

RESEARCH BULLETIN 661

MARCH 1958

UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE  
AGRICULTURAL EXPERIMENT STATION

J. H. LONGWELL, *Director*

# Resources and Levels of Income of Farm and Rural Nonfarm Households

*IN EASTERN OZARKS OF MISSOURI*

RONALD BIRD, FRANK MILLER, AND SAMUEL C. TURNER



*Missouri Agricultural Experiment Station and Farm Economics Research Division, Agricultural Research Service, U.S. Department of Agriculture, Cooperating*

(Publication Authorized March 18, 1958)

COLUMBIA, MISSOURI

---

## CONTENTS

Summary and Conclusions .....	3
Introduction .....	5
Need for Study .....	5
Purpose of the Study .....	6
Method of Study .....	6
Description of Area .....	8
Physical Characteristics .....	8
Location and Climate .....	8
Topography .....	8
Soils .....	10
Economic Characteristics .....	12
Early Settlement and Employment .....	12
Economic Activity .....	12
Readjustments in Employment .....	13
Industrial Development .....	14
Measurement of Area's Income .....	15
Land Ownership and Use .....	16
The Agriculture .....	19
Characteristics of the Population and Labor Force .....	19
Age, Sex, Education .....	21
Physical Limitations .....	24
Family Composition .....	24
Residential Characteristics .....	26
Major Occupation of Family Members .....	28
Children Who Have Moved Away .....	31
Income Characteristics of Farm and Rural Nonfarm Households .....	34
Income of the Farm Household .....	34
Income of the Nonfarm Household .....	35
Sources of Income .....	36
Relationship of Population Characteristics to Income .....	38
Labor Supply and Household Income .....	40
Members Seeking Employment .....	47
Farm Income Characteristics by Economic Class of Farm .....	49
Nature of Farm Income and Expenses .....	49
Financial Structure of Farm Business .....	53
Other Factors that Influence Farm Income .....	57
Appendix Tables .....	62

## ACKNOWLEDGMENTS

The authors gratefully acknowledge the contributions of many individuals to this report—especially the valuable advice and constructive criticism of Buis T. Inman and Robert Glasgow of the Farm Economics Research Division, Agricultural Research Service, United States Department of Agriculture.

# Resources and Levels of Income of Farm and Rural Nonfarm Households

*IN EASTERN OZARKS OF MISSOURI*

RONALD BIRD, FRANK MILLER, AND SAMUEL C. TURNER\*

## SUMMARY AND CONCLUSIONS

One of the major economic and social problems of Missouri is the low income of many farm families. The southeastern Ozarks have been characterized as one of the areas in which this problem is most critical. In 1949, 40 percent of the rural nonfarm families and about 50 percent of the farm families enumerated in the Census of Population in Economic Area 8 received cash incomes of less than \$1,000. Information as to characteristics of the farms and families involved, the sources of income, and the causes of these low returns was not given in the census reports. This study was undertaken to determine the nature of the resources of the area, sources of income, and some of the causes of low incomes.

A major reason for low incomes in the area has been the overabundance of people in relation to other resources. Agriculture, the main industry, is characterized by many small inadequate units. Mining, also a major industry, has diminished in importance because of exhaustion of the ores. Forest resources, which were of considerable importance to the area in the past, have been similarly depleted. Because of frequent burnings and drouthy soils, the rate of growth in much of the area is slow and a relatively small proportion of the trees on the small private holdings are now suitable for harvest.

Further development of the recreational facilities will increase job opportunities to a limited extent. Increases in family income from this source, however, go mainly to retail and service establishments, and farm people reap little direct benefit from it.

Industrial expansion in the area is difficult. In most instances, raw materials, capital, and some labor would need to be brought into the area. The finished

\*Ronald Bird, Agricultural Economist, Farm Economics Research Division, Agricultural Research Service, United States Department of Agriculture; Frank Miller, Professor of Agricultural Economics, University of Missouri; Samuel C. Turner, Graduate Assistant, Department of Agricultural Economics, University of Missouri.

goods would have to be shipped out to reach a market. Because of the limited economic opportunities, most persons from 20 to 39 years old have left the area. This outward migration, which is sufficient to reduce the population of the area, probably will continue as long as it is easy to find more remunerative employment elsewhere. The families remaining in the area reported that 70 percent of their family members who had left home were living elsewhere in Missouri. More than a fourth have gone to St. Louis. About 90 percent of those who have left home have gone into nonfarm occupations.

Analysis of the records of 785 open-country households showed that 32 percent of the farm families and 27 percent of the rural nonfarm households had incomes of less than \$1,000 in 1955. These incomes included all payments in both money and kind, made to all members of the household, plus the net income from the farm or other business, as well as the value of all products used in the home. Only 22 percent of the incomes of farm households with less than \$1,000 incomes came from farming. Two percent came from work on other farms; 31 percent from nonemployment sources; and 45 percent from nonfarm employment.

One apparent reason for low income was the limited ability of the family head to work. In 54 percent of the farm households with incomes of less than \$1,000, the head was either more than 58 years of age or was unable to work. About 60 percent of these households contained no more than two persons.

Most of the farms are too small to provide a satisfactory level of income under the present organization. More than 87 percent of the farms had gross sales of less than \$2,500 in 1954. As a result, these farmers turned to nonfarm employment to supplement their incomes. The younger workers were successful in finding nonfarm employment, but this was not true for the older workers. In many instances, the health of the older worker was impaired so that he could do only a limited amount of nonfarm work.

Many of the nonfarmers living in the 'open country' also had the problem of inadequate income. Two-thirds of the households in the 'open country' were classified as nonfarm households. Eighty percent of these families had holdings larger than 3 acres. They were not classified as farm households because they did not produce \$150 worth of farm products in 1955. About 27 percent had incomes of less than \$1,000. Most of the returns to this low-income group came from nonlabor sources such as old age pensions. Seven percent of their income came from farm wage work, and 18 percent from nonfarm work. In 78 percent of these households there were 2 or fewer people. Eighty-four percent of the heads were either over 58, were females, or were unable to work.

The 1954 census classified about 60 percent of all farms in the area as part-time or residential units. Data obtained in the survey indicated that only 7 percent of the household incomes of people who operated these units were derived from farming.

The commercial farmers in the area who had low incomes were those who

were devoting all or most of their time to operating small farm businesses. This was especially true of full-time farmers who sold less than \$2,500 worth of farm products. Two reasons for these low incomes stood out. One was the advanced age of the operators; the other was the small size of the farm businesses. Most of the operators were 60 or older, and the farms were only large enough to provide employment for one worker for part of the time.

Most of the farms lack the resources to provide either full employment for a normal family labor force or satisfactory levels of income. If young workers were available, expansion of these units would be necessary acreagewise. Such an expansion may be difficult to attain at present because of custom and institutional factors. Most of the farmland is owned by older farmers who have little formal education. If they were to leave the farm, they would have difficulty in obtaining other jobs. Therefore, many continue to farm even though their incomes are low. Apparently, consolidation of these units or the addition of such intensive enterprises as poultry, dairy, and horticultural crops, is necessary if many of the farms in the area are to return adequate incomes.

Currently, underemployment is not a major problem of the younger and most active members of the labor force. The economic problem, therefore, is more one of finding employment and increased income as the basis of a higher level of living for the older and less active members of the population.

## INTRODUCTION

### Need for Study

One of the major problems in Missouri is said to be the high percentage of farm families that have low incomes. For example, the census shows that in 1949 about 35 percent of rural farm families had cash incomes of less than \$1,000. The level of income may be higher now, but economic distress may be just as severe because of higher prices for practically all types of goods and services.

Farmers who have low incomes are found throughout the State, but there are certain areas in which high percentages of families have long been recognized as having low incomes. These areas are generally characterized by low productivity of the land and lack of balance between labor and other factors of production. One of these areas is located in the Southeastern Ozark Plateau, which is designated in the census as Economic Area 8.<sup>1</sup> It was further delineated in the publication, "Development of Agriculture's Human Resources," as one of the serious problem sections of the United States. The magnitude of the problem in this area is illustrated by census data, which show that in 1949 more than 40 percent of its rural nonfarm families, and more than 50 percent of its farm families, received cash incomes of less than \$1,000.

Cash incomes in themselves do not necessarily reflect the needs that exist

<sup>1</sup>Economic areas were established by grouping counties having similar agricultural, demographic, climatic, physiographic, and cultural characteristics. See *U. S. Census of Agriculture for 1950*, Volume I, Part 10, page XI.

among these people. The amount of income required to satisfy family needs varies with the number and age of members. A level of cash income may be only a temporary situation caused by the fact that the bread-winner has just started his working career or has had a temporary illness that has limited his earnings. In other instances, the head of the family may be retired or living off past earnings. Families may have low incomes because of physical limitations among the workers in them, lack of productive resources, improper use of available resources, illness, and many other causes.

Census and other data available do not provide adequate information to determine either the causes or the extent of low incomes. Those who would design and apply remedial measures are handicapped by this lack of reliable information.

### Purpose of the Study

The study had the following objectives:

1. To inventory the human and physical resources of Economic Area 8 and to reveal their present use.
2. To determine levels and sources of income of the rural people living in the area.
3. To reveal possible methods of increasing the incomes of people living there.

It is hoped that these data will be helpful in developing programs that will bring about a more productive utilization of the human and physical resources of the area.

No effort has been made here to examine and appraise all of the income possibilities of the area. Inquiry into this field would have involved an intensive examination of sources of capital, quantity and quality of such raw materials as minerals, water power, timber, and other items that could be used as natural power or made into salable products. Such items as location of markets and economic advantage or disadvantage of the area as compared with competing areas were not investigated. Research along these lines should be undertaken as funds become available for additional study. This work will require the cooperation of people with many types of training. As the social and economic problems of the area are complex, improvements in agriculture offer only a partial solution.

### Method of Study

The investigation was confined to Economic Area 8, which includes St. Francois, Madison, Wayne, Ripley, Oregon, Shannon, Reynolds, Iron, Carter, and Dent Counties. Physical and economic data—productivity and use of land, climate, water resources, timber, population, agricultural production, and local industries—for the area were assembled from secondary sources. A randomized sample of open-country households in the area was selected to obtain additional

information on farm and nonfarm income, mobility of the people, individual farm organization, extent of capital used, and other significant data. The households selected were located outside all incorporated cities and towns and unincorporated places that had an estimated population of 100 or more or a density of more than 100 persons in a square mile.

To insure that each householder had an equal chance of being included, two steps were taken in selecting the sample. First, the counties were stratified according to similar economic characteristics, and a sample county was selected from each strata. The sample counties were Dent, Madison, Ripley, St. Francois, and Wayne. In selecting the households within these counties, the Master Sample of the United States Department of Agriculture was used<sup>2</sup> and area segments were taken within each of the counties.<sup>3</sup> Each 19th area segment containing from 4 to 6 farm homes as indicated by the 1954 Census was included. All householders within each of these sample segments were then interviewed.

Households were classed as farm or nonfarm for the study, depending on whether or not the residence was on a farm. A place was classed as a farm if it contained more than 3 acres and produced at least \$150 worth of crops, livestock, poultry, or timber in 1955. A place of less than 3 acres also was classed as a farm if sales amounted to more than \$150. This is essentially the same as the 1954 Census of Agriculture definition of a farm.

The segment areas contained 1,134 houses. Of this number, 276 were vacant or occupied only on weekends. Another 33 were visited three times without finding anybody at the house. Members of 7 farm and 8 nonfarm households refused to be interviewed. A total of 269 farm and 516 nonfarm households were interviewed.

Interviews were held with the anticipated number of households but the proportion of the total classified as farm households was only half as great as was indicated by the Census of Agriculture a year earlier. Some of this difference is attributed to movement of people out of the area, retirement of farm operators, and changes in farm organization from one year to the next. As there was a sizeable increase in the number of nonfarmers, much of the difference may have been due to methods of classification. Of the 516 households classed as nonfarm, 374 were on farms of more than 3 acres but did not raise \$150 worth of farm crops or livestock in 1955. The census may have included some of these holdings as farms, if normally they could be expected to produce as much as \$150 worth of agricultural products.

The arbitrary classification of households into farm or nonfarm, depending on the place of residence, sometimes placed the household in a different class than the householders would have classified themselves; for example, a farm family was classed as nonfarm when its farming activities became too small to

<sup>2</sup>See article by R. J. Jessen, "The Master Sample of Agriculture," *Journal of American Statistics Association*, March 1945.

<sup>3</sup>For a detailed description of this sampling technique, see Earl E. Houseman and R. J. Reed, "Application of Probability Area Sampling to Farm Surveys," U. S. Department of Agriculture, Handbook.

qualify as farm (even though it still considered itself a farm household).

## DESCRIPTION OF AREA

### Physical Characteristics

*Location and Climate:* The 10 counties selected for this study are located in the eastern Ozark Plateau area of Missouri and encompass about 4.4 million acres (Figure 1). The northernmost county is located about 45 miles south of St. Louis. The southernmost counties extend along the Arkansas border and are located about 150 miles north of Memphis, Tenn. Several counties that contain considerable delta land separate the area from the Mississippi River.

The main arteries of transportation run north and south. Only one main railroad line extends through the area. It runs through the eastern counties of the area and connects St. Louis, Mo., and Little Rock, Ark. Three spur lines connect other sections of the area with the mainline railroad. Highways provide the principal means of transportation. Three main roads connect the northern and southern counties, and two cross the area in an east-west direction. All are hard surfaced, but because of the mountainous terrain, they are very crooked and are not conducive to fast movement of traffic. Interconnecting roads, especially those to farms, are not surfaced. In many instances, they are rough, but passable under most weather conditions. In general, transportation facilities are adequate only for movement of the least perishable farm commodities.

The area has a humid continental climate, characterized by warm summers, cool winters, and maximum rainfall in early summer. Rainfall and temperatures are subject to wide daily, monthly, seasonal and annual variations.<sup>4</sup> The importance of these variations should not be overemphasized, as they are usually of short duration. The average length of the growing season is adequate for most crops. It varies from 169 to 205 days, chiefly because of the differences in elevation.

Farmers in the area are confronted by dry periods that cause considerable damage to feed and cash crops. Data on precipitation indicate that most of the rainfall is received during April, May, and June. From the standpoint of crop production, the lack of moisture during July and August is often critical. For example, in 25 percent of the years, the July precipitation was less than 2 inches, and more than 50 percent of the time it was less than 3 inches.<sup>5</sup> Slightly more rain falls during August, but it is not sufficient to meet the needs of most crops.

*Topography:* A limiting factor to farming in this area is the steep topography. The general slope of the area is toward the south, with elevations varying from

<sup>4</sup>*Climate and Man*, Yearbook of Agriculture, 1941, United States Department of Agriculture, U. S. Government Printing Office, pages 945-947.

<sup>5</sup>Wayne L. Decker, *Monthly Precipitation in Missouri*, Missouri Agricultural Experiment Station Bulletin 650, March 1955.



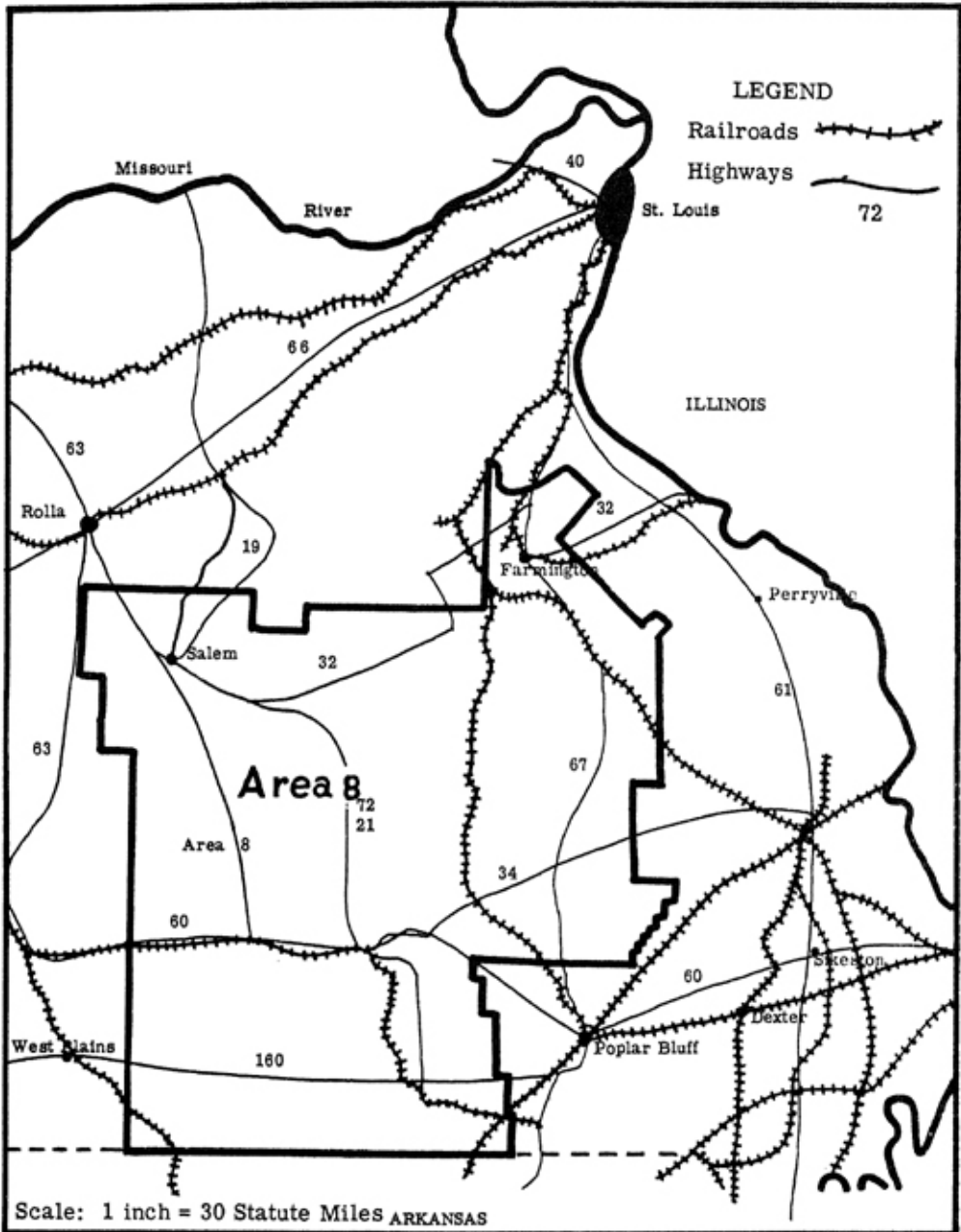


Figure 1. Railroads and Principal Highways in Missouri Economic Area 8, 1955

1,600 feet in the north to 200 feet above sea level in the south. The plateau area is dissected deeply with large streams and the topography is rough. The grade of the valley floors is also quite steep and the streams often shift their channels. As a result, the soils in the narrow valleys contain a high percentage of gravel and stone. Because of the steep slopes, the run-off is quite rapid during heavy rains. Often the beds of small streams are dry in summer. The larger streams are fed by springs. The large number and volume of springs indicates that much of the rainfall is removed by underground drainage.

The ruggedness of the terrain is shown in Figure 2. A large percentage of the land has a slope greater than 10 percent and is considered too steep to cultivate. Some lands with slopes of less than 10 percent are also considered to be too steep to farm because of erosion.

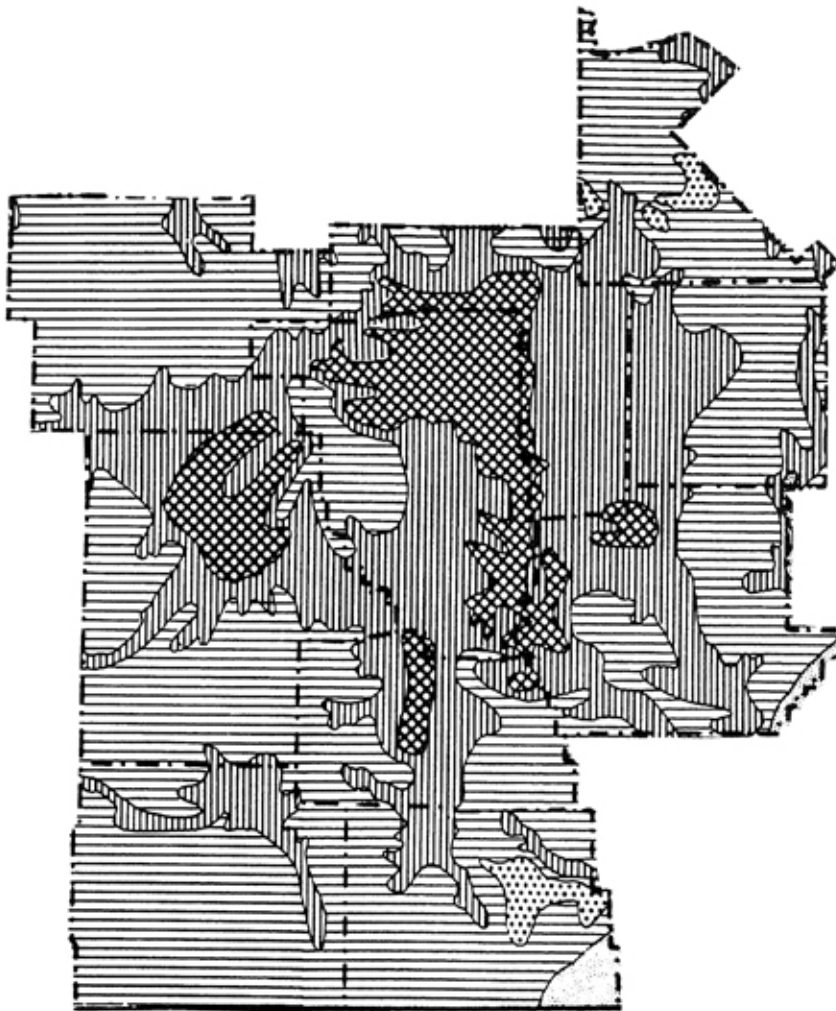
*Soils:* Most of the soils in the southeastern Ozark area are not well suited to production of cultivated crops. Their drouthy characteristics in much of the area also have an adverse effect on timber growth. They are low in nutrients, gravelly to stony in texture, and too steep for convenient use of farm machinery. They have been thoroughly leached, so most of the lime, fine silt, and clay have been removed from the surface layers.<sup>6</sup> The cherty limestones, gravel, stone and other materials give them a low water-holding capacity, and make them drouthy. When rains occur, the water runs off or passes through the surface layers quickly into the stony substratum that underlies the whole region. Thus, through the erosive action of water, the soils in this area tend to lose their finer silt and clay particles almost as fast as they are formed. The tendency of the soil material to occur as horizons is retarded, and hence the fertility is very low.

In many areas, 25 to 90 percent of the soil mass consists of chert fragments, which range from small particles to pieces a foot or more in diameter. Sometimes the surface is so thickly strewn with fragments as to form a complete cover. In many instances, rock and gravel in the soil limit agricultural use.

Although alluvial soils occupy only a small proportion of the area, they are very important to agriculture in the region. These soils are located along the major streams. The drainage is good, and the inherent fertility is high. It is estimated that more than one-fourth of the grain grown in the area is on these soils. Only rarely are the valleys more than a quarter of a mile wide; in most places they are considerably less. Fields are small and irregular; they are subject to overflow from the streams, which may be quite destructive. As a rule, however, the water soon recedes and the period flooding may be beneficial when scouring does not occur. The new deposits of silt usually increase fertility.<sup>7</sup>

<sup>6</sup>For detailed description, see M. F. Miller and H. H. Krusekopf, *The Soils of Missouri*, Missouri Agricultural Experiment Station Bulletin 264, January 1929, pp. 64-65.

<sup>7</sup>Miller, M. F. and H. H. Krusekopf, *The Soils of Missouri*, Missouri Agricultural Experiment Station Bulletin 264, January 1929, page 94.



**SLOPE CATEGORIES  
IN PERCENT**



Figure 2 Prevailing Land Slope in Missouri Economic Area 8.

### Economic Characteristics

*Early Settlement and Employment:* The first settlement in the Ozark area was made by miners at Mine La Motte in Madison County in 1723. Here, lead was mined by a French company under the direction of Philip Francois Renaut. For several years, a considerable tonnage was shipped to France. When the company collapsed about 1740, many of the miners remained and became permanent residents of the areas.<sup>8</sup>

Mining also attracted settlers to other counties. For example, a major lead deposit was discovered in St. Francois County. The magnitude of these deposits is indicated by the fact that the mines in St. Francois and Madison counties have been in almost continuous operation for more than 100 years. Such minerals as iron, copper, zinc, and cobalt have been mined in other counties at various times. With the exhaustion of high-grade ores, however, mining became intermittent. Today, mining is important in only three counties: Iron, Madison, and St. Francois.

In the early 19th Century, many settlers were attracted to the area by the hunting and fishing possibilities. Most of them came from the mountainous sections of Kentucky, Tennessee, North Carolina, and Maryland. As a rule, settlers migrated up the river valleys from the more heavily populated areas. The earliest industries were hunting and fishing. With a few patches of corn as the main manifestations of agriculture, most of the farmers were self-sustaining.<sup>9</sup>

*Economic Activity:* Economic growth in the area has been intermittent. During the early 19th Century, development of resources was relatively slow, and it was further hampered by the War Between the States. The major period of economic activity occurred between 1870 and 1890. During this time, when the railroads were built, commercial agriculture came into being. Activity was further heightened by harvest of the virgin timber. Yellow pine and such hardwoods as red, black and white oak, walnut, hickory, and elm were cut in large quantities. At the peak of logging activity in 1900, about three-quarters of a billion board-feet of lumber was produced.<sup>10</sup> To bring about this expansion in activity, labor migrated into the area. However, with the completion of the railroads and the exhaustion of the high-grade minerals and virgin forest, economic activity slackened.

The population peak was reached by 1910 (Table 1). Since that time, there has been a net migration from the area, except during subnormal times. From 1910 to 1930, there was a continual migration. In the depression of the 1930's, when there were few employment opportunities elsewhere, out-migration declined and resulted in an increased population. However, from 1940 to 1950, the

<sup>8</sup>Thompson, Henry Clay II, *A History of Madison County, Missouri*, 1940, pp 8-9.

<sup>9</sup>*History of Missouri*, Goodspeed Publishing Company, 1889, pp. 569-571.

<sup>10</sup>See D. B. King, E. V. Roberts, and R. K. Winters, *Forest Resources and Industries of Missouri*, University of Missouri Agricultural Experiment Station Research Bulletin 452, p. 38.

TABLE 1--POPULATION OF MISSOURI ECONOMIC AREA 8, 1820-1950\*

Year	Number of People	Year	Number of People
1820	3,490	1890	99,149
1830	8,001	1900	124,243
1840	12,865	1910	138,319
1850	22,795	1920	131,315
1860	43,486	1930	126,825
1870	48,306	1940	134,026
1880	73,122	1950	120,028

\*Data for 1820 to 1890 from Twelfth Census of the United States, volume 1, part 1, pp. 27-28. Data for 1900 to 1920 from Fourteenth Census of the United States, volume 1, pp. 114-115. Data for 1930 to 1950 from Census of Population, 1950, volume II, part 25, p. 11.

outward trend was resumed.<sup>11</sup> Statistics on farm population indicate that there was a 33.9 percent rate of migration from the farms during this period.<sup>12</sup>

What has happened since 1950? Estimates of the Federal Reserve Bank in St. Louis indicate that the population of this area had decreased 5 percent by 1955. Data obtained in this survey suggest that this estimate is conservative. A check of the homes in the 'open country' showed that of 1,134 places visited, 276 were vacant. Since 1950, 94 new homes have been built. In that year, 1,040 homes were occupied. The net result has been a decrease of 17.5 percent in the number of occupied homes. As the average number of people per household also decreased from 3.55 to 3.38, the net decrease would be 21.5 percent for the open-country "population". If the same decrease occurred in the urban centers, the total population of the area would be about 94,000 in 1955.

*Readjustments in Employment:* To some extent, relative changes in the occupations of people living in the area reflect the profitableness of the various jobs that have been available to them. For example, in 1930, 51.5 percent of the employed males over 15 years of age were engaged in agriculture; whereas in 1950, only 37.6 percent were in this type of work (Table 2). The number of males employed in forestry has declined also. Compensating increases are evident in other industries, especially in manufacturing derived from lumber products, construction, and service industries.

The number of males employed decreased from 36,169 in 1930 to 30,488 in 1950. During this time, the number of females employed increased from 4,652 to 7,782. Most of the increase in the number of female workers occurred in the retail trades and in manufacturing industries other than those using timber.

The decline in the relative number of males in the labor force from 57 percent of the total in 1930 to 52 percent in 1950 may indicate a shift in the age

<sup>11</sup>Gladys K. Bowles, *Farm Population—Net Migration From the Rural-Farm Population, 1940-1950*, U. S. Dept. of Agriculture, Statis. Bul. 176, page 163.

<sup>12</sup>Bowles, Op. Cit. page 156.

TABLE 2--SOME CHARACTERISTICS OF THE POPULATION BY SEX IN MISSOURI ECONOMIC AREA 8, 1930, 1940 AND 1950

Item	1930*		1940**		1950†	
	Male	Female	Male	Female	Male	Female
	Number		Number		Number	
Total Population	65,433	61,392	68,572	65,454	60,460	59,568
Percentage:	Percent of Total		Percent of Total		Percent of Total	
14 years of age & over	61.6††	60.9††	71.3	70.3	71.2	71.5
In labor force	57.1	7.8	54.4	9.7	52.0	13.5
Employed in industry	55.3	7.6	41.3	8.0	50.4	13.1
Employed W.P.A.	---	---	8.6	.8	---	---
Unemployed	1.8	.2	4.5	.9	1.6	.4
Unable to work	---	---	5.8	3.9	6.4	2.9
Total number	Number		Number		Number	
Employed in industry	36,169	4,652	28,325	5,240	30,488	7,782
Percentage in:	Percent of Total		Percent of Total		Percent of Total	
Agriculture	51.5	15.3	47.4	5.6	37.6	15.9
Forestry	2.9	.1	.5	.1	.7	.0
Manufacturing (lumber)	5.0	.7	7.1	.1	8.3	.5
Manufacturing (other)	4.7	11.3	3.7	19.1	5.5	22.0
Construction	4.1	.1	4.1	.1	6.1	.2
Mining	10.6	.3	9.5	.6	11.6	.5
Transportation and communication	4.7	2.0	4.9	1.4	5.6	1.9
Public utilities	---	---	.7	.5	1.3	.6
Wholesale trade and retail trade	5.6	9.3	10.3	16.5	11.0	20.2
Service	8.4	60.0	12.0	56.0	12.3	38.2
Other	2.5	.9	---	---	---	---

\*United States Census of Population, 1930, vol. III, part I, pp. 1,363-1,370.

\*\*United States Census of Population, 1940, vol. II, part IV, pp. 368-369.

†United States Census of Population, 1950, vol. II, part 25, pp. 123-136.

††Over 15 years of age.

of the population, or a decrease in the number of children working. The difference is more likely due to a change in age composition.

Of considerable importance is the adjustment that occurred from 1940 to 1950. There were 8,959 males either employed on W.P.A. projects or unemployed in 1940. By 1950, this number had decreased to 975. In industry outside agriculture, the number employed increased from 14,889 in 1940 to 19,009 in 1950, a gain of 4,120 employees. It is apparent that from 1940 to 1950, a total of 3,864 males (7,984 minus 4,120) either withdrew from the labor force or migrated to another area.

*Industrial Development:* Industrial growth is difficult to measure. One indicator of development in an area is the change in number and size of firms operating from one time period to another.

A fairly satisfactory measure of size (from the local workers' standpoint) is the number of employees the firm hires. Unpublished data assembled by the

Division of Employment Security of the State of Missouri indicate a decrease in the number of employees hired in the area during the second quarter of 1955, compared with the second quarter of 1950 (Appendix Table 1). Between these two periods, a major decrease in employment occurred in the manufacturing industries, primarily in shoe factories. Two of the plants closed, affecting about 600 workers. During 1955 and 1956, shoe factories employing about 400 workers were added to the area. The number hired by this industry in 1956, however, was smaller than in 1950.

From 1950 to 1955, the total number of firms increased from 161 to 187 (Appendix Table 2). The major increase was in plants employing fewer than 100 workers. Industries employing more than 100 workers decreased appreciably from 1950 to 1955. In general, little change occurred in industrial development in the area measured in terms of these criteria after 1950. The increases in employment that have occurred have been mainly in the retail trade and transportation fields.

*Measurement of Area's Income:* One measure of economic activity is the amount of money spent each year for consumer goods. Missouri has collected a retail sales tax since 1934. If incomes are spent primarily in the counties where they are received, changes in retail tax collections should show the relative change in total income in the area. Revenues from sales taxes collected in Economic Area 8 since 1939 are given in Table 3. A further assumption was

TABLE 3--SALES TAX COLLECTIONS IN MISSOURI  
ECONOMIC AREA 8, 1939-56\*

Year	Sales Tax	Adjusted	Index
	Collections	to 1956	of
	Dollars	Purchasing Power**	Collections
		Dollars	Dollars
1956	1,097,350	1,097,350	206.9
1955	1,041,012	1,059,230	199.7
1954	972,129	980,489	184.8
1953	979,336	996,474	187.8
1952	951,108	967,752	182.4
1951	928,735	970,528	183.0
1950	831,450	936,379	176.5
1949	902,478	1,026,298	193.5
1948	896,400	1,009,526	190.3
1947	794,220	959,656	180.9
1946	658,253	919,909	173.4
1945	438,296	660,249	124.5
1944	385,547	596,287	112.4
1943	342,167	536,347	101.1
1942	332,793	551,471	104.0
1941	328,111	604,118	113.9
1940	288,584	557,919	105.2
1939	269,798	530,450	100.0

\*Derived from annual releases of the Department of Revenue of the State of Missouri (tax rate constant).

\*\*Adjusted on basis of consumer price index.

made that if collections were adjusted for changes in the purchasing power of the dollar (tax rate unchanged), the adjusted values would reflect the real level of aggregate income in the area. The adjusted sales indicate that total income in the area was about 3 percent higher in 1955 than in 1949. This increase compares with a 24 percent increase for the state during the same period.

*Land Ownership and Use:* There are about 4,322,560 acres of land in Economic Area 8. Only 1,845,626 acres or 42.7 percent was in farms in 1954 (Table 4). Only 265,235 acres of crops were harvested in 1954 (Appendix Table 3). About four times this acreage was used for pasture. More than 29 percent of the land in farms was neither cropped nor pastured; another 23 percent was in woodland not pastured. Only 6 percent of the total area was in harvested crops in 1954.

The limited cropping area lies almost entirely in the stream valleys. The narrowness of these valleys restricts the acreage of tillable land present in any one operating unit. Land is transferred according to the rectangular survey and, usually, large ownership blocks are required to obtain any sizeable crop acreage. In terms of total acres, the ownership units may appear sizeable but in terms of crop acres they are small.

Studies indicate that 3.3 million acres in the area are better suited to forests.<sup>13</sup> Prior to 1934, most of the acreage considered unsuitable for farming was held by small private owners. In that year, the United States Forest Service began buying land to be placed in public ownership for forest management. About 1,250,000 acres are now owned by the Federal Government and managed by the Forest Service. The State of Missouri has bought 200,000 acres and two large private companies own approximately 200,000 acres. For the most part, these lands, which represent about half the acreage recommended for timber use, are under planned forest management. Management of timber lands is handicapped by the ownership pattern. The holdings of individual owners are usually small, and many of the relatively large holdings of public agencies are in noncontiguous tracts scattered throughout the area (Figure 3).

Although the forests represent a sizeable resource, returns from timber probably will not change much in the immediate future. Premature cutting and frequent burnings have reduced the quality of the trees, as well as their volume. In 1946, it was estimated that more than half of the net cubic footage was less than 11 inches in diameter at the base of the trees, and that a third of the gross board-foot inventory was in cull trees. Annual saw-timber growth in the Ozarks in 1946 was estimated to average only 38 board-feet to the acre.<sup>14</sup> On a basis of 1956 prices, this would yield a net to the owner of from 35 to 50 cents an acre. With improved management of forest and woodland, returns could be increased. Pros-

<sup>13</sup>King, D. B., Roberts, E. V., and Winters, R. K., *Forest Resources and Industries of Missouri*, Missouri Agricultural Experiment Station Research Bulletin 452, 1949, page 77.

<sup>14</sup>*Ibid.*, page 60.



TABLE 4--MAJOR USES OF ALL LAND: PERCENTAGE DISTRIBUTION BY COUNTIES IN  
MISSOURI ECONOMIC AREA 8, 1954\*

County	Total Area	Land in Farms					Land Not in Farms
		Cropland Harvested	Open Pasture**	Woodland Pastured	Other	Total	
		<u>Percent of Total Area</u>	<u>Percent of Total Area</u>	<u>Percent of Total Area</u>	<u>Percent of Total Area</u>	<u>Percent of Total Area</u>	
	<u>Acres</u>						<u>Percent of Total Area</u>
Carter	323,840	2.7	3.2	4.4	12.7	23.0	77.0
Dent	483,840	7.2	16.9	21.9	13.0	59.0	41.0
Iron	354,560	4.7	7.8	9.2	13.8	35.5	64.5
Madison	317,440	7.9	9.6	13.3	14.7	45.5	54.5
Oregon	501,760	5.8	19.4	27.5	10.4	63.1	36.9
Reynolds	526,080	3.8	4.4	9.2	14.0	31.6	68.4
Ripley	408,960	7.9	9.1	12.4	12.2	41.6	58.4
Shannon	639,360	3.6	8.2	13.1	9.0	33.9	66.1
St. Francois	292,480	13.3	19.7	17.8	10.3	61.1	38.9
Wayne	474,240	7.7	5.9	7.3	14.3	35.2	64.8
Total	4,322,560	6.1	10.3	14.0	12.3	42.7	57.3

\*United States Census of Agriculture for 1954, vol. 1, part 10, pp. 44-53.

\*\*Open pasture includes cropland pasture and other pasture (not cropland and not woodland).

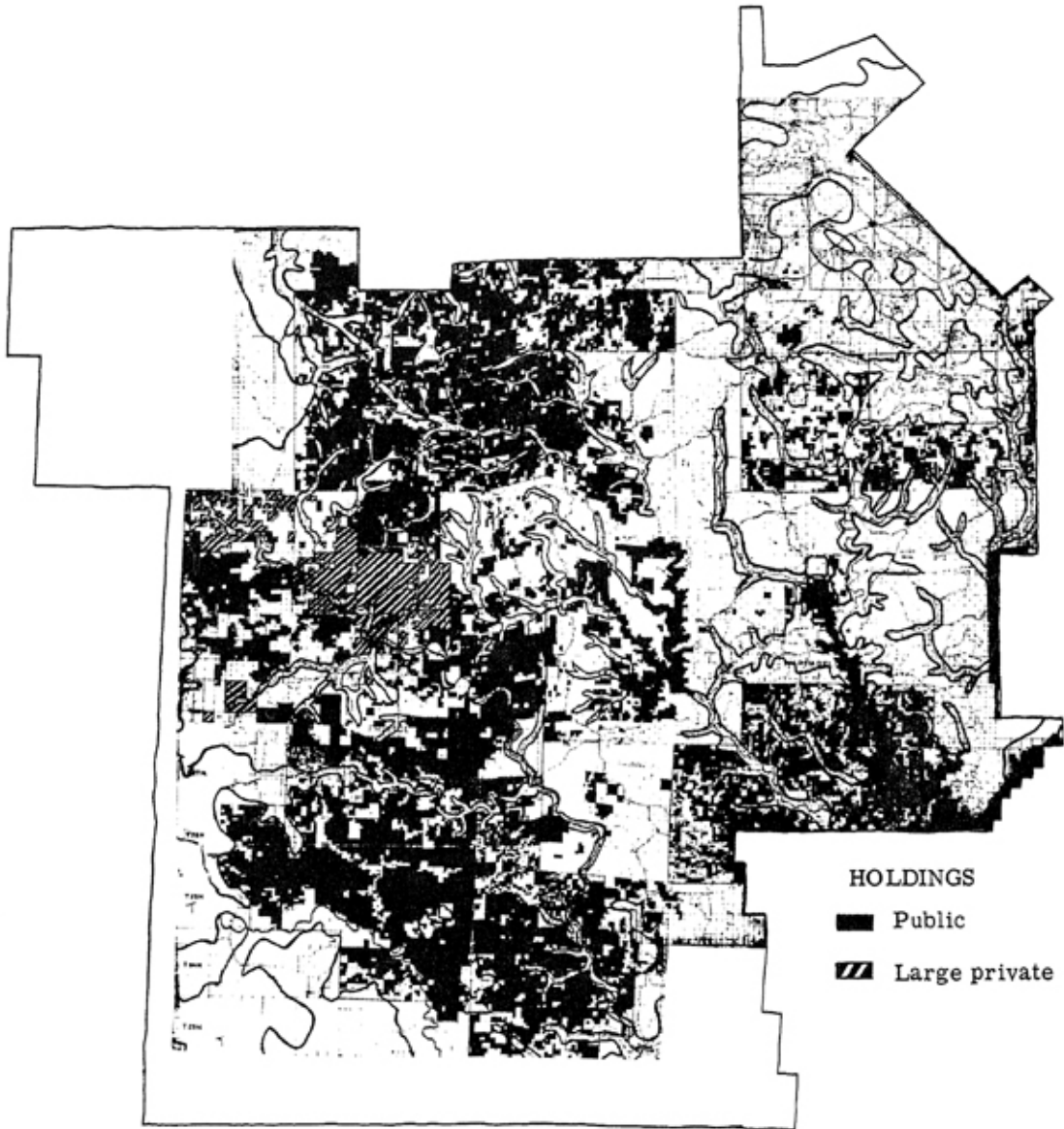


Figure 3. Public and large private holdings of land in Missouri Economic Area 8, 1950.

pects for increased income from this source in the immediate future do not appear to be bright. For example, in 1946 the number of board-feet of lumber harvested was two-thirds as great as it was at the peak of the harvest of virgin timber in 1900.<sup>15</sup>

The area presents many recreational opportunities. The scenery of the rough-wooded hills, the large springs, and the small open valleys attract many tourists. Five state parks have been developed, mainly around large springs. Private cabins,

<sup>15</sup>Ibid., page 38.

commercially operated clubs, resorts, and lodges are located throughout the region. Hunting, fishing, swimming, hiking, and other forms of recreational activities are available.<sup>16</sup> These recreational resources have contributed much to the pleasure of the people who live there, but have returned little direct income to most of them. Tourist expenditures are chiefly for goods and services, provided by retail stores, restaurants, hotels, and other related places of business. About 70 percent of the population is engaged in occupations not associated directly with the tourist trade. Development of this resource may affect the incomes of farm people very little.

*The Agriculture:* Agriculture in Economic Area 8 is characterized by many inadequate farm businesses. In 1954, only 13 percent of the farms were in economic classes I to IV, which include farms for which the value of products sold was more than \$2,500. The average farm contained about 175 acres, but crops were harvested from only 25 acres (Table 5). Half of the cropped acreage was in hay, which left less than 13 acres in grain and other crops. The average acreage of pasture was almost 4 times the area in harvested crops. More than half the land pastured was woodland.

The percentages of land in farms that have been used for row crops, hay, pasture, and woodland have not changed appreciably in the last 20 years.

Farm organization is influenced greatly by the acreage in pasture, which requires livestock to consume the grass. Livestock are the principal source of income.<sup>17</sup> Cattle contributed about 60 percent and hogs 30 percent of income in 1954. The major part of hog returns is from feeder pigs. Sales of chickens and eggs accounted for the other 10 percent.<sup>18</sup> Annual variations in numbers of animal units of livestock from 1920 to 1956 are shown in Figure 4. Horses and mules have almost disappeared. The number of chickens has declined slightly in recent years, and numbers of cattle other than dairy cows have increased. The area is adapted to production of feeder cattle; however, the size of farms generally will require enlargement to provide adequate winter feed and summer grazing for an economic sized breeding herd.

## CHARACTERISTICS OF THE POPULATION AND LABOR FORCE

One of the major resources of an area is the people who live there. Their aptitudes, desires, training, and capacity for accomplishing the objectives they set for themselves have an important influence upon how well other resources may be utilized. A population that contains relatively few people of working age presents different economic and social problems than one with a surplus labor force.

<sup>16</sup>For a detailed description of the recreational area, see *Plan for Preservation and Development of Recreational Resources of Current and Eleven Point River Country*, Missouri Division of Resources and Development, October 1956.

<sup>17</sup>United States Census of Agriculture, Vol. 1, part 10, 1954, pp. 75-79.

<sup>18</sup>*Ibid.*, page 217.

TABLE 5--SOME CHARACTERISTICS OF FARMS BY ECONOMIC CLASSES IN MISSOURI ECONOMIC AREA 8, 1954\*

Item	Economic Class								
	All Farms	Commercial Farms						Other Farms	
		Class I	Class II	Class III	Class IV	Class V	Class VI	Part-time	Resident
Number of farms	10,560	9	95	443	789	1,620	1,430	2,366	3,808
Value of land and buildings (dollars per farm)	5,864	85,603	19,255	17,544	10,838	8,258	5,296	4,447	3,117
Land in farm (acres per farm)	175.1	3,312.8	754.7	451.2	339.5	259.8	169.3	141.8	74.6
Total cropland (acres per farm)	56.1	553.3	182.1	152.8	113.9	87.8	57.9	44.5	23.7
Cropland harvested	25.2	306.8	107.9	78.5	57.6	44.4	25.5	18.8	5.5
Hay cut	12.8	95.8	44.3	27.6	21.6	21.5	14.9	11.9	3.5
Corn for all purposes	6.2	57.8	30.3	20.3	15.0	12.5	6.3	4.0	1.4
Other crops	6.2	153.2	33.3	30.6	21.0	10.4	4.3	2.9	0.6
Cropland pasture	26.4	170.7	72.1	70.9	53.7	39.9	28.1	21.5	12.8
Cropland not harvested and not pastured	4.5	75.9	2.1	3.4	2.6	3.5	4.3	4.3	5.3
Woodland pastured (acres per farm)	57.2	1,448.7	244.7	163.7	128.9	82.1	48.4	43.4	19.5
Woodland not pastured (acres per farm)	40.8	264.3	167.7	80.9	59.4	62.8	44.8	35.8	24.9
Other pasture (acres per farm)	15.9	1,016.7	144.6	43.4	27.6	20.7	12.7	13.4	3.7
Other land (acres per farm)	5.0	29.8	15.5	10.4	9.5	6.4	5.4	4.7	2.8

\*Farms were classified by the Census into 8 classes on the basis of total value of all farm products sold as follows: I--\$25,000 or more; II--\$10,000 to \$24,999; III--\$5,000 to \$9,999; IV--\$2,500 to \$4,999; V--\$1,200 to \$2,499; VI--\$250 to \$1,199 (provided the farm operator worked off the farm less than 100 days or provided the income of the farm operator and members of his family from nonfarm sources was less than the value of farm products sold. Part-time farms that produced \$250 to \$1,199 income, but otherwise did not fit Class VI, were classified as such (part-time). Residential farms included all units with incomes from the sale of farm products of less than \$250. United States Census of Agriculture, 1954, Vol. I, part 10, pp. 43-53, 131-140, 151-160, 193, and 217.

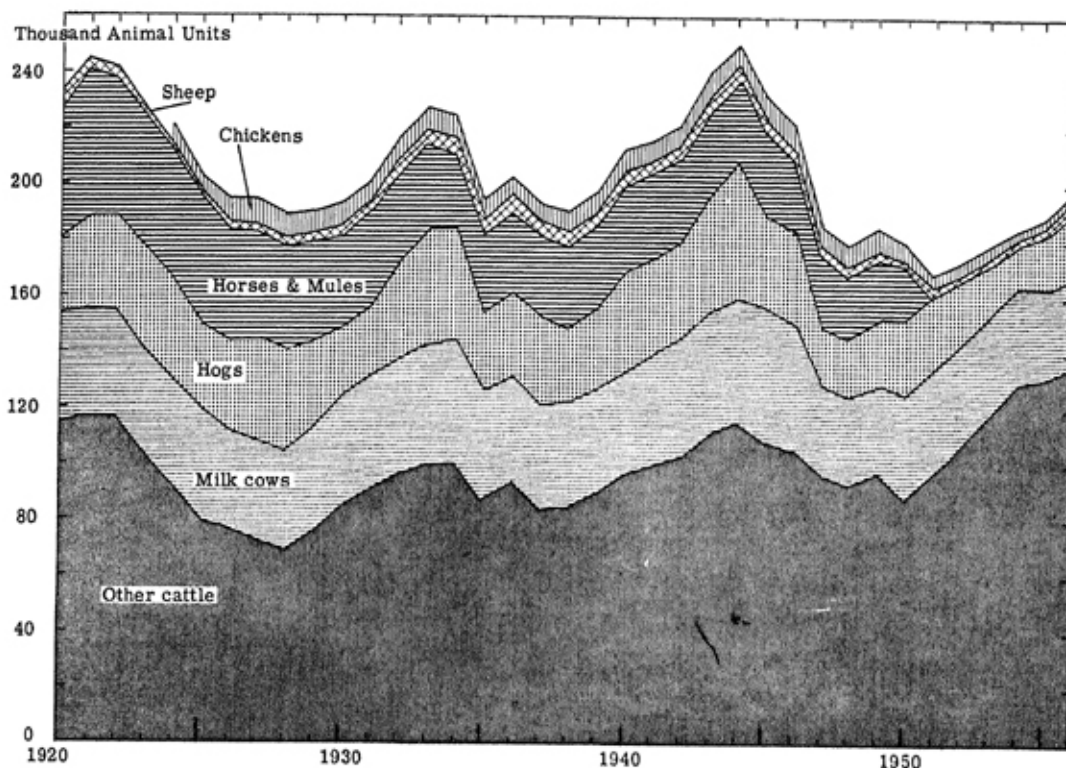


FIGURE 4. NUMBER OF ANIMAL UNITS, MISSOURI ECONOMIC AREA 8, 1920-1956. (One unit of livestock is assumed to be equivalent to one horse, one cow, 7 sheep, 5 hogs or 100 chickens.)

Source: Missouri State Department of Agriculture, Missouri Farm Census by Counties, annual publication

### Age, Sex, Education.

Since 1930, the age distribution of the rural farm population in this area has shifted drastically (Figure 5). From 1930 to 1940, there was a noticeable increase in the relative proportion of people between 20 and 34 years of age. While this change was occurring, apparently there was a decrease in birthrate, as the relative proportion of population in the younger age brackets decreased. This condition probably reflected response to the depression. Marriages were postponed, births decreased, and the outward movement of people from the area was reduced. The economic recovery of the 1940's caused another shift in population. Migration from the area of persons in the 20- to 39-year age group increased; this resulted in a marked increase in the relative proportion of people in the older age groups.

A comparison of the population pyramid for 1956 with that of 1950 indicates that the rate of outmigration of farm people in the 20- to 39-year age group has accelerated since 1950. If this rate of migration continues, the number of children reared in the area will decline and the outward movement of workers will tend to stabilize.

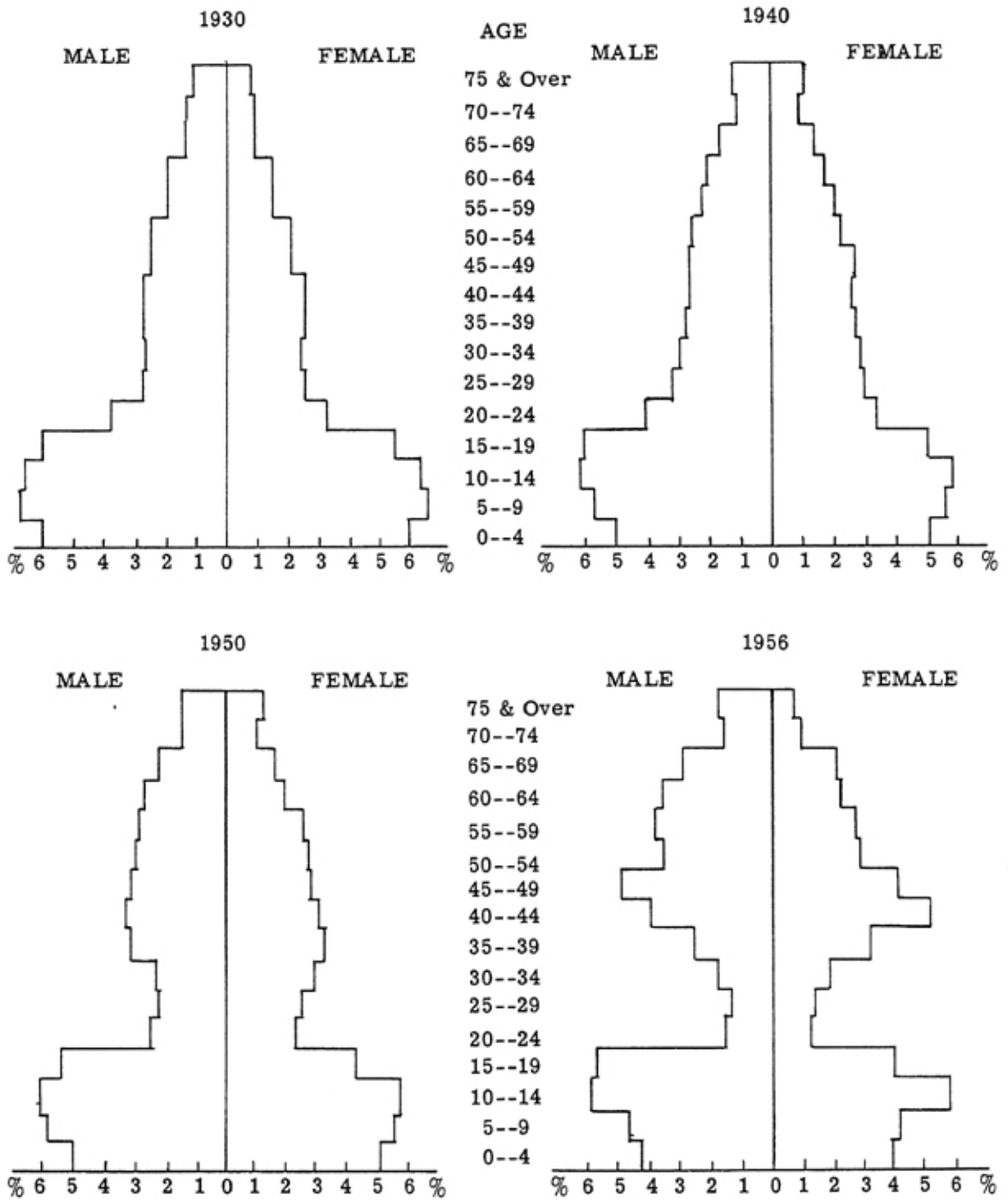


Figure 5. Distribution of the rural farm population in Missouri Economic Area 8, by age and sex.

Source: Data for 1930, 1940, 1950. Bureau of Census.

The population living in the 'open country' in 1956 showed about the same age distribution as rural farm people (Figure 6). The only noticeable difference was a larger percentage of people over 70 years old in the rural nonfarm group. No doubt many members of this group were classed as farmers earlier, but in 1955 they did not raise \$150 worth of farm products and were counted among the rural nonfarm dwellers.

One factor that is often stressed is the level of education available to the people of an area. Those who leave the area to seek jobs may find their opportunities limited if they are not as well trained as others who are applying for work. In this area, the level of education has not been high (Table 6). For the farm and nonfarm groups 20 to 29 years of age, inclusive, 47 percent had completed an eighth grade education. As the ages increased, the percentages of those who had received less than an eighth grade education increased. Of those over 50, about 83 percent had not gone beyond the eighth grade. More recently, this situation has changed, as nearly three-fourths of the young people in the 14- to 19-year age group have had some high school training. This increase is probably due to the better educational opportunities now available in the area, made possible partly by bus transportation.

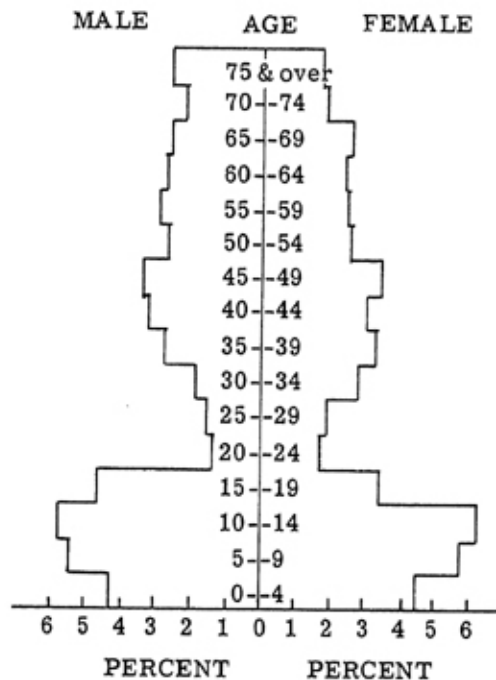


Figure 6. Distribution of rural population living in the "open country" in Missouri Economic Area 8, by age and sex, 1956.

TABLE 6--MEMBERS OF SAMPLE FARM AND NONFARM HOUSEHOLDS WHO WERE 14 YEARS OF AGE AND OLDER, BY AGE AND EDUCATION GROUPS; MISSOURI ECONOMIC AREA 8, 1956

Type of Household and Age of Members	Total in Age Group Number	Percentage of Age Group Who had Attended School		
		0-8 Years	9-12 Years	13 Years and More
		Percent	Percent	Percent
Members of farm households, aged -				
14-19 years	109	21.1	78.0	0.9
20-29 years	53	47.2	39.6	13.2
30-39 years	89	51.7	42.7	5.6
40-49 years	175	68.0	23.4	8.6
50 years and over	275	82.5	12.4	5.1
All	701			
Members of nonfarm households, aged -				
14-19 years	152	31.6	67.8	0.6
20-29 years	120	47.5	48.3	4.2
30-39 years	199	67.8	28.6	3.6
40-49 years	175	72.0	22.3	5.7
50 years and over	498	83.7	10.8	5.5
All	1,144			
Members of farm and nonfarm households, aged -				
14-19 years	261	27.2	72.0	0.8
20-29 years	173	47.4	45.7	6.9
30-39 years	288	62.8	33.0	4.2
40-49 years	350	70.0	22.8	7.2
50 years and over	773	83.3	11.4	5.3
All	1,845			

### Physical Limitations.

To obtain an insight into the physical limitations of the labor force, each head of household interviewed was asked how many days he was too ill to work in 1955. As the severity of illness is difficult to measure, the enumerators emphasized types of illness that completely incapacitated the respondent. This resulted in reports mainly on illness that incapacitated the respondent for work more than 60 days a year. About 14 percent of the farm household heads and 21 percent of the nonfarm heads reported that they were too ill to work 60 days or more in 1955 (Table 7). This inability to work reflects the advanced age of heads of families. However, in the 49- to 58-year age group, about 10 percent of the farm family heads and 19 percent of the nonfarm family heads reported that they were in this occupational condition. The inability of these workers to work for long periods probably limited the family earnings, and in many instances resulted in lower levels of living.

### Family Composition.

Large households were not characteristic of the area. The average number of



TABLE 7--HEADS OF SAMPLE HOUSEHOLDS IN DIFFERENT AGE GROUPS,  
BY DAYS OF WORK LOST IN 1955 BECAUSE OF ILLNESS;  
MISSOURI ECONOMIC AREA 8, 1956

Type of Household and Age of Head	All Households Number	Heads of Households Who Were too Ill to Work				
		0 Days Number	1-14 Days Number	15-29 Days Number	30-59 Days Number	60 Days and More Number
<b>Farm</b>						
Heads, aged -						
19-28 years	7	6				1
29-38 years	27	24		1		2
39-48 years	76	69	1	1		5
49-58 years	62	55	1			6
59-68 years	65	47		1	1	16
69 years and over	32	24				8
Total	269	225	2	3	1	38
<b>Nonfarm</b>						
Heads, aged -						
19-28 years	33	30	1	1		1
29-38 years	77	66	1	2		8
39-48 years	99	88	1			10
49-58 years	89	70	1	1		17
59-68 years	101	68			2	31
69 years and over	117	72	2		2	41
Total	516	394	6	4	4	108

persons per household was 3.4 (Table 8). About 38 percent of the farm households and more than 50 percent of the nonfarm households averaged two persons or less per family. In 26 percent of the households, however, there were 5 or more members.

TABLE 8--PERCENTAGES OF SAMPLE FARM AND NONFARM HOUSEHOLDS  
WITH SPECIFIED NUMBERS OF PERSONS PER HOUSEHOLD;  
MISSOURI ECONOMIC AREA 8, 1956

Type of Household	Households Number	Average Number of Persons per Household Number	Households with -		
			1-2 Persons Percent	3-4 Persons Percent	5 Persons or More Percent
Farm	269	3.6	38.3	33.8	27.9
Nonfarm	516	3.3	50.2	24.8	25.0
Total	785	3.4	46.1	27.9	26.0

The number and age of the males in a household are important determinants of the level of income that the family can obtain. The term "labor force" includes members who are over 14 years of age. For this reason, male household members were classified on this basis. In 69 percent of the farm and 82 percent of the rural nonfarm households, the head was the only male present over 14 years of age (Table 9). In another 16 percent of the farm and 11 percent of the nonfarm households, the other males present were under 19. For those house-

TABLE 9--PERCENTAGE OF SAMPLE FARM AND NONFARM HOUSEHOLDS WITH MALE MEMBERS OF SPECIFIED AGES, BY AGE OF MALE HEAD OF HOUSEHOLD; MISSOURI ECONOMIC AREA 8, 1956\*

Type of Household and Age of Head	All Households Number	Households whose Male Members Consist of -		
		Head of Household Only Percent	1 or More Other Than Head, Aged -	
			14-18 Years** Percent	19 Years and Over† Percent
<u>Farm</u>				
Heads aged -				
19-48 years	109	67.0	21.1	11.9
49-64 years	109	69.7	14.7	15.6
65 years and over	48	70.8	8.3	20.9
Total	266	68.8	16.2	15.0
<u>Nonfarm</u>				
Heads aged -				
19-48 years	198	78.8	15.7	5.5
49-64 years	125	75.2	16.0	8.8
65 years and over	139	92.8	0.7	6.5
Total	462	82.0	11.3	6.7

\*Does not include 3 farm households and 54 nonfarm households in which the head of the family was a female.

\*\*Includes households with other male 19 years of age or older.

†Household may also include males 14 to 18 years of age.

holds with male heads, only 15 percent of the farm and 7 percent of the nonfarm had more than one male over 18 years of age. Three of the farm and 54 of the nonfarm households had women as heads. One of these farm and 6 of the nonfarm households included other able-bodied males 18 to 65 years of age.

### Residential Characteristics.

Ownership of farm and nonfarm residences is much higher in Missouri Economic Area 8 than in the United States as a whole. About 88 percent of the farm and 76 percent of the nonfarm residences are owned by the occupants.

Nonfarmers indicated that about 28 percent of their properties would sell for less than \$2,000; about 79 percent would bring less than \$6,000 (Table 10). Apparently, the low value placed on residences was due to the large number of

TABLE 10--OWNER'S ESTIMATE OF THE SALE VALUE OF OWNER-OCCUPIED NONFARM RESIDENCES, SAMPLE HOUSEHOLDS, MISSOURI ECONOMIC AREA 8, 1956

Estimated Sale Value	Number of Residences	Percentage of Total
0 - \$1,999	108	27.7
\$2,000 - \$3,999	125	32.1
\$4,000 - \$5,999	76	19.4
\$6,000 or more	81	20.8
Total	390	100.0

homes vacated by people who had left the area.

In many areas, ownership of a home or farm is obtained from a parent or relative through purchase or inheritance. However, in this area, ownership was acquired mainly from nonrelatives (Table 11). About two-thirds (63.3 percent) of the farms and four-fifths (77.7 percent) of the nonfarm residences were obtained from nonrelatives. As housing is available in the area, home ownership requires very little investment.

TABLE 11--RELATIONSHIP OF PREVIOUS OWNER TO FARM AND RURAL NONFARM FAMILY HEADS, SAMPLE HOUSEHOLDS, MISSOURI ECONOMIC AREA 8, 1956

Relationship of Previous Owner to Family	Households			
	Farm		Nonfarm	
	Number	Percent	Number	Percent
Parents	71	30.0	61	15.6
Other relatives	16	6.7	26	6.7
Non-relatives	150	63.3	303	77.7
Total	237	100.0	390	100.0

Nonfarmers were renting 126 residences in the area. Twenty-three of this number paid no rent. In many instances, these people were related to the owner. Those who paid rent averaged \$9.90 a month. These low rentals probably encourage old people with nominal incomes from savings or pensions to live in the area.

More than a third (35.3 percent) of the farm families and more than half (59.7 percent) of the nonfarm group had lived where they were residing in 1956 fewer than 10 years (Table 12). No doubt some of these people had come from other parts of the Ozark region. Recently, several families had come into the area from as far away as Chicago. In some instances, especially among the nonfarm group, the respondents had not been in the area long enough to become acquainted with their neighbors.

TABLE 12--NUMBER OF YEARS HEADS OF HOUSEHOLDS HAD LIVED WHERE THEY WERE RESIDING AT TIME OF INTERVIEW, SAMPLE HOUSEHOLDS, MISSOURI ECONOMIC AREA 8, 1956

Number of Years Lived at Place	Families			
	Farm		Nonfarm	
	Number	Percent	Number	Percent
Less than 10	95	35.3	308	59.7
10-19	78	29.0	108	20.9
20-29	30	11.2	30	5.8
30 or more	66	24.5	70	13.6
Total	269	100.0	516	100.0

Families in low-income areas are expected to have inadequate housing and few conveniences in the home. In general, this area had fair housing. In most instances, the number of rooms was adequate for the number of occupants.

This desirable condition may have been due to emigration from the area. More than 90 percent of the families had electricity in the homes. Usually those who did not have electricity were in the lowest income group. They stated that they were not able to meet the cost of installation or to pay the monthly bill for electricity. Central heating was present, however, in less than 15 percent of the homes. Lack of plumbing was prevalent throughout the area. The major causes were the high cost of obtaining sufficient water and the expense of installing pumps and fixtures. It was not unusual for the family to report expenditures of \$1,500 for drilling a well. Many of the wells were 200 to 300 feet deep.

### Major Occupation of Family Members.

Determination of the size of the labor force and its present utilization is one of the first steps in laying out a program for development of the resources of an area. To obtain this information, data were recorded on the occupation and the amount of income earned by each member of the family who was over 14. The results are shown in Table 13. About 71 percent of the male heads of farm households regarded farming as their major occupation. Another 22 percent regarded nonfarm wage work as their principal occupation. The remaining 7 percent were either retired, unable to work, or were engaged in other nonfarm work.

About 89 percent of the farm wives regarded housekeeping as their major employment. Eight percent considered nonfarm wage work as their principal activity. About half of the farm women who were not heads or wives of heads of households were attending school and an additional one-seventh of this group were either retired or unable to work.

For the rural nonfarm population, the number who were retired or unable to work was quite high. About 22 percent of those over 14 years of age were in this classification. Of the male heads, 36 percent were either unable to work or were retired. In the farm households, 5 percent of the male heads said they were retired or unable to work. The difference may not be important. Many of the male heads of farm households reported only meager farm activity. Because of their age, the work they were doing probably required their maximum efforts.

About 55 percent of the male farm heads who worked only at farming were over 54 years of age. Only 24 percent of the male farm heads who worked at nonfarm jobs were over 54. For all farms in the survey, about 43 percent of the male heads were over 54. The older age of the farm head was not unique to this area; however, as in 1954 in the state as a whole, about 42 percent of the farm operators were over 54 years of age.<sup>19</sup>

Two in five of the male heads worked at nonfarm jobs during 1955 (Table 14). Their major employment was in the forests or forest product industries. The remaining heads of farm and nonfarm households were employed in a number or variety of small industries.

<sup>19</sup>United States Census of Agriculture for 1954, Vol. I, part 10, page 16.

TABLE 13--MAJOR TYPE OF WORK OF MEMBERS OF FARM AND NONFARM HOUSEHOLDS WHO WERE  
14 YEARS OF AGE OR OLDER, SAMPLE HOUSEHOLDS, MISSOURI ECONOMIC AREA 8, 1955  
(THE DATA INCLUDE ALL MEMBERS OF THE HOUSEHOLD WHO WERE  
14 YEARS OF AGE AND OLDER)

Item	Number Engaged in					Number Retired	Number Unable to Work	Total Number
	Operating Farms	Nonfarm Wage Work	Going to School	Keeping House	Other Types of Work			
<b>Members of farm households:</b>								
Heads, male	190	59			3	9	5	266
Wives of heads, or female heads	2	20		223	5	1	--	251
Daughters and mothers of heads and other females	---	7	39	17	1	4	6	74
Sons and fathers of heads, and other males	15	23	47	---	14	3	8	110
Total	<u>207</u>	<u>109</u>	<u>86</u>	<u>240</u>	<u>23</u>	<u>17</u>	<u>19</u>	<u>701</u>
<b>Members of nonfarm households:</b>								
Heads, male	5	241		4	41	127	39	457
Wives of heads, or female heads	---	54		352	8	38	6	458
Daughters and mothers of heads and other females	---	6	54	21	4	7	6	98
Sons and fathers of heads, and other males	3	34	56	3	19	10	6	131
Total	<u>8</u>	<u>335</u>	<u>110</u>	<u>380</u>	<u>72</u>	<u>182</u>	<u>57</u>	<u>1,144</u>

TABLE 14--TYPES OF NONFARM WORK DONE BY MEMBERS OF FARM AND NONFARM FAMILIES,  
SAMPLE HOUSEHOLDS, MISSOURI ECONOMIC AREA 8, 1955

Item	Number Engaged in Major Nonfarm Employment											
	Min- ing	Shoe Fac- tory	Other Fac- tory	For- estry and Saw Mill	Con- struc- tion	Retail Trade	Rail- road	Truck Driv- ing	School Teach- ing	Own Busi- ness	Other	Total
Members of farm households:												
Heads, male	10	7	7	19	12	1		5	3	3	38	105
Wives of heads or female heads	--	4	8	1	--	-		--	6	2	6	27
Daughters and mothers of heads, and other females	--	--	3	--	--	1	1	--	-	--	3	8
Sons and fathers of head and other males	--	3	2	6	4	-	-	--	-	1	11	27
Total	<u>10</u>	<u>14</u>	<u>20</u>	<u>26</u>	<u>16</u>	<u>2</u>	<u>1</u>	<u>5</u>	<u>9</u>	<u>6</u>	<u>58</u>	<u>167</u>
Members of nonfarm households:												
Heads, male	32	16	21	44	21	4	4	21	1	12	95	271
Wives of heads or female heads	--	16	18	1	--	3	-	--	2	--	27	67
Daughters and mothers of heads, and other females	--	4	--	--	--	1	-	--	-	--	1	6
Sons and fathers of head and other males	2	2	3	10	3	-	1	1	-	--	13	35
Total	<u>34</u>	<u>38</u>	<u>42</u>	<u>55</u>	<u>24</u>	<u>8</u>	<u>5</u>	<u>22</u>	<u>3</u>	<u>12</u>	<u>136</u>	<u>379</u>

Only 59 percent of the nonfarm male heads of households were employed. Many of the unemployed were retired. In comparison, 39 percent of the farm heads were employed in nonfarm work in addition to their farming operations. Approximately 11 percent of the farm women and 13 percent of those not on farms had nonfarm work. These percentages are slightly lower than were reported in the 1950 Census, which showed that 13 percent of the women over 14 years of age were working for wages.<sup>20</sup> In the state as a whole, however, about 9 percent of all women living on farms in 1950 were working at off-farm jobs.

The number of days worked during the year by the members of the household is directly related to the level of income. In about 15 percent of the farm and 43 percent of the nonfarm households, the total labor accomplished by all members was less than 100 days in 1955 (Table 15). It is generally considered that a full-time job requires at least 200 days of labor. In this area, more than 200 man workdays a year were performed by only 58 percent of the members of farm households and 45 percent of those of nonfarm households. This situation was caused largely by the health characteristics and advanced age of a high percentage of the workers. To utilize these workers fully, industries that provide employment for workers of limited physical capabilities are needed.

TABLE 15--MAN WORK DAYS PER YEAR, SAMPLE FARM AND NONFARM HOUSEHOLDS, MISSOURI ECONOMIC AREA 8, 1955\*

Man Work Days per Year	Households			
	Farm		Nonfarm	
	Number	Percent of Total	Number	Percent of Total
0-99	39	14.5	224	43.4
100-199	74	27.5	59	11.4
200-299	64	23.8	154	29.9
300-399	54	20.1	47	9.1
400 or more	38	14.1	32	6.2
Total	269	100.0	516	100.0

\*A man-work day on a farm is defined as the average amount of work that should be accomplished by a worker in a ten-hour day, when working with average efficiency and average equipment on a medium-sized farm as defined by the Extension Service of the University of Missouri. For each farm, the man work days needed to handle the enterprises were computed. For nonfarm work, a man work day was defined as a standard 8-hour day. If an individual operated a small business such as a retail store, the number of man-hours needed to operate the business per day was used. Efficiency as such was not considered in nonfarm work. The total work days needed to operate the farm business plus the nonfarm work days of the head or other members of the family were used as the total man work days per household.

### Children Who Have Moved Away.

An effort was made to determine how many persons had moved away from the area, where they had gone, their ages, their educational training, and what they were doing. Data were obtained only from parents who still lived in the area. Most of the respondents were relatively old and a high percentage had

children who had moved. Information was obtained on 484 offspring who had gone from farms and 1,035 who had left nonfarm homes. These are relatively large numbers but they do not represent the total outmigration from the area. Many entire families had moved away and thus were not included. For this reason, the information obtained indicates less migration than would be shown by analyzing a representative sample of the people who at one time resided in the area.

What occupations are the children who have left homes in the area pursuing? The present occupations are shown in Table 16. Only 12 percent of the males who had left farm homes before 1951 were engaged in farming in 1956. Only 10 percent of those who left rural nonfarm homes before 1951 were engaged in farming; of the males who left farm and rural nonfarm homes after 1951, less than 5 and 2 percent, respectively, were farming in 1956. Apparently, nonfarm jobs offered greater opportunities than farming or were more readily obtained.

Where did the children go? About 28 percent of those who left home remained in the same county, and an additional 45 percent settled in other areas of Missouri (Table 17). A large proportion (29 percent) settled in St. Louis. For those who had left the state, Chicago and other major cities were their principal area of migration. West coast cities attracted an appreciable number. No major shifts have occurred in the direction of their movement in recent years.

The amount of formal educational training of the persons who live in the area is low, particularly of those who are over 40. The information obtained in the interviews indicated that 42.1 percent of the people who were reared on farms and remained in the county or in an adjacent county after having left home had no more than an eighth grade education (Appendix Table 4). For those reared by nonfarm families and remaining in the area, 60.8 percent had not gone beyond the eighth grade. Persons who had moved to St. Louis had only slightly more formal training than those who remained. The percentage of farm-reared people with an eighth grade education who had moved was about the same as the percentage who remained in the area, but a higher proportion of nonfarm people with this relatively same level of training remained in the state. A much higher proportion of the younger age groups attained the high school level of education (Appendix Table 5). If outmigration continues, it is apparent that high school curricula might include instruction in skills that would improve the opportunities of young persons who seek nonfarm employment. Obviously, persons who moved away from the area were at a disadvantage in the skilled labor market, as such training was not available to them.

As a high percentage of the people who are reared and trained in this area go elsewhere to work at nonfarm jobs, the types of training available to them affect the incomes they are able to command and their contributions to the communities in which they live. Formal education improves their efficiency and adds to their ability to serve as useful citizens in the new communities.



TABLE 16--OCCUPATION OF PERSONS WHO MIGRATED FROM SAMPLE FARM AND NONFARM HOUSEHOLDS BEFORE AND AFTER 1951, BY SEX; MISSOURI ECONOMIC AREA 8, 1956

Present Occupation	Number of Persons Who Migrated From -									
	Farm Households					Nonfarm Households				
	Before 1951		After 1951		Total	Before 1951		After 1951		Total
	Male	Female	Male	Female		Male	Female	Male	Female	
Farming	23	3	3	--	29	44	2	1	--	47
Nonfarm jobs	139	40	44	15	238	335	94	33	16	478
Keeping house	---	136	--	31	167	2	334	--	47	383
Other	25	5	15	5	50	81	16	18	12	127
Total	187	184	62	51	484	462	446	52	75	1,035

TABLE 17--PLACE OF RESIDENCE OF PERSONS WHO MIGRATED FROM SAMPLE HOUSEHOLDS BEFORE AND AFTER 1951, BY SEX; MISSOURI ECONOMIC AREA 8, 1956

Place of Residence, 1956	Persons Who Migrated From -											
	Farm Households					Nonfarm Households					Migrants All	
	Before 1951		After 1951		Total	Before 1951		After 1951		Total	Number	Percent
	Male	Female	Male	Female		Male	Female	Male	Female			
	Number		Number		Number	Number		Number		Number		
Same county	45	51	9	13	118	138	124	14	26	302	420	28
Adjacent county	10	13	6	7	36	27	32	2	--	61	97	7
St. Louis	52	63	19	18	152	124	125	14	27	290	442	29
Kansas City	--	3	1	--	4	12	8	--	--	20	24	2
Others cities in												
Missouri	18	16	3	3	40	29	34	1	6	70	110	7
Illinois	24	13	4	5	46	22	42	1	8	73	119	7
Arkansas	--	1	1	--	2	7	15	--	--	22	24	2
Other states adjacent to												
Missouri	3	5	1	--	9	11	4	2	--	17	26	2
West coast	10	5	4	1	20	25	18	1	1	45	65	4
Other areas	25	14	14	4	57	67	44	17	7	135	192	22
Total	187	184	62	51	484	462	446	52	75	1035	1519	100

## INCOME CHARACTERISTICS OF FARM AND RURAL NONFARM HOUSEHOLDS

It is generally agreed that household incomes are a result of the nature and uses made of the resources controlled by the household members. In the preceding sections, data have been presented concerning the nature and use of the physical and human resources of households in the 'open country'. This part of the report is designed to present the relationships between these characteristics and incomes realized by the households.

### Income of the Farm Household.

A high percentage of the household groups living in Economic Area 8 have low incomes. In 1949, 52 percent of the families and unrelated individuals who said their homes were on farms received less than \$1,000 cash income<sup>21</sup> from all sources and more than 78 percent received less than 2,000 (Table 18). Data obtained in the 1956 survey indicated that a change in income distribution of farm families<sup>22</sup> had taken place. In 1955, 107 farm households<sup>23</sup> had cash incomes<sup>24</sup> of less than \$1,000. This figure represented about 40 percent of all farm households whose members were interviewed, compared with the 52 percent in this income group in 1949. In 1949, 26 percent of the farm families and unrelated individuals had incomes from \$1,000 to \$1,999, compared with 22 percent of the households in the survey. Farm families receiving less than \$2,000 cash income represented about 62 percent of those interviewed. Even though improvement has been made, many households still have relatively low incomes.

The value of home-consumed products makes the real household income of farmers greater than an analysis of cash income would indicate. Therefore, the value of these home-consumed commodities was added to the farmers' household incomes. After this addition, it was found that 32 percent of the farm households had incomes of less than \$1,000 in 1955, compared with the 40 percent figure obtained when the value of home-consumed products was excluded. As incomes increased, however, the relative value of home-consumed products decreased. For example, 58 percent of the farm households had incomes below \$2,000 if the value of home-consumed products was included, whereas 62 percent had incomes below this amount if the value of these products was excluded. But, in making

<sup>21</sup>Cash income includes money received from wages or salaries, net income (or loss) from self-employment, and income other than that from earnings.

<sup>22</sup>Although the farm definition used in the sample was not the same as that used by the Census of Population, the differences were not considered great enough to alter income comparisons.

<sup>23</sup>The households were used as a basis of analysis instead of the family because the household was considered to include all members living together as an economic unit rather than only those related by blood, marriage, or adoption. In most instances, the family and the household were identical.

<sup>24</sup>Cash income includes all money payments, regardless of the source, to all members of the household for the 1955 calendar year. The return from the farm is a net income figure (gross income which includes the value of all sales, and inventory change minus expenses—depreciation on machinery and farm buildings have been included as expense items).

TABLE 18--PERCENTAGE DISTRIBUTION OF FARM  
AND NONFARM HOUSEHOLDS, BY INCOME CLASS;  
MISSOURI ECONOMIC AREA 8, 1949 AND 1955

Income Class	Farm Households					
	1949*	1955**			Nonfarm Households	
		Percent	Income Includes	Income Excludes	1949†	1955††
			Home-Consumed Products	Home-Consumed Products		
0-\$999	52.2	32.3	39.8	39.6	27.3	
\$1,000-\$1,999	26.2	25.3	22.3	21.5	27.1	
\$2,000-\$2,999	12.0	19.7	19.0	16.7	14.9	
\$3,000-\$3,999	6.0	10.8	8.9	13.2	16.3	
\$4,000 and more	3.6	11.9	10.0	9.0	14.4	
Total	100.0	100.0	100.0	100.0	100.0	

\*Includes all families and unrelated individuals who were reported to the census enumerator as living on a farm in 1950. Income includes money received from wages or salaries, net income from self-employment, and income other than from earnings. Home-consumed products are not included. Source: United States Census of Population, 1950, vol. II, part 25, pp. 138-140.

\*\*Includes all farm households surveyed that were located on farms as defined by the 1954 Census of Agriculture. Household income includes all money income to the members plus net income to the farm. Net farm income includes all sales and inventory changes, less expenses (including depreciation on farm machinery and buildings). The second computation, which excludes home-consumed products, is comparable to the 1949 census data.

†Includes all families and unrelated individuals classified by the Census of Population in 1950 as rural nonfarm. These include all families and unrelated individuals living in towns of less than 2,500 population. The income definition is the same as that stated in footnote 1. Derived from the United States Census of Population, 1950, vol. II, part 25, pp. 138-140.

††Includes open-country nonfarm households surveyed that were located outside incorporated towns or cities, or unincorporated places which had an estimated population of 100 or more or a density of more than 100 persons in a square mile. The income definition is the same as that stated in footnote 1.

the analysis that follows, it was assumed that the value of home-consumed products should be included in the income figures.

#### Income of the Nonfarm Household.

Low income has been almost as great a problem among the nonfarm households as among the farmers in the area. In 1949, 40 percent of the rural nonfarm families and unrelated individuals had cash incomes of less than \$1,000 and 22 percent had incomes from \$1,000 to \$1,999 (Table 18). In this survey, only those nonfarm households found in the 'open country' were interviewed. It was assumed, however, that the income distribution for this group would be similar to that of the group defined in the Census of Population as rural nonfarm. In this survey, 27 percent of the nonfarm households had incomes of less than

\$1,000 in 1955. Another 27 percent had incomes than ranged between \$1,000 and \$1,999.

The percentage of all 'open country' households in the 1956 survey having incomes of less than \$2,000 was almost the same for the nonfarm as for the farm group (58 percent for the farm and 54 percent for the nonfarm). The average income of all nonfarm households in the area was only slightly higher than that of the farm families (\$2,262 compared with \$2,042 in 1955). The similarity in incomes of farm and nonfarm households may be due to the ease of shifting from one classification to the other. In many instances, only a few more live-stock or a slight shift in the cropping system would have changed a nonfarm to a farm household. The average size of the land holdings of nonfarm households was 63 acres (Appendix Table 6). Furthermore, approximately 80 percent of the units held by the nonfarm group were larger than 3 acres. In the survey, these households were classified as nonfarm. As the solution of the low-income problem among farmers and nonfarmers is closely associated, the characteristics of both groups were analyzed.

### Sources of Income

About 22 percent of the average household incomes of farmers who had less than \$1,000 income in 1955 came from farm income, which included the sale and home consumption of farm products (Figure 7). Approximately 44 percent

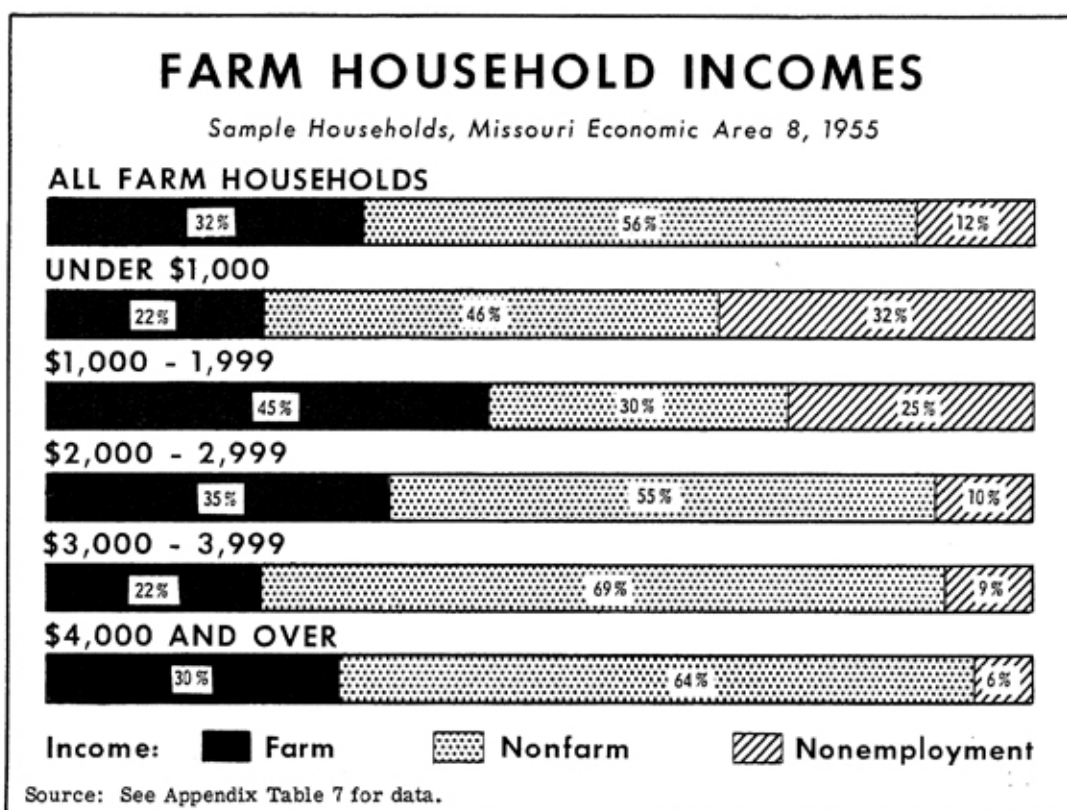


FIGURE 7

came from off-farm employment, 32 percent from nonemployment sources, such as old age pensions, and 2 percent from wage work on other farms. Because in the aggregate, farm income made up only about one-fifth of the household income of those farmers with incomes of less than \$1,000, a doubling of farm incomes would raise the household income by only about a fifth. Household incomes would still be unsatisfactory.

Among the farm households with incomes from \$1,000 to \$1,999, 45 percent of the income for the average household was obtained from the farm. Twenty-seven percent was obtained from nonfarm employment, and 25 percent from nonemployment sources. Only 3 percent of the household income was obtained from wage work on other farms.

In general, as household incomes increased, the relative percentage of the total that came from farming decreased. Household incomes of all farmers who were interviewed averaged \$2,042 in 1955. One percent of this amount came from wage work on other farms; about 55 percent was derived from nonfarm employment; 12 percent was from such nonemployment sources as pensions, rents, interest, and gifts from children; and 32 percent came from the farm business.

Among nonfarm households having incomes of less than \$1,000, about three-fourths of the returns were derived from such nonemployment sources<sup>25</sup> as pensions and gifts (Figure 8). About 17 percent came from off-farm employment, and 8 percent from wage work on other farms.

As incomes increased, the relative importance of nonemployment income decreased. For all groups of nonfarm households, 75 percent of the returns were obtained from nonfarm employment; 3 percent from wage work on other farms, and 22 percent from nonemployment sources.

In this area, there was little difference in types of nonfarm employment (Table 19). This situation means that a depressed condition in any one of the industries in the area would affect the farm and nonfarm groups equally.

Nonemployment income was especially important to the low-income families in both groups. The relative importance of receipts from the various sources was somewhat similar for the farm and nonfarm groups (Appendix Table 9). Veterans' payments contributed 29.6 percent to the farm group and 20.2 percent to the nonfarmers. Old-age pensions made up 24.6 percent of the total for farmers and 38.5 percent for the nonfarmers. Social Security payments amounted to 16.1 percent of the total for farmers and 14.4 percent for nonfarmers. In terms of total number of households involved, 88 (32.7 percent) of the 269 farmers and 263 (51.0 percent) of the 516 nonfarmers reported nonemployment income of some type.

<sup>25</sup>Nonemployment income includes all income that was not received as wages or payment in kind for off-farm employment or work on the operator's farm.

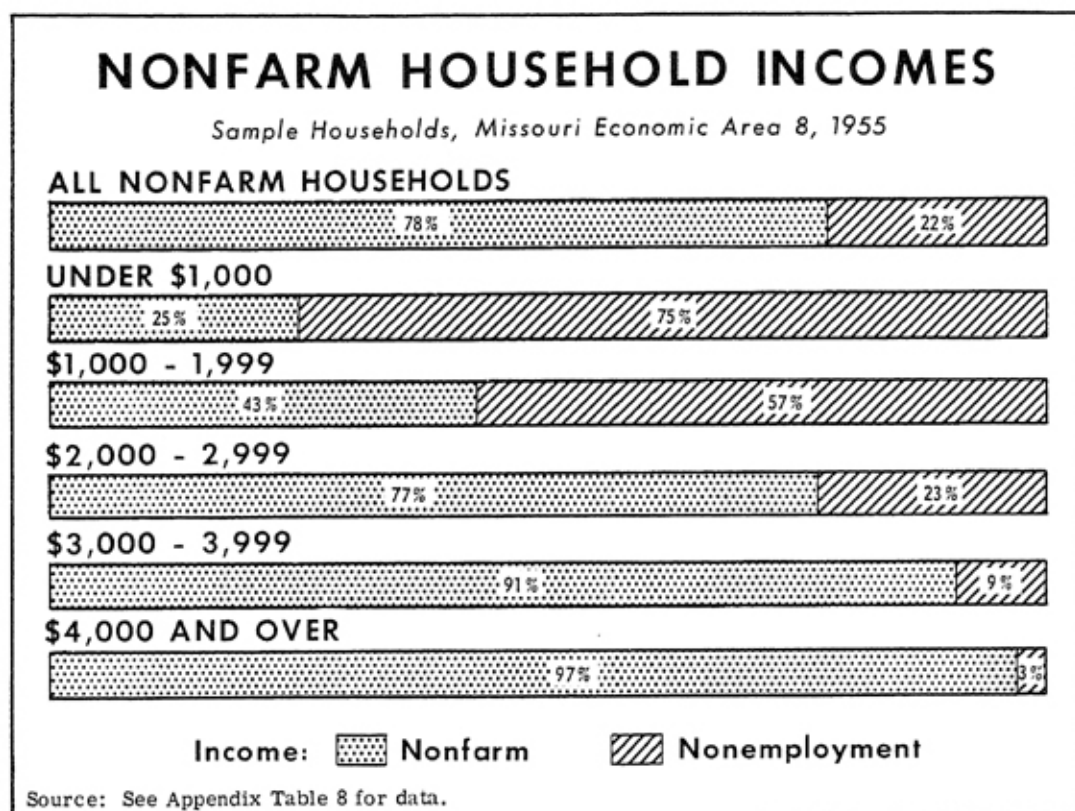


FIGURE 8

### Relationship of Population Characteristics to Income.

The adequacy of income for the needs of a household is related to the number in the household. About 60 percent of the farm households with incomes of less than \$1,000 a year had no more than two persons (Table 20). However, 15 percent of the households in this income class had five or more persons per household. The average number in households having less than \$1,000 income was 2.9 people. The average per capita income was only \$119. About 32 percent of the farm households in the area were included in this category (Table 18).

The income situation among nonfarm households was similar to that among farm households with less than \$1,000 income. The average number of people per household was 2.2 and the per capita income was \$257. Although nonfarm household incomes were about 60 percent greater than those of farm households, they were still very low. The average number of people per household increased as family incomes increased until returns of more than \$3,000 were reached (Table 20). The per capita income of the households receiving more than \$3,000 was nearly twice as great as that of groups receiving \$2,000 to \$2,999. It should be recognized that the age composition of the various groups differed.

Children who are reared in families with low incomes are placed at an economic disadvantage when compared with those reared in better economic sur-

TABLE 19--NONFARM EMPLOYMENT INCOME BY SOURCE; SAMPLE OPEN-COUNTRY HOUSEHOLDS,  
MISSOURI ECONOMIC AREA 8, 1955

Source of Income	Farm Households			Nonfarm Households			All Households		
	Members Employed	Income Received	Percentage	Members Employed	Income Received	Percentage	Members Employed	Income Received	Percentage
			of Total Income Percent			of Total Income Percent			of Total Income Percent
	Number	Dollars	Percent	Number	Dollars	Percent	Number	Dollars	Percent
Employment in -									
Mining	10	35,100	11.7	34	124,165	14.2	44	159,265	13.5
Shoe factory	14	27,880	9.3	38	83,454	9.5	52	111,334	9.5
Other factory	20	33,321	11.1	42	91,140	10.4	62	124,461	10.6
Forestry	26	31,740	10.6	55	69,085	7.9	81	100,825	8.6
Construction	16	20,830	6.9	24	60,376	6.9	40	81,206	6.9
Trucking	5	8,890	3.0	22	58,426	6.7	27	67,316	5.7
School teaching	9	23,616	7.9	3	7,877	0.9	12	31,493	2.7
Own business	6	12,300	4.1	12	60,760	6.9	18	73,060	6.2
Other	62	106,647	35.4	149	320,260	36.6	211	426,907	36.3
Total	168	300,324	100.0	379	875,543	100.0	547	1,175,867	100.0

TABLE 20--NUMBER OF HOUSEHOLDS, NUMBER OF PERSONS PER  
HOUSEHOLD, AND INCOME PER PERSON, BY NET HOUSEHOLD  
INCOME CLASS; SAMPLE HOUSEHOLDS,  
MISSOURI ECONOMIC AREA 8, 1955

Income Class	Farm				Nonfarm			
	Households		Persons per House- hold	Income per Person	Households		Persons per House- hold	Income per Person
	Num- ber	Per- cent	Num- ber	Dol- lars	Num- ber	Per- cent	Num- ber	Dol- lars
0-\$999	87	32.4	2.9	119	141	27.3	2.2	257
\$1,000-\$1,999	68	25.3	3.5	417	140	27.1	3.0	497
\$2,000-\$2,999	53	19.7	3.9	625	77	15.0	4.3	558
\$3,000 and more	61	22.6	3.8	1,140	158	30.6	4.0	1,095
All income classes	269	100.0	3.6	572	516	100.0	3.3	690

roundings. Usually, low-income households have a disproportionate share of young children. In this area, 44 percent of the farm households and 43 percent of the nonfarm households had children under 14 years of age (Table 21). In those households having incomes of less than \$1,000 in 1955, 29 percent of the farm and 20 percent of the nonfarm groups had children under 14 years of age. Forty-three percent of the farm households and 34 percent of the nonfarm group having incomes from \$1,000 to \$1,999 had children under 14 years of age. In those households having incomes of \$2,000 and greater, a larger percentage of the households had children under 14 years of age than those with lower incomes. These results are opposite to those usually reported in low-income areas and are probably explained by the relatively large outmigration of the younger families.

Little variation was found between the size of the home or the conveniences therein and income until returns exceeded \$3,000 a year (Appendix Table 10). Families with \$3,000 or more income had larger homes and more conveniences than those with lower incomes. Fewer than 10 percent of the families with earnings of less than \$3,000 a year had houses with central heating.

### Labor Supply and Household Income.

Ordinarily, the head of the house is the principal breadwinner. The age, sex, and condition of the health of this individual determine in large measure the level of family income. One of the chief reasons for farm household incomes being less than \$1,000 in this area was the advanced age of the head and his inability to work. When the sample was expanded to represent the entire farm population in the area, it was found that of the male heads of households in the area who were in this income class, 568, or 32 percent, were unable to work full time or were 65 years of age or older (Table 22). Also, in these households there were no other able-bodied males from 18 to 64 years of age, inclusive, who could help with the work. In the farm households with incomes from \$1,000 to \$1,999, 567 or 41 percent of the male heads were either over 64 or were unable to work full time. In 102, or 18 percent, of these households, other able-bodied males from 18 to 64 were present who could help with the family support. Fifteen percent of the households with incomes of \$2,000 to \$2,999 had male heads who were 65 or older and no other able-bodied male from 18 to 64 who could contribute to the household income.

Nonfarm households were similar in these respects. In 1,407 households, or 50 percent, with incomes of less than \$1,000 a year, the male head was either over 64 or was unable to work full time (Table 23). In none of these households were other able-bodied males from 18 to 64 present. Another 784 households, or 28 percent of the households in this income class, had women as heads of the households and no able-bodied males present. In households with incomes from \$1,000 to \$1,999, 54 percent had male heads who were either over 64 years of age or too ill to work 60 days or more in 1955. Six percent of the households in



TABLE 21--NUMBER OF FARM AND NONFARM HOUSEHOLDS WITH CHILDREN UNDER 14 YEARS OF AGE,  
BY INCOME CLASS; SAMPLE HOUSEHOLDS, MISSOURI ECONOMIC AREA 8, 1955

Item	Income Class									
	Less than \$1,000		\$1,000 to \$1,999		\$2,000 to \$2,999		\$3,000 and More		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Farm households with following number of children under 14 years of age:										
None	62	71.3	39	57.4	24	45.3	25	41.0	150	55.8
1	10	11.5	12	17.6	10	18.9	13	21.3	45	16.7
2	6	6.9	7	10.3	10	18.9	17	27.9	40	14.9
3	3	3.4	4	5.9	4	7.5	4	6.6	15	5.6
4	2	2.3	3	4.4	4	7.5	1	1.6	10	3.7
5 and over	4	4.6	3	4.4	1	1.9	1	1.6	9	3.3
Total	87	100.0	68	100.0	53	100.0	61	100.0	269	100.0
Nonfarm households with following number of children under 14 years of age:										
None	113	80.1	93	66.4	27	35.1	62	39.2	295	57.2
1	16	11.4	19	13.6	8	10.4	26	16.4	69	13.4
2	2	1.4	9	6.4	23	29.8	27	17.1	61	11.8
3	3	2.1	9	6.4	10	13.0	21	13.3	43	8.3
4	5	3.6	5	3.6	3	3.9	14	8.9	27	5.2
5 and over	2	1.4	5	3.6	6	7.8	8	5.1	21	4.1
Total	141	100.0	140	100.0	77	100.0	158	100.0	516	100.0

TABLE 22--FARM HOUSEHOLDS WITH AND WITHOUT ABLE-BODIED MALES OTHER THAN HEAD, BY AGE OF MALE HEAD AND INCOME OF HOUSEHOLD; MISSOURI ECONOMIC AREA 8, 1955\*

Type of Household	Households with Income of -			
	Less than \$1,000	\$1,000 to \$1,999	\$2,000 to \$2,999	\$3,000 and more
No able-bodied male (other than head) between 18 and 64 years:				
Male head, in age group of -				
19-48 years	528	406	447	548
49-64 years	609	325	325	325
65 years and older	406	325	162	---
Under 65 years but unable to work full time**	162	142	---	20
Female head	---	---	20	20
Able-bodied male or males (other than head) between 18 and 64 years:				
Male head, in age group of -				
19-48 years	20	---	41	142
49-64 years	20	61	61	142
65 years and older	20	41	---	41
Under 65 years but unable to work full time**	---	61	20	---
Female head	---	20	---	---
Total, all farm households	1,765	1,381	1,076	1,238

\*These data were derived by expanding the sample to represent the entire farm population in the area. The sampling rate was 1 to 20,297.

\*\*On at least 60 working days, he was unable to work because of illness.

this income class had women heads with no able-bodied males from 18 to 64 years old present. Only 15 percent of the 5,646 households that had incomes of less than \$2,000 in 1955 had male heads who were under 49 years of age and able to work; whereas 62 percent of the 4,721 households that had incomes of \$2,000 and greater had male heads who were under 49 and able to work. These results indicate that, in this area, low income is closely related to the age of the male heads of households and their inability to work.

A farm unit large enough for full employment of all family labor is usually considered necessary for a successful business. In this area, about 88 percent of the farms did not have the labor requirements that would keep one man occupied for 300 days in 1955 (Table 24). Of farms that had labor requirements of less than 100 days a year, more than 96 percent had net farm incomes<sup>26</sup> of less than \$1,000. In fact, from most of the farms with labor requirements of less than 100 days a year, the operators did not receive enough income to pay operating expenses and depreciation on buildings and equipment.

<sup>26</sup>Net farm income is defined as the net return to the farm family from owned capital, and labor and management. Rent paid for assets is excluded from this figure.

TABLE 23--NONFARM HOUSEHOLDS WITH AND WITHOUT ABLE-BODIED MALES OTHER THAN HEAD BY AGE OF MALE HEAD AND INCOME OF HOUSEHOLD; MISSOURI ECONOMIC AREA 8, 1955\*

Type of Household	Households with Income of -			
	Less than \$1,000	\$1,000 to \$1,999	\$2,000 to \$2,999	\$3,000 and More
No able-bodied male (other than head) between 18 and 64 years:				
Male head, in age group of -				
19-48 years	241	583	764	2,009
49-64 years	261	442	181	804
65 years and older	1,045	1,266	161	100
Under 65 years but unable to work full time**	362	261	241	20
Female head	784	161	20	---
Able-bodied male or males (other than head) between 18 and 64 years:				
Male head, in age group of -				
19-48 years	---	---	40	121
49-64 years	20	---	60	100
65 years and older	60	40	40	---
Under 65 years but unable to work full time**	20	20	---	20
Female head	40	40	40	---
All nonfarm households	2,833	2,813	1,547	3,174

\*These data were derived by expanding the sample to represent the entire non-farm population in the area. The sampling rate was 1 to 20.091.

\*\*There were at least 60 working days that he was unable to work because of illness.

A high level of income is regarded as the reward for productive effort. In more than 93 percent of the farm households with incomes above \$3,000 a year, more than 200 days of labor were performed in 1955 (Table 25). In those with incomes of less than \$1,000, about 78 percent accomplished less than 200 days of labor during the year.

The employment situation for nonfarm households was similar. Those making more than \$3,000 a year usually worked more than 200 days. Those with incomes under \$1,000 worked less than 100 days in 1955.

Underemployment may be found in any area. Sometimes it is a result of choice rather than lack of job opportunities. In this 10-county area, there were 5,460 farm households. Within the area, there were 1,218 males from 18 to 65 in farm households in which less than 200 days of labor were performed by members of the household (Table 26). This figure represents about 22 percent of all farm households in the area. However, in another 1,767 households, more than 300 days of labor were performed by household members with at least one male from 18 to 65 included. This figure represents about 32 percent of all farm households in the area.

TABLE 24--MAN WORK DAYS AND NET INCOME PER FARM; SAMPLE HOUSEHOLDS,  
MISSOURI ECONOMIC AREA 8, 1955\*

Man Work Days Per Year	Farms Operating at a Loss	Farms with Incomes of -										Farms in All Income Groups		
		0-\$499		\$500-\$999		\$1,000-\$1,999		\$2,000-\$2,999		\$3,000 and More		Number	Per-	
Number	Number	Per- cent	Number	Per- cent	Number	Per- cent	Number	Per- cent	Number	Per- cent	Number	Per- cent	Number	Per- cent
0-99	50	64.1	41	57.0	14	30.4	3	7.1	1	5.6			109	40.5
100-199	24	30.8	21	29.2	25	54.3	21	50.0	4	22.2	1	7.7	96	35.7
200-299	2	2.5	5	6.9	4	8.7	12	28.6	6	33.3	3	23.1	32	11.9
300-399	1	1.3	5	6.9	2	4.4	4	9.5	5	27.8	3	23.1	20	7.4
400 and over	1	1.3	--	---	1	2.2	2	4.8	2	11.1	6	46.1	12	4.5
Total	78	100.0	72	100.0	46	100.0	42	100.0	18	100.0	13	100.0	269	100.0

\*A man work day is defined as the average amount of work that should be accomplished by a worker in a 10-hour day when working with average efficiency and average equipment on a medium-sized farm as defined by the Extension Service of the University of Missouri. For each farm the man work days needed to handle the enterprises a year were computed.

TABLE 25--MAN WORK DAYS PER YEAR PER HOUSEHOLD\* BY INCOME OF FARM AND NONFARM HOUSEHOLDS;  
MISSOURI ECONOMIC AREA 8, 1955

Man Work Days Accomplished per Year	Families with Household Incomes of -								All Income Groups	
	Less than \$1,000		\$1,000-1,999		\$2,000-2,999		\$3,000 or More		Num- ber	Percent of Total
	Num- ber	Percent of Total	Num- ber	Percent of Total	Num- ber	Percent of Total	Num- ber	Percent of Total		
Farm households (work days):										
0-99	24	27.6	12	17.6	2	3.8	1	1.6	39	14.5
100-199	44	50.6	22	32.4	5	9.4	3	4.9	74	27.5
200-299	9	10.3	21	30.9	22	41.5	12	19.7	64	23.8
300-399	8	9.2	8	11.8	17	32.1	21	34.4	54	20.1
400 and over	2	2.3	5	7.3	7	13.2	24	39.4	38	14.1
Total	87	100.0	68	100.0	53	100.0	61	100.0	269	100.0
Nonfarm households (work days):										
0-99	126	89.4	81	57.9	12	15.6	5	3.2	224	43.4
100-199	11	7.8	21	15.0	17	22.1	10	6.3	59	11.4
200-299	3	2.1	26	18.6	38	49.3	87	55.0	154	29.9
300-399	1	0.7	10	7.1	10	13.0	26	16.5	47	9.1
400 and over	---	---	2	1.4	--	---	30	19.0	32	6.2
Total	141	100.0	140	100.0	77	100.0	158	100.0	516	100.0

\*A man work day is defined as the average amount of work that should be accomplished by a worker in a 10-hour day, when working with average efficiency and average equipment on a medium-sized farm as defined by the Extension Service of the University of Missouri. For each farm, the man work days needed to handle the enterprises were computed. For nonfarm work, a man work day was defined as a standard 8-hour day. If an individual was operating a small business, such as a retail store, the number of man-hours needed to operate the business per day was used. Efficiency as such was not considered in nonfarm work. The total man work days needed to operate the farm business plus the nonfarm work days of the head or other members of the family were used as the total man work days per household.

TABLE 26--FARM HOUSEHOLDS, BY NUMBER OF MAN WORK DAYS ACCOMPLISHED PER HOUSEHOLD AND BY AGE OF MALE HEAD; MISSOURI ECONOMIC AREA 8, 1955\*

Age of Male Head	Man Work Days Accomplished Per Household Per Year				400 and More
	0-99	100-199	200-299	300-399	
Male head:					
No able-bodied male between 18 and 64 years, except head, who is in age group of -					
19-48 years	142	426	528	446	387
49-64 years	102	528	446	406	101
65 years and older	426	325	122	---	20
Under 65 years but unable to work full time**	81	182	61	---	---
Female head	20	---	---	20	---
Male head:					
Other able-bodied male or males between 18 and 64 years, and head in age group of-					
19-48 years	---	---	20	61	122
49-64 years	20	---	20	122	122
65 years and older	---	---	41	41	20
Under 65 years but unable to work full time**	---	41	41	---	---
Female head	---	---	20	---	---
Total households	791	1,502	1,299	1,096	772

\*These data were derived by expanding the sample to represent the entire farm population in the area. The sampling rate was 1 to 20,297.

\*\*There were at least 60 working days that he was unable to work because of illness.

The 10-county area contained 10,367 nonfarm households located in the "open country." These households contained 703 male heads 19 to 48 years of age who were able-bodied and each of whom worked less than 200 days (Table 27). Another 683 households had able-bodied male heads from 49 to 64 years of age, each of whom worked less than 200 days in 1955. More than 200 days of labor were performed per household in 81 percent of the households that had able-bodied male heads 19 to 48 years of age. Among households with male heads from 49 to 64 years of age, 63 percent had more than 200 days of labor performed.

If underemployment is considered to include able-bodied males from 19 to 64 years of age who worked less than 200 days in 1955, there were 568 farm males and 703 nonfarm males from 19 to 48 years of age who were underemployed in 1955. Another 650 farm males and 683 nonfarm males from 49 to 64 years of age were underemployed.

TABLE 27--NONFARM HOUSEHOLDS, BY NUMBER OF MAN WORK DAYS ACCOMPLISHED PER HOUSEHOLD AND BY AGE OF MALE HEAD; MISSOURI ECONOMIC AREA 8, 1955\*

Age of Male Head	Man Work Days Accomplished Per Household Per Year				400 and More
	0-99	100-199	200-299	300-399	
Male head:					
No able-bodied male between 18 and 64 years, except head who is in age group of -					
19-48 years	201	502	1,990	462	442
49-64 years	321	362	683	241	81
65 years and older	2,431	40	60	20	20
Under 65 years but unable to work full time**	603	121	121	20	20
Female head	884	80	20	20	---
Male head:					
Other able-bodied male or males between 18 and 64 years, and head in age group of -					
19-48 years	---	---	81	60	20
49-64 years	---	---	60	81	40
65 years and older	40	40	20	40	---
Under 65 years but unable to work full time**	20	20	---	---	20
Female head	40	---	60	20	---
Total households	4,500	1,165	3,095	964	643

\*These data were derived by expanding the sample to represent the entire non-farm population in the area. The sampling rate was 1 to 20.091.

\*\*There were at least 60 working days that he was unable to work because of illness.

### Members Seeking Employment.

The desires of household members for additional employment were obtained from each 'open country' household in the sample. The sample of households contained 81 male members 20 to 64 years of age and physically able to work who said they were interested in other jobs. These persons reported that there were less than 60 days in 1955 on which they were unable to work because of illness.

Based on this sample, there were 1,633 males in the 15,827 households of the area who were interested in other jobs (Table 28). Six hundred and sixty-four of them were employed more than 199 days in 1955. Another 606 were employed 100 to 199 days. There were 363 males who worked less than 100 days in 1955 and who indicated interest in another job. There were 242 males 20 to 64 years of age who indicated an interest in another job but were considered physically unable to do more than they were doing at the time of the interview. (They were ill more than 60 working days in 1955).

TABLE 28--MALE MEMBERS INTERESTED IN ANOTHER JOB, BY SELECTED HOUSEHOLD INCOME, MAN WORK DAYS, AND AGE GROUPS, IN THE OPEN COUNTRY OF ECONOMIC AREA 8, 1955\*

Age of Male (Years)	Man Work Days Accomplished Per Year					
	Households with Less than \$2,000 Income in 1955			Households with More than \$2,000 Income in 1955		
	0-99	100-199	200 and More	0-99	100-199	200 and More
20-29	20	61	40	81	40	20
30-49	81	61	302	---	262	161
50-64	20	61	101	161	121	40
Total	121	183	443	242	423	221

\*These data are estimated by expanding the sample to the entire population or universe included in the study. The sampling rate was 1 to 20,162. Respondents who had serious health or physical disabilities were not included.

The ages of those who are interested in obtaining different jobs are important to employers who seek to establish new industries. In this area, 262 males between 20 and 29 years of age indicated an interest in a different job. This number was about 17 percent of all males in this age group. However, 60 of the 262 worked more than 199 days in 1955 and probably should be considered fully employed. There were 867 males from 30 to 49 years of age who were interested in another job (this number was approximately 15 percent of all males in this age bracket in the area). Four hundred and sixty-three of these males worked more than 199 days in 1955. In this age class were 404 males who worked less than 199 days. Another 504 males 50 to 64 years of age were interested in another job. This figure represented about 8 percent of all males in this age group. One hundred forty-one of these males worked more than 199 days in 1955 and 363 worked less than this number of days.

Surplus labor is usually considered to include those persons who currently are not fully employed and are able to work. For those who are fully employed, another job would be a change of work and possibly a higher salary rather than an opportunity to work. At the time the survey was made, 202 males from 20 to 29 years of age appeared to be underemployed. In the 30 to 49 year age group, 404 were underemployed. Among those 50 to 64 years of age, 363 were interested in a job and worked less than 200 days in 1955.

In those households with incomes of less than \$2,000 in 1955, 747 males were interested in another job. Four hundred and forty-three of them worked more than 199 days in 1955 and apparently were interested in more remunerative jobs.

Approximately 605 women in the area were interested in finding jobs or in changing work. Half of this number were from households with incomes of less than \$2,000 in 1955.



## FARM INCOME CHARACTERISTICS BY ECONOMIC CLASS OF FARM

Farm incomes result from the nature, organization, and uses of the farm resources. Similarly, opportunities to improve farm income are closely related to the size and nature of the farm business. In this section, the nature and characteristics of the farms are analyzed by the economic classes of farms used by the Census of Agriculture.

### Nature of Farm Income and Expenses.

One farm classification adopted by the census in recent years is based on income or gross returns from the sale of farm products.<sup>27</sup> This classification was used in analyzing the data obtained in the 1956 survey. The census grouped the farms into six commercial and two non-commercial classes. Because of the scarcity of commercial farms in Economic Area 8, it was assumed that a sample obtained from each of these classes probably would not be representative of the individual classes. For this reason, classes were divided into these groups:

#### *Commercial:*

Classes I to IV—gross sales of \$2,500 or more.

Classes V and VI—gross sales of less than \$2,500.

#### *Noncommercial:*

Part-time

Residential

The household incomes of operators on the sample farms in these two commercial and two noncommercial economic classes were determined. Among the 56 operators in Economic Classes I to IV, 16 percent had household incomes of less than \$1,000 in 1955; 22 percent had incomes between \$1,000 and \$1,999; and 62 percent had returns greater than \$2,000 (Table 29).

The part-time operators had higher household incomes than did those in Economic Classes I to IV. On four-fifths of the farms in Economic Classes V to VI, the household incomes were less than \$2,000 a year. The situation among the residential farms was equally unsatisfactory; 71 percent had household incomes smaller than \$2,000 a year.

Few households in any of the groups depended entirely on farming for their incomes. Among farm operators in class I to IV, 67.4 percent of the household receipts came from sale or consumption of home-raised products (Table 30).

<sup>27</sup>Those farms that sold \$25,000 or more worth of farm products were placed in Class I; \$10,000 to \$24,999 in Class II; \$5,000 to \$9,999 in class III; \$2,500 to \$4,999 in Class IV; \$1,200 to \$2,499 in class V; and \$250 to \$1,199 in class VI, provided the farm operator did not work off the farm more than 100 days or the income of the farm operator and members of his family was not greater than the income from farming; those farms selling \$250 to \$1,199 worth of products that did not fit class VI were classed as part-time units, and all farms with incomes of less than \$250 were classified as residential farms. United States Census of Agriculture, 1954, Volume 1, part 10, page XXII.

TABLE 29--DISTRIBUTION OF FARMERS BY NET HOUSEHOLD INCOME AND ECONOMIC CLASS OF FARM; SAMPLE HOUSEHOLDS, MISSOURI ECONOMIC AREA 8, 1955

Item	Economic Class of Farms				All Farms
	I-IV	V-VI	Part-time	Residential	
Number of farms	56	92	66	55	269
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
Farmers with net household income of -					
0-\$999	16	53	11	40	30
\$1000-\$1999	22	27	21	31	27
\$2000-\$2999	30	10	30	13	20
\$3000 or more	32	10	38	16	23
Total	100	100	100	100	100

More than a fourth came from nonfarm employment. For class V and VI farms, 48.9 percent of receipts came from farming, and 35.4 percent from nonfarm employment. Only 6.6 percent of the household incomes of part-time farmers and 7.0 percent of the returns to residential farmers came from farming.

Important to a rural development program is the fact that the total household incomes of families operating class V and VI farms averaged much lower than those of other classes, even though half of their returns came from nonfarm sources. The 1954 census placed 34 percent of the farms in the area in Economic Classes V and VI. More than 80 percent of the operators had household incomes of less than \$2,000 in 1955. It is apparent that these people need major adjustments in their farm businesses, or some other source of income.

The situation on residential farms is equally unsatisfactory. About 36 percent of all farms in the area were classified in this group by the 1954 census. The survey showed that more than 70 percent of the farm households in this class had incomes of less than \$2,000 in 1955. Only 7 percent of their incomes was derived from the farm (Table 30). Similarly, only 6 percent of the household incomes of part-time farmers came from farming. Because of the limited resources of these two classes, the solution to their low incomes lies primarily outside agriculture.

The data presented in Table 31 show the enterprises that contributed incomes on the various classes of farms. The operators of Class I to IV farms derived 79.1 percent of their gross farm income from livestock. Those on residential farms received only 55.2 percent of their incomes from this source. Home consumption of farm products represented a relatively large proportion of the farm income to the residential and part-time farmers.

The percentage of gross income that was used for farm expenses varied from class to class (Table 31). Expenses were about 66 percent of gross returns in classes I to IV. In classes V to VI, expenses were about 69 percent of gross receipts including the value of products consumed in the home. On the part-time and residential farms, expenses were more than 80 percent of gross re-

TABLE 30--INCOME TO FARMERS BY SOURCE OF INCOME AND ECONOMIC CLASS OF FARM;  
SAMPLE HOUSEHOLDS, MISSOURI ECONOMIC AREA 8, 1955

Item	Economic Class of Farms									
	I-IV		V-VI		Part-time		Residential		All Farms	
Number of farms	56		92		66		55		269	
	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent
Income:										
Work on other farms	6	0.2	16	1.4	38	1.3	23	1.4	21	1.0
Nonfarm employment	716	25.8	419	35.4	2,396	81.1	1,157	70.3	1,116	54.7
Nonemployment income	182	6.6	169	14.3	325	11.0	350	21.3	247	12.1
Net farm income	1,869	67.4	578	48.9	194	6.6	116	7.0	658	32.2
Total household income	2,773	100.0	1,182	100.0	2,953	100.0	1,646	100.0	2,042	100.0

TABLE 31--SOURCES OF FARM INCOME AND PERCENTAGE OF GROSS INCOME USED FOR FARM OPERATING EXPENSES, BY ECONOMIC CLASS OF FARM; SAMPLE HOUSEHOLDS, ECONOMIC AREA 8, 1955

Item	Economic Class of Farms									
	I-IV		V-VI		Part-time		Residential		All Farms	
	Number		Number		Number		Number		Number	
Farms in sample	56		92		66		55		269	
	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent
Average income per farm from -										
Crops:										
Sales	670	12.3	151	8.1	68	6.2	10	1.4	210	9.6
Home consumption	109	2.0	120	6.5	112	10.2	84	11.7	108	4.9
Inventory change	94	1.7	68	3.7	115	10.5	193	26.9	111	5.1
Subtotal	873	16.0	339	18.3	295	26.9	287	40.0	429	19.6
Livestock:										
Sales	4,713	86.7	1,185	63.9	450	41.0	104	14.5	1,518	69.5
Home consumption	128	2.3	144	7.7	107	9.7	109	15.2	124	5.7
Inventory change	-505	-9.3	87	4.7	155	14.1	185	25.7	1	---
Subtotal	4,336	79.7	1,416	76.3	712	64.8	398	55.4	1,643	75.2
Forest products sales	74	1.4	70	3.8	73	6.6	29	4.0	63	2.9
Custom work	110	2.0	17	0.9	11	1.0	4	0.6	32	1.5
ACP payments	42	0.8	10	0.5	7	0.6	---	---	14	0.7
Other	4	0.1	3	0.2	1	0.1	---	---	2	0.1
Total	5,439	100.0	1,855	100.0	1,099	100.0	718	100.0	2,183	100.0
Average gross farm income:										
Sales	5,582	102.6	1,392	75.0	570	51.9	118	16.4	1,802	82.5
Home consumption	268	4.9	307	16.6	260	23.6	227	31.6	271	12.4
Inventory change	-411	-7.5	156	8.4	269	24.5	373	52.0	110	5.1
Total	5,439	100.0	1,855	100.0	1,099	100.0	718	100.0	2,183	100.0
Average farm expenses	-3,570	-65.6	-1,277	-68.8	-905	-82.2	-602	-83.8	-1,525	-69.9
Net farm income	1,869	34.4	578	31.2	194	17.8	116	16.2	658	30.1

turns from farm products.

The major items of expense on the average farm in each of the four economic classes differed (Table 32). In the highest economic classes, about 36 percent of the expenditures was for feed. The next highest item in these groups was depreciation on machinery and farm buildings.<sup>28</sup> In the other economic classes, depreciation on machinery and buildings represented the major farm expense. About 33 percent of the expenses on part-time and residential farms was depreciation. The relative importance of this item is related to the size of the unit and to the fact that most of the farms were equipped with power machinery which was used very little on the small operating units. The volume of production on these units was not sufficient to pay operating unit expenses, take care of replacements, and provide a satisfactory level of income for the operator and his family.

Expenditures for feed on class I to IV farms were by far the largest item of expense. In 1955, this item probably was above the long-time average because of dry weather and low crop yields. As this is a major item of expense, the quantities of feed grain and other concentrates bought by farmers in this area is important in planning the use of tillable land. A high percentage of the land is best suited to pasture. Livestock enterprises are essential to utilize pastureland, but feed grains are needed if dairy cows, hogs, and poultry are raised. Most farms need one or more of these intensive livestock enterprises to bring the size of business to a level that will be satisfactory for a farm family. In some instances, the problem can be solved by increasing the yields of feed grains on the acreage that is already available to the farm family. In other instances, additional land is needed.

The average net farm income on class I to IV farms was \$1,869 in 1955 (Table 31). This amount was more than 3 times the average on class V and VI farms. Farm enterprises contributed \$194 to the household incomes of part-time farms and \$116 to those of residential farms. For all farms, the average was only \$658.

### Financial Structure of Farm Business.

Current assets of farmers in Missouri Economic Area 8 averaged \$4,710 on December 31, 1955. Livestock and farm machinery were the chief items. The investment in machinery was slightly higher than the value of livestock, despite the small acreage of cropland and the reliance on livestock for farm income. The value of nonfixed assets averaged \$9,009 on the class I to IV farms and only \$2,308 on the residential units (Table 33).

<sup>28</sup>Straight-line depreciation of the 1955 replacement cost was used for machinery and buildings. The useful life of the machine was that suggested by the Bureau of Internal Revenue. No depreciation was computed on horse equipment. Half of the depreciation on the automobile and all the depreciation on trucks were allocated to the farm. Farm buildings were depreciated on a basis of 1955 replacement costs and 50 years of useful life.

TABLE 32--AVERAGE OPERATING EXPENSES PER FARM BY ECONOMIC CLASS; SAMPLE HOUSEHOLDS,  
MISSOURI ECONOMIC AREA 8, 1955

Item	Economic Class of Farms									
	I-IV		V-VI		Part-time		Residential		All Farms	
	56		92		66		55		269	
Number of farms	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent
Hired labor	307	8.6	59	4.6	27	3.0	9	1.5	93	6.1
Depreciation of machines and farm buildings	579	16.2	332	26.0	295	32.6	198	32.9	347	22.8
Machinery operation	463	13.0	231	18.1	167	18.5	109	18.1	239	15.7
Machine hire	163	4.6	81	6.4	37	4.1	33	5.5	77	5.0
Lime	40	1.1	7	0.6	6	0.7	1	0.1	12	0.8
Fertilizer	300	8.4	113	8.8	63	7.0	51	8.5	127	8.3
Other crop expenses	99	2.8	45	3.5	19	2.1	14	2.3	44	2.9
Feed bought	1,284	35.9	250	19.6	182	20.1	97	16.1	417	27.3
Veterinary, breeding, and cow testing fees	44	1.2	11	0.9	4	0.4	3	0.5	14	0.9
Upkeep of buildings and fences	71	2.0	30	2.3	30	3.3	26	4.3	38	2.5
Property tax	110	3.1	81	6.3	45	5.0	38	6.3	69	4.5
Insurance of stock and buildings	43	1.2	19	1.5	14	1.5	9	1.5	21	1.4
Social security	28	0.8	13	1.0	3	0.3	4	0.7	12	0.8
Other expenses	39	1.1	5	0.4	13	1.4	10	1.7	15	1.0
Total expenses	3,570	100.0	1,277	100.0	905	100.0	602	100.0	1,525	100.0

TABLE 33--AVERAGE FINANCIAL CONDITION OF SAMPLE FARM HOUSEHOLDS, BY ECONOMIC CLASS OF FARM;  
MISSOURI ECONOMIC AREA 8, DECEMBER 31, 1955

Item	Economic Class of Farm								All Families	
	I-IV		V-VI		Part-time		Residential		269	
Number of households	56		92		66		55		269	
	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent
<b>Assets</b>										
<b>Current</b>										
Feed, seed, supplies	533	2.6	136	1.2	151	1.7	185	2.6	232	1.9
Livestock	3,315	16.2	1,840	15.5	1,126	12.6	815	11.4	1,762	14.7
Farm machinery	3,437	16.8	1,698	14.3	1,576	17.7	1,021	14.2	1,892	15.8
Household furnishings	890	4.3	496	4.2	400	4.5	279	3.9	510	4.3
Other assets	834	4.1	203	1.7	280	3.1	8	0.1	314	2.6
<b>Fixed</b>										
Land and buildings	11,469	56.0	7,489	63.1	5,395	60.4	4,861	67.8	7,266	60.7
Total assets	20,478	100.0	11,862	100.0	8,928	100.0	7,169	100.0	11,976	100.0
<b>Liabilities</b>										
Short-term debts	708	3.4	164	1.4	50	.6	64	.9	229	1.9
Real estate mortgage	792	3.9	512	4.3	511	5.7	427	5.9	552	4.6
Equity	18,978	92.7	11,186	94.3	8,367	93.7	6,678	93.2	11,195	93.5
Total liabilities	20,478	100.0	11,862	100.0	8,928	100.0	7,169	100.0	11,976	100.0
<b>Assets owned</b>										
Land and buildings rented	20,478	79.4	11,862	91.3	8,928	92.4	7,169	93.8	11,976	87.1
Total assets operated	5,316	20.6	1,130	8.7	733	7.6	471	6.2	1,769	12.9
	25,794	100.0	12,992	100.0	9,661	100.0	7,640	100.0	13,745	100.0

The value of fixed assets, land and buildings, averaged \$11,469 on class I to IV farms; \$7,489 on the class V and VI farms; \$5,395 on the part-time units; \$4,861 on the residential units. A few operators in each economic class rented some additional land, but not enough to bring average operations up to the size needed for a moderately successful unit (\$25,000) as determined by Bebermeyer in his analysis of farm business in the Ozarks.<sup>29</sup>

The household incomes of operators on class V and VI farms that were used as full-time operating units suggest that improvement of the flow of income to full-time farmers must come from increasing the size of the farm business, dollarwise. In some instances, this may be done by increasing the acreage, especially of cropland, and in others by enlarging or intensifying enterprises on the existing acreage. The important fact is that most of the full-time farm businesses need to be larger.

Farm families in this area borrow very little money. Short-term debt averaged only \$229 per family. Real estate mortgages averaged \$552, making a total debt of \$781 per family. The largest indebtedness was carried by operators of class I to IV farms. For this group, short-term debt averaged \$708 and long-term debt \$792. Compared with other groups, these operators had large assets. Their equities averaged 92.7 percent, which was only slightly lower than the 94.3 percent for the families on class V and VI farms. Each group had average equities of more than 90 percent, and the amounts of short- and long-term debt were about equal. From the standpoint of ratio of liabilities to assets, it appears that most farmers should be able to obtain more credit to enlarge their farm businesses.

Only 85 of the 269 farm operators who were interviewed used credit in 1955 (Appendix Table 11). The major sources were commercial banks (56.5 percent) and Production Credit Associations (20.0 percent). Only 3 of the 269 farmers borrowed from the Farmers Home Administration. In most instances, the credit obtained was in rather small amounts.

One reason for failure to use credit may be the low return to capital invested in a farm business. If labor by members of the family had been charged at prevailing farm wage rates in the area—\$5 a day—the average return to owned capital on the class I to IV farms would have been 2.3 percent in 1955. On farms in the other classes, the average returns to capital would have been negative (Table 34).

For some farmers, the investment in land and equipment was made, not so much for a farm business as for the pleasure of living in the area. If the farmer wanted to live on the farm but not operate it, he could have invested \$3,750 in a nonfarm acreage and residence. This was the average value of a rural nonfarm property in the area. This amount was subtracted from the value of the owners' equity to determine the amount of capital that may have been invested in the

<sup>29</sup>Bebermeyer, Paul H., *Missouri Farm Business Summary*, 1955, p. 15 unit income.



TABLE 34--RELATIONSHIP BETWEEN SIZE OF BUSINESS AND INCOME,  
BY ECONOMIC CLASS OF FARM; SAMPLE HOUSEHOLDS,  
MISSOURI ECONOMIC AREA 8, 1955

Item	Economic Class of Farm				
	I-IV	V-VI	Part-time	Residential	Total
Number of farms	56	92	66	55	269
Total assets (Dollars)	\$25,794	\$12,992	\$9,661	\$7,640	\$13,745
Value of land and buildings rented (Dollars)	\$ 5,316	\$ 1,130	\$ 733	\$ 471	\$ 1,769
Total assets owned (Dollars)	\$20,478	\$11,862	\$8,928	\$7,169	\$11,976
Net family income (Dollars)	\$ 1,869	\$ 578	\$ 194	\$ 116	\$ 658
Man work days performed on farm by family* (Number)	279	160	90	66	148
Charge for family labor** (Dollars)	\$ 1,395	\$ 800	\$ 450	\$ 330	\$ 740
Return on owned assets (Dollars)	\$ 474	\$ -222	\$ -256	\$ -214	\$ -82
Percentage returns on owner's investment† (Percent)	2.3	-1.9	-2.9	-3.0	-0.7

\*Man work day is defined as the average amount of work that should be accomplished by a worker in a 10-hour day, when working with average efficiency and average equipment, on a medium-sized farm in Missouri. For each farm, the man work days needed to handle all enterprises was computed. Hired labor was not included in the total.

\*\*Family labor is charged at the rate of \$5.00 per man work unit--the prevailing wage of hired farm labor in the area.

†Return on investment divided by owned farm capital.

farm business. Return to this capital was low on all classes of farms. For example, if labor was considered free, the average return to capital invested in a class I to IV farm business was 12.3 percent (Table 35). If family labor was paid the prevailing hired wage rate, the return to capital invested in these farms was 3.1 percent. On farms in class V to VI, the average return to capital, if labor was free, was 7.8 percent; if the prevailing wage rate was paid, capital received a negative return. On the part-time and residential farms, if labor was free, capital received 4.2 and 4.0 percent, respectively.

The class I to IV farms had an average of 154 acres of crop land but used only 81 acres for harvested crops. Feed was a major item of expense. Studies have shown that money spent for soil treatment to raise crop yields or to expand the acreage of feed grains and high-quality forage increase earnings far above the cost of borrowing the necessary funds. This practice might increase the total earnings of these farm businesses substantially.

#### Other Factors that Influence Farm Income.

Many factors acting together or independently have resulted in low incomes to farmers in this area. The findings show that about 90 percent of the farm businesses are too small for adequate levels of family income (net farm incomes of more than \$2,000 a year). The average acreage of cropland and numbers of livestock were substantially greater on class I to IV farms than on class V to

TABLE 35--SPECIAL CHARACTERISTICS OF FARMS BY ECONOMIC CLASS, AVERAGE PER FARM; MISSOURI ECONOMIC AREA 8, 1955

Item	Economic Class of Farm				All Farms
	I-IV	V-VI	Part-time	Residential	
Number of farms	56	92	66	55	269
Acreage in farms	321	210	150	118	199
Value of owner's assets (Dollars)	20,478	11,862	8,928	7,169	11,976
Value of owner's equity (Dollars)	18,978	11,186	8,367	6,678	11,195
Residential value (Dollars)	3,750	3,750	3,750	3,750	3,750
Value of farm business (Dollars)	15,228	7,436	4,617	2,928	7,445
Net farm income (Dollars)	1,869	578	194	116	658
Percentage return to equity capital (labor free) (Percent)	12.3	7.8	4.2	4.0	8.8
Per day return to labor (equity capital free) (Dollars)	6.70	3.61	2.15	1.76	4.45
Charge for family labor (Dollars)*	1,395	800	450	330	740
Return to farm equity capital (Dollars)	474	-222	-256	-214	-82
Percentage return on owner's equity (Percent)	3.1	-3.0	-5.5	-7.3	-1.1

\*Family labor is charged at the rate of \$5 per man work day--the prevailing wage of hired farm labor in the area.

VI farms (Tables 36 and 37). In general, similar production patterns were followed on the various sizes of farms. Hence, deficiencies in the size of farms were not overcome through the use of more intensive practices and enterprises.

Most of the farms in the area are mechanized. Even in the lowest income class where net returns were only \$200 a year, 47 percent of the operators had tractors (Table 38). In the highest income class, about 90 percent had tractors. Fifteen farmers had more than one.

The presence of mechanized equipment does not necessarily mean efficient farming. For some farmers, heavy investment in expensive equipment is the

TABLE 36--USE OF LAND ON FARMS, BY ECONOMIC CLASS; SAMPLE FARMS, MISSOURI ECONOMIC AREA 8, 1955

Item	Economic Class of Farm				All Farms
	I-IV	V-VI	Part-time	Residential	
Number of farms	56	92	66	55	269
	Acres	Acres	Acres	Acres	Acres
Average acreage in:					
Cropland					
Pasture or idle	73	25	16	20	32
Corn	25	9	9	6	12
Small grain	21	12	6	4	11
Other crops	35	24	13	13	20
Total	154	70	44	43	75
Open permanent pasture	37	28	21	16	26
Woodland pasture	130	112	85	59	98
Total	321	210	150	118	199

TABLE 37--AVERAGE NUMBER OF LIVESTOCK PER FARM, BY ECONOMIC CLASS; SAMPLE FARMS, MISSOURI ECONOMIC AREA 8, 1955

Item	Economic Class of Farm				
	I-IV	V-VI	Part-time	Residential	All Farms
Number of farms	56	92	66	55	269
	Number	Number	Number	Number	Number
Workstock	.5	.9	.5	.6	.6
Dairy cows	5.1	1.9	1.4	.8	2.2
Beef cows	13.8	10.9	6.2	4.8	9.1
Ewes	1.8	.1	.5	.2	.6
Brood sows	3.4	2.2	1.8	.6	2.0
Pigs raised	43.5	27.2	14.9	4.1	22.8
Chickens*	80.5	37.2	24.3	23.6	40.2

\*Laying flocks only were considered.

forerunner of financial difficulty. The average expenses of machinery per crop acre on the various classes of farms differed very little.<sup>30</sup> On a crop-acre basis, machinery expenses were \$7.38 on the class I to IV farms; \$8.76 on the class V to VI farms; \$10.36 on the part-time farms, and \$7.10 on the residential farms. The similarity in costs probably reflects the adjustment that farm operators had made in the quality of the equipment they owned. This is assumed because the average cropped acreage on the class I to IV farms was more than 3 times the cropped acreage on the part-time and residential farms. As cash operating costs per acre were probably similar, the difference in total must lie in the annual rates of depreciation, which are related to the value of the equipment. The higher cost incurred by part-time operators as compared with residential farm operators probably reflects mainly the differences in the quality of their automobiles.

Although gross income is not the best measure of production rates, it does reveal some interesting facts about volume of products available for sale or home use. Gross returns per animal unit on Economic Class I to IV farms were greater

TABLE 38--TYPE OF POWER OWNED BY FARM OPERATORS, BY ECONOMIC CLASS OF FARMS; SAMPLE FARMS, MISSOURI ECONOMIC AREA 8, 1955

Type of Power	Economic Class of Farm				
	I-IV	V-VI	Part-time	Residential	All Farms
	Number	Number	Number	Number	Number
Farms with:					
None	4	7	12	12	35
Horses or mules only	2	18	11	14	45
Horses, mules, and tractor	13	22	8	3	46
Tractor only	28	42	32	26	128
2 tractors	6	3	3	--	12
3 tractors	3	--	--	--	3
Total	56	92	66	55	269

<sup>30</sup>Expenses of farm machinery included all operating expenses of farm machinery including depreciation and half the operating expense and depreciation on the automobile. All the depreciation of farm trucks was allocated to the farm. The cost of hired farm machinery was also included in this total.

than on farms in the other economic classes (Table 39). Apparently, the animals were of higher quality and had better care than those on the low-income farms. Herein may lie one of the areas in which the greatest service can be rendered. If low income farmers can be taught to select or acquire high-producing animals and to give them good care, their incomes can be raised. In many instances, it will be necessary also to increase the size of the enterprises.

TABLE 39--GROSS INCOME PER ANIMAL UNIT OF LIVESTOCK AND PER ACRE OF CROPS HARVESTED; 269 FARMS, MISSOURI ECONOMIC AREA 8, 1955

Item	Economic Class of Farm				
	I-IV	V-VI	Part-time	Residential	All Farms
Number of farms	56	92	66	55	269
	Dollars	Dollars	Dollars	Dollars	Dollars
Gross income per:					
Dairy cow	226	117	68	68	157
Beef cow	89	56	43	40	62
Brood cow	313	199	147	97	221
100 chickens	392	354	270	242	312
100 broilers	72	---	---	---	72
Acre of crops harvested	11	7	10	13	10

One prerequisite of successful farming is a business that is large enough to make full use of the family labor force. Livestock production usually provides year-round work. To determine the adequacy of a farm business in this area, the labor requirements of the enterprises were computed. The standards used were based on the amount of work that should be accomplished by a worker in a 10-hour day, using average equipment with average efficiency on a medium-sized Missouri farm. This standard 10-hour day was defined as a man workday. Numbers of man workdays were computed for the enterprises reported on each farm unit in the survey. Only class I to IV farms had farm enterprises sufficient to keep one worker fully occupied (300 days) during the year (Table 40). The return per man work day after allowing 5 percent interest on capital was only \$3.03. On the other farms, the returns were not sufficient to pay 5 percent interest on capital, leaving no return to labor.

It is often assumed in farm management that a young, able-bodied farmer is present when farm plans are made. In many instances, however, this is not true. Instead, the operator may be unable to perform any more work than he is now doing. In planning for the future, curtailment of his workload rather than expansion may be in order.

In this area, about 35 percent of the heads of farm households on class V and VI and residential farms were more than 60 years old (Table 41); on classes I to IV and part-time farms, about 25 percent were more than 60. In selecting enterprises to increase the farm income on many of these farms, high priority should be given to enterprises that do not require strenuous farmwork. In many instances, the choice is between a higher level of income and greater leisure.

TABLE 40--LABOR NEEDED, FAMILY LABOR AVAILABLE, AND RETURNS TO FAMILY LABOR, PER FARM, BY ECONOMIC CLASS; SAMPLE FARMS, MISSOURI ECONOMIC AREA 8, 1955

Item	Economic Class of Farm				
	I-IV	V-VI	Part-time	Residential	All Farms
Number of farms	56	92	66	55	269
Man work days needed per year (Number)*	340	176	95	68	168
Man work days performed by family (Number)	279	160	90	66	148
Net farm income (Dollars)	1,869	578	194	116	658
Interest on investment (Dollars)**	1,024	593	446	358	599
Labor income (Dollars)	845	-15	-252	-242	59
Return to each day of family labor (Dollars)	3.03	-0.09	-2.80	-3.67	0.40

\*Man work day is defined as the average amount of work that should be accomplished by a worker in a 10-hour day when working with average efficiency and average equipment on a medium-sized farm in Missouri. For each farm, the man work days needed to handle the enterprises for a year were computed.

\*\*Interest charge was 5 percent.

TABLE 41--NUMBER OF FARM OPERATORS, BY AGE OF OPERATOR AND ECONOMIC CLASS OF FARM; SAMPLE FARM HOUSEHOLDS, MISSOURI ECONOMIC AREA 8, 1955

Age (Years)	Economic Class of Farm					Total
	I-IV	V-VI	Part-time	Residential	Total	
	Number	Number	Number	Number	Number	
20-29	2	1	5	--	8	
30-39	9	10	9	4	32	
40-49	21	27	20	12	80	
50-59	10	20	13	20	63	
60-69	10	24	14	12	60	
70 and over	4	10	5	7	26	
Total	56	92	66	55	269	

APPENDIX TABLE 1--NUMBER OF EMPLOYEES, BY TYPE OF INDUSTRY  
AND BY NUMBER OF EMPLOYEES IN FIRM, SECOND QUARTER  
1950 AND 1955; MISSOURI ECONOMIC AREA 8\*

Type of Industry	Number of Employees Working for Firm with --							
	0-19		20-99		100 or More		Total	
	Employees	Employees	Employees	Employees	Employees	Employees	1950	1955
Agriculture	---	2	---	---	---	---	---	2
Forestry	100	155	220	223	---	---	320	378
Manufacturing	152	137	239	437	1,843	1,103	2,234	1,677
Construction	34	88	42	165	---	---	76	253
Mining	83	91	34	76	3,681	3,602	3,798	3,769
Transportation								
Communication	82	102	26	42	---	---	108	144
Public Utilities	48	19	68	231	192	---	308	250
Wholesale Trade	34	78	---	---	---	---	34	78
Retail Trade	553	593	408	497	---	---	961	1,090
Service	164	256	181	82	---	---	345	338
Other	17	---	---	---	---	---	17	---
Total	1,267	1,521	1,218	1,753	5,716	4,705	8,201	7,979

\*Derived from unpublished data of the Division of Employment Security of the State of Missouri. Includes all firms that employ 8 or more employees (except industries that report from a central business office), and those with less than 8 employees who elected to have their workers covered by unemployment insurance.

APPENDIX TABLE 2--NUMBER OF FIRMS BY TYPE OF INDUSTRY AND BY  
NUMBER OF EMPLOYEES, SECOND QUARTER 1950 AND 1955,  
MISSOURI ECONOMIC AREA 8\*

Type of Industry	Number of Firms with -							
	0-19		20-99		100 or More		All Firms	
	Employees	Employees	Employees	Employees	Employees	Employees	Total	Total
Agriculture	--	1	--	--	-	-	--	1
Forestry	10	17	5	5	-	-	15	22
Manufacturing	12	11	5	7	6	4	23	22
Construction	5	8	1	4	-	-	6	12
Mining	8	8	1	3	5	4	14	15
Transportation								
Communication	8	12	1	2	-	-	9	14
Public Utilities	6	2	1	3	1	-	8	5
Wholesale Trade	3	6	--	--	-	-	3	6
Retail Trade	51	60	12	14	-	-	63	74
Service	14	14	5	2	-	-	19	16
Other	1	--	--	--	-	-	1	--
Total	118	139	31	40	12	8	161	187

\*Derived from unpublished data of the Division of Employment Security of the State of Missouri. Includes all firms that employ 8 or more employees (except industries that report from a central business office), and those with less than 8 employees who elected to have their workers covered by unemployment insurance.

APPENDIX TABLE 3--MAJOR USES OF LAND IN FARMS, BY COUNTIES; ECONOMIC AREA 8, MISSOURI, 1954

County	Number of Farms	Land in Farms Acres	Total Cropland Acres	Cropland Harvested Acres	Cropland Pastured Acres	Cropland Not Har- vested and Not Pastured	Woodland Pastured Acres	Woodland Not Pastured Acres	Other Pasture Acres	Other Land in Farms Acres
						Acres				
Carter	431	74,425	18,978	8,827	8,000	2,151	14,401	36,274	2,317	2,455
Dent	1,423	285,485	79,257	34,864	36,761	7,632	105,933	46,270	45,160	8,865
Iron	752	125,854	29,010	16,586	9,413	3,011	32,662	43,355	18,082	2,745
Madison	846	144,536	51,928	24,937	24,863	2,128	42,283	39,838	5,748	4,739
Oregon	1,550	316,679	87,411	29,335	52,228	5,848	138,116	38,158	45,238	7,756
Reynolds	862	166,011	43,911	20,242	18,977	4,692	48,655	65,194	4,271	3,980
Ripley	1,259	170,187	75,534	32,295	31,378	11,861	50,716	33,246	5,899	4,792
Shannon	1,144	216,797	65,356	22,724	38,503	4,129	83,697	48,694	13,855	5,165
St. Francois	1,185	178,565	78,406	39,016	35,371	4,019	51,995	19,298	22,201	6,665
Wayne	1,088	167,087	61,747	36,409	22,713	2,625	34,832	60,214	5,229	5,065
Total	10,540	1,845,626	591,538	265,235	278,207	48,096	603,290	430,541	168,000	52,227
Average per farm	----	175.1	56.1	25.2	26.4	4.5	57.2	40.8	15.9	5.0

U. S. Census of Agriculture, vol. I, part 10, 1954, pp. 44-53.

APPENDIX TABLE 4--LOCATION OF PERSONS WHO HAD LEFT FARM AND  
NONFARM HOUSEHOLDS, BY EDUCATION GROUP;  
SAMPLE HOUSEHOLDS, 1956\*

Item	Total*	Migrants Who Attended School		
		0-8 Years	9-12 Years	13 and More Years
	<u>Number</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
Present residence of persons from farm households:				
Same or adjoining county	152	42.1	48.7	9.2
St. Louis	144	40.3	54.2	5.5
Other cities in Missouri	45	40.0	44.4	15.6
Adjoining state	57	52.6	35.1	12.3
Other areas	79	32.9	45.6	21.5
Total	<u>477</u>	<u>41.2</u>	<u>47.9</u>	<u>10.9</u>
Present residence of persons from nonfarm households:				
Same or adjoining county	329	60.8	33.4	5.8
St. Louis	283	56.9	37.1	6.0
Other cities in Missouri	87	67.8	24.1	8.1
Adjoining state	111	57.7	40.5	1.8
Other areas	167	49.1	42.5	8.4
Total	<u>977</u>	<u>57.9</u>	<u>36.1</u>	<u>6.0</u>

\*Does not include 7 persons from farm households and 58 from nonfarm households on whom data were not obtained.



APPENDIX TABLE 5--PERSONS WHO HAD LEFT THE FAMILIES WHO WERE INTERVIEWED,  
BY AGE AND FORMAL SCHOOLING; MISSOURI ECONOMIC AREA 8, 1956

Item	Number and Percentage Who had Attended School -							
	0-8 Years		9-12 Years		13 Years and Over		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Persons from farm households								
Aged -								
10-19 years	4	14.8	21	77.8	2	7.4	27	100.0
20-29 years	65	31.4	124	59.9	18	8.7	207	100.0
30-39 years	75	49.7	53	35.1	23	15.2	151	100.0
40-49 years	48	63.2	18	23.7	10	13.1	76	100.0
50 years and over	4	50.0	4	50.0	--	---	8	100.0
Total	196	41.8	220	46.9	53	11.3	469	100.0
Persons from nonfarm households								
Aged -								
10-19 years	17	37.8	26	57.7	2	4.5	45	100.0
20-29 years	123	46.2	120	45.1	23	8.7	266	100.0
30-39 years	178	56.2	119	37.5	20	11.2	317	100.0
40-49 years	177	69.4	66	25.9	12	4.7	255	100.0
50 years and over	75	74.3	21	20.8	5	4.9	101	100.0
Total	570	75.9	352	35.8	62	6.3	984	100.0
Persons from all households								
Aged -								
10-19 years	21	29.1	47	65.3	4	5.6	72	100.0
20-29 years	188	39.7	244	51.6	41	8.7	473	100.0
30-39 years	253	54.1	172	36.8	43	9.1	468	100.0
40-49 years	225	68.0	84	25.4	22	6.6	331	100.0
50 years and over	79	72.5	25	22.9	5	4.6	109	100.0
Total	766	52.7	572	39.4	115	7.9	1,453	100.0

APPENDIX TABLE 6--NUMBER OF NONFARM HOUSEHOLDS BY ACREAGE AND LEVEL OF INCOME; SAMPLE HOUSEHOLDS, MISSOURI ECONOMIC AREA 8, 1955

Household Income	Households by Acreage							Average Size of Place Acres
	Less than 1 Acre	1-9 Acres	10-49 Acres	50-99 Acres	100-179 Acres	180 or More Acres	All Households	
	Number	Number	Number	Number	Number	Number	Number	
None	1	4	6	1	6	4	22	380
\$1-\$499	3	4	8	4	1	1	21	46
\$500-\$999	14	22	36	12	11	3	98	45
\$1000-\$1499	13	12	31	11	11	3	81	45
\$1500-\$1999	12	10	16	11	5	5	59	56
\$2000-\$2499	6	11	18	11	4	-	50	36
\$2500-\$2999	2	5	12	6	--	2	27	62
\$3000-\$3499	9	13	13	9	1	4	49	76
\$3500-\$3999	2	16	14	2	1	-	35	18
\$4000-\$5999	9	21	10	5	5	2	52	35
\$6000-\$9999	4	5	5	3	1	1	19	49
\$10,000 and over	--	1	--	1	--	1	3	461
Total	75	124	169	76	46	26	516	63

APPENDIX TABLE 7--SOURCE AND AVERAGE AMOUNT OF INCOME OF SAMPLE FARM HOUSEHOLDS, BY NET HOUSEHOLD INCOME CLASS; MISSOURI ECONOMIC AREA 8, 1955\*

Income	Number of Households	Average Income Dollars	Income From			
			Wages on Other Farms Dollars	Nonfarm Employment Dollars	Non-Employment Income Dollars	Farm Income Dollars
Loss	18	-440	--	148	---	-588
\$1-\$499	25	248	1	116	107	24
\$500-\$999	44	731	12	182	158	380
\$1000-\$1499	34	1,260	26	257	321	655
\$1500-\$1999	34	1,699	68	543	416	672
\$2000-\$2499	31	2,202	18	1,125	231	826
\$2500-\$2999	22	2,805	48	1,610	239	908
\$3000-\$3499	15	3,204	11	1,832	516	845
\$3500-\$3999	14	3,658	3	2,908	76	671
\$4000-\$5999	20	4,756	3	2,991	162	1,600
\$6000-\$9999	9	6,809	--	4,837	813	1,159
\$10,000 and over	3	10,895	--	5,887	---	5,008
Total	269	2,042	21	1,116	247	658

\*The incomes listed include money or in kind payment to all members of the household for the 1955 calendar year. Farm income from the farm is a net income figure (gross income which includes value of all sales, home consumption and inventory changes minus expenses--depreciation on machinery and farm buildings are included as an expense item).

APPENDIX TABLE 8--SOURCE AND AVERAGE NET HOUSEHOLD INCOME OF  
NONFARM HOUSEHOLDS, BY INCOME CLASS; SAMPLE HOUSEHOLDS,  
MISSOURI ECONOMIC AREA 8, 1955

Income Class	Households Number	Average Income Dollars	Average Amount From -		
			Wages on Other Farms Dollars	Nonfarm Employment Dollars	Non- employment Income Dollars
0	22	0	0	0	0
\$1-\$499	21	438	69	86	283
\$500-\$999	98	723	47	128	548
\$1,000-\$1,499	81	1,259	52	357	850
\$1,500-\$1,999	59	1,753	90	838	825
\$2,000-\$2,499	50	2,257	209	1,423	625
\$2,500-\$2,999	27	2,708	50	2,246	412
\$3,000-\$3,499	49	3,184	28	2,888	268
\$3,500-\$3,999	35	3,591	110	3,099	382
\$4,000-\$5,999	52	4,670	31	4,497	142
\$6,000-\$9,999	19	6,078	---	5,877	201
\$10,000 and over	3	18,500	---	18,500	---
All households	516	2,262	66	1,697	499

APPENDIX TABLE 9--SOURCES OF NONEMPLOYMENT INCOME; SAMPLE OPEN-COUNTRY HOUSEHOLDS,  
MISSOURI ECONOMIC AREA 8, 1955

Sources of Income	Farm			Nonfarm			All Households		
	Members Receiving (Number)	Total Income (Dollar)	Percent of Total	Members Receiving (Number)	Total Income (Dollar)	Percent of Total	Members Receiving (Number)	Total Income (Dollar)	Percent of Total
Social Security	24	10,725	16.1	68	36,913	14.4	92	47,638	14.7
State relief payments	5	3,815	5.7	40	26,339	10.2	45	30,154	9.3
Old Age Pension	28	16,346	24.6	161	99,085	38.5	189	115,431	35.7
Unemployment insurance	15	3,445	5.2	23	6,226	2.4	38	9,671	3.0
Workman's compensation	3	625	1.0	14	5,749	2.2	17	6,374	2.0
Interest or rent	15	10,496	15.8	42	21,735	8.5	57	32,231	10.0
Veteran's payments	17	19,650	29.6	44	52,049	20.2	61	71,699	22.0
Other	4	1,361	2.0	16	9,170	3.6	20	10,531	3.3
Total	111	66,463	100.0	408	257,266	100.0	519	323,729	100.0

APPENDIX TABLE 10--SIZE OF HOMES AND CONVENIENCES IN HOMES, BY INCOME CLASS; SAMPLE FARMS AND NONFARM HOUSEHOLDS, MISSOURI ECONOMIC AREA 8, 1955

Item	Households with Incomes of								All Households	
	\$0-\$999		\$1000-\$1999		\$2000-\$2999		\$3000 and Over		Num-ber	Per-cent
	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent
<b>Farm households:</b>										
Central heating	5	5.7	7	10.3	3	5.7	15	24.6	30	11.2
Stove heat	82	94.3	61	89.7	50	94.3	46	75.4	239	88.8
Total	87	100.0	68	100.0	53	100.0	61	100.0	269	100.0
Plumbing in house	18	20.7	19	27.9	13	24.5	26	42.6	76	28.3
No plumbing in house	69	79.3	49	72.1	40	75.5	35	57.4	193	71.7
Total	87	100.0	68	100.0	53	100.0	61	100.0	269	100.0
Electricity	79	90.8	58	85.3	53	100.0	61	100.0	251	93.3
No electricity	8	9.2	10	14.7	--	---	---	---	18	6.7
Total	87	100.0	68	100.0	53	100.0	61	100.0	269	100.0
<b>Rooms in house:</b>										
1-4	34	39.1	26	38.3	15	28.3	15	24.6	90	33.5
5-6	45	51.7	33	48.5	26	49.1	30	49.2	134	49.8
7 or more	8	9.2	9	13.2	12	22.6	16	26.2	45	16.7
Total	87	100.0	68	100.0	53	100.0	61	100.0	269	100.0
<b>Number of bedrooms:</b>										
0-2	53	60.9	41	60.3	23	43.4	24	39.3	141	52.4
3	24	27.6	18	26.5	18	34.0	24	39.3	84	31.2
4 or more	10	11.5	9	13.2	12	22.6	13	21.4	44	16.4
Total	87	100.0	68	100.0	53	100.0	61	100.0	269	100.0

APPENDIX TABLE 10 -- CONTINUED

Item	Households with Incomes of								All	
	\$0-\$999		\$1000-\$1999		\$2000-\$2999		\$3000 and Over		Households	
	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent
Nonfarm households:										
Central heating	14	9.9	13	9.3	6	7.8	42	26.6	75	14.5
Stove heat	127	90.1	127	90.7	71	92.2	116	73.4	441	85.5
Total	141	100.0	140	100.0	77	100.0	158	100.0	516	100.0
Plumbing in house	20	14.2	23	16.4	15	19.5	76	48.1	134	26.0
No plumbing in house	121	85.8	117	83.6	62	80.5	82	51.9	382	74.0
Total	141	100.0	140	100.0	77	100.0	158	100.0	516	100.0
Electricity	119	84.4	126	90.0	69	89.6	155	98.1	469	90.9
No electricity	22	15.6	14	10.0	8	10.4	3	1.9	47	9.1
Total	141	100.0	140	100.0	77	100.0	158	100.0	516	100.0
Rooms in house:										
1-4	93		82		53		66		294	57.0
5-6	44		48		18		77		187	36.2
7 or more	4		10		6		15		35	6.8
Total	141		140		77		158		516	100.0
Number of bedrooms:										
0-2	114	80.9	106	75.7	58	75.3	108	68.4	386	74.8
3	24	17.0	25	17.9	14	18.2	39	24.7	102	19.8
4 or more	3	2.1	9	6.4	5	6.5	11	6.9	28	5.4
Total	141	100.0	140	100.0	77	100.0	158	100.0	516	100.0

APPENDIX TABLE 11--NUMBER OF FARMERS WHO USED CREDIT, NUMBER WHO HAD BORROWED FROM FARMERS HOME ADMINISTRATION, AND USE MADE OF FUNDS OBTAINED; SAMPLE HOUSEHOLDS, MISSOURI ECONOMIC AREA 8

Item	Economic Class of Farm				
	I-IV	V-VI	Part-time	Residential	All Farms
Number of farms	56	92	66	55	269
Farmers using credit in 1955 from -					
Commercial banks	13	13	12	10	48
Production Credit Associations	11	5	--	1	17
Farmers Home Administration	--	3	--	--	3
Retail stores	--	--	--	2	2
Other	2	7	4	2	15
Total	<u>26</u>	<u>28</u>	<u>16</u>	<u>15</u>	<u>85</u>
Farmers who have obtained loans from Farmers Home Administration to -					
Buy machinery	--	3	1	1	5
Buy land	1	--	--	--	1
Dig well	1	--	--	--	1
Repair building	--	--	1	--	1
Buy fertilizer	--	1	1	--	2
Buy feed	1	3	1	1	6
Buy livestock	6	4	3	2	15
Buy seed	1	1	2	--	4
Total	<u>10</u>	<u>12</u>	<u>9</u>	<u>4</u>	<u>35</u>