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The Minnesota Rural Real Estate Market in 1975

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Including special studies of:

The Red River Valley Southwestern Minnesota Minnesota Development Regions

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SUMMARY

The estimated value of Minnesota farm land in 1975 was \$525 dollars an acre, an increase of 24 percent over 1974. With increases of 42 percent, 1973-74, and 20 percent, 1972-73, the cumulative effect is an increase of 112 percent in the three years 1972-75. The 1975 figure is more than three times the \$171 per acre reported for 1965.

The increases were not uniform throughout the state. Where cash grain crops predominate (the Southwest, West Central, and Northwest District), increases in 1975 exceeded the state average. Where livestock production predominated, and in areas affected by urban, residential and recreational land uses, increases were below the state average. This reverses a trend that had prevailed throughout the 1960's and to July 1972.

The largest percentage increase was in the Northwest district where estimated values jumped 48 percent, July 1974 to July 1975. The smallest increase was in the East Central district, north and west of the Twin Cities, where values in mid-1975 were only 6 percent higher than in 1974.

The rural land market in 1975 was unusual in several ways. Historically, the proportion of farm land sales that involved improved land (land with buildings) has average three-fourths or more. In 1975 this percentage fell to two-thirds, the lowest percentage reported in the past quarter century. This reflects a second major feature of the market in 1975: The predominance of farm expansion buyers. For the state as a whole, 60 percent of all sales were to buyers who were adding the land purchased to land already owned. In the three western districts, expansion buyers accounted for 67 to 75 percent of all sales. They paid the highest prices in all districts except the Northeast, and were primarily interested in purchasing land without buildings. As a result, unimproved land sold for more than improved land statewide and in all districts except the Northeast, for the first time in the history of Minnesota land market statistics.

Two types of data are collected in this annual survey: (1) Estimates of value, for land graded good, average, and poor in quality. (2) Prices received in 1429 actual sales of tracts over 10 acres in 1975, with accompanying data on land and building quality, location, method of financing, and buyer and seller characteristics. In 1975 sales prices exceeded estimates of value in all districts except the Northeast, and were 35 percent above the average sales price reported in 1974, statewide. The average sale in 1975 involved a tract of 179 acres, at \$607 per acre, for a total value of \$108,653.

Although sales prices were up, the volume of sales in 1975 was 22 percent below the peak level of 1974, which was the highest rate of voluntary farm land transfers since 1949. This slow-down in land market activity was not characteristic of the Red River Valley, which experienced the largest percentage increase in land prices in the state in 1975, accompanied by an increase in volume of sales. In the two years from July 1973 to July 1975, the average sale price of Red River Valley land rose from \$201 to \$535 per acre. In 1975, 94 percent of all purchases in the Valley were made by farm expansion buyers, indicating clearly the price-increasing impact of this type of buyers in the farm land market.

Statewide, 57 percent of all sales were financed by contract for deed, with mortgages accounting for 28 percent, and cash sales the remaining 15 percent. This continues the dominant role played by contracts for deed in current land market financing. Among districts, the only notable variation from the state averages was in the Northeast, where 30 percent of all sales were for cash in 1975, and 45 percent were financed with contracts for deed.

The buoyant forces in the land market in 1975 were thus farm expansion buyers, in the cash grain areas. The high prices have been primarily the result of purchases by neighboring farmers. Statewide, 67 percent of all sales were to buyers who lived less than 10 miles from the land they pruchased. In the Southwest district, which includes the highest pricedland in the state, 76 percent of all sales were to buyers living within 10 miles of the land they bought.

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PROCEDURE

Data for the Minnesota Rural Real Estate Market Report in 1975 were collected through the use of mail questionnaries sent to 2,950 individuals during the months of July and August, 1975. Potential respondents included real estate brokers, agricultural loan specialists, bankers, and other people knowledgeable of farm land values in Minnesota.

The questionnaire was expanded in 1974 to include a third section dealing with rural land sales primarily for non-farm use. However, this report deals mainly with rural land sales and values in agricultural use. In the first section respondents were 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 were used to calculate percentage changes in land values during the past year. This was 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 district; and (3) dividing this total for all counties in a district by the total acreage of farm land in that district. In making comparisons with 1974, only estimates of the respondents who had answered in both 1974 and 1975 were used. On the basis of this rather rigorous restriction, a total of 570 estimates were usable.

The second section of the questionnaire requested data on actual farm sales during the period from January 1 to July 1, 1975. Reports were obtained on a total of 1,429 sales. Data were supplied on type of buyers and sellers, method of financing, and quality of land and buildings. Reporters were requested not to include sales between close relatives when filling out this part of the questionnaire.

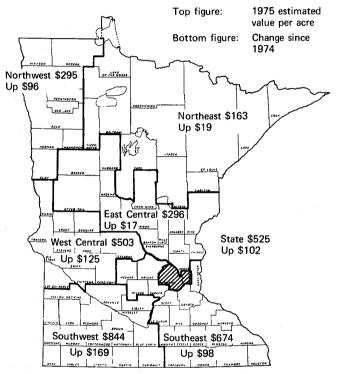
Three types of agricultural buyers are distinguished in this report:

- 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.

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. The quality of land for farming purposes is judged good, average, or poor by the respondents. Also building quality is rated as good, average, poor, or none by the respondents.

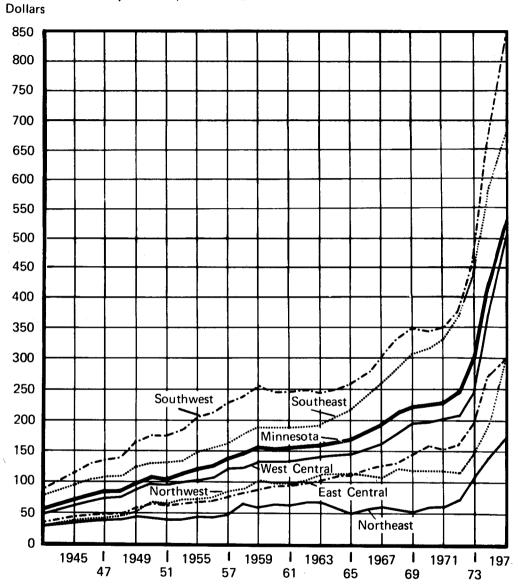
Land value changes determined by the estimate method have definite advantages over value changes based on reported sales. The quality of land and buildings has a marked effect upon land value and these factors can vary significantly from year to year and from sale to sale. The estimate method holds these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

Figure 1: Estimated Average Rural Land Values From Reporter's Estimates*



^{*}Hennepin and Ramsey Counties excluded.

Figure 2: Estimated Average Value Per Acre of Minnesota Farm Land by Districts, 1945-1975.



PART I: THE MINNESOTA FARM LAND MARKET IN 1975

A. Land Market Trends

Reporters' Estimates

The estimated statewide average value of farmland in Minnesota in 1975 was \$525 per acre (Table 1). This is an increase of \$102 per acre, or 24 percent over 1974, and represents the third largest annual percentage increase in farmland values in this century. Only the increases in 1919-20 and 1973-74 (27 and 42%, respectively) were larger. This 24 percent increase on top of a 42 percent increase in 1973-74 and a 20 percent increase in 1972-1973, results in a 112 percent increase in farmland values from July 1972 to July 1975 (see Appendix, Tables 46 and 47). In many instances, trends in land market activity that were prominent in 1974 were even more pronounced in 1975, especially the dominant role in land sales activity played by farm expansion buyers. As in 1974, the 1975 market was most active in basically agricultural areas—particularly in the cash grain regions of southern—and western Minnesota and in the Red River Valley.

Tables 1 and 2 show that the 1974-75 increase was not evenly distributed over the state. Where cash grain crops dominate land use—the Southwest, West Central, and Northwest districts—farmland values rose by more than the statewide average (25 to 48 percent, Table 2). In the Southeast, East Central, and Northeast districts, which are more dependent upon livestock agriculture and are more influenced by urban, residential and recreational land uses, farmland values in 1974-75 increased by less than the statewide average in all three districts (from 6 to 17 percent). Throughout the 1960's and to July 1972, the largest annual percentage increases in farmland values typically occurred in these three districts, in which livestock farming and urban, residential and recreational land uses were prominent. As Table 3 points out, this trend has been completely reversed over the last three years.

Farmland values in the Southwest district continue to lead the state, with an estimated average value of \$844 per acre (Figure 1). As depicted in Figure 2, the Southwest district has maintained its top position for the past thirty years. During this period, its lead generally widened from 1945 until 1960, and then slowly narrowed to less than \$10 per acre over the Southeast by 1972. The narrowing was due primarily to non-farm demand for land during the 1960's and early 1970's which was especially intense in the urbanizing corridor of the state running from St. Cloud southeast through the Twin Cities to Rochester. Starting in 1973, the Southwest's lead again started to lengthen and is presently \$170 per acre above the Southeast. In addition, Figure 1 shows that the largest dollar increase in farmland value over 1974 occurred in the Southwest—\$169, followed by the West Central district with an advance of \$125 per acre over 1974.

Since 1965, the value of Minnesota farmland has more than tripled, from \$171 to \$525 per acre. As Table 2 points out, this 207 percent increase has not been uniformly distributed through time or over space. Over five-sixths of the dollar increase since 1965 occurred after 1970. A spatial breakdown of farmland value changes over the 1965-75 period (Table 2) shows that the more urbanized Southeast and East Central districts dominated the first half of the decade while the more agricultural Southwest, West Central, and Northwest districts experienced larger percentage increases in the second half. In fact, the appreciation in farmland values in the Southwest (143%) and West Central (154%) after 1970 was substantial enough to place these districts on top when percentage change during the entire decade is considered. It should be noted that over the three most recent years (1972-75), only the Northwest district experienced a continuing upward movement in annual percentage increases in farmland value of 25, 36, and 48 percent (Table 3, see Part II).

Table 1: Estimated Averåge Value Per Acre of Farm Land by District, Minnesota, 1965-1975*

Years	South- east	South- west	West Central	East Central	North- west	North- east	Minn.
			-dollars p	er acre-			
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
1972	370	379	208	163	117	76	248
1973	433	459	247	194	146	. 115	298
1974	576	675	378	279	199	144	423
1975	674	844	503	296	295	163	525

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

Table 2: Percentage Changes in Estimated Farm Land Value Per Acre, by District, Minnesota, 1965-75, 1965-70, 1970-75, and 1974-75.

District			Perce	nt Change-	
District	Per Acre	1965-75	1965-70	1970-75	1974-75
	-dollars-		-per	cent-	
Southeast	674	208	45	113	17
Southwest	844	223	33	143	25
West Central	503	245	36	154	33
East Central	296	164	44	84	6
Northwest	295	161	6	146	48
Northeast	163	220	22	163	13
Minnesota	525	207	33	131	24

Actual Sales

Information was received on 1,429 farm sales in the first six months of 1975. The statewide average reported sales price for farmland was \$607 per acre (Table 4). This represents a 35 percent increase over the 1974 average sales price and is significantly greater than the 24 percent increase in estimated land values. The difference is due in part to a larger number of sales of high-priced land in 1975 than in 1974. This shift in the location of sales activity from lower priced land to higher priced land was evident in the Southeast and West Central districts, and was unmistakable in the Northwest district. In the Southeast district, the predominance of sales of higher valued farmland was most apparent in the cash grain producing counties of south central Minnesota, particularly Rice, Freeborn, Steele, and Waseca, with sales prices averaging over \$1000 per acre in the latter three counties. Farm sales activity, 1974-75, intensified in the Red River Valley relative to the Non-Valley Comparison Area (see Table 26), accounting for much of the shift in sales from low priced to high priced land in the Northwest and West Central districts.

To remove the effect of this geographic shift in sales activity an adjusted sales price per acre was computed for each district as follows: For each county, the average price per acre from reported sales in 1975 was applied to the acres sold in 1974. The results were summed for each district and divided by total acres sold in that district in 1974. The adjusted price thus eliminates the effect of changes in the geographic distribution of acres sold between 1974 and 1975. The results, presented in Table 5, reveal that the 1975 statewide adjusted average sales price (\$606 per acre) was almost identical with the 1975 reported average sales price (\$607 per acre). The difference between the adjusted and reported average sales price was significant only in the Northwest district (\$329 versus \$353 per acre).

The spatial shift in land market activity toward higher priced lands does not adequately explain the discrepancy between estimated land values and actual sales prices. Two other factors may have contributed to this difference. First, there is a time lag between the negotiation of actual sales prices and thees timation of land values. Information on actual sales in 1975 was collected for the period January 1 - July 1, while estimates of land values were made by respondents for the month in which they returned the survey questionnaire—usually August or September, 1975. Consequently, land value estimates were made after downward trends in some agricultural commodity prices in 1975 were clearly visible. Reporters may have capitalized lower prices for corn, soybeans, wheat, barley and sugar into their estimates of land values. In contrast, buyers of farmland who were negotiating sales over the Fall and Winter of 1974-75 may have been capitalizing the higher 1974 crop prices into their purchase bids, especially for sales completed early in 1975.

Second, with record farm incomes from 1973 to 1974, many farmers apparently decided to purchase land to expand the size of their holdings. Competition for additional land by expansion-minded farmers has pushed up land prices substantially over the last two years. Expansion buying accounted for three-fifths of all purchases in 1974-75 and expansion buyers paid considerably higher prices than other buyers (see Tables 16 and 17). As a result, some reporters may have felt that the general level of land values has been distorted by the much higher prices paid by expansion buyers who can use existing holdings acquired at a lower cost to finance additional land purchases. This line of reasoning may explain some of the divergence between estimated land values and actual sales prices. In addition to a spatial shift in land market activity over the last two years, there has also been a shift in buyer activity. Further evidence of the effects of this shift in land market activity towards farm expansion buyers will be presented in Section B, which analyzes reported sales.

Table 6 shows that the average reported sales for individual districts ranged from \$159 per acre in the Northeast to \$844 per acre in the Southwest. For the first time since 1967, farmland in the Northwest district averaged more than agricultural land sold in the urban-influenced East Central district (\$353 versus \$299 per acre). As noted in Table 7, in the twelve months from July 1974 to July 1975 the greatest percentage increases in actual sales prices were in the more agricultural districts—the Southwest, West Central, and Northwest (34, 45, and 73 percent, respectively). The same pattern applies over the past 5 years (1970-75), but when the past 10 years are considered the most urbanzied Southeast and the least agricultural Northeast continue to maintain their lead in sales price increases (272 and 298 percent, respectively).

Table 3: Annual Percentage Changes in Estimated Farm Land Value Per Acre, by District, Minnesota, 1969-1975.

	-Percentage Change from July to July-										
District	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75					
			-percen	t-							
Southeast	3	5	11	17	33	17					
Southwest	-1	1	8	21	47	25					
West Central	1	3	2	19	53	33					
East Central	10	-4	5	19	44	6					
Northwest	0	-1	-2	25	36	48					
Northeast	14	2	20 .	51	25	13					
Minnesota	2	2	7	20	42	24					

Table 4: Average Estimated Value Per Acre of Farm Land Compared with Prices Received in Actual Sales, by District, Minnesota, 1974-1975.

	-19	74—	-19	75—	Percent Changes		
District	Estimated Value	Sales Price	Estimated Value	Sales Price	Over 1974 Estimated Actual		
		-dollars per a		-percent-			
Southeast	576	598	674	792	17	32	
Southwest	675	630	844	844	25	34	
West Central	378	340	503	493	33	45	
East Central	279	243	296	299	6	23	
Northwest	199	204	295	353	48	73	
Northeast	144	144	163	159	13	10	
Minnesota	423	450	525	607	24	35	

Table 5: Comparison of Sales Prices by Districts, 1974 and 1975, Adjusted to Remove the Effect of Changes in the Geographic Distribution of Sales.

	Average		Adjusted	Percent in Sales	Price
	Per Acre	,	Price	July 1974-	
	Reported		Per Acre	Reported	Adjusted to
District	1974	1975	1975	Sales	1975 Volume*
	\$	\$	\$	%	%
Southeast	598	792	775	.32	30
Southwest	630	844	847	34 .	34
West Central	340	493	486	45	43
East Central	243	299	301	23	24
Northwest	204	353	329	73	61
Northeast	144	159	158	10	10
Minnesota	450	607	606	35	35

^{*} The adjusted price per acre was computed as follows: For each county, the average price per acre from reported sales in 1975 was applied to the acres sold in 1974. The results were summed for each district and divided by total acres sold in that district in 1974. The adjusted price thus eliminates the effect of changes in the geographic distribution of acres sold between 1974 and 1975.

Activity in the Land Market

The U.S. Department of Agriculture has estimated that voluntary sales numbered 37.4 per 1,000 farms in Minnesota for the year ending March 1, 1975 (Table 8). This represents a 22 percent decline from 1974 and is consistent with the decreased number of farm sales reported in this survey for all districts except the Northwest (Table 9). Forced sales, inheritance, gifts, and other transfers also declined from the previous year, resulting in an overall rate of transfer of 47.6 sales per thousand farms. It is worth noting that transfers due to forced sales (foreclosure, tax delinquency) were 0.3 per thousand farms, or three per ten thousand, which is the lowest figure ever reported for transfers due to forced sales in Minnesota since this statistical series was first started in 1926.

Table 6: Average Reported Sales Price Per Acre of Farm Land, by District, Minnesota, 1965-1975*

			—Distri	ict—			
Years	South- east	South- west	West Central	East Central	North- west	North- east	Minn.
			-dollars pe	er acre-			
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	344	343	205	150	100	44	259
1972	389	366	222	145	107	76	293
1973	444	410	223	178	120	122	298
1974	598	630	340	243	204	144	450
1975	792	844	493	299	353	159	607

^{*} Based on reported farm sales, January 1 to July 1 of each year.

Table 7: Percentage Changes in Sales Price Per Acre, by District, Minnesota, 1965-75, 1965-70, 1970-75, and 1974-75.

	Sales Price Per	-Perc	ent Change-		
District	Acre in 1975	1965-75	1965-70	1970-75	1974-75
	-dollars-		-percent-	-	
Southeast	792	272	62	129	32
Southwest	844	262	46	148	34
West Central	493	271	55	139	45
East Central	299	211	47	112	23
Northwest	353	233	7	212	73
Northeast	159	298	13	253	10
Minnesota	607	241	37	150	35

As predicted in the 1974 issue of this report, the 59.9 sales per thousand farms in 1974 declined significantly in 1975. Some of the evidence for this prediction is presented in Table 10, showing that the percentage of reporters indicating a decline in the number of farm tracts listed for sale with brokers increased notably for the survey period (January1—July 1) in 1974 relative to the same period in 1973. There was apparently a decrease in the supply of farm tracts offered for sale during 1974 and this reduction in supply continued in 1975 (note the increased percentages in the "changed little" column for 1975 relative to the corresponding 1974 column, Table 10). A decreased supply of farm tracts offered for sale together with a strong demand for farmland (especially by expansion buyers) during 1974 and 1975 resulted in the record increases in farmland values over the last two years.

Statewide, there had been a decline in the average size of farm tract sold over the past three years, from 196 acres/sale in 1973 to 179 acres/sale in 1975 (Table 9). The decline has been uniform in all districts except the East Central, where average size of tract has consistently increased, 1973-1975. This is to be expected, since expansion buyers do not predominate in the East Central district as they do in the other four agricultural districts of the state (see Table 16).

Table 8: Estimated Number of Farm Title Transfers Per Thousand Farms, by Methods of Transfer, Year Ending March 1, Minnesota, 1960-1975.

Years	Voluntary Sales	Forced Sales (Foreclosures, Tax)	Inheritance, Gifts and all Other Transfers	Total all Classes
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
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
1972	34.7	1.6	9.6	45.9
1973	42.3	2.4	11.9	56.6
1974	47.7	1.1	11.1	59.9
1975	37.4	0.3	10.0	47.6

Source: "Farm Real Estate Market Developments", CD-80, Economic Research Service, USDA, July 1975.

Table 9: Number of Sales, Acreage of Land Sold and Average Acres Per Sale, by District, Minnesota, January 1-July 1, 1973-1975.

	No. of Sales*			Acres Sold			Acres/Sale		
District	1973	1974	1975	1973	1974	1975	1973	1974	1975
Southeast	460	459	433	76,278	74,999	67,934	166	163	157
Southwest	579	519	402	103,771	88,933	65,387	179	171	163
West Central	316	301	228	69,546	61,956	46,032	220	206	202
East Central	272	221	188	44,473	36,709	33,074	164	166	176
Northwest	161	128	132	54,921	39,305	36,615	341	307	277
Northeast	54	48	46	12,790	9,885	7,339	237	206	160
Minnesota	1,842	1,676	1,429	361,779	311,787	256,381	196	186	179

^{*} These sales should not be interpreted as a record of total farm land transactions for the years indicated. The majority of farm land sales occur in the first half of the calendar year, which explains the choice of the Jan. 1—July 1 reporting period. Some sales do occur in the latter half of the year, but they are not included in the data reported above.

Over the past five years, the proportion of sales involving real estate brokers or agents has decreased in the more agricultural districts—the Southwest, West Central, and Northwest (Table 11). Two reasons for this decline have emerged from this study. First, respondents have commented upon the growing number of auction sales in these districts. There have also been reports of the use of auctions for land to be rented out. Second, the percentage of farm expansion purchases has risen significantly over this period in the Southwest, West Central, and Northwest districts (see Table 16). These purchases are typically made from neighbors and often do not involve the services of a real estate broker or agent.

Table 10: Proportion of Reporters Indicating Changes in Number of Farm Tracts Listed for Sale with Brokers, by District, Minnesota, 1973, 1974, and 1975.

	—Percentage Indicating Listings Had— Increased Decreased Changed Little									
District	1973 1974		1975	1973	1974	1975	Changed I 1973 1974			
								1277	1373	
				-percent	÷					
Southeast	18	6	4	30	40	38	52	53	58	
Southwest	6	4	5	38	37	30	55	59	65	
West Central	12	4	8	27	41	28	61	55	64	
East Central	8	16	13	33	30	19	60	55	68	
Northwest	4	: 4	4	38	44	15	58	52	81	
Northeast	5	10	17	19	24	7	76	67	77	

Table 11: Estimated Proportion of Farm Land Sales in which Brokers or Dealers Participate, Minnesota, by District, 1971-1975.

		Sales \	With Broker's Se	ervices		Čhange
District	1971	1972	1973	1974	1975	1971-75
			-percent	ţ-		
Southeast	58	59	58	61	58	0
Southwest	55	52	51	54	47	-8
West Central	55	56	54	- 53	52	-3
East Central	53	54	58	55	60	+7
Northwest	42	40	40	40	34	-8
Northeast	47	50	46	58	54	+7
Minnesota	52	52	51	54	51	-1

Broker participation, 1971-1975, remained the same or increased in the urban and recreationally-oriented Southeast, East Central, and Northeast districts (Table 11). This is probably due to the larger proportion of urban buyers who have purchased farmland in these districts for investment, residential, and recreational purposes. Statewide, there was virtually no change in broker participation in farmland sales, 1971-1975, with the exception of a small increase in 1974.

B. Analysis of Reported Sales

Reason for Sale

The two most frequent reasons for selling land in Minnesota—retirement and death—accounted for almost three-fifths of all decisions to sell in 1975 (Table 12). These two reasons were most prominent in the Southwest and West Central districts, accounting for 62 and 65 percent of sales, respectively. Statewide, 15 percent of the sellers left farming for another job. This is an increase from 1974 (12%) but still significantly less than 1973 and earlier years when exit from agriculture consistently accounted for about 20 percent of all decisions to sell. The 1975 increase over 1974 is largely due to substantial departures from farming in the East Central (24%) and Northeast (35%) districts, whose agriculture is heavily dependent upon milk and livestock production. The "other" category, with 21 percent of sales in the state, has typically included such reasons as ill health, financial problems, and sales by speculators. In 1975, divorce and sales for profit by farmers were frequently mentioned as reasons for sales in this "other" category.

Table 12: Reason for Selling Land, by District, Minnesota, 1975

Reason for Sales	South- east	South- west	West Central	East Central	North- west	North- east	Minn.
			-percentages	-			
Death	13	28	19	9	9	0	17
Retirement	39	34	46	43	46	46	40
Left Farming Moved, Still	14	13	8	24	15	35	15
Farming	9	5	3	11	9	7	7
Other	24	19	23	13	21	13	21

Improved and Unimproved Land

Improved land (that with buildings) constituted only 66 percent of all 1975 sales (Table 13). This proportion has been steadily declining over the last 5 years. In the 1960's improved land consistently accounted for 80 percent or more of all sales. Among the districts, there are two well defined groupings. The more agricultural Southwest, West Central, and Northwest districts all had proportions of improved land sales notably lower than the statewide average. The remaining three less agricultural districts had proportions of improved land transactions significantly above the average. This suggests that the major motivation for land purchase in the more agricultural areas has been for farm expansion through acquisition of unimproved land, while fewer farmers have increased the size of their holdings in the East Central, Southeast, and Northeast districts.

Table 13: Proportion of Improved and Unimproved Land Sales, by District, Minnesota, 1970, 1974, and 1975.

		Improved Land		Unimproved Land				
District	1970	1974	1975	1970	1974	1975		
		-percent-		percent—				
Southeast	78	68	72	22	32	28		
Southwest	79	70	61	21	30	39		
West Central	74	72	58	26	28	42		
East Central	85	73	82	15	27	18		
Northwest	59	57	48	41	43	52		
Northeast	75	85	72	25	. 15	28		
Minnesota	77	69	66	23	31	34		

The presence of buildings was associated statewide with the lower sales prices of farmland. Table 14 shows that unimproved land sold for 101 percent of improved land prices. This is substantially above the trend of the previous decade, when unimproved land prices averaged 80 percent of prices paid for improved land (Table 15). The lower sales prices for land with buildings was evident in the less agricultural Southeast and East Central districts as well as in the more agricultural areas of the state. In prior years, this trend has been detected only in the more agricultural areas which have been dominated by farm expansion buyers, who place a higher value on land without buildings than do other buyers. Land without buildings sold for prices equal to or above those paid for land with buildings in all districts except the Northeast. The result is that unimproved land sold for more than improved land, statewide, for the first time in the history of Minnesota land market statistics (Table 15).

Table 14: Average Sales Price Per Acre of Improved and Unimproved Farm Land, by District, Minnesota, 1975

District	Improved Land	Unimproved Land	Unimproved as a Percent of Improved
	-dollars	percent	
Southeast	786	815	104
Southwest	841	851	101
West Central	466	545	117
East Central	298	302	101
Northwest	353	353	100
Northeast	172	112	65
Minnesota	605	613	101

Table 15: Price Differential Between Improved and Unimproved Land Sold, Minnesota, 1965-1975.

Year	Improved Land	Unimproved Land	Difference	Unimproved as a Percent of Improved
		-dollars per acre-		percent
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	271	207	64	76
1972	308	236	72	77
1973	317	234	83	74
1974	454	438	16	96
1975	605	613	-8	101

Type of Buyer

Further insight into the effects of the shift in buyer activity in the 1975 farmland market can be gained by grouping agricultural buyers into three classes: Operating farmers who buy complete farm units as owner-operators; farm expansion buyers, who may be operating farmers or investors increasing the size of their holdings; and agricultural investor buyers, who are nonfarmers who have bought land to be rented out or managed for farming purposes (this land is not being added to land already owned). Each class of buyer over the five-year period 1969-73 had maintained its relative market share statewide at a remarkably constant proportion. This proportion of sales to operating farmers, expansion buyers, and agricultural investors averaged 30, 53 and 17 percent, respectively, over the period (Table 16). In 1974 a significant change occurred in the proportion of farmland sold to these three classes of buyers, and this trend intensified in 1975.

Expansion buyers have increased their share and now account for three-fifths of the farm tracts pruchased (versus 54% in 1973). Purchases by both operating farmers and agricultural investors have declined proportionately. By districts, farm expansion buyers dominated the land market in the three major agricultural districts, with 75, 72, and 67 percent of the sales in the Northwest, Southwest, and West Central districts, respectively (Table 16). Operating farmer buyers still predominate in the East Central and Northeast, two districts associated with a larger proportion of part time and "hobby" farms.

Table 16: Percent of Tracts Purchased by Type of Buyer, by District, Minnesota, 1969-1973 Average, 1974, and 1975

	Operating Farmer Buyer (Sole Tract)			Farm Expa (Operator		•	Agricultural Investor Buyer* (Sole Tract)		
District	1969-1973 (Average)	1974	1975	1969-1973 (Average)	1974	1975	1969-1973 (Average)	1974	1975
				-percent-					
Southeast	. 33	26	25	41	54	55	26	21	20
Southwest	. 20	18	16	69	70	72	. 11	12	. 11
West Central	27	29	20	61	60	67	12	. 12	13
East Central	53	46	48	27	39	37	20	15	15
Northwest	21	19	15	67	71	75	12	10	10
Northeast	45	49	62	24	13	20	. 31	38	18
Minnesota	30	26	25	53	59	60	17	15	15

^{* &}quot;Agricultural investors" are defined as those who buy farm land to be rented out or managed for farming purposes.

Prior to 1974, the highest prices were typically paid by investor buyers, next highest by expansion buyers, and lowest by operating farmers. This trend was modified in 1974 and completely altered in 1975. Expansion buyers paid almost \$200 per acre more than other buyers in 1975 (Table 17). For the state as a whole, expansion buyers paid \$690 per acre, followed by operating farmers who paid \$495 per acre, and agricultural investors at \$493. The average price paid by expansion buyers represents an extraordinary 131 percent increase in the last two years. For operating farmers, the average sales price increased 74 percent from 1973 to 1975, while investors were only willing to pay 54 percent more during this period. In all districts except the Northeast, expansion buyers paid significantly more than other buyers. This difference ranged from 8 percent in the East Central to 94 percent in the Northwest district (Table 17).

Land and Building Quality

Effects of this shift in land market activity by type of buyer were first evident when examining land and building quality in 1974, and were intensified in 1975. Statewide, good land sold for \$771 per acre in 1975 and accounted for 37 percent of sales. Land of average quality was \$565 per acre and made up 48 percent of sales. The remaining 15 percent of sales were of poor quality land, averaging \$357 per acre (Table 18). Good

Table 17: Average Sales Price Per Acre by Type of Buyer, by District, Minnesota, 1973, 1974, 1975.

	Operating Farmer			Expan	sion Buyer				
District	1973	1974	1975	1973	1974	1975	1973	1974	1975
				-dollars	per acre-				
Southeast	453	583	725	418	607	835	470	602	745
Southwest	390	544	668	423	687	936	383	483	639
West Central	226	321	434	219	.377	551	230	309	334
East Central	172	231	294	177	257	318	198	208	249
Northwest	104	196	215	124	204	417	108	189	232
Northeast	94	160	162	190	97	151	92	132	164
Minnesota	285	404	495	299	492	690	321	418	493

quality land sold for significantly more than twice the price of poor quality land (\$771 versus \$357 per acre). The proportion of sales of poor quality land declined in 1975 while the proportions of good and average land sales increased over 1974 (Table 18). This is all consistent with a more active land market in the better agricultural areas of the state.

Table 18: Price Paid Per Acre and Proportion of Sales of Land of Various Quality, Minnesota, 1974 and 1975.

Land Quality	Propo	ortions	Price F	Price Per Acre		
	1974	1975	1974	1975	Change in Price from 1974	
	-percent-		-dollars p	-percent-		
Good	36	37	588	771	31	
Average	46	48	427	565	32	
Poor	18	15	278	357	28	
All	100	100	450	607	35	

In 1974, expansion buyers paid just as much or more than did other buyers for good and average quality land; this was a change in the trend of previous years when agricultural investors consistently outbid other buyers for land of good and average quality. However, in 1974 as well as in earlier years, farm expansion buyers paid less than other types of buyers for poor land. But in 1975 expansion buyers paid substantially more for all land regardless of quality (Table 19). Table 19 also points out that land rated good or average accounted for 88 and 84 percent of the purchases by expansion buyers and operating farmers, respectively. This is to be expected, since most agricultural buyers want to upgrade or maintain the quality of their farms. What is interesting about this observation is that the proportions for expansion buyers and operating farmers are reversed from 1974. Operating farmers, unable to compete against expansion buyers for good and average quality land, have apparently turned to purchases of lower quality land.

Fable 19: Price Per Acre and Percent of Purchases by Type of Buyer for Land of Various Quality, Minnesota, 1975.

Type of Buyer	Good		-Land Aver	Quality— age	Poor	
	\$	%	\$	%	\$	%
Operating Farmer	614	31	506	53	289	16
Expansion Buyer	818	41	625	47	431	11
Agricultural Investor	767	28	458	47	341	25
All	771	37	565	49	357	1,5

Another change in the land market, which was first apparent in 1974 and gained strength in 1975, is presented in Table 20. In 1974, for the first time, land without buildings sold for more than land with poor quality buildings. This trend intensified in 1975 as land without buildings sold for \$613 per acre while land with average and poor buildings sold for less (\$599 and \$515 per acre, respectively). As was first true in 1974, farm expansion buyers paid considerably more than did other buyers regardless of building quality. The significance of building quality still varies widely among classes of buyers when percent of purchases is considered. While 71 percent of purchases by operating farmers included buildings of good or average quality, only 35 percent of purchases by expansion buyers had average or better buildings (Table 20).

Method of Financing

Use of contracts for deed (or land contracts) to finance farmland pruchases has been gradually increasing since the mid-1950's, while utilization of both cash and mortgage financing has continually, though erratically, declined. From1964 to 1974 the statewide proportion of farm sales financed with contracts for deed rose from 44 to 60 percent, the highest proportion ever reported in this annual survey (Table 21). On the other hand, mortgage sales were at an all time low in 1974 (24 percent). During 1975, contract for deed sales declined somewhat to 57 percent, while mortgage financing increased to 28 percent of sales and cash sales dropped slightly to 15 percent. In all districts except the West Central, a similar pattern emerges as contract for deed financing reached record levels in 1974, then slackened in 1975 with mortgage sales accounting for most of this decline (Table 21).

Table 20: Price Per Acre and Percent of Purchases by Type of Buyer for Land with Various Quality of Buildings, Minnesota, 1975.

	—Building Quality—										
Type of Buyer	Good		Average		Poor		None				
•	\$	%	\$	% .	\$	%	\$	%			
Operating Farmer	646	30	486	41	351	21	349	8			
Expansion Buyer	801	12	718	23	650	18	642	47			
Agricultural Investor	706	16	435	24	438	28	528	32			
All	722	17	599	28	515	20	613	35			

Table 21: Proportion of Farm Sales by Method of Financing, by District, Minnesota, 1964, 1974, and 1975.

Method of Financing	South- east	South- west	—District— West Central	East Central	North- west	North- east	Minn
			p	ercent—		: : : : : : : : : : : : : : : : : : :	
Cash			·				
1964	19	1,7	16	30	24	36	20
1974	12	- 15	13	24	22	28	16
1975	12	16	13	15	18	30	15
Mortgage							27.2
1964	29	42	46	30	31	37	36
1974	19	26	26	27	24	26	24
1975	28	27	24	36	30	25	28
Contract for Deed							
1964	52	41	38	40	45	27	44
1974	68	59	- 61	49	54	47	60
1975	60	58	63	49	52	45	57

In prior years, the highest prices per acre were paid in sales financed by contract for deed (Table 22). In 1975 this trend was altered with cash sales bringing the highest price per acre, statewide (\$645 compared to \$597 per acre for contract for deed sales). Much improved agricultural incomes over the last three years evidently enabled expansion buyers financing with cash to outbid other buyers. By districts, this change in an earlier trend was not exhibited in four of the six districts (Table 22), but the higher prices paid by cash buyers in the most agricultural districts, the Southwest and Northwest, were substantial enough to modify the statewide trend.

Table 22: Average Sales Price Per Acre of Farm Land by Method of Financing, by District, Minnesota, 1973, 1974, and 1975.

			—Distri	ct-			
Method of Financing	South- east	South- west	West Central	East Central	North- west	North- east	Minn
			-dollars per	acre-			
Cash							
1973	424	391	189	166	128	104	289
1974	553	674	343	202	215	147	424
1975	742	995	476	288	440	149	645
Mortgage							
1973	381	391	210	185	130	97	264
1974	609	609	324	229	212	141	448
1975	723	912	462	316	371	176	603
Contract for Deed							
1973	460	423	243	183	117	174	317
1974	596	625	357	243	196	146	454
1975	824	773	493	298	334	155	597

The two-way classification scheme in Table 23 shows that, statewide in 1975, cash buyers paid more for both good and average quality land than did other buyers. In contrast, for the years prior to 1975, the highest prices paid for good and average quality land have typically been associated with sales financed by contract for deed. Traditionally, contracts for deed have been more heavily used in areas of higher priced lands (the Southwest and Southeast districts) due probably to the tax advantage to sellers gained by spreading capital gains out over a period of years. However, in 1975 the higher prices paid by cash buyers apparently outweighed any tax advantage to sellers using contracts for deed, particularly in the more agricultural Southwest and Northwest districts.

Table 23: Price Paid Per Acre and Percent of Sales, by Method of Financing and Quality of Land, Minnesota, 1974 and 1975.

				Method o	of Financing			
Land Quality	, C	Cash		Mortgage		tract Deed	All Sales	
Class	1974	1975	1974	1975	1974	1975	1974	1975
Good								
\$ per acre	614	784	554	735	587	774	588	771
% of sales	32	35	37	38	36	36	36	37
Average								
\$ per acre	385	651	417	566	432	547	427	565
% of sales	47	46	45	51	47	49	46	49
Poor								
\$ per acre	244	338	301	391	272	358	278	357
% of sales	22	19	17	11	16	15	18	15
All Grades								
\$ per acre	424	645	448	603	454	597	450	607
% of sales	100	100	100	100	100	100	100	100

Distance of Buyer from Tract

The shift in land market activity toward the farm expansion buyer in 1975 is illustrated again in Table 24. Minnesota's farmland market has always been distinctly local in character, with about 60 percent of all buyers living less than 10 miles from the purchased tract and over 80 percent less than 50 miles. The median distance of buyer from tract has consistently been 5 miles since 1970. Due to heavy expansion buying in 1975, the land market became even more localized for the state as a whole and in all districts except the East Central (where expansion buyers did not dominate the market). Median distance declined in the other five districts, and statewide. As Table 24 points out, 67 percent of all buyers lived less than 10 miles from the purchased tract, and over 50 percent less than 5 miles. Even more noteworthy are the increases over 1974 in the proportions of purchases of tracts less than 2 miles from the buyer's residence (except in the East Central district). In the Northwest, this increase was only one percentage point but in the 2-4 mile category, the increase was substantial over 1974 (from 20 to 32 percent). Since expansion buyers overwhelmingly dominated the Northwest district during the last three years (76, 71 and 75 percent for 1973, 1974, and 1975, respectively, see Table 16) it appears that these buyers must now range further from home to find land to purchase.

Table 24: Classification of Farm Land Sales by Distance of Buyer's Residence from Tract, by District, Minnesota, 1974 and 1975.

Distance of	4			-District-			
Buyer's Residence from Tract Purchased	South- east	South- west	West Central	East Central	North- west	North- east	Minn.
			pero	ent of sales—			
less than 2 miles							
1974	21	21	21	17	20	9	20
1975	25	27	25	16	21	14	24
2-4 miles							
1974	23	33	26	15	20	7	25
1975	27	34	29	17	32	12	28
5–9 miles							
1974	15	16	15	17	22	16	16
1975	17	15	16	12	19	5	15
10-49 miles							
1974	21	16	16	23	26	27	20
1975	19	15	14	21	18	31	17
50-299 miles							
1974	12	11	13	23	7	18	13
1975	8	8	14	25	4	19	11
300 miles and over							
1974	7	3	. 8	4	5	23	6
1975	4	2	2	10	5	19	4
Median Distance in miles							
1974	5	4	5	10	5	20	5
1975	4	3	4	10	4	15	4

Total Purchase Price

Statewide, the average size of farm tract purchased has declined notably during the last three years due to the predominance of expansion buying during this period (see Tables 9 and 16). However, when compared to 1960 and 1970, the average size of tract purchased has grown over the past 15 years (Table 25). Meanwhile, the average price paid per acre increased by 51 percent, 1960-1970, and then jumped 150 percent in only five years (1970-1975). As a result, the total purchase price of the average farm tract, statewide, has quadrupled since 1960 and has risen by 2½ times over the last five years. The same pattern emerges from each of the six districts (Table 25). In 1975, the average farm tract sold for \$137,572 in the Southwest; in two south-central counties in this district, Martin and Watonwan, the total sales price per tract averaged almost \$200,000. This figure gains significance when it is recalled that 72 percent of all purchases in the Southwest district were by farm expansion buyers (see Table 16 above).

Table 25: Average Price Paid Per Acre, Average Size of Tract Purchased and Total Purchase Price for all Buyers, by District, Minnesota, 1960, 1970, and 1975

		\$/Acre		Ac	res/Purcha	ises	\$/Purchase			
District	1960	1970	1975	1960	1970	1975	1960	1970	1975	
Southeast	189	346	792	148	140	157	27,972	48,440	124,344	
Southwest	240	340	844	164	170	163	39,360	57,800	137,572	
West Central	136	206	493	189	192	202	25,704	39,552	99,586	
East Central	. 69	141	299	159	149	176	10,971	21,009	52,624	
Northwest	101	113	353	239	262	277	24,139	29,606	97,781	
Northeast	50	45	159	112	212	160	5,600	9,540	25,440	
Minnesota	161	243	607	168	173	179	27,048	42,039	108,653	

PART II: THE FARM LAND MARKET IN THE RED RIVER VALLEY

The Northwest district is sharply divided into two parts by soil differences. The Red River Valley, comprising the western part of the Northwest district, has fertile soil and relatively large-scale farming. The non-Valley area, on the eastern side, contrasts sharply in soil fertility, in type of farming, and in prices paid for land (Figure 3).

The land market in the Red River Valley has been consistently the most active part of the Minnesota farmland market over the past three years. Price paid per acre jumped by 32, 79, and 49 percent in 1973, 1974, and 1975, respectively (Table 26). From July 1973 to July 1975, the average sales price rose from \$201 per acre to \$535—a remarkable 166 percent increase. Also, while the estimated number of farm transfers declined statewide in Minnesota for 1975, the number of reported farm sales (and total acreage sold from these sales) increased significantly over 1974 in the Red River Valley. In the non-Valley comparison area, however, both the number of reported farm sales and acreage sold dropped below the 1974 figure (Table 26). Price paid per acre in the non-Valley area increased \$75 over 1974, going from \$152 to \$227. Although this amounts to the same percentage increase reported in the Red River Valley (49 percent) it should be pointed out that it results from a much lower base-year price (\$152 versus \$359 in 1974).

Unimproved land sales were up substantially in 1975, accounting for 71 percent of reported sales in the Red River Valley (Table 27). The intense land market activity in the Valley is exhibited in Table 27 with unimproved land selling for considerably more per acre than improved (\$559 versus \$487). In contrast, in the non-Valley area, sales of improved land continued to exceed unimproved land sales, both as to frequency and price paid per acre. While the average size of tract purchased has been consistently decreasing in both areas of the Northwest district over the past three years, it should be noted that the average acreage per sale in the non-

Table 26: Analysis of Reported Farm Sales in the Red River Valley and Non-Valley Areas, Northwest District, Minnesota, 1973, 1974, and 1975.

Item	1973	Red River Valle	y 1975	1973	Non-Valley Are	
		13/4	1975	1973	1974	1975
Number of Sales, (JanJune)	74	47	63	72	86	76
Average Size of Tract (acres)	257	231	219	373	337	270
Average Sales Price Per Acre (dollars)	201	359	535	91	152	227
Change in Sales Price over preceding Year (percent)	32	79	49	17	67	49
Standard Deviation of Sales Price * (dollars)	87	126	249	46	77	102
Coefficient of Variation* (percent)	43	35	47	51	51 .	45

^{*} See Statistical Appendix



Figure 3: The Red River Valley and Comparison Area

Valley area has been significantly larger than for comparable sales in the Valley (see Table 26). These differences presented in Tables 26 and 27 serve to point out the contrast between the western and eastern parts of the Northwest district.

Table 27: Percent of Sales and Average Sales Price Per Acre of Improved and Unimproved Land in the Red River Valley and Non-Valley Comparison Area, Minnesota, 1972—1975.

Area and Year		roved ınd		proved and	Unimproved as a Percent of Improved
	%	\$	%	\$	%
Red River Valley					
1972	47	169	.53	134	79
1.973	36	220	64	190	86
1974	49	358	51	359	100
1975	29	487	71	559	115
Non-Valley					•
Comparison Area					
1972	66	84	34	67	80
1973	62	98	38	77	79
1974	60	167	40	126	75
1975	55	233	45	213	.91

As in 1973 and 1974, expansion buyers overwhelmingly dominated the land market in the Red River Valley, accounting for 94 percent of all farm purchases in 1975 (Table 28). These buyers paid a much higher price than did either agricultural investor or operating farmer buyers (\$563 per acre versus \$427 and \$217, respectively). The intense activity of farm expansion buyers was also evident in the non-Valley area in 1975. During 1973 and 1974, the highest prices were paid by operating farmers, next highest by investor buyers, and lowest by expansion buyers. This trend was completely altered in 1975 with expansion buyers substantially leading all others in average price paid per acre (Table 28). In contrast to the Red River Valley, operating farmers still outbid investors in the non-Valley area.

Table 28: Percent of Sales and Price Paid Per Acre by Type of Buyer, Red River Valley and Non-Valley Comparison Area, Minnesota, 1974-1975.

		Red Rive	er Valley		Non-Valley Area				
Type of Buyer	.1974		1975		1974		1975		
	%	\$	%	\$	%	\$	%	\$	
Operating Farmer	7.	285	3	217	23	188	20	208	
Expansion Buyer	87	373	94	563	66	142	67	248	
Investor (Agricultural)	7	272	. 3	427	10	151	13	201	

Good and average quality land made up 97 percent of all Valley sales in 1975, while accounting for only 74 percent of the land sold in the non-Valley comparison area (Table 29). That these quality categories are relative terms used to compare land qualities within an area, and not between areas, is illustrated in Table 29, which emphasizes the sharp contrast in land quality between the Valley and non-Valley area. There it is shown that good and average quality land in the Valley sold for more than twice the amount paid for land judged good and average in quality in the non-Valley area. Average prices paid per acre increased significantly for all grades of land purchased in the non-Valley area in 1975. Sales prices were also up substantially for good and average quality land sold in the Valley, but land rated poor in quality sold for notably less in 1975. This was probably a reaction to the high price level attained by poor quality land in the Red River Valley in the previous year. During 1974 poor quality land in the Red River Valley sold for more per acre than good quality land in the non-Valley area, tripling in sales price over the 1973 level.

Table 29: Percent of Sales and Price Per Acre by Quality of Land, Red River Valley and Non-Valley Comparison Area, Minnesota, 1974-1975.

		Red Riv	er Valley	Non-Valley Area					
Land Quality	1974		. 19	1975		1974		975	
	%	\$	%	\$	%	\$	%	\$	
Good	48	424	58	659	27	214	24	321	
Average Poor	40	321	39	445	53	173	50	222	
Poor	12	223	3	177	20	88	26	142	

Use of contract for deed financing has been increasing over the past three years in both areas of the Northwest district, associated with the much higher priced land now found in this district (Table 30). Over half of both Valley and non-Valley purchases (52 and 58 percent, respectively) were financed by contract for deed in 1975. However, cash sales were much more frequent in the Valley than in the non-Valley area (26 versus 11 percent). Again, these trends point out the intense activity by farm expansion buyers, many of whom apparently used their increased agricultural income from the past three years to make cash purchases of land to increase their holdings.

Table 30: Percent of Sales and Price Per Acre by Method of Finance, Red River Valley and Non-Valley Comparison Area, Minnesota, 1974-1975.

Method of	Red River Valley					Non-Valley Area				
Financing	1974		1975		19	974	1975			
	.%	\$	%	\$	%	\$.	%	\$		
Cash	23	280	26	522	22	202	11	234		
Mortgage	23	362	22	515	26	145	32	252		
Contract for Deed	53	381	52	530	52	147	58	218		

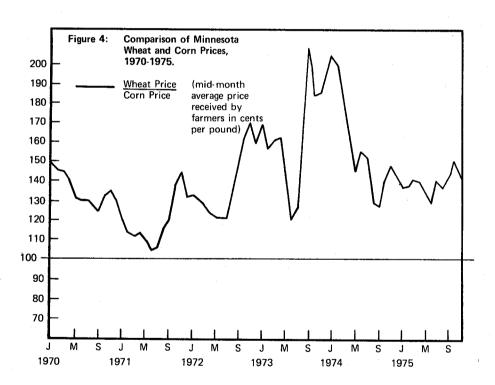
Finally, it is noteworthy that over the three most recent years (1972-1975), only the Northwest district has experienced an uninterrupted upward movement in annual percentage increases in both estimated land values (25, 36, and 48 percent) and actual sales prices (12, 70, and 73 percent, Table 31). In comparison, for the other two more agricultural districts of the state, the Southwest and West Central, the percentage increases in both estimated values and actual sales prices slowed down in 1975. The annual percentage increases in the Northwest over the past two years have also been notably larger than those experienced by the other two agricultural districts. The significant and generally increasing price differentials between the wheat, barley and sugar beets grown in the Northwest and the corn and soybeans produced in the Southwest and West Central districts may account for some of this difference in relative land price increases during the 1973-75 period.

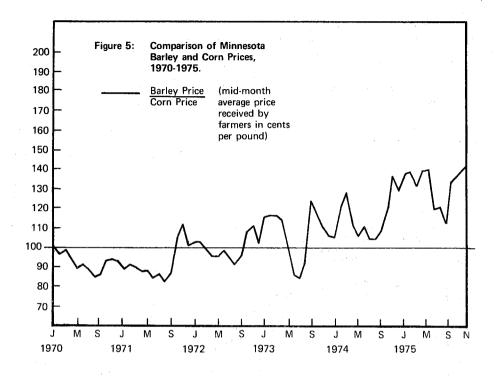
Table 31: Comparison of Annual Percentage Changes in Estimated Land Values and Actual Sales Price Per Acre of Farm Land, for the Three Most Agricultural Districts of Minnesota, 1970-1975.

		-Pe	rcent Cha	nge in Est	imated (Es	st.) and A	ctual (Act	.) Sales Pi	ice-	
	1:	970-71	197	71-72	1973	2-73	1973	3-74	197	4-75
District	Est.	Act.	Est.	Act.	Est.	Act.	Est.	Act.	Est.	Act.
				•.	-percent-					
Northwest	-1	-12	-2	7	25.	12	36	70	48	. 73
Southwest	1	. 1	. 8	. 7	21	12	47	54	25	34
West Central	- 3	0 -	.2	- 8	19	0	53	52	.33	45

Among the principal grains, the predominance of the Northwest is greatest in wheat and barley, while corn is the major grain produced in the Southwest and West Central districts, To illustrate the significant shifts in relative grain prices between the agricultural districts, wheat-to-corn and barley-to-corn price ratios have been computed; the results are displayed in Figures 4 and 5*. These figures both show that, before 1972, wheat and barley prices had generally been declining relative to corn prices. For wheat, this trend reversed itself in the latter part of 1972 following the Russian wheat purchases (Figure 4). Although the peaks have shortened considerably since then, the troughs are not as deep as before; over the last year and a half the price difference between wheat and corn has widened once again. For barley, the reversal occurred in mid-1973, and barley has consistently sold at a premium over corn since September, 1973 (Figure 5). During the same period, this premium has also been difinitely trending upward.

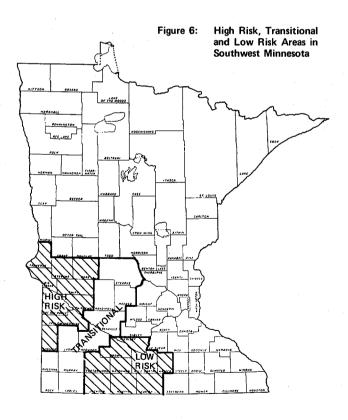
^{*}Minnesota Agricultural Statistics 1975, Crop and Livestock Reporting Service, Minnesota Department of Agriculture, St. Paul, MN, pp. 82-83. For purposes of comparison, the prices per bushel were converted to prices per pound since wheat has a 60 pound bushel, corn has a 56 pound bushel, and barley a 48 pound bushel.





PART III: THE FARM LAND MARKET IN SOUTHWESTERN MINNESOTA

The Southwestern quarter of Minnesota contains most of the best farmland in Minnesota, but it also has some of the areas more vulnerable to climatic risk. Consequently, in previous land market studies the Southwestern quarter of the state was divided into the three areas illustrated in Figure 6. These areas were delineated on the basis of their variability in crop yields over time. The "high risk" farming area comprises 9 counties with large crop yield fluctuations from year to year due to occasionally severe weather conditions (principally drought). In contrast, the "low risk" farming area consists of a fairly well-defined block of 9 counties in southcentral Minnesota which contain the highest priced farmland in the state. Linking these two extremes is the "transitional" belt of counties where land is of roughly the same quality found in the high-risk area, but climatic risks are less.



The difference between the three areas is clearly apparent when comparing land price levels over the last three years (Table 32). In each year, farmland in the low-risk area sold for considerably more than double the price paid for land in the high-risk area. Also, over the last 3 years the average sales price of land climbed 150 percent in the low-risk area, increased 121 percent in the high-risk area, and rose 106 percent in the transitional area. The smaller increase in sales price for the transitional area in 1975 (23%) is undoubtedly due to the unfavorable weather conditions experienced by several counties in this area in 1974. A further reflection of the bad weather in 1974 is the significant decline in the number of sales reported for the first six months of 1975 in the transitional and high-risk areas (decreases of 25 and 28%, respectively). The average size of tract purchased has been consistently larger over the years in the high-risk area than in the other two areas. Table 32 also shows that size of tract declined notably in both the high and low-risk areas in 1975.

Table 32: Analysis of Reported Farm Sales in the High Risk, Transition and Low Risk Areas, Minnesota, 1973, 1974, and 1975.

*	Hi	gh Risk A	rea	Tr	ansition A	rea	Lo	w Risk A	rea
Item	1973	1974	1975	1973	1974	1975	1973	1974	1975
Number of Sales (JanJune)	259	234	169	369	344	259	243	200	181
Average Size of Tract (acres)	221	217	205	180	174	175	155	156	139
Average Sales Price Per Acre (dollars)	217	325	480	348	532	653	522	794	1145
Change in Sales Price over	1	50	48	10	53	23	14	52	44
Preceding Year (percent)	· • · · · ·								
Standard Devia- tion of Sales* Price (dollars)	94	131	230	136	216	261	148	329	359
Coefficient of Variation* (percent)	43	40	48	39	41	40	28	41	31

^{*} See Statistical Appendix

The dominant role in land market activity played by expansion farm buyers during the last two years is exhibited in Table 33. Although expansion buying declined somewhat in the transitional area, 1974-75, it increased significantly in the other two areas. Purchases by expansion buyers accounted for 88 percent of all sales in the low-risk area; this is substantially above the proportion of expansion purchases in the high-risk and transitional areas (61 and 62%, respectively). Expansion buyers paid considerably more per acre than other buyers in all three areas in 1975. This trend was evident to a lesser degree in 1974, but is a reversal of the pattern found in years prior to 1974. For example, both operating farmers and agricultural investors paid higher prices than expansion buyers in the high-risk area in 1973 (Table 33). In 1975, the agricultural investor is a distant third in price paid per acre compared to other buyers in the low and high-risk areas. This, too, is a reversal of earlier trends when agricultural investors paid just as much or more than did other buyers. In the transitional area the investor still competes favorably with operating farmers, but not with expansion buyers.

Good and average quality land accounted for 80 percent or more of all sales in the Southwestern areas of Minnesota over the last three years (Table 34). The highest proportion of purchases of good quality land has consistently occurred in the low-risk area, and not surprisingly, the highest prices paid for all qualities of land have been found in this area. The interesting observation is that the percentage differences between prices paid in the low-risk area and the other two areas for land of all qualities have generally been widening over the last three years. The one notable exception is good quality land in the high-risk area which narrowed the gap substantially in 1975. Even so, poor quality land in the low-risk area still sold for more than good-quality land in the high-risk area in 1975 (as was true of previous years, Table 34). This illustrates again that these quality categories are relative terms, to compare land qualities within an area, not among areas.

The intense activity of farm expansion buyers is again apparent when looking at improved versus unimproved farmland sales. For all three areas of Southwestern Minnesota the proportion of unimproved land purchases (no buildings) has been rising over the last three years, and now stands at 39 percent of sales in all three regions (Table 35). However, the pattern in prices paid for land with various building qualities is different among the three areas. In the high-risk and transitional areas land without buildings brought more than land with poor quality buildings in 1975 (\$454 per acre versus \$391, and \$645 versus \$543, respectively). This trend was stronger in the low-risk area where land without buildings sold for more than land with both poor and average quality buildings (\$1178 per acre versus \$974 and \$1161). Furthermore, the frequency of purchases financed with cash in the low-risk area in 1975 jumped by two-thirds over 1974, accounting for 25 percent of all purchases in this area (compared to 15% statewide and even less in the high-risk and transitional areas, Table 36). As in the Red River Valley, these trends reflect the shift in land market activity towards farm expansion buyers in 1975, particularly in the best agricultural areas of the state.

Table 33: Percent of Sales and Average Price Paid Per Acre, by Type of Buyer in the High Risk, Transitional and Low Risk Areas, Minnesota, 1973, 1974, and 1975.

Type of Buyer and Year	High Risk Area			itional rea	Low Risk Area	
	%	\$	%	\$	%	\$
Operating Farmer				·	,-	
1973	28	226	22	350	14	460
1974	30	323	23	477	9	727
1975	22	440	23	578	8	1061
Expansion Buyer						
1973	61	213	60	358	79	533
1974	57	338	64	564	84	834
1975	61	550	62	702	88	1170
Agricultural Investor						
1973	11	216	17	309	7	534
1974	14	307	14	504	7	499
1975	17	346	15	611	4	860

Table 34: Percent of Sales and Price Per Acre, by Quality of Land in the High Risk, Transitional and Low Risk Areas, Minnesota, 1973, 1974 and 1975.

Quality of Land and Year	High Risk Area			sitional .rea	Low Risk Area	
	%	\$	%	\$	%	\$
Good						
1973	33	287	33	431	46	611
1974	35	412	38	655	40	956
1975	36	692	37	748	43	1313
Average						
1973	48	210	49	327	38	488
1974	48	308	42	512	42	798
1975	46	447	47	654	46	1117
Poor						
1973	18	143	17	249	15	349
1974	18	206	20	359	19	442
1975	18	249	16	429	11	704

Table 35: Percent of Sales and Price Per Acre, by Quality of Buildings in the High Risk, Transitional and Low Risk Areas, Minnesota, 1973, 1974 and 1975.

Quality of Buildings and Year	•	n Risk rea		sitional rea	Low Risk Area	
	%	\$	%	\$	%	\$
Good						
1973	20	281	20	442	20	613
1974	15	404	19	625	15	827
1975	13	576	20	741	13	1367
Average						
1973	29	228	30	353	29	503
1974	32	318	26	514	20	920
1975	26	555	23	683	22	1161
Poor						
1973	20	179	23	298	24	493
1974	25	307	24	494	27	701
1975	22	391	18	543	25	974
None						
1973	31	184	27	301	27	500
1974	28	301	31	508	39	751
1975	39	454	39	645	39	1178

Table 36: Percent of Sales and Price Per Acre, by Method of Finance in the High Risk, Transitional and Low Risk Areas, Minnesota, 1974 and 1975.

Method of		High Risk Area				Transitional Area				Low Risk Area			
Financing	1974		1975		19	74	19	1975	19	1974		1975	
	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	
Cash	13	268	14	452	15	624	8	658	15	802	25	1216	
Mortgage	31	315	32	560	22	528	25	639	34	741	27	1254	
Contract for Deed	56	336	54	434	63	516	67	657	52	852	47	1074	
All	100	325	100	480	100	532	100	653	100	794	100	1145	

PART IV: FARM LAND PRICES AND TRENDS BY DEVELOPMENT REGIONS

The State of Minnesota in 1967 recognized the need for a common set of regional delineations (at the sub-state level) in order to facilitate development planning, state and federal program implementation, state agency administration, and local inter-governmental cooperation. Previous to 1967, over 160 mostly different regional delineations existed in Minnesota. For example, there were 4 political regions, 10 economic regions, 24 federal agency regions, and 88 state agency regions. Through research efforts at the University of Minnesota and the State Planning Agency, and as a result of federal, state, and local government decisions, a common set of 13 development regions has now emerged. The present development regions are illustrated in Figure 7, and the average sales price for farm land in each of these regions for the past five years is presented in Table 37.

Table 37: Average Reported Sales Price Per Acre of Farm Land, by Economic Development Region, Minnesota, 1971-1975.

Economic Development					
Region	1971	1972	1973	1974	1975
			-dollars per acre-		
1	93	105	114	199	344
2	53	83	108	141	206
3	39	81	126	148	157
4	176	170	192	317	446
5	93	127	164	197	259
6W	216	238	233	341	537
6E	319	361	374	569	691
7W	230	290	291	430	472
7E	228	216	203	254	316
8	298	323	354	534	710
9	400	461	534	829	1115
10	314	368	411	565	753
11	465	586	698	882	1035
MN	259	293	298	450	607

With the regional breakdown, the same record increases in farm land prices reported previously in this study for the last two years are evident in the more agricultural areas of the state. The most agricultural areas of the state, where cash grain dominates land use, would embrace Regions 1, 4, 6W, 8 and 9. These five regions correspond closely to the "spring wheat" and "western corn belt" farming areas of Minnesota as delineated by the U.S. Department of Agriculture in Figure 8. Average sales prices of farm land more than doubled in each of these five regions from 1973 to 1975 (increases of 202, 132, 130, 101, and 109 percent, Table 38).

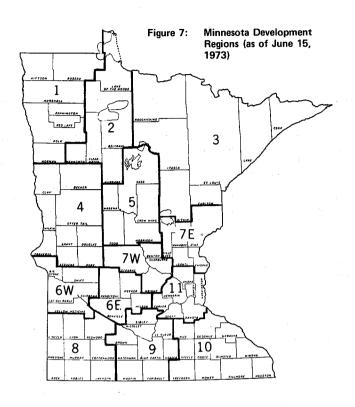
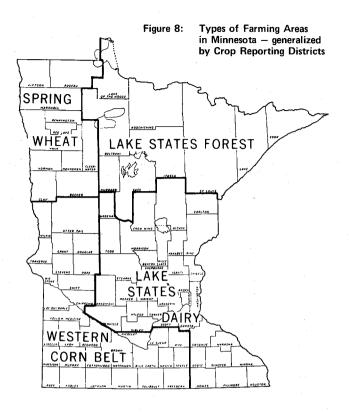


Table 38: Annual Percentage Changes in Sales Price Per Acre, by Economic Development Region, Minnesota, 1971-1975.

Economic		Parce	ent Change in Sales	Price—	
Development Region	1971-72	1972-73	1973-74	1974-75	1973-75
		—perce	nt—		
1	13	9	75	73	202
2	57	30	31	46	91
3	108	56	17	6	25
4	-3	13	65	41	132
5	37	29	20	31	58
6W	10	-2	46	57	130
6E	13	4	52	21	85
7W	26	0	48	10	62
7E	-5	-6	25	24	56
8	8	10	51	33	101
9	15	16	55	35	109
10	17	12	37	. 33	83
11	26	19	26	17	48
MN	13	2	51	35	104



In contrast, Regions 5, 6E, 7W, 7E, 10 and 11, which fit fairly well into the "lake states dairy" area (compare Figures 7 and 8) experienced considerably smaller increases in sales prices over the last two years. In these six regions, which have agricultural economies heavily dependent upon milk and livestock production and are more influenced by residential and other urban land uses, farmland prices rose by rates ranging from 48 to 85 percent, 1973-1975 (Table 38). It is particularly noteworthy that the smallest increase (48 percent) occurred in the most urban-influenced region, the Twin Cities Metropolitan Area (Region 11). On the other hand, the largest increase (85 percent) took place in Region 6E which is part of the agriculturally rich Southwestern quarter of Minnesota (see Part III) and is a transition region from dairy to cash grain farming. Furthermore, Region 9, which contains some of the best grain producing land in the state, reported a higher average sales price for farmland than did the heavily urban influenced Region 11 (\$1115 versus \$1035 per acre). This is a reversal of the pattern of previous years, when farmland in the Twin Cities Metropolitan Area sold for considerably more than did agricultural land in all other regions (Table 37).

The shift in land market activity towards farm expansion buyers over the past 3 years is particularly evident in the 6 cash grain regions of the state (Regions 1, 4, 6W, 6E, 8 and 9, Table 39). In each of these regions, farm expansion buyers dominated the land market, accounting for 60 to 82 percent of the sales in 1975. In contrast, operating farmer buyers still predominate in Regions 3, 5, and 7E which have larger proportions of partime and "hobby farms". Investment buying was highest in the heavily urban influenced regions, 7W and 11, which encompass St. Cloud and the Twin Cities Metropolitan areas. Table 40 shows that over the last two years expansion buyers paid considerably more than did other buyers in the more agricultural regions. Operating farmers still outbid other buyers in Regions 3, 5, and 7W in 1975 while investors paid the highest prices in Region 11.

A "normal" relationship between sales price and quality of land prevailed in all regions of the state in 1975 except in Region 7W. As shown in Table 41, land judged to be of average quality for farming sold for more than good quality land (\$486 vs. \$466 per acre). The distortion in the normal relationship between price and quality of land has been evident in previous years in urban and recreation influenced regions 3, 5, and 11. Particularly in Regions 7W and 11, buyers of farmland in certain areas are apparently speculating on future urban development and thus placing a smaller premium on quality of land as it relates to agricultural use. Also, hilly and wooded land that might be considered poor quality for farming purposes may be highly desirable for future housing development.

Table 39: Percent of Tracts Purchased by Type of Buyer, by Region, Minnesota, 1973, 1974, and 1975.

	Operating Farmer Buyer (Sole Tract)				Expansion ator or Inve		Agricultural Investor Buyer* (Sole Tract)		
Region	1973	1974	1975	1973	1974	1975	1973	1974	1975
	***			—ре	rcent-	···			
1	14	17	13	- 78	73	77	8	10	10
2	51	44	39	24	33	48	24	22	13
3	55	53	86	36	12	5	9	35	9
4	43	26	24	42	65	60	15	9	16
5	65	63	58	24	8	23	11	29	19
6W	23	20	21	70	70	68	7	10	11
6E	22	12	17	50	68	72	28	20	10
7W	39	44	25	34	37	52	27	20	23
7E	40	59	60	31	25	26	. 29	16	15
8	22	25	21	- 66	60	64	13	16	15
9	17	8	. 11	75	87	82	9	6	6
10	36	31	26	44	54	55	20	14	19
11	24	17	29	25	41	38	51	42	33
MN	29	26	25	54	59	60	17	15	15

^{* &}quot;Agricultural investors" are defined as those who buy farmland to be rented out or managed for farming purposes.

Table 40: Average Sales Price Per Acre by Type of Buyer, by Region, Minnesota, 1973, 1974, and 1975.

*** **********************************	Ono	rating Farm		-		and Salahara Albania		vestor Buy	
Region	1973	1974	1975	1973	pansion Bu 1974	yer 1975	1973	Agricultura 1974	1) 1975
								<u> </u>	
2 4 31 4 4					ars per acre-				
1	95	201	187	120	196	417	91 .	191	223
2 .	111	165	197	102	131	220	103	125	193
3	124	167	163	186	101	150	87	112	86
4	179	284	290	201	362	540	208	278	320
5	146	197	321	205	274	155	197	152	182
6W	261	352	529	222	344	568	233	281	367
6E	355	540	577	403	572	722	338	579	590
7W	318	393	554	214	484	398	370	480	515
7E	206	249	323	224	226	332	178	273	238
8	344	524	568	363	565	802	330	450	614
9	513	655	997	540	860	1160	519	539	801
10	444	544	695	387	600	802	394	524	693
11	641	1086	1030	621	900	970	772	843	1097
MN	285	404	495	299	492	690	321	418	493

As discussed previously, the more agricultural areas of the state had proportions of unimproved land sales notably higher than the statewide average. Table 42 shows that with the regional breakdown the proportion of land sales with no buildings was significantly larger in the 6 cash grain regions (Regions 1, 4, 6W, 6E, 8, and 9) than in the other less agricultural regions. In the more agricultural regions of the state the relationship between sales price and quality of buildings has become more and more distorted over the last three years. Statewide in 1975, land without buildings sold for more than land with average and poor quality buildings (\$613 vs \$599 per acre, Table 42) due to the previously noted influence of farm expansion buyers. This is especially true in Region 4 where land without buildings has brought more than land with good quality buildings in 1974 and 1975. Consequently, it appears that strong agricultural influences will distort the historically normal relationship between land sales price and building quality in an area, while heavy urban pressures distort the normal relationships between sales price and land quality.

Table 41: Percent of Sales and Price Per Acre according to Quality of Land, by Region, Minnesota, 1975.

Region	G	iood		of Land— erage	Poor	
1.	%	\$	%	\$. %	\$
1	36	557	46	253	18	137
2	. 32	266	52	192	. 16	127
3	33	189	52	159	14	93
4	37	592	48	405	15	230
5	40	385	42	191	19	174
6W	37	749	48	500	15	263
6E	29	844	57	652	14	426
7W	45	466	45	486	10	357
7E	28	400	60	324	13	188
8	41	862	42	669	17	443
9	36	1314	51	1106	13	682
10	35	915	52	693	13	544
11	46	1118	44	973	10	556
MN	37	771	49	565	15	357

Table 42: Percent of Sales and Price Per Acre according to Quality of Buildings, by Region, Minnesota, 1975.

				—Quality	of Buildings-	_			
Region	G	Good	F	Average		or	N	None	
	%	\$	%	\$	%	\$.	%	\$	
1	9	293	23	393	15	265	53	331	
2	10	314	35	203	26	178	29	160	
3	23	261	14	138	36	156	27	80	
4	12	434	31	399	20	327	37	566	
5	44	410	23	176	19	168	15	112	
6W	10	662	26	633	23	517	40	425	
6E	13	743	28	759	- 21	565	39	648	
7W	24	567	27	464	19	414	31	419	
7E	21	274	45	340	17	315	17	329	
8	19	781	21	694	19	624	40	724	
9	14	1329	26	1117	24	944	35	1151	
10	19	865	33	726	20	574	28	825	
11	26	1154	21	1136	17	955	36	828	
MN	17	722	28	599	20	515	35	613	

Tables 43 and 44 present a regional breakdown of the proportion of farm sales and average price paid according to method of financing the land purchased. Trends in farmland financing have been discussed earlier in Part I. Here it will only be pointed out that in 1975 the two regions having the greatest proportions of farm purchases financed with cash were Regions 3 and 9 (45 and 27 percent, respectively, Table 47). Both proportions are substantially above the statewide average (15 percent), and the proportions in all other regions. Interestingly, these two regions had the lowest and highest average prices for cash sales of farmland (Table 44).

Table 43: Proportion of Farm Sales by Method of Financing, by Region, Minnesota, 1973, 1974, and 1975.

				-Meti	nod of Fina	ncing				
		Cash			Mortgage		Cor	Contract for Deed		
Region	1973	1974	1975	1973	1974	1975	1973	1974	1975	
					-percent-	_				
1	21	24	13	30	25	28	49	51	59	
2	40	25	6	25	27	26	35	48	68	
3	25	35	45	75	35	30		29	25	
4	12	. 17	18	35	18	23	54	65	59	
5	29	26	12	35	37	32	35	37	56	
6W	16	14	14	45	41	46	38	44	40	
6E	23	11	12	29	25	29	48	64	59	
7W	22	14	16	16	27	36	63	59	48	
7E	38	17	11	19	24	37	43	59	51	
8	23	16	9	26	27	23	51	57	67	
9	19	12	27	30	24	23	52	64	50	
10	14	13	12	23	17	29	62	70	59	
11	17	12	13	19	12	21	64	76	66	
MN	20	16	15	29	24	28	51	60	57	

Table 44: Average Sales Prices Per Acre of Farm Land by Method of Financing, by Region, Minnesota, 1973, 1974, and 1975.

				-Meth	nod of Fina				
		Cash			Mortgage		Cor	ntract for E	Deed
Region	1973	1974	1975	1973	1974	1975	1973	1974	1975
				-dollars	per acre-				
1	125	217	387	128	218	344	109	185	340
2	101	107	143	92	135	238	125	162	201
3	159	212	125	120	119	177		146	165
4	141	352	469	179	235	344	211	340	465
5	153	194	279	154	217	302	185	172	236
6W	206	273	386	212	367	634	260	332	488
6E	319	729	617	412	570	759	379	550	644
7W	351	326	425	248	459	466	298	457	470
7E	198	162	377	251	353	331	199	231	342
8	326	605	738	337	508	770	372	521	685
9	554	858	1153	498	860	1228	538	838	1053
10	415	541	709	334	601	666	423	566	796
11	578	777	925	652	812	909	731	869	1073
MN	289	424	645	264	448	603	317	454	597

Table 45: Average Size of Tract Purchased and Total Purchase Price of Tract compared with Average Size of Farm* and Total Value of Farm, by Region, Minnesota, 1975.

Region	Average Price Paid Per Acre Jan.—June 1975	Average Size of Tract Purchased JanJune 1975	Total Purchase Price of Tract	Average Size of Farm	Total Value of Farm	Ratio of Purchased Tract to Total Farm Value
1	344	296	101,824	538	185,072	0.55
2	206	207	42,642	315	64,890	0.66
3	157	133	20,881	202	31,714	0.66
4	446	203	90,538	357	159,222	0.57
5	259	191	49,469	232	60,088	0.82
6W	537	197	105,789	396	212,652	0.50
6E	691	140	96,740	260	179,660	0.54
7W	472	154	72,688	201	94,872	0.77
7E	316	181	57,196	184	58,144	0.98
8	710	174	123,540	326	231,460	0.53
9	1115	142	158,330	275	306,625	0.52
10	753	169	127,257	241	181,473	0.70
11	1035	122	126,270	184	190,440	0.66
MN	607	179	108,653	293	177,851	0.61

^{*}Minnesota Agricultural Statistics 1975, Crop and Livestock Reporting Service, Minnesota Department of Agriculture, St. Paul, Minnesota, pp. 94-95. The total value of farm figures were derived by multiplying the average price paid per acre by the average size of farm figures for each region which were calculated from the county data given in the above reference.

Finally, Table 45 compares the average size of tract purchased with the average size of the whole farm. Statewide, the average size of farm is over 100 acres larger than the average tract purchased—293 versus 179 acres. This difference is also significant in all the regions except 7E. By regions, the total purchase price of the average tract ranged from \$20,881 in Region 3 to \$158,330 in Region 9, while the total value of the whole farm ranged from \$31,714 to \$306,625. In the 3 regions of southwestern Minnesota (6W, 8, and 9), the total value of the average farm was over \$200,000. The last column in Table 45 compares the total purchase price of tract to the total value of farm. The ratios were less than .60 in all the cash-grain growing regions (Regions 1, 4, 6W, 6E, 8, and 9) while the proportions exceeded .60 in all other regions.

STATISTICAL APPENDIX

One disadvantage in the use of average prices based upon 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 48. 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 \$400 per acre with a standard deviation of \$200. This means that approximately two-thirds of the sales in that district fell between \$200 and \$600 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 percent. Wider variations in sales price above and below the average create larger coefficients of variation.

In the Northwest district a relatively high coefficient of variation (62.6 percent) results from a wide variation in sales price, particularly between the Red River Valley and neighboring non-Valley areas. The range is from less than \$50 per acre in some non-Valley areas to \$1,000 per acre in the Valley itself.

Table 46: Average Estimated Value Per Acre of Farm Real Estate in Minnesota by Districts, 1910-1911 through 1944-45, by Two Year Periods, and Annually, 1946 through 1975.

Years	South- east	South- west	West Central	East Central	North- west	North- east	Minn.
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	. 65 78
1926-27	106	109	72	49	36	22	
1928-29	100	102	-67	44	33		76
1930-31	88	88	51	36		21	71
1932-33	64	65	42		22	18	60
1934-35	52	58		27	20	14	. 45
			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	107
1954	139	187	99	66	72	40	113
1955	150	205	103	68	73	45	121
1956	156	214	107	70	76	42	
1957	165	230	122	70 77	86	42 49	126
1958	179	242	123	84	90	65	138
1959	191	255	134	89	103	58	147
1960	188	248	133	94	99	56 64	157
1961	189	247	133				155
1962	192	250		95	100	64	156
1963			138	99	104	69	159
1964	194	246	142	103	114	68	161
	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
1972	370	379	208	163	117	76	232 248
1973	433	459	247	194	146	115	248 298
1974	576	675	378	279	199	113	
1975	674	844	503	296	295	163	423
	017	0 -11	303	230	273	103	525

Table 47: Annual Percentage Change in Estimated Farm Land Values Per Acre, Minnesota, 1946-1975

	%		%
1945-46	16.1	1960-61	0.6
1946-47	10.8	1961-62	1.9
1947-48	9.7	1962-63	1.3
1948-49	5.1	1963-64	. 3.1
1949-50	2.4	1964-65	3.0
1950-51	16.5	1965-66	7.0
1951-52	. 8.1	1966-67	6.0
1952-53	-1.9	1967-68	8.8
1953-54	7.6	1968-69	5.7
1954-55	7.1	1969-70	1.8
1955-56	4.1	1970-71	2.2
1956-57	9.5	1971-72	6.9
1957-58	6.5	1972-73	20.2
1958-59	6.8	1973-74	41.9
1959-60	-1.3	1974-75	24.1

Table 48: Average Price Per Acre of Reported Farm Sales, Standard Deviation and Coefficient of Variation, by District, Minnesota, 1961-75*.

Years	South- east	South- west	West Central	East Central	North- west	North- east	Minn.
	4****			A /D - II	\		
1061	100 1		_	er Acre (Dollars	•		
1961 1962	189.1	255.8	130.3	89.0	92.0	37.9	165.2
	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	346.0	340.0	206.0	141.0	113.0	45.0	243.0
1971	343.6	343.0	204.5	150.3	100.1	43.7	259.0
1972	389.4	365.7	221.7	145.1	107.2	76.4	293.3
1973	443.5	410.1	223.0	178.1	119.7	121.7	298.4
1974	598.4	630.1	339.8	242.7	204.0	144.4	450.1
1975	791.8	843.9	492.9	298.5	352.8	159.3	607.0
1.			Standard Devi	ation (Dollars)			
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	154.3	128.1	66.6	100.7	66.9	28.9	157.4
1972	154.9	136.4	79.0	96.7	70.0	38.8	164.4
1973	183.3	164.1	94.0	97.2	76.8	86.6	188.9
1974	265.2	290.0	147.2	153.0	127.5	60.6	287.7
1975	291.3	373.8	225.0	142.5	220.8	72.2	360.4
		Co	efficient of Va	riation (Percent	t)		
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	
1968	56.6	37.3	41.6	103.8	73.2 78.3		59.4
1969	67.1	36.9	33.3	80.4		88.5	69.2
1970	54.8	38.1	36.6	80.4 74.9	69.5	88.9	73.0
1971	44.9	37.4	32.6		79.2	65.1	66.9
1972	39.8	37.3		67.0	66.8	66.1	60.8
			35.6	66.6	65.3	50.8	56.1
1973	41.3	40.0	42.2	54.6	64.2	71.2	63.3
1974	44.3	46.0	43.3	63.0	62.5	42.0	63.9
1975	36.8	44.3	45.7	47.7	62.6	45.3	59.4

^{*} Each acre is treated as a unit in calculating standard deviations and coefficients of variations.

