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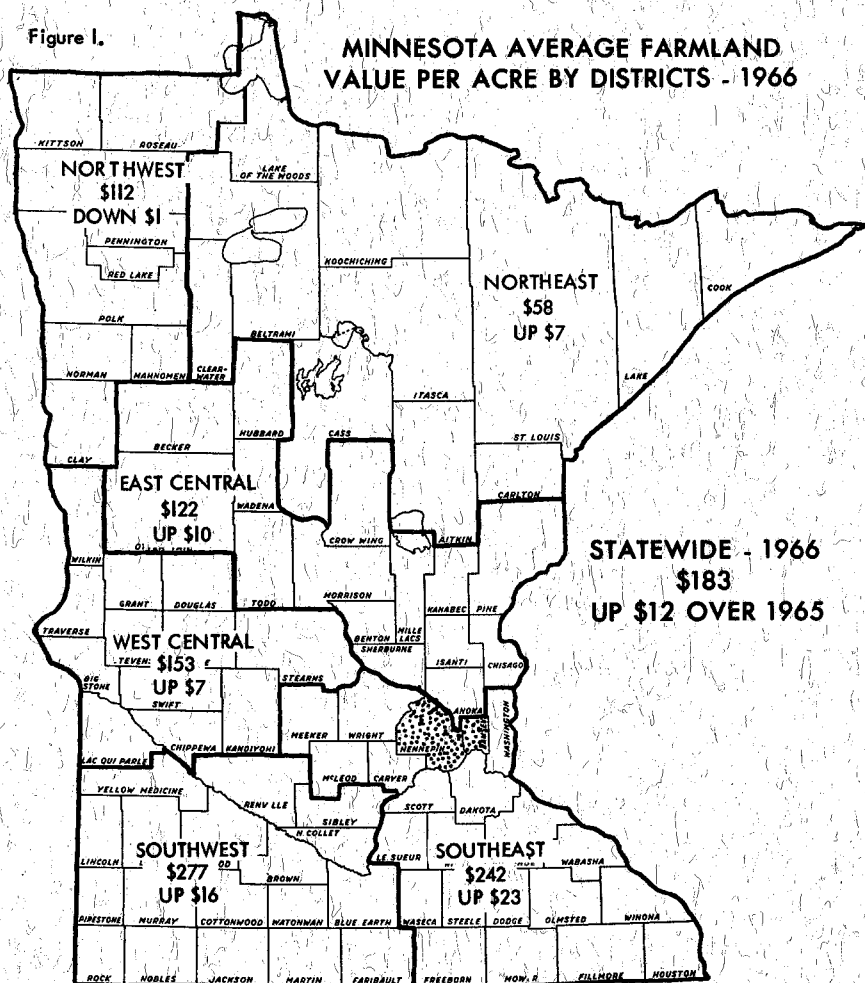
# THE MINNESOTA RURAL Real Estate MARKET 1966

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Figure 1.

# MINNESOTA AVERAGE FARMLAND VALUE PER ACRE BY DISTRICTS - 1966



# The Minnesota Rural Real Estate Market In 1966

BY JOHN C. ENGLISH, JEROME V. BAMBENEK  
AND PHILIP M. RAUP  
MARCH 1967

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# Summary

Farm land values continued to rise through the first half of 1966 in the southern two-thirds of the State. The Statewide average farm land value rose to a record level of 183 dollars per acre.

Activity in the land market increased in the year ending March 15, 1966 and was at a level comparable with the nineteen-fifties.

As in 1965, farm expansion buyers purchased more than a half of all farms reported sold, while operating farmers accounted for less than one-third of sales reported.

Credit financing remains at a high level with less than one out of five farms being sold for cash. Financing is approximately equally divided between conventional mortgage and contract for deed.

# Introduction

Land market data reported in this publication are collected in July of each year by mail questionnaires. These are sent to farm real estate dealers, loan agents, bankers, lawyers and others with specific, first hand knowledge of their local farm real estate situation. In 1966, out of 1280 individuals sampled, questionnaires were returned by 1014 persons located throughout the state: 805 of the returns were complete and form the basis for this report. The period covered is January through June. In the analysis, data from Hennepin and Ramsey counties (Minneapolis and St. Paul) were excluded.

Reporters in this annual survey of the Minnesota farm land market are asked to supply two types of data. They are:

Estimates, in response to the question "What is the current price per acre of the average size farm of average value in your community?" A second question asks for the estimates subdivided according to "good", "average", and "poor" grades of farm land. These estimates are averaged by counties and weighted by the area of land in farms in each county, in computing district average land prices. These estimates form the basis of the reports of year-to-year changes in land prices. The analysis of land prices and trends in Section A of this report is based on these estimates.

Factual data are obtained on farms sold in the reporters' communities. Data include sales prices, characteristics of buyers and sellers, and methods of financing tracts sold for agricultural purposes. These cover actual sales made during the annual survey period of January 1 to June 30. Data on sales are used in Section I only in discussing factors that influence current land market trends, e. g. number of sales. A more detailed analysis of the sales data is presented in **Section II** of the report.

The estimates of farm land value are a more reliable basis for comparing year-to-year trends than are the reported sales prices received in actual sales. This is because of the erratic and occasionally wide variations in the qualities of land and buildings actually sold and in the number of sales that may occur in any given year and locality.

Typically, there are 25 to 50 voluntary farm sales per year in a representative Minnesota county. A reported change in average sales prices may reflect primarily a variation in quality of land or buildings on farms sold during the period studied, or it may actually represent a change in local land prices. It is difficult to correct for variations in land and building quality when interpreting sales prices.

This report frequently mentions three classes of buyers:

operating farmers, who bought farms for owner operation, as complete units; farm expansion buyers, either ongoing operating farmers or investors, who added the land purchased to existing operating units; and investor buyers, who bought tracts to be operated as separate units, by a tenant or manager.

In analyzing farm sales the terms "improved" and "unimproved" farms are used. Unimproved farms are those without buildings or permanent structures. Improved farms are those which contain buildings, irrespective of condition.

The appendix contains farm land price averages from 1910 to the present. It also contains a statistical analyses of the reported farm sales since 1957, showing the range of variation in sale prices within the districts and for the state as a whole.

# Section I: Land Market Trends Based on Reporters' Estimates

## LAND MARKET TRENDS BASED ON REPORTERS' ESTIMATES

### Land Price Trends

Minnesota farm land values increased sharply between 1965 and 1966, from 171 to 183 dollars per acre (see Table 1). This is a rise of 12 dollars per acre or 7 percent. This compares with a rise of 5 dollars per acre or 3 percent in 1965. Figure 2 shows that, after a period of relative stability between 1959 and 1963, farm land values in the State are rising again at about the rate of increase experienced in the period 1956-1959.

When the data are broken down by districts they show that the greatest dollar increases occurred in the two southern districts (Table 1). In the Southeast district, there was a rise of 23 dollars per acre or just over 10 percent, one of the greatest year to year rises recorded in that district since the end of the Second World War. A 16 dollar per acre increase, equivalent to 6 percent, was reported in the Southwest district. Farm land values in that part of the State apparently have broken away from the stability that characterized them in the 1959-1964 period.

Table 1. Estimated Average Prices Per Acre of Farm Land, By District, Minnesota, 1960-1966

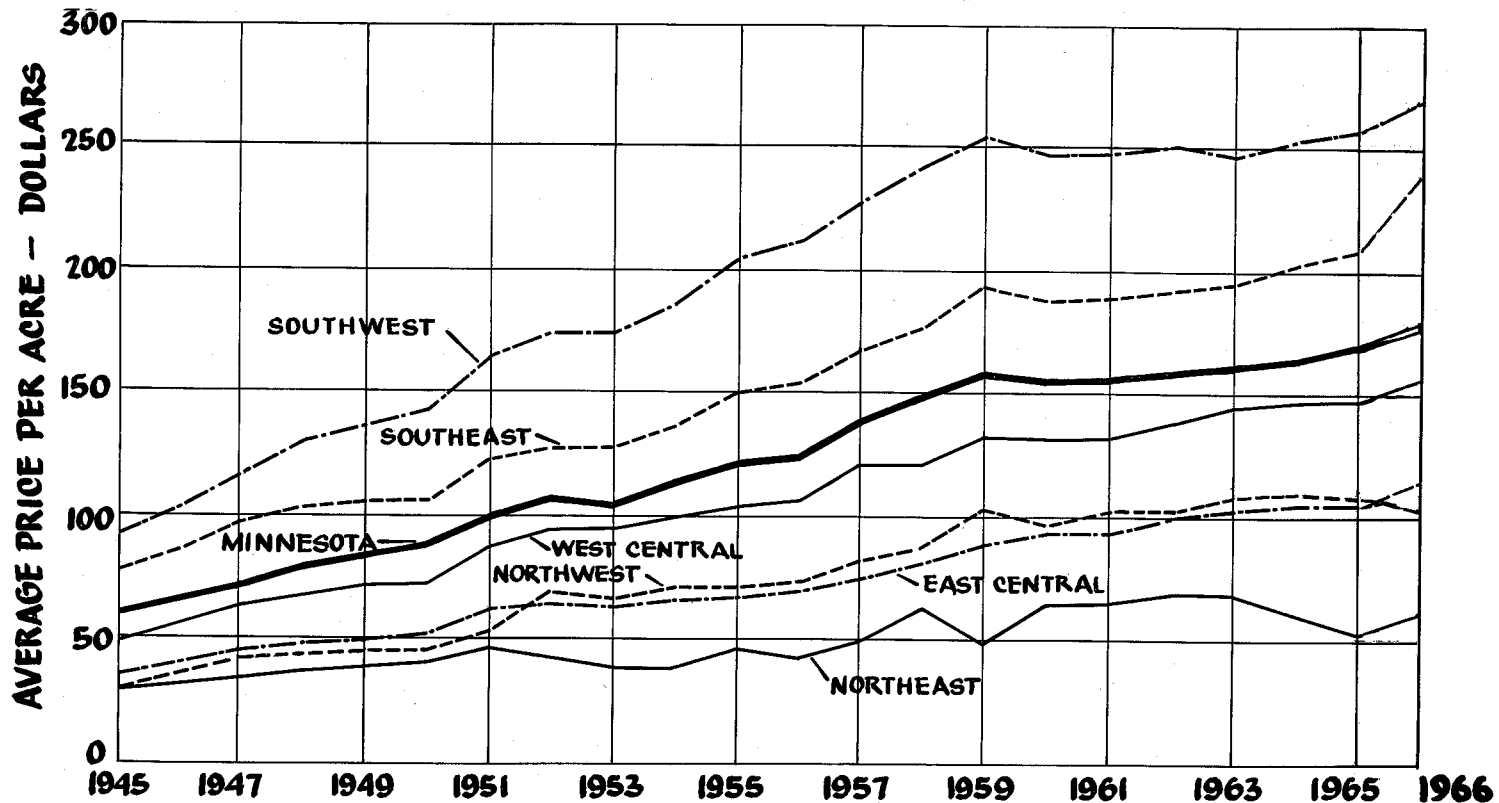
District	1960	1961	1962	1963	1964	1965	1966
----- Dollars -----							
Southeast	188	189	192	194	206	219	242
Southwest	248	247	250	246	252	261	277
West Central	133	133	138	142	145	146	153
East Central	94	95	99	103	111	112	122
Northwest	99	103	104	114	115	113	112
Northeast	64	64	69	68	59	51	58
Minnesota	155	156	169	161	166	171	183

Moderate gains were also recorded in the two central districts of the State. In the West Central district there was a rise of almost 5 percent or 7 dollars per acre while in the East Central district the increase was more rapid at almost nine percent or 10 dollars per acre. Both of these districts have shown a more steady upward trend in values than remaining areas of the State where changes have been more erratic.

The only district which actually recorded a fall in estimated farmland values in 1966 was the Northwest. The decline was small, one dollar per acre, but it followed a similar fall in the previous year. In this part of the State a sharp increase in values reported between 1962 and 1963, was attributed at that



**FIGURE 2 - ESTIMATED AVERAGE VALUE PER ACRE OF  
MINNESOTA FARM LAND BY DISTRICTS 1945-1966**



# CHANGE IN DOLLAR VALUE OF FARMLAND

Percentages, March 1965 to March 1966

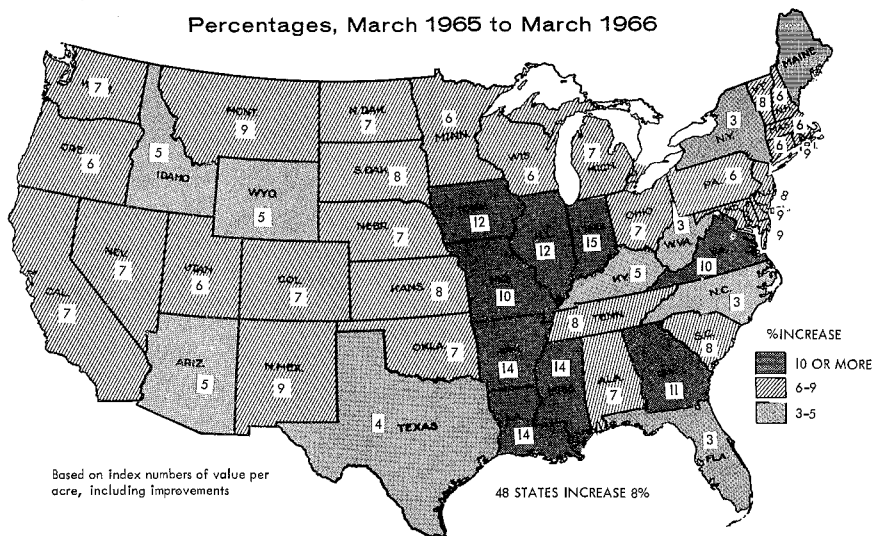


Figure 3

SOURCE - ECONOMICS RESEARCH SERVICE USDA

# PERCENTAGE INCREASE IN VALUE OF FARM REAL ESTATE PER ACRE

1957 - 59 Average to March 1, 1966

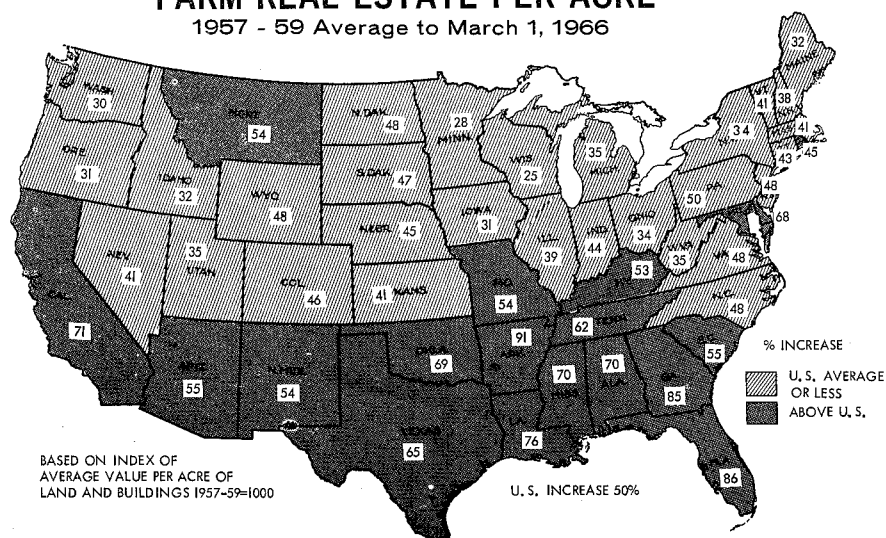


Figure 4

time to the rise in the price of sugar and the expansion of sugar beet acreage following the Cuban crisis. Remarks of respondents to the survey in 1966 suggest that the restrictions on sugar beet acreage and the limitations on wheat acreage under the wheat program are responsible for the decrease in value since 1964. The authorized expansion of wheat acreage for 1967 appears to have had little effect on land prices at the time of the survey in July 1966.

The farmland market in the Northeast district continued to be highly erratic. This year a rise in values of 7 dollars per acre was reported from the low of 51 dollars in 1965. The amount of farmland in the area is small and few sales take place, making estimation of an average value very difficult.

#### Comparison of Trends in Minnesota to Those Nationally:

Rising land prices, especially in urban areas, have been of considerable interest nationally in the last year or two. Figure 3 shows the percentage increase in farmland values by States between March 1965 and March 1966 as reported to the United States Department of Agriculture. For the nation as a whole the rate of increase was 8 percent. Minnesota with a reported increase of 6 percent was slightly below average. The greatest percentage increases took place in the Corn Belt States of Iowa, Illinois, Indiana and Missouri and the Mississippi Delta States of Arkansas, Louisiana and Mississippi. These increases in the Corn Belt were attributed to the high corn yields of 1965 compared with 1964, expectations of further increases, and favorable hog and cattle prices. In the southern States more general phenomena such as general agricultural improvement, improved highways and the expansion of industry to rural areas, were cited as the causal factors.

A longer range picture of land value changes is given by Figure 4, again based upon U.S.D.A. statistics. This shows that the greatest increases in land values over the period 1957-59 to 1966 were in the southern states, with Arkansas again showing the greatest rate of growth, 91 percent. This compares with 50 percent for the country as a whole. The principal Corn Belt States all showed below-average rates of increase for this period, 31 percent in Iowa, 39 percent in Illinois and 44 percent in Indiana. Minnesota was second lowest of all states with a rise of 28 percent. Only Wisconsin was lower with an increase of 25 percent.

#### Changes Within Minnesota from 1957-59 to 1966

Over the same period the estimates obtained for Minnesota in the Farm Real Estate Survey indicate an increase of 25 percent for the State. An interesting picture emerges if the values are broken down by districts as in Table 2. As might be expected, there are substantial differences among the districts of the State.

Table 2. Estimated Average Prices per Acre of Minnesota Farm Land by District, 1957-9 and 1966.

District	Average of 1957-9	1966	Percentage Increase 1957-9 to 1966
	-----Dollars-----		
Southeast	178	242	36
Southwest	242	277	14
West Central	130	153	18
East Central	83	122	26
Northwest	93	112	20
Northeast	57	58	1
Minnesota	147	183	25
United States	104	157	50

The gain in the Southeast district is substantial, and is comparable with those in the more urbanized portion of the North Central region, including Illinois, Indiana, Michigan and Ohio. A similar sharp increase was recorded in the East Central district, where urbanizing influences have also been strong.

In the three predominantly agricultural regions of the state, the Southwest, West Central and Northwest districts, the gains over the period 1957-59 to 1966 have been less than for the State as a whole. This is most noticeable in the case of the Southwest district, containing the highest valued farm land in the State, where estimated gains were only just over 14 percent. This contrasts sharply with surrounding states of Iowa, S. Dakota and Nebraska, where increases of 31, 47 and 45 percent respectively were recorded.

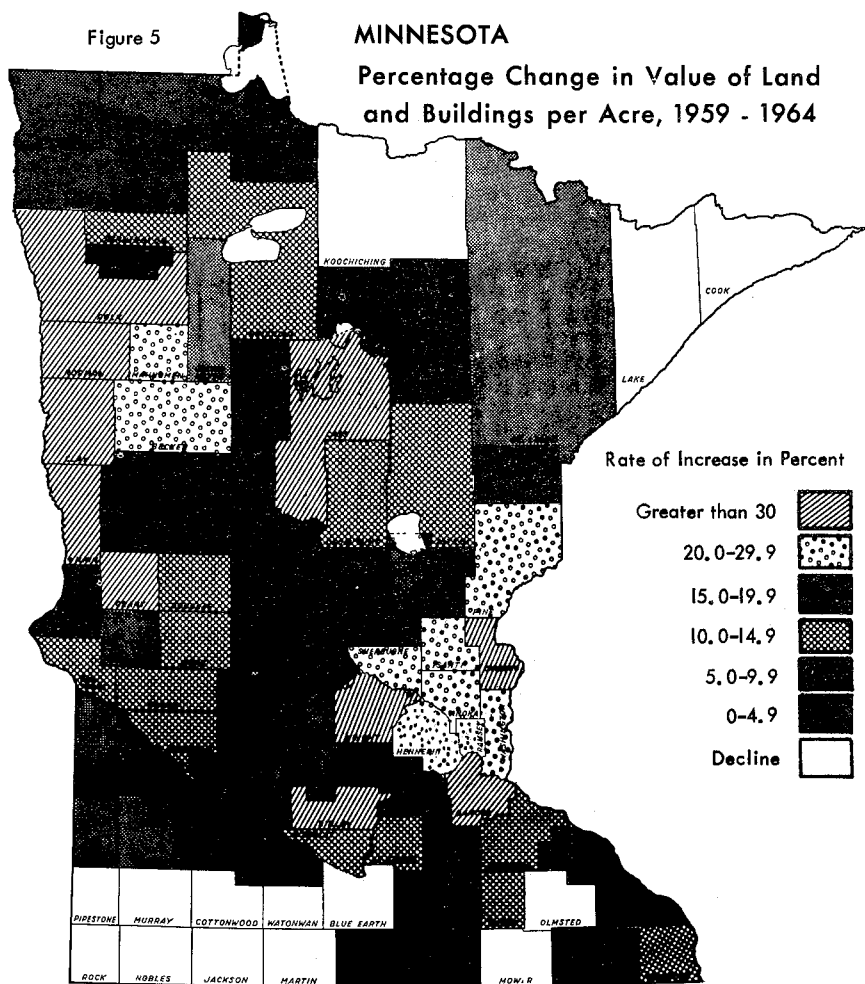
#### Comparison of Changes in Minnesota and Iowa.

In order to investigate this apparent contradiction further, estimated county average land values were obtained from the Census of Agriculture for Minnesota and Iowa for the years 1959 and 1964. Figures 5 and 6 show the percentage change in the estimated land values in this period for each county in the two States. For a number of counties in Southwestern Minnesota it can be seen from Figure 5 that the estimated values actually fell, supporting the results of the annual Minnesota survey which show that for the Southwest district as a whole estimated land values stood still between 1959 and 1964 (see Figure 2). When we turn to Iowa a somewhat similar picture emerges. The part of the State most comparable with southwestern Minnesota is the northwestern quarter. In that area land values declined in only three counties, but in the majority of the remaining counties gains were modest, being less than 5 percent. In general the greatest proportionate gains in Iowa were in the south and east, the poorer farming areas of that State.

Figure 5

# MINNESOTA

Percentage Change in Value of Land  
and Buildings per Acre, 1959 - 1964



Data from U. S. Census of Agriculture 1964

IOWA Percentage Change in Value of Land and Buildings per Acre, 1959 -1964



### Why did this Pattern Occur?

A possible explanation of this slow increase in land values in these high value areas may be given. Farm income was high in the early 1950's following the Korean War. Falling prices and steadily increasing yields coincided in the mid 1950's with the introduction of larger scale machinery which intensified the pressures for farm enlargement, pushing farm land prices steadily upwards (see Figure 2). By 1959 this process had been largely completed. The lower farm commodity prices of the previous years had reduced the ability of farmers to finance further land purchases. Rapid increases in corn yields since 1961 and higher farm commodity prices have combined to improve the farm income position and provide the impetus for the rise in values which began in 1964 and is continuing at present. In the dairy and general farming districts, mechanization and increasing corn yields have had a less dramatic effect and land prices have increased more steadily over the period.

Further evidence of a definite upturn in the land market is given by the increased activity in the year ending March 31, 1966 as reported by the Department of Agriculture (see Table 3). Voluntary sales in that year were at a level of 35.5 per 1000 farms. This is the highest rate of turnover since 1958 and 1959, which, as we have seen earlier in this report, was a period of rapidly rising land prices. Total transfers in 1965-66 were 52.5 per 1000 farms, again the highest level since the late nineteen-fifties.

Table 3. Estimated Number of Farm Title Transfers per Thousand Farms, by Methods of Transfer, Year ending March 15th, Minnesota, 1955-1966.

Year	Voluntary Sales	Forced Sales (Foreclosures Tax Sales etc.)	Inheritance, Gift and All Other Transfers	Total All Classes
1955	32.5	3.0	9.8	45.3
1956	31.1	6.4	12.9	50.4
1957	34.0	2.8	15.6	52.4
1958	35.6	3.5	14.7	53.8
1959	39.7	2.6	11.4	53.7
1960	34.5	2.7	9.9	47.1
1961	29.0	2.6	7.7	39.3
1962	29.3	1.9	10.4	41.6
1963	24.1	1.9	10.1	36.1
1964	30.6	3.2	12.4	46.2
1965	29.7	2.8	10.6	43.1
1966	35.5	2.1	14.9	52.5

Source: Compiled from the annual estimates, published in "Farm Real Estate Market Developments", U.S. Department of Agriculture.

The combination of steadily increasing corn yields, increasing demands for farm products and increased urban demands for land indicate that the upward trend in land values can be expected to continue.



## Section II: County Land Value Averages

Data collected in the 1964 U.S. Census of Agriculture have recently become available. The second column of Table 14 presents the county average farm land values as reported for that year grouped by land market districts. These estimates are obtained by the Census from a 20 percent sample of farmers. The Bureau of the Census recognizes that the majority of farms have not changed hands for many years. As a result, farmers may not have a clear basis for estimating land value. Operators who would not sell their farms under any circumstances may report an unreasonably high value. On the other hand, farmers who acquired their farms during a period of low prices may underestimate present values. In spite of these limitations, the U.S. Census of Agriculture, taken every 5 years, has been in the past the only systematic source of statewide land values, by counties.

It has not been the practice in this annual farm real estate survey to present averages of brokers' estimates on a county-by-county basis for a single year. For some counties the number of estimates received in any 1 year is low and the average of these estimates would, therefore, not be highly reliable. In the 1962 Farm Real Estate Market Report<sup>a</sup> the averages of the estimates for the 3 year period 1959-61 were presented by county as were the averages of reported sales for the same period. These were compared with the values reported in the 1959 Census of Agriculture.

A similar comparison has been repeated using the 1964 Census of Agriculture figures. The first column of Table 4 shows the average of brokers' estimates of land values by county, for the 3 year period 1963-65. This straddles the census year of 1964 and provides the best comparison with the census estimates, which were collected in the fall of 1964. The brokers' estimates are based upon estimated value as of July 1 in each year. For further comparison, the third columns of Table 4 shows the average price per acre of sales reported in each county in the period 1963-65. These sales cover the period January 1 - June 30 for each of the 3 years. By combining the data from 3 years, centered on the year of the census, reliable estimates of value are obtained which are comparable with the estimates obtained in the Census of Agriculture.

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<sup>a</sup> Dale O. Solum and Philip M. Raup, The Minnesota Farm Real Estate Market in 1962. Report No. 524. February 1963, Department of Agricultural Economics, Institute of Agriculture, University of Minnesota.

Table 4. Comparison of Dollar Value per Acre As Shown by Three Different Sources of County Land Value Data.

County	Brokers Estimates Average of 1963-65	U.S. Census of Agriculture 1964	Reported Sales Average of 1963-65
------(Dollars)-----			
Southeast District			
Carver	271	320	285
Dakota	279	363	207
Dodge	238	258	210
Fillmore	177	161	166
Freeborn	272	286	286
Goodhue	186	185	180
Houston	134	117	95
LeSueur	277	254	244
McLeod	251	262	282
Meeker	191	191	189
Mower	230	227	229
Olmsted	202	211	212
Rice	222	233	224
Scott	286	273	252
Steele	264	260	262
Wabasha	169	138	157
Waseca	285	274	276
Washington	272	321	262
Winona	182	135	137
Wright	220	219	282
Southwest District			
Blue Earth	311	292	320
Brown	299	273	291
Cottonwood	240	240	227
Faribault	332	312	359
Jackson	299	266	285
Lincoln	159	153	148
Lyon	200	199	196
Martin	295	285	313
Murray	219	198	193
Nicollet	283	289	308
Nobles	252	237	223
Pipestone	207	189	188
Redwood	246	242	229
Renville	266	239	253
Rock	251	238	218
Sibley	268	312	246
Watsonwan	271	355	250
Yellow Medicine	203	189	196

Table 4 (cont.)

County	Brokers Estimates Average of 1963-65	U.S. Census of Agriculture 1964	Reported Sales Average of 1963-65
------(Dollars)-----			
West Central District			
Big Stone	135	123	131
Chippewa	180	183	182
Douglas	130	126	95
Grant	159	159	105
Kandiyohi	187	169	181
Lac qui Parle	159	155	141
Pope	127	115	105
Stearns	140	139	123
Stevens	163	155	164
Swift	182	150	170
Traverse	118	136	133
Wilkin	148	134	136
East Central District			
Anoka	- a/	200	- b/
Becker	99	80	81
Benton	111	118	95
Chisago	131	135	156
Crow Wing	62	62	-
Hubbard	57	49	-
Isanti	144	114	96
Kanabec	78	76	58
Mille Lacs	85	107	89
Morrison	80	85	107
Otter Tail	104	94	105
Pine	66	66	65
Sherburne	103	109	-
Todd	101	98	82
Wadena	58	55	57
Northwest District			
Clay	179	146	125
Kittson	104	93	-
Mahnomen	90	73	-
Marshall	116	97	-
Norman	133	118	118
Pennington	73	68	54
Polk	147	138	123
Red Lake	-	75	-
Roseau	59	56	50

a/ Less than 10 estimates given in period.

b/ Less than 15 sales reported in period.

Table 4. (cont.)

County	Brokers Estimates Average of 1963-65	U.S. Census of Agriculture 1964	Reported Sales Average of 1963-65
------(Dollars)-----			
Northeast District			
Aitkin	55	63	-
Beltrami	-	49	-
Carlton	-	68	-
Cass	34	51	45
Clearwater	-	46	-
Cook	-	65	-
Itasca	35	66	-
Koochiching	43	48	-
Lake	56	91	-
Lake of the Woods	-	48	-
St. Louis	54	77	48

If in a county less than 10 estimates were given in the three year period, or less than 15 sales reported, the estimated value has not been presented. Thus one or more of the three values is lacking in 19 of the 87 counties of the State.

A comparison of these three sources of data is given in Table 5 in terms of the frequency with which any one of the three estimates was high, low, or in an intermediate position in a given county.

Table 5. Ranking of the Three Land Value Averages, 68 Counties<sup>a</sup>, Minnesota, 1963-65.

Rank	Sources of Land Value Data		
	Reporters' Estimates	Census Average	Reported Sales
(Number of Counties)			
Highest	43	13	12
Medium	13	32	23
Lowest	12	23	33

<sup>a</sup> Data omitted for 19 counties.

In 43 of the 68 counties for which complete data are available, the value as estimated by the real estate brokers in the annual farm real estate survey was the highest of the three figures. The prices realized in actual sales provided the lowest estimate in 33 counties or about half the total, while in 32 counties (again about one half) the census estimate formed

the intermediate value.

In the majority of counties the prices realized in the reported sales were below the average of the estimated values. This was also found in the 1959-61 comparison and seems to indicate that in many counties the poorer farms are over-represented in farm sales. This is consistent with the widely held opinion that the poorer farms change hands more frequently than the better ones.

On the other hand, in some of the higher value counties, the sales prices tended to be above estimated values. For instance, in Blue Earth, Faribault, Martin and Waseca counties the average sales price was \$10 per acre or more above the average of the two estimated values. This may indicate the existence of a systematic degree of conservatism on the part of those making the estimates.

The differences between census estimates and the values obtained in the Farm Real Estate Survey are greatest in the immediate vicinity of the Twin Cities. In Carver, Dakota and Washington counties the census estimate was at least \$35 per acre higher than the other two values. In the Farm Real Estate Survey farm sales for agricultural purposes only have been included whereas the census estimates obtained from farm operators undoubtedly included estimated values of land based upon potential urban use. These estimates by landowners near a large urban center may be somewhat optimistic, reflecting perhaps, expectations upon a reported sale for urban use nearer the developed center.

In a few counties land values vary widely and the reported average values may not be highly representative. For example, in counties in southeastern Minnesota bordering the Mississippi River, land adjacent to the river is often steeply sloping and of low value while the higher land away from the river is of much greater value. Conversely, in the Red River Valley counties, land values decrease fairly rapidly to the east as one moves out of the valley bottom.

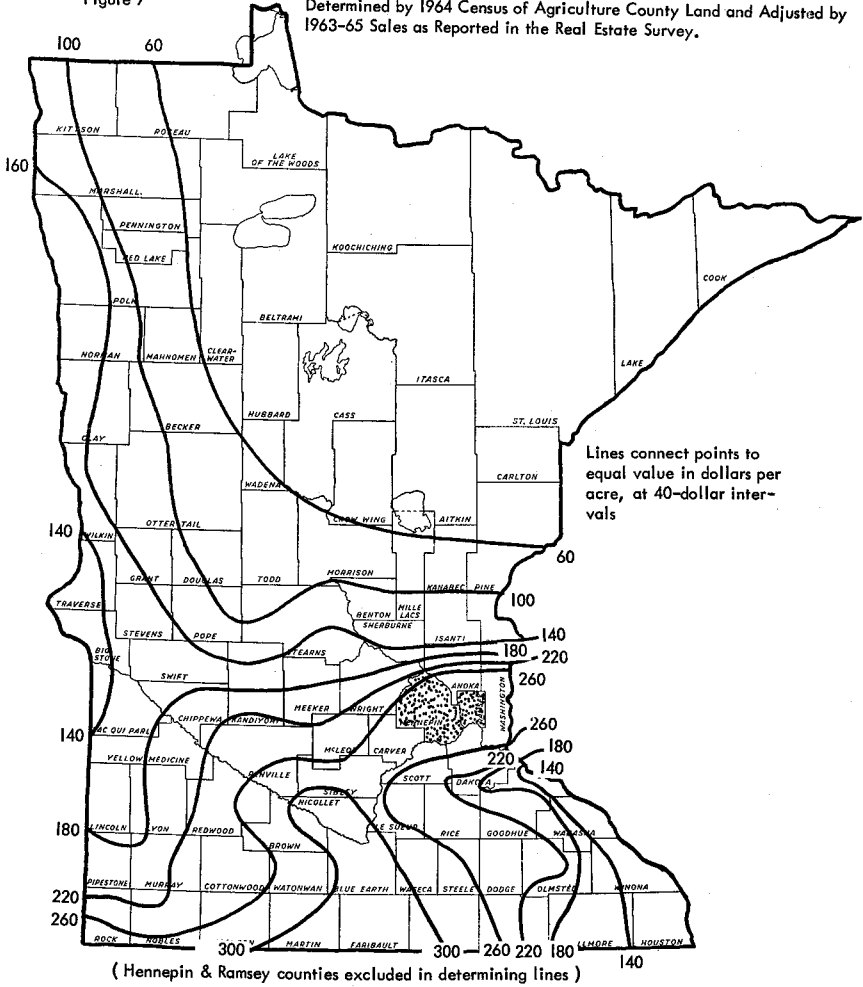
#### A "Contour Map" of Land Values

One of the most frequently used types of map is the contoured map illustrating the physical features of an area. The contour lines on such a map join the points which lie at some stated elevation, eg. 1000 feet above sea level. Similar maps have been drawn showing variations in rainfall, growing season and other features. A map of this type has been drawn here to illustrate the way in which land values vary within the State of Minnesota (see figure 7). The contour lines on this map connect points of equal value per acre at 40 dollar intervals. These lines were obtained by using county land value estimates from the 1964 Census of Agriculture, adjusted by the use of sales data obtained from the Minnesota farm real estate surveys of 1963-65.

# CONTOUR MAP OF MINNESOTA LAND VALUES - 1964

Figure 7

Determined by 1964 Census of Agriculture County Land and Adjusted by 1963-65 Sales as Reported in the Real Estate Survey.

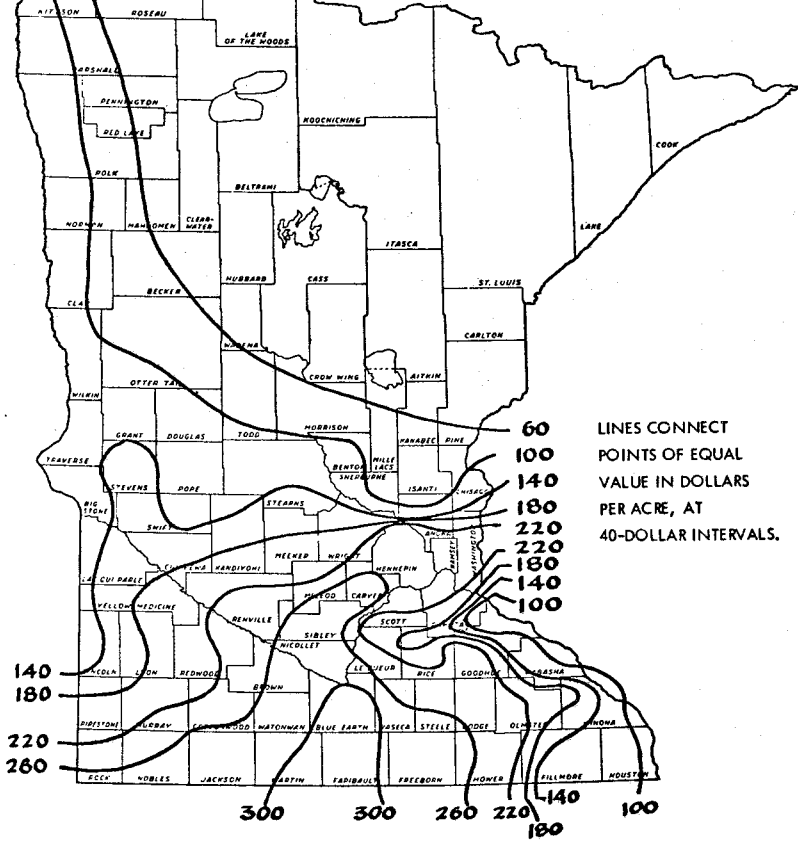


**Figure 8 CONTOUR MAP OF MINNESOTA LAND VALUES**

100 60

DETERMINED BY 1958 CENSUS OF AGRICULTURE COUNTY LAND VALUES AND ADJUSTED BY 1959-1962 SALES AS REPORTED IN THE REAL ESTATE SURVEY.

(HENNEPIN AND RAMSEY COUNTIES EXCLUDED IN DETERMINING LINES.)



These sales data were reported by township, thus making it possible to determine more accurately where, within a county, the "contour" line should pass. A similar map was prepared in 1962 based upon 1959 census data. This is reproduced in Figure 8 for purposes of comparison.

A number of salient features are apparent from both of these maps. Notice the sharp gradient in values around the Twin City Metropolitan area. This results from urban demands for farm land, which have a distorting effect on the general pattern of land values that decline as one moves north and east through the State. The sharp graduation in values along the Mississippi River below the Twin Cities shows up clearly on both maps. In rural counties bordering the Mississippi a few miles can have a marked effect upon land values. In these areas the task of the valuer or appraiser of farm land is more than usually difficult.

When the maps for 1959 and 1964 are compared two principal changes stand out. The apparent decline or stagnation in values which occurred in parts of southwestern Minnesota shows up as a movement to the southeast of the \$220 and \$260 contour lines in Nobles, Jackson, Cottonwood and Murray counties. On the other hand, a general increase in values took place in the Upper Minnesota and Red River Valleys. In 1964 the \$140 contour line extended northwards through Grant and Wilkin counties into the Red River Valley to north of Grand Forks. Land values also increased generally in the southeastern part of the State with the contour lines tending to shift to the northeast. The area of highest value land in the State (above \$300 per acre) moved slightly northward to encompass a large part of Nicollet county as well as most of Blue Earth and Faribault counties.



### Section III: Analysis of Reported Sales

The first section of this report discussed levels of estimated land values in the districts within the State of Minnesota. It also showed trends over recent years, making some comparison with the remainder of the continental United States. The second section presented county data and compared contour maps of Minnesota farm land values for two reporting periods, 1959-61 and 1963-65. This third section of the report contains an analysis of reported sales. The analysis is based upon land prices received in actual sales, as reported by respondents to the survey. This analysis will concern itself with the reasons for sale of the property, the type and quality of property transferred, the price paid, categories of buyers, and the methods used to finance purchases.

Data for this section are taken from reports of 1,812 sales of farm land occurring in Minnesota between January 1 and June 30, 1966. As in previous years, these sales were predominantly in the southern half of the State. The regional distribution of the sales is indicated in Table 6.

Table 6. Number of Reported Sales and Acreage of Land Sold, by District, Minnesota, January-June 1966.

District	Number of Sales	Number of Acres
Southeast	494	75,423
Southwest	631	113,018
West Central	316	70,633
East Central	209	30,222
Northwest	120	26,062
Northeast	42	12,140
Minnesota	1812	327,498

The Southeast and Southwest districts, in which prices are high in comparison with the remainder of the State, accounted for 1,125 of the 1,812 sales and 188,411 of the 327,498 acres involved in the reported sales. This means that the statewide average of all sales prices is not truly representative. It should be emphasized that this statewide average does not constitute an estimate of the average value of farm real estate in Minnesota. Farms actually sold are not necessarily representative of the complete range of farm land quality.

A sharp increase in estimated farm land values was noted at the beginning of this report. A similar increase took place in the prices paid for farm land in the sales reported for the first half of 1966. (See Table 7)

Table 7. Average Reported Sales Price Per Acre for Farm Land By District Minnesota, 1960-1966.

District	1960	1961	1962	1963	1964	1965	1966
	-----Dollars-----						
Southeast	189	189	196	214	213	213	253
Southwest	240	226	229	222	234	233	260
West Central	136	130	140	136	150	133	164
East Central	69	89	76	86	86	96	113
Northwest	101	92	74	109	104	106	103
Northeast	50	38	30	48	52	40	31
Minnesota	161	165	161	168	178	178	203

Sales prices increased most sharply in the Southeast district, where the average rose by 40 dollars per acre, or almost 19 percent, after being virtually stationary for the previous three years. Rises of 27 dollars per acre (12 percent) in the Southwest district, 31 dollars (23 percent) in the West Central district, and 17 dollars (18 percent) in the East Central district were also the greatest recorded in any recent year. These rises indicate a definite upward trend in land prices in the southern two-thirds of the State. In the Northwest district sale prices fell slightly, as did estimated values, while the market in the Northeast continued to be erratic.

When prices received in actual sales are compared with land value estimates made by real estate brokers a number of characteristic features have emerged over the years. In the Southwest and Northwest districts prices received in actual sales have consistently been below the average estimated farm land values. This suggests that the better lands in these districts do not come onto the open market as frequently as poorer lands, being transferred by inheritance or other intra-family transfers, or being held longer by each farm owner.

Table 8. Comparison of Actual Sales Prices and Reporters' Estimates of Average Values per Acre, by District, Minnesota, 1964-66.

Districts	1964		1965		1966	
	Sales Estimates		Sales Estimates		Sales Estimates	
	(Dollars)					
Southeast	213	206	213	219	253	242
Southwest	234	252	233	261	260	277
West Central	150	145	133	146	164	153
East Central	86	111	96	112	113	122
Northwest	104	115	106	113	103	112
Northeast	52	59	40	51	31	58
Minnesota	178	166	178	171	204	183

In the east-central district sales prices have also been below estimated values, although both series have been rising steadily. In areas where there is a strong urban demand for farm property expectations of land value increases leap ahead of realized prices in actual sales. The one to two year lag of sales prices behind estimated values probably is a reflection of this.

In the Southeast and West-Central districts the two sets of values have moved somewhat erratically with respect to one another with no real tendency for one set of values to be higher or lower. In both these districts the land market has been fairly active and sales have represented a broad range of properties.

#### Reason for Sale

Table 3 indicated that about 3 percent of farms are voluntarily offered for sale in Minnesota in any one year. Why do the owners sell? Table 9 shows that in 1966 the majority of sales were the result of death of the owner or the decision of the owner to retire from farming. These two reasons were relatively most important in the Southwest and Northwest districts, where they accounted for more than two-thirds of all sales. These two districts, conversely, had relatively few sales that could be attributed to a shift by the owner to another job. In the East Central and Northeast districts however, more than one-third of all sales were for this reason. For the State as a whole, there has been virtually no change in the importance of the various reasons for sale between 1965 and 1966.

Table 9. Classification of Farm Land Sales By Reason For Sale, By District, Minnesota, 1966.

District	Death	Reason for Sale		Moved, still farming	Other
		Retirement	Left farm for another job		
----- (percent) -----					
Southeast	18	41	28	13	0
Southwest	28	42	22	7	1
West Central	19	41	31	8	2
East Central	14	38	35	12	0
Northwest	32	35	24	7	2
Northeast	8	34	50	8	0
Minnesota	22	40	27	10	1
Minnesota 1965	22	39	26	11	2

### Price Variations for Land with and without Buildings

Eighty-two percent of all sales reported in the 1966 survey were of farm-land with a set of buildings. The proportion of sales of unimproved land was greatest in the Northwest district where only 64 percent of tracts included buildings. At the other extreme 84 percent of all tracts sold in the Southeast district included buildings (see Table 10). As might be expected, tracts sold without buildings were smaller than those which included a set of buildings. In most districts the improved tracts were about 50 percent larger than unimproved tracts.

Table 10. Unimproved Tracts as a Percent of all Sales, and Average Size of Improved and Unimproved Tracts, by District, Minnesota, 1966.

District	Unimproved Tracts as a Percent of All Sales	Average Size of Tract	
		Improved	Unimproved
	(Percent)	(Acres)	
Southeast	16	164	94
Southwest	18	193	117
West Central	18	240	165
East Central	18	158	97
Northwest	36	225	203
Northeast	23	188	777
Minnesota	18	190	144

Prices of both improved and unimproved tracts advanced in all four southern districts of the State (see Table 11). In the Northwest district the average price of unimproved tracts fell from 144 to 115 dollars per acre, while the price of improved land rose from 91 to 97 dollars per acre. As in previous years, a premium continues to be paid for land without buildings in the Northwest. It is, however, lower than in previous years. (See Table 12.)

Table 11. Average Sales Price Per Acre of Improved and Unimproved Farm Land, by District, Minnesota, 1962-66

District	Improved Land					Unimproved Land				
	1962	1963	1964	1965	1966	1962	1963	1964	1965	1966
	------(percent)-----									
Southeast	198	216	214	219	253	156	198	210	199	255
Southwest	232	228	238	234	264	203	176	211	228	232
West Central	143	138	155	137	167	117	109	122	114	151
East Central	77	88	89	109	119	79	68	48	49	72
Northwest	82	100	96	91	97	55	128	133	144	115
Northeast	40	52	46	40	51	18	20	NA	37	12
Minnesota	166	172	181	183	211	128	144	160	165	158

Table 12. Average Sales Price of Unimproved Farm Land as a Percent of that of Improved Land, by District, Minnesota, 1961-1966.

District	1961	1962	1963	1964	1965	1966
	------(percent)-----					
Southeast	76	79	91	98	91	101
Southwest	83	87	77	89	97	88
West Central	83	82	79	79	83	90
East Central	88	89	55	55	56	60
Northwest	145	68	128	140	157	119
Northeast	80	44	38	NA	92	23
Minnesota	82	77	81	88	89	75

In the Southeast, Southwest and West Central districts prices for unimproved land were equal to or slightly below those for improved land. The extreme fluctuations in the Northeast district are a reflection of the narrowness of the land market there. The low proportionate value of unimproved land in 1966 was a result of a few large sales of unimproved land at very low prices.

The 1965 Farm Real Estate Market Report <sup>a</sup> showed that those buying land for the expansion of existing farms were much more likely to purchase land without buildings than were investor buyers or those who intended to operate the tracts as single farm units. In Table 13 the opposite side of the picture is examined. The sales of improved and unimproved land are broken down, on a percentage basis, by the reason for which the tract was sold. The results are somewhat inconclusive. The clearest difference occurs in the case of those selling for the purpose of retirement. For improved land, 43 percent of sales were for this reason compared to only 30 percent of unimproved land sales. At first glance this may seem contrary to expectations if it is assumed that a farmer contemplating retirement might sell off a portion of his land and continue to live in his home. The figures suggest that farmers nearing retirement are more likely to sell the house as well and perhaps move into town or alternatively rent out the land.

Table 13. Type of Tract Sold by Reason for Sale, by District, Minnesota 1966.

District	Improved Land				Unimproved Land			
	Death	Retire- ment	Moved to another job	Moved still farming	Death	Retire- ment	Moved to another job	Moved still farming
	(percent)							
Southeast	17	43	28	12	23	29	31	20
Southwest	29	44	21	6	27	33	29	12
West Central	16	43	32	9	34	36	27	2
East Central	16	40	34	10	7	29	47	23
Northwest	25	43	24	8	49	20	26	6
Northeast	10	37	43	10	0	17	83	0
Minnesota	21	43	27	9	27	30	31	12

### Type of Buyer

The past several reports on the Minnesota farm land market have drawn attention to the increasing proportion of sales to farm expansion buyers. Table 14 indicates that this upward trend halted in 1966. Farm expansion buyers were more important in 1966 than in 1965 in only two districts, West Central and East Central.

<sup>a</sup> John C. English and Philip M. Raup. The Minnesota Farm Real Estate Market in 1965. Report No. 529, March 1966, Department of Agricultural Economics, Institute of Agriculture, University of Minnesota.

Table 14. Percent of Tracts Purchased by Type of Buyer, by Districts, Minnesota. 1964-1966.

District	Operating Farmer			Farm-Expansion Buyer			Investor Buyer		
	1964	1965	1966	1964	1965	1966	1964	1965	1966
	----- (percent) -----								
Southeast	47	31	30	37	49	45	16	21	25
Southwest	31	22	27	58	68	64	11	10	8
West Central	42	28	26	47	57	62	11	15	13
East Central	61	45	39	22	26	31	17	30	30
Northwest	19	23	22	73	72	67	8	6	11
Northeast	55	42	39	17	39	27	28	19	34
Minnesota	42	29	29	45	55	54	13	16	17

The proportion of sales to buyers who intended to farm the tract as a single unit fell dramatically from 42 percent in 1964 to 29 percent in 1965. This trend continued in 1966, when the same percent of sales reported were to operating farmers. This suggests that an underlying change in the land market has taken place. In terms of volume of transactions, the dominant element in the market continues to be the expansion buyers. In 1966 they accounted for more than half of all sales. Operating farmers accounted for a third or less of the total in all districts except the Northeast and East Central.

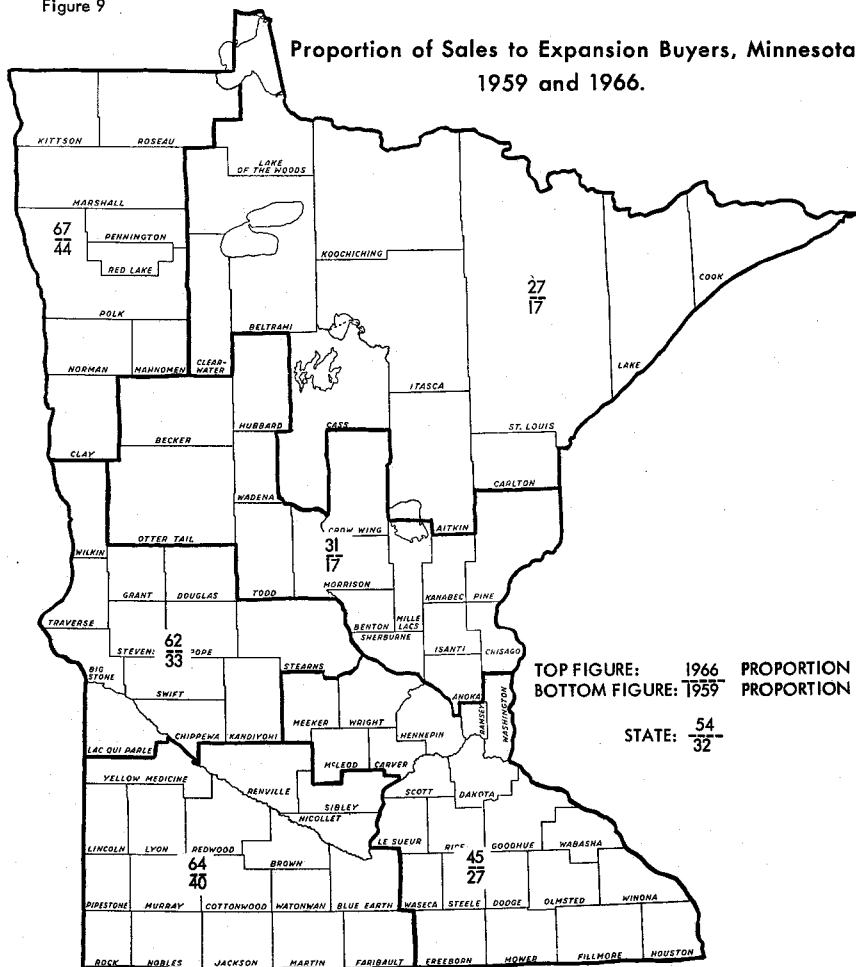
The general nature of this trend towards purchases for expansion purposes is illustrated by Figure 9. There has been a marked increase in such sales in all districts amounting almost to a doubling in the East and West Central districts. The associated increase in average size of farm is revealed in figures obtained from the 1964 Census of Agriculture. Figure 10 shows the percentage increase in the average size of farm for each county between 1959 and 1964. The greatest increases have occurred in the crop farming districts of the Red River Valley, the West Central district, and the South Central corn-soybean area on the Iowa border. Increases in farm size have been smallest in the predominantly dairying region running approximately N. W. - S. E. from Long Prairie to Rochester, with the livestock region in southwestern and southeastern Minnesota in an intermediate position. The advent of larger farm machinery has made additional land highly profitable to cash-crop farmers, while technological changes in dairying have focused on increasing output per cow and feed efficiency. Although herd sizes have been increasing, improved forage production has apparently enabled farmers to maintain these larger numbers with little increase in acreage.

#### Prices Paid by Different Types of Buyers

In all districts of the State the prices paid by expansion buyers in 1966 were higher than those paid by operating farmers

Figure 9

# Proportion of Sales to Expansion Buyers, Minnesota 1959 and 1966.





Map of Minnesota showing the distribution of the number of lakes per township. The map is divided into townships, each labeled with its name. The distribution is categorized into four levels: Greater than 13 (cross-hatched), 9-12.9 (vertical lines), 5-8.9 (horizontal lines), and Less than 5 (white). The legend on the right side of the map provides the key for these categories. The map shows a high concentration of lakes in the northern and central parts of the state, particularly in the Lake Superior and Lake Michigan watersheds.

Legend:

- GREATER THAN 13
- 9 - 12.9
- 5 - 8.9
- LESS THAN 5

Data from U. S. Census of Agriculture 1964  
Hennepin, Ramsey and Cook Counties excluded.

(see Table 15). This differential was greatest in the Northwest district, where sales to expansion buyers are relatively most important. In that district expansion buyers are more heavily concentrated in the Red River Valley itself, where the more productive soils of the district are found. In the remainder of the State the differences between these two groups are not large, ranging from 5 dollars per acre (2 percent) in the Southeast to 15 dollars per acre (6 percent) in the Southwest.

Table 15. Average Sales Price per Acre Paid by Type of Buyer, by District, Minnesota, 1965 and 1966.

District	Operating Farmer		Expansion Buyer		Investor Buyer	
	1965	1966	1965	1966	1965	1966
----- (Dollars) -----						
Southeast	216	236	211	241	214	299
Southwest	211	252	236	267	264	242
West Central	144	161	142	168	104	161
East Central	108	109	77	115	125	119
Northwest	91	94	121	110	71	80
Northeast	48	24	25	42	56	48
Minnesota	171	187	191	211	177	212

### Methods of Financing

The proportion of farm sales financed by some form of credit has been rising slowly in Minnesota. In 1966 only 17 percent of the sales were for cash. As land prices increase it become almost impossible for an individual to have sufficient cash resources to pay immediately for a tract of land of more than minimal size.

The most common form of financing in the land market in Minnesota is the installment land contract. Some 43 percent of sales were finances in this way compared to 41 percent by mortgages (see Table 16). This represent an increase of 6 percentage points over 1965 in the use of mortgage financing. Mortgage sales were most prominent in 1966 in the Southwest, West Central and Northwest districts. These areas are those in which expansion-buying is most significant. It was pointed out in the 1965 report that expansion-buyers were the principle users of mortgage-financing, probably because of their better equity position.

Table 16. Classification of Sales Reported, by Method of Financing, by District, Minnesota, 1963-65.

Districts	Cash Sales			Mortgage Sales			Contract for Deed		
	1964	1965	1966	1964	1965	1966	1964	1965	1966
	----- (percent) -----								
Southeast	19	17	17	29	33	35	52	50	48
Southwest	17	15	14	42	39	44	41	45	43
West Central	16	22	14	46	41	44	38	37	42
East Central	30	21	22	30	30	39	40	49	39
Northwest	24	29	23	31	27	51	45	44	25
Northeast	36	29	37	37	3	19	27	68	44
Minnesota	20	19	17	36	35	41	44	46	43

The easier credit terms commonly offered in land contracts have been said to result in increased prices for land financed in this way. Data presented in Table 17 indicate that for the State as a whole the prices paid in contract-for-deed sales were slightly higher than in those which were mortgage financed and were substantially above cash sale prices. The spread between prices paid under the three methods of financing was relatively small in the Southeast, West Central and Northwest districts.

Table 17. Average Sales Price Per Acre of Farm Land by Method of Financing, by District, Minnesota, 1965-1966.

District	Cash Sales		Mortgage Sales		Contract for Deed	
	1965	1966	1965	1966	1965	1966
	----- (Dollars) -----					
Southeast	209	242	203	250	220	257
Southwest	224	230	227	254	241	270
West Central	130	155	114	170	150	164
East Central	74	77	112	134	112	107
Northwest	60	96	238	105	235	104
Northeast	25	18	97	63	44	49
Minnesota	157	160	182	207	192	220

## STATISTICAL APPENDIX

One of the problems in interpreting the results of this survey arises from the fact that there is no accurate way to compare the quality of the land involved in the sales reported in the several districts of the State, or from year to year. One possibility is that the average price of reported sales in one district or a given year may be influenced by a few abnormally high- or low-priced sales. A measure of the variability of prices paid in any one district is given by the "Coefficient of Variation". This is the ratio between the "Standard Deviation" and the "Average". The Standard Deviation measures the range above and below the average within which 2/3 of the observations will lie. For example, if for one land market district the average sales price was \$100 per acre and the Standard Deviation \$40, this means that approximately two out of three sales reported were between \$60 and \$140 per acre. Then for this district the Coefficient of Variation would be:

$\frac{\$40 \times 100}{\$100} = 40$ . If the Average were \$120 and the Standard Deviation \$40 the Coefficient of Variation would be  $\frac{\$40 \times 100}{\$120} = 33 \frac{1}{3}$ . The first district with a Coefficient of Variation of 40 shows greater variability in prices paid than the second and the average price is therefore more likely to fluctuate from year to year. These values are given for each district for the past 10 years in Table 18.

Table 18. Average Price per Acre of Reported Farm Sales, Standard Deviation and Coefficient of Variation, by District, Minnesota, 1957-1966.<sup>a</sup>

	Year	South east	South- west	West Central	East Central	North- west	North- east	Minne- sota
Average Price per Acre (Dollars)	1957	175.5	216.9	110.1	67.3	87.8	39.3	144.3
	1958	168.0	234.2	115.4	77.5	38.7	51.7	155.3
	1959	210.1	243.1	128.8	72.6	85.1	61.2	173.2
	1960	189.1	240.4	136.4	69.3	100.8	49.5	160.9
	1961	189.1	255.8	130.3	89.0	92.0	37.9	165.2
	1962	195.7	228.5	140.5	76.3	73.9	30.3	161.1
	1963	214.1	221.9	136.2	86.2	108.8	47.6	168.1
	1964	213.3	234.3	150.3	86.3	103.6	51.6	178.1
Standard Deviations (dollars)	1957	202.0	232.7	133.2	95.8	106.2	39.7	178.0
	1958	253.4	260.4	164.3	113.0	103.4	30.6	203.4
	1959	82.7	72.7	42.8	37.0	86.5	36.1	89.9
	1960	78.4	79.7	43.3	38.0	55.2	31.6	91.5
	1961	87.2	77.0	44.5	41.3	62.8	59.5	96.6
	1962	90.4	77.0	47.7	48.6	76.6	42.1	95.8
	1963	83.5	71.9	40.0	47.8	54.1	20.1	86.8
	1964	80.7	68.6	45.1	39.1	57.2	29.7	88.5
Coeffi- cients of Variation (percent)	1957	79.4	77.1	50.8	43.7	69.4	26.1	88.6
	1958	91.6	77.3	70.1	52.4	89.9	39.0	97.2
	1959	96.3	87.0	82.1	63.5	91.1	31.7	98.1
	1960	142.7	95.3	56.7	66.5	65.7	32.2	119.4
	1961	47.1	33.5	39.7	57.0	98.5	68.5	62.4
	1962	46.7	34.0	37.5	49.0	70.1	63.0	58.8
	1963	41.5	31.6	34.5	56.9	73.8	97.2	55.8
	1964	47.8	32.0	35.0	70.2	76.0	85.1	59.5
	1961	44.2	31.8	30.7	53.7	58.7	53.1	52.6
	1962	41.2	30.0	32.2	51.2	77.3	98.0	54.9
	1963	37.1	34.8	37.3	40.7	63.8	54.8	52.7
	1964	42.9	33.0	46.6	60.8	86.7	75.5	54.6
	1965	47.6	37.4	61.6	66.2	85.8	79.8	55.1
	1966	56.4	36.7	32.6	58.9	63.8	105.4	58.7

<sup>a</sup> Each acre is treated as a unit in calculating standard deviations and coefficients of variation.

Table 19. Average Estimated Price per Acre of Farm Real Estate in Minnesota, by Districts, 1910-11. Through 1944-45, by Two-Year Periods, and Annually, 1946 Through 1966.

Years	DISTRICT						N. E.
	Minn.	S. E.	S. W.	W. C.	E. C.	N. W.	
dollars							
1910-11	41	58	54	39	24	24	11
1912-13	49	69	69	46	29	29	13
1914-15	58	82	84	56	34	32	14
1916-17	68	92	100	67	41	37	15
1918-19	82	117	118	78	50	40	18
1920-21	104	141	152	98	68	57	24
1922-23	85	114	119	82	56	44	23
1924-25	78	104	110	74	49	44	22
1926-27	76	106	109	72	49	36	22
1928-29	71	100	102	67	44	33	21
1930-31	60	88	88	51	36	22	18
1932-33	45	64	65	42	27	20	14
1934-35	40	52	58	38	26	22	15
1936-37	44	59	64	38	29	22	24
1938-39	45	60	68	37	28	22	25
1940-41	43	59	68	36	26	22	24
1942-43	48	65	76	40	29	24	25
1944-45	56	78	90	48	35	29	28
1946	65	88	104	56	39	33	32
1947	72	96	116	62	43	37	35
1948	79	104	129	69	47	41	38
1949	83	107	136	73	49	44	39
1950	85	109	141	76	50	46	40
1951	99	125	166	89	59	54	46
1952	107	131	175	96	65	68	42
1953	105	130	175	95	62	64	40
1954	113	139	187	99	66	72	40
1955	121	150	205	103	68	73	45
1956	126	156	214	107	70	76	42
1957	138	165	230	122	77	86	49
1958	147	179	242	123	84	90	65
1959	157	191	255	134	89	103	58
1960	155	188	248	133	94	99	64
1961	156	189	247	133	95	100	64
1962	159	192	250	138	99	104	69
1963	161	194	246	142	103	114	68
1964	166	206	252	145	111	115	59
1965	171	219	261	146	112	113	51
1966	183	242	277	153	122	112	58

Table 20. Number of Acres of Farmland Reported Sold by District, Minnesota 1957-1966.<sup>a</sup>

	Year	South-east	South-west	West Central	East Central	North-west	North-east	Minnesota
Number of	1957	72,028	75,487	61,264	29,276	41,479	8,659	288,192
Acres Sold	1958	60,859	66,970	33,069	30,877	21,514	6,657	219,946
(acres)	1959	66,643	87,302	53,721	36,634	18,456	7,677	270,433
	1960	55,669	54,844	36,858	33,114	27,043	3,349	210,877
	1961	58,027	68,389	34,987	29,020	17,275	6,464	214,162
	1962	46,771	62,787	38,650	34,755	18,611	3,677	205,251
	1963	38,880	54,171	30,251	26,109	21,884	2,517	173,812
	1964	66,400	73,114	45,624	32,579	21,045	4,857	243,619
	1965	46,881	73,265	40,669	19,915	11,912	6,365	199,007
	1966	75,423	113,018	70,633	30,222	26,062	12,140	327,498

<sup>a</sup> The variation in acreages reported sold in recent years is due to changes in coverage of this survey and is not necessarily due to changes in real estate market activity.