Three-fourths of the daughters away from home were married as compared to 39 per cent of the males. Only 2 of the sons and 4 of the daughters were married and still residing in their parental homes. None of the youth of either sex was divorced.

Thirty-seven or 31 per cent of the 120 sons 18-24 years of age represented in the low-income farmer households had training in vocational agriculture. Three of them were farming, six were still at home, twelve were in the armed forces, ten were engaged in non-farm occupations, the occupation of one was unknown and the others were in school. (See Table IVa, Appendix I.) Some of the 30 still in the armed forces were expected to return to the farm. Thirty-five of the boys had 4-H club work, two of whom were operating farms and ten of whom were still at home. The rest were in school, or in the armed forces, or had chosen non-farm occupations. About 48 per cent of the female youth who had taken vocational home economics were housewives. Seventy-eight of the 114 had taken commercial subjects in high school and about half of them were married. (See Table IVb, Appendix I.) Somewhat less than a fourth were employed outside the parental home. Almost half of the 36 daughters who had 4-H club work were also married. Irrespective of type of specialized training about half of the daughters were married.

### Household Facilities

Four out of five of the low-income farmer households had radios and 60 per cent had telephones. These proportions were essentially the same as for all farmers in Social Area B. (See Figure 6.) A considerable difference, however, is observed in the proportion having electricity in the home. About a fifth of the low-income farm homes were so equipped as compared to one-third of all farm homes in Area B. The percentage of households owning these facilities varied considerably from county to county and invariably increased with income. (See Tables 4 and 5.)

Only about one in 10 of the low-income farm homes had mechanical refrigeration, one-fourth had pressure cookers and one-sixth either had their own frozen food units or had access to commercial

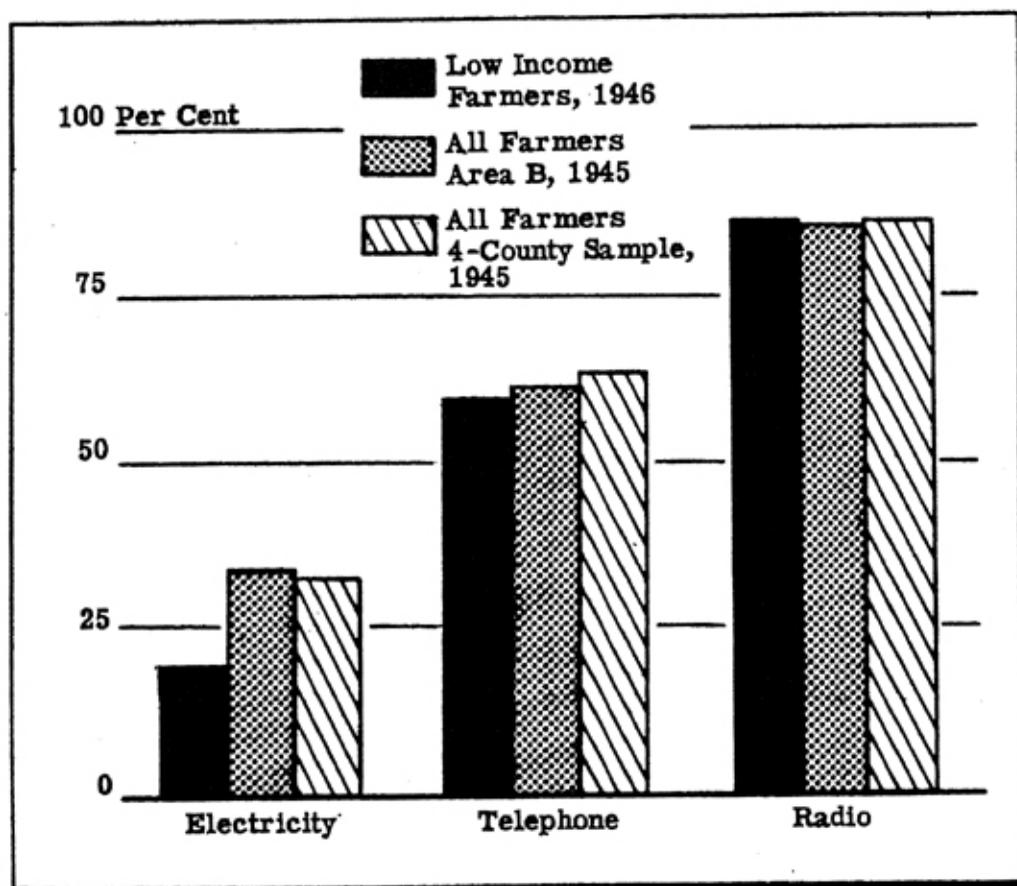


Figure 6.—Per Cent of Low-Income Farm Operators and All Farm Operators Having Specified Home Conveniences.

Table 4.—Per Cent of Area B Farm Households with Specified Conveniences Classified by Gross Farm Income, 1945

Farm Income	Electricity	Telephone	Radio	Refrigerator	Pressure Cooker	Freezer Locker
Total	19.8	59.5	80.4	9.4	25.5	16.1
Under \$500	9.1	49.6	68.9	5.0	15.7	7.4
\$500-999	17.9	59.5	81.9	6.4	24.9	11.6
\$1000-1999	25.6	68.4	85.0	13.5	34.6	21.1
\$2000 & over	51.7	65.5	100.0	27.6	31.0	58.6

lockers. Between one-fifth and one-third of the farm homes in the various counties had pressure cookers. The use of freezer lockers varied considerably by county, the percentage ranging from 5 in Boone county to 35 in DeKalb. Likewise there was a considerable difference in the proportion of farm homes using mechanical refrigeration ranging from a high of 18 per cent in DeKalb county to a low of 2 per cent in Vernon county. (See Table 5.)

Table 5.--Per Cent of Low-Income Farm Households with Specified Conveniences Classified by County

Convenience	Total	County			
		DeKalb	Shelby	Boone	Vernon
Electricity	19.8	27.1	22.6	22.8	11.0
Telephone	59.5	58.8	79.8	59.3	48.3
Radio	80.0	90.6	67.9	80.0	80.7
Refrigerator	9.4	17.6	9.5	11.7	2.1
Pressure Cooker	25.5	27.1	23.8	20.0	31.0
Freezer Locker	16.1	35.3	17.9	4.8	15.2

## V. THE FARMING UNIT

### The Farmstead

The size of the average farm represented in this survey varied considerably from county to county but on the whole was smaller than county averages. The only exception was Vernon county where low-income farmers operated farms averaging about 9 acres larger than the median for the county. The greatest difference occurred in Shelby county where these farms averaged 49 acres less than the county median for all farms. The differences in DeKalb and Boone counties were 40 and 5 acres, respectively. (See Figure 7.)

The farms here considered were selected in a representative manner from all the major soil types found in the counties of the survey. Although there was some positive relationship between soil desirability for general farming<sup>11</sup> and farm income per acre, within counties, low-income status was by no means confined to the less desirable soils. Many farmers with comparatively high gross farm incomes for this group were living on the poorer land and many with comparatively low incomes were living on the best land. Somewhat over 80 per cent of them were living on land rated as suitable for cultivation. The others lived on land rated as generally unsuitable for cultivation. The gross farm income of those living on land suitable for cultivation and those on land not suitable for cultivation was essentially the same. This observation of the relationship of land quality to income, both within the area as a whole and within counties,

<sup>11</sup>Soil desirability rating used is based upon a system of soil classification devised by the Soils Department of the Missouri University College of Agriculture, which takes into consideration those soil characteristics that have a bearing on soil desirability for general farming purposes.

demonstrates that land quality is but one of the important factors in farm income. Good land in sufficient quantity makes a good income possible; it does not guarantee the result.

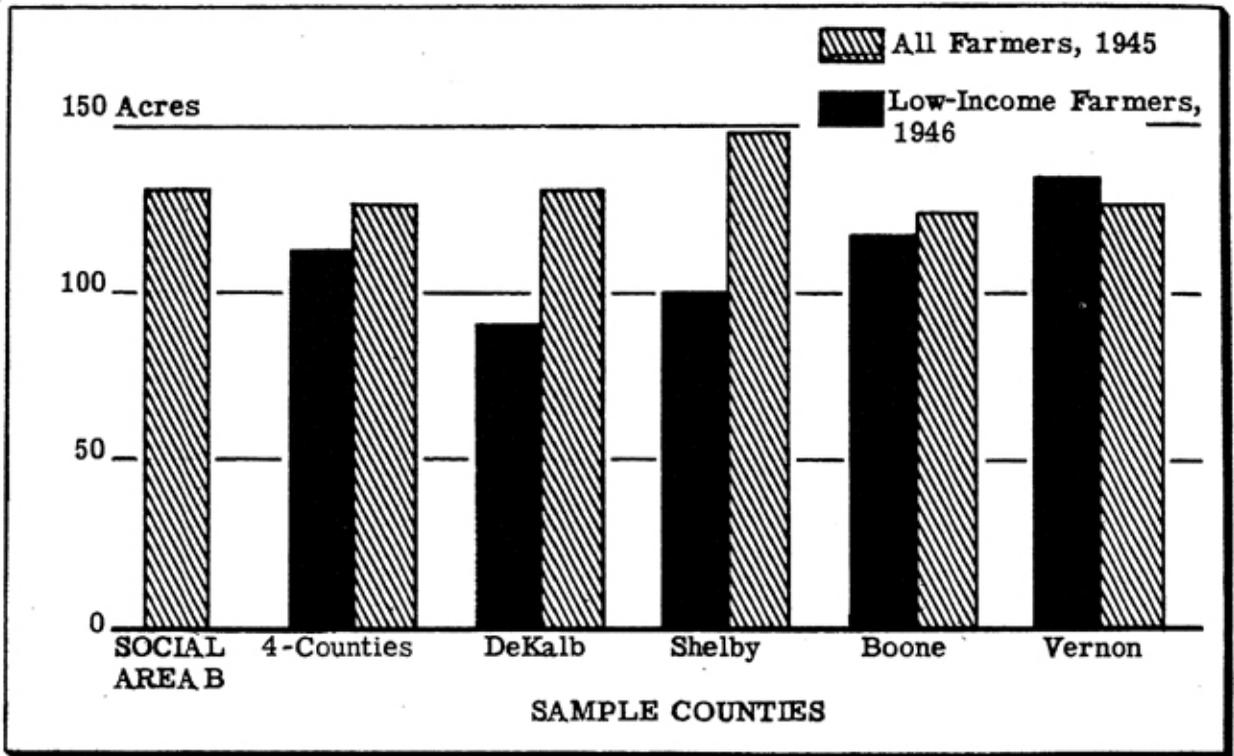


Figure 7.—Median Size of Farm of Low-Income Farmers and All Farmers Compared.

#### Income from the Farm<sup>12</sup>

By definition and selection these farmers had lower gross incomes than the average farm operator in Area B. They represented the lower one-third in 54 selected areas in the four counties sampled. The average receipts reported ranged from \$619 in Vernon county to \$1199 in DeKalb county. (See Figure 8.) Even in times of such farm prosperity as generally prevailed in 1945, over one-fourth of them realized less than \$500 per year in gross cash receipts from the sale of farm products. About 36 per cent of the Vernon county operators had gross receipts under \$500 as compared to 11 per cent of those in DeKalb county where farm incomes were highest. For Shelby and Boone counties, the percentages were about equal to the four-county average. At the other extreme, 6 per cent of the farm operators reported gross receipts of \$2000 and over. Since the low-income farmers were selected to represent the lower one-third of farmers in their respective sub-areas, no definite sum could be set as an upper

<sup>12</sup>Gross cash receipts derived from the sale of farm products for the year 1945.

limit of income. Obviously the upper limit of the lower one-third varied somewhat among the various sample sub-areas. It is possible that the farmers with gross receipts of \$2000 and over represent a mistaken rating on the part of those who placed them in the lower one-third or that the particular sub-areas from which they came were areas of unusually high incomes.

The median receipts of the farmers interviewed was \$763. This was somewhat less than half that reported by all Area B farmers in 1945. Low-income operators under 35 years of age earned about \$300 more per year than those aged 35-64. After age 64 receipts declined rapidly to a median \$572 per year, some \$240 less than the median for those aged 55-64. (See Figure 9.) The farmers under 35 years of age had more schooling and were operating about 35 acres more than the average for all farmers interviewed. These two factors offer a partial explanation of their higher incomes. The indications are that many of them will not remain low-income farmers. Farmers 65 years of age and over were operating about .22 acres less than the average thus indicating partial retirement and a consequent decline

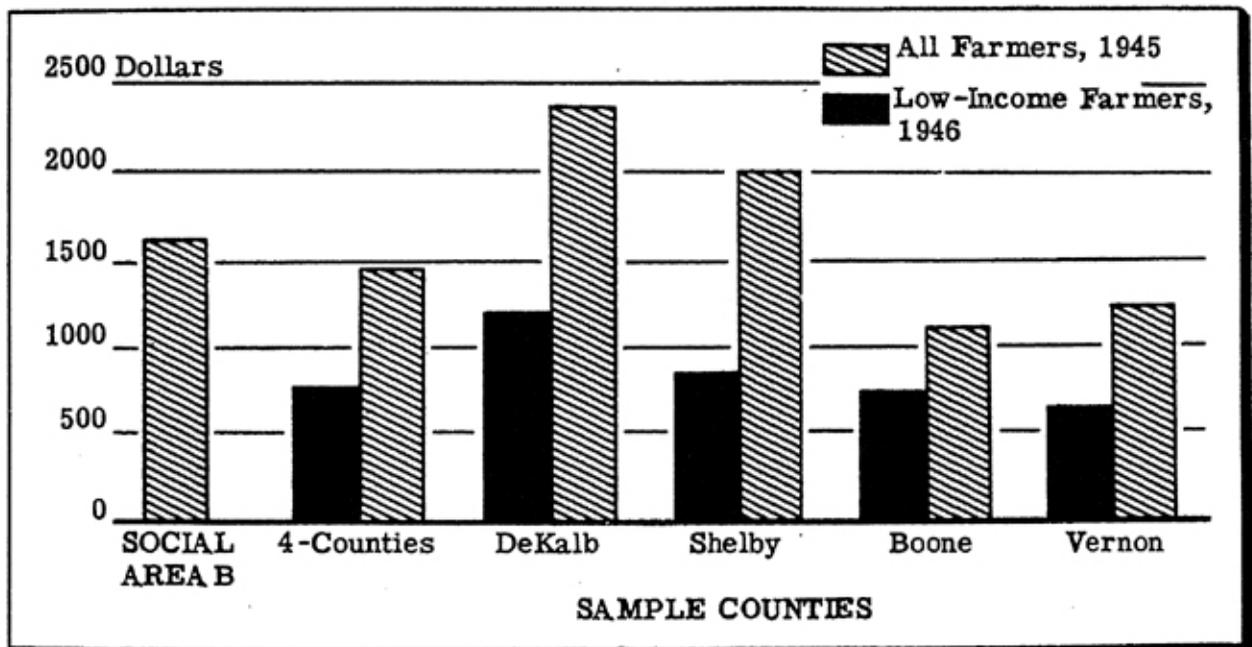


Figure 8.—Median Cash Receipts of Low-Income Farmers and All Farmers Compared.

in earning capacity. It has already been pointed out that farm operators with more than 8 years schooling had considerably higher gross incomes than those with less than that amount and that higher gross incomes were associated with more membership in farm organizations.

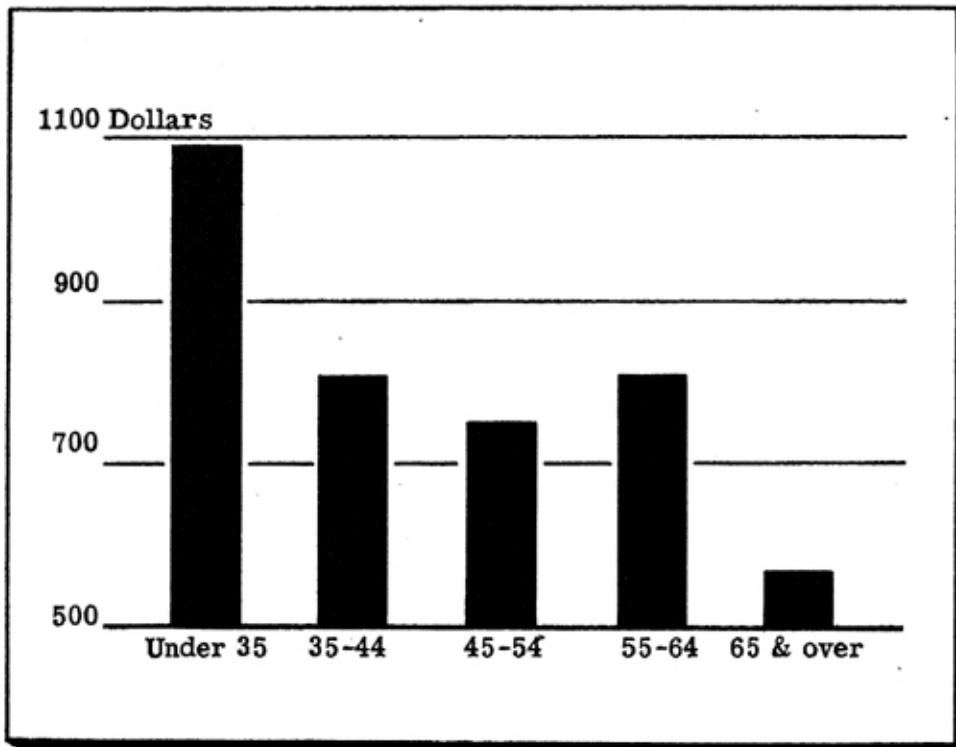


Figure 9.—Median Cash Receipts of Low-Income Farm Operators, by Age.

### Sources of Farm Income

Livestock farming predominated in all four counties, at all levels of income and among both renters and owner operators. Nine out of 10 reported the sale of livestock or livestock products as their chief source of income. About one-half of them reported the sale of hogs or beef cattle as the chief source, about one-fifth of them dairy products and one-sixth of them poultry products; only 7.6 per cent reported a grain crop. (See Figure 10.) There was considerable variation in the chief money crop reported by various counties. In DeKalb and Shelby counties the sale of hogs led by a substantial margin, in Boone the sale of beef cattle took precedence by an equally great margin while in Vernon the sale of dairy products was reported as the chief money source.

The proportion of farmers reporting the sale of beef cattle and poultry as their chief source of farm income decreased with increasing farm income; the proportion reporting the sale of dairy products showed little consistent relationship while the percentage reporting the sale of hogs increased with increasing income. Hog production in Missouri is closely associated with the production of corn, a soil depleting crop. Since the low-income farmers interviewed depend largely on the production of livestock and livestock products which

are more dependent on hay and forage crops, there may be an element of truth in the contention of some that it is not the small farm operator who is mining the land of its fertility but rather the larger operators who produce much grain.

Working off the farm was a common practice especially in Vernon and Boone counties which in 1940 had urban centers of 8,181 and 18,399, respectively. In this survey, however, farmers working off the farm more than half-time<sup>13</sup> were not included. Two-thirds of the farmers interviewed reported no work off the farm and an additional 21 per cent reported less than 50 days. The proportion of farmers working part-time off the farm was highest in Vernon county, but even there nine-tenths reported less than 50 days.

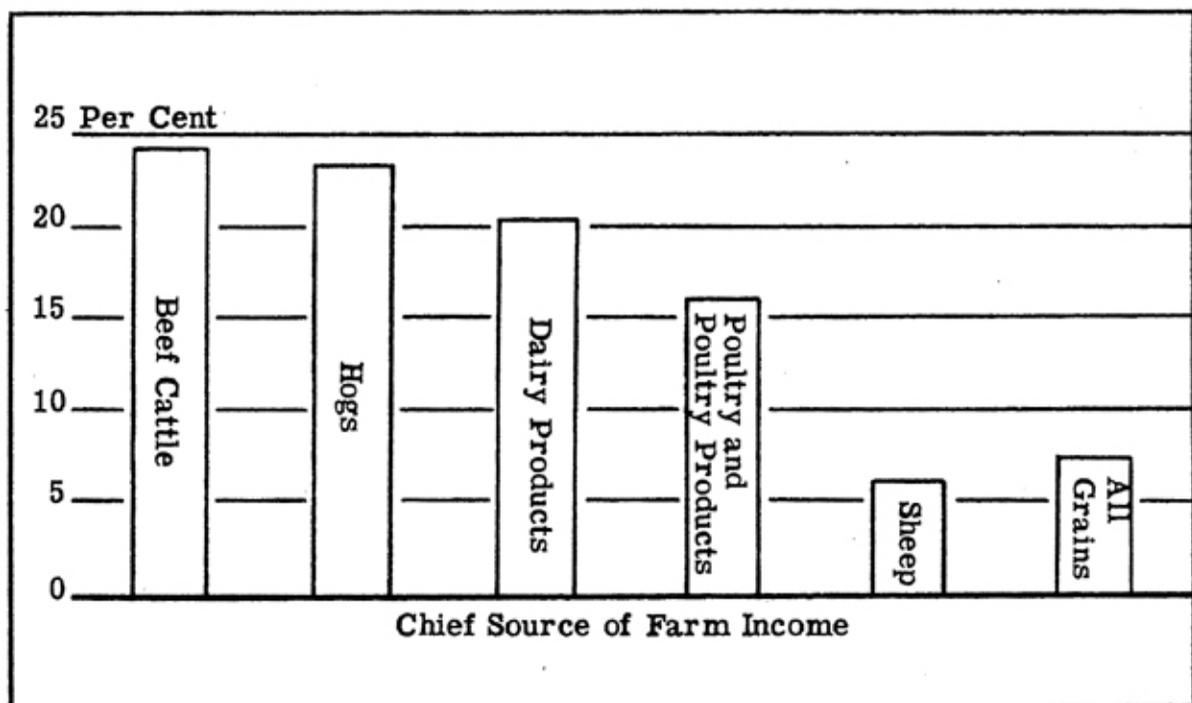


Figure 10.—Chief Sources of Farm Income Reported by Low-Income Farmers.

### Farm Facilities

Three-fourths of the low-income farm operators had automobiles, about one-fifth of them owned a tractor and about two-fifths lived on all-weather roads. Access to these facilities was closely related to farm income. This was especially true with respect to tractor ownership. Only about one-eighth of the farmers with incomes under \$500 owned tractors as compared to approximately half of those with incomes of \$2000 or over. Renter operators were better situated with respect to ownership of these facilities than owner operators. About

<sup>13</sup>Estimated as more than 150 days work off the farm during past year.

8 per cent more lived on all-weather roads, a few more had automobiles or trucks and almost twice as many had tractors. There was likewise considerable variation in automobile and tractor ownership by county. About 85 per cent of the DeKalb county farmers owned automobiles compared to 70 per cent of those in Boone county, and three-fourths of those in Vernon and Shelby counties. One-third of the Vernon county farmers used tractors as compared to 12 per cent in Boone county, 14 per cent in Shelby county and 25 per cent in DeKalb county. In both DeKalb and Vernon counties, tractor ownership was associated with higher farm incomes. The proportion of low-income farmers owning autos was almost as high as that for all operators in Area B; but only about half as many owned tractors and only two-fifths as many lived on all-weather roads.<sup>14</sup>

## VI. PROBLEMS CONSIDERED IMPORTANT

One-fifth of the farmers interviewed spontaneously named declining soil fertility or soil conservation as one of the most important problems confronting them. It was mentioned by more farmers than any other farm problem. (See Table 6.) This was true at all educational and income levels. Variation by county and by age, however, was considerable. One-third of the DeKalb county farm operators

Table 6. - Problems Considered Important by Low-Income Farm Operators

Problems	Number	Per Cent
Soil Depletion (and related problems)	98	21.3
Lack of Operating Capital	70	15.3
Lack of Farm Machinery	56	12.2
Poor Health	61	13.3
Unfavorable Weather	67	12.4
Scarcity and Quality of Feed	55	12.0
Lack of Farm Labor	44	9.6
Unfavorable Prices	37	8.1

interviewed mentioned it as an important problem confronting them as compared to one-sixth of those residing in Vernon county. (See Table V, Appendix I.) The percentages for Boone and Shelby coun-

<sup>14</sup>Defined as living 0.2 miles or less from an all-weather road.

ties were 19 and 21, respectively. More Boone county farmers mentioned "lack of operating capital" than any other problem, while in Shelby county unfavorable weather, scarcity and quality of feed, and soil depletion were rated in the order mentioned.

One farmer in eight mentioned lack of farm machinery and about 15 per cent insufficient operating capital as important problems confronting them. Boone county farmers were especially aware of such problems even placing the lack of operating capital ahead of soil depletion.

About one-eighth of the farmers interviewed mentioned scarcity and quality of feed. Shelby and DeKalb low-income farmers and particularly those in Shelby county were much more concerned with this than such farmers in Boone and Vernon counties where only 18 mentioned it. Farmers with higher incomes for the group tended to mention feeding problems more than those with lower incomes. The county differences and to some extent the differences related to income can probably be explained in large measure by the type of farming which prevailed in the various counties and among farmers of varying farm incomes. In DeKalb and Shelby, hog production requiring large quantities of relatively scarce and expensive grains is the rule while in Boone and Vernon counties more emphasis is placed on the production of cattle requiring less grain and more hay and forage crops grown on the farm. Differentials in production emphasis associated with differences in income likewise intensified or mitigated the feed problem at various income levels.

The only problem associated closely with the age of the operator was that of poor health, its incidence and recognition increasing rapidly with increasing age. The proportion mentioning it was over four times as great for those 65 years of age and over as for those under 35. (See Figure 11.) A few farmers mentioned government interference and strikes as important problems. About 4 per cent thought they needed more land but none spontaneously expressed any concern about lack of information on better production methods.

The problems mentioned offer an important key to the thinking of these farmers, but the objectivity with which they analyzed their situation must necessarily be assessed in terms of the opinion of others. Most people would concede that soil depletion, the most frequently mentioned problem, is a real and vital one. Although provision for more adequate credit for farmers has been made through federal legislation it may be that for one reason or another these farmers find it difficult to secure the credit they need. With respect to problems of health, previous studies have shown that sickness and disease

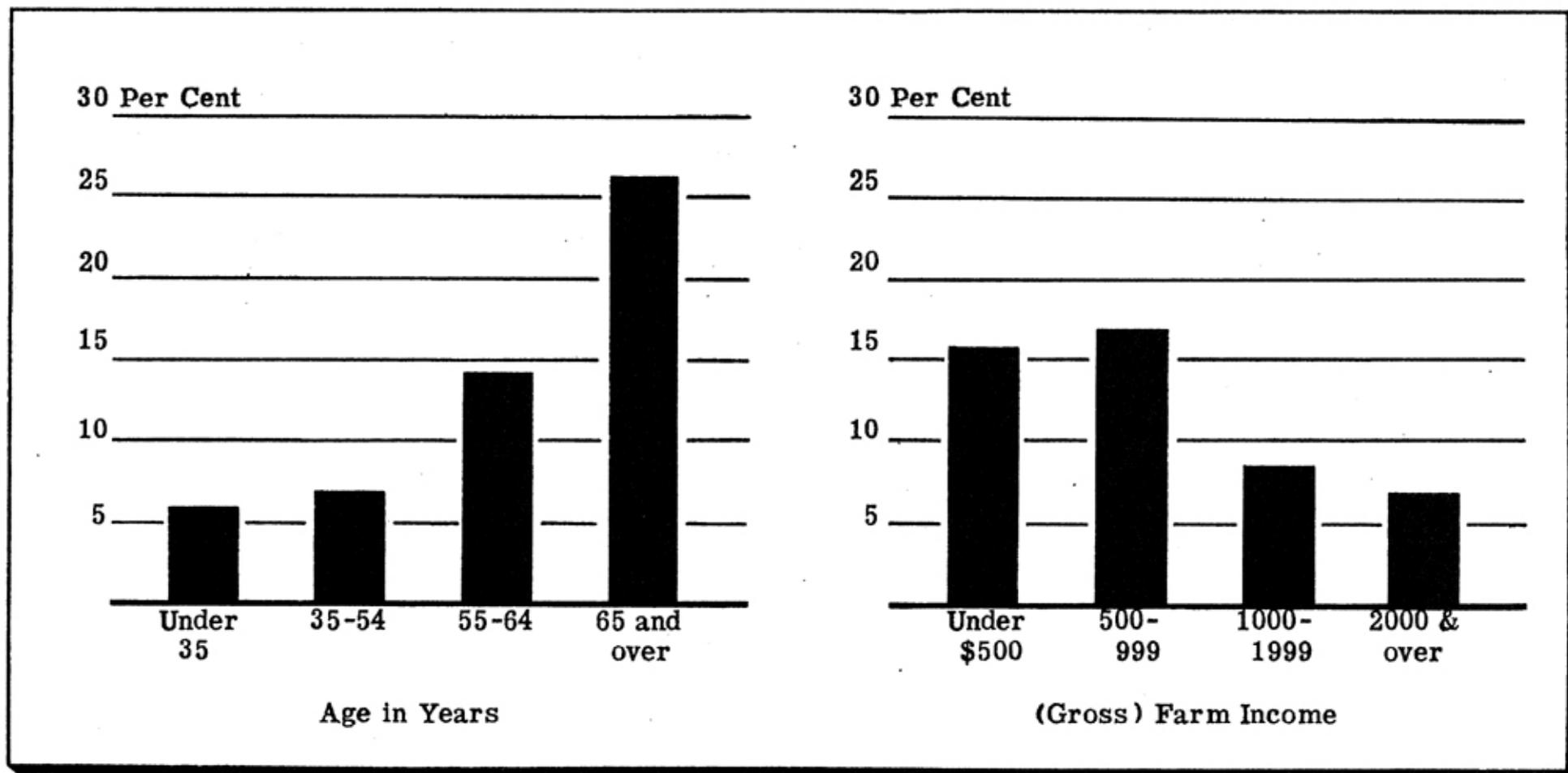


Figure 11.—Per Cent of Farm Operators Reporting Health as a Major Problem, Classified by Age and by Farm Income.

fall with heavy incidence on farmers least able to pay<sup>15</sup> and that available health facilities<sup>16</sup> in the form of licensed practitioners, hospitals and public health services are inadequate to meet current needs. Certain other problems mentioned were seasonal in character and probably represented little objective analysis of existing conditions.

## VII. ATTITUDE TOWARD FARMING

Despite frequently heard complaints of hard times and injustices, 19 out of 20 farmers said they liked to farm, and three-fourths of them said they would choose farming again if they had the choice to make over. In no county and at no income level did as many as 8 per cent of them say they disliked farming. All 51 farmers under 35 years of age and all 107 who had attained or passed the 65 year mark answered "yes" to the question, "Do you like to farm?" Age of farm operators and number of years schooling seemed to have little bearing on the way this question was answered. About 12 per cent fewer Boone county operators than Shelby county operators said they would choose farming again. The proportion so inclined varied little with years schooling and income; however, with age the variation was considerable. Fifty of the 51 operators under 35 years would choose farming again, but about three-fourths of those 35 years of age and over said they would make such a choice.

Since the search for economic opportunity off the farm ordinarily means movement elsewhere, willingness or unwillingness to move may also be considered as one index of the esteem placed on farm life. Statements made concerning willingness to move to the city supported the operators' expressed liking for the farm. About 46 per cent of them said they would not consider a move to the city. County differences were not significant. An even 2 per cent of them said they would consider moving to the city because of such non-monetary considerations as "poor health" or to educate their children. A vast majority of the 48 per cent who admitted they might move to the city for monetary considerations specified incomes much higher than their present farm incomes and in many cases more than they would likely be able to get considering their qualifications for city work. About one-half of them placed the figure at \$2000 or more per year. Perhaps one may safely estimate that for all practical purposes at least 70 per cent of these farmers would not consider moving to the city.

<sup>15</sup>Kaufman, Harold F. and Morse, Warren W., *Illness in Rural Missouri*, Research Bulletin 391, University of Missouri, College of Agriculture, Agricultural Experiment Station, Columbia, Missouri, August, 1945.

<sup>16</sup>Kaufman, Harold F., *Use of Medical Services in Rural Missouri*, Research Bulletin 400, University of Missouri, College of Agriculture, Agricultural Experiment Station, Columbia, Missouri, April, 1946.

It was evident that these low-income farmers were enjoying the freedom of being their own boss. One-half gave this as the chief advantage of living on the farm. In all counties they were agreed on this major advantage. About one-fourth of them considered the advantages accruing from raising one's own living as the chief advantage of living on the farm. Healthful living conditions were rated third in importance in each of the counties surveyed.

Approximately 95 per cent of the farmers interviewed had followed their fathers in the occupation of farming. The reasons given by them for this choice shows evidence of the self-perpetuating nature of farming as an occupation. Thirty-seven per cent said they chose farming because their fathers were farmers. These, as well as another 37 per cent, chose farming for what may be termed positive reasons. This included 19 per cent who said they chose farming because they liked it and 18 per cent who gave such reasons as "better fitted to farming", "make a better living", or "independent life". Certain others seem to have based their choice on negative reasons. About one-fifth of them said they chose farming because they either knew nothing else or because they were unable to get other employment. Two per cent said they were tired of city life, or of their previous job, and 4.1 per cent gave other negative reasons.

The 168 farm operators who claimed to have chosen farming for positive reasons earned median gross farm incomes of \$905 as compared to a median of \$788 for the 119 who apparently chose farming for negative reasons. Only in Shelby and Boone counties were there enough cases to make any comparison on a county basis. In the former county, the difference between the two groups was not significant. In Boone county, however, the farmers who had chosen farming for positive reasons averaged over \$300 more gross farm income per year than those who had made their choices on negative grounds. Perhaps some of the farmers who apparently chose farming for negative reasons would have been more successful in some other occupation. A bit of vocational guidance as boys, and education better suited to needs, interests and capacities might have given them a different situation and outlook.

Nine out of ten of these farmers favored retaining the one-family farm as the basic unit of agricultural production and farm life. Most of them grew up on the one-family farm and all of them were operating such farms at the time of interview.

## VIII. RECOMMENDATIONS OF LOW-INCOME FARM OPERATORS TO FARM YOUTH

### Stay on the Farm

With the passing of the western frontier and the abundance of cheap land many farm youth have found it necessary to seek jobs in the city. Under prevailing agricultural conditions it is estimated that it will be necessary for at least 43 per cent of the farm youth attaining the age of 20 years during this decade to leave their Area B parental farm homes in search of economic opportunity.<sup>17</sup> For the sons of low-income farm operators the opportunity to remain on the farm under a profitable and satisfactory arrangement is even less. Despite these facts 55 per cent of the low-income farmers interviewed maintained that farm boys should be encouraged to stay on the farm. Another 40 per cent gave qualified answers, but only 5 per cent of them believed that farm boys should be encouraged to move to the city. This expressed attitude varied little by county. There was a notable tendency for the better educated farmers to be more favorable toward encouraging farm boys to seek non-farm occupations. More than 70 per cent of those with less than five years schooling recommended that farm boys stay on the farm as compared to 42 per cent of those who had had some high school or college training. The latter were more inclined to qualified answers than to categorical ones.

### Get a Good Education

These low-income farmers are strong believers in education for farming. A majority of them would keep their sons on the farm if they could, and would recommend a high school or college education for them. Over 46 per cent of the farm operators interviewed recommended a high school education for boys expecting to farm, 30 per cent recommended a college education and another 8 per cent advised "all they can get". Only one-ninth of them suggested as little as a grade school education. There was considerable variation by counties in the number of farmers recommending only a grade school education. The range was from 19 per cent in Shelby county to only 2 per cent in DeKalb. Boone and Vernon counties were intermediate with 13 and 10 per cent, respectively. Only three farmers recommended no schooling at all. The older farmers seemed to be as favorably disposed

<sup>17</sup>Estimate made by the Department of Rural Sociology, College of Agriculture, University of Missouri, Columbia, Missouri, 1948.

toward education for farming as the younger ones. There was a tendency, however, for those with more schooling and higher farm incomes to recommend more education. (See Figure 12.)

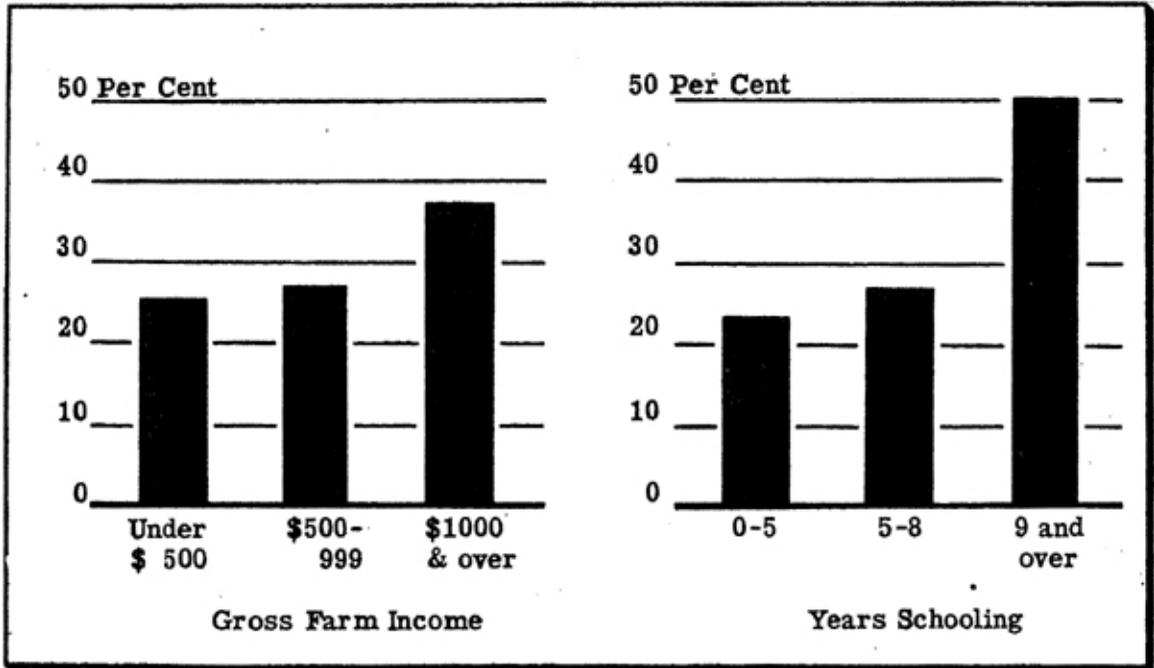


Figure 12.—Proportion of Farmers Recommending College Education for Boys Who Expect to Farm, Classified by Gross Farm Income and Years Schooling.

**Vocational Agriculture and 4-H Club Work Offer Valuable Training.**—About two-thirds of the operators considered vocational agriculture valuable training for boys who expect to become farmers<sup>18</sup> and nine-tenths of them expressed the same opinion concerning 4-H club work. A considerable number of the farmers in all counties gave qualified answers. Only 9 per cent indicated that they did not believe agricultural education made better farmers, and less than half that number held the same view regarding 4-H club work. DeKalb county operators were most favorably inclined to vocational agriculture; 81 per cent considered it valuable. Vernon county farmers were least favorable with 59 per cent expressing a favorable opinion. A favorable opinion also prevailed among 68 per cent of the Boone county farmers and 75 per cent of the Shelby county farmers interviewed. All DeKalb county low-income operators considered 4-H club work valuable training for farming as compared to 71 per cent of the Shelby county operators. This opinion was expressed by 90 per cent of the Vernon county farmers and by 92 per cent of those residing in Boone county.

<sup>18</sup>Indications are that a higher per cent of farmers were acquainted with 4-H Club work than with vocational agriculture despite the fact that at least one high school in each of the survey counties was offering vocational agriculture.

Farm operators with the higher farm incomes and more schooling tended to be more favorable to vocational agriculture and 4-H club work as a means of training future farmers than those with lower farm incomes and with less schooling. The association between years schooling and favorable attitude toward vocational agriculture was especially pronounced. Only 56 per cent of the farm operators with less than 5 years schooling took an affirmative position as compared to 71 per cent of those with more than that amount. Furthermore, a higher percentage of farmers whose sons or daughters had at one time been 4-H club members, or who had studied vocational agriculture, considered the experience valuable than those whose sons or daughters had never been 4-H club members or had never studied vocational agriculture. There was little relationship between age of farm operators and their attitude toward vocational agriculture.

#### IX. DESIRE FOR MORE INFORMATION ABOUT FARMING

Six out of ten low-income farm operators interviewed wanted more information about farming. As might be expected a higher percentage of the younger operators and a higher percentage of those with comparatively more schooling wanted more farm information than the older operators with less schooling. After age 65, the percentage wanting more information dropped sharply. About 40 per cent of the operators with less than five years schooling desired more information as compared to 71 per cent of those with some high school or college training. The number desiring more information was also associated with farm income. Interest was expressed in a wide variety of problems relating to crop and livestock production. Three farmers out of five desiring more information thought it could best be furnished by the College of Agriculture. About two per cent suggested the United States Department of Agriculture. Another two per cent suggested neighbors who were successful farmers. Three-tenths of them had no suggestion to offer.<sup>19</sup>

<sup>19</sup>An analysis of the sources of information used by these farmers will be presented in a later bulletin.

## APPENDIX I

TABLE I.--Low-Income Farm Operators Classified by Age and by County

County	Total*		Age								Med- ian Yrs. of Age		
			Under 35		35-54		55-64		65-74			75 and over	
	No.	%	No.	%	No.	%	No.	%	No.	%		No.	%
Total	459	100.0	51	11.1	166	36.2	134	29.2	85	18.5	22	4.8	56.1
DeKalb	85	100.0	8	9.4	32	37.6	24	28.2	16	18.8	5	5.9	56.1
Shelby	84	100.0	9	10.7	23	27.4	31	36.9	18	21.4	3	3.6	59.2
Boone	145	100.0	11	7.6	47	32.4	45	31.0	31	21.4	10	6.9	58.9
Vernon	145	100.0	23	15.9	64	44.1	34	23.4	20	13.8	4	2.8	50.3

\*Includes one farm operator with age unknown.

TABLE II.--Low-Income Farm Operators Classified by Membership in Farm Organizations and by County

County	Total Farm Operators		Total-Mem- ber of no Farm Organ- ization		Number of Farm Organizations of Which a Member					
					Total		One		Two or More	
	No.	%	No.	%	No.	%	No.	%	No.	%
Total	459	100.0	316	68.8	143	31.2	113	24.6	30	6.5
DeKalb	85	100.0	66	77.6	19	22.4	14	16.5	5	5.9
Shelby	84	100.0	58	69.0	26	31.0	20	23.8	6	7.1
Boone	145	100.0	93	64.1	52	35.9	39	26.9	13	9.0
Vernon	145	100.0	99	68.3	46	31.7	40	27.6	6	4.1

TABLE IIIa.--Low-Income Farm Operators Classified by Membership in Church, Missouri Farmers' Association, Farm Bureau, Grange, Farmers' Union and Extension Associations, by County.

County	Organization Membership					
	Church	Farm Bureau	M.F.A.	Grange	Farmers' Union	Extension Assoc.
Total	299	34	90	14	3	20
DeKalb	75	0	4	0	2	14
Shelby	57	2	18	9	0	0
Boone	99	24	36	0	0	6
Vernon	68	8	32	5	1	0

TABLE IIIb.--Per Cent of Low-Income Farm Operators Classified by Membership in Church, Missouri Farmers' Association, Farm Bureau, Grange, Farmers' Union and Extension Associations, by County

County	Organization Membership					
	Church	Farm Bureau	M.F.A.	Grange	Farmers' Union	Extension Assoc.
Total	65.1	7.4	19.6	3.1	0.7	4.4
DeKalb	88.2	0.0	4.7	0.0	2.4	16.5
Shelby	67.9	2.4	21.4	10.7	0.0	0.0
Boone	68.3	16.6	24.8	0.0	0.0	4.1
Vernon	46.9	5.5	22.1	3.4	0.7	0.0

TABLE IVa.--Sons of Low-Income Farmers, Age 18--24, Classified by Vocation and Type of Vocational Training

Vocational Training	Total Sons		Farmer		Non-farm Occupation		Armed Forces		Working at Home		In School*		Other or Unknown	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	120	100.0	12	10.0	36	30.0	30	25.0	24	20.0	6	5.0	12	10.0
No Vocational Training	19	100.0	1	5.3	7	36.8	5	26.3	4	21.0	1	5.3	1	5.3
Vocational Agriculture	37	100.0	3	8.1	10	27.0	12	32.4	6	16.2	2	5.4	4	10.9
Commercial	51	100.0	3	5.9	13	25.5	21	41.2	5	9.8	3	5.9	6	11.8
Industrial Arts	22	100.0	2	9.1	3	13.6	10	45.5	3	13.6	1	4.5	3	13.6

\*Exclusive of 5 sons in school but otherwise employed.

TABLE IVb.--Daughters of Low-Income Farmers, Aged 18--24, Classified by Vocation and Type of Vocational Training

Vocational Training	Total Daughters		Housewife		Non-farm Occupation		Working at Home		In School*		Other or Unknown	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	114	100.0	56	49.1	27	23.7	12	10.5	9	7.9	10	8.8
No Vocational Training	10	100.0	5	50.0	2	20.0	1	10.0	0	0.0	2	20.0
Commercial	78	100.0	41	52.6	19	24.4	5	6.4	9	11.5	4	5.1
Vocational Home Economics	48	100.0	23	47.9	15	31.2	3	6.3	4	8.3	3	6.3
Other	4	100.0	4	100.0	0	0.0	0	0.0	0	0.0	0	0.0

\*Exclusive of 2 daughters in school but otherwise employed.

TABLE V.--Number and Per Cent of Low-Income Farmers Mentioning Specific Farm Problems, by County

Problems	County									
	Total		DeKalb		Shelby		Boone		Vernon	
	No.	%	No.	%	No.	%	No.	%	No.	%
Soil Depletion (and related problems)	98	21.3	28	33.0	18	21.4	28	19.3	24	16.6
Lack of Operating Capital	70	15.3	9	10.6	9	10.7	35	24.1	17	11.7
Lack of Farm Machinery	56	12.2	7	8.2	7	8.3	25	17.2	17	11.7
Poor Health	61	13.3	9	10.6	11	13.1	24	16.6	17	11.7
Unfavorable Weather	57	12.4	0	0.0	25	29.8	11	7.6	21	14.5
Scarcity and Quality of Feed	55	12.0	14	16.5	23	27.4	14	9.6	4	2.7
Lack of Farm Labor	44	9.6	9	10.6	2	2.4	28	19.3	5	3.4
Unfavorable Price Differentials	37	8.1	7	8.2	5	5.9	5	3.4	20	13.8
Insect Pests-Diseases of Plants and Animals	20	4.4	5	5.6	1	1.2	1	0.7	13	9.0
Strikes	20	4.4	4	4.7	2	2.4	2	1.4	12	8.3
Not Enough Land	17	3.7	1	1.2	5	6.0	7	4.8	4	2.8
Government Interference	15	3.3	7	8.2	5	6.0	0	0.0	3	2.1