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Land Price Trends in Missouri

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COLUMBIA, MISSOURI

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Land Price Trends in Missouri

Agricultural production will need to be increased greatly by 1975 to provide adequate food and fiber for the people of the United States. Surpluses of a few commodities such as wheat and cotton may continue to be available for export, but the tonnage of food that is shipped abroad will not be as great as the quantity imported from other parts of the world. Very little additional crop land will be available to the American farmer, so the increase needed in production will have to come largely from higher yields on existing land. Because of this fact, mechanization, use of fertilizer, availability of irrigation water, and improved production methods will be the keystones to an ever-increasing supply. These facts make ownership of farm land desirable.

People are moving out of the rural areas of Missouri. They are finding employment in industries other than agriculture. Farms are becoming larger, and, aside from subsistence and part-time units, fewer in number. The physical supply of land is fixed. The economic supply can be increased through drainage, irrigation, terracing, and other techniques, but limitations of cost in relationship to returns will maintain the present condition of relative scarcity. The result will be a struggle for control, and the prospective buyer will need to keep his bids within limits of the price that future income will justify paying for the property if he is to avoid financial loss. For this reason, the factors that determine the price of land are very important to the farmer or the investor and of major interest to all of the people.

The research reported in this publication has been undertaken for the following purposes: (1) to determine trends in land prices in selected counties of Missouri, (2) to find out what factors have influenced these trends, and (3) to isolate the forces that have determined the prices at which specific parcels of land have been sold. In other words, an effort has been made to get some understanding of how the land market functions.

A study of land values requires an analysis of the cumulative effects of a number of economic forces. More than a decade ago, after the close of World War II, the price of farm land began to surge upward, as was the trend in other sectors of the economy. Land values responded to higher prices for farm commodities. Activity in the land market increased, as compared to the number of transfers in the depressed 1930's. Despite declining farm commodity prices, it has not subsided in recent months. The situation has been surprising for the following reasons:

- land prices lagged far behind farm commodity prices in the early part of the inflationary period;
- (2) since 1952 the trend in prices farmers have received for their commodities has been downward, but land prices have continued to rise.

In April, 1957, land prices were at record high levels, both in Missouri and in the United States as a whole. This fact was particularly surprising in Missouri. Drouth, declining farm commodity prices, and higher costs of the goods and services used by farmers had reduced their purchasing power. In addition to these price restraining factors, interest rates had gone up. This fact, alone, normally would have checked the rise in land values. Yet the market continued to be active and the farm real estate mortgage debt continued to grow. In the United States it advanced from 6.6 billion dollars in 1940 to 9.9 billion in 1957. Toward the close of the year, buyers were borrowing heavily to finance land purchases. It is hoped that the forces influencing these trends will be better understood as a result of this research.

SOURCES OF DATA AND AREA STUDIED

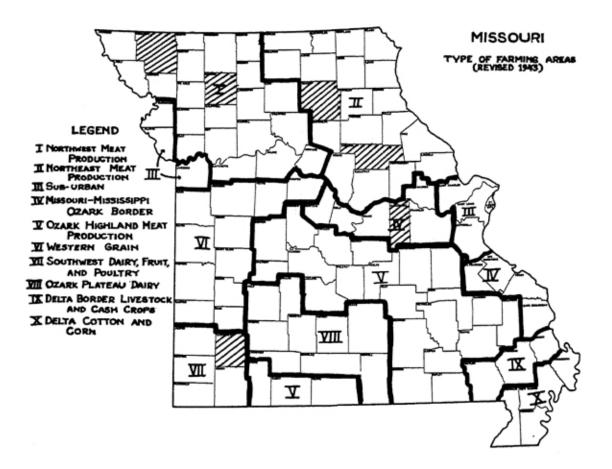
In the initial phase of the study two problems arose: (1) where to obtain land transfer and price data that would be representative of specific soil, climatic and locational conditions in Missouri; and (2) which counties would be most nearly free from non-agricultural influences in the land market. In selecting the six counties for collecting land transfer data, an effort was made to include the most important economic areas, as well as different productivity classes of land. Audrain County was chosen because of the uniformity of its soils and its location in the center of the northeast meat producing area. Daviess County was selected to represent the eastern part of the northwest meat producing area. Gasconade County is in the Missouri- Mississippi-Ozark border area where wheat, feed crops, and dairy cattle are emphasized. Lawrence County is in the southwest dairy, grain and poultry area; Macon County is in the north central pasture and livestock area; and Nodaway is in the feed grain and livestock finishing region. Records were obtained of all real estate transfers that took place in these counties in the years 1947 through 1956. These six counties are referred to when the term "selected counties" is used in the publication.

Information concerning reasons for buying and selling land, procedures used in arriving at a price, and the influence of real estate brokers was obtained by interviewing people who had participated in the transfer of land in Audrain County during the year 1956. This year was chosen because parties to the transactions were easier to find than those who had bought or sold in earlier years, and it was believed that the experience would be fresher in their minds.

Records Obtained

Records of land transfers were obtained by reporters who usually were employees in the county recorder's offices. The information included names of the buyer and seller, acreage transferred, mortgage data, assessed valuation, and amount of consideration or the transfer tax which was used to estimate the price. Only transfers by warranty deed were used in the analysis. These records were reviewed. Those where the last name of the buyer and seller were the same, and

Figure 1—Location of counties where data were obtained.



those conveying a part interest were eliminated. Any transfer exhibiting a city description or in which the consideration was \$1,000 per acre or more was discarded. This procedure left a total of 8,537 usable transfers during the ten-year period (1947 through 1956). The number in individual years ranged from 506 in 1953 to 1,243 in 1947. Details of the number of transfers each year are given by counties in Table 1.

Four different questionnaires were prepared to facilitate collection of data on reasons for buying and selling farm land in Audrain County. One was used to get information from the buyer, another to get data from the seller, a third to get information from real estate dealers, and a fourth to find out why and to what extent bidders were interested in buying the property. The purposes of the interviews were to find out: (1) how the sale took place, (2) how buyers and sellers made up their minds about price, (3) the bargaining procedure that was used in arriving at the sale price, (4) the principal reasons for buying or selling, and (5) financial arrangements that were made to pay for the property.

TABLE 1--NUMBER OF FARMS SOLD AND INDEX OF AVERAGE VALUE PER ACRE IN SELECTED COUNTIES OF MISSOURI. 1947-1956.

P	ER A	ÇRE IN S	SELECT	LED CC	ONTES	OF MI	SSOURI	, 1947-1	1956.	
County	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
				Nu	mber of	Farms	Sold			
		, ,.							4.	
Audrain	181	204	148	219	188	116	66	69	108	88
Daviess	140	94	79	138	123	112	66	112	83	57
Gasconade	40	61	41	49	50	64	43	42	53	70
Lawrence	297	258	240	253	268	184	96	112	152	139
Macon	324	168	191	211	324	185	150	142	159	154
Nodaway	261	214	292	239	139	91	85	116	130	59
Total	1243	999	991	1109	1092	752	506	593	685	567
			3	900		. ~				
	24 C	Ind	ex of A	verage	Value pe	er Acre	(1947-	49 = 100))	
									_	
Audrain	85	106	109	119	152	176	213	176	190	177
Daviess	88	100	112	103	135	128	162	186	136	126
Gasconade	112	90	98	77	111	130	81	122	112	101
Lawrence	91	101	108	124	140	138	158	128	138	141
Macon	94	99	107	113	139	134	142	132	159	140
Nodaway	100	98	102	113	140	123	106	107	127	148

CHARACTERISTICS OF LAND WHERE SALES WERE MADE

The land was divided into classes which were based on relative productivity of the soil as determined by previous research at the Missouri Agricultural Experiment Station.¹

The soils commonly found in each land class are listed in Table 2. All of the conditions of soil and topography are highly favorable to crop production in Land Class I. The land does not flood, erode, or deteriorate easily from use, and is adapted to a number of crops.

TABLE 2--SOIL TYPES INCLUDED IN THE VARIOUS LAND CLASSES IN MISSOURI.*

Class I.

Marshall Silt Loam Wabash Silt Loam Sarpy Fine Sandy Loam

Class II.

Shelby Silt Loam Grundy Silt Loam Sharky Clay Loam

Class III.

Summitt Silt Loam Shelby Silt Loam** Bates Fine Sandy Loam Putnam Silt Loam Hagerstown Silt Loam

Class IV.

Cherokee Silt Loam Crawford Gravelly Loam Oswego Silt Loam Waverly Silt Loam

Class V.

Lindley Loam Hanceville Loam Union Silt Loam

Class VI.

Union Silt Loam Clarksville Gravelly Loam

Class VII.

Clarksville Stony Loam Ashe Stony Loam

^{*} This land class system was developed by Professor H. H. Krusekopf of the Soils Department, University of Missouri. It was not based entirely on specific soil types, but the types were grouped approximately as arranged in this table.

^{**} Shelby Silt Loam is common to both land classes II and III.

¹The basic soil map used for classification of the land was prepared by Professor H. H. Krusekopf of the Soils Department, University of Missouri. The productivity classes were taken from Missouri Agricultural Experiment Station Research Bulletin 465, *Productivity of Farm Land in Missouri*, by Buel Lanpher, Jr.

Class II lands are less desirable in one or more respects but are very good farm lands. There may be a wider range of soil conditions, mainly of texture and structure. The soils may not have as wide a range of crop adaptation as Class I lands. Rolling areas in this class rarely have slopes of more than 10 percent. Under good care its productiveness is assured.

Class III land is rarely above medium in fertility. It requires good management for best results in crop production. The hazards of erosion or incomplete drainage are always present. Crop adaptation is generally limited because of some unfavorable soil feature. Soil improvements such as liming, fertilization, and erosion control are more necessary for profitable yields than on Class I or II lands. Rolling areas do not have slopes above 15 percent.

Class IV land is the lowest class that is suitable for producing cultivated crops. It has severe limitations to agricultural use because of low fertility or unfavorable physical properties. Frequent cultivation usually results in rapid deterioration. Slopes are not greater than 20 percent. Crop yields depend upon tillage practices, fertility treatments, and weather conditions. Hazards to high yields are always present because of one or more unfavorable soil conditions.

Class V land should be kept in permanent pasture because of one or more of the following conditions: low fertility, steepness of slope, deterioration because of erosion, poor drainage, stone content or rock outcrop. Less than three percent of the land is arable. In general, the fertility of the soil is such that bluegrass will grow, but the carrying capacity of pasture is often low.

Class VI land may have features similar to Class V but the fertility is lower. Much of the Class VI land is in forest. Its use for pasture or forest depends upon local conditions. The fertility of the soil is so low that bluegrass does not thrive. Most of the acreage in this class is in the Ozark region.

The counties contained six of the seven land classes in the state. No two of those from which records were obtained were in the same physiographic area.

Audrain County is in the Putnam soil section. Most of the land is in Class III, or average crop land. The topography is relatively level to gently rolling. A small area of Lindley soil in the eastern part of the county exhibits rougher topography. In this section, most of the farmers keep livestock, primarily hogs and beef cattle. Soybeans and wheat are grown as cash crops on the level land. Good markets are available locally and at St. Louis, about a hundred miles away.

Daviess County is located in the northwest portion of Missouri. The soils are predominantly of the Shelby type, and erode rapidly when used for inter-tilled crops. They are in Class III. The county also has considerable acreage of Wabash along streams. This land is in Class II, which is good crop land. The topography varies from flat to gently rolling.

Daviess County is located in the meat producing area of the state. Farmers sell more of their animals to feeders than to packers for slaughter. Good markets are available at local auctions as well as St. Joseph and Kansas City.

Gasconade County is in the east central portion of the state. It is a part of the

Ozark border dairy and wheat region. Most of the soils are the Lindley and Union type. The topography is hilly and rough. In portions of the county, as much as 30 percent of the land is not in farms.² Most of the land is Class IV, or below average for crop production. However, some Class I land lies along the Missouri River at the northern boundary.

Lawrence County soils are predominantly of the Crawford and Cherokee series. In the rougher sections, up to 30 percent of the land is not in farms.³ The general relief is relatively flat in the northern and southern sections, and fairly steep in the central and eastern portions. The area is part of a border plateau of the Ozark highlands. There is a gradual rise in elevation from the southwest to the northeast. Most of the county lies in the southwest fruit, dairy and poultry region.

Macon County is in the north central portion of the state. The soils are divided between the Putnam, Lindley and Wabash series. Most of the area is classed as average crop or good pasture land. The eastern half of the county is flat to rolling, while the western half is rolling. The county is located in the northern meat producing section of the state. The animals that come from this area usually are not finished for slaughter. Only a small portion of the land is suitable for feed grain production. The Lindley soils are among the most severely eroded in the state.

Nodaway County is on the Iowa line in the northwest corner of the state, and contains a considerable portion of Class I land. Most of the crop land is mapped as Marshall Silt Loam. The Class II land which makes up the eastern one-third of the county is predominantly Shelby Loam. It is intermingled with a narrow strip of Class I land bordering the Nodaway, Hundred and Two, and Platte rivers. The topography is relatively flat to gently rolling, lending itself well to feed grain production, which is used to finish meat animals for the slaughter market. The concentration of beef cattle and hogs in this region is the heaviest in the entire state. Corn is grown on from 30 to 45 percent of the cropland. In no other section is the proportion of land devoted to corn so great.

Figure 1 shows the locations of the six counties.

TREND IN LAND VALUES

The value of farm land is related to prices of farm commodities, the cost of goods and services used in producing them, and many other factors. For the United States as a whole, the ratio of prices received to prices paid by farmers approached 106 in the 1915-1919 five-year period and land prices went up rapidly, reaching a peak in 1920.4 The farm mortgage debt also advanced rapidly. The land boom ended in 1921. The bottom of the decline which followed was reached in 1933. By 1935, farm land prices had begun to level out but did not begin decisive ascent until 1940, well after faith had been restored in other sectors of the economy. At the start of World War II, the demand for government securities and other forms of investment rose, and the land market began to

²Hammer, Conrad H., Roth, Walter J., and Johnson, O. R., *Types of Farming In Missouri*, Missouri Agricultural Experiment Station Research Bulletin 284, third edition, page 38.

³Ibid, page 36.

⁴North Central Regional Land Tenure Committee, Farm Land Prices in the Midwest, North Central Regional Publication 11, East Lansing, Michigan, Michigan State College, 1948, page 8.

strengthen. During the war, the number of land transfers increased steadily each year with the exception of 1942.

By the end of World War II, the farm mortgage debt in the United States had been reduced to 4.8 billion dollars. Many lending agencies that acquired farm land through mortgage foreclosures and voluntary surrender of title during the depression had liquidated their holdings without loss and were competing for loans. However, a high percentage of transfers were for cash. Where credit was used, down payments usually were large and loans conservative. Earnings which individuals had been unable to spend during the war were being invested in land.

Since 1935, farms have been increasing in size. The average farm in the United States in that year was 154.8 acres. In 1954, it was 242.2 acres. The desire to enlarge operating units to permit full seasonal use of farm equipment was a strong stimulus to demand.

The sequence of changes in farm land prices in Missouri closely paralleled that of the nation. In the recovery after the depression, the upward trend started at the same time as the national trend. However, it was slower in Missouri and did not reach the west north central level until 1951 (Table 3 and Figure 2).

TABLE 3--INDEX OF AVERAGE VALUE PER ACRE OF FARM REAL ESTATE, UNITED STATES, WEST NORTH CENTRAL REGION AND MISSOURI, 1947-1956.* (1947-1949 = 100)

Area	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
United States	97	100	103	106	124	138	132	123	133	135
West North Central Region**	89	102	109	107	123	135	133	127	136	138
Missouri	97	102	101	103	117	128	132	128	135	139

^{*} Compiled from Current Developments in the Farm Real Estate Market, Agricultural Research Service, United States Department of Agriculture.

Table 4 shows that the number of farms in the United States increased steadily from 1850 to 1920. Between 1920 and 1930, the number declined. It increased in 1935 because of the back-flow of people to the land during the depression. Since that year, the number has been declining.

The situation has been similar in Missouri, but the peak in number of farms was reached in 1900. The number declined between 1900 and 1930, then advanced as people sought refuge on the land from the depression. Since 1935, the number has been declining (Figure 3).

The percentage of farm operators 55 years of age and over has been much greater in Missouri than in the United States as a whole. In 1954, 52.1 percent of Missouri owner-operators were 55 years of age and older. Only 35 percent were in this category in 1910. In 1954, only 7.7 percent of owner-operators were

^{**} Includes the states of Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

TABLE 4--INDEX OF NUMBER OF FARMS IN THE UNITED STATES AND

MISSOURI, 1850 TO 1954.* (1880-1890 = 100).

Year		United States	Missouri
1850		33.8	24.0
1860		47.7	40.9
1870		62.1	65.4
1880		93.5	95.1
1890		106.5	105.0
1900	٠,	133.8	125.6
1910		148.4	122.2
1920		150.4	116.0
1925		148.6	114.8
1930		146.7	112.8
1935		158.9	122.8
1940		142.2	112.9
1945		136.7	107.1
1950		125.6	101.4
1954		111.6	88.9

^{*} Data from U. S. Census reports.

Figure 2—Index of average value per acre of farm real estate. (1947-1949 = 100)

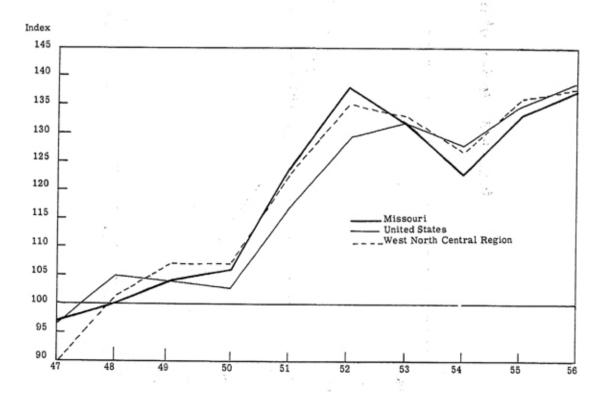
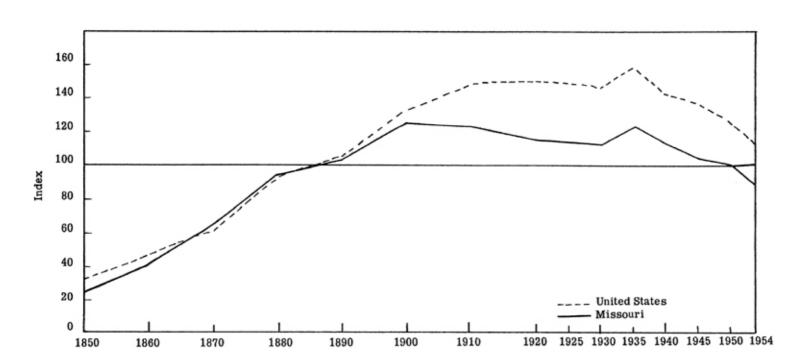


Figure 3—Index of number of farms.



34 years of age or younger. Sixteen percent were young men in 1910. (Table 5). Relatively fewer young men are on farms in Missouri than in the country as a whole. The acreage of land offered for sale should be relatively high as the older farmers pass away or retire. The trend in age of owners and operators is shown graphically in Figure 4.

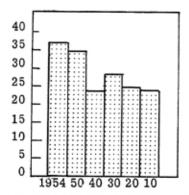
TABLE 5--PERCENT OF FULL OWNER OPERATORS OVER 55 AND UNDER 34
YEARS OF AGE: UNITED STATES AND MISSOURI. 1910 TO 1954.*

	United	States	Miss	ouri
	Percent	Percent	Percent	Percent
	Under 34	Over 55	Under 34	Over 55
Year	Years Old	Years Old	Years Old	Years Old
1910	28.9	23.6	16.0	35.0
1920	26.9	24.8	14.9	27.9
1930	23.4	28.6	9.2	45.8
1940	20.3	23.6	9.4	50.6
1950	18.9	34.6		
1954	15.1	36.9	7.7	52.1

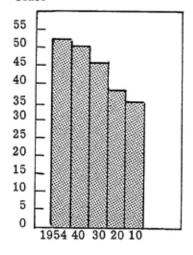
^{*} Data from U. S. Census Reports.

Figure 4—Percentages of farmers in age groups.

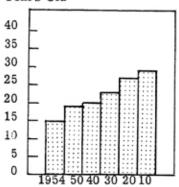
Percent of Owner Operators on U.S. Farms 55 Years and Older



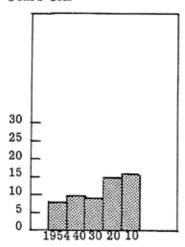
Percent of Farm Owner Operators on Missouri Farms 55 Years and Older



Percent of Owner Operators on U.S. Farms Less Than 35 Years Old



Percent of Farm Owner Operators on Missouri Farms Less Than 35 Years Old.



Land Price Trend in Selected Counties, 1947-1956.

The general trend of land prices was upward in five of the six counties for which data were obtained, but prices varied from year to year (Table 6). The trends are shown graphically in Figure 5. Differences in quality of land could have been responsible for the variation in trend. This possibility was checked by comparing prices on the various productivity classes in the six counties.

Values in Various Land Classes

In most cases, the price that a buyer pays for farm land is closely related to its productivity. Each of the six counties has land in more than one class. All except Land Class VI showed market values that were comparable to their productivity. Representative reports of sales on Land Class IV came from Lawrence and Gasconade counties. The area in this class is extensive in Lawrence County, where the demand for small tracts with improvements kept the value high in proportion to its productivity rating. The most productive land classes have exhibited a stronger upward price trend than the less productive. The price of Class I land increased 60 percent from 1947 to 1956, compared to 13 percent for Class IV land. Prices in Land Classes I, II, IV and V dipped sharply in 1951. Classes I and VI receded from 1952 to 1954, while Classes II and IV displayed some strength.

After 1954, Class I land resumed its sharp upward trend. The price of Class II land moved up in 1953 and 1954. Since 1954, prices of all grades except Class

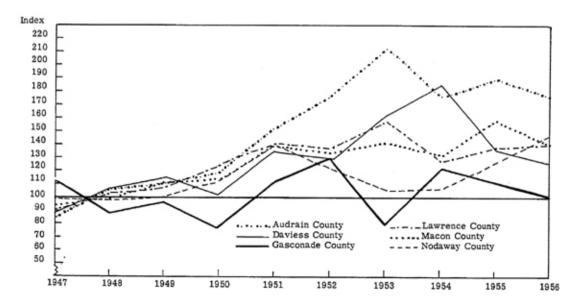


Figure 5—Land values in selected counties.

TABLE 6--TREND IN AVERAGE VALUE OF LAND PER ACRE IN SIX LAND CLASSES IN MISSOURI, 1947-1956.
(DOLLARS PER ACRE.)

Land										
Class	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
I.	99.24	101.33	103.33	114.24	141.58	113.87	114.94	111.08	129.35	160.34
П.	70.36	77.03	78.25	85.83	100.97	87.79	97.77	107.86	99.31	111.45
III.	54.86	58.35	67.20	68,06	90.12	93.24	99.53	91.99	101,40	86.72
IV.	61.05	77.57	75.25	91.37	101.80	91.03	89.53	99.02	77.95	102.87
v.	57,21	48.67	56,91	52.13	67.77	52.64	69.02	63.55	76.98	69.15
_VI.	54.98	54.56	48.12	49.45	50.08	63.00	52,72	50.82	62,24	67.76

I have been irregular with a slight upward trend (Figure 6 and Table 6).

The price of Class IV land has been stronger than would be expected from its productivity. Prior to 1953, it sold at approximately the same price per acre as Class II land. Since 1953, the price has been lower than for Class II land but parallel to it (Figure 6). The price of Class III land since 1951 also has been closer to Class II than its inherent productivity would justify. Prices of Class V and VI land have not advanced as much as those of other grades.

Fluctuations in price were greater on the more productive land than on the lower grades. The better grades exhibited an upward trend during the 1947-56 ten-year period, the magnitude of which appeared to be related to productivity.

It is possible that some of the price variations shown in Figure 7 and Table 7 reflect location value rather than differences in productivity. Not all of the classes were found in each of the counties. Nodaway and Gasconade had the only Class I land in the study. Daviess, Nodaway and Macon counties each had some Class II land. Daviess, Macon, Lawrence and Audrain had Class III land. Gasconade and Lawrence counties had some Class IV land. Macon and Gasconade had some Class V and Lawrence and Gasconade had substantial acreages in Land Class VI.

Figure 6—Land values by land class.

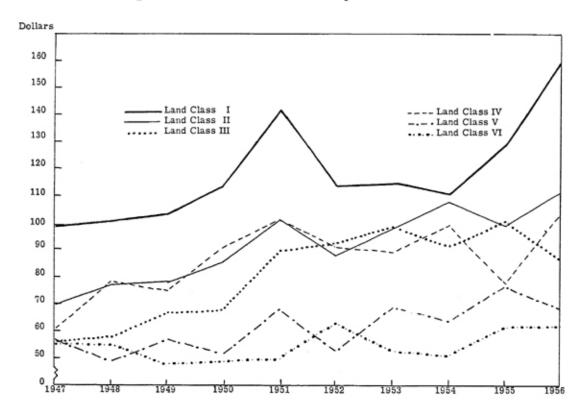


Figure 7—Percentage of land in the different classes sold at various prices.

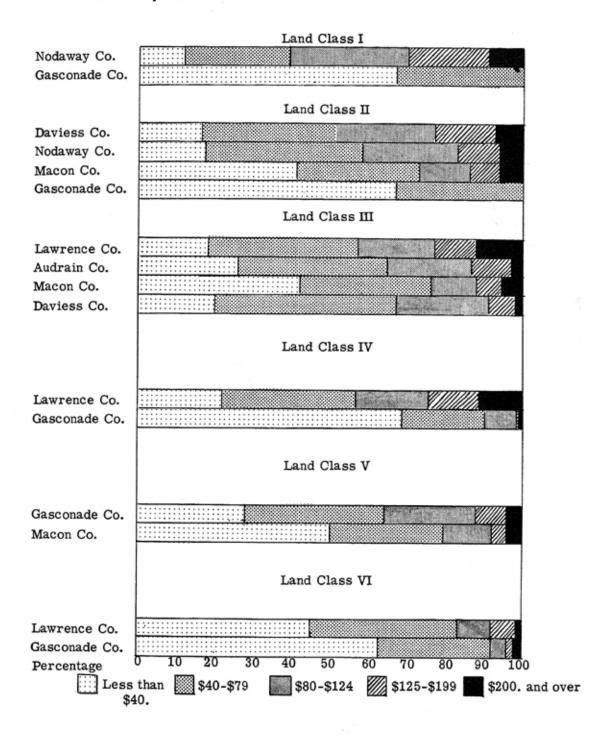


TABLE 7--PERCENTAGE OF LAND SOLD AT DIFFERENT PRICES DURING THE PERIOD 1947-1956 IN SELECTED COUNTIES OF MISSOURI BY LAND CLASS.

	OU EL OBERO	IDD COCKII	Price Per A		LASS.
Class and County	Less than \$40	\$40-\$79	\$80-\$124	\$125-\$199	\$200 and Over
Land Class I					
Nodaway	11.6	27.1	30.5	21.9	8.9
Gasconade	67.0	33.0			
Land Class II					
Daviess	16.5	32.4	38.6	15.8	6.7
Nodaway	17.5	40.5	25.1	10.9	6.0
Macon	40.7	31.6	12.7	8.0	7.0
Gasconade	75.0	25.0			
Land Class III					
Lawrence	18.5	37.9	20.2	10.8	12.4
Audrain	25.9	38.5	22.2	10.5	2.7
Macon	41.8	24.2	11.8	6.6	5.5
Daviess	19.9	47.4	23.9	7.2	1.6
Land Class IV					
Lawrence,	21.8	34.5	19.2	13.2	11.3
Gasconade	68.6	20.8	8.5	0.5	1.6
Land Class V					
Gasconade	28.0	36.0	24.0	8.0	4.0
Macon	49.5	29.2	13.4	3.8	4.1
Land Class VI					
Lawrence	45.1	37.7	8.8	6.8	1.6
Gasconade	62.5	29.3	4.1	2.0	2.1

The value per acre was not uniform in each land class. The acreages of Classes I and II transferred in Gasconade County were small, and the average price was appreciably lower than in Nodaway County (Figure 7). Location near other land of the same class may be a more important price factor than the class itself. It appears that the buyer of Class I land gets a bargain in Gasconade County, where the percentage of this grade is small. The transfer price of the best soils in Gasconade County was consistently low, more in line with the general connotation that the soils are not as productive as in other areas.

Price did not follow land class consistently in any of the areas. Some land of each class sold for more than \$200 an acre. A high percentage of each class sold for less than \$40 an acre (Figure 8 and Table 8).

Nearly the same proportion of sales took place in the various classes in 1956 as in 1947, as shown in Figure 9 and Table 9. Throughout the 10-year period, the proportion did not change greatly. There was a drop in Class I sales from 1949 to 1952 and some increase in Class III sales. Prices advanced most in Audrain County, where Class III land is dominant and least in Gasconade County, where most of the land is in Classes IV to VI (Figure 5).

Figure 8—Percentage of farms that sold at different prices per acre by land class.

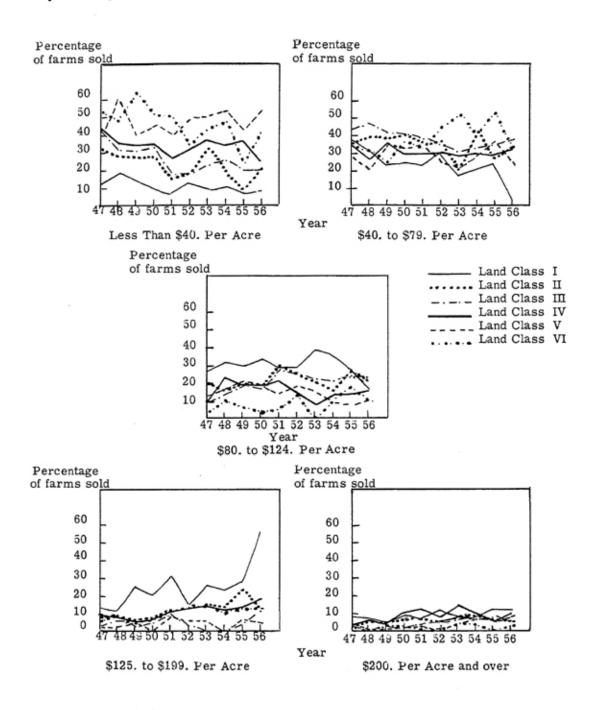


TABLE 8--PERCENTAGE OF FARMS IN SELECTED COUNTIES OF MISSOURI THAT SOLD AT DIFFERENT PRICES PER ACRE BY LAND CLASS, 1947-1956.

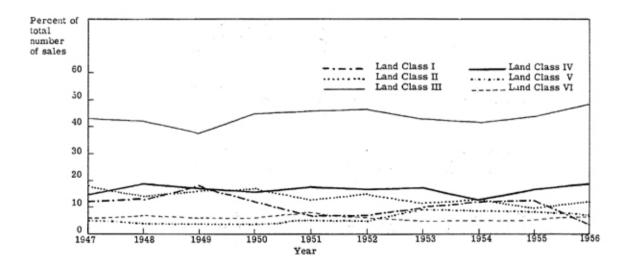
		P	ER ACRE	DI LAND	CLASS, 19	47-1930.				
Range										
in					Percentag					
Price	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
					Land Cla	ss I				
Less than										
\$40	13.4	17.5	15.4	11.2	7.1	12.7	9.8	11.3	6.9	8.7
\$40-\$79	37.5	31.7	23.5	24.6	24.3	30.9	17.6	22.5	25.3	4.4
\$80-\$124	26.9	31.7	20.1	33.6	28.6	29.1	39.2	35.2	27.6	17.4
\$125-\$199	13.5	11.2	26.3	20.9	31.4	14.5	25.5	22.5	27.6	56,5
\$200 and over	8.7	7.9	5.6	9.7	8.6	12,8	7.9	8.5	12.6	13.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
					Land Clas	ss II				
Less than										
\$40	32.9	29.4	27.6	27.7	14.9	17.9	32.8	18.2	9.0	22,4
\$40-\$79	35.9	39.8	38.3	39.7	35.8	36.5	21.3	42.8	26.9	34,3
\$80-\$124	20.1	16.1	19.6	18.5	29.9	25.9	21.3	15.6	26.9	20.9
\$125-\$199	7.3	8.4	7.4	7.6	12.7	13.4	14.8	14.3	23.8	10.5
\$200 and over	3.8	6.3	6.1	6.5	6.7	6.3	9.8	9.1	13.4	11.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
					Land Clas	s III				
Less than										
\$40	42.7	32.7	31.6	33,5	18.5	18.3	23.4	26.2	19.2	20.6
\$40-\$79	43.3	46.6	42.3	40.5	37.6	35.0	31.0	34.1	35.0	37.7
\$80-\$124	9.2	13.6	17.8	16.5	27.7	26.1	23.0	22,2	24.6	23.0
\$125-\$199	2.6	6.1	5.4	6.7	11.0	14.3	14.0	10.7	12.8	12.7
\$200 and over	2,2	1.0	2.9	2.8	5.2	6.3	8.6	6.8	8.4	6.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

					Land Clas	s IV				
Less than										
\$40	43.3	35.3	33.7	33.6	27.3	31.8	37.2	34.6	37.4	25.5
\$40-\$79	35.1	26.6	36.7	30.2	29.5	31.0	28.7	29.6	27.8	31.4
\$80-\$124	9.3	22.8	18.1	18.0	21.3	16.3	8.6	13.6	13.9	14.7
\$125-\$199	9.3	8.2	6.0	7.0	8.8	11.6	11.7	11.1	13.9	17.6
\$200 and over	3.0	7.1	5,5	11.2	13,1	9.3	13.8	11.1	7.0	10.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
					Land Clas	ss V				
Less than										
\$40	52.5	60.5	39.5	46.1	40.0	50.0	51.0	53.6	41.6	52.5
\$40-\$79	27.9	20.9	34.9	33,3	35.4	25.0	22.4	28.6	36.7	25.0
\$80-\$124	13.1	16.3	20.9	17.9	13.8	19.4	16.3	8.9	8.3	10.0
\$125-\$199	1.6	2.3	4.7		7.7	5.6	6.1		6.7	5.0
\$200 and over	4.9			2.7	3,1		4.2	8.9	6.7	7.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
					Land Clas	ss VI				
Less than										
\$40	54.2	47.9	64.9	52.3	50.6	34.0	44.0	48.5	23.7	42.1
\$40-\$79	34.6	31.5	22,8	36.9	33.3	44.7	52.0	39.4	52.6	34.2
\$80-\$124	2.5	11.0	7.0	4.6	6.2	14.9		9.1	18.4	10.5
\$125-\$199	6.2	8.2	3.5	4.6	9.9	4.3			5.3	10.5
\$200 and over	2.5	1.4	1.8	1.6		2.1	4.0	3.0		2.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 9--YEARLY PERCENT OF SALES IN SIX SELECTED COUNTIES OF MISSOURI BY LAND CLASS, 1947 TO 1956.

			Land C	lass			
Year	I	П	III	IV	v	VI	Total
1947	11.8	18.5	43.0	15.4	4.9	6.4	100.0
1948	12.8	14.6	42.1	18.7	4.5	7.4	100.0
1949	18.2	16.6	38.2	16.9	4.4	5.7	100.0
1950	12.3	16.9	45.5	15.8	3.5	6.0	100.0
1951	7.0	13.4	46.6	18.3	6.6	8.1	100.0
1952	7.6	15.4	47.9	17.7	4.9	6.5	100.0
1953	10.2	12.2	44.2	18.7	9.8	4.9	100.0
1954	12.5	13.5	44.2	14.2	9.8	5.8	100.0
1955	13.3	10.1	44.7	17.3	9.0	5.8	100.0
1956	4.4	12.8	48.3	19.5	7.7	7.3	100.0

Figure 9—Yearly percent of sales by land class.



SIZE OF UNITS SOLD

The size of farm units bought and sold should be a function of one or more of the following variables: (1) the acreage needed to make a living, if bought for farming purposes; (2) the size of unit needed to provide a home; or (3) the acreage needed as an addition to the land already held to make an efficient operating unit. The size of the farm necessary to make a living is closely related to the productivity of the soil and the enterprises included in the business.

Trend in Size of Farm in the Various Land Classes

More than 50 percent of the farm land sold from 1947 to 1956 in the counties studied was in parcels smaller than 100 acres. Over 60 percent of the tracts in Daviess, Lawrence, Macon and Nodaway counties were smaller than 100 acres. Small tracts were dominant in all land classes. Sixty-five percent of the Class II land sold in Daviess County was in tracts smaller than 100 acres. A lower proportion of tracts of this size was sold in Land Class III. The size of units in this county was more variable than in the other counties. Tracts smaller than 100 acres reached a peak of 88 percent of all sales of Class II land in 1954. The percentage of tracts that were below 100 acres in size by counties and land class is given in Table 10 and Figure 10.

Nearly 60 percent of the Class I and approximately 70 percent of the Class II land sold in Nodaway County was in tracts smaller than 100 acres. Most of the parcels were added to existing land holdings. The average size of farm in the county increased from 169 acres in 1944 to 190.7 acres in 1954.

In the ten-year period 1947-1956, no pronounced changes appeared in the size of units sold. Apparently enlargement of holdings was the goal of many buyers. They were becoming aware of the need for larger acreages to make efficient use of high-priced equipment.

The relative value of tracts of different size varied between counties. In Audrain County, tracts smaller than 100 acres sold for almost the same average price per acre as did farms of 240 or more acres. The price increased until 1953, then leveled off, but there was no great difference for tracts of different sizes (Figure 11).

The situation in Daviess County is almost the same as in Audrain County, with the exception of the spread in prices between small and large tracts in 1954 and 1955. In 1954, tracts smaller than 100 acres sold for an average price of \$131 per acre. Tracts of 240 or more acres brought \$83 an acre. Small tracts sold for \$91 an acre in 1955, and large tracts for \$56 (Table 11).

In Gasconade County, farms smaller than 100 acres brought higher prices per acre than large farms throughout most of the period, but the spread was not as great as in Lawrence County. In most years, small farms brought higher prices per acre than large farms in Macon and Nodaway counties. The difference probably represented the value of improvements.

Figure 10—Percentage of parcels of land sold that were smaller than 100 acres.

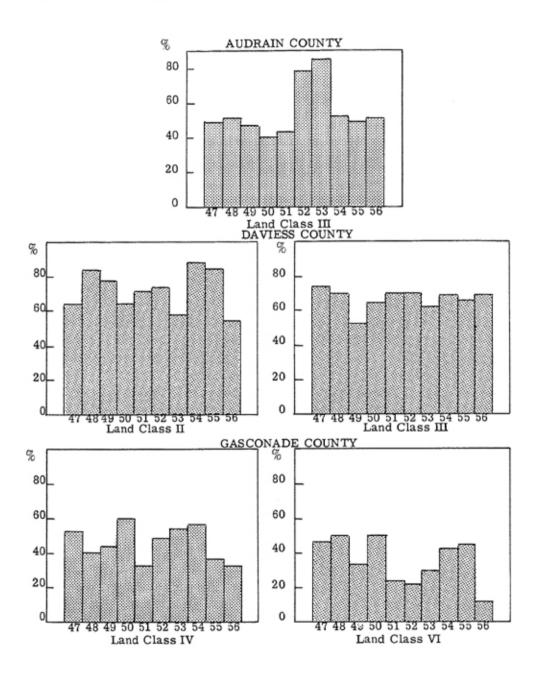


Figure 10—(Continued)

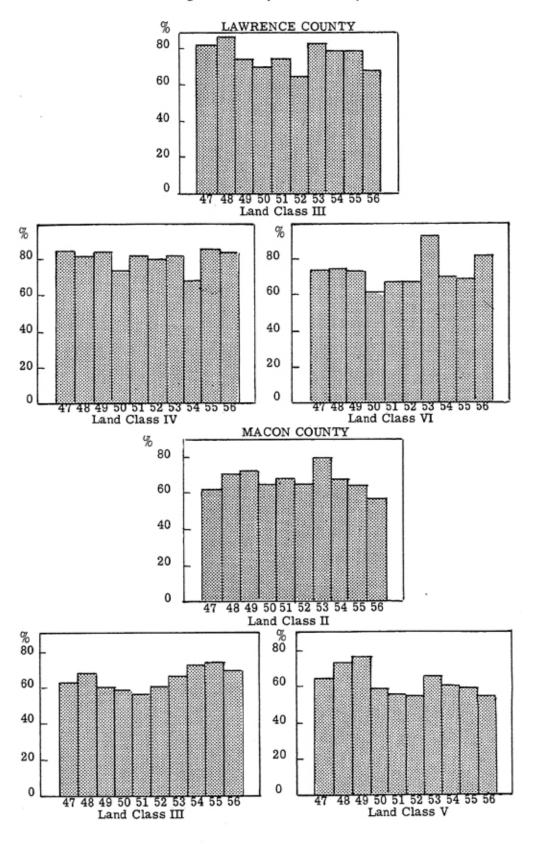


Figure 10—(Continued)

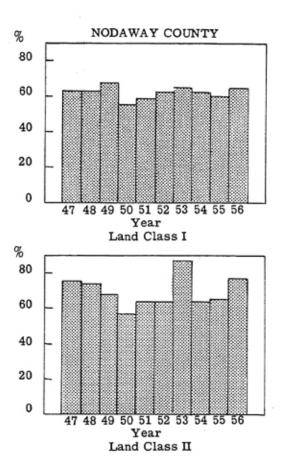


Figure 11—Trend in average value by county and size of tract.

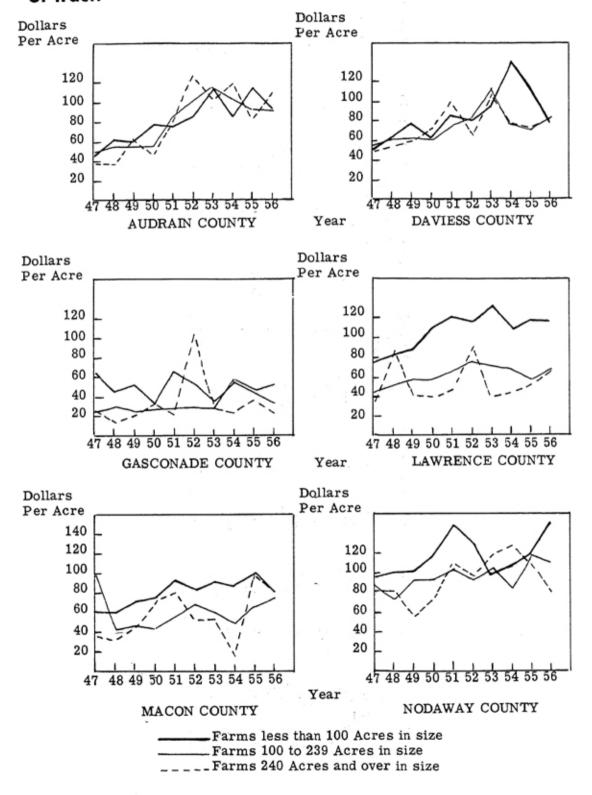


TABLE 10--PERCENTAGE OF PARCELS OF LAND LESS THAN 100 ACRES IN SIZE SOLD IN SELECTED COUNTIES OF MISSOURI, BY LAND CLASS, 1947 TO 1956.

				,	-	County	and Lan	d Class					
	Audrain	Dav	iess	Gasc	onade	I	Lawrence			Macon		Noda	away
Year	III	п	Ш	IV	VI	Ш	IV	VI	II	III	V	I	II
1947	48.6	65.2	73.7	52.0	45.5	83.1	84.7	74.3	62.1	62.6	64.0	62,3	74.6
1948	50.0	84.2	70.3	39.5	50.0	86.9	81.5	74.6	71.4	67.4	73.2	62.4	73.9
1949	47.3	78.6	53.1	43.8	33.3	75.0	83.5	74.0	72.2	60.3	77.0	67.2	67.9
1950	40.0	64.3	65.0	60.0	50.0	71.2	73.0	62.7	65.1	57.6	58.0	54.9	56.7
1951	41.6	71.4	70.8	33.3	23.1	75.0	81.5	67.6	68.0	57.3	56.4	58.0	64.3
1952	78.4	73.7	70.6	48.6	22.2	65.4	80.2	68.4	65.0	61.3	54.5	61.8	63.6
1953	86.4	58.3	61.5	55.3	30.0	83.3	82.0	93.3	79.0	66.3	64.6	64.7	86.7
1954	52.2	88.9	67.9	55.6	41.7	79.4	72.2	71.4	66.7	73.2	61.1	60.6	63.6
1955	48.1	84.6	66.2	35.6	45.4	70.0	85.8	70.3	63.6	73.8	60.0	60.0	65.1
1956	51.1	55.6	68.1	31.8	13.3	69.4	85.0	83.0	56.5	70.4	55.3	65.2	77.1

TABLE 11--TREND IN AVERAGE PRICE PAID PER ACRE FOR FARM LAND BY SIZE OF TRACT TRANSFERRED IN SELECTED COUNTIES OF MISSOURI, 1947 TO 1956.

County and	JEL.	ECIED	OUNTE	J OF WILL	bootu, 1	011 10 10				
Size of Tract					Yε	ear				
Transferred	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
Audrain County										
Less than 100 acres	\$47	\$62	\$71	\$ 78	\$76	\$ 86	\$116	\$ 86	\$114	\$ 95
100-239 acres	46	56	56	56	87	101	116	101	93	91
240 acres and over	38	38	62	48	81	126	102	118	83	109
Daviess County										
Less than 100 acres	54	67	78	64	87	80	95	131	91	78
100-239 acres	57	63	63	62	75	83	112	76	74	81
240 acres and over	50	82	59	74	100	66	104	83	56	79
Gasconade County										
Less than 100 acres	65	46	52	32	67	52	35	54	45	34
100-239 acres	26	30	25	28	37	39	29	58	47	52
240 acres and over	18	15	21	33	23	103	29	25	36	23
Lawrence County										
Less than 100 acres	75	83	88	112	120	115	132	108	116	116
100-239 acres	46	52	58	57	65	75	70	67	57	69
240 acres and over	32	87	42	38	48	90	39	44	51	64
Macon County										
Less than 100 acres	62	63	72	75	93	84	92	88	101	83
100-239 acres	99	43	48	45	57	68	61	50	66	73
240 acres and over	36	32	43	71	81	52	54	16	98	81
Nodaway County										
Less than 100 acres	97	101	103	119	149	129	97	107	121	151
100-239 acres	88	73	92	94	103	93	106	83	118	111
240 acres and over	83	81	56	76	110	98	119	127	108	80

RESALE OF FARM LAND

The number of resales within the 1947-51 and 1952-56 five-year periods was obtained by plotting all sales on county maps. A tract was considered resold if it appeared on the map more than once. Changes in the pattern were obtained in Lawrence County by comparing the 1947-51 map with the 1952-56 map. Resales within Land Classes I and II were obtained in Nodaway County for the 1952-56 period.

Resale in Different Land Classes

The number of resales from 1952 to 1956 was not great in Nodaway County. About 8 percent of the tracts that were sold during this period were transferred more than once. Only 0.5 percent were sold more than twice. The situation was approximately the same for both Land Class I and Land Class II.

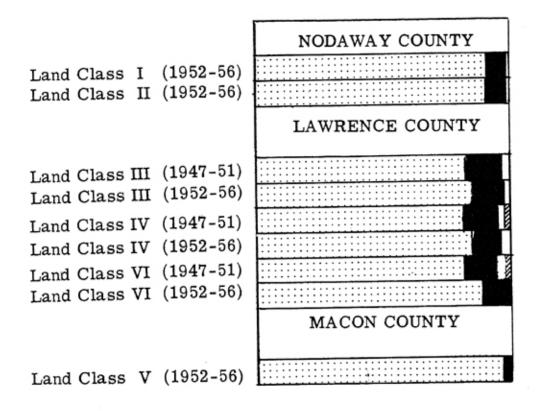
Resales were more frequent in Lawrence County during the 1947-51 period than in the 1952-56 period (Table 12). Some tracts changed hands three or four times in the first five years and two or three times in the second period. More resales were made of Class IV and VI land than of the Class III land. However, the differences were not very large. In the 1947-51 period, 17.1 percent of the tracts on Class III land were transferred more than one time. In the 1952-56 period, only 12.2 percent were sold more than once. On Class IV land, 18.8 percent of the tracts were sold more than once in the first period and 15.1 percent in the second period. On Class VI land 18.0 percent of the tracts were sold more than once between 1947 and 1951 and only 11.4 percent between 1952 and 1956. Thus, it appears that speculation in land may have been more active in the early period than in the later years of the study. In neither period could the market properly be described as speculative. Only 11.4 percent of the tracts of Class VI land were sold more than once, and none were sold more than twice during the 1952-56 five-year period (Figure 12).

Changes in the Resale Pattern

Resale data by size of tract and land class for the 1947-51 and 1952-56 periods are shown in Figure 13 and Table 13. In Lawrence County, tracts of more than 240 acres in Land Classes III and VI were resold more frequently than the smaller sizes of farms. During the first period, 23.1 percent of the large farms on Class III land were sold twice and 7.7 percent were sold three times. On Class IV land, 18.2 percent of the large farms were sold twice and 9.1 percent, four times. In the second five-year period (1952-56), resale activity was greatest with large farms in Land Class IV (Table 13).

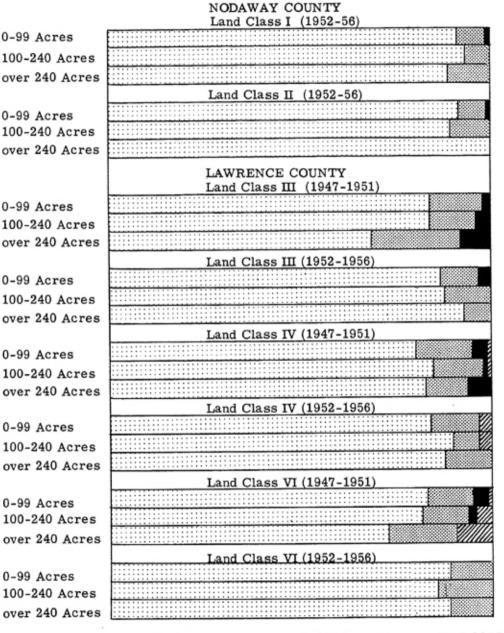
As a general rule, more tracts of the poorer grades of land were resold than of the better grades. Large tracts were transferred a second, third and fourth time more frequently than small tracts. In no land class or size group was the resale market extremely active.

Figure 12—Percentage of tracts sold once, twice, three times and more than three times in selected counties by land class.



Sold only once in period
Sold twice in period
Sold three times in period
Sold more than three times in period

Figure 13—Percentages of farms of different sizes selling various numbers of times in Nodaway and Lawrence counties by land class.



Sold only once Sold twice in Period

Sold Three Times in Period

Sold More Than Three Times in Period TABLE 12--PERCENTAGE OF TRACTS SOLD ONCE, TWICE, THREE TIMES AND MORE THAN THREE TIMES IN SELECTED COUNTIES OF MISSOURI

BY LAND CLASS, 1947-51 AND 1952-56.

Item	1947-1952	1952-1956	
	Percent	Percent	
Nodaway County			
Land Class I			
Times Sold			
1	No Data	91.9	
2	No Data	7.7	
3	No Data	.4	
Nodaway County			
Land Class II			
Times Sold			
1	No Data	91.9	
2	No Data	7.6	
3	No Data	.5	
Lawrence County			
Land Class III			
Times Sold		127	
1	82.9	87.8	
2	14.3	10.4	
3	2.8	1.8	
Lawrence County			
Land Class IV			
Times Sold			
1	81.2	84.9	
2	14.3	12.6	
3	3.5	3.5	
4	1.0		
Macon County			
Land Class V			
Times Sold			
1	No Data	96.6	
2	No Data	3, 4	
Lawrence County			
Land Class VI			
Times Sold			
1	82.0	88.6	
2	12.6	11.4	
3	3.5		
4	1.9		

TABLE 13--PERCENTAGE OF FARMS OF VARIOUS SIZES IN NODAWAY AND LAWRENCE COUNTIES THAT WERE SOLD ONE, TWO, THREE AND FOUR TIMES WITHIN SPECIFIED PERIODS BY LAND CLASS.

111VII	ES MITHIN S	PECIFIED	PERIODS	BY LAND C			
	1947-1951				1952-1956		
		100-	Over		100-	Over	
	0-99	240	240	0-99	240	240	
	Acres	Acres	Acres	Acres	Acres	Acres	
Nodaway County							
Land Class I							
Times Sold							
1				91.4	93.4	88.9	
2				8.0	6.6	11.1	
3				.6			
Nodaway County							
Land Class II							
Times Sold							
1				92.4	90.4	100.0	
2 3				6.9	9.6		
3				.7			
Lawrence County							
Land Class III							
Times Sold							
1	83.6	83.7	60.2	87.3	88.2	92.9	
2	14.2	12.2	23.1	10.4	11.8	7.1	
3	2.2	4.1	7.7	2.3		7.1	
-		***		2.5			
Lawrence County							
Land Class IV							
Times Sold							
1	80.3	85.2	83.3	84.2	00 F	20.5	
2	14.7	13.2	11.1	13.3	89.5	62.5	
3	3.9	.8	5.6	2.5	7.0	25.0	
4	1.1	.8	5.6	2.5	3.5	12.5	
•		.0					
Lawrence County							
Land Class VI							
Times Sold							
1	82,7	81.7	72.7	00.0	00.4		
2	12.4	12.2	18.2	89.2	86.4	88.9	
3	4.0	2.4		10.8	13.6	11.1	
4	.9	3.7	0.1				
		3.1	9.1				

INFLUENCE OF TOWNS ON VALUE OF LAND

Towns are believed to exert an important influence on the price of the farm land around them. The extent of this influence is conditioned by many factors. Among them are location of the land itself, the size of the town, types of markets, and presence of schools above the high school level. Prices received for land at varying distances from Macon and Marysville were analyzed to determine the influence of these towns on land prices. Differences in per acre values within five miles were compared at one-mile intervals.

The town of Macon is located in Macon County near the north central portion of the state. Farms in the area are attractive, and give the appearance of prosperity. Beef cattle and hogs are the principal farm enterprises. The city is located at the intersection of highways 36 and 63, major east-west and north-south roads. The population in 1956 was approximately 4,500. Within the past five years, the businessmen had financed the construction of a building for a manufacturing concern employing 300 people. Macon is served by two mainline railroads and two bus lines. The business district is attractive, and affords opportunities for residents to buy from national chain stores as well as many local merchants.

Land Values in the Area

In analyzing the data, the average price of all land sold during the period was taken as a base and the index of values for tracts one, two, three, four and five miles from the city was computed. Results are shown in Table 14 and

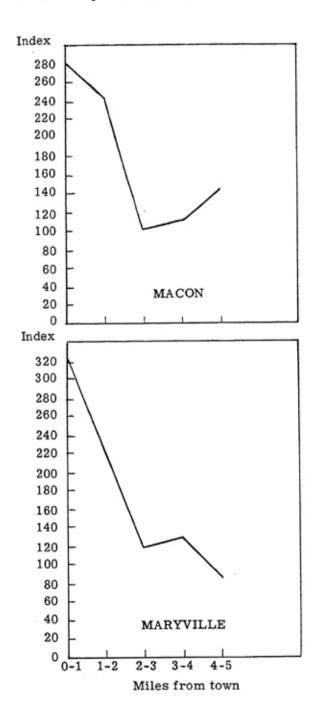
TABLE 14--INFLUENCE OF TOWNS ON THE VALUE OF FARMLAND IN MACON AND NODAWAY COUNTIES, MISSOURI.

Miles From Town	erage Price in County = 100.) Macon	Maryville
Miles From 1041	Index	Index
0 to 1	280	327
1 to 2	247	217
2 to 3	171	119
3 to 4	176	130
4 to 5	202	87

Figure 14. The sharpest decline in value occurred within two and three miles from town. Beyond that point, values increased. This increase was influenced by Bevier, a village of approximately 800 people six miles west of Macon. The value per acre of farms that were sold in the vicinity of Bevier was \$69. On the opposite side of Macon where there is no village, it was only \$54 per acre.

The city of Maryville, the county seat of Nodaway County, is located in the northwest part of Missouri. It is in one of the most productive farming areas

Figure 14—Influence of towns on value of farmland in Macon and Nodaway counties.



of the state. Principal farm enterprises are feed grains and hay, and finishing livestock for the slaughter market.

The population of Maryville in 1950 was 6,814. It is the home of Northwest Missouri State College. The town is 45 miles from St. Joseph on Highway 71. The Burlington and Wabash railroads and several truck and bus lines provide good transportation facilities. The city has good markets and ready access to St. Joseph, Omaha, and Kansas City where livestock, grain, and other farm products can be sold to processors.

The level of productivity of the soil and location near excellent markets make farm land around Maryville very desirable. Values were high in the 1952-56 period, which was used as a base. Farms within one mile of town sold at prices 3.27 times the county average. Those between one and two miles from town brought 2.7 times the county average. Between two and three miles, the average price was 1.19 times the county average; between three and four miles, 1.3 times; and from four to five miles, only 0.87 of the average (Table 14).

The influence of cities on land prices may extend as far as 15 miles from the corporate limits, as pointed out by Hammer.⁵ In an analysis of land prices near Kansas City, it was found that values were closely related to distance from town, and decreased as the distance increased. These findings are in agreement with Von Thunen's theory of the importance of a productive area around a city.

Distance From Town as a Function of Value

Distance from small towns influences value, though on a smaller scale than distance from a metropolitan center like Kansas City. This fact is confirmed by the influence of Bevier on land values in Macon County. Values dropped to 1.71 times the average for the county in the two- to three-mile zone and then advanced slightly over twice the average, largely because of the influence of Bevier.

In Nodaway County no small villages were located near Maryville. Land values were below the county average in the four- and five-mile zones.

Value Multiplier

Prices of farm land in the vicinity of Macon and Maryville did not show an even decline from one mile interval to the next. It would be difficult to develop a reliable multiplier that could be used to determine the value in each zone. The type of road, the size and condition of farm buildings, landscaping of the farm-stead, fertility of the soil, topography, and many other factors influence the price that a buyer is willing to pay for a given acreage of land. In some cases, distance from town may be a dominant influence. In other cases, it may be a minor factor. The data suggest that Maryville exerted a greater influence on land values within the one-mile zone than did Macon, while the influence of Macon appeared to extend further from the town than did that of Maryville.

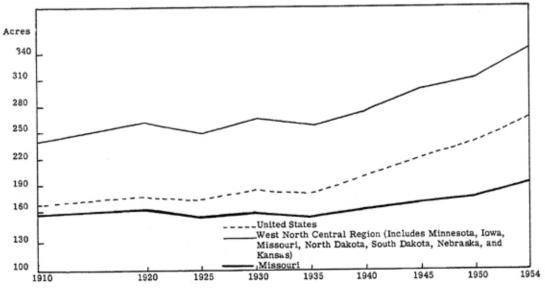
⁵Hammer, Conrad H., Factors Effecting Farm Land Values in Missouri, Agricultural Experiment Station Research Bulletin 229, University of Missouri, Columbia, Missouri, 1935, page 45.

CHANGES IN FARM SIZE TO IMPROVE INCOME

The original land distribution policy of the Federal Government encouraged settlement on small farms. The Homestead Act of 1862 established a modal unit of about 160 acres. Subsequent legislation such as the Tree Claim Act and the Kincaid Act enlarged the units that could be acquired in low producing areas, but the acreage made available did not keep pace with the advance of technology. From 1840 to 1920, the trend was toward medium-sized farms. During this period, farmers were turning from extensive to intensive enterprises. Land prices were advancing. Many of the relatively large holdings that had been acquired in the period of settlement were divided among heirs in the second and third generation. People were buying land in an effort to reap gains from the increase in price. This type of speculative investment encouraged small farms.⁶ In recent years, wages have increased in all industries. Farmers have found it necessary to use labor saving machinery to increase their output per man hour so they can afford to remain on the land. Larger farm businesses have become an economic necessity.

The trend toward larger farms was interrupted by the depression which followed World War I, but again was evident by 1938 (Figure 15). Expensive machinery such as tractors, combines, pick-up hay balers and mechanical cotton pickers has been a major factor in it. Fixed costs such as interest on investment, taxes, and the part of depreciation that is caused by obsolescence must be spread over more acres to make ownership of these labor saving devices feasible. To

Figure 15—Trend in average sizes of farms for the United States, West North Central Region and Missouri.



⁶Earl O. Heady deals with this problem in his bulletin entitled Patterns of Farm Size Adjustment in Iowa, Agricultural Experiment Station Research Bulletin 350, Iowa State College, Ames, Iowa, 1947.

enlarge farms in a given area, units must be consolidated. Sometimes a man who needs an additional 80 acres can afford to pay more for it than a man who has no other land to operate with it. This fact has exerted considerable influence on land prices in recent years.

National, Regional and State Changes in Size of Farm

The size of farms has increased more rapidly in both the United States and the North Central Region than in Missouri (Figure 15). No doubt the national and regional trends have been influenced by consolidation of holdings in the range livestock and wheat areas. Farmers in the plains region have found it necessary to cultivate more acres to make efficient use of their equipment. In the range livestock country where the carrying capacity of pasture is low, it is necessary to have a relatively large acreage to provide feed for enough cattle for a satisfactory income. Dr. Earl O. Heady summarized the situation by saying, "The larger the farm, and hence the income, the greater is the amount left for debt servicing and business expansion after living expenses have been met".

Size of Farms in Missouri

Farms in Missouri have increased in size 43.7 acres (34.7 percent) since 1935 (Table 15). The greatest increase was in the 1950-54 period. Before 1935, the rate closely approximated that of the North Central Region and the nation as a whole. However, Missouri farms are smaller than the regional or national average (Figure 15). More consolidation is required to bring the operating units into line with the needs of farm families who want to use modern equipment.

Size of Farms in Selected Counties

The upward trend in size of farms in the six counties included in this analysis began in 1935 (Figure 16). Macon and Daviess counties have had the greatest increase since 1935 (Table 15). Between this date and 1955, the average size of farm increased 46.5 percent in Macon County, and 40.3 percent in Daviess. The lowest increase was in Gasconade County. Of the four counties north of the Missouri River, the increase was least in Audrain County. Here the average size of farm in 1935 was 173.6 acres, the highest of any county. In 1954, it was 205.6 acres.

Further adjustment in size of operating units is needed in Audrain County, as well as in other parts of the state. The family labor force can take care of more acres and more units of livestock now than they could in the days of small horse-drawn equipment and hand methods of caring for livestock. The level sections of Audrain County are well adapted to mechanization and to cash crops such as wheat and soybeans. Use of fertilizer has raised yields to a profitable level at recent prices. The other counties can grow these cash crops, too, but their soils are better adapted to feed grains, hay, and pasture crops. Livestock enterprises can provide non-crop, seasonal employment for the labor force. Many

TABLE 15--AVERAGE SIZE OF FARMS (ACRES), UNITED STATES, WEST NORTH CENTRAL REGION, MISSOURI, AND SELECTED COUNTIES, 1910-1955.*

		4 4 4	ID OFFICE		,				
	1910	1920	1925	1930	1935	1940	1945	1950	1955
United States	138.1	148.2	145.1	156.9	154.8	174.0	194.8	213.3	242,2
WNC Region**	209.6	234.3	223.2	238.6	231.4	251.6	274.5	289.3	314.7
Missouri	124.8	132.2	125.3	131.8	125.9	135.6	145.2	152.7	169.6
Audrain County			169.2	178.1	173.6	193.5	197.3	189.1	205.6
Daviess County			126.3	133.5	124.8	143.4	152.2	159.5	175.1
Gasconade County			174.0	186.6	172.5	179.2	182.4	191.6	198.4
Lawrence County			106.5	107.9	103.0	109.6	116.4	115.0	125.1
Macon County			123.3	135.7	131.3	144.3	159.2	167.7	192.3
Nodaway County			137.4	152.5	147.8	156.9	169.0	173.3	191.7

^{*} Data from U. S. Census reports.

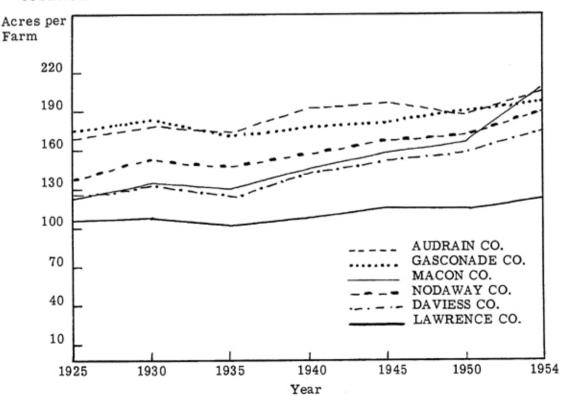
** Includes the states of Minnesota, Iowa, Missouri, North Dakota, Nebraska and Kansas.

of the farms should be enlarged, but the acreage need not be as great as where cash crops are the principal source of income. Livestock enterprises are important in the rolling sections of Audrain County. Returns from farm animals exceed income from crops, but cash crops get more emphasis there than in the other counties.

The average size of farms in Gasconade County, which is south of the Missouri River, increased only 15 percent in the 1935-55 twenty-year period. This slow rate probably was caused by low farm income. Census data show that 72.1 percent of farm operators received less than \$2,500 annually as income from the sale of farm products in 1949. In 1954, 63.6 percent had sales below \$2,500. Under these conditions, farmers cannot accumulate savings to buy more land and there is little incentive for investors to enter the land market.

The situation in Lawrence County, which is also south of the Missouri River, is somewhat different from Gasconade County. Dairy and small fruits are leading enterprises. Farms are small. In 1935, the average for the county was only 103 acres; in 1955 it was 125.1 acres, an increase of 21.5 percent (Table 15). A part of the advance reflects the activities of outside buyers who have acquired some relatively large farms where they can keep beef breeding herds. The trend toward transfer of milk from farms to receiving stations and processing plants in bulk tanks will make it necessary for producers to enlarge their herds to meet overhead costs. This technological change will accelerate the trend toward larger farms. Competition for tracts that can be added to acreages that are too small for this new type of dairy equipment will be a strong land price supporting factor.

Figure 16—Trend in average sizes of farms in six Missouri counties.



FARM INCOME

In 1947, the net income realized by farm operators, including Government payments, reached a peak of \$17.2 billion—approximately 8.8 times as much as they received in 1932, and 3.9 times the 1940 level. Net income declined after 1947, reaching \$12.9 billion in 1950, rose to \$14.8 billion in 1951, went down to \$11.6 billion in 1955, and since that date has remained fairly steady at \$12.1 billion. The number of farms declined from 6.8 million in 1935 to 4.8 million in 1955. While net farm income is lower than it was at the peak in 1947, fewer people are dependent upon it. Table 16 shows the net per farm for the United States, the West North Central states and Missouri. It was highest for the country as a whole and for Missouri in 1951. In the West North Central region, it was highest in 1953. Gross income per farm for the United States as a whole was at a record high level in 1956. In the West North Central states, it was highest in 1952, and in Missouri, in 1951 (Table 17).

The price of farm land has not followed these fluctuations in farm income (Figure 2). Between 1950 and 1955, net income per farm in the United States declined 1 percent; land prices went up 30 percent. In the West North Central region, net income per farm went down 8 percent; land prices rose 27.1 percent. In Missouri, net income per farm declined 14.9 percent, while land prices advanced 24.3 percent.

Farm Income in Selected Counties

Changes in total value of farm products sold in the six counties were not consistent with fluctuations in the state. Except for Audrain, the rank of the counties in income closely approximated the productivity ratings given them by Lanpher in his analysis of comparative productivity of farm land in Missouri. In Audrain County, income in 1954 was 4.2 times as great as in 1935. It was 4.1 times as great in Gasconade and 4 times, in Lawrence. For the state as a whole, the total value of farm products sold in 1954 was 3.8 times that in 1939. Daviess, Macon and Nodaway counties each went below the state increase (Table 18). These income relationships are shown graphically in Figure 17. The value of products sold from farms in Nodaway County was much greater than in any of the other counties but the rate of increase over 1939 was the lowest.

To some extent, the differences in income have been reflected in changes in land values. Using 1947-49 as a base, the Missouri index of value of farm land per acre advanced from 97 in 1947 to 135 in 1956—an increase of 37.1 percent (Table 2). In Nodaway County, the increase was from 100 to 148, or 48 percent (Table 4). The advance was greatest in Audrain County, and least in Gasconade (Figure 5 and Table 1).

⁸Lanpher, Buel F., Op. cit. page 23.

TABLE 16--REALIZED NET INCOME PER FARM, UNITED STATES, WEST NORTH CENTRAL REGION,

AND MISSOURI, 1949 TO 1990.								
Area	1949	1950	1951	1952	1953	1954	1955	1956
United States West North	\$2,389	\$2,276	\$2,682	\$2,660	\$2,649	\$2,357	\$2,268	\$2,415
Central Region**	3,368	3,073	3,396	3,250	3,516	3,022	2,846	2,870
Missouri	2,131	2,015	2,536	2,108	2,211	2,034	1,753	2,042

^{*} Data from U. S. Census reports.

TABLE 17--REALIZED GROSS INCOME PER FARM, UNITED STATES, WEST NORTH CENTRAL REGION,

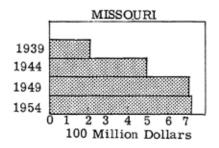
			AND MISSOUL	KI, 1949 TO 1	956.*			
Area	1949	1950	1951	1952	1953	1954	1955	1956
United States West North	\$5,518	\$5,684	\$6,714	\$6,853	\$6,793	\$6,561	\$6,588	\$6,934
Central Region**	7,686	7,921	8,890	9,003	8,812	8,610	8,390	8,602
Missouri	4,528	4,704	5,551	5,325	5,308	5,166	5,013	5,502

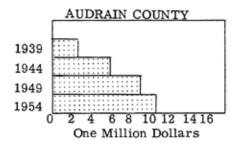
^{*} Data from U. S. Census reports.

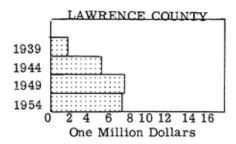
^{**} Includes the states of Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas.

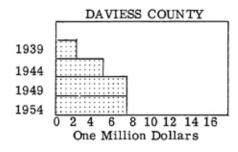
^{**} Includes the states of Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas.

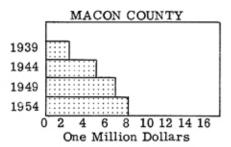
Figure 17—Total value of all farm products sold for Missouri and selected counties.

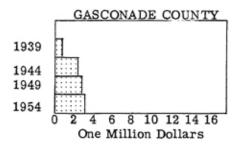












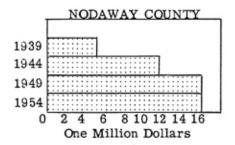


TABLE 18TOTAL VALUE OF ALL FARM PRODUCTS SOLD IN DOLLARS,
FOR MISSOURI AND SELECTED COUNTIES IN FIVE YEAR PERIODS
FROM 1939 TO 1954 *

	1939	1944	1949	1954
Missouri	\$214,655,304	\$506,490,936	\$719,877,797	\$733,733,793
Audrain County	2,576,304	6,083,790	9,227,291	10,784,866
Daviess County	2,185,095	4,955,194	7,479,524	7,487,502
Gasconade County	794,796	2,433,938	2,803,743	3,224,821
Lawrence County	1,831,830	5,327,748	7,709,178	7,403,500
Macon County	2,472,685	5,214,561	7,335,098	8,459,245
Nodaway County	4,899,384	11,497,792	16,120,359	16,094,124

^{*} Data from U. S. Census reports.

BEHAVIOR OF THE LAND MARKET IN AUDRAIN COUNTY

Many factors influence the price of farm land. Among them is intensity of the desire for ownership and number of buyers in relation to the total supply that is being offered for sale in a given market. A considerable part of the desire for land is psychological. It is not closely related to the flow of money income. Ownership of a farm has amenity value to the operator and his family. It gives them a feeling of security, a sense of belonging to the community where the farm is located. An owner usually is considered to be more solidly rooted in the community than a tenant. He develops a feeling of neighborliness with other owners. They have a common interest in all of the forces that affect the land and their relationship to it.

Land is a factor of production that can be put to many alternative uses. In recent years, the Government has limited the supply for specific uses through acreage restrictions. For the man who has a set of farm machinery, an additional acreage often is highly desirable. He wants to use his equipment to full capacity to reduce the unit cost. This desire intensifies the demand for land. In addition, there are more people to buy land than there were 20 years ago, due to the rapid increase in population. Inflationary pressure, the shift of farm land to residential, recreational and businesses uses, and widespread feeling that price supports for farm commodities are here to stay, have intensified the demand. How are all of these and other forces weighed and evaluated in arriving at a price? This is a question that needs to be answered in order to understand the land market.

SUPPLY SIDE OF THE LAND MARKET

What influences people to sell farm land? Who is selling? And why are they selling? Answers to these questions were sought in a series of interviews in Audrain County. Twenty sellers who transferred farm land in 1956 were asked when and why they had decided to sell the property; what factors they had con-

sidered in setting the asking price; what alternatives to sale were available to them; how the sale price was determined; and many other facts about the transfer of the property.

Reasons Why People Sold

Approximately 20 percent of the sellers interviewed said they had sold because of low farm income, compared to earnings in other occupations. Twenty-five percent sold because they were in bad health or were ready to retire because of age. Twenty percent of the sales were made to settle estates. Ten percent were the result of realizing a profit on an investment. Still others sold because they thought they could get better returns from other investments. Some were in financial difficulty or were forced to sell because of unusual circumstances.

Who Was Selling

About 47 percent of the sales were made by people whose major sources of income were non-farm activities. Twenty-nine percent of the sellers were retired. Only 24 percent were individuals who gained their major source of income from farming.

Alternatives to Selling

Sixty-one percent of the sellers did not consider alternatives other than continuance in their present positions. Others who had been renters or who were renting additional land at the time of sale expected to continue farming as tenants. Some sellers who were already in other businesses expected to use the money in the non-farm enterprise. Some of those who were retired expected to live on the income from the sale.

Expected Trend in Market Value as an Influence to Sell

Non-farmers who sold would be expected to base their decisions on anticipated future trends in the land market. However, 72 percent insisted that they gave no consideration to this factor. Twenty-two percent thought that land values would be lower in the future. Very few sellers appeared to be speculating in land. Their decisions to sell were guided by reasons not akin to the estimated future land price situation.

DEMAND SIDE OF THE LAND MARKET

Some buyers enter the land market looking for property that will meet specific requirements. These special features vary with the individual. Each purchaser may have his own list. For this reason, a particular farm may attract very few prospective buyers.

What the Buyer Looks For

Forty-five percent of the buyers interviewed were looking for what they considered to be a satisfactory price and favorable credit arrangements. These two items appeared to be more important than the physical characteristics of the land. In many cases the buyer did not appear to enter the land market in search of land that met a list of physical requirements. A tract close to land presently owned was offered for sale, and the buyer decided it would be feasible for him to buy. This was the situation in 27 percent of the transfers.

In 27 percent of the cases, the buyer looked for some particular feature in a group of special requirements. For example, one buyer wanted land that was suitable for irrigation. Another wanted a place that was equipped for dairy cattle. Another wanted pasture land where he could keep his beef breeding herd. Others wanted level land that could be cropped intensively without serious damage from erosion. About 18 percent of the buyers were from Iowa, Illinois, or states other than Missouri. They preferred Audrain County land because of the level topography which was similar to their home area. In many instances, fertility treatments would make the soil nearly as productive as in the home community, and at a material reduction in total cost.

Reasons For Buying

Twenty-six percent of the buyers bought to expand their operations. Forty-one percent bought for a home and a business. Nineteen percent expected to resell the place at a gain in price. Eleven percent bought the land to rent. They were investors. The remaining 3 percent bought for miscellaneous reasons. Many farmers were continuing to buy for the purpose of establishing a home and business. However, some of the places purchased were small tracts and were not well suited to the purpose for which they were bought.

Sources of Capital

Forty-four percent of the buyers used credit. Eighty-five percent of those who borrowed obtained loans for over 50 percent of the total value of the property. About 46 percent of the buyers paid cash for their land. In 46 percent of the sales that had to be financed, the seller supplied the buyer with the credit needed for settlement. In the other 54 percent, the buyer was able to obtain funds from an insurance company, a bank, or other source.

About 52 percent of the buyers had obtained the major part of their capital from farming. The other 48 percent had other businesses or occupations. It appears that part-time farmers, people who move into communities from other areas where land prices are high, speculators and investors are important contributors to the total demand for land. To the extent that the offering prices of these people are clearly related to the part of income that properly can be attributed to the land factor in distributing income, they introduce no particular problems of land ownership. Those who buy land at prices in excess of its earn-

ings value and spend money on improvements or deliberately incur operating expenses that exceed returns in order to establish losses that can be subtracted from non-farm income for the purpose of reducing income taxes, present problems for bona fide farmers who want to buy a home and a business or to enlarge their acreage. The sale of a farm in a community sets a bench mark for other buyers. If the price is not closely related to income from the land, the operator-buyer who must use credit may have difficulty in servicing his debt.

Sales in 1956 in Audrain County indicated that no decisive changes are taking place in the tenure pattern. About the same number of rented farms were sold to people who expected to operate them as were purchased by investors to be rented.

Expected Future Land Values

Forty-five percent of the buyers expected land values to go higher than when they bought. Some based their forecasts on the fact that population is increasing while the supply of land continues to stay the same. Others based their decision on the fact that Social Security payments by the Federal Government make small tracts desirable for retirement purposes. Acquisition of large numbers of these small tracts will reduce the supply available for full-time operators who need larger farms for low unit costs of operating machinery.

Approximately 35 percent of the buyers thought that values would go lower or would stay the same. Of these, 75 percent were buying a home and a business, which probably made future land prices of little significance to them other than as a guide to the general economic situation. About 20 percent of the buyers gave no consideration to future trends in land values.

An Alternative to Buying

Buyers were asked whether or not they considered renting as an alternative to purchasing land. In 90 percent of the replies, renting was not considered. These people had a high preference for ownership. Most of the 10 percent who considered renting as an alternative had been renters before purchasing land.

Security of Savings, a Part of Decision

Do buyers of farms feel that they are making safe investments? Forty-five percent of all buyers who were interviewed thought their investments were secure in land. They also felt that ownership made them self-sufficient. Some buyers looked upon land as a basis of sustenance for all life, and in this sense, felt very secure in owning it.

VALUATION AND BARGAINING PROCEDURE

What is the method by which farm buyers arrive at a figure they are willing to pay for a particular piece of property? In all cases, they look at the property

and make an attempt to evaluate the particular features that adapt it to their needs. Many buyers talk about the "lay of the land." However, few appear to have a good knowledge of specific soil types as noted by Hurlburt in studies in Iowa. Buyers who reside in the community have a fair idea of productivity from having grown or seen crops grow on the particular soil and related soil types. With this information they may seek to compare the farm that is under consideration with other farms that have been sold in the community, or attempt to construct a type of income analysis and relate returns to the price they are willing to pay.

Method of Arriving at Value

Forty-seven percent of the buyers considered the value of farms recently sold in the community as a basis for determining the amount they were willing to pay for the land in which they were interested. Only 18 percent went through some type of income analysis. In 15 percent of the observations, the seller set an asking price and the buyer made a counter offer. By this procedure, a value was reached which was acceptable to both parties. Ten percent of the sellers based the asking price on the amount of money they had in the property or the price that they had paid plus the cost of improvements. Others set the asking price above these costs in an effort to gain a profit.

In 52 percent of the observations, the buyer proved to be the stronger bargainer; in 28 percent of the cases the seller's opinion of value prevailed. The seller was considered stronger if the buyer met his price. The buyer was considered the stronger if the seller accepted the bid price. In 20 percent of the cases, bargaining resulted in a new price being assigned, either striking a middle value or another value somewhere between the asking and bid price.

Relationship Between Income and Price

Over 40 percent of the Audrain County buyers considered the relationship between probable net income and price when they purchased land. The average time required for the anticipated income to equal the price of the property was 11 years. The mode was 10 years. All thought of expenditures that they would need to make which would retard payment for the land. These demands on income included such items as applications of lime and fertilizer to build up the productivity of the soil, an adequate living for the family, and other necessary expenditures.

Function of the Bidder

In 83 percent of the observations, no bidders were involved other than the principal to whom the property was sold. When other bidders were involved, only rarely did the person or persons who did not buy have a measurable influence on the price that was paid. Bidders attempted to buy at prices that were materially below the asking price. Few buyers raised their bids as a result of the

⁹Hurlburt, Virgil L., Buying of Farms in Story County, Iowa, 1940-1948, Agricultural Research Bulletin 377, Iowa State College, Ames, Iowa, 1950, page 989.

offer of another buyer. The price determining procedure was not at all like an auction.

INFLUENCE OF THE REAL ESTATE DEALER

A real estate dealer was involved in 29 percent of the transactions. In nearly 86 percent of those handled by dealers, he acted as broker in bringing buyer and seller together. In the other 14 percent, he merely drew up the necessary papers and carried through a transaction which had already begun. In all cases where financing was needed, the real estate dealer helped to find a lender and to draw up the mortgage. In 29 percent of the transfers, he actually had a decisive influence on the selling price, either by suggesting to the seller that the price was too high, or by pointing out desirable characteristics to the buyer that resulted in him paying a higher price than he had named in his first bid. No dealer was asked to make a detailed appraisal of the property before sale. However, estate properties had been appraised at some time by individuals who had been appointed by the county court.

SIZE OF FARM SOLD

The farms that were sold in Audrain County in 1956 varied in size. Those on the Putman soils brought a higher price than those on other soil types. About one-third of the tracts were between 81 and 160 acres in size. Twenty-nine percent were 40-acre tracts or smaller; 21 percent were larger than 160 acres; and 17 percent were between 41 and 80 acres. Usually the larger tracts commanded a higher price per acre, but the difference was not great.

GENERAL CONSIDERATIONS

Most of the sales were made because of age, desire to retire, need for settling an estate, or to obtain a higher price than was paid for the property. Tracts offered for sale for these reasons made up the supply that was available on the market. On the demand side, purchases were made by investors, by people who needed to enlarge their holdings, and by farmers who were purchasing a home and a business. The situation indicated that the seller exercised the greater influence over price. The most important factor considered was the price at which other land recently had been sold. A seller compared his own land with this farm and named a price that he would take. Less than one-half of the tracts sold at the asking price, but the seller often got more than the long-term earnings value.

HOW THE LAND MARKET FUNCTIONS

Many procedures are used in pricing land. The comments of buyers and sellers in Audrain County indicated that most of the farms were sold as a result of bargaining between the seller and the buyer. The farm was offered for sale, either privately or through a real estate dealer at a price the seller was willing to take. The buyer looked at the farm and placed a bid on it. As a rule there were no other bidders. In some cases, however, two or more buyers were interested in the property. A detailed description of a particular transaction might help to understand how the market functions when more than one buyer is interested in the property.

A 200 acre farm was offered for sale by an owner operator who was past 60 years of age. His reasons for selling were poor health and bad eyesight. When he decided to sell, he looked at other farms that had been sold in the community, compared his own place with them and set a price of \$26,000 on the 200 acres. He had paid \$8,000 for the place in 1951 and owned no other land. He considered renting the farm, but decided to sell since the "feel" of the market indicated that he could get a good profit. Besides, he thought land prices might go down.

Three men were interested in buying this property. The man who purchased it owned 400 adjoining acres which he farmed. He tried to rent the 200 acres, but the owner told him he wanted to sell it. His purpose in buying was to enlarge his operations so "a lot of high-priced machinery could be used on more acres." His first bid was \$23,000 (\$115 an acre). A 580-acre farm in the same neighborhood had sold for \$58,000 (\$100 an acre) and he thought \$26,000 (\$130 an acre) was "a little too high." He thought land prices would go down, but there was very little available for rent and this particular 200 acres was highly desirable because it joined the 400 acres he already owned. With this additional acreage, some of the land could be seeded to pasture so the beef cattle enterprise could be expanded.

Two other men were interested in the property. One bid \$20,000 on it (\$100 an acre). The other was willing to pay \$28,000 (\$140 an acre) if he could get the money.

The first of these bidders owned another 150-acre farm about 85 miles away. He wanted to buy a farm if it was cheap. His major interest was resale at a gain in price. He would have traded the 150 acre farm and paid the difference between its value and the 200 acres, but the seller was not interested.

This bidder thought land prices already were too high. The seller wanted more than \$100 an acre for the place and he was unwilling to raise his bid.

The second bidder was willing to pay \$28,000 (\$140 an acre) for the farm, but had little influence on the sale price because he could not finance the transaction.

Neither the seller nor any of the men who were interested in buying the 200 acres had the farm appraised before setting the asked and bid prices. The buyer obtained a loan from the Federal Land Bank, and the farm was appraised in the process of closing the loan. The appraiser thought \$130 an acre was above the normal agricultural value of the farm.

In this particular case, the farm was worth more to the buyer than to either

of the other bidders. By farming it with the 400 acres already owned he could reduce his labor and equipment cost per acre and produce his crops at a lower cost per bushel or ton. He estimated an average net income of \$5,600 from products that could be grown on the 200 acres. If this estimate is correct, he will be able to pay for this addition to his farm in five years. If the estimated net income is too high, he will have the returns from the 400 acres previously owned as a cushion against delinquency on his loan of \$23,000.

SUMMARY

The purposes of this study were: (1) to determine the trend and level of land prices in certain representative areas of Missouri, and (2) reveal the factors that buyers and sellers consider when land is transferred. These purposes were accomplished by tracing land price trends in Audrain, Daviess, Gasconade, Lawrence, Macon, and Nodaway counties from 1947 through 1956, and by interviewing buyers, sellers, bidders, and real estate dealers who were associated with one-third of the land transfers that were made in Audrain County in 1956. The findings were as follows.

Land Price Trends

From 1947 to 1956, the trend in land values was upward in five of the six counties. In most cases, the upswing was not as strong as was the national trend. Prices were examined in relation to three variables: (1) location, (2) land class, and (3) farm income.

Land values in Audrain County rose more than in the other counties studied. Class III land is dominant in this county. A considerable part of the area is level. The tillable acreage is well adapted to use of machinery. Some of the buyers were from Iowa and Illinois, where land values are much higher than in Missouri. Almost one-half of the tracts were 80 or fewer acres in size. Twenty-six percent of the tracts were purchased by owners of other land for the purpose of enlarging operating units.

Land values in Daviess County did not increase as much as in Audrain. The peak was reached in 1954. Since that time, the trend has been downward. The major increase in value up to 1954 occurred on Class III land.

Land values in Gasconade County changed very little over the ten-year period. The size of farms did not increase greatly. This situation was found on land classes IV and VI, which make up the largest portion of the county. The amount of income per farm from products sold increased very little during the ten-year period. Most of the land sold for less than \$80.00 per acre.

The increase in value of land in Lawrence County was greater than would be expected in view of the low productivity of the soils. The uptrend appeared to be influenced by people who were interested in buying small tracts for nonfarm purposes, and by outside buyers. Several people from Texas bought land in Lawrence County in 1952, causing a boom in land values. The amount of income from products sold decreased from 1947 to 1956 because of drouth conditions, but land values did not decrease greatly after 1953. More than 80 percent of the tracts bought and sold were smaller than 100 acres. The greatest increase in value during the ten-year period occurred in land classes III and IV.

Land values in Macon County exhibited a steady upward trend during the ten-year period. The size of farms increased steadily until 1950, then moved upward at a more rapid rate. Activity was greatest among small tracts in Land Class III, but several large tracts were transferred in land classes II and V.

Land prices in Nodaway County changed very little in the ten-year period. A peak was reached in 1951, then prices weakened until 1954. Since that date, prices have been advancing. Prices have varied less on Class II land than on Class I. The value per acre of tracts smaller than 100 acres increased more than any other size group. A greater percentage of small farms was sold on Land Class II than on Land Class I.

Reasons for Buying and Selling

More than one-half of the owner-operators in Missouri were over 55 years old when the 1955 Census was taken. This proportion was greater than in the nation as a whole. Most of the people who sold land in Audrain County in 1956 gave age and poor health as reasons for selling. Other reasons were to settle estates and to get out of farming because of low income in relation to returns in other occupations.

Most of the people who sold were not getting the major portion of their income from farming. They did not consider the future trend in land values when they sold. In 46 percent of the sales that were financed, the seller supplied the buyer with the funds he needed to make the purchase.

No single factor dominated decisions to buy land. In about one-fourth of the transactions in Audrain County, the buyer came into the land market because a well-located tract was offered for sale. Another one-fourth bought because the tract possessed some special feature that the buyer wanted. About 18 percent of the buyers were from out of state. They were looking for land that could be purchased and improved in productivity to the point of high yields, but at lower cost than land in their home community.

One-fourth of the buyers bought to expand their operations. However, more bought for a home and a business than to increase the size of existing units. Most of these people received the major part of their income from farming.

Over one-half of the buyers used credit. Eighty-five percent of those who borrowed obtained amounts equal to more than 50 percent of the value of the property.

No buyers made a formal appraisal of the farm before completing the transaction. Forty-seven percent considered the value at which farms had sold recently as a principal basis for determining the amount they were willing to pay for the land. Only 18 percent made an income analysis and based their bids on an-

ticipated earnings. However, most of the buyers had grown or seen crops grow on similar soils and therefore were familiar with the value of the land in terms of returns that could be obtained from the products that could be grown on it.

In more than one-half of the transactions, the buyer proved to be the stronger bargainer. However, the bargaining usually consisted of an offer to sell at a stated price, and acceptance or counter offer by the buyer. Extensive bargaining with two or more buyers making offers developed in only 20 percent of the observations. As a rule, bidders had no major influence on the value at which a property was sold. They attempted to buy at prices that were materially below the asking price and dropped out quickly. The price determining procedure was not at all like an auction.

A real estate dealer was involved in only 29 percent of the transactions. However, in 86 percent of the cases in which they were involved, they brought the buyer and seller together, and in all transfers that involved the use of credit, they helped to find a suitable lender. In 29 percent of the transactions in which they were involved, real estate dealers had a measurable influence on the selling price. No dealer was asked to make a detailed appraisal of the property that was sold, either by the buyer or the seller.

One-fourth of the transfers were of tracts containing less than 40 acres. Very few were sold in the 41-80 acre group. About one-third were in the 81-160 acre group. The larger farms usually commanded a higher price per acre than the smaller tracts.

CONCLUSIONS

During the 1947-56 ten-year period, farm land prices in Missouri did not reflect farm commodity prices or over-all levels of farm income. In most sections of the state, land prices continued to advance despite lower farm income. The increase was greatest in level areas where the soils are medium in productivity, but respond well to applications of fertilizer.

The market was not speculative. Buyers were less inclined to resell in the

second five-year period than in the first.

A great many tracts smaller than 100 acres were sold to owners of other land to increase the size of existing units.

High quality land in a county that has a large acreage of low grade soils can be bought for a lower price per acre than can high grade land in an area where most of the acreage is above the average of the state in productivity.

Most of the farms on the market were either estates or sold because of old age, bad health, or retirement of the owner. Small tracts were bought to enlarge adjoining or nearby operating units, for part-time farms, or for retirement homes. Other farms were bought primarily to provide a home and a business.

The price at which other land had been sold appeared to be a major factor in determining both the asking and the bid price for land. Few buyers are familiar with appraisal techniques; very few hire trained appraisers to give them an estimate of the value of a farm.

A few sales establish a bench mark for the asking price. In a seller's market, the asking price tends to become the sale price. In a buyer's market, the bid price tends to prevail. The land market in the 1947-1956 period definitely was a seller's market.