

A STUDY OF THE FARM
REAL ESTATE MARKET IN KANSAS

by

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B. S., Kansas State College
of Agriculture and Applied Science, 1957

A THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Economics and Sociology

KANSAS STATE COLLEGE
OF AGRICULTURE AND APPLIED SCIENCE

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INTRODUCTION

Farm real estate values hit a new record high in the United States on March 1, 1957. This raised the national index to 147, (1947 - 49 = 100), which was 7 percent above a year earlier.¹ The increase in market values of farm real estate represents the continuation of a trend that has been underway since 1954.

Most of the supports for rising prices of farm real estate are to be found in the non-agricultural sector of the economy and in advancing farm technology. In the non-farm sector, the high level of business activity, a slowly rising general price level, and increasing needs for space for a growing population have forced real estate prices higher in many localities. This rapid growth of population, and the demand it has generated for residential and industrial uses of land and service and recreational areas are estimated to absorb about one million acres annually. Although this is only a small fraction of all land sold, this demand for non-farm use helps to establish values of farm real estate at a higher level.

The Agriculture Research Service stated that in the farm sector, efficient use of many technological advances that have been developed in recent years requires larger operating units. With many thousands of commercial farms still below the optimum acreage for efficient use of available labor and machinery, farmers have continued to seek additional land either by renting or by purchase. Because the acreage of land on the market is also restricted by these and other factors, strong competition exists for the limited market supply of land. This is evident particularly in those areas where larger

1 The Farm Real Estate Market, May 1957, ARS-UNDA, p. 3.

operating units offer the best opportunity for reducing unit cost of production.¹

This demand for farm real estate in Kansas, along with the downward trend of farm real estate sales in Kansas, has kept the farm real estate values on the upward trend. "This upward trend has continued through five years of extreme drought and declining net farm incomes since 1952."² Financing has become more costly from the increase in interest rates that must be paid for borrowed money used in buying farm real estate.

"Land values from 1939 to 1955 in Kansas followed closely the trend for the United States except that United States land values tended to advance faster than Kansas land values during World War II."³ In the postwar period, land values were relatively higher for Kansas.

Declining prices, declining production from extreme droughty conditions, and increased costs since 1950 have reduced net incomes considerably. Yet land values in Kansas have continued upward since 1950, with the exception of a slight decline in 1953, and reached a record high in 1957.

Otto, Collins and Pine reported that "income is basic to the value of land. Current and past incomes influence what people are willing to pay. Future incomes, however, determine the real value of land from an investment viewpoint."⁴ Many farmers and non-farmers feel that, except for current drought, land values are not too high. If this is the case, then land values prior to 1950 were too low or the capitalized value was disregarded.

1 The Farm Real Estate Market, May 1957, ARS-USDA, p. 4.

2 The Farm Income Situation, September 1956 (for 1949-54) and March 1957 (for 1955-56), ARS-USDA.

3 Otto, Merton L., Hubert L. Collins, and Wilfred H. Pine. Trends in Land Values in Kansas, August 1956, p. 5.

4 Ibid., p. 5.

Information concerning the functions of a farm real estate market is limited. Obtaining additional information has created a problem, because the people involved are not always available to give information about a particular transaction. Each tract of land has its own characteristics which will have a different value for each individual involved. Information about methods of estimating future incomes are needed to determine future earnings.

The information previously available has been general in nature and without data and details for specific transactions. Does knowledge of a general nature provide adequate information to buyers and sellers so that a farm real estate market can function well? If not, what are the weaknesses and imperfections that exist? Are the number of transactions that occur large enough to test a market to see if it is functioning properly?

This study was the outgrowth of an Agriculture Research Service, United States Department of Agriculture (A.R.S.-U.S.D.A.) Land Pricing Study, that was carried out in ten Great Plains states in 1957. The North Central Land Tenure Research Committee gave considerable guidance as a result of work done on land pricing and credit problems. This committee worked very closely with the U.S.D.A. Land Pricing officials in setting up this study and giving assistance in making many decisions. The planning of the study and preparation of the questionnaires for this study was made by the A.R.S. This study is part of a cooperative project existing between the Kansas Agricultural Experiment Station and the A.R.S. for the complete study.

The A.R.S. selected the areas (one county in most areas) that would be used in the Great Plains Land Pricing Study including three areas in Kansas. A fourth area was selected by the Kansas Agricultural Experiment Station and the A.R.S. in Eastern Kansas and outside the Great Plains part of the state.

The four areas are not statistically representative of Kansas. They did provide an opportunity to see if variations in the farm real estate market existed among these four areas in Kansas.

The questionnaires were coded and all the inconsistency checks were made by the A.R.S. The information was punched on IBM cards by the A.R.S. and a set of cards was made available for this study of the farm real estate market in Kansas.

The Problem

A basic economic function of the farm real estate market is to get the real estate under the control (ownership) of those who will make the most productive use of it. If the market does not do this, weaknesses exist. These should be discovered and measures suggested to eliminate them. Criteria must be established with which to determine imperfections, if any, in the market. The criteria or conditions required are discussed in a following section. This study was made to determine the extent to which these conditions exist in the farm real estate market in Kansas.

General Procedures

This type of study is facilitated by the use of a questionnaire, so the same information can be secured from buyers or seller of each transaction involved. To develop a questionnaire, one may contact several parties involved in transactions and ask what they consider important in a transaction. This information is combined and developed into a questionnaire. Different questionnaires were developed and used for buyers, sellers, bidders, and dealers or agents.

Selection of areas was required to obtain the influence of certain factors on a market. Personal interviews were used to obtain details about each transaction including quantitative and non-quantitative information. The information used in the thesis is largely statistical. Case study is appropriate and is suggested as an addition to statistical analysis included in this thesis.

FUNCTIONS OF A MARKET

Any Market

Stigler states that,

It is the function of any market to bring together buyers and sellers who wish to exchange goods and money. A market is efficient in this role if one can purchase the commodity at the lowest price at which any seller is supplying it and sell it at the highest price at which any buyer is taking it.¹

The price of a given commodity may be determined in several different ways, while the subject matter of the theory of markets determines the exact terms on which, or the limits within which, exchange will actually take place. "The simplest form of exchange is isolated bargaining."² This form of exchange occurs between two parties who must trade with each other or not trade at all, because there is no third person to trade with. "The price that closes the deal is settled by bargaining, (which will) vary from time to time and depend on the shrewdness, patience, psychological insight, and general bargaining skill of the two parties."³

According to Seitovsky, competitive bargaining is a common form of exchange. Competition restricts a person's bargaining power by making the

1 Stigler, George J. Theory of Prices, p. 56.

2 Seitovsky, Tibor. Welfare and Competition, p. 12.

3 Ibid., p. 13.

other party less dependent and therefore, less keen on striking a bargain with him. As a rule, however, both parties to a transaction have competitors, which hems in the bargaining power of both. Both parties know what prices have been reached in similar transactions in the past and each expects his opponent to have similar knowledge. Therefore, either party can threaten to close the deal with a third person if the other party makes inordinate demands and both parties know that such threats can be carried out. Therefore, competition limits the chances of influencing prices through bargaining. It also restricts the scope for bargaining and the range within which the final price will lie. Competition makes price more determinate and less dependent on chance and bargaining skill.¹

Perfect competition would reduce the bargaining power of both parties until neither party involved would feel that he could influence price and both would regard price as given to them. Perfect competition makes price completely determinate and independent of the chance of bargaining. This type of market requires a large number of competing sellers whose sales are small compared to the market's total turnover and they regard the price as given to them. At the same time, it is necessary for all the buyers to know about the existence of alternative offers and that all of them should be prepared to shift with the smallest change in price (Fig. 1). The buyers must be experts in the strictest sense in the appraisal of the goods they buy.² Scitovsky says that,

A person who regards the price of a commodity as given to him and is able, at this price, to buy or sell as much as he likes will be called a price taker. It is apparent that both buyers and sellers can be

1 Scitovsky, Tibor. Welfare and Competition, p. 14-15.

2 Ibid., p. 16-17.

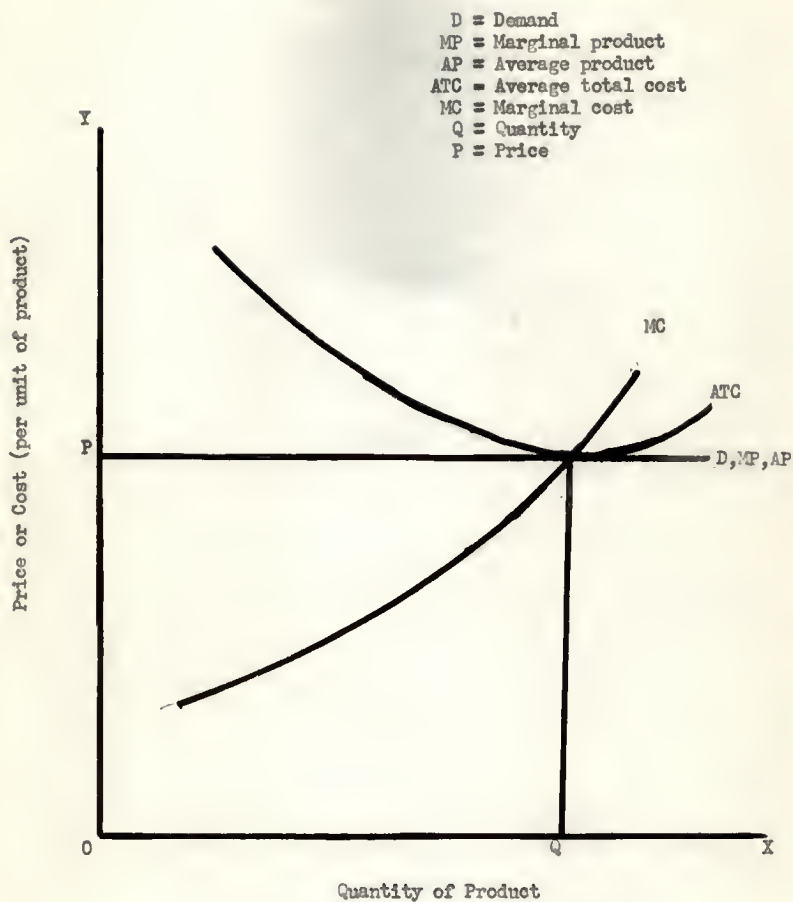


Fig. 1. Market conditions of a market under perfect competition.

price takers. A market in which all the buyers and all the sellers are price takers is called a perfectly competitive market.

The practical importance of perfect competition is not very great. Few markets in our economy are perfectly competitive, because few markets fulfill the conditions of perfect competition, large numbers, and expertness on both the buyers' and the sellers' side.¹

From the standpoint of economic theory, the concept of perfect competition is very important. As it shows that perfectly competitive behavior by all members of every market would result in the most efficient organization of production and the best allocation both of productive resources and consumers' goods and services. Therefore, perfect competition can be used as a standard to appraise actual economic institutions and organizations.

The consumer deals in markets which are not perfectly competitive, because the average consumer does not know and cannot possibly acquire an expert knowledge of all the goods and services he purchases. Consumers have a very imperfect knowledge of the alternative opportunities available to them and usually lack the mobility and funds necessary to inquire about alternatives. This leads to the producer or merchant refusing to bargain and setting price on a take it or leave it basis. A person who establishes his price in this manner is a price maker and his action is price setting. "The price maker's advantage in the market is called a monopolistic advantage and his favored position is a monopoly position. Competition among price makers is called monopolistic competition or sometimes, imperfect competition."²

When the people or consumers are confronted with a take or leave it price situation, they become price takers and are in exactly the same position as the members of a perfectly competitive market. Therefore, the competition

1 Seitovsky, Tibor. Welfare and Competition, p. 18-19.

2 Ibid., p. 20.

on the price maker's side is imperfect; where as, the competition on price taker's side is a perfectly competitive position, which is an asymmetrical market (monopolistic or imperfect market).¹

We may point out,

....the two necessary conditions for price setting are (1) a disparity in numbers between the two sides of the market, which disrupts personal contacts between buyer and seller and renders bargaining uneconomical. (2) The inexperience of one side of the market, which, of course, is always the side with the larger numbers. It should be noted that buyers as well as sellers may be price makers and set the terms of their offer, depending on whether the number of buyers or that of the sellers is the smaller.²

The advantage that price makers can obtain from their favorable market position is limited by the competition among themselves. The extent of this limitation depends on the nature and extent of competition. "The individual price maker has to meet two forms of competition: the actual competition of his established rivals and the threat of competition from newcomers to his market."³ The established rivals of the price maker can offer his customers alternative opportunities of buying or selling. Then the price maker may be forced to offer terms more advantageous to his customers than he would offer in the absence of such competition. Newcomers that are attracted by the price maker's profit, threaten to enter his market, through their entry into the market the total offering would be increased, and the price maker's turnover would be lower. Therefore, both forms of competition would limit the price maker's bargaining advantage and profit; it is to his interest to prevent competition from both sources.

The competition among price makers may be classified as free and restricted

1 Seitovsky, Tibor. Welfare and Competition, p. 21.

2 Ibid., p. 21.

3 Ibid., p. 22.

competition, depending on whether the entry of newcomers to their market is free or restricted. The individual price maker's monopoly profit tends to be zero under free competition (Fig. 2); when it is above zero, it attracts newcomers into the market and tends to eliminate monopoly profit. Free competition exists in many markets today. "There are three conditions necessary to keep competition free from restraints: (1) The existence of a competitive spirit, (2) The existence of an adequate limit to the size of an individual firm, (3) The absence of obstacles to the entry of newcomers to the markets."¹

"Restricted competition is competition among price makers who are protected from the competition that the entry of newcomers to their market would entail."² Restricted competition may assume a variety of forms which it may take.

Simple restricted competition is the least severe form, which is competition among price makers whose competitive behavior is completely free and unrestrained. The only difference between free competition and simple restricted competition is that under free competition the price maker's profit tends to be eliminated by new competitors entering into his market; while, under simple restricted competition, the entry of newcomers is limited, which prevents the elimination of the price maker's profit.

"A single monopoly is a firm or person who is all alone on his side of the market."³ The monopolist sets his price in exactly the same way as any other price maker. The price maker may aim at maximized profits or refrain from maximizing profits.

1 Seitovsky, Tibor. Welfare and Competition, p. 374.

2 Ibid., p. 373.

3 Ibid., p. 377.

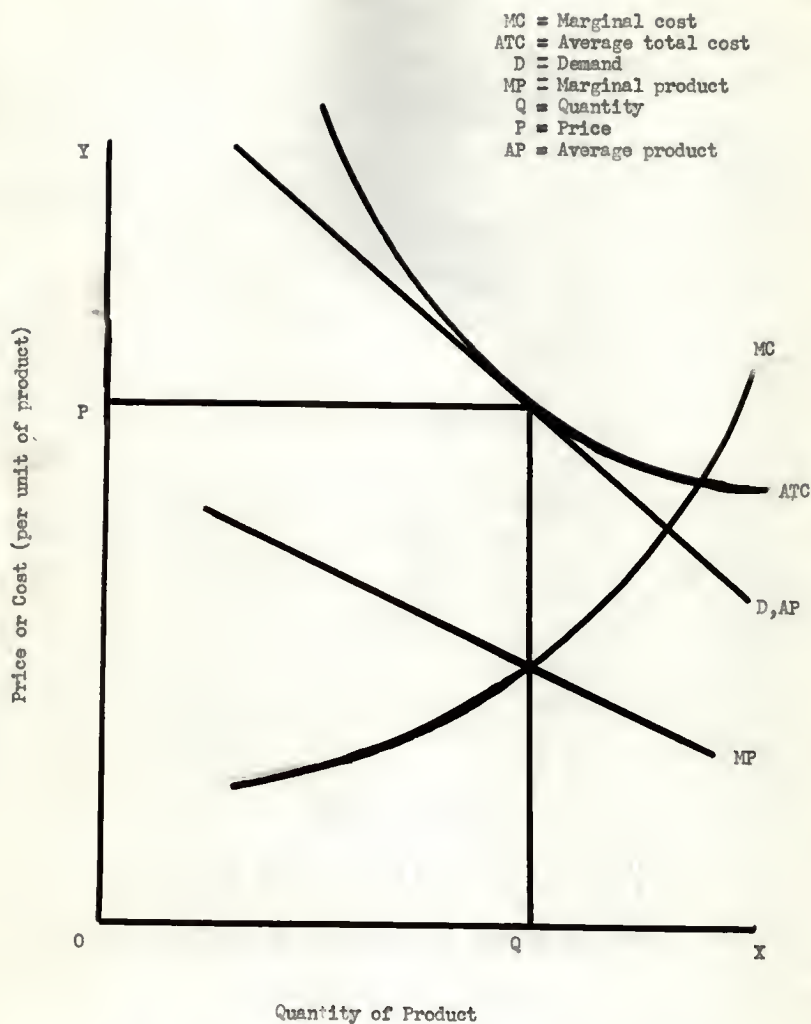


Fig. 2. Market conditions of a market under imperfect competition.
 Source: Welfare and Competition, Scitovsky, Tibor, p. 348.

"Collective monopoly is an agreement among a group of competing price makers to restrain competition among themselves."¹ These agreements may take any number of forms, ranging from informal rules of business ethics to the detailed regulation of all phases of market behavior. Collective monopoly secures an advantage for its members by lessening or eliminating the scope for substitution among their products.

"Oligopoly is restricted competition among price makers whose competitive behavior is restrained not by agreement, but by their realization of the interdependence of their actions."² Oligopoly may result when the number of competing price makers is small. Oligopoly may consist of one large firm and several small firms which the large firm is often accepted as a price leader and the small firms fashion their market after the large firm in an effort to maintain good relations with him.

Another form of oligopoly is the market in which the number of competitors is small but there is no single firm with enough power or initiative to assume the role of price leader. This being the situation, if any one in the group of competitors introduced a change in his price, the others might follow suit, but only if they were forced to retaliate in order to maintain their position in the market.

There are many other possible forms of oligopoly where restraints come about spontaneously without agreement.

Today, we have two types of markets, the informed and the uninformed.

The informed market is a type of a market in which the average buyer knows enough about the quality of the goods and services offered to appraise them on their own merits, without relying on

1 Scitovsky, Tibor. Welfare and Competition, p. 378.

2 Ibid., p. 384.

trademarks, advertisements, and the reputation of the producers or sellers.¹

A market is uninformed when the average buyer in the market has an incomplete idea of the nature of the goods or services he buys, and judges their quality not by his own standards, but on the basis of advertising and indexes of quality.²

The farm real estate market may be classed as an informed or an uninformed market.

Farm Real Estate Market

The farm real estate market is believed to be an imperfect market. It generally lacks market organization; relatively small numbers of buyers and sellers participate, each of whom may sell or buy land only at extremely infrequent intervals; and imperfect knowledge exists among buyers and sellers concerning the land on the market.

The farm real estate market deals with a geographically fixed resource, while other markets may be dealing with goods that can be transported, processed, and stored in a finished product form to be sold on any market in the country or in any country in the world.

The farm real estate market may be thought of as a fixed resource market since land is fixed geographically. Land is a productive resource the value of which is derived from the product. W. H. Scofield stated that:

More than any other productive resource, land has associated with it strong elements of tradition, social values, and beliefs as to its intrinsic 'goodness,' which change constantly over time and differ among groups of individuals. Even though we may be aware of these quasi-economic factors, problems of measurement usually exclude them from our analysis and we proceed as though income from land, as measured by physical production, should explain market behavior.

1 Seitovsky, Tibor. Welfare and Competition, p. 327.

2 Ibid., p. 333-334.

When we obtain puzzling results as in the last several years, some of us may question either the data or the rationale of the market. Instead, the explanation lies in the over simplification of our assumptions and our inability to handle value judgements adequately.¹

Value judgements of buyers and sellers are reflected in the farm real estate market, as a tract of land may have a higher value to one buyer than another, based on the location, type of farming operation or land use, and skepticism of the future. Appraising value judgements is very difficult, because many times there are no records concerning the tract of land on which to base one's judgements.

Without adequate information and knowledge concerning the farm real estate market, there is little chance for the development of keen competition among the small number of buyers and sellers involved. Also, government programs have an uncertainty effect on land values in some areas, as the wheat belt. Acreage allotments and restrictions probably have caused many farmers to seek additional land to maintain family income and spread fixed costs.

Attention must be given to "several strong forces now operating in the national economy, which underlie the more local and regional factors, such as farm technology, price support programs, and net farm income."² The continuation of inflationary action has prompted many farm owners not to sell and has strengthened the demand for land. "Land has provided excellent protection against loss of purchasing power, having risen about 50 percent more than the general price level since 1940."³

1. Scofield, William H. "Prevailing Land Market Forces," Journal of Farm Economics, Volume XXXII, Number 5, December, 1957. p. 1500.

2. Ibid., p. 1503.

3. Ibid., p. 1503.

Another factor that is very difficult to appraise is the effect of the expected increase in population on the land market. Many participants in the land market have the belief that a "land shortage" will eventually occur. This belief is based on the idea that "we are making more people, but no more land." However, we must not overlook our present production potential and the increased output possible from technological advances now known or which can reasonably be foreseen.¹

Criteria for Appraising a Market

When appraising a market, the objective is to determine how well the market operates. Criteria for appraising the operation of any market originate from the conditions for perfect competition. The conditions of a perfectly competitive market requires standardisation of qualities, full knowledge of alternatives, and with complete openness (not localized) in all transactions.² When these conditions prevail, a market is efficient in its role of functioning to bring buyers and sellers together to exchange goods and money. If there is a demand for a good or service, it is the responsibility of the market to reflect the place, time, and form utility of this good or service.

In appraising a farm real estate market, we assume that a market approaching a perfectly competitive condition is desirable. In the real estate market, we must realize that we have a somewhat different situation, as each individual unit varies in characteristics, such as location, topography, fertility,

1 Scofield, William H. "Prevailing Land Market Forces," Journal of Farm Economics, Volume XXIX, Number 5, December, 1947. p. 1504.

2 Stigler, George J., The Theory of Price, p. 56.

improvements, etc.

The criteria used to appraise the farm real estate market in Kansas are: (1) Variations in characteristics among tracts of land, (2) number of transactions, (3) knowledge of the parties involved, (4) variations in circumstances and characteristics of the parties involved, and (5) variations in pricing procedures.

HYPOTHESES

It is believed that the farm real estate market has many imperfections in its operations throughout the state of Kansas. The farm real estate market does not perform perfectly because:

1. Wide variations in characteristics exist among tracts of land.
2. Only a small number of transactions in localized markets occur.
3. Imperfect knowledge exists among buyers and sellers.
4. Variations exist in value judgements and circumstances of buyers and sellers.
5. No set pricing procedure is used in the land market.

Imperfections in the farm real estate markets differ in various parts of Kansas in regard to:

1. Characteristics of land.
2. Localisation of markets.
3. Knowledge of individual buyers and sellers.
4. Characteristics and circumstances of buyers and sellers.
5. Pricing procedures used in determining the value of land.

TESTING HYPOTHESES

Procedures

Farm real estate transfers may be classified in various ways, such as, size of tract, extent of improvement, soil classification, productivity, location, type of roads, and averages and percentages compared to determine, as far as possible, the differences due to these factors. Various averages may be used, such as, arithmetic mean, geometric mean, harmonic mean, median, and mode. The arithmetic mean was used in most analyses of this study. Ranges were used to show variations in values.

Only bona fide sales¹ were used and to apply statistical techniques for testing certain hypotheses regarding the effect of various factor on sale values for individual tracts of land. It was assumed that the price per acre of each particular tract sold represents an observation from a hypothetical universe of observations produced under conditions similar to the ones which produced the values in this sample. The usual statistical F-test was used to test hypotheses regarding the effects of various factors on the sale price.

The χ^2 test (chi-square) was used to test the hypothesis of independence between attributes when counts were taken of the number of individuals which fell into various cells of a two-way table. Here again the concept of sampling from a hypothetical universe was used.²

1 Bona fide sales or transfers were defined for this study by the ARS as "those transfers where a fair market price was established by a willing buyer and a willing seller."

2 Snedecor, George W., and W. G. Cockran. Statistical Methods, Fifth edition, p. 225, 268.

Scope

Four Areas in Kansas. Four areas were selected for this study. The first two were Anderson County in the extreme eastern portion, and Dickinson County in the east central portion of Kansas, both of which are general farming areas. The third area included Russell and Barton Counties in Central Kansas. This area was selected for the effects of oil on the real estate market. The fourth area consisted of Wichita and Logan Counties in the extreme Western Kansas. This area is considered as a high risk area (Fig. 3).

These different areas were selected to obtain information on the various factors that may influence the real estate market in Kansas.

Time Periods. There were two time periods used in this study. In the general farming areas of Anderson and Dickinson Counties, the time period of January 1, 1956 to December 31, 1956 was used. For the central and western areas of Russell, Barton, Wichita, and Logan Counties, January 1, 1956 to March 31, 1957 was used. The extension of three months in the Central and Western Kansas was needed to obtain more bona fide farm real estate transfers in these areas. Reference is made only to 1956 hereafter.

Field Procedures. The information on farm real estate sales in each of these counties was obtained from the public records in the Registrar of Deeds offices at the county courthouses. Each transfer of farm real estate that was recorded in this time period was examined and checked to see if it was a bona fide sale.

The addresses of the buyers and sellers were obtained from the tax roll at the County Treasury office, Soil Conservation Service, Agricultural Stabilization and Conservation offices, telephone directory, and city light and power companies. The names and addresses of agents and bidders were obtained

from the buyers and sellers.

There was an attempt to contact each buyer, seller, agent, and bidder involved in the farm real estate transaction. When the buyer and seller lived within the area or within ten miles of the county line, the interviewer made at least one call back, and in most cases two calls back were made in an attempt to contact the party involved if he was not at home on the first call. In cases where the wife was home, an appointment was made to see the husband at a time that would be the most convenient for him. There was an extreme effort put forth to contact all parties involved in farm real estate transfers during this time period.

At least one attempt was made to contact the buyers and sellers that lived out of the area and in various other sections of the state. No out-of-state interviews were taken in this study.

The time required to complete an interview was approximately 40 minutes. Many of the interviews were taken of an evening because the business men in town were often out of town or other business interfered with answering a questionnaire. Many of the farmers were busy with their late spring and summer work and wanted the interviewer to come back some evening. For these reasons, many of the schedules were taken on the first call back. Personal interviews were considered the only effective way of getting information needed in this study.

Table 1 shows the number of bona fide sales and numbers of buyers and sellers questionnaires completed.

Table 1. Bona fide transfers and questionnaires completed, Kansas, 1956.

Number of tracts transferred	Area			
	Anderson	Diehlman	Russell-Barton	Lower-Michita : Total
Bona fide transfers	72	35	40	42
Buyer questionnaires completed	43	30	32	37
Seller questionnaires completed	39	18	24	22
Total questionnaires completed	82	48	56	59
				245

Areas Studied

The selected areas are not a true representation of all farm real estate in Kansas. No counties were taken in the northeast corner of Kansas in the corn belt and the extreme southeast corner of Kansas in the general farming area where the average rainfall is the highest. Also omitted were the flint hills region, which is primarily bluestem grass, and an area where industry may affect the price of land (as around Wichita, Topeka, or Kansas City) and the heart of the wheat belt area in South-Central Kansas. This study does not represent all of Kansas but only the given four areas.

In each of the two western areas, two counties were taken to increase the number of transactions to the 40-50 level within a single geographic universe. Although, the study was not limited to this range as Dickinson area had only 35 transfers and Anderson area was high with 72 transfers.

The following is a brief description of each area that was used in this study.

Area 1 - The Anderson area is a diversified agricultural area. The livestock programs are predominated by beef cattle and dairy enterprises. Wheat was the major cash crop with 26,700 acres in 1955, while an even distribution of feed crops were grown which consisted of 21,600 acres of corn, 21,000 acres of barley, 20,300 acres of oats, 20,200 acres of sorghums, and 10,700 acres of alfalfa hay.¹

The average size of farm in this area was 261 acres.² The average

1 Kansas State Board of Agriculture, Farm Facts 1955-56, 39th Report, pp. 10, 18-29, 46-47.

2 U. S. Department of Commerce, U. S. Census of Agriculture 1954, Volume I, Part 13, p. 44.

length of the growing season is 184 days. The average rainfall is 37 inches per year.¹ The county has an average elevation of 1,100 feet above sea level. The topography varies from gently sloping to distinctly rolling lands with soils that are residual from limestone, sandstone, and shale, with shale predominating. At the present time, most of the upland soils are acid and deficient in nitrogen and phosphorus. Lime and fertilizer should be used for successful production. Erosion has been quite severe in this county.²

The total area of the county is 369,280 acres, which was 50 percent cropland and 40 percent pasture and meadow in 1954.³

Area 2 - The Dickinson area consists of a diversified type of agriculture. The beef cattle enterprise is the most important in the livestock program. A total of 53,350 head of beef cattle were on the farms in this area on January 1, 1956. Dairying is a minor enterprise in this area.⁴

Wheat is the major crop in this area, with 136,000 acres in 1955. The other crops are grown primarily for feed for livestock enterprises. The feed crops are well distributed with 40,700 acres of sorghums, 38,200 acres of oats, 35,700 acres of alfalfa hay, 30,800 acres of corn, and 24,500 acres of barley.⁵

The average farm consisted of 291 acres in 1954.⁶ The amount of rainfall is approximately 31 inches per year.⁷ The average growing season in the

1 Hoover, Leo M. A Summary of Kansas Agriculture, Agricultural Economics Report No. 55, p. 6.

2 Kansas Agricultural Experiment Station and Kansas State Planning Board, Agricultural Resources of Kansas, Kansas State College Bulletin 122, p. 11-13.

3 U. S. Department of Commerce, U. S. Census of Agriculture 1954, Volume I, Part 13, p. 44.

4 Kansas State Board of Agriculture, Farm Facts 1955-56, 29th Report, p. 10.

5 *Ibid.*, pp. 12-29, 46-47.

6 U. S. Department of Commerce, U. S. Census of Agriculture 1954, Volume I, Part 13, p. 44.

7 Hoover, Leo M. A Summary of Kansas Agriculture, Agricultural Economics Report No. 55, p. 6.

county is 171 days. This area has an elevation of approximately 1,250 feet above sea level. The topography is rolling with areas of low hills. There is a broad expanse of bottom land soils adjacent to the Kansas River and its tributaries that are level to gently sloping. The soils are primarily residual from limestone and shale in the southern portion and from limestone, sandstone, and shale in the northern portion. The soils are relatively deep and fertile. These soils are not acid and will respond to nitrogen and phosphorus fertilizers. Water erosion has taken place on the sloping uplands.¹

In 1954, this area consisted of 547,200 acres, which 63 percent was cropland and 36 percent in pasture and meadows.²

Area 2 - Barton-Russell area primarily consists of wheat and beef cattle enterprises. Wheat is the major crop of this area with 370,000 acres and sorghams rank second with 113,300 acres in 1955. Sorghams have been raised primarily for livestock feed. The beef cattle enterprises consist of cow herds and full season wintering and grazing of steers, that totaled 75,300 head on January 1, 1956. Dairying on a small scale has become an important secondary enterprise close to the larger cities.³

The average size farm consisted of 406 acres in Barton County while in Russell County 570 acres in 1954.⁴ The average growing season in this area

1 Kansas Agricultural Experiment Station and Kansas State Planning Board, Agricultural Resources of Kansas, Kansas State College Bulletin 172, p. 51-52.

2 U. S. Department of Commerce, U. S. Census of Agriculture 1954, Volume I, Part 13, p. 45.

3 Kansas State Board of Agriculture, Farm Facts 1955-56, 39th Report, pp. 10, 18-19, 28-29.

4 U. S. Department of Commerce, U. S. Census of Agriculture 1954, Volume I, Part 13, p. 44.

is 173 days.¹ The average rainfall in this area is approximately 25 inches per year.² The elevation of this area is approximately 1,800 to 1,850 feet above sea level. The topography is that of a sloping to gently rolling plains except in the immediate vicinity of the larger streams where the topography becomes broken and hilly. The soils have been derived primarily from the weathering of limestone except in the southern portion, south of the Arkansas River, where they have been formed from the weathering of outwash plains materials. The soils contain a good supply of plant food materials and are not acid in reaction. Sheet and wind erosion occur occasionally and can be prevented easily; severe erosion seldom occurs.³

This area consists of 1,144,960 acres. In 1954 the southern county (Barton County) was made up of 78 percent cropland and 19 percent pasture, while the northern county (Russell County) was made up of 51 percent cropland and 42 percent pasture.⁴

Oil activity in this area has been an important economic factor. In 1955, there were 6,270 producing wells with a production of 25,138,407 barrels. Oil production covers an area of 130,200 acres.⁵

None of the land transfers in this study involved land which had producing oil wells on them.

1 Kansas Agricultural Experiment Station and Kansas State Planning Board, Agricultural Resources of Kansas, Kansas State College Bulletin 122, p. 16, 191.

2 Hoover, Leo H. A Summary of Kansas Agriculture, Agricultural Economics Report, No. 55, p. 6.

3 Kansas Agricultural Experiment Station and Kansas State Planning Board, Agricultural Resources of Kansas, Kansas State College Bulletin 122, pp. 17-19 181-183.

4 U. S. Department of Commerce, U. S. Census of Agriculture 1954, Volume I, Part 13, p. 44.

5 Goebel, E. D., A. L. Hornbaker, W. R. Atkinson, and J. W. Jewett. Oil and Gas Developments in Kansas During 1955, State Geological Survey of Kansas, Bulletin 122, p. 132-160.

Area 4 - The Logan-Wichita area is characterized by a primarily dry land type of agriculture, with irrigation becoming more important through the central portion east to west in Wichita County. Wheat is the major crop with 240,000 acres, while sorghums ranked second with 207,200 acres in 1955. Beef cattle is the only important livestock enterprise with 48,350 head on January 1, 1956 in this area.¹

The average size of farm in Wichita County was 1,228 acres in 1954, while Logan County averaged 1,625 acres per farm.² The amount of rainfall is approximately 18 inches per year.³

The length of the growing season averages between 159 to 164 days. The elevation ranges from 3,100 feet to 3,300 feet above sea level. The topography is that of gentle sloping to gently rolling plains with a few low hills and in some places sharp breaks in the vicinity of larger streams. The soils have been formed almost entirely from the weathering of wind deposited materials. Erosion by water has not been severe. Practically all of the soils under cultivation are subject to erosion by wind which has been severe on occasion in many localities. The limiting factor of crop production is the lack of rainfall.⁴

This area totals 1,150,080 acres, of which Wichita County had 97 percent of its share (463,360 acres) in farms with 70 percent in cropland and 26 percent in pasture in 1954, while Logan County (686,720 acres) had 39

1 Kansas State Board of Agriculture, Farm Facts 1955-56, 39th Report, pp. 10, 16-19, 28-30.

2 U. S. Department of Commerce, U. S. Census of Agriculture 1954, Volume I, Part 13, p. 48.

3 Hoover, Leo M. A Summary of Kansas Agriculture, Agricultural Economics Report No. 55, p. 6.

4 Kansas Agricultural Experiment Station and Kansas State Planning Board, Agricultural Resources of Kansas, Kansas State College Bulletin 122, pp. 123-124, 218-219.

percent in cropland and 42 percent in pasture in 1954, (18 percent of land was not reported.)¹

Characteristics of Real Estate

Farm real estate has many characteristics. Some of these are physical characteristics of soil affecting productivity, size of tract, kind of road, distance to town and market, and extent of improvements and all of these may affect a particular transaction.

Quality of land. The quality of land that entered the farm real estate market in 1956 was considered average by 65 percent of the buyers in all four areas. The study showed no significant differences in the quality of land sold among the four areas studied in the state (Table 2).² The productivity of the tracts transferred could be tested only on the basis of wheat yields, since wheat was the only crop important in all four areas. The variation in yields among these areas is due more to rainfall than to the quality of land. Table 3 shows that yields in the central and western areas were lower than in Eastern Kansas. The average estimated yields of tracts transferred were higher for each area than the 1945-54 average yield for all land in the area. Anderson area had the greatest deviation with an estimated yield of 27.9 bushels per acre, on tracts transferred compared to the 1945-54 average yield of 20.4 bushels per acre. Barton-Russell area had the smallest deviation with an estimated yield of 14.7 bushels per acre on the tracts transferred compared to the average yield of 13.5 bushels per acre for 1945-54 time period.

1 U. S. Department of Commerce, U. S. Census of Agriculture 1954, Volume I, Part 13, p. 48.

2 Table 2 to 62 in appendix.

The estimated yields of the transfers in the Dickinson and Logan-Wichita areas were 19.7 and 19.8 bushels per acre respectively, while the 1945-54 average county yields were 16.8 bushels per acre for Dickinson and 15.1 bushels per acre for the Logan-Wichita areas. Twenty-five percent of the tracts did not show wheat yields; these tracts either were all grass or wheat was not included in the farming program.

The information received on the carrying capacity of native grass was inadequate. The Anderson area reported that 37 percent of the tracts required 4 to 6 acres per animal unit. It is common knowledge that as rainfall decreases going westward into the short native grass regions the number of acres required per animal unit increases (Table 4).

Size of Tract. The tracts transferred varied in size in the four areas. Anderson area had the smallest tracts transferred, averaging 133 acres per tract, while the Logan-Wichita area averaged 404 acres per tract (Table 5). The tracts transferred ranged from 40 acres (minimum size taken in this study) near towns and cities to 10,700 acres located in Logan County of the Logan-Wichita area.

The average size of tracts transferred was smaller than the average farm unit in the respective areas. Of the tracts transferred in 1956, 48 percent were purchased for farm enlargement or to be used as a part of previous farm units, while only 12 percent were purchased for complete farm units.

Kind of Road. The kinds of roads of road that joined the tracts of land transferred varied from area to area (Table 6). While Anderson area had only 4 percent of its tracts located on dirt roads, the Logan-Wichita area had 60 percent of the transfers on dirt roads. Differences in kinds of roads were highly significant in the four areas studied. The kind of road signifi-

cantly influenced the price per acre of land transfers in the Dickinson area at the 5 percent level and in the Barton-Russell area at the 10 percent level, while no effect on price was detected from kind of road in the other two areas (Table 7). The entire variation in average price per acre cannot be attributed to the kind of roads, since other factors such as productivity and improvements may be related to the kind of road and cannot be entirely separated.

Distance to Town. With modern methods of transportation and the network of all-weather roads in the more thickly populated areas, the distance to town or to market today is not as important a factor in influencing the price per acre of land as in the past. Nonetheless, a recent study indicated that farm real estate within a few miles of town sold significantly higher than that at a greater distance.¹ Even with the present network of all-weather roads, the additional costs for transportation involved in marketing farm products can affect the value of farm real estate tracts that are located several miles from a market. Distance to town, if the distance is great may involve other inconveniences or costs such as time and cost of going to and from schools, churches, and all social events. Eighty-three percent of the tracts transferred were within nine miles of town (Table 8). Distance to town had no significant effect on the price per acre except for the Logan-Wichita area. This area had a significant variation at the 5 percent level with 12 tracts at the average of \$75.42 per acre up to 4 miles to town, 12 tracts at \$54.75 per acre from 5-9 miles to town, 8 tracts at \$40.50 per acre at the 10-14 mile interval, 2 tracts at \$35.00 per

1 Marsh, Charles F., and Wilfred E. Pine. The Value of Farm Real Estate, Kansas Agricultural Experiment Station, Bulletin 389, April 1957, p. 14-16.

acre at 15-19 mile interval, and 2 tracts at \$35.50 per acre at the 20-24 mile interval to town (Table 9).

Extent of Improvements. Improvements are important and necessary on most complete farm units. When a tract is purchased for farm enlargement, the buyer often does not desire improvements. The transfers that occurred in 1956 were 47 percent unimproved, while 26 percent of all transfers had what the buyer considered average improvements (Table 10). Improvements were given primary consideration in some cases and contributed much to the buyer's decision on the final price. Other buyers preferred unimproved tracts and gave little or no consideration to improvements. Price per acre paid was greatly influenced by the extent of improvements in all but the Logan-Wichita area in which 25 of 37 tracts were unimproved. Price per acre in the Anderson area was highly significantly influenced by extent of improvements, with average price per acre ranging from \$49.17 for unimproved tracts to \$118.86 for tracts with above average improvements (Table 11).

Other Factors. Other factors, such as percent of tract in cropland, wheat allotment acreages, and the amount and adequacy of buildings are additional variations in the characteristics of farm real estate which may affect value.

The percent of cropland in tract varies with the four areas studied. The areas with the greatest number of tracts with 80-100 percent in cropland were in the central and western Kansas areas. Differences among the areas were highly significant (Table 12). Percent of cropland in tract significantly affected the price per acre in the Barton-Russell and Logan-Wichita areas (Table 13).

The percent of cropland in wheat allotment was less in the Anderson area

than in the other three areas. The percent of cropland in wheat allotment was highly significantly different among the four areas (Table 14). The average price per acre was significantly influenced in all areas by percent of cropland in wheat allotment.

Forty percent of all tracts transferred have houses and other buildings. The transfers in the Anderson area had 56 percent of the tracts with both a house and other buildings (Table 15). Variations in the amount of buildings were highly significant among the four areas. The tracts with house and other buildings were considered adequate for a farming headquarters by 91 percent of the buyers of these tracts (Table 16). The influence of amount of buildings on average price per acre was highly significant in Anderson and Dickinson areas (Table 17).

Characteristics of the tracts of land transferred appeared to have influenced the price per acre paid. The small number of cases prevented subsetting and testing the effect that each factor alone had on price per acre. The many variations in characteristics among the tracts transferred and little evidence of a grading system indicate the difficulties which buyers and sellers may have in pricing land. Each tract tends to be unique, resulting in an imperfectly competitive situation. Adequate grading would help eliminate this weakness in the farm real estate market.

Characteristics and Circumstances of Buyers and Sellers

The seller schedules were not available for this study. The information obtained was given by the buyer to the extent that he could answer the questions concerning the seller on the buyer questionnaire.

Sellers. Reasons for selling, as given by the buyer, were many with no

dominant reason (Table 18). In many cases, the buyer did not know why the seller sold a given tract. The occupation of the sellers varied with active farmers selling 37 percent of the tracts. The greatest variation of seller occupations among areas was the nonfarmer-professional occupation in Anderson area selling 13 of the total 16 tracts sold in all areas (Table 19).

The residence of the sellers varied in this study, with 52 percent of all sellers living in town (Table 20). Anderson area had the highest percent of sellers living on the farm sold. The variation in residence of sellers among the four areas was significant. While a high percent of the sellers lived in town, the distance the sellers lived from the tract sold varied among the four areas. A majority of the sellers lived in the same or adjoining county with 31 percent of these sellers living more than five miles from the tracts they sold. The distance the seller lived from the tract sold was significantly different among the four areas.

Buyers. The active farmer was the predominant buyer, purchasing 67 percent of the tracts sold. The remaining 33 percent of the tracts were purchased by persons in numerous other occupations (Table 21).

The local real estate market was made up of a single buyer and a single seller in 75 percent of the transactions involved (Table 22). The competition from other bidders involved so few cases that no reasonable evaluation could be made of the influence of competition among bidders. An explanation for the limited number of bidders may relate back to the length of time the buyer was in the market for land. Since land is a scarce resource for most active farmers, 65 percent of the buyers bought on a "quick decision" basis or at the first opportunity to purchase a tract of land to fulfill their needs as soon as the tract came on the market (Table 23).

Sixty percent of the buyers who participated in the farm real estate market in 1956 were living on another farm and 4 percent lived on the farm bought, while 36 percent of the buyers lived in town (Table 24). No significant differences existed in the residence of buyers among the four areas.

The age of buyers varied among areas with the Anderson area having 59 percent of its buyers under 45 years of age, while Dickinson area had 73 percent, Barton-Russell area 72 percent, and Logan-Wichita area 62 percent of the buyers 45 years of age and over. The differences in ages of the buyers for the four areas were not significant (Table 25). The age of buyers showed no significant effect on price per acre paid in this study (Table 26).

Location. The location of the tract to the buyer is an important factor in the real estate market. For the four areas, 43 percent of the buyers lived within five miles of the tract purchased, while 36 percent lived beyond five miles, but within the same or adjacent county. Differences in location of tracts to the buyers were highly significant among the four areas (Table 27). The location affected the price paid per acre in the four areas, with the highest price being paid for tracts when the buyer was living on the farm or within five miles (Table 28). Location of buyer to land bought has significantly influenced the price per acre of tracts in the Logan-Wichita and Anderson areas.¹ This supports the belief that the real estate market is a relatively localized market. Another factor to support this belief is that 64 percent of all buyers knew the sellers personally (Table 29) and 59 percent of the buyers learned the tract was for sale through the seller (Table 30).

Reason for Buying. Reasons for buying, as given by the buyers interviewed,

1 Logan-Wichita area was significant at the 5 percent level, while Anderson area was significant at the 10 percent level.

were many and varied. The prime motive for buying in the four areas was for farm enlargement. Continuation of technological advancements and striving for more optimum sized unit, buyers in 48 percent of the cases purchased additional land to enlarge their farming units in 1956. Greater acreage of wheat allotment was not given as a reason for any transaction. It is believed that it was a more or less indirect reason in several cases. "Tenant to owner" was given as the reason for ten transfers, with four transactions each in the Anderson and Dickinson areas. This gave these tenants a chance to advance up the agricultural ladder from tenant to at least part owner. Land purchased for an investment was probably a reason in every case, but was considered the prime reason in only 23 cases. Of these 23 buyers, only three were active farmers, so it was evident that they were buying mainly for investment. The distribution of reasons for buying is shown by area in Table 31.

Ninety-two percent of the buyers reported they were under no pressure to buy (Table 32). Eight percent were under pressure to buy, with only two cases involved a situation where the buyer could no longer rent. Three tracts were bought because the purchasers were afraid some one else would buy first, and the remaining seven cases there were other reasons for the pressure to buy.

Farm enlargement resulted when a landowner purchased a tract to add to a previous farm unit. Farm enlargement, in a sense, resulted in 61 of 94 cases where an active farmer bought land (Table 33). The land owned by that particular farmer increased, but the farm unit operated was enlarged only if the tract purchased was in addition to the ground in the farm unit prior to the purchase. Active farmers purchased 61 of 67 farm enlargement transfers that occurred in this study. Net farm enlargement would occur if the tract purchased to enlarge one farm unit did not decrease another farm unit. Net

farm enlargement results when the number of farm units decreases. Farm enlargement, consisting of 48 percent of the transfers, did not appear to be related to price paid per acre (Table 34).

Extent of Bargaining. The lack of price bargaining was a unique characteristic of the transactions involved. Forty-eight percent of the buyers indicated there was no price bargaining; they bought the tract at the seller's asking price or if the seller had not set a price, the seller accepted the first offer of the buyer. Effective bargaining was present in 38 percent of the transactions involved, in which the buyer bid less than the asking price and paid less than the asking price, while 4 percent of the buyers bid less than the asking price, but paid the asking price when the transaction was completed (Table 35).

The price paid per acre was not significantly different where bargaining existed than in the cases where no price bargaining existed (Table 36). Bargaining on other considerations such as mineral rights, royalty rights, and landlord's share of standing crops, were insignificant in the four areas in 1956.

Conclusions. The characteristics and circumstances of buyers and sellers vary greatly within and among areas. Many reasons for selling and buying existed, location in relation to seller and buyer differed, little competition from bidders occurred, and the length of time the property was on the market was short. Various methods of selling were used with variable amounts of bargaining involved.

These result in unique conditions for each transaction and result in imperfect competition. Only slight opportunity appears to exist to deal with sellers and buyers who do not differ widely in characteristics and circumstances.

Transferring and Pricing Procedures

Buyers learned about the tracts they purchased through the sellers in 59 percent of the cases (Table 30). Sellers often knew of prospective buyers and would make contacts personally rather than listing with agents, as agents handled only 23 percent of the transfers. Many of the sellers felt they could sell their places for as much as the agent and would save the commission charges. Only 6 percent of the sellers advertised their land for sale. The medium of advertising used by sellers was the newspaper, while agents used the newspaper, window display, and radio, in a few instances. The buyer learned of a tract for sale through community knowledge in 4 percent of the cases and through a friend in 3 percent of the cases. Other methods made up the remaining 5 percent of the transactions. It is believed that many sellers would have benefited by the use of agents and more advertising to inform more prospective buyers that a given tract is for sale. When sellers handle their own sale contacts with little advertising, the real estate market is limited to a local area in most cases.

Pricing Procedures. An analysis of evaluation procedures was attempted in this study. The theory of future income is accepted as one basis for evaluating land. The extent that this theory was used by the buyers appeared to vary with individual buyers but was difficult to determine. The buyers reported they had estimated the value in 74 percent of the tracts involved and had not estimated the value in 26 percent of the cases (Table 37). Variations in buyers estimates of the land value were highly significant in the four areas. Information concerning crop yields was obtained by 65 percent of the buyers, while 24 percent of the buyers did not try to obtain this information. A highly significant difference existed among the four areas in

the extent to which crop yields were obtained by buyers (Table 38). Eighty percent of the buyers indicated that they received no help from other professional personnel such as the local banker or county agent in determining the price paid (Table 39).

The use of recent farm real estate sales as a guide to price setting was expected. Only 18 percent of the buyers indicated the use of specific sales in guiding their pricing decisions. Fifty-six percent of the buyers reported they did not know of recent sales, while 26 percent knew of recent sales, but claimed they did not use these sales as a pricing guide. Many of the buyers indicated they paid about average market price for land (Table 40).

Only 20 percent of the buyers obtained information on net income to use as a pricing guide, while 75 percent of the buyers did not ask for figures on net income of given tracts (Table 41). Inspection of the tract by the buyer occurred in 95 percent of the cases (Table 42). The buyers were able to judge to a certain extent, the type of soil, amount of erosion, and growth of any crop that may be growing on the land at that time.

It was observed that a relatively large number of buyers stated they were not in the market for land prior to the tract they purchased. It was expected that most buyers had given serious thought to buying land to the extent that they had been looking for some land to buy. The buyers indicated that 65 percent of the transactions involved "quick decision" buying as stated previously, and the location to the buyer's operation influenced the decision to buy (Table 23).

Buyers indicated that in 75 percent of the cases no other bidders were involved (Table 22). This suggests a high degree of imperfect competition in the real estate market. McKee gave several reasons why the lack of bidders

may have existed: (1) The seller priced his tract of land below the general market value and the first person contacted made the purchase, (2) the seller made no effort to contact persons other than the ultimate buyer, (3) the seller contacted a person well acquainted with capabilities of the land, (4) the buyer was overly optimistic in estimating the future returns, and (5) the seller did not advertise or list the tract with an agent.¹

Responses of many buyers left the impression that competition is present without another person becoming a bidder. It was indicated by several buyers that the number of people desiring land or the demand for land was a decisive factor in determining price. These buyers must have felt that competition was present; although not a particular bidder, someone would have purchased the tract, given the opportunity. This does not indicate a perfect market, but less of an imperfect market than the number of bidders indicate.

Bargaining. Bargaining between the sellers and buyers as stated before was less than expected. Active farmers were the largest group in the sellers market. This group consisted of 53 sellers, of which 23 did not participate in price bargaining, while 23 sellers participated in price bargaining with the buyers and sold for less than they were first asking (Table 43). Retired farmers sold with no price bargaining in 12 of 18 cases. No significant differences existed in the extent of bargaining among occupations of the sellers.

Some of the sellers may not have been in a bargaining position, as 21 gave financial pressure as the reason for selling, of which 11 were active

1 McKee, Vernon C. An Analysis of the Farm Real Estate Market in Clay and Dickinson Counties, Kansas, 1955, p. 18. Unpublished M. S. thesis, Kansas State College, 1957.

farmers. Health and age was the reason in 28 cases for selling (Table 44). The remaining sellers had many and varied reasons for disposing of land and their bargaining positions were difficult to determine without further information.

The buyers reported no price bargaining in 48 percent of the transfers, with 45 of the 94 active farmers indicating no price bargaining (Table 45). This may indicate that the sellers priced the tract at or below market level and the buyers saw no need for bargaining. On the other hand, the buyers may have been over optimistic about the value of a given tract. To support this indication, 30 of 67 transfers for farm enlargement did not involve price bargaining, while buyers bid lower and paid less in 11 cases compared to 9 cases of no price bargaining when land was bought for an investment (Table 46).

The location of the land purchased did not significantly affect the extent of bargaining (Table 47). Also, the price per acre paid by the buyers was not affected significantly by the extent of bargaining. The class interval of \$160 and up per acre was the only interval where "bid lower-paid less" cases exceeded the "no price bargaining" cases. Anderson and Barton-Russell were areas where the price per acre was higher for "bid lower-paid less" cases than for the "no price bargaining" cases. The greatest spread occurred in the Logan-Michita area with \$7 per acre spread compared to \$2 per acre spread for the Dickinson area. In contrast to the other two areas, 13 "no price bargaining" cases were \$28 per acre less than 12 "bid lower-paid less" cases in the Barton-Russell area and \$3 per acre less for 20 "no price bargaining" cases compared to 18 "bid lower-paid less" cases in the Anderson area (Table 36). This suggests that other factors

influence the price per acre more than the extent of bargaining. The buyers did not consider oil and gas leasing rights an important bargaining factor in 23 percent of the cases, while in 4 percent of the cases these rights were given important consideration. According to the buyers, there was no bargaining involved for the oil and gas rights in the remaining 73 percent of the transactions.

The mineral and royalty rights received little or no bargaining, the sellers apparently being willing to give up any rights they owned. In many cases, part of the rights had been sold at some previous date. Only one tract of land was transferred with no mineral and no royalty rights, this tract being located in the Anderson area. All of the mineral rights were obtained in 63 percent of the cases and all of the royalty rights were obtained in 62 percent of the cases. One-half of the mineral and royalty rights were received by 10 percent of the buyers, while $1/4$ and $1/3$ share of mineral and royalty rights were received in one case each. Information on the remaining 25 percent of transfers was not obtained. Only in very few cases did the buyers feel that they paid extra to obtain the mineral and royalty rights that they received.

After the bargaining has been completed and a price has been agreed upon by the buyer and the seller, the agreement may stand as an oral agreement, or a written agreement may be drawn up and the major points of the agreement put in writing and signed by each party. The type of agreement used varied significantly among the four areas with 65 percent of the agreements written and 30 percent oral, while 5 percent did not answer (Table 4B).

Terms and Financing. Forty-four percent of all transfers were cash transactions. Buyers acquired new mortgages for 46 percent of the transfers and assumed a mortgage for 6 percent of the cases. Information regarding the

length of term of the mortgage was given by the buyers for 60 of the 79 mortgage cases. The information received indicated that 31 percent of all loans were 30 year loans or more, 25 percent were 20-24 year loans and 18 percent were 5-9 year loans, 10 percent each were 1-4 year and 10-14 year loans. Based on the information from this study, it was found that the buyers were using the long term loans in Anderson and Dickinson areas with only one 30 year loan in Logan-Michita area. The method of financing was significantly different among the four areas. Anderson and Dickinson area transfers were financed primarily by new mortgages, while the transfers in Barten-Russell and Logan-Michita areas were primarily cash transfers (Table 49).

The rate of interest that was charged for farm mortgages ranged from 4.0 to 7.9 percent. A total of 73 cases reported the interest rate with 36 transactions in the 4.0 to 4.9 percent interval, 28 transactions in the 5.0 to 5.9 percent interval, 8 transactions in the 6.0 to 6.9 percent interval, and one transaction in the 7.0 to 7.9 percent interval. This indicates that majority of the buyers "shop" around for a long term loan at a low rate of interest. The source of loans included the sellers, local banks, Federal Land Bank, insurance companies, and individuals. The information obtained was inadequate to give any definite source that was used extensively.

Other Factors. Most of the buyers felt that a farm real estate appraisal was not needed. They based their belief on the facts that the majority of the buyers had known the land for several years or had farmed it at some previous date. The nonfarmers also felt that an appraisal would not help in most instances. This may explain why 75 percent of the buyers felt that an appraisal would not have helped them to determine the price. Only 5 percent of the buyers had an appraisal made that was not connected with

getting a loan (Table 50).

The relationship between size of tract sold and distance from town was significantly different for the four areas. The 100-239 acre class interval included 39 percent of all transfers. The majority of these transfers were 160 acre tracts, while the 60-99 acre class had 28 percent of the cases with 80 acre tracts being the common size. Sixty-nine of the 142 tracts were in the 0-4 mile range of town, while 50 tracts were in the 5-9 mile range. The town, in many cases, was small and the main objective was to find out the distance to a market for grain products (Table 51).

The sellers in 1956 had other land in 42 percent of the cases according to the information given by buyers. The majority of the sellers with other land were in the two western areas. According to the buyers, 29 percent of the sellers did not own other land; they did not know about the remaining 29 percent (Table 52). The sellers had not farmed the tracts involved in 44 percent of the transfers, while 40 percent had farmed the tract at some previous date or at the time of the sale (Table 53). The sellers in the Barton-Russell and Logan-Wichita areas often lived in town and drove out to their farms. The information given by the buyers was inadequate to determine how many sellers lived in town and owned nonfarm real estate (Table 54). Tables 55 to 62 provide additional information not used in the body of the thesis.

Selected Cases

A complete description of selected cases cannot be given. The questionnaires were held beyond the time available for this thesis in Washington, D. C. for the A.R.S. Great Plains Land Pricing Study. A study of selected cases has much merit. The farm real estate market is such a unique market—the

number of transactions is small and each transfer varies in one or more of its characteristics. No set pricing standard or procedure has been developed to fit all the variations that occur in a farm real estate market.

Replace Land Sold and Farm Enlargement. A case located in Anderson County may be cited as an example of a buyer buying to replace land sold and for farm enlargement. This individual sold a 160 acre tract of grass and a 97 acre tract with fair improvements and then bought 320 acres that consisted of 120 acres of cropland and 200 acres of pasture and meadow in one tract. His farming operation consisted of general farming and a grade A dairy enterprise. The place was farmed as a complete farm unit and was considered above average in location value. The location of the farm was on a gravel road, grade A milk route and eight miles from the county seat. This was a typical owner-operator case. The family consisted of one daughter approximately 17 years old and two sons approximately 15 and 13 years old. This owner was in his early 40's and appeared to be a good farm manager. The farm was financed through a local finance company at the rate of 5 percent for a term of 20 years. The price paid was \$75 per acre. The farm had an 18 acre wheat allotment and an estimated wheat yield of 35 bushels per acre.

Investment. The buyer in this case was a nonfarmer living in Anderson County. He was approximately 32-35 years of age. The reason for wanting more land was to enlarge his present 160 acre farm to an efficient farming operation. The opportunity came for this enlargement when a 320 acre tract was put on the market that was located close to his present place. The buyer bought the place and it was rented to his present tenant who was considered an efficient tenant. The buyer felt that he had bettered himself and the tenant by having a complete farm unit under one tenant. Also, a 180 acre farm

would attract and keep a better tenant than would a 160 acre farm. This buyer mortgaged the 160 acres owned and borrowed a high percent of the amount from a local loan company at 5 percent for a term of 20 years. The amount of loan is not recalled. The price paid was \$94 per acre. The place was 78 percent cropland with a 75 acre wheat allotment and the wheat yield was estimated at 35 bushels per acre.

Tenant to Owner. This case involved a young farmer approximately 25 years of age. He had been a tenant on a poor farm with little chance of progressing. This young ambitious farmer applied and qualified for a FMA loan. The farm he bought consisted of 240 acres, on a grade A milk route, and located on a gravel road six miles from the county seat. The farm consisted of 75 percent cropland with 29 acres of wheat allotment, with an estimated yield of 25 bushels per acre. The price paid was \$80 per acre. The FMA loan consisted of 100 percent plus \$2,000 for farm improvement that was used to build a grade A milking parlor and repair the present house and barn. The main farming enterprise involved was a grade A dairy enterprise. This is a good example of a young farmer who is honest, hard working, and has a desire to become an owner-operator. This young farmer is highly thought of by his neighbors and friends, who have confidence that he will be able to handle this 100 percent loan without difficulty barring an unusual misfortune.

Other cases. Information on the Barton-Russell and Logan-Nichita areas is not available at this time to describe cases from these areas. Selected cases in Dickinson area are described by McKee in "An Analysis of the Farm Real Estate Market in Clay and Dickinson Counties, Kansas, 1956" a masters thesis at Kansas State College, 1957.

The above selected cases support the hypotheses that there are variations

in tracts of land and there are variations in judgements and circumstances of buyers and sellers. When the number of transactions are limited in a study, the selected case method helps to show some of the variations that exist in the farm real estate market.

SUMMARY AND CONCLUSIONS

Records show that farm real estate values in Kansas reached an all time high in 1957, during a period of drought and declining farm incomes. This increase in land values appears in conflict with experience prior to 1950 when land values and farm incomes in Kansas followed the same trend. The buyers may have expected higher incomes following 1956 which would support higher land values. Generally, land values respond rather quickly to changes in current income. The land market is made up of value judgements of each buyer and each seller; each individual case will differ. Some characteristics will have more value to one buyer or seller than to another.

This study had the cooperation of A.R.S. in providing data from three areas of the Great Plains Land Pricing Study. This study analyzed the results of the buyers in the farm real estate market in Anderson, Dickinson, Russell, Barton, Logan, and Wichita Counties, Kansas in 1956. The analysis includes 142 bona fide transactions without sampling. A typical farm real estate transaction is described in the following section.

A Typical Situation

The modal tract of land was average in quality according to the buyers, with an estimated yield for wheat at approximately 20 bushels per acre. The typical tract consisted of 160 acres and was on a gravel road in Eastern

Kansas or on a dirt road in Western Kansas. The tract lies within nine miles of town with average improvements in the eastern area and no improvements in the western area. The typical tract has more than 50 percent cropland with approximately 30 percent of the cropland in wheat allotment.

The typical seller was an active or a retired farmer who had sold because of health and age or financial pressure. The seller lived in town within the same or adjacent county in which the tract was located and owned other land than the tract sold. According to the buyers, the seller had not farmed the tract sold in 44 percent of the cases, while 40 percent of the sellers had farmed the tract at some given time and the buyers did not know about the remaining 16 percent.

The typical buyer was an active farmer of 40 to 50 years of age, living on another farm within five miles of the tract bought. The buyer knew the seller personally through business and social acquaintances and bought the tract on a "quick decision" with little or no competition from other bidders. The most frequent reason for buying was for farm enlargement. The buyer generally inspected the property, obtained information on crop yields, and then estimated the value of the land to determine the price. A written agreement was used in closing the transaction. The buyer felt that an appraisal was not necessary and would not help to determine the price he would pay. The method of financing most often consisted of new mortgages in Anderson and Dickinson areas and all cash for Barton-Russell and Logan-Wichita areas. The typical new mortgage was for 30 years at an interest rate of 4.5 percent.

Conclusions Respect to Hypotheses

This study indicates that the farm real estate market in Kansas has many imperfections when compared with the characteristics of a market which is considered perfect. Variations existed among the tracts of land with respect to characteristics which influenced the price of land. This was found to be true in all four areas.

The hypotheses tested in this study are:

1. The farm real estate market does not perform perfectly because:

1. There are variations in characteristics among tracts of land.

Variations existed in the quality of land with 65 percent of the tracts considered average by the buyers. A wide range of estimated wheat yields was reported with 21 percent in the 15 to 19 bushel class. The information on carrying capacity of grass was not used because 46 percent of the tracts had little or no grass. The size of tract varied extensively with 40 percent of the tracts in the 100-239 acre class. The kind of road varied among dirt, gravel, and paved with 36 percent of the tracts on gravel roads. Tracts varied in distances to town with 48 percent within four miles while other tracts varied in distance to more than 25 miles. The extent of improvements varied with 47 percent of the tracts with no buildings while 26 percent were reported to have average improvements. The percent of tract in cropland varied in this study with 39 percent of the tracts in the 80-100 percent class, while percent of cropland in wheat allotment varied from 0-19 percent for 53 tracts, 20-39 percent for 55 tracts, 40-59

percent for 30 tracts, and four tracts over 60 percent.

2. There are only a small number of transactions in a localized market.

The farm real estate market is a localized market. Only a small number of transactions occur in an area within a year. Majority of the tracts studied were sold by the seller to a buyer with whom he was personally acquainted. Eighty-three percent of the buyers lived within the same or adjacent county in which the tract was located.

3. There is imperfect knowledge among buyers and sellers.

Imperfect knowledge exists among buyers and sellers in the farm real estate market. Knowledge of a tract being offered for sale is often limited to a small number of persons. This eliminates much of the competitive bidding that may prevail and prevents the working forces of competition to act when only one or a few nearby neighbors know that a tract of land is for sale. Advertising or other means to provide more knowledge about the farm real estate market before a tract had been priced would have provided more competition and a smaller percent of the cases transferred on a "quick decision" basis.

4. There are variations of value judgements and circumstances of buyers and sellers.

Value judgements and circumstances of buyers and sellers vary with each transaction. A buyer may give a tract a higher value if it joins his farm and he needs additional land for

farm enlargement. A seller may have to sell because of financial pressure or various other reasons. With limited information on the sellers, it was felt that the circumstances of the buyers influenced the market more than the circumstances of the sellers. The large number of farmers buying tracts for farm enlargement has tended to support the market price. However, no evidence indicated a premium price was paid for farm enlargement tracts.

5. There is no set pricing procedure in the land market.

No set pricing procedure used by the buyers was detected in this study. Processes used by most buyers were similar to those used in theory. Property inspection, information on crop yields, and estimated land values were used by the buyers to determine the price. It is believed that most buyers included other factors or methods in their pricing procedures not indicated by the information obtained.

II. The farm real estate markets differ in various parts of Kansas in regard to:

1. The variation of the characteristics of land.

The characteristics of land in this study were significantly different among the areas. The size of tracts transferred varied among areas. There was a significant difference in the kind of roads among the areas. The kind of roads had a significant effect on the price paid in Dickinson and Barton-Russell areas. The distance to town had a significant effect on price in Dickinson area. The variations in extent of improvement and the amount of buildings were highly signifi-

cant among the areas, which affected price in all areas but Dickinson. The differences in the percent of tract in cropland were highly significant among the areas and affected price in Barton-Russell and Logan-Wichita areas. Differences in percent of cropland in wheat allotment were highly significant among the areas. These significant differences affected the price in all areas with the greatest effect on tracts in the two western areas.

2. The variation of each localized market.

The variation in the localization of markets was not significantly different among areas. The variation in the number of transactions per area, how buyer learned of the land for sale, appraisal made by the buyer, and reasons for buying and selling were not statistically significantly different in various parts of Kansas. The extent of bargaining involved no significant differences among areas and had no significant effect on price within areas. The extent that an agent was used by the seller in the farm real estate market varied from 12 percent in Anderson area to 35 percent in Logan-Wichita area. Other differences involved were small in nature.

3. The knowledge of individual buyers and sellers.

The knowledge buyers obtained on crop yields and estimated land values was significantly different among the areas. There were no significant differences among the areas for the length of time the buyers were on the market, knowledge of recent sales, help obtained from others, and ask for net income figures on tracts involved. Other variations in knowledge of

persons involved were not apparent among the areas.

4. The characteristics and circumstances of buyers and sellers.

The characteristics and circumstances of the buyers and sellers differ in various parts of Kansas. According to the buyers, the sellers in Logan-Wichita area sold because of financial pressure in 30 percent of the cases while health and age were given as the predominant reasons in the other three areas. The seller's occupation varied among areas with active farmers dominating except for retired farmers in Dickinson area. The residence of sellers showed significant variation among the areas with 52 percent of all sellers living in town.

The buyers were active farmers in 67 percent of the cases in the four areas. The location of the buyers to the tract involved showed there were significant variations in distance among areas with the buyers living on another farm in 80 percent of the cases. The reasons for buying were many and varied among the areas with 48 percent of the tracts bought for farm enlargement. The buyers in Anderson area were younger with 35 percent under 35 years of age compared to 3 percent in Barton-Russell area. The variations in the methods of financing were highly significantly different among the areas. The method of financing significantly affected the price in Anderson and Dickinson areas where the tracts were predominantly financed by new mortgages and Barton-Russell and Logan-Wichita areas involved primarily cash transactions which showed no significant effects on price.

5. The pricing procedures used in determining value of land.

There were statistically significant differences in pricing procedures among the areas in this study. Seventy-five percent of the buyers believed that an appraisal would be of no help in determining price. Appraisal had no effect on price in all areas except in Barton-Russell area at the 10 percent level.

The buyers inspected the property in 95 percent of the cases and obtained information on crop yields on 65 percent of the tracts, which were significantly different among the areas. The buyers estimated the value of land on 74 percent of the tracts and differences were highly significant among the areas with a significant effect on price in Dickinson area.

Recent sales were not used by 36 percent of the buyers as a guide for pricing of land. There were no significant differences among areas in use of recent sale data and these sales had no significant effect on price. The buyers received no help from others in determining price for 80 percent of the tracts in this study; there were no significant differences among the areas. Figures on net income had no significant effect on price within the areas.

This study does not represent the farm real estate market for Kansas as a whole, but only in the given four areas and primarily from the buyer's view. A more representative sample of the state might be desirable in a future study. A larger number of transfers would make a statistical analysis more meaningful and additional subsorting of data would be possible for a more detailed study.

A detailed grading system for land and pricing according to grade may be an answer to many uncertainties in knowledge and variations in value judgements that exist in the farm real estate market. A grading system for land might be difficult and expensive to develop for practical use by the layman in the farm real estate market. A substantial amount of research would be required to provide the needed information to educate the public especially the layman in the farm real estate market so it will function with fewer imperfections.

ACKNOWLEDGMENT

The assistance and guidance given by Wilfred R. Pine, Professor of Agricultural Economics, Kansas State College, in the preparation of this thesis is gratefully acknowledged.

Arlen Feyerherm, Associate Professor of Mathematics, is recognized for his assistance in the statistical analyses. The Statistical Laboratory work was done under his supervision.

The cooperation and suggestions of Vernon McKee, Charles Haubein, Virgil Hurlburt, and William E. Scofield are appreciated.

The suggestions of others in the Department of Economics and Sociology Kansas State College, are also appreciated.

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APPENDIX

Table 2. Distribution of tracts of farm real estate sold (bona fide sales) according to the quality of land as stated by the buyer in Kansas, 1956.

Quality of land	Area			
	Anderson	Dickinson	Russell-Barton	Lower-White
	Numbers			
				Total
Above average	9*	6*	7*	11*
Average	29*	21*	20*	23*
Below average	5*	3*	4*	3*
Not answered	0	0	1	0
Total	43	30	32	37
				142
	Percent			
Above average	21	20	22	30
Average	67	70	62	62
Below average	12	10	13	8
Not answered	0	0	3	0
Total	100	100	100	100
Included in χ^2 test	$\chi^2 = 2.7275$	$.75 < P < .90$		
				23
				65
				11
				1
				100

Table 3. Distribution of tracts of farm real estate sold (bona fide sales) according to wheat yields as estimated by the buyer, Kansas, 1956.¹

Wheat yields (Bushels)	Area				Total
	Anderson	Dickinson	Russell-Barton	Lawrence	
Average yield per acre sold	27.9	19.7	14.7	*19.8	
Average yield per acre 1945-54 ²	20.4	16.8	13.5	15.1	
10 - 14	0	1	9	8	18
15 - 19	0	13	8	9	30
20 - 24	3	9	4	6	22
25 - 29	12	4	1	1	18
30 - 34	10	1	0	0	11
35 - 39	5	0	0	0	5
40 - over	0	0	0	**2	2
Not applicable	13	2	10	11	36
Total	43	30	32	37	142
Percent					
10 - 14	0	3	28	22	13
15 - 19	0	44	25	24	21
20 - 24	7	30	13	16	15
25 - 29	28	13	3	3	13
30 - 34	23	3	0	0	8
35 - 39	12	0	0	0	4
40 - over	0	0	0	5	1
Not applicable	30	7	31	30	25
Total	100	100	100	100	100

¹ Normal yields as estimated by the buyers.

² Revised Figures of Kansas State Board of Agriculture.

* Two tracts which were irrigated and the wheat yielded 60 bushels per acre. Drop these two tracts the average is 16.5 bushels per acre.

** 60 bushels per acre each on irrigated land.

Table 4. Distribution of tracts of farm real estate sold (bona fide sales) according to the carrying capacity of grassland as estimated by the buyer, Kansas, 1956.

Carrying capacity (Acres per animal unit)	Area				Total
	Anderson	Dickinson	Russell-Barton	Loman-Schitta	
Numbers					
Not applicable	17	20	12	17	66
0 - 3	8	4	4	7	23
4 - 6	16	6	8	2	32
7 - 10	2	0	7	8	17
11 - over	0	0	1	3	4
Not answered	0	0	0	0	0
Total	43	30	32	37	142
Percent					
Not applicable	40	67	38	46	46
0 - 3	18	13	12	19	16
4 - 6	37	20	25	5	23
7 - 10	5	0	22	22	12
11 - over	0	0	3	8	3
Not answered	0	0	0	0	0
Total	100	100	100	100	100

Table 5. Distribution of tracts of farm real estate sold (bona fide sales) according to size, Kansas, 1956.

	Area				
	Anderson	Dickinson	Russell-Barton	Lower-Michita	Total
Total transfers	43	20	32	37	142
Average acres per tract	133	142	221	404	225
Acres in tract			Percent		
0 - 59	16	13	9	0	10
60 - 99	33	37	22	19	27
100 - 239	35	40	41	43	40
240 - 399	14	7	16	11	12
400 - 719	2	3	9	14	7
720 - 1499	0	0	3	8	3
1500 - over	0	0	0	5*	1
Total	100	100	100	100	100

* Size of tracts in acres - 1040, 1120, 1120, 1120, 4480 and 10,700.

Table 6. Distribution of tracts of farm real estate sold (bona fide sales) according to kind of road on which located, Kansas, 1956.

Kind of road	Area				Total
	Anderson	Dickinson	Russell-Darton	Lower-Michita	
	Numbers				
Dirt	2*	7*	3*	22*	34
Gravel	21*	15*	21*	12*	79
Paved	8*	8*	8*	2*	26
Not answered	2	0	0	1	3
Total	43	30	32	37	142
	Percent				
Dirt		23	9	60	24
Gravel	4	50	66	32	56
Paved	19	27	25	5	18
Not answered	4	0	0	3	2
Total	100	100	100	100	100
* Included in χ^2 test $\chi^2 = 41.4308$ $P < .005$					

Table 7. Average price per acre of tracts of farm real estate sold (bona fide sales) according to kind of road and by area, Kansas, 1956.

Kind of road	Area											
	Anderson	Dickinson	Russell-Barton	Long-Whita	Anderson	Dickinson	Russell-Barton	Long-Whita	Anderson	Dickinson	Russell-Barton	Long-Whita
	Cases	Price	Cases	Price	Cases	Price	Cases	Price	Cases	Price	Cases	Price
	per acre		per acre		per acre		per acre		per acre		per acre	
Dirt	2	\$39.00	7	\$ 75.71	3	\$ 43.33	23	\$57.17	35			
Gravel	31	77.23	15	112.27	21	104.52	12	51.42	79			
Paved	8	87.88	8	108.38	8	135.12	2	60.00	26			
Not answered	2	28.50	0		0		0		2			
Total	43	N.S.	30	*	32	Δ	37	N.S.	142			

* Significance at the 5 percent level. ($F = 4.473$)

Δ Significance at the 10 percent level. ($F = 3.313$)

N.S. Not Significant

Table 8. Distribution of tracts of farm real estate sold (bona fide sales) according to distance to town and market, Kansas, 1956.

Distance to town (Miles)	Area					Numbers				
	Anderson	Dickinson	Russell-Barton	Lower- Richita	Total	Anderson	Dickinson	Russell-Barton	Lower- Richita	Total
0 - 4	26*	17*	14*	11*	68					
5 - 9	15*	11*	12*	12*	50					
10 - 14	2*	2*	6*	8*	18					
15 - 19	0	0	0	2	2					
20 - 24	0	0	0	2	2					
25 - over	0	0	0	1	1					
Not answered	0	0	0	1	1					
Total	43	30	32	37	142					
Percent										
0 - 4	60	57	44	30	48					
5 - 9	35	37	38	32	35					
10 - 14	5	6	18	22	13					
15 - 19	0	0	0	5	1					
20 - 24	0	0	0	5	1					
25 - over	0	0	0	3	1					
Not answered	0	0	0	3	1					
Total	100	100	100	100	100					
* Included in χ^2 test	$\chi^2 = 10.0751$					$.10 < P < .25$				

Table 9. Average price per acre of tracts of farm real estate sold (bona fide sales) according to distance to town and by area, Kansas, 1956.

Distance to town (Miles)	Area									
	Anderson		Dickinson		Russell-Barton		Logan-Nichita			
	Cases	Price	Cases	Price	Cases	Price	Cases	Price	Cases	Price
	: per acre:		: per acre:		: per acre:		: per acre:		: per acre:	
0 - 4	26	\$84.92	17	\$ 99.41	14	\$126.36	12	\$75.42		69
5 - 9	15	61.60	11	104.09	12	88.58	12	54.75		50
10 - 14	2	50.00	2	123.00	6	95.67	8	40.50		18
15 - 19	0		0		0		2	35.00		2
20 - 24	0		0		0		2	35.50		2
Total	43	M.S.	30	N.S.	32	N.S.	36			141

* Significance at the 5 percent level ($F = 2.249$).

1. One case per cell was not used in F-test, therefore one tract over 25 miles was not included.
N.S. Not significant.

Table 10. Distribution of tracts of farm real estate sold (bona fide sales) according to quality of improvements as stated by the buyer, Kansas, 1956.

Extent of Improvement	Area				Total
	Anderson	Diehlman	Russell-Dartem	Lowen-ichita	
	Numbers				
No buildings	11*	17*	16*	23*	67
Above average	7	3	2	5	17
Average	18*	8*	7*	4*	37
Below average	5	2	6	3	16
Good house, poor other buildings	1	0	0	0	1
Poor house, good other buildings	0	0	0	0	0
Not answered	1	0	1	2	4
Total	43	30	32	37	142
	Percent				
No buildings	28	53	53	67	47
Above average	16	10	6	14	12
Average	42	27	22	11	26
Below average	12	7	19	8	11
Good house, poor other buildings	2	0	0	0	1
Poor house, good other buildings	0	0	0	0	0
Not answered	3	0	3	5	3
Total	100	100	100	100	100
* Included in χ^2 test	$\chi^2 = 12.8235$				$.025 < P < .05$

Table 11. Average price per acre of tracts of farm real estate sold (bona fide sales) according to improvements and by area, Kansas, 1956.

Extent of improvement	Area											
	Anderson			Dickinson			Russell-Porter			Loran-Nichols		
	Cases	Price	: per acre:	Cases	Price	: per acre:	Cases	Price	: per acre:	Cases	Price	: per acre:
No buildings	12	\$ 49.17		17	\$ 90.53		17	\$107.35		25	\$60.40	
Above average	7	118.86		3	134.00		2	226.50		5	45.60	
Average	16	78.39		8	119.25		7	83.29		4	37.75	
Below average	5	63.60		2	93.00		6	90.83		3	51.67	
Total	42	***		30	*		32	**		37	N.S.	

* Significance at the 5 percent level ($F = 3.538$).

** Significance at the 1 percent level ($F = 4.818$).

*** Significance at the 0.1 percent level ($F = 7.479$).

N.S. Not significant.

1. One case per cell was not used in F-test, therefore one tract with good house and poor other buildings was not included.

Table 12. Distribution of tracts of farm real estate sold (bona fide sales) according to percent in cropland, Kansas, 1956.

Percent of tract in cropland	Area			Total
	Anderson	Dickerson	Russell-Barton	
	Numbers			
0 - 39		5*	11*	9*
40 - 79	15*	9*	10*	6*
80 - 100	22*	16*	11*	22*
Total	43	30	32	105
	Percent			
0 - 39		17	34	24
40 - 79	35	30	32	16
80 - 100	51	53	34	60
Total	100	100	100	100
* Included in χ^2 test	$\chi^2 = 22.9584$			$P < .005$

Table 13. Average price per acre of tracts of farm real estate sold (bona fide sales) according to percent of tract in cropland and by area, Kansas, 1956.

Percent of tract in cropland	Area											
	Anderson	Dickinson	Russell-Barton	Lomanichita	Cases	Price	Cases	Price	Cases	Price	Cases	Price
	: : per acre:	: : per acre:	: : per acre:	: : per acre:								
0 - 10	6	\$49.67	0	\$	7	\$ 72.71	7	\$25.57	20			
20 - 39	9	67.11	4	95.50	4	67.75	2	53.00	19			
40 - 59	11	85.55	3	113.33	2	53.50	3	42.33	19			
60 - 79	11	77.45	6	93.17	8	105.38	3	48.33	23			
80 - 100	6	89.50	16	108.19	11	152.36	22	67.95	55			
Total	43	N.S.	29	N.S.	32	**	37	*	141			

1 One case per cell was not used in F-test, therefore one tract in 0 - 19 class was not included.

* Significance at the 5 percent level ($F = 3.944$).

** Significance at the 1 percent level ($F = 5.040$).

N.S. Not significant.

Table 14. Distribution of tracts of farm real estate sold (barn fide sales) according to percent of cropland as stated by the buyer in wheat allotment, Kansas, 1956.

Percent of cropland in wheat allotment	Area			
	Anderson	Dickinson	Russell-Barton	Loman-Michita
	Numbers			
0 - 19	33*	2*	9*	9*
20 - 39	10*	15*	4*	26*
40 - 59	0	11	18	1
60 - 79	0	1	1	0
80 - 100	0	1	0	1
Total	43	30	32	37
	Percent			
0 - 19	77	7	28	24
20 - 39	23	50	13	70
40 - 59	0	37	56	3
60 - 79	0	3	3	0
80 - 100	0	3	0	3
Total	100	100	100	100
* Included in χ^2 test	$\chi^2 = 36.8283$			
	$P < .005$			

Percent of cropland : Anderson : Dickinson : Russell-Barton : Loman-Michita : Total

Numbers

Percent

* Included in χ^2 test

$\chi^2 = 36.8283$

$P < .005$

Table 15. Distribution of tracts of farm real estate sold (born fide sales) according to the amount of building, Kansas, 1956.

Amount of buildings	Area			
	Anderson	Diehlman	Russell-Barton	Lowm-Michita
	Numbers			
	11*	17*	16*	23*
No house, no other buildings				67
No house, other buildings	7	0	4	15
House, no other buildings	1	1	0	3
House, other buildings	24*	12*	12*	9*
Not answered	0	0	0	0
Total	43	30	32	142
	Percent			
No house, no other buildings	26	57	50	47
No house, other buildings	16	0	13	11
House, no other buildings	2	3	0	2
House, other buildings	56	40	37	24
Not answered	0	0	0	0
Total	100	100	100	100
* Included in χ^2 test	$\chi^2 = 11.6549$			
	.005 < P < .01			

Table 16. Distribution of tracts of farm real estate sold with house and other buildings (born fide sales) according to the adequacy of buildings as stated by the buyer, Kansas, 1956.

Adequacy of buildings	Area				Total	
	Anderson	Dickinson	Russell-Barton	Locust-Hichita	Total	
	Members					
No, not adequate	0	1	0	2	3	
Yes, adequate	23	10	12	7	52	
Not adequate nor, could be fixed	1	1	0	0	2	
Not answered	0	0	0	0	0	
Total	24	12	12	9	57	
	Percent					
No, not adequate	0	8	0	22	5	
Yes, adequate	96	84	100	78	91	
Not adequate nor, could be fixed	4	8	0	0	4	
Not answered	0	0	0	0	0	
Total	100	100	100	100	100	

Table 17. Average price per acre of tracts of farm real estate sold (born fide sales) according to amount of building and by area, Kansas, 1956.

Amount of buildings	Area					
	Anderson	Dickinson	Russell-Barton	Logan-Wichita		
	Cases : Price : : per acre:	Cases : Price : : per acre:	Cases : Price : : per acre:	Cases : Price : : per acre:	Cases : Price : : per acre:	Cases : Price : : per acre:
No house, no other buildings	11	17	16	23	23	67
No house, other buildings	7	0	4	4	4	15
House, no other buildings	0	0	0	0	0	0
House, other buildings	24	12	12	9	9	57
Total	42	29	32	36	36	139

1 One case per call was not used in F-test, therefore one tract in each of Anderson, Dickinson, and Logan-Wichita areas with house and no other buildings was not used in test.

** Significance at the 1 percent level (Anderson - F = 5.17, Dickinson - F = 9.403).
N.S. Not significant.

Table 18. Distribution of sellers of farm real estate (barn fide sales) according to the reasons for selling as stated by the buyers, Kansas, 1956.

Reasons for selling	Area					Total
	Anderson	Dischman	Engell	Barton	Lower-Michita	
	Numbers					
Financial pressure	1	3	4	11	19	
Family	4	1	0	0	5	
Health and age	10	4	8	6	28	
Take nonfarm job	0	4	0	0	4	
Had chance to sell	8	3	2	3	16	
Other use for money	1	3	4	5	13	
Reduce size of farm	0	0	0	1	1	
Renting not satisfactory	3	1	1	0	5	
Buy other land	0	1	0	2	3	
Other reasons	12	3	9	2	31	
Not answered	4	2	2	7	15	
Estates	0	0	2	0	2	
Total	43	30	32	37	142	
	Percent					
Financial pressure	2	11	13	30	13	
Family	9	3	0	0	4	
Health and age	24	13	25	16	19	
Take nonfarm job	0	13	0	0	3	
Had chance to sell	19	11	6	8	11	
Other use for money	2	11	13	14	9	
Reduce size of farm	0	0	0	3	1	
Renting not satisfactory	7	3	3	0	4	
Buy other land	0	3	0	5	2	
Other reasons	28	26	28	5	22	
Not answered	9	6	6	19	11	
Estates	0	0	6	0	1	
Total	100	100	100	100	100	

Table 19. Distribution of sellers of farm real estate (bona fide sales) according to occupation as stated by the buyers, Kansas, 1956.

Occupation of sellers	Area				
	Anderson	Dickinson	Russell-Barton	Logan- Nichols	Total
	Numbers				
Active farmer	16	5	12	20	53
Retired farmer	1	10	6	1	18
Housewife	3	2	5	4	14
Nonfarmer, profession	13	1	0	2	16
Nonfarmer, labor	1	4	4	1	10
Nonfarmer, business	1	2	1	4	8
Nonfarmer, retired	3	4	0	2	9
Corporation	0	0	1	1	2
County, state, federal	0	0	0	1	1
Not answered	5	2	3	1	11
Total	43	30	32	37	142
	Percent				
Active farmer	38	17	37	53	37
Retired farmer	2	33	19	3	13
Housewife	7	7	16	11	10
Nonfarmer, profession	20	3	0	5	11
Nonfarmer, labor	2	13	13	3	7
Nonfarmer, business	2	7	3	11	6
Nonfarmer, retired	7	13	0	5	6
Corporation	0	0	3	3	1
County, state, federal	0	0	0	3	1
Not answered	12	7	9	3	8
Total	100	100	100	100	100

Table 20. Distribution of sellers of farm real estate (bona fide sales) according to residence as stated by buyers, Kansas, 1956.

Residence of seller	Area				Total
	Anderson	Dickinson	Russell-Barton	Logan-Williams	
	Numbers				
On farm sold	13*	5*	3*	3*	23
On another farm	7*	3*	3*	11*	24
In town	19*	16*	17*	22*	74
Not answered	4	6	9	2	21
Total	43	30	32	37	142
	Percent				
On farm sold	30	17	9	5	16
On another farm	16	10	9	30	17
In town	44	53	53	60	52
Not answered	10	20	29	5	15
Total	100	100	100	100	100
* Included in χ^2 test	$\chi^2 = 13.2779$				
	.025 < P < .05				

Table 21. Distribution of buyers of farm real estate (bona fide sales) according to occupation, Kansas, 1956.

Occupation of buyer	Anderson	Dickinson	Area Numbers	Russell-Barton	Lo-an-ichita	Total
Active farmer	27	23	23	21	23	94
Retired farmer	2	1	1	0	4	7
Housewife	1	3	3	4	1	9
Nonfarm, profession	0	1	1	3	7	11
Nonfarm, labor	10	1	1	0	1	12
Nonfarm, business	0	1	1	1	1	3
Nonfarm, retired	2	0	0	1	0	3
Farm and nonfarm	1	0	0	2	0	3
Corporation	0	0	0	0	0	0
Total	43	30	Percent	32	37	142
Active farmer	63	77	Percent	66	62	67
Retired farmer	5	3		0	10	5
Housewife	2	11		13	3	6
Nonfarm, profession	0	3		9	19	8
Nonfarm, labor	23	3		0	3	8
Nonfarm, business	0	3		3	3	2
Nonfarm, retired	5	0		3	0	2
Farm and nonfarm	2	0		6	0	2
Corporation	0	0		0	0	0
Total	100	100		100	100	100

Table 22. Distribution of tracts of farm real estate sold (bona fide sales) according to the competition received from other bidders as stated by the buyer, Kansas, 1956.

Competition from other bidders	Area				Numbers
	Anderson	Dickinson	Russell-Darwin	Loman-Nichols	Total
No other bidders	29	25	20	33	107
1 other bidder	2	1	3	0	6
2 other bidders	3	1	5	2	11
3 other bidders	3	1	1	0	5
4 other bidders	0	0	1	0	1
5 or more bidders	1	1	1	0	3
Not answered	5	1	1	2	9
Total	43	30	32	37	142
Percent					
No other bidders	68	85	63	90	75
1 other bidder	5	3	9	0	4
2 other bidders	7	3	16	5	8
3 other bidders	7	3	3	0	3
4 other bidders	0	0	3	0	1
5 or more bidders	2	3	3	0	3
Not answered	11	3	3	5	5
Total	100	100	100	100	100

Table 23. Distribution of buyers of farm real estate (bona fide sales) according to the length of time in the market, Kansas, 1956.

Length of time in the market	Anderson	Dickinson	McCall-Barton	Leon-Nichita	Total
	Area				
	Numbers				
Quick decision	27*	20*	24*	22*	93
0 - 6 months	6	2	2	4	14
7 - 12 months	1	2	2	2	7
Over 12 months	9*	4*	4*	5*	22
Always	0	0	0	4	4
Not answered	0	2	0	0	2
Total	43	30	32	37	142
	Percent				
Quick decision	63	68	75	59	65
0 - 6 months	14	6	6	11	10
7 - 12 months	2	6	6	5	5
Over 12 months	21	14	13	14	15
Always	0	0	0	11	3
Not answered	0	6	0	0	2
Total	100	100	100	100	100
* Included in χ^2 test	$\chi^2 = 1.3351$	$.50 < P < .75$			

Table 24. Distribution of buyers of farm real estate (bona fide sales) according to residence, Kansas, 1956.

Residence of buyer	Area				Total
	Anderson	Dickinson	Russell-Barton	Lumpkin	
	Numbers				
On farm bought	3	2	1	0	6
On another farm	24*	20*	16*	24*	84
In town	16*	8*	15*	13*	52
Not answered	0	0	0	0	0
Total	43	30	32	37	142
	Percent				
On farm bought	7	6	3	0	4
On another farm	56	67	50	65	60
In town	37	27	47	35	36
Not answered	0	0	0	0	0
Total	100	100	100	100	100
* Included in χ^2 test	$\chi^2 = 2.7022$				
	.25 < P < .50				

Table 25. Distribution of buyers of farm real estate (bona fide sales) according to age, Kansas, 1956.

Age of buyer (Years)	Area			
	Anderson	Dickinson	Russell-Barton	Louis-Fichita
	Numbers			
Under 25	4	0	0	0
25 - 34	11	2	1	4
35 - 44	10*	6*	8*	10*
45 - 54	7*	10*	9*	11*
55 - 64	7*	7*	12*	6*
65 - over	4	5	2	6
Total	43	30	32	37
	Percent			
Under 25	9	0	0	0
25 - 34	26	7	3	11
35 - 44	24	20	25	27
45 - 54	16	33	28	30
55 - 64	16	23	38	16
65 - over	9	17	6	16
Total	100	100	100	100

* Included in χ^2 test $\chi^2 = 6.3044$ $.50 < P < .75$

Table 26. Average price per acre of tracts of farm real estate sold (bona fide sales) according to age of buyer and by area, Kansas, 1956.

Age of buyer (Years)	Area											
	Anderson	Dickinson	Russell-Sutton	Long-Whittier	Anderson	Dickinson	Russell-Sutton	Long-Whittier	Anderson	Dickinson	Russell-Sutton	Long-Whittier
	Cases : Price : : per acre:	Cases : Price : : per acre:	Cases : Price : : per acre:	Cases : Price : : per acre:	Cases : Price : : per acre:	Cases : Price : : per acre:	Cases : Price : : per acre:	Cases : Price : : per acre:	Cases : Price : : per acre:	Cases : Price : : per acre:	Cases : Price : : per acre:	Cases : Price : : per acre:
Under 25	4	\$71.50	0	\$	0	\$	0	\$	0	\$	0	\$
25 - 34	11	64.45	2	104.00	0	81.25	4	78.75	4	62.30	10	40.82
35 - 44	11	83.55	6	91.67	8	113.44	11	53.00	11	57.83	37	141
45 - 54	7	74.29	11	97.91	9	129.80	12	113.50	6	113.50	2	113.50
55 - 64	6	90.67	5	99.50	2	N.S.	31	N.S.	6	N.S.	1	N.S.
65 - and over	4	63.50	6	N.S.	30	N.S.	1	N.S.	6	N.S.	1	N.S.
Total	43	N.S.	30	N.S.	31	N.S.	37	N.S.	37	N.S.	37	N.S.

1 One case per cell was not used in F-test, therefore one tract with a buyer of 25 - 34 years of age was not included.

N.S. Not significant.

Table 27. Distribution of tracts of farm real estate sold (bona fide sales) according to the location of the buyers to land bought, Kansas, 1956.

Location of buyers to land bought	Area				
	Anderson	Dickinson	Russell-Barton	Lowen-Wichita	Total
	Numbers				
On farm bought	3	2	1	0	6
Within 5 miles	20*	21*	9*	10*	60
Same or adjacent county	10*	6*	20*	15*	51
Elsewhere in state	4	1	1	10	16
Out of state	1	0	0	1	2
Not answered	5	0	1	1	7
Total	43	30	32	37	142
	Percent				
On farm bought	7	7	3	0	4
Within 5 miles	47	70	28	27	43
Same or adjacent county	23	20	63	40	36
Elsewhere in state	10	3	3	27	11
Out of state	1	0	0	3	1
Not answered	12	0	3	3	5
Total	100	100	100	100	100
* Included in χ^2 test	$\chi^2 = 16.2130$				
	$P < .005$				

Table 28. Average price per acre of tracts of farm real estate sold (bona fide sales) according to location of buyers and by area, Kansas, 1956.

Location of buyers to land bought	Area									
	Anderson		Dickinson		Russell-Barton		Logan-Nichita			
	Cases	Price : per acre	Cases	Price : per acre	Cases	Price : per acre	Cases	Price : per acre	Cases	Price : Total
On farm bought	3	\$124.67	2	\$ 86.00	0	\$	0	\$	0	5
Within 5 miles	20	80.55	21	105.19	9	115.67	10	72.10	10	60
Same or adjacent county	10	66.80	6	93.50	20	105.00	15	43.53	15	51
Elsewhere in state	4	65.75	0		0		10	65.80	10	14
Not answered	5	56.00	0		0		0		0	5
Total	42	81.1	29	93.1	29	N.S.	35	61.1	35	135

* Significance at the 5 percent level.

Δ Significance at the 10 percent level.

1 One case per cell was not used in F-test, therefore one tract each for Anderson and Logan-Nichita areas with out of state buyer, one tract each for Dickinson and Russell-Barton areas with a buyer elsewhere in state, and one tract each for Russell-Barton and Logan-Nichita areas was not answered. These tracts were not included in the test.

N.S. Not significant.

Table 20. Distribution of tracts of farm real estate sold (bona fide sales) according to personal acquaintance of buyer and seller, Kansas, 1956.

Sellers had personal acquaintance with buyer	Area				Total
	Anderson	Dickinson	Russell-Barton	Loman-Bichita	
	Numbers				
No	14*	4*	9*	15*	42
Yes, business	6*	5*	5*	10*	26
Yes, socially	6*	13*	14*	6*	39
Yes, not answered	0	0	1	0	1
Yes, business & socially	16*	4*	1*	5*	26
Not answered	1	4	2	1	8
Total	43	30	32	37	142
	Percent				
No	33	13	28	41	30
Yes, business	14	17	16	27	18
Yes, socially	14	44	44	16	27
Yes, not answered	0	0	3	0	1
Yes, business & socially	37	13	3	14	18
Not answered	2	13	6	2	6
Total	100	100	100	100	100
* Included in X ² test	X ² = 27.1172	P < .005			

Table 30. Distribution of buyers of farm real estate (bona fide sales) according to how they learned of the land for sale, Kansas, 1956.

How buyer learned of land for sale	Area				
	: Anderson	: Dickinson	: Busell-Barton	: Logan-Nichols	: Total
	Numbers				
Seller	25*	20*	15*	22*	84
Friend	1	0	3	0	4
Community knowledge	4	0	2	0	6
Agent	5*	9*	6*	13*	33
Advertisement	5	0	2	2	9
Other	3	1	4	0	8
Not answered	0	0	0	0	0
Total	43	30	32	37	142
	Percent				
Seller	58	67	47	59	59
Friend	2	0	9	0	3
Community knowledge	9	0	6	0	4
Agent	12	30	19	35	23
Advertisement	12	0	6	6	6
Other	7	3	13	0	5
Not answered	0	0	0	0	0
Total	100	100	100	100	100
* Included in χ^2 test	$\chi^2 = 3.4979$.25 < P < .50			

Table 31. Distribution of buyers of farm real estate (bona fide sales) according to reasons for buying as stated by the buyers, Kansas, 1956.

Reasons for buying	Area					Total
	Anderson	Dickinson	Russell-Barton	Lawrence	McPherson	
	Numbers					
Replace land sold	6	1	2	0	9	
Enlarge farm	16*	16*	12*	23*	67	
Greater wheat allotment	0	0	0	0	0	
For son or relative	2	5	5	0	12	
Rural residence	7	0	4	0	11	
Tenant to owner	4	4	1	1	10	
Investment	6*	4*	5*	8*	23	
Other reasons	2	0	2	5	9	
Not answered	0	0	1	0	1	
Total	43	30	32	37	142	
	Percent					
Replace land sold	14	3	6	0	6	
Enlarge farm	37	54	37	62	48	
Greater wheat allotment	0	0	0	0	0	
For son or relative	4	17	16	0	8	
Rural residence	16	0	13	0	8	
Tenant to owner	10	13	3	3	7	
Investment	14	13	16	22	16	
Other reasons	5	0	6	13	6	
Not answered	0	0	3	0	1	
Total	100	100	100	100	100	
* Included in X ² test	X ² = 1.8522					
	.50 < P < .75					

Table 32. Distribution of buyers of farm real estate (bona fide sales) according to pressure to buy as stated by the buyers, Kansas, 1956.

Pressure to buy	Area				Total
	Anderson	Dickinson	Russell-Barton	Logan-Nichita	
	Numbers				
No	38	29	31	32	130
Yes, could not rent	2	0	0	0	2
Yes, before someone else bought it	1	0	1	1	3
Yes, other reason	1	0	0	1	2
Yes, not answered	0	0	0	1	1
Not answered	1	1	0	2	4
Total	43	30	32	37	142
	Percent				
No	89	97	97	86	92
Yes, could not rent	5	0	0	0	1
Yes, before someone else bought it	2	0	3	3	2
Yes, other reason	2	0	0	3	1
Yes, not answered	0	0	0	3	1
Not answered	2	3	0	5	3
Total	100	100	100	100	100

Table 33. Distribution of buyers of farm real estate (bona fide sales) according to occupation and by reasons for buying, Kansas, 1936. (all areas)

Occupation of buyer	Reasons for buying										Total
	Replace:		Farm :		Rural :		Tenant:		Invest-:		
	land :	enlarge-:	allot-:	Relative;	residence :	to :	ment :	Other:	answered:	Total	
	sold :	ment :	ment :								
Numbers											
Active farmer	5	62	0	6	5	9	3	4	1	94	
Retired farmer	0	1	0	1	0	0	3	2	0	7	
Housewife	1	1	0	3	2	0	2	0	0	9	
Nonfarm, professional	0	1	0	0	0	0	9	1	0	11	
Nonfarm, laborer-											
clerical	1	2	0	1	4	0	4	0	0	12	
Nonfarm, business	0	0	0	0	0	0	1	2	0	3	
Nonfarm, retired	2	0	0	0	0	0	1	0	0	3	
Both farm and nonfarm	0	1	0	1	0	1	0	0	0	3	
Total	9	67	0	12	11	10	23	9	1	142	
Percent											
Active	56	92	0	50	46	90	13	45	100	66	
Retired farmer	0	1	0	8	0	0	13	22	0	5	
Housewife	11	1	0	26	18	0	9	0	0	6	
Nonfarm, professional	0	1	0	0	0	0	39	11	0	8	
Nonfarm, laborer-											
clerical	11	4	0	8	36	0	18	0	0	9	
Nonfarm, business	0	0	0	0	0	0	4	22	0	2	
Nonfarm, retired	22	0	0	0	0	0	4	0	0	0	
Both farm and nonfarm	0	1	0	8	0	10	0	0	0	2	
Total	100	100	0	100	100	100	100	100	100	100	

Table 34. Average price per acre of tracts of farm real estate sold (bona fide sales) according to reasons for buying and by area, Kansas, 1956.

Reasons for buyings	Area					
	Anderson		Dickinson		Russell-Barton	
	Cases	Price	Cases	Price	Cases	Price
		per acre		per acre		per acre
Replace land sold	6	\$ 66.50	0	\$	2	\$ 64.50
Farm enlargement	16	68.00	16	105.94	12	91.67
Larger allotments	0		0		0	
Relative	2	54.50	5	118.80	5	139.40
Rural residence	7	115.29	0		4	143.25
Tenant to owner	4	64.25	4	97.75	0	
Investment	6	60.50	4	83.00	0	
Other	2	77.50	0		5	111.20
Total	43	N.S.	291	N.S.	21	91.00
						N.S.

1 One case per cell was not used in F-test, therefore one tract bought to replace land sold in Dickinson area, one tract each for Russell-Barton and Logan-Wichita areas bought for tenant to owner, and one tract in Russell-Barton area was not answered and these tracts were not included in the test.

N.S. Not significant.

Table 35. Distribution of tracts of farm real estate sold (bona fide sales) according to extent of bargaining as stated by the buyers by area, Kansas, 1956.

Extent of bargaining	Area				Total
	Anderson	Dickinson	Russell-Barton	Logan-Whites	
	Numbers				
No bargaining	20*	17*	13*	18*	68
Bid lower, paid same	2	1	2	2	7
Bid lower, paid less	18*	11*	12*	13*	54
Auction	1	0	4	1	6
Sealed bid	1	0	1	0	2
Not answered	1	1	0	3	5
Total	43	30	32	37	142
	Percent				
No bargaining	47	57	41	49	48
Bid lower, paid same	5	3	6	5	4
Bid lower, paid less	42	37	38	35	38
Auction	2	0	12	3	4
Sealed bid	2	0	3	2	2
Not answered	2	3	0	8	4
Total	100	100	100	100	100
* Included in χ^2 test	$\chi^2 = .5788$	$.7548$	$.90$		

Table 36. Average price per acre of tracts of farm real estate sold (bona fide sales) according to extent of bargaining and by area, Kansas, 1956.

Extent of bargaining	Area											
	Anderson			Dickinson			Russell-Barton			Logan-Nichita		
	Cases	Price	per acre	Cases	Price	per acre	Cases	Price	per acre	Cases	Price	Total
No price bargaining	20	\$74.55		17	\$101.41		13	\$ 93.31		18	\$59.78	68
Bid lower, paid asking price	2	64.50		0			2	144.00		2	34.50	6
Bid lower, paid less	18	77.39		11	98.91		12	121.25		13	52.85	54
Auction	0			0			4	70.00		0		4
Not answered	0			0			0			3	65.00	3
Total	40	N.S.		28	N.S.		31	N.S.		36	N.S.	135

1 One case per cell was not used in F-test, therefore one tract each for Anderson and Logan-Nichita areas was sold by auction, one tract in Dickinson area the buyer had bid lower, paid same, one tract each for Anderson and Logan-Nichita areas was sold by sealed bids, one tract each for Anderson and Dickinson areas was not answered, and these tracts were not included in the test.

N.S. Not significant

Table 37. Distribution of buyers of farm real estate (bona fide sales) according to estimation of land values made by the buyers, Kansas, 1956.

Buyer estimate land value	Area				Total
	Anderson	Dickinson	Russell-Burton	Logan-Mechita	
Numbers					
No	3*	19*	6*	19*	38
Yes	40*	11*	26*	27*	104
Not answered	0	0	0	0	0
Total	43	30	32	37	142
Percent					
No	7	63	19	27	26
Yes	93	37	81	73	74
Not answered	0	0	0	0	0
Total	100	100	100	100	100
Included in χ^2 test	$\chi^2 = 30.7133$				$P < .005$

Table 36. Distribution of buyers of farm real estate (barn slide sales) according to the information obtained on crop yields as stated by the buyers, Kansas, 1956.

Buyer obtain information on crop yields		Area					Total	
		Anderson	Dickinson	Russell-Sutton	Long-Whites			
		Numbers						
		7*	4*	7*	16*			
Did not try							34	
Tried		2	0	0	0		2	
Found out		29*	24*	22*	17*		92	
Not applicable		4	1	3	4		12	
Not answered		1	1	0	0		2	
Total		43	30	32	37		142	
		Percent						
Did not try			14	22	43		24	
Tried		5	0	0	0		1	
Found out		67	80	69	46		65	
Not applicable		9	3	9	11		8	
Not answered		3	3	0	0		2	
Total		100	100	100	100		100	
* Included in χ^2 test		$\chi^2 = 12.7172$					$.01 < P < .005$	

Table 39. Distribution of buyers of farm real estate (bona fide sales) according to the help received from others as stated by the buyers, Kansas, 1956.

*Help from others	Area				Total
	Anderson	Dickinson	Russell-Barton	Local-Whitta	
	Numbers				
No help					114
Yes, but no help	32**	23**	24**	35	6
Yes, help given	3	3	0	0	22
Total	43	4**	8**	37	142
	Percent				
No help					80
Yes, but no help	74	77	75	95	4
Yes, help given	7	10	0	0	16
Total	100	100	100	100	100

* - Help from others refer to county agents, local banker, or other professional help in determining price of the tract.

** Included in χ^2 test $\chi^2 = 1.3531$ $.50 < P < .75$

Table 40. Distribution of buyers of farm real estate (bona fide sales) according to knowledge of recent sales, as stated by the buyers, Kansas, 1956.

Buyer knew of recent sales	Area			Total		
	Anderson	Dickinson	Russell-Warthen	Long-White	Total	
	Numbers					
Did not know of any	25*	22	12*	21*	80	
Knew, but did not use	13*	1	10*	13*	37	
Yes, none cited	5	4	1	0	10	
Yes, 1 or more	0	3	9	3	15	
Not answered	0	0	0	0	0	
Total	43	30	32	37	142	
	Percent					
Did not know of any	58	73	38	57	56	
Knew, but did not use	30	3	31	35	26	
Yes, none cited	12	14	3	0	7	
Yes, 1 or more	0	10	28	8	11	
Not answered	0	0	0	0	0	
Total	100	100	100	100	100	
* Included in χ^2 test		$\chi^2 = .7904$	$.50 < P < .75$			

Table 41. Distribution of buyers of farm real estate (bona fide sales) according to acquisition of figures on net income as stated by the buyers, Kansas, 1956.

Buyer ask for figures on net income	Area				
	Anderson	Dickinson	Russell-Barton	Logan-Fichta	Total
	Numbers				
Did not ask	31*	22*	25*	28*	106
Could not determine	2	0	0	0	2
Got information	10*	3*	7*	9*	29
Not answered	0	5	0	0	5
Total	43	30	32	37	142
	Percent				
Did not ask	72	73	78	76	75
Could not determine	5	0	0	0	1
Got information	23	10	22	24	20
Not answered	0	17	0	0	4
Total	100	100	100	100	100
* Included in χ^2 test	$\chi^2 = 2.1463$				
	.75 < P < .90				

Table 45. Distribution of tracts of farm real estate sold (bona fide sales) according to extent of bargaining and occupation of buyer, Kansas, 1936. (all areas)

Extent of bargaining	Occupation of buyer										Total
	Active	Retired	House-	Nonfarm	Nonfarm	Nonfarm	Nonfarm	Business	Retired	Nonfarm	
	Farmer	Farmer	Farmer	Farmer	Farmer	Farmer	Farmer	Farmer	Farmer	Farmer	
	Numbers	Numbers	Numbers	Numbers	Numbers	Numbers	Numbers	Numbers	Numbers	Numbers	
No price bargaining	45	4	5	4	5	2	2	1	1	68	
Bid lower, paid less	34	3	3	6	5	1	0	2	2	54	
Other*	15	0	1	1	2	0	1	0	0	20	
Total	94	7	9	11	12	3	3	3	3	142	
	Percent										
No price bargaining	48	57	56	36	42	67	67	33	33	48	
Bid lower, paid less	35	43	33	55	42	33	0	67	67	38	
Other	27	0	11	9	16	0	33	0	0	14	
Total	100	100	100	100	100	100	100	100	100	100	

* Other includes one or more cases of - bid lower, paid asking price; auction; seal bids; and not answered.

Table 46. Distribution of tracts of farm real estate sold (bursa side sales) according to extent of bargaining and reasons for buying, Kansas, 1956. (all areas)

Extent of bargaining	Reason for buying										Total
	Replace : land sold	Para : enlarge	Larger : allot-	Relative: to	Purch : Tenant	Invest- : Other	Invest- : Other	Invest- : Other	Invest- : Other		
	4	38	0	3	4	5	9	5	0	63	
No price bargaining											
Bid lower, paid less	3	17	0	9	4	5	11	4	1	54	
Other	2	12	0	0	3	0	3	0	0	20	
Total	9	67	0	12	11	10	23	9	1	142	
Percent											
No price bargaining	45	58	0	25	36	90	39	96	0	48	
Bid lower, paid less	33	24	0	75	36	90	48	44	100	38	
Other	22	18	0	0	28	0	13	0	0	14	
Total	100	100	0	100	100	100	100	100	100	100	
Other includes bid lower, paid asking price, auction, sealed bid, and not answered											

* Other includes bid lower, paid asking price, auction, sealed bid, and not answered.

Table 47. Distribution of tracts of farm real estate sold (bona fide sales) according to extent of bargaining and location of buyer to land purchased, Kansas, 1956. (all areas)

Extent of bargaining	Location to land purchased						Total
	On	Within	Same or	Elsewhere	Other	Not	
	fewer	5 miles	adjoining	in	state	answered	
	Numbers						
No price bargaining	4	28*	23*	10*	0	3	68
Bid lower, paid less	2	22*	20*	5*	2	3	54
Other**	0	10	8	1	0	1	20
Total	6	60	51	16	2	7	142
	Percent						
No price bargaining	67	47	45	63	0	43	48
Bid lower, paid less	33	36	39	31	100	43	38
Other	0	17	16	6	0	14	14
Total	100	100	100	100	100	100	100

** Other includes bid lower, paid asking price, auction, sealed bid, and not answered.

* Included in X2 test $X^2 = .1712$.90 < P < .95

Table 48. Distribution of buyers of farm real estate (bona fide sales) according to type of agreement on price, Kansas, 1956.

Type of agreement on price	Area				Total
	Anderson	Dickinson	Russell-Barton	Loann-Nichita	
Numbers					
Oral	6*	17*	6*	13*	42
Written	34*	12*	24*	23*	93
Not answered	3	1	2	1	7
Total	43	30	32	37	142
Percent					
Oral	14	57	19	35	30
Written	79	40	75	62	65
Not answered	7	3	6	3	5
Total	100	100	100	100	100
* Included in χ^2 test $\chi^2 = 17.2654$ $P < .005$					

Table 49. Distribution of buyers of farm real estate (bona fide sales) according to method of financing, Kansas, 1956.

Method of financing	Area				
	Anderson	Dickinson	Russell-Barton	Loess-Hills	Total
	Numbers				
All cash	14*	8*	21*	20*	63
Contract	0	0	0	1	1
Assume mortgage	1	1	2	4	8
New mortgage	27*	21*	7*	10*	65
Both, old & new mortgage	1	0	0	1	2
Other	0	0	0	1	1
Trade, included as payment	0	0	0	0	0
Share crop basis	0	0	0	0	0
Not answered	0	0	2	0	2
Total	43	30	32	37	142
	Percent				
All cash	33	27	66	54	44
Contract	0	0	0	3	1
Assume mortgage	2	3	6	10	6
New mortgage	63	70	22	27	46
Both, old & new mortgage	2	0	0	3	1
Other	0	0	0	3	1
Trade, included as payment	0	0	0	0	0
Share crop basis	0	0	0	0	0
Not answered	0	0	6	0	1
Total	100	100	100	100	100
* Included in χ^2 test	$\chi^2 = 20.2604$	$P < .005$			

Table 50. Distribution of buyers of farm real estate (bona fide sales) according to the appraisal obtained, Kansas, 1956.

Appraisal obtained by buyer	Area					Total
	Anderson	Dickinson	Russell-Barton	Long-Whita		
	Numbers					
No, no help	28	23	25	31		107
No, may help	1	1	0	3		5
Yes, not for loan	0	4	3	1		8
Yes, for loan	14	2	3	2		21
No, no comment	0	0	1	0		1
Total	43	30	32	37		142
	Percent					
No, no help	65	77	79	84		75
No, may help	2	3	0	8		4
Yes, not for loan	0	13	9	3		5
Yes, for loan	33	7	9	5		15
No, no comment	0	0	3	0		1
Total	100	100	100	100		100

Table 51. Distribution of tracts of farm real estate sold (barn fide sales) according to acres in tract and distance to town, Kansas, 1956. (all areas)

Acres in tract	Distance to town (miles)					Total
	0 - 4	5 - 9	10 - 14	15 - over		
	Numbers					
0 - 59	10	2	2	0		14
60 - 99	26*	9*	2	2		39
100 - 239	21*	25*	9	1		56
240 - 399	7*	9*	1	0		17
400 - 719	4	4	2	0		10
720 - 1499	1	1	0	2		4
1500 - over	0	0	2	0		2
Total	69	50	18	5		142
	Percent					
0 - 59	15	4	11	0		10
60 - 99	38	18	11	40		28
100 - 239	30	50	50	20		39
240 - 399	10	18	6	0		12
400 - 719	6	8	11	0		7
720 - 1499	1	2	0	40		3
1500 - over	0	0	11	0		1
Total	100	100	100	100		100
* Included in χ^2 test	$\chi^2 = 5.374$	$.05 < P < .10$				

Table 52. Distribution of sellers of farm real estate (bona fide sales) according to owning other land as stated by the buyer, Kansas, 1956.

Sellers own other land*	Area					Total
	Anderson	Dickinson	Russell-Barton	Lower-Richita		
	Numbers					
No		12**	8**	5**		41
Yes	16**	9**	12**	23**		59
Don't know	8	3	4	8		23
Not answered	4	6	8	1		19
Total	43	30	32	37		142
	Percent					
No		40	25	13		29
Yes	37	30	37	62		42
Don't know	19	10	13	22		16
Not answered	9	20	25	3		13
Total	100	100	100	100		100

* This information about the seller was given by the buyer.

** Included in χ^2 test $\chi^2 = 9.9093$

$.01 < P < .025$

Table 53. Distribution of the sellers of farm real estate (bona fide sales) according to if they had farmed the land as stated by the buyer, Kansas, 1956.

Had seller farmed land	Area				Total
	Anderson	Dickinson	Ingalls-Barton	Logan-Whita	
	Numbers				
No	18*	13*	14*	17*	62
Yes, at time of sale	14*	6*	6*	13*	39
Yes, a previous date	3	3	2	3	11
Yes, date not given	3	2	1	0	6
Don't know	7	2	1	3	8
Not answered	3	4	8	1	16
Total	43	30	32	37	142
	Percent				
No	42	43	44	46	44
Yes, at time of sale	33	20	19	35	28
Yes, a previous date	7	10	6	8	8
Yes, date not given	7	7	3	0	4
Don't know	4	7	3	8	6
Not answered	7	13	25	3	10
Total	100	100	100	100	100
* Included in χ^2 test	$\chi^2 = 1.4232$				
	.50 < P < .75				

Table 54. Distribution of sellers of farm real estate (bona fide sales) according to owning nonfarm real estate as stated by the buyers, Kansas, 1956.

Had seller owned nonfarm real estate*	Area				Total
	Anderson	Dickinson	Bussell-Parson	Lecom- Mickita	
	Numbers				
No	18**	9**	7**	7**	35
Yes	10**	10**	13**	10**	43
Don't know	11	6	8	22	47
Not answered	4	5	7	1	17
Total	43	30	32	37	142
	Percent				
No	42	30	13	11	25
Yes	23	34	40	27	30
Don't know	26	20	25	59	33
Not answered	9	16	22	3	12
Total	100	100	100	100	100

* This information concerning the seller was given by the buyer.

** Included in χ^2 test $\chi^2 = 8.4434$.025 < P < .05

Table 55. Distribution of sellers of farm real estate (bona fide sales) according to the distance they lived from land sold as stated by the buyer, Kansas, 1956.

Distance sellers lived from land sold	Area				
	Anderson	Dickinson	Russell-Barton	Loman-Nichita	Total
Numbers					
On land sold	13*	5*	3*	2*	23
Within 5 miles	10*	5*	3*	4*	22
Same or adjacent county	10*	9*	10*	14*	43
Elsewhere in state	5*	2*	7*	12*	26
Out of state	2	4	2	3	11
Not answered	3	5	7	2	17
Total	43	30	32	37	142
Percent					
On land sold	30	17	9	5	16
Within 5 miles	23	17	9	11	15
Same or adjacent county	23	30	32	38	31
Elsewhere in state	12	7	22	33	18
Out of state	5	13	6	8	8
Not answered	7	16	22	5	12
Total	100	100	100	100	100
* Included in χ^2 test	$\chi^2 = 17.7133$	$.025 < P < .05$			

Table 58. Distribution of buyers of farm real estate (borna fide sales) according to owning nonfarm real estate, Kansas, 1956.

	Area				Total
	Own nonfarm real estate	Anderson ; Dickinson	Russell-Barton ; Laman-Michita		
	Numbers				
No	33*	21*	17*	21*	92
Yes, residential property	8*	8*	9*	8*	33
Yes, business property	0	0	3	1	4
Yes, both	0	0	3	6	9
Yes, not answered	0	1	0	1	2
Not answered	2	0	0	0	2
Total	43	30	32	37	142
	Percent				
No	77	70	54	56	65
Yes, residential property	19	27	28	22	23
Yes, business property	0	0	9	3	3
Yes, both	0	0	9	16	7
Yes, not answered	0	3	0	3	1
Not answered	4	0	0	0	1
Total	100	100	100	100	100

* Included in χ^2 test $\chi^2 = 1.9754$.50 < P < .75

Table 59. Distribution of buyers of farm real estate (bona fide sales) according to plans for adding more land to their farms, Kansas, 1956.

Plans for adding more land	Area				Total
	Anderson	Dickinson	Russell-Barton	Longfellow	
	Numbers				
No	7	12	13	12	44
Yes, purchase	9	3	2	8	22
Yes, rent	0	0	1	0	1
Yes, not answered	0	2	0	1	3
Yes, rent & purchase	0	0	0	0	0
Not answered	27	13	16	16	72
Total	43	30	32	37	142
	Percent				
No	16	40	41	32	31
Yes, purchase	21	10	6	22	15
Yes, rent	0	0	3	0	1
Yes, not answered	0	7	0	3	2
Yes, rent & purchase	0	0	0	0	0
Not answered	63	43	50	43	51
Total	100	100	100	100	100

Table 61. Distribution of tracts of farm real estate sold (bona fide sales) according to extent of bargaining and pressure to buy, Kansas, 1956. (all areas)

Extent of bargaining	Pressure to buy		Numbers
	No pressure	Other reasons	
No price bargaining	63	5	68
Bid lower, paid asking price	5	2	7
Bid lower, paid less	52	2	54
Auction	6	0	6
Sealed bids	2	1	3
Not answered	2	2	4
Total	130	12	142
Percent			
No price bargaining	48	46	48
Bid lower, paid asking price	4	18	5
Bid lower, paid less	40	18	38
Auction	5	0	4
Sealed bid	1	9	2
Not answered	2	9	3
Total	100	100	100

Table 62. Distribution of tracts of farm real estate sold (bona fide sales) according to the month of the year the transaction occurred, Kansas, 1956.

Month of year	Anderson	Dickinson	Area	Russell-Barton	Lowry-Melita	Total
	Numbers					
January	6	2		3	2	13
February	4	2		5	4	15
March	6	2		3	5	16
April	4	0		0	7	11
May	0	5		6	1	12
June	5	4		2	1	12
July	2	1		3	0	6
August	5	4		4	6	29
September	3	3		1	1	8
October	3	1		2	4	12
November	2	1		0	0	3
December	2	2		0	2	6
Not answered	1	1		1	4	7
Total	43	30		32	37	142
	Percent					
January	15	7		9	5	9
February	9	7		16	10	11
March	15	7		9	13	12
April	9	0		0	19	8
May	0	17		20	3	8
June	12	13		6	3	8
July	4	3		9	0	4
August	12	13		13	16	13
September	7	10		3	3	6
October	7	10		6	13	8
November	4	3		6	0	4
December	4	7		0	5	4
Not answered	2	3		3	10	5
Total	100	100		100	100	100

A STUDY OF THE FARM
REAL ESTATE MARKET IN KANSAS

by

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B. S., Kansas State College
of Agriculture and Applied Science, 1957

AN ABSTRACT OF A THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Economics and Sociology

KANSAS STATE COLLEGE
OF AGRICULTURE AND APPLIED SCIENCE

1958

Farm real estate values reached a record high in 1957. This was after several years of lower farm incomes. A few states and the U.S.D.A. set about to learn more about the farm real estate market. This study is a part of the effort. Buyers and sellers involved in bona fide transfers in 1956 in Anderson, Dickinson, Russell, Barton, Logan, and Wichita Counties in Kansas were surveyed by personal interview. Only the buyers questionnaires (142) were analyzed for this thesis. The buyers provided some information about the sellers.

The Typical Situation. The modal tract of land transferred was average in quality according to the buyers with an estimated yield for wheat at approximately 20 bushels per acre. The typical tract consisted of 160 acres and was on a gravel road in Eastern Kansas or on a dirt road in Western Kansas. The tract was within nine miles of town with average improvements in the eastern area and no improvements in the western area. The typical tract had more than 50 percent cropland with approximately 30 percent of the cropland in wheat allotment.

The typical seller was an active or a retired farmer who had sold because of health and age, financial pressure, or a chance to sell. The seller lived in town within the same or adjacent county and owned other land than the tract sold and about one-half of the sellers had farmed the land.

The typical buyer was an active farmer of 40 - 50 years of age, living on another farm within five miles of the tract bought. The buyer knew the seller personally and bought the tract on a "quick decision" with little or no evidence of competition from other bidders. The most frequent reason for buying was for farm enlargement. The buyer generally inspected the property, obtained information on crop yields, and then estimated the value of the land

to determine the price. A written agreement generally was used in closing the transaction. The buyer felt that an appraisal was not necessary and would not help to determine the price he would pay. The method of financing most often consisted of new mortgages and all cash transactions. The typical new mortgage was for 30 years at an interest rate of 4.5 percent

Conclusions. This study indicates that the farm real estate market has many imperfections when compared to a market which is considered perfect.

I. The farm real estate market does not perform perfectly because of:

1. Variations in characteristics among tracts of land.

Significant variations existed in kind of road, distance to town, extent of improvements, percent of tract in cropland, and percent of cropland in wheat allotment.

2. Only a small number of transactions resulting in a localized market.

A small number of transactions were involved, which were sold by sellers to persons they knew personally in the same or adjacent county.

3. Imperfect knowledge among buyers and sellers.

Extent of knowledge of tracts being offered for sale was limited. Competition was reduced by apparent lack of bidders, which led to many cases being transferred on a "quick decision" basis.

4. Variations of value judgements and circumstances of buyers and sellers.

Variations exist in reasons for buying, reasons for selling, such as financial pressure.

5. No set pricing procedure in the land market.

Processes used by most buyers were property inspection, information on crop yields, and estimated land values. No set pricing procedure was detected in this study.

- II. The farm real estate markets differ in various parts of Kansas in regard to:

1. Variations in the characteristics of land.

Variations in kind of road, distance to town, extent of improvement, percent of tract in cropland, percent of cropland in wheat allotment were significantly different among the areas and affected prices within the areas.

2. Variations in localization of markets.

There were no significant differences among the areas.

3. Variations in knowledge of individual buyers and sellers.

Only information obtained by buyers on crop yields and estimated land values were significantly different among the areas.

4. Variations in characteristics and circumstances of buyers and sellers.

Variations of residence of sellers, location of buyers, and method of financing were significantly different among areas and affected the price in many cases.

5. Variations in pricing procedures used in determining value of land.

Information on crop yields and estimated land values were significantly different among areas.

The farm real estate market has many imperfections. Additional information and new procedures are needed to correct these imperfections.