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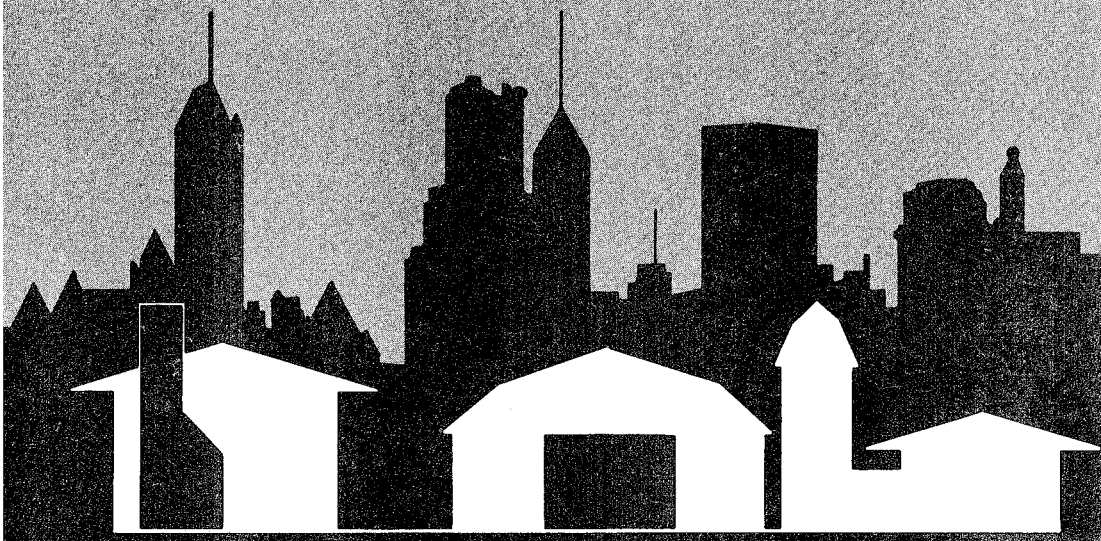
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# The Minnesota

## *Rural Real Estate Market 1971*



KENNETH EMDE

PHILIP M. RAUP

Including special studies of:

Historical Land Value Changes

The Twin City Metropolitan Area

The Red River Valley

West Central Minnesota

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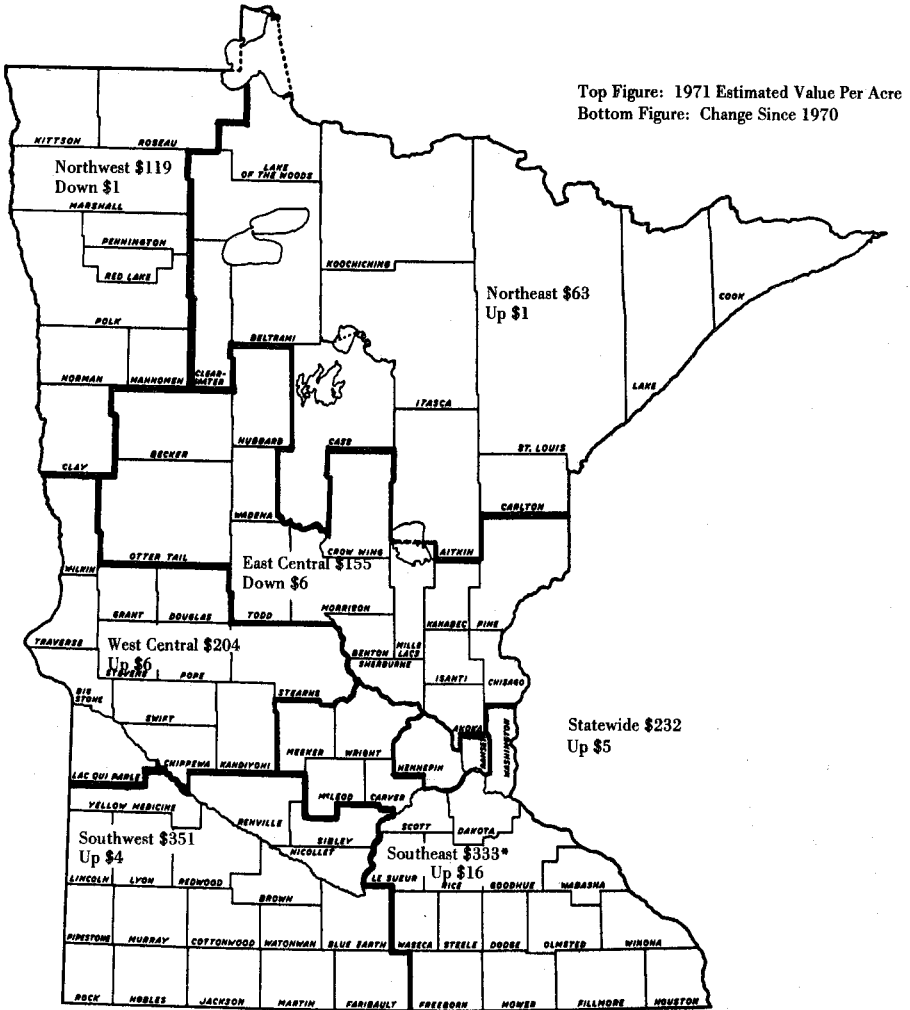
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FIG. 1 MINNESOTA ESTIMATED AVERAGE FARM LAND VALUE PER ACRE BY DISTRICTS--1971. \*



## SUMMARY

### The Minnesota Farm Land Market Report

Reporters' estimates indicate that farm land values in 1971 in Minnesota averaged \$232 per acre, or 2 percent above the 1970 level. Reported sales prices, however, averaged \$269 per acre, an increase of 11 percent during the same period. The discrepancy can be partially accounted for by an increase in 1971 in the proportion of sales of high-priced land in the East Central district.

The number of farm land transfers in Minnesota increased in 1971, according to estimates by the U.S. Department of Agriculture. This increase in land market activity is supported by the increased number of reported sales in this 1971 survey. Although the market remains active, broker participation in farm land sales appears to have declined during the past decade.

Contracts for deed were used to finance 53 per cent of all reported sales, 31 per cent were financed by mortgages, and 16 per cent were cash sales.

Improved land (land with buildings) accounted for 77 per cent of all reported sales. The proportion was lowest in the northern districts, and highest in the East Central where 82 per cent of all sales involved land with buildings.

Nine out of ten farm land sales were for agricultural purposes. The proportions varied from 98 per cent in the Southwest to 80 per cent in the East Central and 75 per cent in the Northeast. Sales to agricultural investors were 17 per cent of all sales state-wide, and the percentage increased in 1971 in all districts except the Northeast. In the Southeast district, one-fourth of all farm land sales were to investor buyers.

### Historical Farm Land Value Trends

Sixty years of farm land values in Minnesota show that land has not always risen in price. During the two decades, 1920-1940, farm land values declined 59 per cent. It was not until the mid-1950's that farm land prices reached their 1920 level, in current dollars. It was not until the mid-1960's that farm land values surpassed their 1920 level, in dollars of constant purchasing power.

While farm land values have generally increased state-wide, a contour map of land values shows the emergence of two well-defined areas of higher-priced land. One area is centered around the Twin Cities, and

the other area includes the prime farming land of south central Minnesota.

### Metropolitan Economic Region

Farm land values in the Twin Cities metropolitan region continue to rise. The rate of increase in any specific area, however, has not been uniform. Proximity to the Twin Cities is no guarantee of continuous farm land value increases.

Non-farm investors were active in the area, with 36 per cent of all sales in 1971. They paid 54 per cent more per acre (\$1,230/\$799) in 1971 than in 1970. Operating farmers and agricultural investors each accounted for approximately one-fourth of the sales.

Land of poor quality for farming purposes sold for 34 per cent more (\$638/477) than average quality farm land. This indicates the heavy use of farm land for non-farm purposes in the urbanizing area.

### Red River Valley

Prices received in reported sales of farm land decreased 14 per cent in 1971 (\$166/\$194). Market activity in the Valley was also slow with approximately one-fourth fewer reported sales in 1971 than in 1970.

The expansion buyer dominates the land market in the Valley, with 90 per cent of all sales. They also paid the highest price per acre (\$174). Although 77 per cent of the sales state-wide are of improved land, only 58 per cent of the Valley sales were of improved land. In both 1970 and 1971, unimproved land in the Valley sold for more than improved land.

### High Risk Area

Sales prices in the west central High Risk area increased 3 per cent in 1971, in contrast to no increase for the West Central district and a 1 per cent increase in the Southwest. Agricultural investors paid the highest price per acre (\$233) but comprised only 7 per cent of the sales. Expansion buyers accounted for 63 per cent of all sales.

## PROCEDURE

Data for the Minnesota Rural Real Estate Market Report were collected through the use of mail questionnaires sent to 1,375 individuals during the month of July, 1971. Potential respondents included

real estate brokers, agricultural loan specialist, bankers, and other people knowledgeable of farm land values in Minnesota.

The questionnaire is divided into two parts. In the first part respondents are asked to estimate an average value for farm land, with separate estimates for land of high, medium, and low quality in their area. These estimates are used to calculate percentage changes in land values during the past year. This is done by (1) weighting the average estimated value per acre of all respondents in a county by the number of acres of farm land in their county; (2) adding these values county by county for each region; and (3) dividing this total for all counties in a region by the total acreage of farm land in that region. In making comparisons with 1970, only estimates of respondents who had answered in both 1970 and 1971 were used. On the basis of this rather rigorous restriction, a total of 466 estimates was useable.

The second part of the questionnaire requested data on actual farm sales during the period from January 1 to July 1, 1971. Reports were obtained on a total of 1,388 sales. Data were supplied on type of buyers and sellers, method of financing, and quality of land and buildings.

Four types of buyers are distinguished in this report.

1. Operating farmers: those buying complete farm units for operation as individual farms.
2. Expansion buyers: those who already own some farm land either as farmers or landlords.
3. Agricultural investors: those who buy farm land to be rented out or managed for farming purposes.
4. Non-farm investors: those who buy farm land that will not be used for farming purposes.

The four groups are mutually exclusive.

The distinction between improved and unimproved land is determined by the presence of buildings. Land with buildings is classified as improved land. Land with no buildings is unimproved.

Land value changes determined by the estimate method have definite advantages over value changes based on reported sales. The quality of land and buildings has a marked effect upon land value and these factors can vary significantly from year to year and from sale to sale. The estimate method holds these factors constant, but memory bias is a problem. For this reason, only reports from respondents who report for two consecutive years are used in constructing the estimates of value.

Part I: THE MINNESOTA FARM LAND MARKET IN 1971

A. Land Market Trends

Reporters' Estimates

As Table 1 shows, the average value of farm land in 1971 increased \$5 per acre or 2 per cent over 1970. The West Central District showed a modest 3 per cent increase in land value while values in the Southwest, Northwest, and Northeast districts remained about the same. The largest increase of farm land value (5 per cent) occurred in the Southeast district which is strongly influenced by urban factors.

TABLE 1: Estimated Average Value Per Acre of Farm Land by District, Minnesota, 1961-1971.\*

Years	South-east	South-west	West Central	East Central	North west	North east	Minn.
	-dollars per acre-						
1961	189	247	133	95	103	64	156
1962	192	250	138	99	104	69	159
1963	194	246	142	103	114	68	161
1964	206	252	145	111	115	59	166
1965	219	261	146	112	113	51	171
1966	242	277	153	122	112	58	183
1967	262	303	163	128	108	62	194
1968	286	333	181	134	122	57	211
1969	308	350	196	146	120	54	223
1970	317	347	198	161	120	62	227
1971	333	351	204	155	119	63	232

\*Based on reporters' estimates of average value per acre of farm land in their area.

Another urban-influenced district, the East Central, showed a surprising decrease of 4 per cent (Table 2). From 1960 to 1970, farm land values in the East Central district increased 71 per cent or more than any other district in the state. The trend of the past year has altered this relationship. From 1961 to 1971 farm land value increased



76 per cent in the Southeast district and 63 per cent in the East Central, reflecting the continued increase of values in 1971 in the urbanizing Southeast. In the five years since 1966, the Southeast district experienced an increase of 38 per cent in land value. The West Central district has taken over second place with a 33 per cent increase. It remains to be seen whether or not the continuing influence of the urban community on farm land values will lead to a recovery of the leading role of the East Central district in percentage increase in land value.

TABLE 2: Percentage Changes in Estimated Value Per Acre, Minnesota, 1961-1971.

District	Estimated 1971 Value Per Acre	Percent Change From		
		1961	1966	1970
	dollars		-percent-	
Southeast	333	76	38	5
Southwest	351	42	27	1
West Central	204	53	33	3
East Central	155	63	27	-4
Northwest	119	16	6	-1
Northeast	63	-2	9	2
Minnesota	232	49	27	2

During the past decade, farm land values have increased by 49 per cent for the state as a whole or an average of over 4 per cent each year. The rate of increase slowed at the end of the decade and has been only 2 per cent yearly for the past two years.

#### Actual Sales

The state-wide increase of 11 per cent in reported sales prices, 1970 to 1971, is significantly higher than the 2 per cent increase in estimated farm land values (Table 3). This difference is due mainly to a disproportionate number of sales of high-priced land in counties in and near the Twin City metropolitan area. The divergence between estimated values and sales prices is especially marked in the East Central district. Actual sales prices were 37 per cent above those reported in 1970, but

this increase was due almost entirely to a shift in the frequency of sales from the lower priced western counties in the district to the higher priced counties near the Twin Cities.

TABLE 3: Average Price Per Acre of Farm Land, Estimated and Actual Sales, by District, Minnesota, 1970-1971.

District	1970		1971		Percent Changes Over 1970	
	Estimated Value	Sales Price	Estimated Value	Sales Price	Estimated	Actual
	-dollars per acre-				percent	
Southeast	317	346	333	372	5	8
Southwest	347	340	351	342	1	1
West Central	198	206	204	205	3	0
East Central	161	141	155	193	- 4	37
Northwest	120	113	119	99	- 1	- 12
Northeast	62	45	63	46	2	2
Minnesota	227	243	232	269	2	11

In the Northwest district, estimated values were down 1 per cent while prices received in actual sales were down 12 per cent. This can be accounted for by (1) an increased number of reported sales in lower priced areas of the Northwest district, outside the Red River Valley, and (2) a decrease in average prices received for farms sold in the Valley (see Part IV).

Sales prices confirm a significant increase of farm land prices in the Southeast district while both sales prices and estimated values in the Southwest, West Central, and Northeast districts were essentially unchanged from the previous year.

Table 4 shows average prices received per acre in actual sales, by districts, for the past decade. The two most urbanized districts, the Southeast and East Central, have clearly increased most significantly. During the past ten years, prices received in farm land sales in the East Central district increased by 117 per cent (\$193/\$89) and nearly doubled in the Southeast (\$372/\$189).

TABLE 4: Average Reported Sales Price Per Acre of Farm Land, by District, Minnesota, 1961-1971.\*

Years	District						Minn.
	South-east	South-west	West Central	East Central	North west	North east	
	-dollars per acre-						
1961	189	226	130	89	92	38	165
1962	196	229	140	76	74	30	161
1963	214	222	136	86	109	48	168
1964	213	234	150	86	104	52	178
1965	213	233	133	96	106	40	178
1966	253	260	164	113	103	31	203
1967	272	306	179	93	117	51	215
1968	316	329	186	104	90	47	232
1969	341	334	194	130	121	51	238
1970	346	340	206	141	113	45	243
1971	372	342	205	193	99	46	269

\*Based on reported farm sales, January 1 to July 1 of each year.

#### Activity in the Land Market

A downward trend in voluntary sales activity that started in 1968 was reversed in 1971. Voluntary sales increased to 36.1 transfers per thousand farms in 1971 from 31.8 transfers in 1970 (Table 5). Total transfers (including forced sales, inheritance, gifts, etc.) were 48.7 transfers per thousand farms which approached the rate reported in 1968.

TABLE 5: Estimated Number of Farm Title Transfers Per Thousand Farms, by Methods of Transfer, Year Ending March 1, Minnesota, 1956-71.

Years	Voluntary Sales	Forced Sales (Foreclosures, Tax)	Inheritance, Gifts and all Other Transfers	Total all Classes
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

TABLE 5: Continued

Years	Voluntary Sales	Forced Sales (Foreclosures, Tax)	Inheritance, Gifts and all Other Transfers	Total all Classes
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
1967	37.5	1.4	14.2	53.1
1968	38.1	2.4	9.8	50.3
1969	33.5	2.0	11.8	47.3
1970	31.8	2.2	9.6	43.6
1971	36.1	2.2	10.4	48.7

Source: "Farm Real Estate Market Developments," CD-76, Economic Research Service, USDA, August 1971.

The number of actual sales reported by respondents to this survey showed a slight increase. During the first six months of 1971, there were 1,388 sales reported compared with 1,357 sales for the same period in 1970 (Table 6). Most of the increase in sales occurred in the southern part of the state while the central portion showed a decline in reported sales.

TABLE 6: Number of Sales, Acreage of Land Sold and Average Acres Per Sale, by District, Minnesota, January-June, 1970-1971.

District	No. of Sales		Acres Sold		Acres/Sale	
	1970	1971	1970	1971	1970	1971
Southeast	342	439	47,792	63,833	140	145
Southwest	383	405	65,221	68,232	170	168
West Central	246	184	47,245	34,132	192	186
East Central	217	192	32,432	25,277	149	132
Northwest	114	111	29,835	28,187	262	254
Northeast	55	57	11,673	11,606	212	204
Minnesota	1,357	1,388	234,198	231,267	173	167

The average size of tract sold remained relatively unchanged in all districts except the East Central which declined an average of 17 acres per sale (Table 6). This decline is probably a reflection of an increased number of sales of smaller tracts at high prices in counties surrounding the Twin City metropolitan area.

According to respondents' estimates, broker participation in the farm land market declined in all districts during the 1960's. Table 7 indicates that brokers participated in two-thirds of all reported sales in 1959-61 but this percentage declined to 55 percent during the 1969-1971 period. The largest declines in broker participation occurred in the Southwest and West Central districts while the smallest declines were in the Southeast and Northeast districts.

TABLE 7: Estimated Percent of Farm Sales in Which Brokers or Dealers Participated, by Districts, Minnesota, 1959-1961 and 1969-1971.

District	Sales With Brokers' Services	
	1959-1961	1969-1971
Southeast	68	60
Southwest	73	55
West Central	74	57
East Central	67	54
Northwest	57	42
Northeast	56	49
Minnesota	66	55

### B. Analysis of Reported Sales

#### Reason For Sale

Retirement and death accounted for 59 per cent of the decisions to sell in the state as a whole (Table 8). These two reasons were prominent in the Southwest and West Central districts, accounting for 67 and 60 per cent of the sales, respectively. State-wide only 8 per cent of the sales were to permit a move to another farm. Sales to facilitate moves to other farm land were relatively more frequent in the most urbanized

districts, Southeast and East Central. This is probably a reflection of rising land taxes and the attraction of non-farm jobs near the Twin Cities metropolitan and other urbanized areas.

TABLE 8: Reason for Selling Land, by District, Minnesota, 1971.

Reason for Sale	District						
	South-east	South-west	West Central	East Central	North-west	North-east	
							-percent-
Death	16	29	23	13	21	18	21
Retirement	39	38	37	40	33	33	38
Left Farming	19	18	16	25	18	29	19
Moved, Still Farming	10	6	8	10	6	7	8
Other	16	9	16	12	22	13	14

State-wide, 19 per cent of the sellers left farming for another job. The highest frequency was in the Northeast district where 29 per cent of the sales were for this reason. The "other" category, with 14 per cent of the sales in the state, included reasons of health, foreclosure, sales by speculators and sales to raise money.

#### Improved and Unimproved Land

Improved land (land with buildings) accounted for 77 per cent of all sales reported for the state as a whole (Table 9). The percentages were uniform for the southern districts of the state, Southeast and Southwest, at 79 and 78 per cent. respectively. The percentages were also nearly the same for the northern districts of the state, Northeast and Northwest, but at a lower level of 67 and 68 per cent. The East Central district had the highest percentage of improved land sold, suggesting that many of the buyers were seeking rural residences rather than farm land. This conclusion is reinforced by the data in Table 10, showing that improved land in the East Central district sold for 39 per cent more (\$199/\$153) than unimproved land. In all other districts except the Northeast, the presence of buildings increased land values to a much lesser degree. In the Southeast district, in fact, unimproved land sold for substantially more than improved land. This has been typical in strictly farming areas where farm expansion buyers place a higher value on land without buildings than do other buyers. In previous years,

unimproved land in the Southeast district has not sold for more than improved land.

TABLE 9: Proportion of Improved and Unimproved Lands Sold, by District, Minnesota, 1971.

District	Improved Land	Unimproved Land
	percent	percent
Southeast	79	21
Southwest	78	22
West Central	72	28
East Central	83	17
Northwest	68	32
Northeast	67	33
Minnesota	77	23

TABLE 10: Average Sales Price Per Acre of Improved and Unimproved Farm Land, by District, Minnesota, 1971.

District	Improved Land	Unimproved Land	Unimproved as a Percent of Improved
	-dollars per acre-		percent
Southeast	364	420	115
Southwest	347	311	90
West Central	209	194	93
East Central	199	143	72
Northwest	105	87	83
Northeast	57	30	53
Minnesota	279	228	82

Table 11 summarizes the fluctuations in the differences in sales prices of unimproved and improved land for the state as a whole over the past decade. In all but one year, unimproved land had sold at prices that were between 10 and 20 per cent less than land with buildings.

TABLE 11: Price Differential Between Improved and Unimproved Lands Sold, Minnesota, 1961-1971.

Year	Improved Land	Unimproved Land	Difference	Unimproved as a Percent of Improved
	-dollars per acre-			percent
1961	169	138	31	82
1962	166	128	38	77
1963	172	144	28	84
1964	181	160	21	88
1965	183	165	18	90
1966	211	158	53	75
1967	222	177	45	80
1968	248	166	82	67
1969	245	206	39	84
1970	254	200	54	79
1971	279	228	51	82

### Type of Buyer

Sales to operating farmers dominated the market in 1971, but the proportion dropped 5 percentage points from 1970 (Table 12). The three western districts of the state, Southwest, West Central, and Northwest, had a distinctly larger proportion of sales to operating farmers than did the eastern districts. The frequency of sales to agricultural investors and for non-farm purposes increased for the state as a whole, with a significantly higher proportion of sales in both of these categories in the eastern districts. In the Southeast, almost one-fourth of all sales in 1971 were to investor buyers.



TABLE 12: Percent of Tracts Purchased for Farming and Non-Farm Purposes, by District, Minnesota, 1970 and 1971.

District	Operating Farmer		Investor (agricultural)		Non-Farm Purposes	
	1970	1971	1970	1971	1970	1971
	-percent-					
Southeast	69	63	21	24	10	13
Southwest	89	87	8	11	3	2
West Central	87	82	8	10	5	8
East Central	67	62	16	18	17	20
Northwest	85	78	11	16	4	6
Northeast	38	55	38	20	24	25
Minnesota	78	73	14	17	8	10

In Table 13, the types of agricultural buyers are grouped into three classes: operating farmers (who were not adding the land purchased to land they already owned), farm expansion buyers (who were adding the land purchased to land already owned and who may be either operating farmers or agricultural investor buyers), and agricultural investor buyers who were not adding the land purchased to land already owned. The proportion of land sold in the state to operating farmers has remained remarkably constant over the past four years although there have been significant variations within districts.

TABLE 13: Percent of Tracts Purchased by Type of Buyer, by District, Minnesota, 1968-1971.

District	Operating Farmer Buyer (Sole Tract)				Farm Expansion Buyer (Operator or Investor)				Investor Buyer (Sole Tract)			
	1968	1969	1970	1971	1968	1969	1970	1971	1968	1969	1970	1971
	-percent-											
Southeast	31	33	33	34	53	37	44	38	16	30	23	28
Southwest	29	21	19	22	68	67	72	67	3	12	9	11
West Central	22	27	25	29	71	59	66	60	7	14	9	11
East Central	40	50	57	51	43	32	23	26	17	17	19	23
Northwest	20	21	20	24	70	69	69	59	10	10	11	17
Northeast	60	35	33	55	33	35	17	19	7	30	50	26
Minnesota	30	30	30	31	61	52	55	50	9	18	15	19

The decrease of five percentage points in the proportion of sales to farm expansion buyers in 1971 was countered by an increase of four points in sales to agricultural investors for the state (Table 13). This increase in the proportion of sales to agricultural investor buyers occurred in all districts except the Northeast. In two districts, East Central and Northwest, the percent of sales in 1971 to investor buyers was the largest for the period 1968 to 1971.

The price paid for farm land varies considerably by type of buyer. State-wide, expansion buyers paid \$30 to \$40 more per acre than did agricultural investors or operating farmer buyers (Table 14). The higher prices paid by expansion buyers were especially marked in the Southwest and Northwest district. In the more urbanized Southeast and East Central districts investor buyers usually pay the highest prices. In 1971, however, the average price paid by investor buyers in the Southeast district was below that paid by either expansion or operating farmer buyers. On the evidence of recent years, this is the exception rather than the rule. The highest prices have typically been paid by investor buyers in areas influenced by urban communities.

TABLE 14: Average Sales Price Per Acre by Type of Buyer, by District, Minnesota, 1969, 1970, 1971.

District	Operating Farmer			Expansion Buyer			Investor Buyer (Agriculture)		
	1969	1970	1971	1969	1970	1971	1969	1970	1971
	-dollars per acre-								
Southeast	292	327	363	324	311	333	379	406	330
Southwest	317	299	312	335	348	360	313	359	314
West Central	191	202	201	198	209	206	185	172	210
East Central	114	141	146	130	113	123	135	159	191
Northwest	115	85	87	132	175	122	72	57	51
Northeast	50	68	49	37	43	47	59	31	36
Minnesota	212	215	241	239	267	281	260	220	251

#### Land and Building Quality

While the average reported sales price for the state increased a striking 11 per cent over 1970, land of poor quality increased a phenom-

enal 30 per cent during the same period (Table 15). This is consistent with the reported increase in non-farm investor buyer activity where the goal may be high capital gains rather than profit from farming.

TABLE 15: Price Per Acre for Land of Various Quality, Minnesota, 1970 and 1971.

Land Quality	1970	1971	Percent Change From 1970
	dollars per acre		percent
Good	330	341	3
Average	221	245	11
Poor	153	199	30
All	243	269	11

Table 16 reinforces this inference. Total sales of poor quality land average \$199 per acre which is \$12 more than either the operating farmer or expansion buyer paid for the same quality of land. The difference can be explained by non-farm investors who paid much higher prices for poor quality land than did buyers for agricultural purposes.

TABLE 16: Price Per Acre and Percent of Purchases by Type of Buyer for Land of Various Quality, Minnesota, 1971.

Type of Buyer	Land Quality					
	Good		Average		Poor	
	dollars	percent	dollars	percent	dollars	percent
Operating Farmer	304	42	203	44	187	14
Expansion Buyer	329	43	266	43	187	14
Agricultural Investor	347	24	273	49	162	27
Non-Farm Investor	936	21	271	47	392	32
All	341	37	245	45	199	18

Agricultural investors paid higher prices than operating farmers or farm expansion buyers for lands of good and average quality. Ap-

proximately 86 per cent of the land bought by operating farmers and expansion buyers was of good or average quality. This is to be expected since most agricultural buyers are interested in upgrading or maintaining the quality of their farm units. Of all sales to agricultural investor buyers, 27 per cent were of lands classified as poor quality, and only 24 per cent were of good quality land. This was sharply different from the pattern of sales to operating farmers and expansion buyers.

The significance of building quality varies widely for different types of buyers (Table 17). While 75 per cent of the sales to operating farmers included buildings of good or average quality, 61 per cent of the sales to expansion buyers involved land with poor buildings, or none at all. Non-farm investor buyers paid the highest prices for farm land with buildings of good or average quality which supports a premise that many non-farm investors are seeking rural residences. Non-farm investor buyers also paid by far the highest average prices for farm lands with no buildings (\$600 per acre), supporting a premise that this class of buyer includes many who are buying for speculative purposes.

TABLE 17: Price Per Acre and Percent of Purchases by Type of Buyer for Land with Various Qualities of Buildings, Minnesota, 1970.

Type of Buyer	Building Quality							
	Good		Average		Poor		None	
	\$	%	\$	%	\$	%	\$	%
Operating Farmer	316	38	213	38	170	18	132	6
Expansion Buyer	359	16	300	23	281	25	229	36
Agricultural Investor	335	16	292	29	226	36	173	19
Non-Farm Investor	746	20	413	29	239	25	600	26
All	352	23	265	29	242	25	231	23

### Method of Financing

The contract for deed continued to be the most popular method of financing, accounting for 53 per cent of farm sales for the state in 1971 (Table 18). The two districts with the highest average land prices,

Southeast and Southwest, also had the largest percentage of sales financed by contract for deed. The Northeast district, which has the lowest land prices, leads all districts in the proportion of cash sales, with 26 per cent. State-wide, mortgage financing was the second most popular method, accounting for 31 per cent of the sales.

TABLE 18: Proportion of Farm Sales by Method of Financing, by District, Minnesota, 1965, 1970, and 1971.

Method of Financing	South-east	South-west	District				Minn.
			West Central	East Central	North-west	North-east	
-percent-							
Cash							
1965	17	15	22	21	29	29	19
1970	15	13	14	19	20	31	16
1971	14	17	9	22	16	26	16
Mortgage							
1965	33	39	41	30	27	3	35
1970	19	23	28	28	40	26	25
1971	32	24	41	34	33	26	31
Contract for Deed							
1965	50	45	37	49	44	68	46
1970	66	64	58	53	40	43	59
1971	54	59	50	44	51	48	53

Table 19 shows that the highest prices were paid in sales financed by contract for deed in the Southern and West Central districts in 1971. North of a line connecting Moorhead and the Twin Cities, per acre prices in sales financed by mortgages were the highest. Statewide, prices paid in sales financed by contract for deed averaged 8 per cent higher than in mortgage financed sales (\$284/\$264). This is due to the high and increasing frequency of use of contract for deed financing in the Southeast and Southwest districts (See Table 18) combined with the fact that land prices are highest in these districts. In all districts, prices paid in farm sales financed by cash were the lowest of the three financing methods.

TABLE 19: Average Sales Price Per Acre of Farm Land by Method of Financing, by District, Minnesota, 1965, 1970, and 1971.

Method of Financing	South-east	South-west	District				Minn.
			West Central	East Central	North-west	North-east	
-dollars per acre-							
Cash							
1965	209	224	130	74	60	25	157
1970	324	294	224	121	107	45	211
1971	333	276	156	131	78	41	212
Mortgage							
1965	203	227	114	112	238	97	182
1970	374	332	187	168	142	53	233
1971	367	310	199	214	107	65	264
Contract for Deed							
1965	220	241	150	112	235	44	192
1970	344	348	213	135	101	42	252
1971	371	369	216	204	94	43	284

In 1971, the highest average price paid per acre for good and average quality land was paid by those buyers who financed by contract for deed (Table 20). The lower down payment made possible by contract for deed financing is typically associated with sales of good quality and high priced land. For land of poor quality, mortgage-financed sales averaged considerably higher in price than for poor quality land financed by either cash or contract for deed. This may reflect the fact that the use of mortgage financing increases in the vicinity of the Twin Cities metropolitan area where the land is often of average to poor quality for farming purposes. These poor farming lands sell for relatively high prices primarily to buyers who are more interested in a rural residence or in speculation than in farming. Many of these buyers can afford the relatively large down payments required in mortgage-financed sales.

TABLE 20: Price Paid Per Acre and Percent of Sales, by Method of Financing and Quality of Land, Minnesota, 1970 and 1971.

Land Quality Class	Method of Financing							
	Cash		Mortgage		Contract for Deed		All Sales	
	1970	1971	1970	1971	1970	1971	1970	1971
<b>Good</b>								
\$ per acre	288	328	299	290	350	362	330	340
% of sales	33	28	41	37	37	40	37	37
<b>Average</b>								
\$ per acre	196	210	198	245	227	251	219	243
% of sales	45	43	45	47	48	44	47	45
<b>Poor</b>								
\$ per acre	126	139	183	259	150	184	149	194
% of sales	22	29	14	16	15	16	16	18
<b>All Grades</b>								
\$ per acre	211	212	233	264	252	284	243	269
% of sales	100	100	100	100	100	100	100	100

### Spatial Dimensions of the Land Market

The Minnesota farm land market is distinctly a local market. State-wide, 59 per cent of all sales were purchased by buyers living within ten miles of the purchased tract (Table 21). In two districts in which farming predominates, the Southwest and West Central, the median distance between the buyer and the tract purchased was 3 miles. It will be recalled that these were also the districts with the highest proportion of farm expansion buyers (see Table 13).

Two districts, the East Central and Northeast, do not conform to the norm. In the East Central district, 68 per cent of all purchasers lived more than ten miles from their purchases, with a median distance of 20 miles. The median distance of buyers from their purchased land was the highest in the Northeast district, at 200 miles; 43 per cent of them lived over 300 miles from the purchased tract.

**TABLE 21: Classification of Farm Land Sales by Distance of Buyer's Residence From Tract, by District, Minnesota, 1971.**

District	Distance of Buyer's Residence from Tract Purchased, in Miles							
	Less Than 2	2-4	5-9	10-49	50-299	300 and Over	Median Distance	
			-percent-					miles
Southeast	18	20	12	37	9	4	8	
Southwest	33	27	18	16	4	2	3	
West Central	35	26	13	12	8	6	3	
East Central	16	8	8	36	25	7	20	
Northwest	33	17	13	20	6	11	5	
Northeast	2	7	9	17	22	43	200	
Minnesota	25	21	13	25	10	6	5	





**Part II: HISTORICAL ANALYSIS OF FARM LAND VALUES IN  
MINNESOTA**

## Part II: HISTORICAL ANALYSIS OF FARM LAND VALUES IN MINNESOTA

### Sixty Years of Farm Land Value Trends

Although it is popular to visualize farm land values as continuously rising, a look into the past reveals that land values have not always been buoyant (Table 22). In the decade from 1910 to 1920, farm land values rose at a remarkable rate. In 1920, average values per acre in every district of the state were at least double their 1910 levels. In three of the districts they had increased more than two and one half times. The most dramatic increases were in the Southwest and East Central districts, where values went up approximately 180 per cent. In the 1920's and 1930's however, land values plummeted. During these two decades land values declined to just over 40 per cent of their 1920 levels (\$43/\$104), for the state as a whole. It was not until the mid-1950's that average values per acre exceeded their 1920 levels.

From 1940 to 1950, the big increases took place in the three predominantly agricultural districts, Southwest, West Central, and Northwest. In the 1950's, the largest percentage increase occurred in the Northwest. From 1960 to 1970, the big increases were in the most urbanized districts, the Southeast and East Central. On the evidence of the last 20 years, urban influences appear to have outweighed agricultural productivity considerations in determining the rate of increase in farm land values in the urbanizing area of the Southeast.

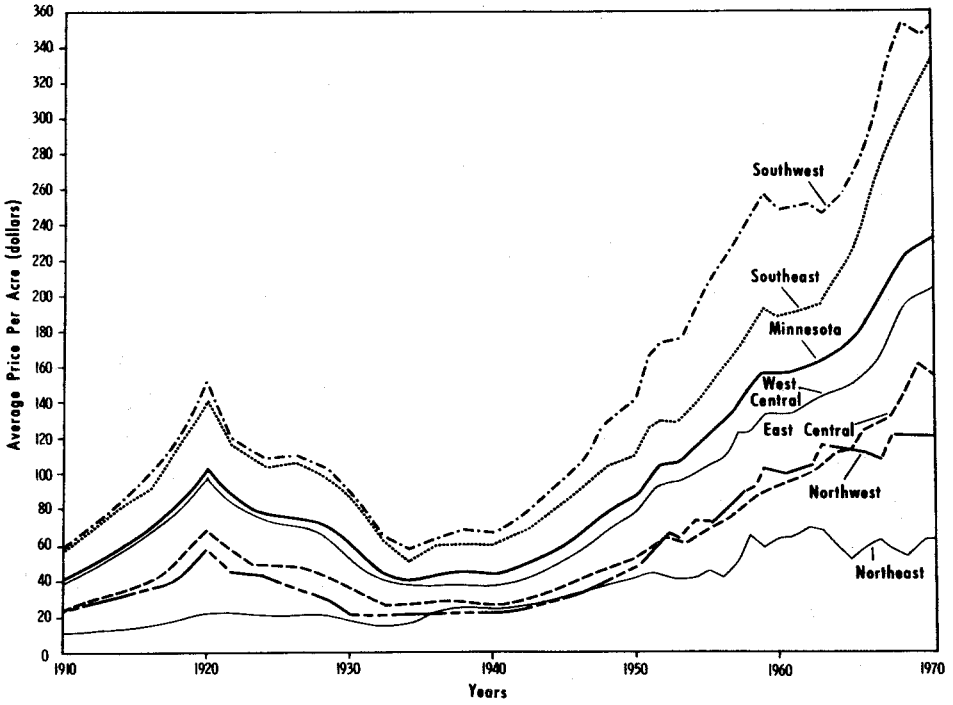
TABLE 22: Estimated Average Value Per Acre of Farm Land and Percent Changes From Preceding Decades, by Districts, Minnesota, 1910-1970.<sup>a/</sup>

Years	South-east	South-west	West Central	East Central	North-west	North-east	Minn.
-dollars per acre-							
1910	58	54	39	24	24	11	41
1920	141	152	98	68	57	24	104
1930	88	88	51	36	22	18	60
1940	59	68	36	26	22	24	43
1950	109	141	76	50	46	40	85
1960	188	248	133	94	99	64	155
1970	317	347	198	161	120	62	227
-percent change from preceding decade-							
1910 to 1920	143	181	151	183	138	118	154
1920 to 1930	-38	-42	-48	-47	-61	-25	-42
1930 to 1940	-33	-23	-29	-28	0	33	-28
1940 to 1950	85	107	111	92	109	67	98
1950 to 1960	72	76	75	88	115	60	82
1960 to 1970	69	40	49	71	21	-3	46

<sup>a/</sup>Data for 1910, 1920, 1930, and 1940 are the averages of two years, 1910-11, 1920-21, 1930-31, and 1940-41.

In Figure 2, trends in the development of these values are shown by districts. The absolute level of farm land values is highest in the Southwest, and this has been true since 1914. The spread in values between the Southeast and the Southwest has been narrowing steadily for the past two decades, with values in the Southeast only nine per cent below those in the Southwest in 1971. In the Northeast, farm land values have remained virtually unchanged at just over \$60 per acre since 1958.

FIG. 2: Estimated Average Value Per Acre of Minnesota Farm Land, by Districts, 1910-1971.



## Average Land Values by County

Land value estimates and prices received in reported land sales are classified and analyzed by counties, in preparing this annual land market report. But in any one year, the number of estimates or sales reported is too small to permit reliable reporting on a county basis. It is for this reason that the detailed analysis is reported for groups of counties, arranged by districts. In this way much more reliable statistical results can be achieved.

The only other published source of county average land values is the U.S. Census of Agriculture, taken every five years. Beginning with the 1959 Census, a comparison has been made between the Census values and the estimated values and sales prices collected in this annual survey, on a county basis.<sup>1</sup> This has been done by averaging the estimates and sales prices for a three-year period, straddling the Census years. These periods were 1959-60-61, 1964-65-66, and 1969-70-71. Table 23 reports these data for 1969-71, county by county, and compares them with the data reported in the 1969 Census of Agriculture.

In comparing these three sources of county land value data it should be kept in mind that the Census data are estimates by the farm operators who responded to the Census mail questionnaire. They were collected only from every fifth farmer, i.e. by a 20 per cent sample.

In some counties the acreage of farm land is small, and very few sales occur in any one year. This is especially true in the Northeast district. As a result, there were 18 counties (including Hennepin and Ramsey) in which reported sales or estimates were too few to yield statistically reliable county averages. The arbitrary rule selected was to omit data for those counties from which there were fewer than 10 estimates or 15 sales.

Some distinct patterns of differences among these three sources of county land value data can be noted. In the Northeast, the Census values are consistently above, and sometimes much above, either reporters' estimates or sales prices.

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<sup>1</sup>Dale O. Solum and Philip M. Raup, *The Minnesota Farm Real Estate Market in 1962*. Report No. 524. February 1963, and John C. English, Jerome V. Bambenek, and Philip M. Raup, *The Minnesota Rural Estate Market in 1966*. Report No. 530. March 1967, Department of Agricultural and Applied Economics, Institute of Agriculture, University of Minnesota.

In the majority of the remaining counties, reporters' estimates were above sales prices and Census estimates. This pattern was reversed in the Twin City metropolitan area, where sales prices were above both reporters' estimates and Census estimates in all counties except Carver. This suggests that in urbanizing areas land value estimates by both farmers and non-farmers tend to lag behind actual sales prices.

This pattern can also be detected in several counties in South Central Minnesota, where Census values (estimated by farmers) and reporters' estimates are both below reported sales prices.

In general, Census values were lowest of the three figures in all but three counties in each of the following districts: Southeast, Southwest, and West Central. Outside the Twin City Metropolitan area, in all but two counties in which the Census reported average farm land values above \$300 per acre, the Census values were below both the reporters' estimates of value and prices received in actual sales.

The implication is strong that in the best farming areas of the state the 1969 Census of Agriculture data on farm land values are under-estimated. This may not be surprising, in view of the fact that these data were reported by farm operators, whose estimates of money values are often conservative.

### Contour Map of Land Values

Contour maps are frequently used to illustrate the physical features of an area. The lines of a typical contour map join points of equal elevation, equal rainfall, equal temperatures, etc. Contour maps can also be used to illustrate land value patterns. Figures 3 and 4 reproduce land value maps of Minnesota for 1959-61 and 1964-66 that have been published in previous reports of this annual survey. Figure 5 is a land value contour map for 1969-71 based on reporters' estimates in 1969-71 of per acre farm land value, actual reported farm sales in 1969-71 (see Table 23), and county estimates from the 1969 U.S. Census of Agriculture. Since reported sales in this survey are identified by township, it is possible to differentiate land value patterns within a given county. The lines of the land value contour maps connect points of equal value per acre, at \$40 intervals.

TABLE 23: Comparison of Dollar Value Per Acre According to Three Different Sources, By Counties, Minnesota, 1969-1971.

County	Reporters' Estimates Average of 1969-1971	U.S. Census of Agriculture 1969	Reported Sales Average of 1969-1971
-dollars per acre-			
<b>SOUTHEAST DISTRICT</b>			
Carver	555	414	536
Dakota	621	449	665
Dodge	351	334	381
Fillmore	261	206	202
Freeborn	406	387	443
Goodhue	310	266	273
Houston	222	169	193
Le Sueur	400	349	376
McLeod	377	353	367
Meeker	270	235	253
Mower	342	310	334
Olmsted	326	309	334
Rice	347	321	368
Scott	420	379	442
Steele	350	337	379
Wabasha	301	208	259
Waseca	425	403	408
Washington	479	535	679
Winona	271	202	183
Wright	428	307	375
<b>SOUTHWEST DISTRICT</b>			
Blue Earth	465	400	509
Brown	417	351	409
Cottonwood	357	306	312
Faribault	465	417	483
Jackson	394	369	401
Lincoln	183	187	164
Lyon	279	249	241
Martin	470	398	463
Murray	302	282	289
Nicollet	411	395	439



County	Reporters' Estimates Average of 1969-1971	U.S. Census of Agriculture 1969	Reported Sales Average of 1969-1971
Nobles	344	344	343
Pipestone	265	242	244
Redwood	345	306	290
Renville	372	319	378
Rock	372	329	352
Sibley	387	342	371
Watonwan	397	347	381
Yellow Medicine	279	246	247

#### WEST CENTRAL DISTRICT

Big Stone	171	159	166
Chippewa	265	243	254
Douglas	177	162	163
Grant	214	174	211
Kandiyohi	273	236	273
Lac qui Parle	219	195	213
Pope	150	143	137
Stearns	204	187	206
Stevens	225	205	210
Swift	217	203	196
Traverse	<u>a/</u>	167	176
Wilkin	229	208	218

#### EAST CENTRAL DISTRICT

Anoka	<u>a/</u>	325	811
Becker	156	117	116
Benton	162	168	154
Chisago	268	206	300
Crow Wing	<u>a/</u>	90	81
Hubbard	<u>a/</u>	76	61
Isanti	241	189	237
Kanabec	<u>a/</u>	117	121
Mille Lacs	156	149	144
Morrison	97	113	106

TABLE 23 Continued

County	Reporters' Estimates Average of 1969-1971	U.S. Census of Agriculture 1969	Reported Sales Average of 1969-1971
-dollars per acre-			
Otter Tail	140	127	126
Pine	101	99	90
Sherburne	210	181	192
Todd	126	119	116
Wadena	93	84	<u>b</u>
NORTHWEST DISTRICT			
Clay	232	205	224
Kittson	117	108	89
Mahnomen	<u>a</u>	112	126
Marshall	127	114	78
Norman	196	161	168
Pennington	83	82	78
Polk	167	154	137
Red Lake	<u>a</u>	93	<u>b</u>
Roseau	54	69	44
NORTHEAST DISTRICT			
Aitkin	<u>a</u>	82	<u>b</u>
Beltrami	60	84	66
Carlton	<u>a</u>	88	<u>b</u>
Cass	49	73	65
Clearwater	<u>a</u>	75	62
Cook	<u>a</u>	<u>c</u>	<u>b</u>
Itasca	<u>a</u>	95	<u>b</u>
Koochiching	<u>a</u>	76	29
Lake	<u>a</u>	115	<u>b</u>
Lake of the Woods	<u>a</u>	79	27
St. Louis	79	102	55

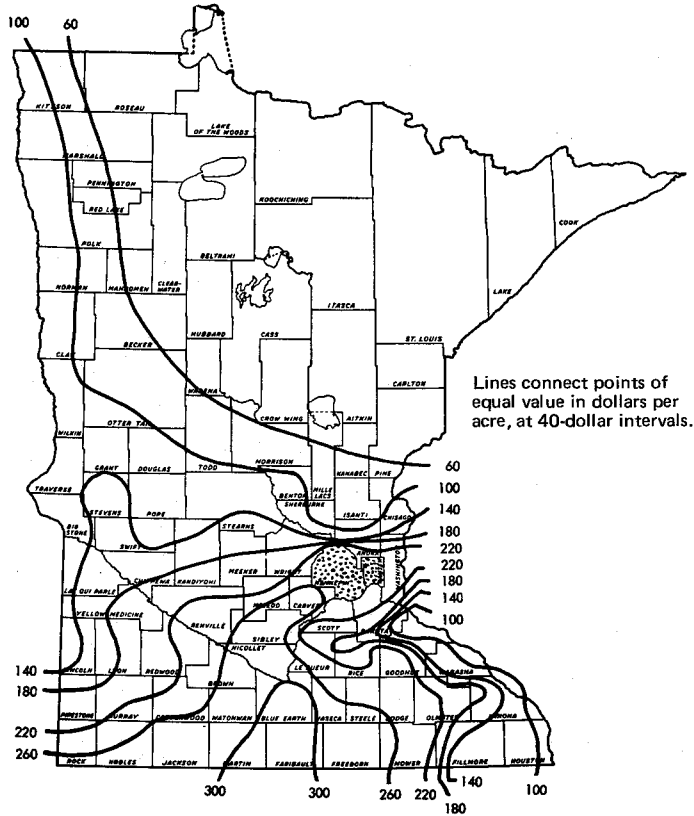
a/ Less than 10 estimates given in period.

b/ Less than 15 sales reported in period.

c/ Not available as of April 1972

**Figure 3. Contour Map of Minnesota Land Values, 1959**

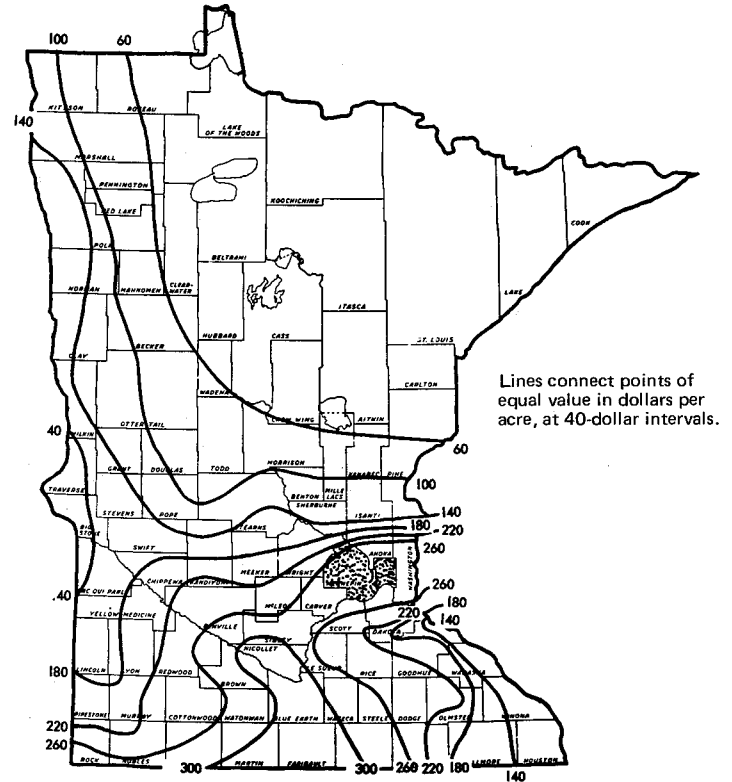
Based on farm land values reported in the U.S. Census of Agriculture, 1959, and on farm land sales, by townships and counties, 1959-1962, as submitted by reporters to the Annual Minnesota Rural Real Estate Market Survey.



(Hennepin & Ramsey counties excluded in determining contours)

**Figure 4. Contour Map of Minnesota Land Values, 1964**

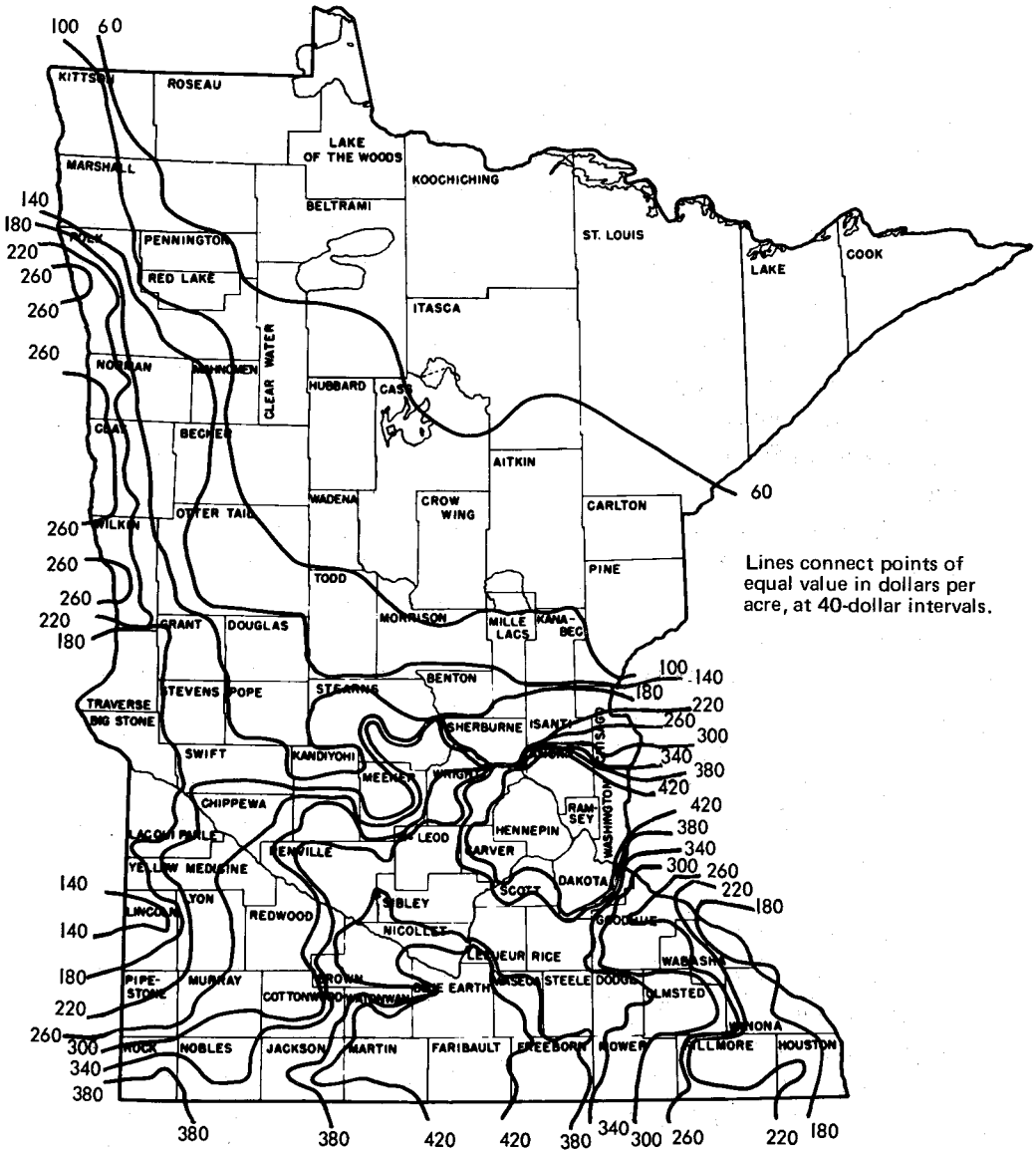
Based on farm land values reported in the U.S. Census of Agriculture, 1964, and on farm land sales, by townships and counties, 1963-65, as submitted by reporters to the Annual Minnesota Rural Real Estate Market Survey.



(Hennepin & Ramsey counties excluded in determining contours)

**Figure 5. Contour Map of Minnesota Land Values, 1969**

Based on farm land values reported in the U.S. Census of Agriculture, 1969, and on farm land sales, by townships and counties, 1969-71, as submitted by reporters to the Annual Minnesota Rural Real Estate Market Survey.



(Hennepin & Ramsey counties excluded in determining contours)

When examining the 1969 countour map (Figure 5) three features are immediately apparent. First, there are several areas where the land value gradient is very steep. The most obvious is at the borders of Anoka, Isanti, Sherburne and Wright counties near Elk River. Land values in this area vary from \$220 to \$420 per acre within a few miles. The influence of the Mississippi River, the Anoka Sand Plain, and of metropolitan buyers who have been actively buying farm land for non-farm purposes contribute to this feature. A similarly steep gradient is characteristic of the southeastern edge of Dakota county, where land values vary from \$260 to over \$420 per acre within a very short distance.

Another sharp gradient in land values occurs in the Kandiyohi-Meeker-McLeod county area. Since there are no major urban centers in this region, this rapid change in land values is much more significant as an indicator of differences in the agricultural quality of the land.

Another interesting pattern is provided by the land value contour lines in the Rochester area. The city of Rochester, located approximately in the center of Olmsted county, has apparently "pulled" the \$340 contour line towards Rochester. On the east side of the county, the \$300 contour line appears to be "pushed" away from Rochester. Farm and non-farm investor buyers have been especially active in this area and the effect on farm land values is clearly apparent around the urban center.

A second feature is the existence of a narrow strip of higher-priced land along the western edge of Minnesota from south of Breckenridge to north of East Grand Forks. Farm land values in this Red River Valley area range upward of \$220 per acre and drop off rapidly to below \$140 an acre as one moves east. (A more detailed analysis of the Red River Valley basin is given in Part IV of this report).

The third distinctive feature is the emergence of two "islands" of high-priced land. One is in the prime farm land area of southern Minnesota and the other in the Twin Cities metropolitan region. The growing importance of these two islands of high land values is made clear by reference to the two earlier land value contour maps for 1959 and 1964, Figures 3 and 4. The reasons for the "island" are different for each region. Farm land value increases in the metropolitan economic region centering around Hennepin and Ramsey counties (Minneapolis and St. Paul) have been due to purchases for urban uses, and to investment for non-farm purposes. In southern Minnesota (the area centered on Blue Earth, Faribault and Martin counties) farm land value increases are due primarily to increased productivity and profitability of the land in agricultural uses.

The development of the "island" effect can be traced by a comparison of the three countour maps. On the 1959 map, farm land values between \$260 and \$300 per acre formed a roughly triangular pattern reaching from the southern boundary of the state toward the metropolitan area (Hennepin and Ramsey counties). By 1964, the \$260 contour line had enveloped the metropolitan area, while at the same time the southern area with farm land values above \$300 per acre had expanded. From 1964 to 1969, land values in both areas increased sharply, thus creating a "valley" of lower-priced land between them.

The land value pattern has also been more sharply defined along the southwestern border of the state, from Pipestone to Wilkin counties. This area was not differentiated in the 1959 map. In 1964, a small area with values under \$140 per acre had emerged. And in 1969, the \$180 contour line marked out a well-defined area of relatively lower values, including all of Traverse and Big Stone counties and much of Lac qui Parle and Lincoln counties.

Between 1959 and 1969, it has been necessary to add three new contour lines to the map, raising the top values from over \$300 to over \$420 per acre. The contour map for 1969 has become much more complex, and land value patterns more sharply differentiated. In the southern half of the state and on the eastern boundary of the Red River Valley there are numerous areas in which a traverse of 20 to 30 miles will carry one through \$120 to \$160 of land value.

One lesson taught by these maps is that a figure reporting "county average farm land value" was a much less significant figure in 1969 than it was ten years earlier. In the agriculturally productive or urbanizing areas of the state, a single figure representing average farm land values in a county is more apt to mislead than to inform.

Part III: THE FARM LAND MARKET IN THE TWIN CITY  
METROPOLITAN REGION

Seven counties comprise the Twin City metropolitan region: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington. Excluding Hennepin and Ramsey (Minneapolis and St. Paul), four of the five remaining counties are still predominantly agricultural, although their rates of population growth in the 1960's were well above those for the state as a whole (Table 24). Trends in land use, 1959 to 1969, are shown in Table 25. For the five-county metropolitan area, almost

two-thirds of the land area was in farms in 1969; excluding Anoka county the proportion was over 70 per cent. They are farming counties, but proximity to the Twin Cities gives distinctive characteristics to the farmland market in this area.

TABLE 24: Population in Five Counties in Twin City Metropolitan Area, 1960-1970.

	Total Population in Thousands			Annual Rates of Growth of Population Components in percent	
	1960 <sup>1</sup>	1965 <sup>2</sup>	1970 <sup>3</sup>	1960-65	1965-70
Anoka	85.9	124.9	154.6	7.8	4.4
Carver	21.3	24.5	28.3	2.8	2.9
Dakota	78.3	104.0	139.8	6.0	6.1
Scott	21.9	28.4	32.4	5.5	2.6
Washington	52.4	67.0	82.9	5.0	4.3
Total, Five Counties	259.8	348.8	438.0	6.1	4.7
Minnesota	3413.9	3555.0	3805.1	0.8	1.4

Source: 1--U.S. Census of Population, 1960  
 2--April 1 Estimates of the Twin City Metropolitan Council  
 3--U.S. Census of Population, 1970

TABLE 25: Proportion of Farmland in the Five County Metropolitan Region, 1959, 1964, and 1969.

	Total Land Area (000 acres)	Percent of Land Area in Farms		
		1959	1964	1969
Anoka	271.0	52.4	42.2	35.3
Carver	229.9	93.3	92.6	84.9
Dakota	368.4	81.6	78.9	69.6
Scott	225.7	90.4	86.6	74.7
Washington	246.9	78.2	70.6	57.9

Source: U.S. Census of Agriculture, 1959 and 1969.



The demand for land is dominated by non-farm buyers, seeking land for residential, recreational, commercial, industrial or frankly speculative purposes. As a result, the variance in sales prices is greater than in the non-metropolitan areas of the state, and reporters' estimates of value can diverge widely. An indication of this divergence is given in Table 26, which compares reporters' estimates of value, 1969-71, prices received in actual sales, 1969-71, and county average values of farm land reported by the U.S. Census of Agriculture for 1969.

TABLE 26: Average Value Per Acre of Farm Land by Reporters' Estimate, U.S. Census of Agriculture 1969, and Reported Sales, Five-County Metropolitan Area, Minnesota, 1969-1971.

County	Reporters'	Census	Reported Sales			
	Estimates 1969-1971	Estimates 1969	1969	1970	1971	Average 1969-1971
		-dollars-				
Carver	555	414	514	491	598	536
Dakota	621	449	786	830	551	665
Scott	420	379	374	412	575	442
Washington	479	535	632	432	935	679
Anoka	a/	325	472	602	1,030	811
Average	518	428	551	584	642	593

a/Insufficient data.

The Census estimates were consistently low, in all counties except Washington. In Anoka, reported sales prices ranged from \$472 an acre in 1969 to \$1,030 in 1971, while reporters' estimates of value were inadequate to yield a statistically reliable average. The land market in Anoka county in 1971 was demoralized by indecision over the location of a proposed new airport for the Twin Cities. Some sales of farm land at over \$1000 per acre took place in 1971, but uncertainty over location of the proposed airport has made it highly doubtful that either the trend or the level of sales prices over the past three years can be maintained. Few reporters were willing to make any estimates of present levels of value.

From Table 27 it is clear that the upward trend in sales prices in 1971 in this area is due entirely to purchases by non-farm buyers, who paid 54 per cent more per acre in 1971 than 1970. Operating farmers and agricultural investor buyers each accounted for approximately one fourth of the sales, but at prices 9 and 28 per cent below 1970 levels. The agricultural investor buyers in particular have declined sharply in significance in recent years, accounting for 38 per cent of the sales in 1970 but only 24 per cent in 1971.

TABLE 27: Sales Price and Percent of Sales by Type of Buyer, Five County Metropolitan Area, Minnesota, 1970-1971.

Type of Buyer	Price Per Acre		% Change in Price	Percent of Sales	
	1970	1971	1970-71	1970	1971
	-dollars-		-percent-	-percent-	
Operating Farmer	521	476	-9	26	25
Expansion Buyer	432	429	-1	13	15
Investor (agricultural)	617	447	-28	38	24
Non Farm User	799	1,230	54	23	36

Additional evidence of the impact of non-farm buyers on the market is provided by Table 28. Land classified as poor for agricultural purposes sold for 34 per cent more per acre (\$638/\$477) than did land considered average in quality. Cash sales in 1971 accounted for one-third of the land in each quality class, compared to only 16 per cent for the state as a whole (Table 28). The average of \$832 per acre paid for good agricultural land is a further indication that the market is dominated by non-agricultural considerations. This price is far above any value that can be justified by its use in farming.

TABLE 28: Price Paid Per Acre and Percent of Sales, by Method of Financing and Quality of Land, Five-County Metropolitan Area, Minnesota, 1970 and 1971.

Land Quality Class	Method of Financing						All Sales	
	Cash		Mortgage		Contract for Deed		1970	1971
	1970	1971	1970	1971	1970	1971		
<b>Good</b>								
\$ per acre	--	550	497	749	696	824	641	832
% of sales	0	33	57	29	48	43	44	39
<b>Average</b>								
\$ per acre	516	587	733	473	500	443	562	477
% of sales	50	33	29	45	33	41	35	41
<b>Poor</b>								
\$ per acre	368	1,377	260	508	595	780	468	638
% of sales	50	34	14	26	19	16	21	20
<b>All Grades</b>								
\$ per acre	457	838	601	541	615	668	584	642
% of sales	100	100	100	100	100	100	100	100

The spatial dimensions of the market are also sharply different (Table 29). In the metropolitan area, 72 per cent of the buyers lived more than 10 miles from the land they purchased. For the state as a whole, 59 per cent of all buyers lived within 10 miles of the purchased tracts. In the agricultural Southwest and West Central districts, over 60 per cent of the buyers lived within 5 miles of the land they bought (Table 21). The fact that 68 per cent of all buyers in the metropolitan area lived from 10 to 49 miles away suggests strongly that the farm land market in the metropolitan area is dominated by buyers living in the Twin Cities and surrounding suburbs.

**TABLE 29: Classification of Farm Land Sales by Distance of Buyer's Residence from Tract, Five-County Metropolitan Area and Minnesota, 1971.**

Miles	Metro Area		Minnesota
		-percent-	
Less than 2	7		25
2-4	10		21
5-9	11		13
10-49	68		25
50-299	2		10
300 and over	2		6
		-miles-	
Median Distance	20		5

Part IV: THE FARM LAND MARKET IN THE RED RIVER VALLEY

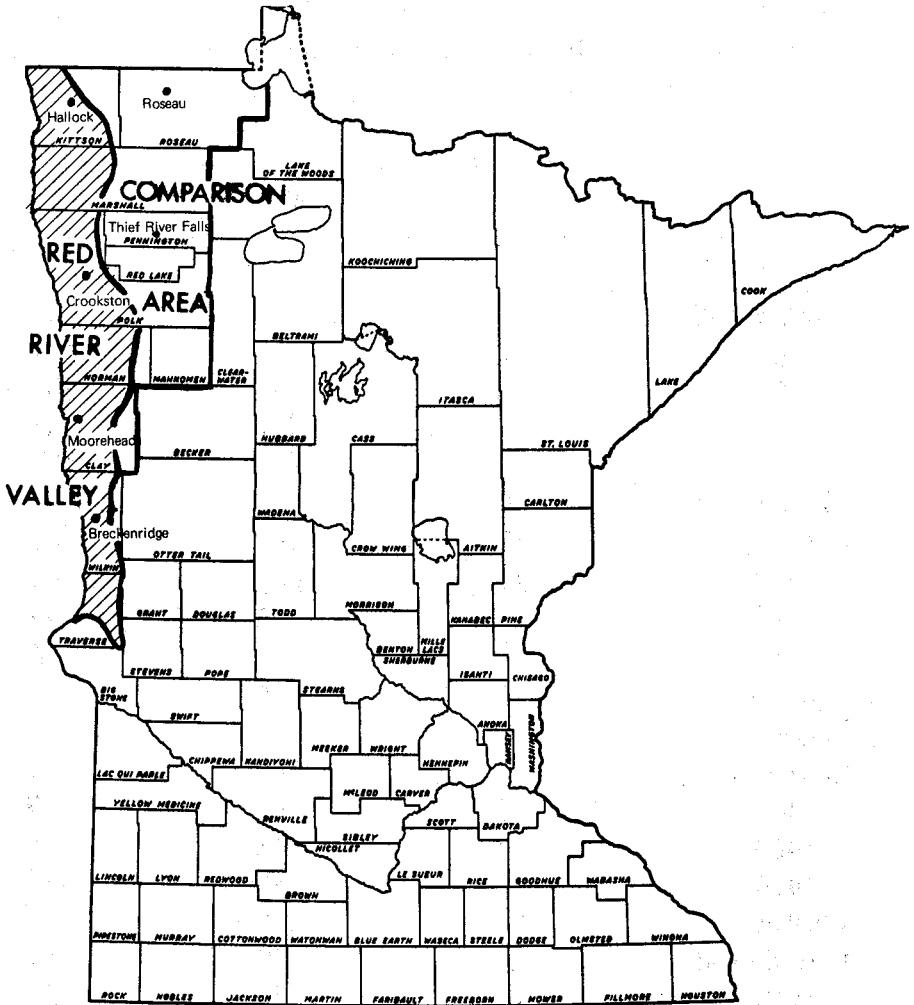
The 12 per cent decrease in reported farm land sales prices in the Northwest district in 1971 (see Table 3) was due almost entirely to declines in the Red River Valley portion of the district. Sales prices in the Valley declined 14 per cent from 1970 levels while sales prices for the comparison area east of the Valley declined a more modest 4 per cent (Table 30). District-wide sales prices, however, declined almost as much as in the Valley. While the total acreage reported sold in the comparison area in the first six months of 1971 was almost exactly the same as in 1970, the acreage sold in the Valley declined almost 25 per cent. The larger percentage of lower-priced land sold in 1971 thus explains the sharply lower average price per acre in the Northwest district as a whole.

TABLE 30: Number of Sales, Acres Reported Sold, and Sales Price Per Acre of Farm Land in the Red River Valley and the Non-Valley Area, Northwest District, Minnesota, 1969-1971.

Item	Red River Valley			Comparison Area		
	1969	1970	1971	1969	1970	1971
Number of Sales, Jan. - June	81	70	50	134	52	67
Acres Reported Sold	21,708	16,660	12,700	a/	17,680	17,085
Sales Price Per Acre (dollars)	178	194	166	104	69	66
Percent Change of Sales Price over preceding Period	--	9%	-14%	--	-34%	-4%

a/ Data not available.

FIG. 6 THE RED RIVER VALLEY AND COMPARISON AREA



Market activity remained low in 1971. Only 117 sales were reported from the Valley and comparison area, in contrast to 1969 when 215 sales were reported.

State-wide, approximately three-fourths of all reported sales are of improved land (land with buildings). The Valley, however, runs counter to the state-wide trend. In the four years, 1968-71 over half of all reported sales in the Valley were of unimproved farm land, although the size of tracts sold averaged well below that of improved land (Table 31). The presence of buildings adds little or nothing to the value of farm land in the Valley, in contrast to most other areas of the state. In both 1970 and 1971, unimproved land in the Valley sold for a higher average price per acre than did improved land.

TABLE 31: Sales of Improved Land, Northwest District, Minnesota, 1968-1971.

	Number of Sales	Average Acreage Per Sale	Sales Price (dollars)
<b>Red River Valley</b>			
<b>Improved</b>			
1968	23	342	179
1969	37	342	184
1970	32	307	184
1971	29	286	161
<b>Unimproved</b>			
1968	37	202	155
1969	34	187	166
1970	38	181	208
1971	21	209	173
<b>Comparison Area</b>			
<b>Improved</b>			
1968	75	406	67
1969	92	276	99
1970	38	242	80
1971	48	243	75
<b>Unimproved</b>			
1968	41	240	41
1969	25	158	70
1970	14	605	58
1971	19	287	48

Expansion buyers dominate the farm land market in the Valley, accounting for nine out of ten sales in 1970 and in 1971 (Table 32). They also paid the highest per acre prices for farm land in the Valley. Given the importance of expansion buying, primary responsibility for the decrease in the volume of reported sales and in prices per acre must therefore be attributed to the slack demand from expansion buyers.

TABLE 32: Percent of Sales and Price Per Acre by Type of Buyer, Red River Valley and Non-Valley Area, Northwest District, Minnesota, 1970-1971.

Type of Buyer	Red River Valley				Comparison Area			
	1970		1971		1970		1971	
	%	\$	%	\$	%	\$	%	\$
Operating Farmer	8	127	8	144	33	80	29	75
Expansion Buyer	89	210	90	174	49	106	47	79
Investor* (agricultural)	3	190	2	130	18	50	24	44

\*Excluding investor buyers for non-farm purposes.

In the comparison area, expansion buyers accounted for approximately 50 per cent of the sales and also paid the highest price per acre, by a narrow margin. Agricultural investor buyers are more important in the comparison area, accounting for 24 per cent of the sales. In the Valley, only one of the 50 sales reported in 1971 was to an agricultural investor buyer.

Sales prices were down for all grades of land sold in the Valley in 1971. Table 33 shows that the greatest decline was in the prices paid for good quality land, which decreased 29 per cent (\$180/\$255). The comparison area also reported price decreases for all grades of land. The price differential between average quality and poor quality land is sharp in both the Valley and the comparison area. In both areas, poor quality land sold for only slightly over 40 per cent of the price paid for average land. This indicates the absence of a market demand from non-farm investors, who typically bid up the prices of the poorer quality lands.



TABLE 33: Sales Price Per Acre and Percent of Sales by Quality of Land, Red River Valley and Non-Valley Area, Northwest District, Minnesota, 1970-1971.

Land Quality	Red River Valley				Comparison Area			
	1970		1971		1970		1971	
	%	\$	%	\$	%	\$	%	\$
Good	55	225	48	180	21	126	30	118
Average	35	176	42	173	51	83	50	71
Poor	10	80	10	70	28	53	20	31

Contract for deed financing gained in popularity in the Valley in 1971, accounting for 58 per cent of all sales (Table 34). In previous years, mortgage financing was used more extensively in the Valley than in the state as a whole (see Table 18), but this was not true in 1971. The frequency of use of the various financing methods in the comparison area was approximately the same as in the state as a whole.

TABLE 34: Method of Finance, Red River Valley and Non-Valley Area, Northwest District, Minnesota, 1969-1971.

Method of Financing	Red River Valley			Comparison Area		
	1969	1970	1971	1969	1970	1971
	-percent-					
Cash	14	16	12	16	23	17
Mortgage	40	41	30	39	37	34
Contract for Deed	46	43	58	44	40	49

## **Part V: THE FARM LAND MARKET IN WEST CENTRAL MINNESOTA**

As noted above, in the discussion of the contour map of land values for 1969 (Figure 5), there is a well-defined area of lower priced land stretching along the western border of the state, from Traverse county to Lincoln county. In a nine-county area, yield variations for

major crops are greater than for the southern and western parts of the state. This section of the report compares land market trends in these higher-risk counties with trends in the rest of the counties making up the Southwest and West Central districts.

Average sales price per acre increased in both the High Risk and comparison areas in 1971. Although prices in the comparison area averaged \$130 more per acre, rates of increase were almost identical at 3 per cent (\$203/\$198) in the High Risk Area and 4 per cent (\$333/\$321) in the comparison area (Table 35). Rates of increase in farm land prices since 1960 have also been very close, at 44 per cent (\$203/\$141) in the High Risk area and 47 per cent (\$333/\$226) in the comparison area. The variability of sales price per acre is slightly greater in the comparison area although the difference is not significant. (For an explanation of the meaning of standard deviation and coefficient of variation, see the Statistical Appendix.)

TABLE 35: Analysis of Reported Sales, High Risk Area and Comparison Area, Minnesota, 1960, 1970, and 1971.

Item	High Risk Area			Comparison Area		
	1960	1970	1971	1960	1970	1971
Number of Sales	157	173	154	373	477	435
Average Size of Tract (acres)	188	175	187	167	176	169
Average Sales Price Per Acre (dollars)	141	198	203	226	321	333
Standard Deviation(\$)	51	71	65	83	129	130
Coefficient of Variation (percent)	36	36	32	37	40	39

In 1971, the ratio of the sales price of unimproved land to improved land was identical for both the High Risk and comparison areas at 87 per cent (Table 36). This is 5 percentage points greater than reported for the state (see Table 11). Sales prices increased slightly for both improved and unimproved land in the High Risk area, and for improved land in the comparison area, but declined slightly for unimproved land in the comparison area in 1971. Sales of improved land in the comparison area were 77 per cent of all sales, the same percentage as reported for the state as a whole, and were 72 per cent in the High Risk area.



TABLE 36: Average Sales Price Paid Per Acre and Percent of Sales in Each Area Classified Improved Land and Unimproved Land, High Risk Area and Comparison Area, Minnesota, 1960, 1970, and 1971.

Class	High Risk Area						Comparison Area					
	1960		1970		1971		1960		1970		1971	
	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$
Improved	65	149	79	203	72	208	84	228	78	323	77	341
Unimproved Land	35	117	21	179	28	181	16	203	22	308	23	296

The highest per acre prices in the High Risk area were paid by agricultural investors but they comprised only 7 per cent of the sales (Table 37). Expansion buyers bought 63 per cent of the tracts sold in the High Risk area, and 66 per cent in the comparison area where they also paid the highest price per acre (\$352).

TABLE 37: Classification of Sales in Each Area According to Type of Buyer, High Risk Area and Comparison Area, Minnesota, 1960, 1970, and 1971.

Type of Buyer	High Risk Area						Comparison Area					
	1960		1970		1971		1960		1970		1971	
	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$
Operating Farmer	28	<u>a</u>	20	183	30	199	48	<u>a</u>	22	291	22	307
Expansion Buyer	59	<u>a</u>	70	208	63	204	42	<u>a</u>	70	326	66	352
Investor (agricultural)	13	<u>a</u>	10	151	7	233	10	<u>a</u>	8	349	12	288

a Data not available.

Land price differences due to variance in land quality were substantial in both areas (Table 38). The average price paid for poor quality land was 60 per cent of that paid for good quality land in the High Risk area (\$140/\$234) and 57 per cent in the comparison area (\$222/\$391). There was very little difference in the sales price of land with no buildings and land with poor quality buildings (Table 39). In the comparison area, land with no buildings sold for \$10 less per acre in 1971 than in 1970.

TABLE 38: Percent of Sales in Each Area According to Reporters' Estimated Quality of Land, High Risk Area and Comparison Area, Minnesota, 1960, 1970, and 1971.

Quality of Land	High Risk Area			Comparison Area		
	1960	1970	1971	1960	1970	1971
	%	\$	%	%	%	%
Good	39 *	40 250	41 234	49 *	46 373	46 391
Average	48 *	41 185	39 200	39 *	42 296	41 307
Poor	13 *	18 128	20 140	12 *	12 219	13 222

\*Data not Available.

TABLE 39: Proportion of Sales and Price Per Acre According to Reporters' Estimated Quality of Buildings, High Risk Area and Comparison Area, Minnesota, 1960, 1970, and 1971.

Quality of Buildings	High Risk Area			Comparison Area		
	1960	1970	1971	1960	1970	1971
	%	\$	%	%	%	%
Good	18 *	12 235	19 240	23 *	21 377	24 397
Average	28 *	20 205	31 206	40 *	33 308	25 337
Poor	21 *	18 182	21 186	20 *	24 295	28 301
None	35 *	50 179	29 181	17 *	22 308	23 298

\*Data not Available.

In both areas a high percentage of all sales was financed by contract for deed (Table 40), although there was a significant increase in mortgage financing in the High Risk area, over 1970.

TABLE 40: Price Paid Per Acre and Percent of Sales by Method of Financing, High Risk Area and Comparison Area, Minnesota, 1970-1971.

Method of Financing	High Risk Area		Comparison Area					
	1970		1971		1970		1971	
	%	\$	%	\$	%	\$	%	\$
Cash	16	189	13	149	12	309	15	290
Mortgage	29	186	39	196	24	306	26	294
Contract for Deed	55	207	48	219	64	325	59	356
All	100	198	100	203	100	321	100	332

## STATISTICAL APPENDIX

One disadvantage in the use of average prices based on actual sales is that the averages do not indicate the degree of variation in the data. Quality of land varies greatly in any one county or district, for example, but it is not possible to derive an accurate measure of land quality from this survey. Over time, the quality of land involved in the sales in any one year may also vary.

One measure of this variability in prices is indicated in Table 42. The standard deviation represents the dollar range from the average within which approximately two-thirds of the reported sales fall. Assume, for example, a district average of \$100 per acre with a standard deviation of \$50. This means that approximately two-thirds of the sales in that district fell between \$50 and \$150 per acre. The coefficient of variation is the standard deviation divided by the average sales price, and multiplied by 100 to convert it to a percentage form. In the above example, the coefficient of variation is 50 per cent. Wider variations in sales price above and below the average create larger coefficients of variation.

In the East Central district, it was noted that there was a large discrepancy between reporters' estimates of farm land values and the prices received in actual sales (see Table 3). This is reflected in a coefficient of variation for the East Central district that is extremely high, at 123.3 per cent. This results from the wide variation in sales prices in this district, ranging from under \$200 per acre to over \$1000 per acre, as a consequence of proximity to the Twin Cities.

Another district that is heavily affected by urban influences is the Southeast, which also had a high coefficient of variation when compared to the Southwest and West Central farming districts. Although the Northwest district is also predominantly agricultural, its coefficient of variation at 67.1 per cent is higher than that for the Southeast district. This is a consequence of land sales at prices ranging from under \$50 to over \$300 in this district. Wide variations in price are also characteristic of the Northeast district, which typically has one of the highest coefficients of variation of any district in the state.



TABLE 41: Average Estimated Price Per Acre of Farm Real Estate in Minnesota by Districts, 1910-1911 through 1944-1945, by Two-Year Periods, and Annually, 1946 through 1971.

Years	South-east	South-west	West Central	East Central	North-west	North-east	Minn.
-dollars per acre-							
1910-11	58	54	39	24	24	11	41
1912-13	69	69	46	29	29	13	49
1914-15	82	84	56	34	32	14	58
1916-17	92	100	67	41	37	15	68
1918-19	117	118	78	50	40	18	82
1920-21	141	152	98	68	57	24	104
1922-23	114	119	82	56	44	23	85
1924-25	104	110	74	49	44	22	78
1926-27	106	109	72	49	36	22	76
1928-29	100	102	67	44	33	21	71
1930-31	88	88	51	36	22	18	60
1932-33	64	65	42	27	20	14	45
1934-35	52	58	38	26	22	15	40
1936-37	59	64	38	29	22	24	44
1938-39	60	68	37	28	22	25	45
1940-41	59	68	36	26	22	24	43
1942-43	65	76	40	29	24	25	48
1944-45	78	90	48	35	29	28	56
1946	88	104	56	39	33	32	65
1947	96	116	62	43	37	35	72
1948	104	129	69	47	41	38	79
1949	107	136	73	49	44	39	83
1950	109	141	76	50	46	40	85
1951	125	166	89	59	54	46	99
1952	131	175	96	65	68	42	107
1953	130	175	95	62	64	40	105
1954	139	187	99	66	72	40	113
1955	150	205	103	68	73	45	121
1956	156	214	107	70	76	42	126
1957	165	230	122	77	86	49	138
1958	179	242	123	84	90	65	147
1959	191	255	134	89	103	58	157
1960	188	248	133	94	99	64	155
1961	189	247	133	95	100	64	156
1962	192	250	138	99	104	69	159
1963	194	246	142	103	114	68	161
1964	206	252	145	111	115	59	166
1965	219	261	146	112	113	51	171
1966	242	277	153	122	112	58	183
1967	262	303	163	128	108	62	194
1968	286	333	181	134	122	57	211
1969	308	350	196	146	120	54	223
1970	317	347	198	161	120	62	227
1971	333	351	204	155	119	63	232

TABLE 42: Average Price Per Acre of Reported Farm Sales, Standard Deviation and Coefficient of Variation, by District, Minnesota, 1960-71.\*

	Year	South-east	South-west	West Central	East Central	North-west	North-east	Minn.
Average Price Per Acre (dollars)	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
	1965	202.0	232.7	133.2	95.8	106.2	39.7	178.0
	1966	253.4	260.4	164.3	113.0	103.4	30.6	203.4
	1967	272.4	306.1	178.6	92.9	116.6	51.2	214.8
	1968	316.0	329.0	186.0	104.0	90.0	47.0	232.0
	1969	340.7	334.1	193.6	129.7	120.8	50.7	238.3
	1970	346	340	206	141	113	45	243
1971	372.1	341.6	205.1	192.5	99.3	46.4	269.3	
Standard Deviation (dollars)	1960	90.4	77.0	47.7	48.6	76.6	42.1	95.8
	1961	83.5	71.9	40.0	47.8	54.1	20.1	86.8
	1962	80.7	68.6	45.1	39.1	57.2	29.7	88.5
	1963	79.4	77.1	50.8	43.7	69.4	26.1	88.6
	1964	91.6	77.3	70.1	52.4	89.9	39.0	97.2
	1965	96.3	87.0	82.1	63.5	91.1	31.7	98.1
	1966	142.7	95.3	56.7	66.5	65.7	32.2	199.4
	1967	115.3	106.2	62.8	67.6	85.4	29.8	127.6
	1968	179.0	124.2	77.5	108.5	70.5	41.6	160.7
	1969	228.6	123.4	64.5	104.2	83.9	45.0	174.0
	1970	189.7	129.6	75.4	105.6	89.5	29.3	162.5
1971	247.6	128.4	71.9	237.4	66.6	34.5	202.6	
Coefficients of variations (percent)	1960	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
	1967	42.3	34.7	35.2	72.8	73.2	58.2	59.4
	1968	56.6	37.3	41.6	103.8	78.3	88.5	69.2
	1969	67.1	36.9	33.3	80.3	69.5	88.9	73.0
	1970	54.8	38.1	36.6	74.9	79.2	65.1	66.9
1971	66.5	37.6	35.1	123.3	67.1	74.4	75.2	

\*Each acre is treated as a unit in calculating standard deviations and coefficients of variation.