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Financial Progress of Beginning Farmers in North Central Missouri, 1953-1959

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COLUMBIA, MISSOURI

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SUMMARY

The trend toward widespread use of power equipment has increased the size of farms and the investments needed to set up reasonably satisfactory farm businesses. The question is heard often: How can a young man get established in farming? In an effort to find a satisfactory answer the records of 62 farmers who started in business in northcentral Missouri in 1953 were analyzed. The work was guided by the following objectives:

1. To determine how young people get started in farming in the pasture-livestock area of northcentral Missouri.
2. To reveal the procedures that proved most successful for those who started in 1953.
3. To measure the rate of capital accumulation under different tenure arrangements.
4. To develop standards that can be used as guides by young people who want to farm and are interested in evaluating their chances of success.

The people who started farming in 1953 did not follow a uniform procedure in getting control of resources. Thirteen percent started as owner-operators, 10 percent as part-owners and 77 percent as tenants. Of the tenants, 10 percent had cash leases, 48 percent crop-share leases, 15 percent crop-share-cash leases and 27 percent livestock-share leases.

Ten percent of the men who started farming in 1953 had quit business by December 31, 1959. All who remained had increased the land and capital under their control materially. This task had been accomplished in a variety of ways. Owner-operators increased from 13 percent to 25 percent. Part-owners increased from 10 percent to 31 percent. Tenants decreased from 77 percent to 44 percent.

All classes of beginning tenant operators except the crop-share-cash group declined in number during the 1953-59 period. The crop-share group declined the most, from 48 to 30 percent.

Only 26 percent of the men who started farming in 1953 remained in the same tenure class at the close of 1959. Of the 48 tenants, 14 changed the type of lease, 10 switched to part-owners and seven to owner-operators. No owners or part-owners switched to the tenant group, but two part-owners became owner-operators and three full owners transferred to part-owners.

Financial success was measured in terms of gain in net worth. By the close of 1959, owner-operators advanced from \$11,934 to \$26,494 or 122 percent; part-owners from \$15,276 to \$23,149 or 52 percent; and tenants from \$5,800 to \$15,864 or 174 percent.

Livestock-share renters increased their net worth from \$7,540 to \$23,700 or 214 percent; crop-share tenants advanced from \$4,949 to \$15,211 or 207 percent; cash tenants from \$4,724 to \$11,861 or 151 percent and crop-share-cash tenants from \$5,641 to \$13,998 or 148 percent.

The analysis shows that the following conditions contribute to a successful start in farming:

1. *Previous farm experience and training.* Ninety-five percent of the men from whom data were obtained were reared on farms; 85 percent had had previous farm experience; 51 percent had taken vocational agriculture in high school; 36 percent had 4-H Club experience, and 18 percent attended institutional On-Farm Training Classes in 1953.
2. *Substantial aid from relatives.* One-third of this group of beginning farmers earned most of the money with which they started while working on their parents' farms. Thirty of the 62 received gifts averaging \$537 the year they started. Members of the family owned most of the land farmed by 47 percent of the group. Other substantial aid included help in finding land to rent, exchange of work in rush periods and use of machinery without charge.
3. *Control of adequate resources for efficient use of the family labor force.* The men who started farming in 1953 had an average of 228 acres, which was slightly above the average size of all farms in northcentral Missouri. However, the enterprises carried did not provide full employment for the family labor force. A part of the surplus was used in off-farm work. By 1959 these men had increased the land under their control to 372 acres, which was 132 acres above the average size of farms in the area. Family income did not go up in proportion to the increase in size of business, but less time was spent off the farm and farm work accomplished per man was in line with accepted standards of achievement.

Control of adequate resources was more important to success than tenure. Owner-operators controlled the lowest amount of assets and had the smallest labor income to the family of any tenure group. The families of tenants had labor incomes that were appreciably above the returns to owner-operators and favorably comparable to the earning of part-owners.

Lack of credit was not a major problem to any of the beginning farmers. In 1953, seventy-one percent of the operators borrowed an average of \$1,471. By 1959, eighty-one percent were borrowing an average of \$5,617. Commercial banks were the major lenders, followed by merchants and members of families. Production Credit Associations gained in importance during the period.

Financial Progress of Beginning Farmers in North Central Missouri, 1953-1959

JAMES M. SHOEMAKER AND FRANK MILLER*

INTRODUCTION

The Problem

The decision a young man makes on an occupation will affect his activities and his income the rest of his life. It used to be said: "If a boy cannot do anything else, he can farm." This statement implied that it was easy to enter farming, and only low managerial skills were required. At one time this statement may have had some basis in fact. Land, livestock, and equipment were cheap; farm businesses were small and easy to manage; but farming has become a highly technical business that requires a large investment per man. The farm is no longer a place where a young man can go out day after day and through hard work make a good living for his family. It takes business judgment, knowledge of markets, skill in timing the various operations, and ability to supervise many kinds of work that are done both with labor and with machines. Training and experience in management, a knowledge of the principles of plant growth, skill in feeding and care of animals, and the maintenance of soil fertility are essential to success. The enterprises must be diversified enough to keep the family labor force gainfully employed throughout the year. With modern equipment the acreage must be large—a half section or more—or the enterprises must be very intensive, such as broilers, feeder pigs, dairy cattle, or livestock finishing for the slaughter market, to provide continuous employment and a satisfactory volume of business.

*The investigation reported in this Bulletin was started as a contribution to regional research under NC-15, How Young Families Get Established in Farming. The data obtained in 1957 were analyzed by Ted Lee Jones. His manuscript was presented to the Graduate Faculty in 1958 and accepted in partial fulfillment of the requirements for the Master of Science degree. The results were used in North Central Regional Extension Publication No. 8, Getting Started and Established in Farming With and Without Family Help.

This manuscript presents additional information about the families who supplied the data for the first report. Combining the two sets of information makes it possible to trace the progress of a group of beginning farmers through a six year period. The bulletin reports work under Department of Agricultural Economics research project 467, Adjustment Arrangements.

Perhaps the most important factor contributing to success is managerial skill, which includes wise selection of enterprises and judgment in timing farm operations and use of credit.

The environment in which a farm business is operated is never static. Seldom is the weather the same in two successive seasons. Price changes, new chemical discoveries, and the introduction of new equipment make old cropping systems and tillage practices obsolete. The consuming habits of people shift from cereals to fruits and vegetables, from an abundance of fats to low-fat diets, and from well-finished meats to lean beef and pork. These changing conditions influence farm organization greatly. The optimum size of farm, the amount of capital and credit, the type of tenure, the provisions of the lease contract, and sources of funds all need to be modified when the factors affecting them change.

Analysis of farm records shows that gross sales of at least \$10,000 are necessary for a family income of \$3,000 a year.¹ The 1959 census shows that under average conditions in Missouri, a farm of 350 acres is needed to bring this level of income.² The investment in land and buildings is at least \$45,000. An additional \$15,000 is required for livestock and equipment. These facts suggest that the old procedure of taking a team of horses and some foundation livestock to a rented farm and growing into an adequate size of business must be modified materially. Land can be rented, but modern equipment is expensive and must be kept in use at or near its full seasonal capacity to get low unit cost. A beginning farmer has little chance of financial success if he ignores these facts.

In an effort to determine how closely the facts above were being applied and their relationship to financial success, data were obtained from 62 farm operators in Northern Missouri in 1956 and again in 1960. All of these men started farming in 1953. The information included the conditions under which they started, the changes they had made in the organization of their businesses and the gain or loss in net worth for the 1953-59 six-year period.

Members of the College of Agricultural staff frequently are asked: "What is the best way for a young man to start farming today?" The answer can be different for each set of soil, climate, and market conditions and for each combination of resources that can be brought together by the beginning operator. However, it is believed that some general principles can be developed that will serve as guides to the young man who is contemplating the organization of a farm business. An effort is made here to reveal some of those principles by analyzing the experiences of men who started farming in 1953.

The prospective farmer knows the approximate size of the farm that is available to him, the types of enterprises he can include in the business, the amount of starting capital he will have, and whether he will be an owner, a part-owner, or a renter. The experiences of other young men who started under

¹*Farm Record Summaries of Missouri*, Farm Business Records of 1955 through 1960, as compiled by Paul Bebermeyer, University of Missouri.

²*1959 Census of Agriculture, Missouri*, United States Department of Commerce.

similar conditions will give him a better understanding of the problems and risks involved than if he must learn solely by trial.

OBJECTIVES

The work was guided by the following objectives:

1. To determine how young people get started in farming in the pasture-live-stock area of northcentral Missouri.
2. To reveal the procedures that proved most successful for those who started in 1953.
3. To measure the rate of capital accumulation under different tenure arrangements.
4. To develop standards that can be used as guides by young people who want to farm and are interested in evaluating their chances of success.

Data from the 1959 Agricultural Census show that 44 percent of the farm operators in the 15 northern Missouri counties from which the data for this study were obtained are over 55 years of age.³ Many of these men will leave the farm within a short time. Younger people will take their places, either by transfer of land to enlarge existing farms or by entry of new operators. It is important for beginners to know the amount of capital they should control; how much family help they will need; the size of farm that will give them the best chance of success; the types of enterprises that provide them with an adequate income; which enterprises give the most stable income; the best tenure arrangements and other details that contribute to success or failure.

METHOD OF INVESTIGATION

To obtain data for this analysis, the geographic townships in 15 northern Missouri counties were numbered 1 to 7 and four from each group were selected as the location for interviews. From these townships, all operators who began farming in 1953 were interviewed to get complete information about how they started and the financial progress they had made by the close of 1955. The survey was conducted by personnel with a standard interview form to be filled out by each farm operator. The information included complete details of beginning and ending inventories, assets owned and controlled, acres of land farmed, labor available, gross receipts and expenses, and other items that will be mentioned later in the bulletin.

In 1960, additional data were obtained on identical interview forms from the same operators showing the changes they had made in their businesses and the financial progress they had made up to the close of 1959.

³1959 *Census of Agriculture, Missouri*, United States Department of Commerce.

To be included in the study, a beginning farmer had to meet the following conditions:

1. He must have started farming for the first time in 1953.
2. He had to make or help make the production plans and decisions for farm enterprises that required at least 90 ten-hour days of productive labor per year.
3. He had to be out of full-time formal school before 1953.
4. All or a substantial part of his income had to be derived from his contribution to farm production.
5. The farming operation had to be carried out in the sample township.

For most of the analysis the farmers were grouped by tenure into owner-operators, part-owners and tenants. In some cases the tenants were grouped into four classes as follows:

1. Cash tenants, those operating under a rental agreement to pay a specified amount of money for use of the land.
2. Crop-Share Tenants, those who paid a share of the crop as rent.
3. Crop-Share-Cash, those who paid a share of the cultivated crops and cash for the hayland and pasture.
4. Livestock-Share Tenants, those who divided the income from livestock as well as from crops with the landlord.

DESCRIPTION OF THE AREA

Location

The area where the data were obtained is a part of the pasture-livestock region of northern Missouri extending from Worth County on the western boundary to Scotland County on the eastern edge. Linn, Macon, and Shelby Counties were also included on the southern border (Figure 1).

Soils

The soils are largely of glacial and loessial origin. Shelby Loam is the dominant type, but Lindley is found in the central and eastern counties, interspersed with level Putnam areas. The Shelby and Lindley areas have surface features that vary from gently rolling to moderately hilly (Figure 2). Losses from sheet erosion and gullying are serious problems in the management of these soils. Most of the land is classified as average to below average in crop productivity. Much of it is suited only for livestock production.⁴

Climate

The average annual rainfall in this area ranges from thirty-three to thirty-eight inches. June normally is the wettest month. The minimum length of growing season varies from 165 to 175 days. The latest killing freeze in the spring

⁴Lampher, Buel. *Productivity of Farm Land in Missouri*, University of Missouri Agricultural Experiment Station Research Bulletin 465, December, 1950, pp. 6-8.



Figure 1—Northern Missouri Counties Where 1953 Beginning Farmers Were Interviewed.

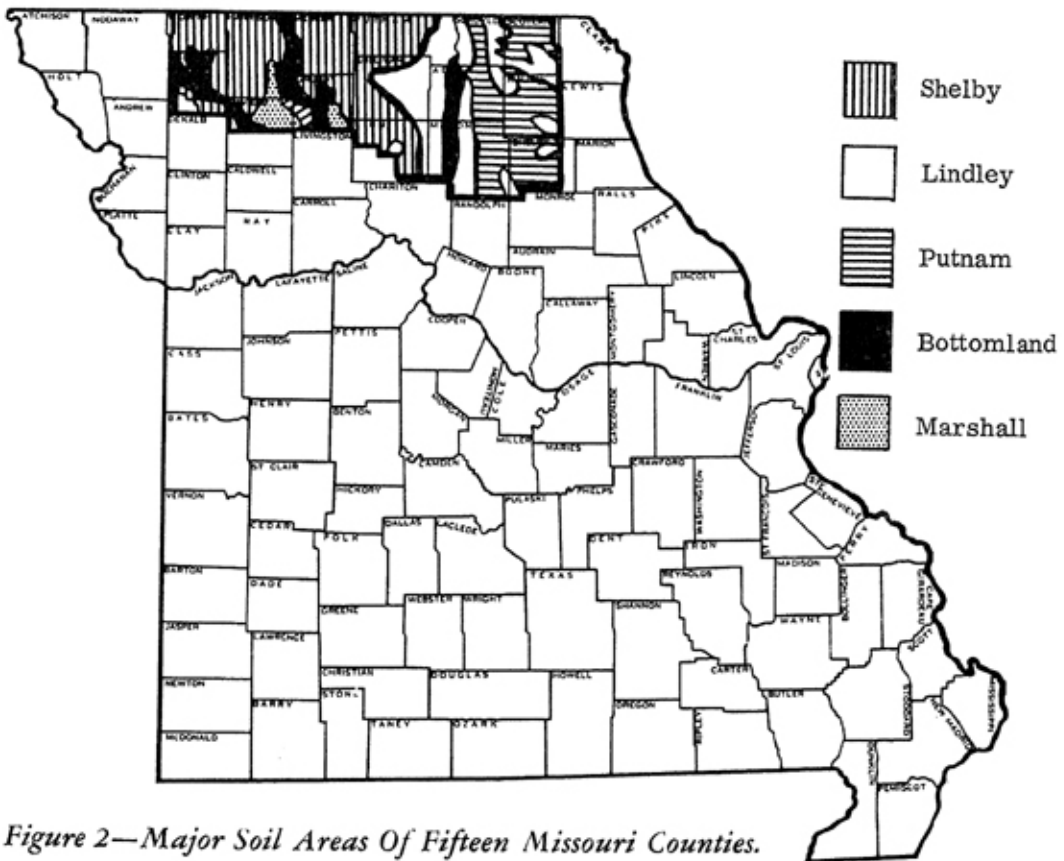


Figure 2—Major Soil Areas Of Fifteen Missouri Counties.

occurs about April 25, and the first killing frost in the autumn around October 10.⁵

Localized spots in this section of Missouri were hit by drouth during the 1953-1959 seven-year period. Rainfall recorded at the Unionville station in 1953 was 22.92 inches. It was only 21.68 in 1956, compared with 34.34 inches in the 1953-1962 ten-year period and an average of 35.89 inches for the 1918 to 1954 period. Weather stations at Bethany, Kirksville, and Maryville showed similar variations.

Despite these facts, crop yields in the 1953-1959 period were above the 1942-1961 twenty-year average. Corn yields averaged 45.5 bushels per acre in the seven years and 42.2 bushels over the 20 years. Wheat yielded 29.5 bushels in the seven years and 22.8 over the 20 years. Oats yielded 30.4 bushels in the short period and 27.8 bushels in the long period. Hay averaged 1.38 tons per acre in the seven years and 1.24 tons in the 20 years. The trend in crop yields was up and the data support the conclusion that dry weather did not affect production of the principal crops materially. Its influence was offset by other factors such as use of fertilizer, high-yielding varieties, and improved tillage practices.

COMPARISON OF BEGINNING FARMERS WITH ALL OPERATORS IN THE AREA

Size and Value of Farms

As is the trend over the whole country, the number of farms in Northern Missouri is decreasing while the average size is increasing. The average size of all farms in the 15 counties went up from 201 acres in 1954 to 230 acres in 1959, an increase of 14 percent (Table 1). The farms controlled by beginning farmers in this area increased from 228 acres in 1953 to 372 acres in 1959, a 63 percent increase in size. Apparently, the young farmer starts out with an average sized farm and increases the land under his control at a much faster rate than the average for all farmers.

The average value of land and improvements went from \$15,154 to \$24,123 during the period for all farms in the area, while the value of the units operated by beginning farmers rose from \$19,777 to \$36,818. This is an increase of almost twice as much as that of all farms. However, the increase in value of real estate reflects inflation in land values as well as additional acres in the operating units. The index of land value per acre in Missouri was 132 in 1953 and 169 in 1959, an increase of 28 percent ($1947-49 = 100$).

Tenure Conditions

The tenure status of the beginning farmers differed greatly from that of all farmers (Table 2). Fifty-eight percent of all farmers in this area were full owners

⁵Collier, James E. *Agricultural Atlas of Missouri*, University of Missouri, Agricultural Experiment Station Bulletin 645, February, 1955.

TABLE 1 -- SIZE AND VALUE OF FARMS OPERATED BY BEGINNING FARMERS AS COMPARED WITH ALL FARMS IN FIFTEEN SELECTED COUNTIES OF NORTHERN MISSOURI AS SHOWN BY THE CENSUS OF AGRICULTURE AND A SURVEY OF FARMERS WHO STARTED IN BUSINESS IN 1953

All Farms*			Beginning Farms		
Item	1954	1959	Item	1953	1959
Average size in acres	201	230	Average size in acres	228	372
Increase (acres)		29	Increase (acres)		144
Percent		14	Percent		63
Average value per farm	\$15,154	\$24,123	Average value per farm	\$19,777	\$36,818
Increase		\$ 8,969	Increase		\$17,041
Percent		59	Percent		86
Average value per acre	\$ 70	\$ 97	Average value per acre	\$ 87	\$ 99
Increase		\$ 27	Increase		\$ 12
Percent		39	Percent		14

*Source: Census of Agriculture, 1954 and 1959, United States Department of Commerce.

TABLE 2 -- PERCENTAGE OF OPERATORS BY TENURE: ALL FARMS IN 15 SELECTED COUNTIES OF NORTHERN MISSOURI AS SHOWN BY THE CENSUS OF AGRICULTURE AND A SURVEY OF FARMERS WHO STARTED IN BUSINESS IN 1953

All Farms*			Beginning Farmers		
Item	1954	1959	Item	1953	1959
Owner Operators	58	55	Owner Operators	13	25
Change		-3	Change		12
Part-Owners	25	29	Part-Owners	10	30
Change		4	Change		20
Tenants	17	16	Tenants	77	45
Change		-1	Change		-32

*Source: 1954 and 1959 Census of Agriculture, Missouri, United States Department of Commerce

in 1954 and 55 percent were in 1959. Only 13 percent of the beginning farmers started as full owners, while 25 percent of them had become owners by 1959.

Proportion of part-owners increased from 10 percent to 30 percent during the period for the beginning operators, whereas for all farmers, the proportion increased from 25 to 29 percent.

Tenants remained about constant at 16 percent of all farmers in the area, while the percentage of tenancy among the beginning group decreased from 77 to 45 percent.

The data show that the old agricultural ladder still is being used in modified form. A majority of young farmers start as tenants, but it is the goal of most of them to become owner-operators as soon as possible. Tenure arrangements for *all farmers* remained fairly stable throughout the 1953-59 period, with the crop-share lease the most common type. Leases were much more variable among *beginning farmers*, but the crop-share-cash contract was dominant in 1959 (Table 3). The cash lease was rarely used. The changes that were made in the various tenure classes are shown graphically in Figure 3.

Economic Class of Commercial Farms by Gross Sales

The definition of the various economic classes of farms was changed in the 1959 census (Table 4). The number and percentage of beginning farmers in the various classes as defined in 1959 is shown in Table 5. Analysis of farm records has shown that gross sales of \$10,000 or more are necessary for a reasonably satisfactory level of family income. Among all farmers, 9 percent had sales of \$10,000 or more in 1954 and 24 percent had that much in 1959. Among beginning farmers, 10 percent had sales of \$10,000 or more in 1953 and 37 percent had that much in 1959.

Thus beginning farmers made more rapid progress in gross sales and had a larger percentage in the upper three economic classes than farmers in general. Beginning farmers started with businesses that were about average in size for the area. In a period of six years they were 61 percent above the average, and 13 percent more of them than of *all farmers* were in the first three economic classes.

Off-Farm Work by Operator

About 35 percent of all farm operators in the area worked off the farm in both 1954 and 1959 (Table 6). In the *beginning farmer* group, 33 percent worked off the farm in 1953. In 1959, 53 percent were working off the farm. With modern equipment, farm work, particularly on crops, is not very time-consuming. Data from the Blackwater area in Cooper County, Mo.,⁶ show that many farmers with relatively large businesses work off their farms. The practice may continue in northern Missouri.

⁶Unpublished data assembled under Project 390, Family Farm Adjustments, Department of Agricultural Economics, University of Missouri, 1962.

TABLE 3 -- PERCENTAGE OF TENANT OPERATORS IN 15 COUNTIES OF NORTHERN MISSOURI BY TYPE OF RENT PAID AS SHOWN IN THE CENSUS OF AGRICULTURE AND A SURVEY OF FARMERS WHO STARTED IN BUSINESS IN 1953

All Farms*			Beginning Farmers		
Item	1954	1959	Item	1953	1959
Cash Lease	16	14	Cash Lease	10	9
Change		-2	Change		-1
Crop-Share Lease	43	42	Crop-Share Lease	48	30
Change		-1	Change		-18
Crop-Share-Cash Lease	19	21	Crop-Share-Cash Lease	15	44
Change		2	Change		29
Livestock-Share Lease	22	23	Livestock-Share Lease	27	17
Change		1	Change		-10

*Source: 1954 and 1959 Census of Agriculture, Missouri, United States Department of Commerce

TABLE 4 -- VALUE OF GROSS SALES USED TO DIVIDE FARMS INTO ECONOMIC CLASSES*

Economic Class	Value of Farm Products Sold (Dollars)
I	40,000 and over
II	20,000 to 39,999
III	10,000 to 19,999
IV	5,000 to 9,999
V	2,500 to 4,999
VI	50 to 2,499

*United States Census of Agriculture, 1959, Missouri Counties, U. S. Department of Commerce

Figure 3—Changes In Tenure Status Of Farmers Who Started In Business In Missouri In 1953.

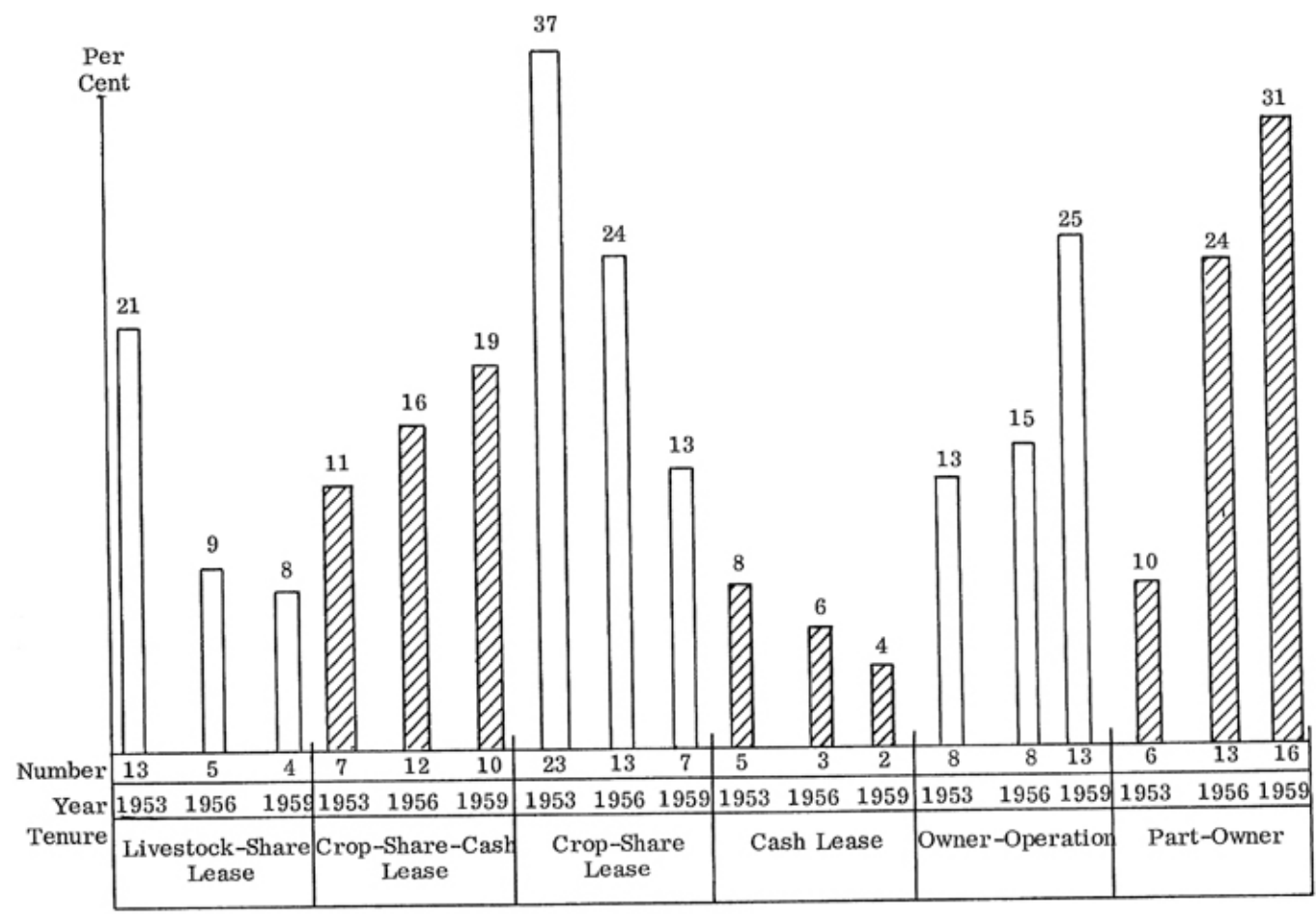


TABLE 5 -- DISTRIBUTION OF RANDOMLY SELECTED FARM BUSINESSES
THAT WERE STARTED IN 1953 IN 15 NORTHERN MISSOURI COUNTIES
AMONG ECONOMIC CLASSES, 1953, 1956, and 1959

Tenure Group	Economic Class						Total
	I	II	III	IV	V	VI	
<u>1953</u>							
Owner				2	6		8
Part-Owner			2	2	1	1	6
Tenant			4	16	19	9	48
TOTAL			6	20	26	10	62
Percent			10	32	42	16	100
<u>1956</u>							
Owner				1	7		8
Part-Owner			2	8	2	1	13
Tenant			7	16	5	5	33
TOTAL			9	25	14	6	54
Percent			17	46	26	11	100
<u>1959</u>							
Owner		1	2	6		4	13
Part-Owner		2	6	2	5	1	16
Tenant	1	2	5	9	5	1	23
TOTAL	1	5	13	17	10	6	52
Percent	2	10	25	33	19	11	100
<u>1959</u> *All Farms in 15 Counties							
Economic Class	I	II	III	IV	V	VI	
Percent	1	5	18	32	31	13	100

*Source: 1954 and 1959 Census of Agriculture, Missouri, United States Department of Commerce

TABLE 6 -- NUMBER AND PERCENTAGE OF FARM OPERATORS IN 15
NORTHERN MISSOURI COUNTIES WHO WORKED OFF THEIR
FARMS IN SELECTED YEARS

Item	1954	1959
All Farmers*		
Total Number	22,936	19,804
Working Off Farm	8,005	6,876
Percent	35	35
Beginning Farmers		
Total Number	<u>1953</u> 62	<u>1959</u> 52
Working Off Farm	21	28
Percent	34	54

*Source: 1954 and 1959 Census of Agriculture, Missouri, United States Department of Commerce

It is true that through the use of modern equipment, farmers can finish a particular job in a shorter time than with previous equipment. This, however, is not meant to infer that because the operator had some extra time he decided to do off-farm work. There are instances where this is the opposite of their true reasoning. Some operators feel it is easier to supplement their income through off-farm work than to intensify their farming operations. Modern equipment allows them to follow this plan.

BACKGROUND OF BEGINNING FARMERS

Of the 62 *beginning farmers* in 1953, ninety-five percent were farm reared; 85 percent had had previous farm experience. Members of the group had completed an average of 11.7 years of school. Seventy-eight percent were high school graduates, but only 5 percent were college graduates. Fifty-one percent had taken vocational agriculture in high school and 36 percent had 4-H Club experience. The average age was 25.4 years. Seventy-seven percent were married at the time they began farming. Sixty-seven percent were veterans, and 18 percent of this group attended institutional On-Farm Training Classes in 1953 (Table 7).

TABLE 7 -- FACTS ABOUT THE 1953 BEGINNING FARMERS
IN NORTHERN MISSOURI

Number starting to farm in 1953 . . . . .	.62
Percentage of operators who were farm-reared. . . . .	.95
Percentage with farm experience prior to starting to farm . . . . .	.85
Average number of years of formal education . . . . .	.12
Percentage who were high school graduates . . . . .	.78
Percentage who were college graduates . . . . .	.05
Percentage with vocational agriculture training in high school . . . . .	.51
Percentage that had been 4-H Club members . . . . .	.36
Average age when started farming (years). . . . .	.25
Percentage married when started farming . . . . .	.77
Percentage of veterans . . . . .	.67
Percentage of veterans with On-The-Farm training in 1953 . . . . .	.18

BEGINNING FARMERS' TENURE AND LEASING ARRANGEMENTS

Tenure Grouping

In 1953, 77 percent of the beginning farmers started as *tenants*, 13 percent as *owner-operators*, and 10 percent as *part-owners*. In the six-year period, *part-owners* increased to 31 percent. *Owner-operators* increased to 25 percent. Figure 3 shows all classes of *tenant-operators* except the *crop-share-cash* group lost ground on a percentage basis. The *crop-share* group declined the most, from 37 percent to 13 percent.

Of the 62 operators who started farming in 1953, only 16, or 25 percent, remained in the same tenure status throughout the period. Four *owners*, three *part-owners* and nine *tenants* remained in the tenure class in which they started (Table 8). Of the 10 who either did not cooperate or had quite farming by 1959, eight were *tenants*.

Of the 48 *tenants*, nine changed within the tenure group, ten switched to *part-owners*, and seven to *owner-operators*. No *owners* or *part-owners* switched to the *tenant* group; however, two *part-owners* became *owner-operators* and three *owners* transferred to *part-owners*.

Source of Land Farmed

Table 9 shows the source of the most important tract of land operated by beginning farmers, whether it was bought or rented. For instance, a part-owner may either rent or own the major tract he farms. In 1953, parents owned the major tract operated by 34 percent of the operators, but by 1959, this was only the third most important source, including 21 percent of the operators. Most of this decline in importance of parent-owned land was due to transfer of title to the operators. Thirty-four percent of the operators owned their most important tract of land in 1959, while only 13 percent owned the major tract operated in 1953. The other major source of land was leases obtained through personal acquaintance with the landlord. This condition remained fairly constant, as it was the major source for 25 percent of the operators in 1953 and 27 percent in 1959. It appears that there is less dependence on family and relatives as the operator becomes better established in business.

Land Purchased Since 1953

Between 1953 and 1959, thirty-one of the operators purchased land. Operators were grouped by their type of tenure at the time of purchase. Fourteen were part-owners. They purchased tracts averaging 172 acres in size. Nine owner-operators and eight tenants bought tracts averaging 131 acres in size (Table 10).

Twenty of the men who bought land gave farm ownership as their major goal. Twelve stated that they had to buy to expand. Seven bought because of the uncertainty of renting and five bought because the land was "too good a bargain to pass up."

Twenty-seven of the operators used credit in making the purchase; two used cash; one used a deed of trust to secure notes and one used a purchase contract.

Twelve of the operators bought from a non-farm person living within 50 miles; ten bought from another farmer; five bought from a retired farmer and four from non-farm persons living more than 50 miles distant.

The average purchase price per acre was \$68 for tenants, \$66 for part-owners and \$45 for owner-operators. All of these prices are somewhat below average for the area but much of the land was bought from parents or relatives at prices below the going market price.

TABLE 8 -- MOVEMENT OF BEGINNING FARMERS IN 15 NORTHERN MISSOURI COUNTIES AMONG GROUPS IN THE 1953 TO 1959 SEVEN-YEAR PERIOD

Tenure Group in Which Operator Started	Num- ber	Per- cent	Number of Tenure Group Who Changed to:					Quit Farming	Number in Tenure Group in 1959	Percent of Number Still Farming
			Owner- Operator	Part- Owner	Different Type of Lease	Remained in Same Class				
Owner-Operator	8	13	-	3	-	4	1	13	25	
Part-Owner	6	10	2	-	-	3	1	16	31	
Tenant	48	77	7	10	14	9	8	23	44	
TOTAL	62	100	9	13	14	16	10	52	100	

TABLE 9 -- MOST IMPORTANT SOURCE OF LAND FARMED BY BEGINNING FARMERS DURING 1953, 1956, AND 1959 IN 15 NORTHERN MISSOURI COUNTIES
(Listed by Percent of Operators in Each Group for That Year)

	1953 Percent	1956 Percent	1959 Percent
Land owned by operator prior to or at the beginning of year	13	24	34
Land owned by parents	34	18	21
Land owned by other relatives	4	2	4
Land rented by other relatives	1	2	-
Rented land through relatives' help	8	4	2
Land rented by parents	2	4	2
Rented land on own	2	11	8
Bought land with family aid	3	-	-
Bought land without family aid	8	4	2
Personal acquaintance with landlord	25	31	27
TOTAL	100	100	100

TABLE 10 -- TENURE OF PURCHASER AND REASONS FOR BUYING FARM LAND FOR MEN WHO STARTED FARMING IN NORTHERN MISSOURI IN 1953

Tenure	Number of Operators Buying Land	Acres	Reason for Acquiring Land	Purchase Method	Type of Owner	Cost of Land Per Acre
Part-Owners	14	172	1 & 2	2	3	\$66
Owner	9	131	2	2	2	\$45
Tenant	8	131	2	2	1	\$68

A. Reason Acquired	Number of Operators giving this reason
1. Had to buy to expand	12
2. Farm ownership a major goal	20
3. Too good a bargain to pass up	5
4. Due to uncertainty of renting	7

B. Purchase Method	Number of Operators using this method	C. Type of Owner Purchased From	Number of Operators Buying from them
1. Cash	2	1. Active farmer	10
2. Mortgage	27	2. Retired farmer	5
3. Purchase Contract	1	3. Non-farm person within 50 miles	12
4. Deed of Trust	1	4. Non-farm person over 50 miles	4

Type of Landlord

The type of landlord did not vary much throughout the years (Table 11). The only noticeable change was that most of them lived closer to the operator in 1959 than in 1953. Land owners were almost equally divided between farmers and non-farmers (48 percent farmers and 52 percent non-farmers in 1959). Ten percent of the non-farmer land owners lived more than 50 miles away.

Lease Characteristics

Table 12 shows that the proportion of beginning operators who rented land declined from 88 percent in 1953 to 75 percent in 1959. There was a 3 percent decline in tenants between 1953 and 1956, and a 10 percent decline between 1956 and 1959. As the operator accumulates capital and experience, he increases in willingness to accept debt for the privilege of enjoying the independence that is associated with land ownership.

Although the number of tenants declined, those who remained renters steadily increased the acreage and number of tracts they leased. The proportion renting two or more tracts increased from 43 to 62 percent. The proportion renting three or more tracts increased from 13 to 41 percent and those renting four or more tracts increased from 5 to 15 percent. It seems evident that with increased desire to enlarge the size of the farm it becomes very difficult for an operator to keep all of his land in one tract. He is forced to spread his operation over a wider geographic area in order to obtain more tracts.

Table 13 shows that about 50 percent of the operators had all of their land under oral lease throughout the six-year period. In 1953, 35 percent had written leases on all of their land, while only 18 percent had written leases in 1959. The number of operators having compensation clauses in their leases dropped from 52 percent in 1953 to 8 percent in 1959. This information suggests that as tenants and land owners become better acquainted, written agreements are required less frequently. Of the 77 leases in 1959, 61 were for one year, one was for three years, two were for five years, one was for ten years, and seven were for indefinite periods.

Sources of Starting Capital

Of the 62 beginning farmers, two stated that their beginning funds were nil. They were able to find a land owner who would supply land and equipment. Twenty-one beginners reported that earnings from work on their parents' farm were the major source of capital with which they started farming. Savings from the income received while in the armed services was considered the major source by 15 men, and earnings while employed as skilled industrial workers was the major source for nine men. Few obtained beginning capital from wages received as hired farm hands.

In addition to one-third of the operators earning most of their starting funds while on their parents' farms, family assistance in the form of gifts was

TABLE 11 -- TYPE OF LANDLORD OF MOST VALUABLE TRACTS
RENTED BY BEGINNING FARMERS IN 1953 AND 1959 IN 15
NORTHERN MISSOURI COUNTIES

Type of Landlord	1953 Percent	1959 Percent
Farmer within 50 miles	41	48
Farmer over 50 miles distant	2	--
Non-farm person within 50 miles*	45	42
Non-farm person over 50 miles distant*	12	10
TOTAL	100	100

*These classes include retired farmers.

TABLE 12 -- NUMBER OF TRACTS OF LAND BEGINNING FARMERS
RENTED DURING 1953, 1956, AND 1959 IN 15
NORTHERN MISSOURI COUNTIES

	1953	1956	1959
Number renting at least one tract of land	54	46	39
Percent of all operators	88	85	75
Number renting at least two tracts of land	23	25	24
Percent of all renters	43	54	62
Number renting at least three tracts of land	7	11	16
Percent of all renters	13	24	41
Number renting four or more tracts of land	3	5	6
Percent of all renters	5	11	15

TABLE 13 -- TYPE OF LEASE THAT BEGINNING FARMERS IN MISSOURI HAD
ON THEIR RENTED LAND IN 1953 AND 1959

Renters	1953 Percent	1959 Percent	Change Percent
With all land under oral lease	52	51	- 1
With all land under written lease	35	18	-17
With part of land under written lease	8	23	15
With compensation clauses in their leases	52	8	-44

important. In 1953, thirty operators received 42 gifts averaging \$537 per operator (Table 14). Part-owners tended to receive the largest amounts, but it should be noted that large gifts of land greatly influenced the average of all groups. The number of gifts decreased greatly from 1953 to 1959. In 1959, seventeen operators received an average of \$585.

The decline in this source of receipts was evident when the tenant-operators' income statements were analyzed. Although the number declined, the type of gift did not change much. The use of family machinery remained the most consistent type of aid throughout the period.

In addition to recorded gifts many operators received assistance that could not be assigned an accurate monetary value. This included advice in making management decisions, co-signing notes, family influence in leasing land, renting the family farm or buying land below market price, and no-interest loans. While dollar values cannot be placed on all of these aids, some may have been more important than the recorded gifts. It should be recognized, however, that family pressure to live in a particular place or to farm in a particular way, may retard a young operator's progress.

Non-Real Estate Credit by Tenure Groups

During 1953, seventy-one percent of the beginning operators used non-real estate credit. They had 56 loans averaging \$1,155 or \$1,471 per borrowing operator, as several of them had more than one loan (Table 15). A larger percentage of the tenants than any other group (77 percent) used credit. The part-owners borrowed the largest amounts, \$2,198 per operator, and for the longest periods of time, 18 months. Owner-operators were the smallest borrowers with an average amount of \$1,287.

The average interest rate remained fairly constant throughout the period for all groups.

Although the number using credit dropped to 67 percent in 1956, the amount borrowed rose to \$2,502 per operator. By 1959, 81 percent were using credit at a rate of \$5,617 per operator, the average length of loan had risen to 16 months.

In 1959, eighty-five percent of the owner-operators were borrowing money. This was the highest percentage of any group, although the average amount borrowed was the smallest, \$3,699 per operator. Only 75 percent of the part-owners were borrowing, but they borrowed the largest amounts, \$9,511 per operator.

In 1953, there were 1.27 loans per borrowing operator, while in 1959, the figure had increased to 2.04 per operator. The major purposes of the loans were for operating expenses, and for livestock and machinery purchases. There were no consumption and real estate improvement loans, but some of the borrowed money may have been used for these purposes.

The information obtained on amounts borrowed and length of loans emphasizes the fact that most farmers need working capital and funds for operating expenses. It is possible that the men who started to farm in 1953 would have

TABLE 14 -- TYPE AND AMOUNT OF FAMILY HELP RECEIVED BY BEGINNING FARMERS IN 15 NORTHERN MISSOURI COUNTIES; 1953, 1956, AND 1959

Items	Year	Owner		Part-Owner		Tenant	
		No.	Amount of Gift	No.	Amount of Gift	No.	Amount of Gift
Cash	1953	-	-	-	-	2	\$1,600
	1956	-	-	-	-	-	-
	1959	-	-	-	-	-	-
Livestock	1953	1	\$ 50	2	\$ 363	11	691
	1956	-	-	-	-	-	-
	1959	-	-	-	-	-	-
Machinery	1953	-	-	-	-	5	1,013
	1956	-	-	-	-	-	-
	1959	-	-	-	-	-	-
Feed, Seed, etc.	1953	-	-	-	-	3	283
	1956	-	-	-	-	1	150
	1959	-	-	1	25	-	-
Use of family machinery	1953	1	10	1	300	16	284
	1956	2	325	2	775	12	314
	1959	3	256	6	911	6	315
Unpaid Family Labor	1953	-	-	1	300	3	200
	1956	-	-	-	-	2	525
	1959	-	-	-	-	-	-
Farm Real Estate	1953	-	-	-	-	1	3,150
	1956	1	3,200	1	5,200	-	-
	1959	-	-	-	-	-	-
Household Goods	1953	3	175	1	500	1	800
	1956	-	-	-	-	4	94
	1959	-	-	1	45	-	-
Total Number of Gifts and Average Value	1953	5	\$ 117	5	\$ 365	39	\$ 614
	1956	3	\$1,275	3	\$2,250	19	\$ 281
	1959	3	\$ 256	8	\$ 692	6	\$ 315

TABLE 15 -- AVERAGE INTEREST RATES, TERMS, NUMBER OF LOANS, NUMBER BORROWING, PERCENT OF EACH CLASS BORROWING. NUMBER OF UNSECURED LOANS AND AVERAGE AMOUNT OF NON-REAL ESTATE CREDIT USED BY BEGINNING FARMERS IN 15 NORTHERN MISSOURI COUNTIES IN 1953, 1956 AND 1959

Item	Owner Operators			Part-Owners			Tenants			All Groups		
	1953	1956	1959	1953	1956	1959	1953	1956	1959	1953	1956	1959
Number using credit	4	6	11	3	7	12	37	23	19	44	36	42
Percent of class using credit	50	75	85	50	54	75	77	70	83	71	67	81
Number of loans	6	8	22	4	6	25	46	35	39	56	50	86
Average interest rates (percent)	6.5	5.5	6	6	6	6.2	6.3	6.3	6.4	6.3	6.1	6.2
Average term (months)	10.5	18	14	18	12	12	10.1	14	18	11.3	15	16
Number of unsecured loans	3	2	8	1	2	8	4	6	11	8	10	27
Average amount per loan	\$ 858	\$ 965	\$1849	\$1649	\$1828	\$4565	\$1152	\$1987	\$2079	\$1155	\$1801	\$2743
Average amount per operator	\$1287	\$1283	\$3699	\$2198	\$1825	\$9511	\$1430	\$3024	\$4267	\$1471	\$2502	\$5617

made more rapid progress than they did, if loans for longer periods than 16 months had been available.

Non-Real Estate Credit by Source

Commercial Banks held most of the loans in both 1953 and 1959 (Table 16). Families of borrowers made 18 percent of the loans in 1953 but only 9 percent of them in 1959. The amounts loaned by relatives also declined from \$1,507 to \$955. Bank loans rose from an average of \$1,491 to \$2,200. Merchants were the second largest source of credit with 13 and 16 percent of the total for the two years in question. The amounts loaned were \$588 and \$971. Production Credit Association loans made the largest increase, from 3 to 12 percent in number and from \$1,000 to \$7,989 in average amount.

The average interest rate did not vary much from year to year, being 5.9 percent in 1953 and 6.1 percent in 1959. Non-interest loans were not included in the average.

In 1959, merchants charged the highest interest, 8 percent, and Commodity Credit Corporation the lowest, 4.5 percent.

The number of non-interest bearing loans remained about constant at 20 percent, as did the number of unsecured loans at 30 percent. The average length of loan was 16 months. Family loans were shortest at 10 months and Farmers Home Administration contracts were the longest at 48 months for loans outstanding in 1959.

Real Estate Credit

Of the 31 operators who purchased land between 1953 and 1959, twenty-seven took loans (Table 17). Part-owners had the biggest loans, an average of \$11,396. The owner-operators had the smallest loans, \$5,925. They also had the lowest rate of interest, 4.7 percent, and the longest terms, 21 years. Tenants who purchased land had the shortest loans, 14 years; however, most of the contracts had flexible clauses for making payments in case of emergencies. As stated before, 27 of the land purchases were made on mortgages, two for cash, one with a deed of trust, and one with a purchase contract.

Funds Available But Not Used

Since 1953, sixteen operators have had credit offered to them to finance a project for which they needed additional money but, for one reason or another, turned it down. Various reasons were given for not using the credit. Most of them were associated with risk. Eleven operators refused to accept a loan because of price and yield uncertainty. Four listed uncertainty of their own managerial ability as the reason for not taking a loan. Most loans associated with these reasons would have been used to purchase additional land.

TABLE 16 -- AVERAGE INTEREST RATES, AVERAGE TERM, NUMBER OF NO-INTEREST LOANS, NUMBER OF UNSECURED LOANS AND AVERAGE AMOUNT OF NON-REAL ESTATE CREDIT, BY SOURCE, USED BY BEGINNING FARMERS IN 15 NORTHERN MISSOURI COUNTIES IN 1953 AND 1959

Item		Individuals				Government		Cooperative Association	Commercial	
		Family	Landlord	Merchant	Other	Farmers Home Admin.	Commodity Credit Corp.	Production Credit Asso.	Bank	Loan Company
Percent of all loans	1953	18	6	13	6	6	0	3	45	3
	1959	9	2	16	2	5	3	12	44	6
Average amount	1953	\$1507	\$1000	\$588	\$ 500	\$1900	0	\$1000	\$1491	\$1600
	1959	\$ 955	\$3550	\$971	\$10,000	\$3025	\$2432	\$7989	\$2200	\$1083
Average Interest Rate (percent)	1953	5	5	6.8	6	4.8	0	5.5	6.3	8
	1959	5	6	8	7	5.1	4.5	6.2	6.3	7
Average term (months)	1953	16	8	10	24	26	0	12	8.5	18
	1959	10	12	30	21	48	12	18	12	20
Percent of loans bearing no interest	1953	85	50	20	0	0	0	0	0	0
	1959	75	0	57	0	0	33	0	0	0
Percent of loans unsecured	1953	85	100	60	0	0	0	0	0	0
	1959	100	0	71	0	0	0	0	24	0

TABLE 17 -- REAL ESTATE CREDIT USED BY BEGINNING FARMERS IN 15 COUNTIES OF NORTHERN MISSOURI FROM 1953 TO 1959

Tenure	Number of Loans	Average Amount	Interest Rate (percent)	Length of Loan (years)
Part-owner	13	\$11,396	5.1	19
Owner	7	\$ 5,925	4.7	21
Tenant	7	\$ 8,875	5.2	14

Credit Refusals

Between 1953 and 1959 only 12 credit refusals were recorded. One operator had three during one year. His request for a land purchase loan was turned down as being too risky. Excessive risk was the most common reason for credit refusal. Three requests were refused for reason of insufficient security.

Total Acres Operated

In terms of increases in total acres operated, the beginning farmers made very rapid progress (Table 18). As a group, they started with 228 acres in 1953 and operated 372 acres in 1959. This was an increase of 144 acres or 63 percent. The full owners made the slowest rate of growth with only 63 acres added to the business, an increase of 41 percent, making a total of 215 acres. Part-owners increased the most, by 91 percent, to a total of 417 acres in 1959. Tenants enlarged their acreages by 77 percent to 428 acres.

When the tenant group is broken down into the four individual components some of the classes are so small that little reliance can be placed on the findings. For instance, there were only two cash renters in 1959. In a small group one unusual operator may greatly distort the average. For this reason, little mention has been made of the tenant breakdown, but separate tables have been added showing the types of leases in certain instances for readers who are interested.

Crop-share and livestock-share tenants seemed to be the most successful and progressive operators in the tenant class. Most of the attention will be centered upon these two groups in the analysis that follows.

Total Acres of Cropland Operated

In terms of cropland, beginning farmers increased their operations by 88 acres or 69 percent to a total of 215 acres in the six-year period when changes could have been made. Part-owners again led with a 148 percent increase to 238 crop acres. The owner group increased only 28 percent to 105 crop acres (Table 19).

Total Acres in Three Main Crops

The beginning operators increased the acreage of corn, wheat, and soybeans by 69 percent, but the average covers up much of the true picture. Full-owners

TABLE 18A -- SIZE OF BUSINESS IN TERMS OF TOTAL ACRES OPERATED BY BEGINNING FARMERS IN 15 NORTHERN MISSOURI COUNTIES DURING 1953, 1956, AND 1959 AND THEIR CHANGE SINCE 1953

Year	Owners			Part-Owners			Tenants			Total		
	1953	1956	1959	1953	1956	1959	1953	1956	1959	1953	1956	1959
Acres	152	169	215	218	281	417	242	325	428	228	292	372
Change in acres	---	17	63	---	63	199	---	83	186	---	64	144
Percent change	---	11	41	---	29	91	---	34	77	---	28	63

TABLE 18B -- SIZE OF BUSINESS IN TERMS OF TOTAL ACRES OPERATED BY BEGINNING TENANT FARMERS IN 15 NORTHERN MISSOURI COUNTIES DURING 1953, 1956, AND 1959 AND THEIR CHANGE SINCE 1953

Year	Cash			Crop-Share			Crop-Share-Cash			Livestock-Share		
	1953	1956	1959	1953	1956	1959	1953	1956	1959	1953	1956	1959
Acres	103	254	342	201	281	396	232	369	417	360	382	558
Change in acres	---	151	239	---	80	195	---	137	185	---	22	198
Percent change	---	147	232	---	40	97	---	59	80	---	6	55

TABLE 19A -- SIZE OF BUSINESS IN TERMS OF ACRES OF CROPLAND OPERATED BY BEGINNING FARMERS IN 15 NORTHERN MISSOURI COUNTIES DURING 1953, 1956, AND 1959 AND THE CHANGE SINCE 1953

Year	Owner			Part-Owner			Tenants			Total		
	1953	1956	1959	1953	1956	1959	1953	1956	1959	1953	1956	1959
Acres	82	87	105	96	178	238	138	188	266	127	169	215
Change in acres	---	5	23	---	82	142	---	50	128	---	42	88
Percent change	---	6	28	---	85	148	---	36	93	---	33	69

TABLE 19B -- SIZE OF BUSINESS IN TERMS OF ACRES OF CROPLAND OPERATED BY BEGINNING TENANT FARMERS IN 15 NORTHERN MISSOURI COUNTIES DURING 1953, 1956, AND 1959 AND THE CHANGE SINCE 1953

Year	Cash			Crop-Share			Crop-Share-Cash			Livestock-Share		
	1953	1956	1959	1953	1956	1959	1953	1956	1959	1953	1956	1959
Acres	50	114	248	129	152	270	133	221	231	191	252	343
Change in acres	---	64	198	---	23	141	---	88	98	---	61	152
Percent change	---	128	396	---	18	109	---	66	74	---	32	80

increased their acreage by only 10 percent to a total of 44 acres, while part-owners increased their acreage in these crops 257 percent to a total of 157 acres (Table 20A). This again indicates that part-owners were trying to increase their operations mainly through addition of cash crops, while full-owners remained relatively stable in their use of land. Crop-share-cash and cash tenants increased the acreage of corn, wheat and soybeans the most and livestock-share tenants the least among the four classes of renters (Table 20B).

CHANGES IN SIZE AS SHOWN BY PRODUCTIVE MAN WORK UNITS

The amount of labor required to take care of all enterprises is a good measure of the size of a farm business. A productive man work unit (PMWU) is the amount of work that a man should be able to accomplish in a 10-hour day when using average work methods and average equipment. This measure is used here to compare changes in the size of businesses operated by the farmers who started in 1953.

The efficiency of beginning operators in the use of labor is measured by determining the amount of work accomplished per man equivalent of labor available (operator, family and hired). It is found by dividing the man equivalent into the PMWU's necessary to take care of the farm enterprises.

Strictly speaking, the number of standard PMWU's listed as necessary to take care of the enterprises included in the business may not be what actually is required. However, the number calculated from reasonable or accepted standards is used for comparison in this analysis. In the matter of efficiency in use of labor, a reasonable standard per man equivalent is 300 PMWU per year.⁷

As can be seen from Table 21, all tenure groups of beginning operators were underemployed in their first year. The average labor requirement was only 230 days in 1953. The full owners averaged only 154 PMWU. All groups showed a large increase by 1956, which continued through 1959. Although the owners grew the slowest, they increased by 137 percent to 365 PMWU per year by 1959. The part-owners had the largest businesses, requiring 626 PMWU. This was an increase of 223 percent from 1953. Tenants increased the size of business, as measured by standard labor requirements, 151 percent to 577 PMWU.

All groups more than doubled their PMWU per man during the six-year period. In 1959, part-owners were the most efficient operators in labor use, with 485 PMWU accomplished per man. The tenants were next with 464, and the owners last with 328 PMWU.

Percent of Labor on Livestock and Crops

Changes in enterprises are shown by the proportions of labor used on crops and livestock. Table 22A shows that all groups increased the proportion of work on livestock from 43 to 52 percent during the six-year period. In 1959 tenants

⁷Farm Business Planning Guide, University of Missouri, College of Agriculture, B. F. 6103, January, 1961.

TABLE 20A -- SIZE OF BUSINESS IN TERMS OF ACRES OF CORN, WHEAT, AND SOYBEANS GROWN BY BEGINNING FARMERS IN 15 NORTHERN MISSOURI COUNTIES DURING 1953, 1956 AND 1959 AND CHANGE IN THE ACREAGE OF THESE CROPS SINCE 1953

Year	Owner			Part-Owner			Tenants			All Groups		
	1953	1956	1959	1953	1956	1959	1953	1956	1959	1953	1956	1959
Acres	40	40	44	44	84	157	87	115	159	77	95	130
Change in acres	---	0	4	---	40	113	---	28	72	---	18	53
Percent change	---	---	10	---	91	257	---	32	83	---	23	69

TABLE 20B -- SIZE OF BUSINESS IN TERMS OF ACRES OF CORN, WHEAT AND SOYBEANS GROWN BY BEGINNING TENANT FARMERS IN 15 NORTHERN MISSOURI COUNTIES DURING 1953, 1956, AND 1959 AND CHANGE IN THE ACREAGE OF THESE CROPS SINCE 1953

Year	Cash			Crop-Share			Crop-Share-Cash			Livestock-Share		
	1953	1956	1959	1953	1956	1959	1953	1956	1959	1953	1956	1959
Acres	28	43	63	96	101	171	63	160	161	109	101	182
Change in acres	---	15	35	---	5	75	---	97	98	---	-8	73
Percent change	---	54	125	---	5	78	---	154	156	---	-7	67

TABLE 21 -- SIZE OF BUSINESSES OPERATED BY BEGINNING FARMERS AND LABOR EFFICIENCY IN 15 NORTHERN MISSOURI COUNTIES IN TERMS OF PRODUCTIVE MAN WORK UNITS DURING 1953, 1956 AND 1959 AND CHANGES SINCE 1953 BY TYPE OF TENURE

	Owner			Part-Owner			Tenant		
	1953	1956	1959	1953	1956	1959	1953	1956	1959
Total PMWU required	154	291	365	194	464	626	230	470	577
Change from 1953	----	137	211	----	270	432	----	240	347
Percent Change	----	89	137	----	139	223	----	104	151
Man equivalents of labor available	1.01	1.12	1.11	1.05	1.24	1.29	1	1.26	1.22
Change from 1953	----	.11	.10	----	.19	.24	----	.26	.22
Percent Change	----	11	10	----	18	23	----	26	22
PMWU per man	152	260	328	184	373	485	230	370	464
Change from 1953	----	108	176	----	189	301	----	140	234
Percent Change	----	71	116	----	103	164	----	61	102

TABLE 22A -- PERCENT OF LABOR USED ON CROPS AND LIVESTOCK BY BEGINNING FARMERS IN 15 NORTHERN MISSOURI COUNTIES DURING 1953 AND 1959

Year	Owners		Part-Owners				Tenants				All Groups					
	1953		1959		1953		1959		1953		1959		1953		1959	
	PMWU	Per- cent	PMWU	Per- cent	PMWU	Per- cent	PMWU	Per- cent	PMWU	Per- cent	PMWU	Per- cent	PMWU	Per- cent	PMWU	Per- cent
Crops	73	47	129	35	94	48	292	46	136	59	312	54	123	57	260	48
Livestock	<u>81</u>	<u>53</u>	<u>236</u>	<u>65</u>	<u>100</u>	<u>52</u>	<u>334</u>	<u>54</u>	<u>94</u>	<u>41</u>	<u>234</u>	<u>46</u>	<u>93</u>	<u>43</u>	<u>265</u>	<u>52</u>
TOTAL	154	100	365	100	194	100	626	100	230	100	577	100	216	100	539	100

TABLE 22B -- PERCENT OF LABOR USED ON CROPS AND LIVESTOCK BY BEGINNING TENANT FARMERS IN 15 NORTHERN MISSOURI COUNTIES DURING 1953 AND 1959

Year	Cash		Crop-Share				Crop-Share-Cash				Livestock-Share					
	1953		1959		1953		1959		1953		1959		1953		1959	
	PMWU	Per- cent	PMWU	Per- cent	PMWU	Per- cent	PMWU	Per- cent	PMWU	Per- cent	PMWU	Per- cent	PMWU	Per- cent	PMWU	Per- cent
Crops	54	38	226	49	122	63	315	53	125	58	264	58	199	59	470	51
Livestock	<u>90</u>	<u>62</u>	<u>230</u>	<u>51</u>	<u>71</u>	<u>37</u>	<u>276</u>	<u>47</u>	<u>91</u>	<u>42</u>	<u>190</u>	<u>42</u>	<u>139</u>	<u>41</u>	<u>452</u>	<u>49</u>
TOTAL	144	100	457	100	193	100	591	100	216	100	454	100	338	100	923	100

spent 46 percent of their labor on livestock, compared with 41 percent in 1953. Part-owners spent 54 percent, compared with 52 in 1953 and owners 65 percent, compared with 53 percent when they started to farm.

The size of a farm business can be increased quickly by adding or enlarging livestock enterprises, but size may not be the only reason for making the change. About 70 percent of the owner-operators had off-farm employment in 1959 and livestock operations of the type found on these farms probably interfered less with this work than did crops. The farms operated by livestock-share tenants were by far the largest of all businesses with 923 PMWU required of which 49 percent was spent on animals (Table 22B).

One of the most surprising findings was the large amount of labor spent on dairy cattle. The data were not obtained in a dairy section of the state. However, all groups increased the number of hours spent with dairy cattle in the 1953-59 period. This enterprise required 41 percent of the livestock labor in 1959. Thirty-eight percent of the part-owners had more than 10 dairy cows in their herds. Returns from dairy cattle are a stable source of income. This is a desirable characteristic from the point of view of a beginning farmer. However, in 1959, thirty-seven percent of the operators kept between three and 10 cows. This is more than is necessary for home consumption, yet it seems unlikely that the small number was profitable as a farm enterprise. One-fifth of the operators had no dairy cows. Hogs required 29 percent and beef cattle 26 percent of the livestock labor in 1959.

Total Months of Labor Available on Farm

The labor available to beginning farmers increased considerably from 1953 to 1956, then remained almost constant until 1959. Owner-operators changed the least, from 12.17 to 13.33 months, and part-owners the most from 12.71 to 15.46 months (Table 23). In 1959, part-owners spent the most time on their farms (11.78 months), while owners spent the least with 10.51 months. Tenants hired the most labor with an average of 1.60 months per farm.

Off-Farm Employment

The number of operators working off the farm increased from 21 in 1953 to 28 in 1959 (Table 24). Although the number increased, the time spent in off-farm work declined from 3.1 months to 1.5 months. The average income from this source dropped from \$816 to \$677. The major type of employment was work on other farms, much of it being custom operations.

By 1959, a larger percentage of full owners (70 percent) than of any other group were working off the farm. They also were working out the longest (2.25 months) and making the most money from this source of income \$902 per worker.

The number of wives who worked off the farm declined from 10 in 1953 to 8 in 1959; however, they increased the length of time worked to 7.9 months and their average income to \$1,671. The major types of work were bookkeeping, secretarial, and industrial non-skilled jobs.

TABLE 23A -- MONTHS OF HIRED, UNPAID FAMILY AND OPERATORS LABOR AND TOTAL MONTHS OF LABOR AVAILABLE TO BEGINNING FARMERS IN 15 NORTHERN MISSOURI COUNTIES DURING 1953 AND 1959

Source of Labor	Owner		Part-Owners		Tenants		All Groups	
	1953	1959	1953	1959	1953	1959	1953	1959
Hired	.06	.81	.33	.86	.22	1.60	.18	1.19
Unpaid family	.11	2.01	.38	2.82	.97	1.80	.80	2.17
Operator	<u>12.17</u>	<u>10.51</u>	<u>12.00</u>	<u>11.78</u>	<u>10.80</u>	<u>11.11</u>	<u>11.10</u>	<u>11.11</u>
TOTAL	12.17	13.33	12.71	15.46	11.99	14.60	12.08	14.47

TABLE 23B -- MONTHS OF HIRED, UNPAID FAMILY AND OPERATORS LABOR AND TOTAL MONTHS OF LABOR AVAILABLE TO BEGINNING TENANT FARMERS IN 15 NORTHERN MISSOURI COUNTIES DURING 1953 AND 1959

Source of Labor	Cash		Crop-Share		Crop-Share-Cash		Livestock-Share	
	1953	1959	1953	1959	1953	1959	1953	1959
Hired	.01	.29	.01	1.12	.01	.67	.85	5.73
Unpaid family	1.20	.00	.69	2.51	.87	1.91	.46	1.23
Operator	<u>10.00</u>	<u>11.88</u>	<u>8.50</u>	<u>10.78</u>	<u>11.50</u>	<u>11.07</u>	<u>11.50</u>	<u>11.81</u>
TOTAL	11.21	12.17	9.20	14.41	12.38	13.65	12.81	18.77

TABLE 24 -- TYPE OF EMPLOYMENT, TIME SPENT, AND INCOME FROM THE OFF-FARM WORK DONE BY BEGINNING FARMERS IN 15 NORTHERN MISSOURI COUNTIES (OPERATOR & WIFE) DURING 1953 AND 1959 BY TYPE OF TENURE

Type of Tenure		Operator				Wife			
		Number Who Worked	Major Type of Off-Farm Work ¹	Average Income	Average Months of Off-Farm Work	Number Who Worked	Major Type of Off-Farm Work ¹	Average Income	Average Months of Off-Farm Work
Owner	1953	1	1	\$2,000	12.00	1	3	\$1,600	5.0
	1959	9	1	902	2.25	3	4	2,405	10.67
Part-Owner	1953	-	-	--	----	1	3	1,893	12
	1959	4	1	447	0.88	2	2&4	1,455	6.50
Tenant	1953	20	1	757	2.72	8	3	1,301	7.60
	1959	15	1	604	1.25	3	2	1,215	6.10
All Groups	1953	21	1	816	3.10	10	3	1,390	7.80
	1959	28	1	677	1.50	8	2	1,671	7.90

¹Types included: (1) Farm work, (2) Industrial (non-skilled), (3) Educational and (4) Bookkeeping and secretarial.

ANALYSIS OF BUSINESS GROWTH

Farm Assets Under Operators Control

The need for a large volume of production to maintain a high level of income makes the total assets under an operator's control more important than his net worth. Tenant-operators started farming with \$27,801 of assets under their control. This was the highest of any group. In 1959, tenants still controlled the most assets, \$59,295. This was an increase of \$31,494 or \$5,249 per year. Although tenants controlled the most assets, part-owners made the largest percentage increase (180 percent or \$5,844 per year). They had control of \$54,546 worth of assets in 1959. The owners controlled only \$13,680 worth of assets in 1953. They increased their control 134 percent or \$3,049 per year to \$31,972 in 1959 (Table 25).

The land held by owner-operators in 1953 was valued at \$10,021 or \$65 an acre; that owned by part-owners was valued at \$12,425 or \$69 an acre and that controlled by tenants \$22,322, or \$91 per acre. The 1954 census gave all farms in the 15 county area an average value of \$70 per acre. By 1959, the owner's land was valued at \$20,923 or \$97 an acre and the part-owner's at \$38,283 or \$92 an acre. Land controlled by tenants increased to \$105 per acre. In 1959, the census gave all farms in the 15 counties an average value of \$97 per acre.

The increase in value of land controlled by beginning farmers is closely in line with that of all farms in the area. It is important that this fact be noted in the case of owned land as it accounts for a large percentage of the net worth of owners and part-owners.

The part-owners led all other groups in advance in dollar value of livestock. By 1959 they controlled \$8,205 worth of stock, an increase of \$4,778. The tenants controlled the most machinery in 1959 (\$5,642), and the owners the least (\$3,828).

If tenants are separated by type of lease, the livestock-share operators had by far the largest businesses of any group in terms of assets controlled (Table 26). They controlled \$53,778 worth of assets in 1953 and \$93,979 in 1959, for an increase of \$6,700 per year. Crop-share tenants were the next largest, \$21,377 in 1953 and \$61,030 in 1959, for a yearly increase of \$6,609.

All of the data show ending inventories as of December 31. Thus, income figures, assets controlled, and net worth statements cover a period of only six years. Beginning of year inventory records in 1953 were not used as most of the operators had no farm assets at that time.

Assets, Liabilities, and Net Worth

The rank of operators by amount of net worth is almost the reverse of the previous ranking by assets under their control. Owner-operators had an average net worth in 1953 of \$11,934, part-owners had \$15,276, and tenants, \$5,800 (Table 27). By 1959, the owners had the largest net worth with \$26,494, part-owners had \$23,149, and tenants, \$15,864. Owners also made the largest dollar

TABLE 25 -- TOTAL FARM ASSETS UNDER CONTROL OF BEGINNING FARMERS IN 15 NORTHERN MISSOURI COUNTIES DURING 1953, 1956, AND 1959 AND CHANGES SINCE 1953, BY TENURE GROUPS

Tenure		Farm Real Estate	Livestock	Crop, Feed & Supplies	Machinery	Total Assets	Change Per Year
Owner	1953	\$10,021	\$1,550	\$ 678	\$1,429	\$13,680	
	1956	13,800	2,722	1,103	1,638	19,259	\$1,860
	1959	20,923	5,418	1,803	3,828	31,972	3,049
Change		\$10,902	\$3,868	\$1,125	\$2,399	\$18,292	
Percent Change		109	250	166	168	134	
Part-Owner	1953	\$12,425	\$3,427	\$1,434	\$2,194	\$19,481	
	1956	24,115	5,301	2,174	3,888	35,478	\$5,332
	1959	38,283	8,205	2,495	5,563	54,546	5,844
Change		\$25,858	\$4,778	\$1,061	\$3,369	\$35,065	
Percent Change		208	139	74	154	180	
Tenant	1953	\$22,322	\$2,683	\$1,018	\$1,778	\$27,801	
	1956	34,793	4,076	1,823	3,631	44,325	\$5,508
	1959	44,785	6,037	2,831	5,643	59,295	5,249
Change		\$22,463	\$3,354	\$1,813	\$3,864	\$31,494	
Percent Change		101	125	178	217	113	

TABLE 26 -- TOTAL FARM ASSETS UNDER CONTROL OF BEGINNING TENANT OPERATORS IN 15 NORTHERN MISSOURI COUNTIES DURING 1953, 1956, AND 1959 AND THE CHANGE SINCE 1953 BY TYPE OF LEASE

Type of Lease		Farm Real Estate	Livestock	Crop, Feed & Supplies	Machinery	Total Assets	Change Per Year
Cash	1953	\$ 5,230	\$ 1,316	\$ 200	\$1,346	\$ 8,092	
	1956	20,733	5,511	2,167	2,973	21,384	
	1959	30,630	6,418	3,136	3,232	43,416	\$4,431
Change		\$25,400	\$ 5,102	\$2,936	\$1,886	\$35,324	5,887
Percent Change		486	388	1,468	140	437	
Crop-Share	1953	\$16,462	\$ 2,146	\$1,056	\$1,712	\$21,377	
	1956	36,101	2,956	1,750	3,209	44,016	
	1959	43,579	5,994	2,978	8,479	61,030	\$7,546
Change		\$27,117	\$ 3,848	\$1,922	\$6,767	\$39,653	6,609
Percent Change		165	179	182	395	185	
Crop-Share-Cash	1953	\$15,626	\$ 1,173	\$ 847	\$1,558	\$19,204	
	1956	31,594	4,660	1,832	4,251	42,337	
	1959	38,417	4,676	1,877	4,061	49,031	\$7,711
Change		\$22,791	\$ 3,503	\$1,030	\$2,503	\$29,827	4,971
Percent Change		146	299	122	161	155	
Livestock-Share	1953	\$43,898	\$ 5,894	\$1,617	\$2,369	\$53,778	
	1956	47,520	10,262	1,785	3,640	63,207	
	1959	69,885	13,498	4,808	5,838	93,979	\$3,143
Change		\$25,987	\$ 7,604	\$3,191	\$3,469	\$40,201	6,700
Percent Change		59	129	197	146	75	

TABLE 27 -- GROWTH IN NET WORTH OF FARMERS IN 15 COUNTIES OF NORTHERN MISSOURI WHO STARTED IN BUSINESS IN 1953 AND THEIR CHANGE SINCE 1953

Item	Owners			Part-Owners			Tenants		
	1953	1956	1959	1953	1956	1959	1953	1956	1959
<u>Assets</u>									
Operating	\$ 3,657	\$ 5,438	\$11,049	\$ 7,055	\$11,363	\$16,263	\$4,547	\$ 9,507	\$14,555
Real Estate	10,021	13,799	20,923	10,025	13,989	13,381	0	0	0
TOTAL FARM	\$13,678	\$19,237	\$31,972	\$17,080	\$25,352	\$29,644	\$4,547	\$ 9,507	\$14,555
Change from 1953									
Dollars		\$ 5,559	\$18,294		\$ 8,272	\$12,564		\$ 4,960	\$10,008
Percent		41	134		48	74		109	220
Non-farm	\$ 2,468	\$ 1,597	\$ 2,100	\$ 3,220	\$ 2,517	\$ 2,753	\$1,867	\$ 2,597	\$ 3,581
TOTAL FAMILY	\$16,146	\$20,834	\$34,072	\$20,300	\$27,869	\$32,397	\$6,414	\$12,104	\$18,136
<u>Liabilities</u>									
TOTAL	\$ 4,212	\$ 3,067	\$ 7,578	\$ 5,024	\$ 3,477	\$ 9,248	\$ 614	\$ 1,022	\$ 2,272
Change from 1953:									
Dollars		\$-1,145	\$ 3,366		\$-1,547	\$ 4,224		\$ 408	\$ 1,658
Percent		-27	80		-31	84		66	270
<u>Net Worth</u>	\$11,934	\$17,767	\$26,494	\$15,276	\$24,392	\$23,149	\$5,800	\$11,082	\$15,864
Change from 1953									
Dollars		\$ 5,833	\$14,560		\$ 9,116	\$ 7,873		\$ 5,282	\$10,064
Percent		49	122		60	52		91	174

gains in the six-year period, \$14,560 or 122 percent. Part-owners gained \$7,873 or 52 percent and tenants \$10,064; but the tenants had the largest percentage increase, 174 percent.

Special notice should be taken of the increase in net worth of owners and part-owners. Part-owners' real estate assets increased \$3,356, while owner-operators increased theirs \$10,902. Some of this increase was due to ownership of more acres of land, but approximately \$6,000 of the gain of owner-operators was due to inflation in land values. Price changes in other assets were mixed. Cattle were up 4½ percent; hogs declined almost 35 percent and grain went down about 21 percent.

Comparing the 1953 and 1959 net worth figures does not tell the whole story. By studying the 1956 data, it can be seen that tenants made the steadiest year-by-year growth. Part-owners made all of their net worth gain between 1953 and 1956, and actually had a decline of \$1,243 from 1956 to 1959. Owner-operators made only \$5,833 increase from 1953 to 1956, but increased by \$8,727 from 1956 to 1959.

Another item worth comparing is that of liabilities. In 1953, part-owners had \$5,024 of debt and owners \$4,212, most of which was secured by real estate mortgages. Tenants had only \$614 of debt.

By 1956 owners and part-owners had decreased their liabilities by more than \$1,000, while the debts of tenants rose about \$400. Between 1956 and 1959, all groups increased their liabilities. Part-owners went up from \$3,477 to \$9,248, owners from \$3,067 to \$7,578, and tenants from \$1,022 to \$2,272.

From these data it appears that beginning farm operators change their minds about the amount of liabilities they are willing to assume after they have been farming a few years. However, it is possible that more credit becomes available as they prove their managerial ability or find it necessary to increase their liabilities because of operating conditions.

Analysis of tenant records shows that livestock-share renters grew from a net worth of \$7,540 in 1953 to \$23,700 in 1959 for an increase of \$16,160 which was even larger than that of owner-operators. The next largest increase was made by crop-share tenants. Their average went up from \$4,949 to \$15,211 or \$10,262.

All types of tenants had about the same amount of liabilities in 1959. The range was from \$1,757 for crop-share-cash tenants to \$2,897 for crop-share renters (Table 28).

Labor and Management Returns

The data already presented indicate that the different groups of beginning farmers made good progress toward larger farm businesses. However, returns did not go up proportionately. Average labor income to the family is shown in Table 29. It is found by subtracting interest on net worth from net farm income. The results show that beginning farmers and their families are working for very low wages. Tenants were the only group who showed an increase in labor income in 1959 over 1953. Tenant families received \$1,841 in 1953, \$2,814 in 1956,

TABLE 28 -- GROWTH IN NET WORTH OF TENANT FARMERS IN 15 COUNTIES OF NORTHERN MISSOURI WHO STARTED IN BUSINESS IN 1953 AND THEIR CHANGE SINCE 1953

Item	Cash Tenants		Crop-Share Tenants		Crop-Share Cash Tenants		Livestock-Share Tenants	
	1953	1959	1953	1959	1953	1959	1953	1959
<u>Assets</u>								
Operating	\$2,862	\$12,786	\$3,578	\$15,163	\$4,914	\$12,317	\$6,449	\$19,973
Real estate	0	0	0	0	0	0	0	0
TOTAL FARM	\$2,862	\$12,786	\$3,578	\$15,163	\$4,914	\$12,317	\$6,449	\$19,973
Change from 1953:								
Dollars		\$ 9,924		\$11,585		\$ 7,403		\$13,524
Percent		347		324		151	210	201
Non-Farm	\$2,274	\$ 1,750	\$1,778	\$ 2,945	\$1,314	\$ 3,438	\$2,165	\$ 5,972
TOTAL FAMILY	\$5,136	\$14,536	\$5,356	\$18,108	\$6,228	\$15,755	\$8,614	\$25,945
<u>Liabilities</u>								
TOTAL	\$ 412	\$ 2,675	\$ 407	\$ 2,897	\$ 587	\$ 1,757	\$1,074	\$ 2,245
Change from 1953:								
Dollars		\$ 2,263		\$ 2,490		\$ 1,170		\$ 1,171
Percent		549		612		199		109
<u>Net Worth</u>	\$4,724	\$11,861	\$4,949	\$15,211	\$5,641	\$13,998	\$7,540	\$23,700
Change from 1953:								
Dollars		\$ 7,137		\$10,262		\$ 8,357		\$16,160
Percent		151		207		148		214

TABLE 29 -- LABOR INCOME TO FAMILY AND THE LABOR AND MANAGEMENT INCOME TO OPERATORS OF ALL TENURE GROUPS OF BEGINNING FARMERS IN 15 NORTHERN MISSOURI COUNTIES DURING 1953, 1956, AND 1959, WITH AMOUNT OF CHANGE SINCE 1953

Tenure Group		Labor Income to Family	Dollar Change	Percent Change	Labor and Management Income to Operator	Dollar Change	Percent Change
Owner operator	1953	\$ 990	\$----	---	\$ 973	\$----	---
	1956	627	-363	-37	320	-653	-67
	1959	721	-269	-27	414	-559	-57
Part owner	1953	\$2,099	\$----	---	\$2,042	\$----	---
	1956	1,368	-731	-35	1,032	-1,010	-49
	1959	1,994	-105	-5	1,571	-471	-23
Tenants	1953	\$1,841	\$----	---	\$1,695	\$----	---
	1956	2,814	973	53	2,426	731	43
	1959	2,193	352	19	1,923	228	13
All groups	1953	\$1,757	\$----	---	\$1,637	\$----	---
	1956	2,141	384	22	1,878	241	15
	1959	1,763	6	.3	1,398	-239	-15

and \$2,193 in 1959. Both owners and part-owners showed variations from this movement. Incomes dropped in 1956 and rose again in 1959. Owner-operators received the smallest returns: \$990 in 1953; \$627 in 1956; and \$721 in 1959. Part-owners received \$2,099 in 1953, \$1,368 in 1956, and \$1,994 in 1959.

Labor and management income to operators was found by subtracting the value of unpaid family labor other than that of the operator from the the "labor income to family." The family labor was valued at \$150 per month. This income followed the same general trend as labor income to the family. Tenants were the only group to show greater returns in 1959 than in 1953.

The average tenant had a return to his labor and management of \$1,695 in 1953 and \$1,923 in 1959. Owner-operators received the smallest returns throughout the period, they received \$973 in 1953 and \$414 in 1959. Part-owners returns were \$2,042 in 1953 and \$1,571 in 1959.

As indicated by Table 30, livestock-share and crop-share tenants were the most prosperous groups. Livestock-share renters increased average labor incomes to their families from \$1,844 in 1953 to \$2,533 in 1959. They also had returns to operator's labor and management of \$1,775 and \$2,349 in the two years. During the same period, crop-share tenants increased their labor income from \$1,927 to \$2,438 and their labor and management income to operator from \$1,819 to \$2,062. Crop-share-cash tenants showed more variation than the other groups. Labor income to these families was \$2,278 in 1953, \$3,129 in 1956, and \$2,013 in 1959. Labor and management incomes to operators in this group, went from \$2,147 in 1953 to \$2,648 in 1956, then dropped to \$1,727 in 1959.

Business returns to the various tenure groups are in agreement with the results of analyzing 435 records from the Marshall soils area of northwest Missouri and adjoining states. In that analysis, tenants with livestock-share leases operated significantly larger businesses and had larger incomes than owner-operators.⁸

Net Family Income

The data in Table 31 combine the returns from all sources to give the household income which includes net farm income, receipts from off-farm work and gifts.

Although owner-operators had the smallest average household income throughout the period (\$2,292 in 1953 and \$3,200 in 1959), they made the largest increase of any group, \$908 or 40 percent. They made an increase in net farm income of \$337 for a total of \$1,923 in 1959 and the largest increase in off-farm income, \$585, for a total of \$1,218. Full-owners received 38 percent of their household income from off-farm sources in 1959.

⁸Dorwin Williams and Frank Miller, Land Tenure Arrangements in Relation to Scale of Farming Operations and Resource Use in the Marshall Soils Areas of Northwest Missouri and Adjoining States, Missouri Agricultural Experiment Station Research Bulletin 809, July, 1962.

TABLE 30 -- LABOR INCOME TO FAMILY AND THE LABOR AND MANAGEMENT INCOMES TO OPERATOR OF ALL BEGINNING TENANT OPERATORS IN 15 NORTHERN MISSOURI COUNTIES DURING 1953, 1956, AND 1959, WITH AMOUNT OF CHANGE SINCE 1953

Type of Lease		Labor Income to Family	Dollar Change	Percent Change	Labor and Management Income to Operator	Dollar Change	Percent Change
Cash	1953	\$ 836	\$-----	---	\$ 656	\$-----	---
	1956	3,224	2,388	286	2,821	2,165	330
	1959	1,558	722	86	1,558	902	138
Crop Share	1953	\$1,927	\$-----	---	\$1,819	\$-----	---
	1956	2,402	475	25	2,065	246	14
	1959	2,438	511	27	2,062	243	13
Crop-share-cash	1953	\$2,278	\$-----	---	\$2,147	\$-----	---
	1956	3,129	851	37	2,648	501	23
	1959	2,013	-265	-12	1,727	-420	-20
Livestock-share	1953	\$1,844	\$-----	---	\$1,775	\$-----	---
	1956	2,884	1,040	56	\$2,592	817	46
	1959	2,533	689	37	2,349	574	32

TABLE 31 -- NET FAMILY INCOMES OF BEGINNING FARMERS IN 15 NORTHERN MISSOURI COUNTIES
DURING 1953, 1956, AND 1959, AND CHANGES SINCE 1953

Item	Owner-Operator			Part-Owner			Tenants			All Groups		
	1953	1956	1959	1953	1956	1959	1953	1956	1959	1953	1956	1959
Net Farm Income	\$1,586	\$1,361	\$1,923	\$2,862	\$2,463	\$3,018	\$2,128	\$3,160	\$2,810	\$2,129	\$2,725	\$2,652
Change from 1953:												
Dollars		\$ -225	\$ 337		\$ -399	\$ 156		\$1,032	\$ 682		\$ 596	\$ 523
Percent		-14	21		-14	5		48	32		28	25
Off-Farm Income	\$ 633	\$ 875	\$1,218	\$ 346	\$ 442	\$ 294	\$ 340	\$ 674	\$ 562	\$ 378	\$ 648	\$ 643
Change from 1953:												
Dollars		\$ 242	\$ 585		\$ 96	\$ -52		\$ 334	\$ 222		\$ 270	\$ 265
Percent		38	92		28	-15		98	65		71	70
Gifts	\$ 73	\$ 481	\$ 59	\$ 304	\$ 519	\$ 346	\$ 486	\$ 166	\$ 82	\$ 415	\$ 297	\$ 157
Change from 1953:												
Dollars		\$ 408	\$ -14		\$ 215	\$ 42		\$ -320	\$ -404		\$ -118	\$ -258
Percent		559	-19		71	14		-66	-83		-28	-62
Net Family Income	\$2,292	\$2,717	\$3,200	\$3,512	\$3,424	\$3,658	\$2,954	\$4,000	\$3,454	\$2,922	\$3,670	\$3,452
Change from 1953:												
Dollars		\$ 425	\$ 908		\$ -88	\$ 146		\$1,046	\$ 500		\$ 748	\$ 530
Percent		19	40		-3	4		35	17		26	18

TABLE 32 -- NET FAMILY INCOMES OF BEGINNING TENANT FARMERS IN 15 NORTHERN MISSOURI COUNTIES DURING 1953 AND 1959 AND CHANGES FROM 1953

Item	Cash Tenants		Crop-Share Tenants		Crop-Share Cash Tenants		Livestock Tenants	
	1953	1959	1953	1959	1953	1959	1953	1959
Net Farm Income	\$1,072	\$2,066	\$2,174	\$3,052	\$2,560	\$2,546	\$2,221	\$3,424
Change from 1953:								
Dollars		\$ 994		\$ 878		\$ -14		\$1,203
Percent		93		40		-0.5		54
Off-farm income	\$ 260	\$ 40	\$ 401	\$1,025	\$ 25	\$ 474	\$ 437	\$ 232
Change from 1953:								
Dollars		\$ -220		\$ 624		\$ 449		\$ -205
Percent		-85		156		1,796		-47
Gifts	\$ 595	\$ 0	\$ 417	\$ 0	\$ 381	\$ 40	\$ 570	\$ 373
Change from 1953:								
Dollars		\$ -595		\$ -417		\$ -341		\$ -197
Percent		-100		-100		-90		-35
Net family income	\$1,927	\$2,106	\$2,992	\$4,077	\$2,966	\$3,060	\$3,228	\$4,029
Change from 1953:								
Dollars		\$ 179		\$1,085		\$ 94		\$ 801
Percent		9		36		3		25

Part-owners only increased their household incomes by \$146 from \$3,512 in 1953 to \$3,658 in 1959. Their off-farm income decreased to only \$294. Part-owners had the largest net farm income, \$3,018, and also the largest household income in 1959.

The tenant group showed uneven progress. They increased their household income from \$2,954 in 1953 to \$4,000 in 1956, and dropped to \$3,454 in 1959. Tenants made the largest increase in net farm income (\$682) but the amount of gifts dropped \$404, thus keeping their household incomes from rising above owners and part-owners.

During the period from 1956 to 1959, owner-operators and part-owners increased their net family incomes, while tenant-operators' incomes decreased. This decline seemed to be significantly different from the trend. Upon further investigation, it was found that most of the tenants who switched classifications either to owners or part-owners between 1956 and 1959 were the more successful farmers in the tenant group. Those tenants who switched classifications had net family incomes of \$4,462 and had control of \$56,144 worth of farm assets in 1956. Both of these amounts are considerably above average for tenants. The net worth of those who changed was \$11,364, which was closely in line with the average. This helps explain both the decrease in average income for tenants and the increase in owners' and part-owners' incomes for 1959.

Among the various tenant groups, livestock-share and crop-share renters again attract the most attention. Crop-share tenants made the largest growth in household income. They increased from \$2,992 in 1953 to \$4,077 in 1959; however, \$1,025 or one-fourth of their income was from off-farm sources. Livestock-share tenants increased their net family income from \$3,228 to \$4,029, but they received only \$232, or about 6 percent, from off-farm work. They made the largest increase, and received the largest net farm income (\$3,424) in 1959. The household incomes of crop-share-cash tenants remained almost stable, being \$2,966 in 1953 and \$3,060 in 1959. The decline in value of gifts received by all tenants (-\$404) affected their household incomes more than those of the part-owners and owner-operators.

IMPLICATIONS

Larger and larger investments in farm businesses make entry into farming increasingly difficult, but the data presented here show that successful entry by men of small means is still possible. These farmers started in a year that was followed by almost continuous falling crop prices and fluctuating livestock prices (Table 33). Despite these handicaps, through expansion in size of business and by working off the farm they were able to increase their household incomes and almost double their net worth.

Few young men have sufficient capital to start farming as owners of well-balanced businesses. A strong desire for land ownership sometimes causes them to purchase small farms. The results of the analysis suggest that this procedure

is an error. Many buyers correct the mistake by renting additional land. Those who do not gain control of additional resources have lower incomes than tenants. However, in a period of rising land prices, the capital gain may be sufficient to offset low income when financial progress is measured by a succession of net worth statements based on current market value of assets.

The practice of renting land from two or more owners has aided the adjustment process in northern Missouri greatly. All tenure groups increased the size of their farms materially in the 1953-59 period. Part-owners increased the most and owners the least. Some of the men rented land from four or more owners.

The exact reasons why 10 of the farmers who started in 1953 were not farming or participating in the study in 1959 is not known. However, the 1953-56 records suggest that the reasons were not entirely financial. Only one of the 10 appeared to be in financial difficulty at the close of 1956.

These 10 operators had farms averaging 313 acres in size and assets under their control totaling \$36,428. Their net farm incomes averaged \$2,854 in 1953 and their household returns \$3,569. All of these factors compare very favorably with the averages of operators who continued to farm. It may have been that farming did not appeal to them as a way of life. It is also possible that they found more attractive economic opportunities in other industries or professions.

TABLE 33 -- AVERAGE YIELD OF CORN, WHEAT, AND SOYBEANS IN THE FIFTEEN COUNTIES FROM 1953 THROUGH 1959¹ AND AVERAGE PRICES OF HOGS, CATTLE², CORN, WHEAT, AND SOYBEANS³ FOR THE STATE FROM 1953 THROUGH 1959

Item	1953	1954	1955	1956	1957	1958	1959
Corn yield in bu.	33	32	40	51	48	56	54
Wheat yield	24	29	33	25	28	32	19
Soybean yield	16	20	17	23	24	26	22
Corn prices per bu.	1.51	1.52	1.34	1.32	1.12	1.11	1.05
Wheat prices per bu.	1.92	2.03	1.96	1.91	1.92	1.70	1.72
Soybean prices per bu.	2.53	2.51	2.14	2.15	2.07	1.98	1.95
Cattle prices per cwt.	16.30	16.10	15.50	15.70	18.00	22.70	23.20
Hog prices per cwt.	21.50	21.90	14.50	15.20	18.00	19.80	14.10

¹Missouri Annual Crop and Livestock Production by Counties 1941-1960, The State Department of Agriculture, Jefferson City, Missouri.

²United States Bureau of Agriculture Economics, Agriculture Prices 1953-59, Ag. Marketing Service of U.S.D.A.

³United States Department of Agriculture, Agricultural Statistics 1953-1959, U. S. Government Printing Office, Washington, D. C.