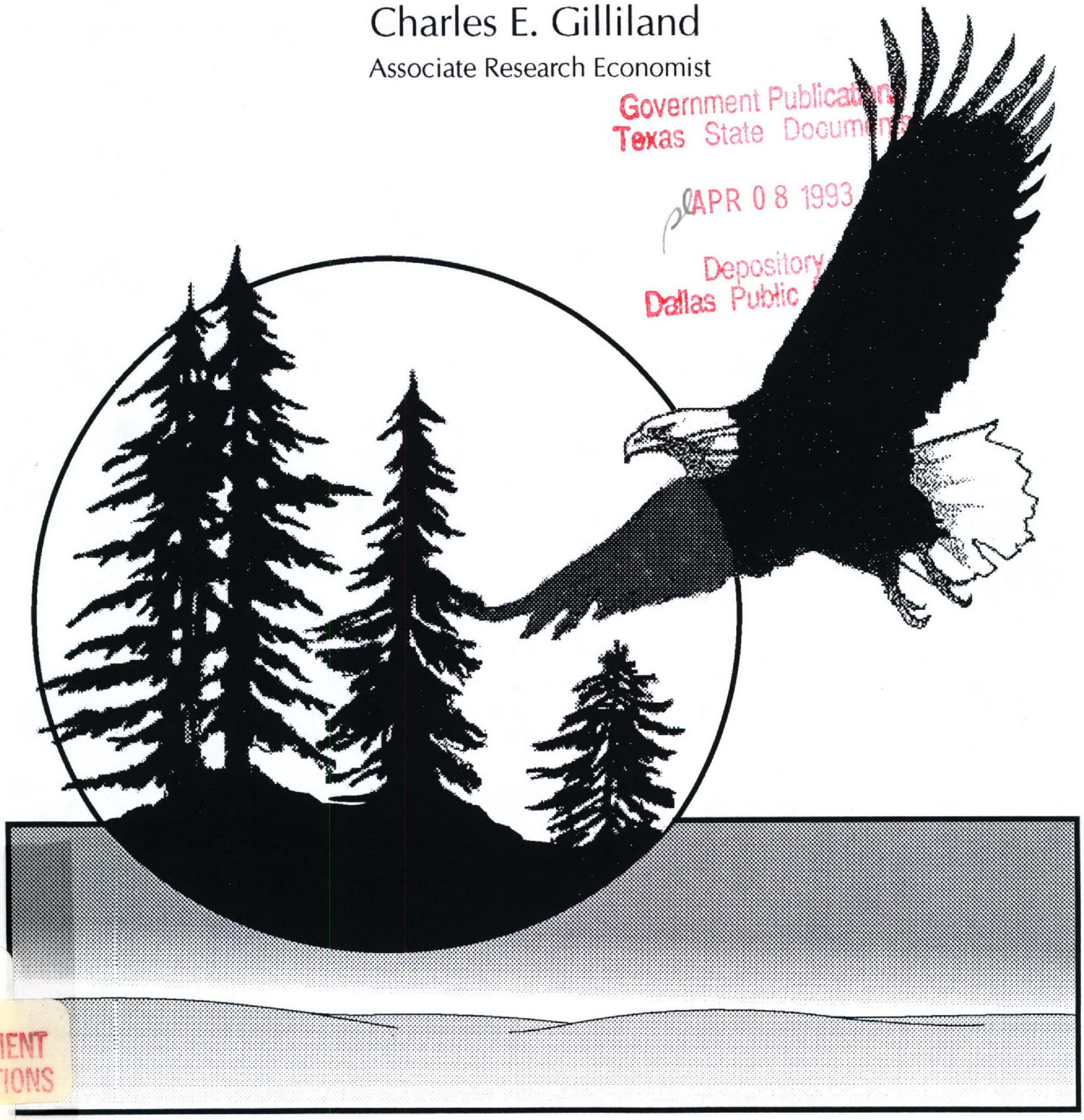
REAL ESTATE CENTER

Texas Rural Land Prices, 1991

Charles E. Gilliland
Associate Research Economist



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Real Estate Center

Interim Director

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Summary

The Gulf War, poor crop yields and preoccupation with the national recession exacted a toll on Texas rural land prices. In addition, growing concerns about water rights, wetlands regulation, endangered species regulation and a host of governmental actions perceived as a threat to property rights further dampened demand for land. Thus, despite strengthening in the previous year, the Texas statewide median price declined 8 percent in 1991 to $600 per acre. The real (inflation adjusted) median price per acre in 1966 dollars declined 12 percent to $143 per acre, the lowest level ever in the history of Center land value studies. The median tract size remained little changed at 138 acres in 1991 compared to 135 acres in 1990.

Regionally, median Texas rural land prices ranged from $3,107 per acre in the El Paso area to $75 per acre in the Trans-Pecos. Local Texas land prices reflect the influence of population-driven demand on land markets. Despite the recent lackluster performance of land markets, nonagricultural influences have kept prices elevated where people are concentrated. Lower prices in more remote areas more clearly relate to the condition of agricultural markets.

Regional median price shifts ranged between a 10 percent decline to a 5 percent increase throughout most of Texas, indicating that land values probably changed little in most of the state. Many remaining areas posted declines greater than 10 percent. In general, farming areas are marginally weaker than they were in 1990, but prices have not broken. Rangeland areas appear to face weakness on a broad base, especially for large properties. On balance, although most regional markets trends were lower in 1991, changes were not the widespread movements indicative of a chronically falling market. Some of these sporadic shifts could reverse in 1992 as market conditions reflect a more stable business environment.

This analysis presents general trends in Texas land markets. The data are highly aggregated and do not represent land prices or values of any particular farm, ranch or tract. The information provides a general guide to land market developments.

Despite strengthening Texas land prices from 1989 to 1990, the statewide median price per acre declined 8 percent in 1991. This unanticipated drop reflects several unusual political and economic developments that created widespread uncertainty and dampened an emerging trend toward stability.

At the beginning of the year, the United States was embroiled in the Persian Gulf War. Although this conflict proved brief, potential buyers had abandoned the market, fearing a protracted conflict. When the war ended, the growing season, traditionally a slow period for agricultural land transactions, had begun. A combination of poor crops and weak commodity prices plus the media's obsession with the U.S. economic "recession" (gross domestic product declined only in the first quarter of 1991) diminished sales volume during the traditional fall buying season. In addition, concerns about water rights, wetlands regulation, endangered species and a host of governmental actions perceived as a threat to property rights further dampened demand for land.

In this hostile climate, the statewide median price per acre declined from $650 in 1989-90 to $600 in 1991 (Table 1 and Figure 1). After adjusting for inflation, the real median price per acre in 1966 dollars fell 12 percent from $162 per acre to $143 per acre. Land prices were at their lowest level since the Real Estate Center initiated land value studies. Comparing current nominal median prices with 1966 nominal median prices indicates a compound increase of 5 percent, meaning that the average median price rose 5 percent annually during that time. However, adjusting for inflation reveals a real average 1 percent annual loss for the same period. The median tract size of 138 acres in 1991 changed little from 135 acres in 1990.

Despite the gruesome statistics, the Texas land market has not lost value consistently. In fact, land markets in the state have progressed

Table 1. Nominal and Real Changes in the Median Price of Texas Rural Land, 1966-91

Year	Median Tract Size (acres)	Nominal			Real		
		Median Price per Acre	Year-to -Year Percentage Change	Annual Compound Pretax Growth Rate from 1966	Deflated Median Price per Acre*	Year-to -Year Percentage Change	Annual Compound Pretax Growth Rate from 1966
1966	120	$ 172	****	****	$172	****	****
1967	110	187	9	9	182	6	6
1968	101	200	7	8	187	3	4
1969	100	225	13	9	199	6	5
1970	107	245	9	9	205	3	4
1971	110	265	8	9	212	3	4
1972	120	295	11	9	228	8	5
1973	153	350	19	11	256	12	6
1974	150	425	21	12	280	9	6
1975	126	461	8	12	278	-1	5
1976	128	475	3	11	271	-3	5
1977	121	513	8	10	275	1	4
1978	126	576	12	11	287	4	4
1979	132	625	9	10	279	-3	4
1980	138	715	14	11	282	1	4
1981	124	808	13	11	289	2	4
1982	105	946	17	11	318	10	4
1983	113	985	4	11	321	1	4
1984	125	1,000	2	10	314	-2	3
1985	118	1,050	5	10	317	1	3
1986	113	870	-17	8	258	-19	2
1987	130	700	-20	7	200	-22	1
1988	139	661	-6	6	181	-10	0
1989	141	650	-2	6	171	-6	0
1990	135	650	0	5	162	-5	0
1991	138	$ 600	-8	5	$143	-12	-1

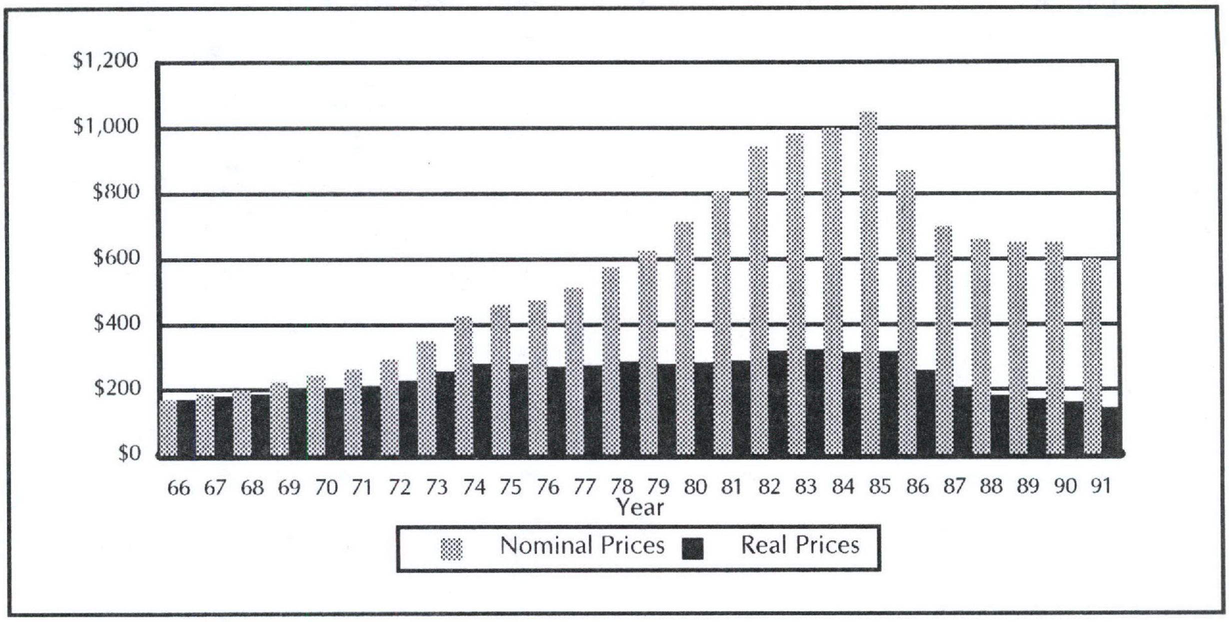
*In 1966 dollars

Source: Real Estate Center at Texas A&M University

through three distinct eras (Figure 2). First, both nominal and real prices rose from 1966 through 1974. Then, from 1975 to 1985 the market entered a phase of general stability with nominal prices rising rapidly but little change in real prices, indicating the market kept pace with inflation. Finally, a stage of real price decline emerged in 1986 and has persisted.

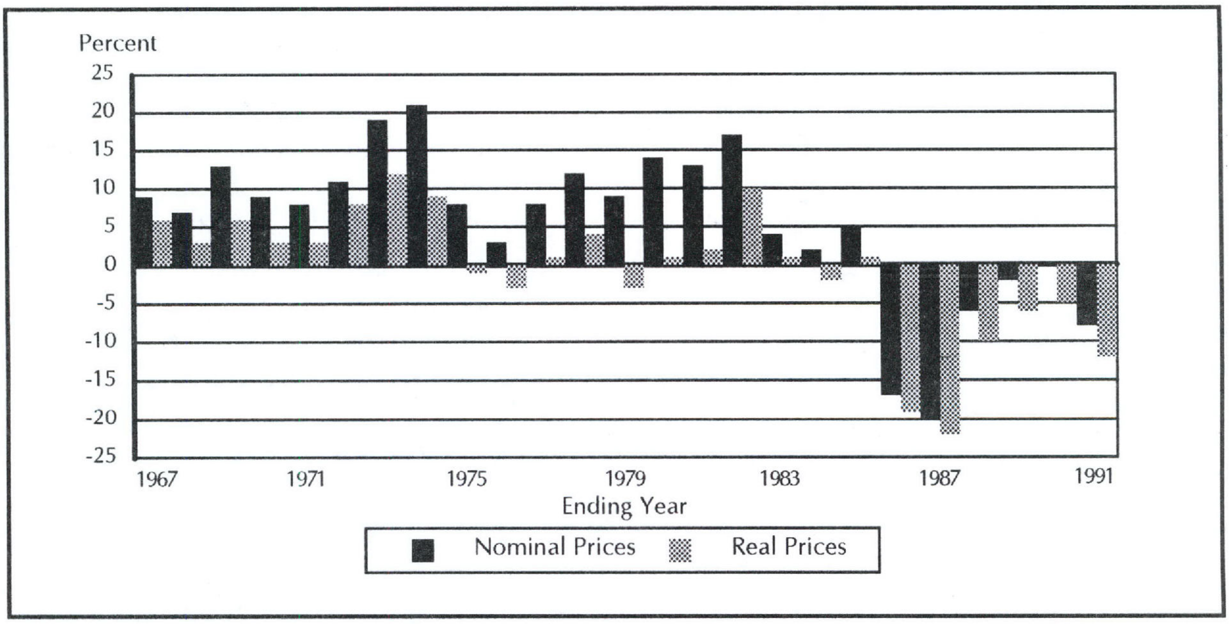
These three eras reflect those periods when demand for land changed fundamentally. In the

Figure 1. Nominal and Real Median Price per Acre for Texas Rural Land, 1966-91



Source: Real Estate Center at Texas A&M University

Figure 2. Nominal and Real Price Changes in Texas Rural Land, 1967-91



Source: Real Estate Center at Texas A&M University

Table 2. Cumulative Percentage Reductions in Nominal Texas Rural Land Median Price per Acre, 1980-91

Land Market Area	Year of Trough	Percentage Change from Market Peak: To Low	Percentage Change from Market Peak: To 1991	Year of Peak
1 Panhandle--North	1987	-57	-52	1981
2 Panhandle--Central	1987	-47	-32	1982
3 South Plains	1987	-54	-44	1982
4 Permian--West	1987	-55	-34	1983
5 Canadian Breaks	1988	-46	-37	1982
6 Rolling Plains--North	1987	-42	-41	1984
7 Rolling Plains--Central	1990	-38	-33	1982
8 Trans-Pecos	1991	-71	-71	1983
9 Edwards Plateau--West	1991	-61	-61	1985
10 Edwards Plateau--South	1991	-57	-57	1985
11 Rio Grande Plains	1989	-42	-41	1984
12 North Central Plains	1991	-32	-32	1985
13 Crosstimbers	1991	-44	-44	1985
14 Hill Country--North	1991	-50	-50	1985
15 Hill Country--West	1991	-46	-46	1985
16 Highland Lakes	1980	-62	-58	1985
17 Hill Country--South	1991	-67	-67	1985
18 San Antonio	1991	-53	-53	1984
19 Coastal Prairie--North	1991	-41	-41	1984
20 Coastal Prairie--South	1991	-50	-50	1984
21 Coastal Prairie--Middle	1988	-41	-40	1984
22 Texoma	1980	-39	-33	1985
23 Fort Worth Prairie	1980	-54	-46	1986
24 Dallas Prairie	1991	-44	-44	1986
25 Blacklands--North	1980	-38	-35	1986
26 Blacklands--South	1980	-62	-61	1985
27 Brazos	1990	-39	-35	1982
28 Houston	1988	-49	-44	1984
29 Northeast	1989	-42	-29	1985
30 Piney Woods--North	1991	-34	-34	1984
31 Piney Woods--South	1988	-52	-44	1984
32 Lower Rio Grande Valley	1991	-57	-57	1981
33 El Paso	1982	-62	-54	1984
34 State	1991	-43	-43	1985

Source: Real Estate Center at Texas A&M University

era of rising real prices (1966-74), land attracted nonagricultural buyers who purchased rural acreage for activities other than farming and ranching. Land also appealed to investors seeking an effective hedge against persistent inflation. These buyer groups competed with farmers and ranchers and supported rising land prices.

During the era of stable real prices (1975-85), nonagricultural users of rural land continued to participate in the market, setting prices that largely ignored agricultural productivity. Declining inflation rates removed the inflation hedge motivation for land ownership in the early 1980s, sending investors to the stock market and other investments for higher returns. Still, nonagricultural land users continued to support higher median land prices.

Effects of the oil price decline and the federal income tax overhaul of 1986 dampened interest among nonagricultural users, effectively removing them from the market. Farmers and ranchers once more faced a land market without competition, and prices dropped. During the past several years, investors and nonagricultural land users have started to return but not in numbers sufficient to end statewide land market declines in 1991.

Local Land Market Developments

Geographic and demographic variations in Texas led some local markets to deviate from this pattern. When farmers and ranchers faced meager profits, markets in relatively sparsely populated agricultural regions began to decline early in the 1980s (Table 2). Land markets in these areas had peaked as early as 1981. Both the Panhandle–North and Lower Rio Grande Valley land markets began to drop in 1981. (See Figure 3 for a map of land market areas [LMAs]). In contrast to the rural agricultural market areas, prices in regions surrounding urban markets continued to rise through 1986. The Fort Worth Prairie, Dallas Prairie and Blacklands–North (Waco) areas epitomize these regions.

Similar to the onset of declines, stability emerged sporadically in local markets. Agriculturally dominated areas began to recover when profitability emerged in the farming economy. The Panhandle region (LMAs 1 through 6) bottomed in 1987. However, the decline in urban areas that peaked late has persisted through 1991. In addition, ranching areas and the scenic Hill Country continued to face weak markets through 1991.

Land Prices

Regionally, median Texas rural land prices fall into four categories, with approximately one fourth of the LMAs in each category. The highest priced rural land in Texas (more than $901 per acre) clusters near urban centers, as shown in Figure 4 and Table 3. Highest median prices occur in El Paso (LMA 33), Dallas Prairie (LMA 24), Fort Worth Prairie (LMA 23), Blacklands–South (LMA 26), Brazos (LMA 27), Houston (LMA 28), Coastal Prairie–North (LMA 19) and Lower Rio Grande Valley (LMA 32). The next highest class of median prices ($526 to $900 per acre) emerge in the remainder of eastern Texas. Areas removed from the most populated part of the state make up the lowest priced category (less than $365 per acre) including the Panhandle–North (LMA 1),

Panhandle–Central (LMA 2), Permian–West (LMA 4), Canadian Breaks (LMA 5), Rolling Plains–North (LMA 6), Trans-Pecos (LMA 8) and Edwards Plateau–West (LMA 9). The remaining LMAs have the next lowest priced category ($366 to $525 per acre), primarily in the area between sparsely populated West Texas and densely settled East Texas. However, the agriculturally rich South Plains also is in this price class.

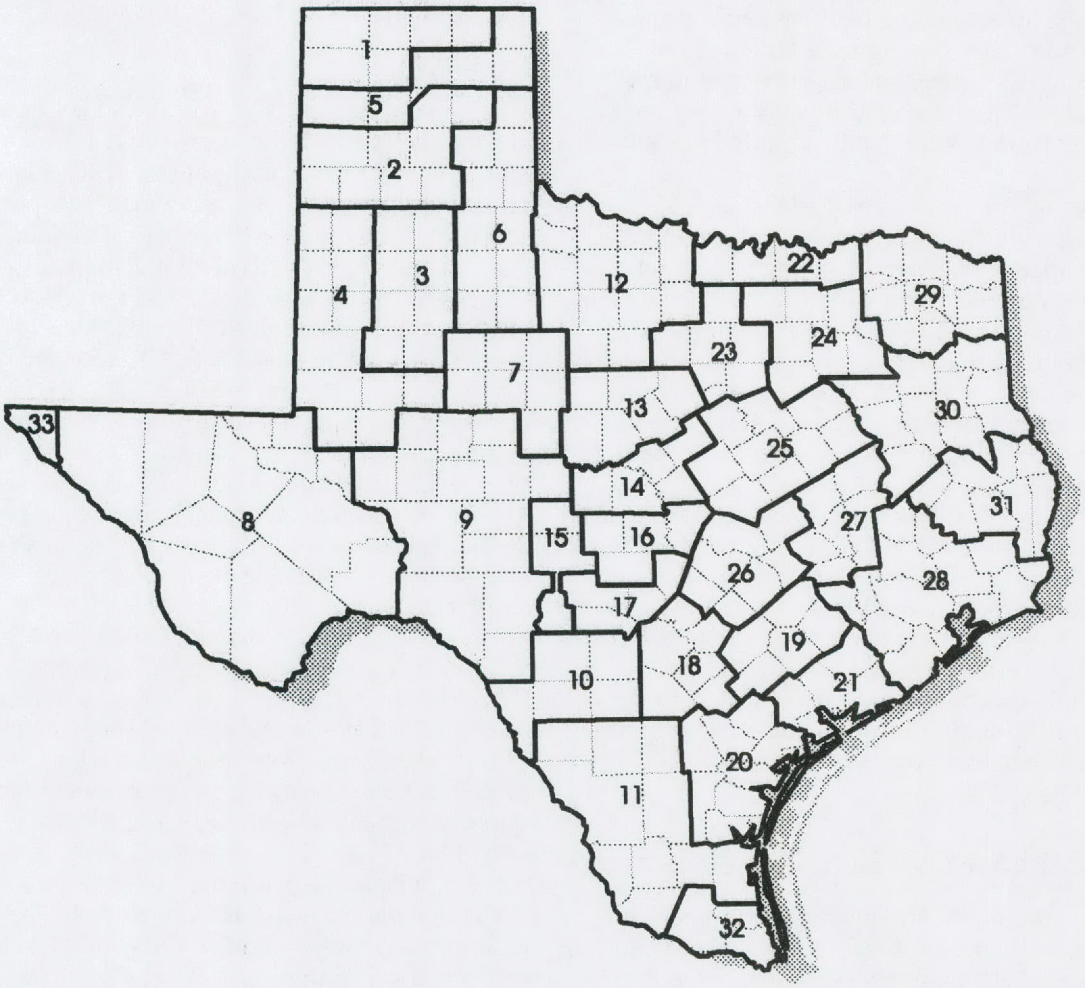
This general pattern of prices reflects the influence of population-driven demand on land markets. Despite the recent lackluster performance of land markets, nonagricultural influences have elevated prices in population-dense areas. Lower prices in remote areas more clearly represent the condition of agricultural markets.

Price Shifts

Changes in regional median prices (Figure 5 and Table 3) show the majority of percentage shifts range between a 5 percent increase and a 10 percent decline. Overall, markets probably changed little in these LMAs between 1990 and 1991.

The areas indicating declines of more than 10 percent are divided into two categories, those with statistically significant changes and those where changes may not represent area-wide trends (see Table 3). For example, the 18 percent decline recorded in the Panhandle-North (LMA 1) was not a statistically significant shift. Further

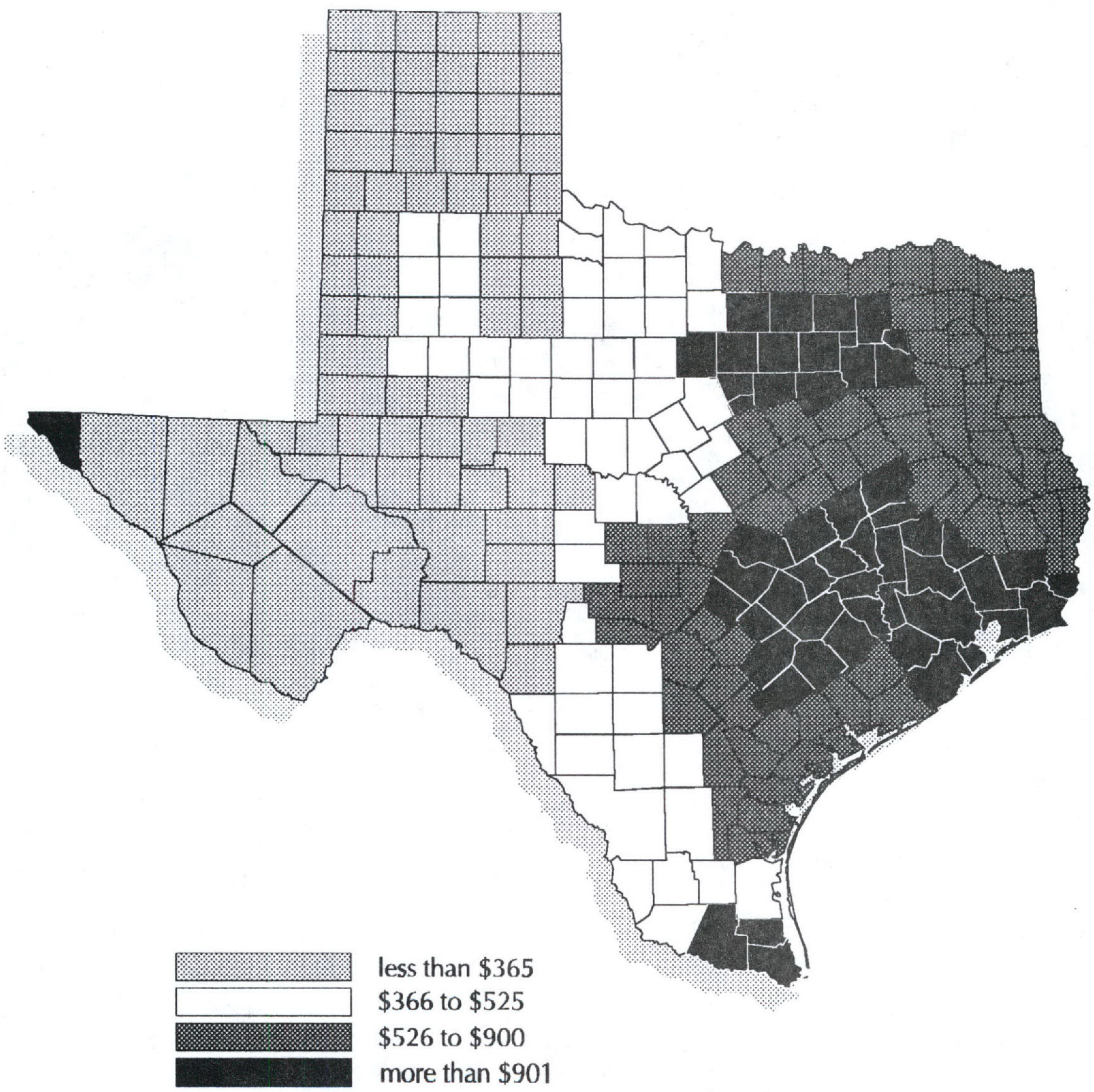
Figure 3. Texas Land Market Areas



1	Panhandle--North	12	North Central Plains	23	Fort Worth Prairie
2	Panhandle--Central	13	Crosstimbers	24	Dallas Prairie
3	South Plains	14	Hill Country--North	25	Blacklands--North
4	Permian--West	15	Hill Country--West	26	Blacklands--South
5	Canadian Breaks	16	Highland Lakes	27	Brazos
6	Rolling Plains--North	17	Hill Country--South	28	Houston
7	Rolling Plains--Central	18	San Antonio	29	Northeast
8	Trans-Pecos	19	Coastal Prairie--North	30	Piney Woods--North
9	Edwards Plateau--West	20	Coastal Prairie--South	31	Piney Woods--South
10	EdwardsPlateau--South	21	Coastal Prairie--Middle	32	Lower Rio Grande Valley
11	Rio Grande Plains	22	Texoma	33	El Paso

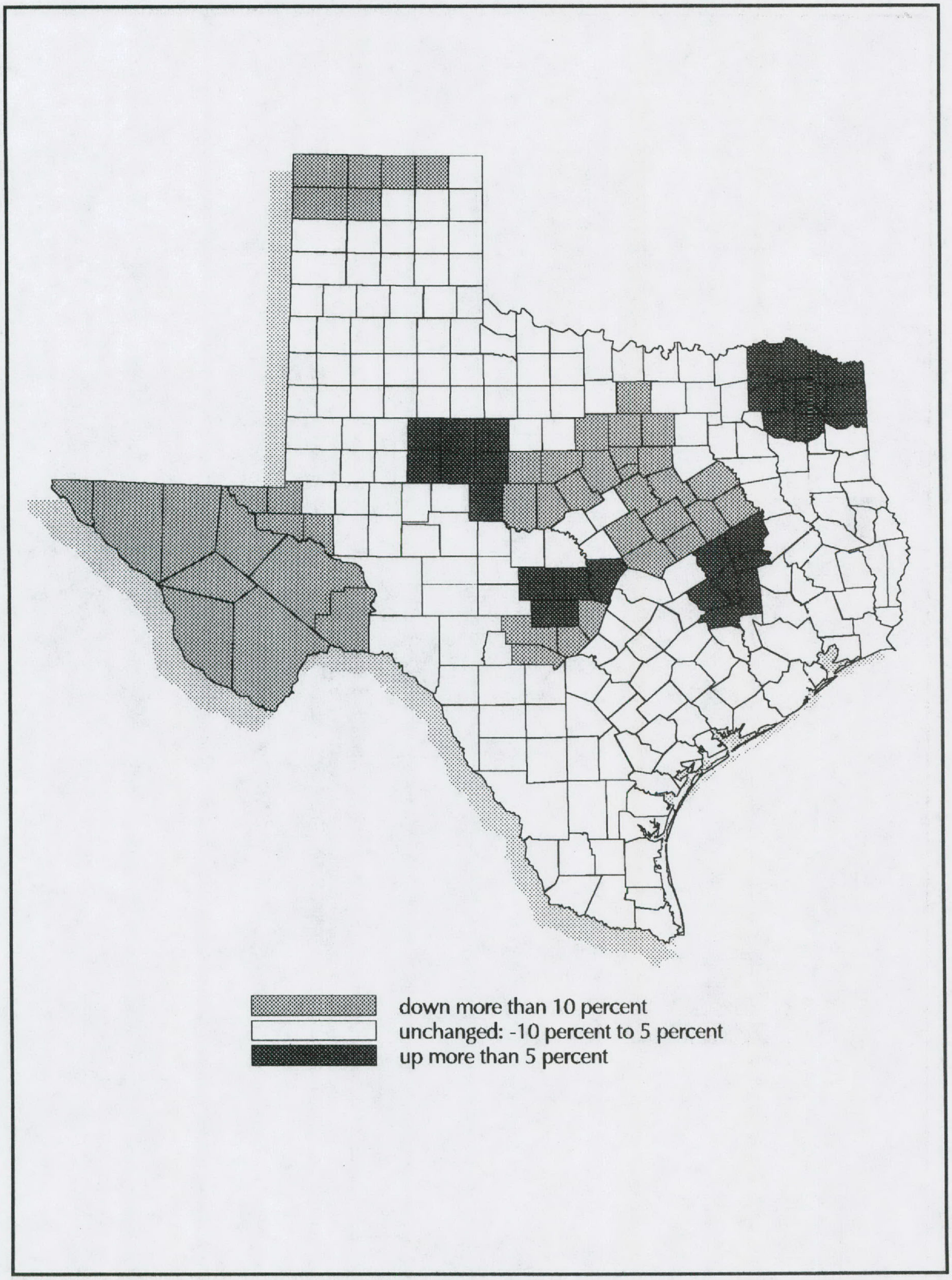
Source: Real Estate Center at Texas A&M University

Figure 4. Median Price per Acre for Texas Rural Land, 1991



Source: Real Estate Center at Texas A&M University

Figure 5. Percentage Change in Median Price per Acre for Texas Rural Land, 1990-91



Source: Real Estate Center at Texas A&M University

Table 3. Trends in Texas Rural Land Markets, 1990-91

Land Market Area	Median Price ($/acre)		Trend Analysis: Change 1990-91			Volume of Sales Analysis: Number of Sales		Volume of Sales Analysis: Change 1990-91		Land Market Area
	1990	1991	$/ac	%	Test	1990	1991	Number	%	
1	372	305	-67	-18		73	70	-3	-4	**1**
2	349	339	-10	-3		116	116	0	0	**2**
3	469	451	-18	-4		136	134	-2	-1	**3**
4	404	365	-39	-10		185	158	-27	-15	**4**
5	189	190	1	1		21	37	16	76	**5**
6	219	204	-15	-7		93	133	40	43	**6**
7	375	402	27	7		128	100	-28	-22	**7**
8	75	50	-25	-33		27	19	-8	-30	**8**
9	250	225	-25	-10		114	118	4	4	**9**
10	560	525	-35	-6		115	133	18	16	**10**
11	425	400	-25	-6		56	74	18	32	**11**
12	398	391	-7	-2		183	186	3	2	**12**
13	485	398	-87	-18	**	162	96	-66	-41	**13**
14	500	450	-50	-10		160	127	-33	-21	**14**
15	464	450	-14	-3		51	65	14	27	**15**
16	806	846	40	5		56	87	31	55	**16**
17	1,236	900	-336	-27		24	17	-7	-29	**17**
18	827	748	-79	-10		118	126	8	7	**18**
19	1,000	1,000	0	0		183	225	42	23	**19**
20	700	652	-48	-7		95	137	42	44	**20**
21	800	775	-25	-3		139	131	-8	-6	**21**
22	734	666	-68	-9		127	126	-1	-1	**22**
23	1,097	945	-152	-14	*	92	95	3	3	**23**
24	1,000	971	-29	-3		115	124	9	8	**24**
25	770	650	-120	-16	**	279	237	-42	-15	**25**
26	957	973	16	2		153	191	38	25	**26**
27	1,061	1,134	73	7		200	195	-5	-3	**27**
28	1,566	1,542	-24	-2		173	133	-40	-23	**28**
29	575	628	53	9		267	199	-68	-25	**29**
30	850	800	-50	-6	*	119	117	-2	-2	**30**
31	880	900	20	2		35	35	0	0	**31**
32	1,329	1,200	-129	-10		73	66	-7	-10	**32**
33	3,107	2,534	-573	-18		6	4	-2	-33	**33**
State	650	600	-49	-8	**	3,874	3,811	-63	-2	**State**

Note: *Test* column shows the result of a Mann-Whitney test of the indicated changes.

*Indicates significance at the 95 percent level.

**Indicates significance at the 99 percent level.

All others showed no statistically verifiable trend.

Source: Real Estate Center at Texas A&M University

investigation reveals that the size of a typical sale in LMA 1 nearly doubled in 1991, increasing from a median 322 acres to 635 acres (see Table 7). In addition, this size shift was statistically significant, suggesting that more large properties throughout the area sold in 1991 than in 1990. Because larger properties frequently sell for less per acre than smaller properties, this shift in acreage suggests that part or all of the apparent price decline resulted from the acreage change rather than an area trend to lower prices.

The 33 percent decline posted in the Trans-Pecos (LMA 8) also fails to define a regional shift. Thus, the apparent trend is illusory for two reasons. First, the number of sales is too small to evidence a regional trend. Second, the Trans-Pecos median price is so low that any shift will likely produce a relatively large percentage change. The 18 percent El Paso (LMA 33) decline also reflects too little information to identify a trend.

Similarly, the change in the Hill Country–South (LMA 17) did not reveal a verifiable area trend. Although the area's median price was substantially lower in 1991, much of the pronounced drop may have originated in sales in the extreme west of LMA 17 while declines elsewhere were less severe. Further, the median size in this area increased 81 percent, indicating an increase in the numbers of larger properties in 1991 compared to 1990.

Statistically significant declines centered in Crosstimbers (LMA 13), Fort Worth Prairie (LMA 23) and Blacklands–North (LMA 25). These declines reflect the weakened condition of the regional economies. Fort Worth, having resisted declines until 1987, suffered a series of economic reversals that have affected land values. Repercussions of plant closings and expected military budget cuts reached the land market and also may have contributed to weakness in Crosstimbers and Blacklands–North. In addition, weakened farming profits undoubtedly contributed to the decline in these two areas. Profit margins in dairy farming and Blackland farming were squeezed in 1991, leading few operators to buy land. In addition, lender sales of acquired properties, especially in the Blacklands–North, added to the weakness.

The remaining areas signal increases with median prices that range more than 5 percent above 1990 median prices. However, none of these shifts were statistically significant, casting doubt on the indicated price movements. The Northeast (LMA 29) median increase occurred when the market returned to a more normal mix of sellers in 1991 after numerous sales of lender-acquired properties had lowered the median price in 1990. Thus, the 1990 drop and subsequent 1991 rise offset each other, and the area has seen little change since 1989. Both Brazos (LMA 27) and Rolling Plains–Central (LMA 7) registered 7 percent increases while the Highland Lakes (LMA 16) posted a percentage change between 5 and 6 percent. None of these shifts reflect regional upward trends.

This analysis indicates local land markets beset with uncertainty and betrays little evidence of identifiable trends in most areas. In general, farming areas are marginally weaker than they were in 1990, but prices have not broken. Rangeland areas appear to face weakness on a broad base. On balance, although most regional markets trended lower in 1991, changes were neither widespread nor indicative of a chronically falling market. Some of these sporadic shifts could reverse in 1992 as market conditions reflect a more normal business environment.

Market Variations

Local median prices exemplify typical local markets; however, prices within those LMAs vary with location and quality. The degree of local variation inherent in the 1991 Texas rural land market is shown in Tables 4 through 6. The lower and upper quartiles, or the 25th and 75th percentiles, respectively, are given in Table 4. Of all reported sales, 25 percent are equal to or less than $399 per acre statewide. Similarly, 75 percent of 1991 reported sales ranged at or below $998 per acre. This broad range indicates great variability in rural land prices across the state. Individual quartiles indicate these quantities for each local market.

The owner of a typical acre of rural land could expect to sell at the median price. However, the median from a set of sales only estimates the median for all land. Therefore, the real median may differ from the estimate. A statistical device concept called a *confidence interval* provides the likely precision of the estimated median relative to all land. A 95 percent confidence interval for the 1991 median price in each area is presented in Table 5. The confidence interval for the statewide median of $600 per acre ranges from $600 to $625 per acre. Chances are 19 to 1 that the *typical* acre of Texas rural land in 1991 should

Table 4. Distribution of Nominal Price per Acre for Texas Rural Land, 1991

Land Market Area	Number of Sales	Price per Acre		
		Lower Quartile	Median	Upper Quartile**
1 Panhandle--North	70	$ 210	$ 305	$ 467
2 Panhandle--Central	116	278	339	591
3 South Plains	134	325	451	600
4 Permian West	158	254	365	529
5 Canadian Breaks	37	160	190	230
6 Rolling Plains--North	133	159	204	269
7 Rolling Plains--Central	100	325	402	537
8 Trans-Pecos	NA	40	50	72
9 Edwards Plateau--West	118	175	225	350
10 Edwards Plateau--South	133	401	525	740
11 Rio Grande Plains	74	325	400	537
12 North Central Plains	186	300	391	500
13 Crosstimbers	96	320	398	566
14 Hill Country--North	127	375	450	617
15 Hill Country--West	65	325	450	595
16 Highland Lakes	87	630	846	1,099
17 Hill Country--South	NA	754	900	1,400
18 San Antonio	126	574	748	1,151
19 Coastal Prairie--North	225	775	1,000	1,357
20 Coastal Prairie--South	137	503	652	875
21 Coastal Prairie--Middle	131	616	775	1.000
22 Texoma	126	486	666	1,000
23 Fort Worth Prairie	95	536	945	1,500
24 Dallas Prairie	124	701	971	1,477
25 Blacklands--North	237	500	650	900
26 Blacklands--South	191	703	973	1,268
27 Brazos	195	768	1134	1,695
28 Houston	133	1,100	1,542	2,262
29 Northeast	199	450	628	850
30 Piney Woods--North	117	600	800	1,161
31 Piney Woods--South	35	700	900	1,300
32 Lower Rio Grande Valley	66	933	1,200	1,500
33 El Paso	NA	2,205	2,534	2,679
State	3,811	$ 399	$ 600	$ 998

*25 percent of the sales had prices equal to or less than this price.
**75 percent of the sales had prices equal to or less than this price.
NA indicates fewer than 30 sales reported.
Source: Real Estate Center at Texas A&M University

Table 5. Confidence Intervals of 95 Percent for Median Price per Acre, Texas Rural Land, 1991

Land Market Area	Number of Sales	Price per Acre		
		Lower Limit	Median	Upper Limit
1 Panhandle--North	70	$ 275	$ 305	$ 372
2 Panhandle--Central	116	302	339	408
3 South Plains	134	413	451	500
4 Permian--West	158	326	365	400
5 Canadian Breaks	37	171	190	224
6 Rolling Plains--North	133	188	204	225
7 Rolling Plains--Central	100	369	402	450
8 Trans-Pecos	NA	28	50	135
9 Edwards Plateau--West	118	210	225	249
10 Edwards Plateau--South	133	505	525	574
11 Rio Grande Plains	74	350	400	460
12 North Central Plains	186	350	391	400
13 Crosstimbers	96	370	398	433
14 Hill Country--North	127	425	450	500
15 Hill Country--West	65	375	450	500
16 Highland Lakes	87	725	846	935
17 Hill Country--South	NA	691	900	1,400
18 San Antonio	126	673	748	895
19 Coastal Prairie--North	225	900	1,000	1,000
20 Coastal Prairie--South	137	600	652	700
21 Coastal Prairie--Middle	131	725	775	806
22 Texoma	126	600	666	775
23 Fort Worth Prairie	95	760	945	1,200
24 Dallas Prairie	124	847	971	1,003
25 Blacklands--North	237	602	650	682
26 Blacklands--South	191	856	973	1,000
27 Brazos	195	1,000	1,134	1,237
28 Houston	133	1,444	1,542	1,741
29 Northeast	199	574	628	674
30 Piney Woods--North	117	700	800	859
31 Piney Woods--South	35	750	900	1,240
32 Lower Rio Grande Valley	66	1,010	1,200	1,303
33 El Paso	NA	2,000	2,534	2,659
State	3,811	$ 600	$ 600	$ 625

NA indicates fewer than 30 sales reported.

Source: Real Estate Center at Texas A&M University

Table 6. Limits of the 95 Percent Confidence Interval on Price per Acre as a Percentage of 1990 Median Price

Land Market Area	Percentage Change, 1990-91		
	Lower Limit	Median	Upper Limit
1 Panhandle--North	-26	-18	0
2 Panhandle--Central	-13	-3	17
3 South Plains	-12	-4	7
4 Permian--West	-19	-10	-1
5 Canadian Breaks	-10	1	19
6 Rolling Plains--North	-14	-7	3
7 Rolling Plains--Central	-2	7	20
8 Trans-Pecos	-63	-33	80
9 Edwards Plateau--West	-16	-10	0
10 Edwards Plateau--South	-10	-6	3
11 Rio Grande Plains	-18	-6	8
12 North Central Plains	-12	-2	1
13 Crosstimbers	-24	-18	-11
14 Hill Country--North	-15	-10	0
15 Hill Country--West	-19	-3	8
16 Highland Lakes	-10	5	16
17 Hill Country--South	-44	-27	13
18 San Antonio	-19	-10	8
19 Coastal Prairie--North	-10	0	0
20 Coastal Prairie--South	-14	-7	0
21 Coastal Prairie--Middle	-9	-3	1
22 Texoma	-18	-9	6
23 Fort Worth Prairie	-31	-14	9
24 Dallas Prairie	-15	-3	0
25 Blacklands--North	-22	-16	-11
26 Blacklands--South	-11	2	4
27 Brazos	-6	7	17
28 Houston	-8	-2	11
29 Northeast	0	9	17
30 Piney Woods--North	-18	-6	1
31 Piney Woods--South	-15	2	41
32 Lower Rio Grande Valley	-24	-10	-2
33 El Paso	-36	-18	-14
State	-8	-8	-4

Source: Real Estate Center at Texas A&M University

have commanded a price between $600 and $625. Intervals for each land market area express similarly interpreted ranges for each local market.

The limits of the confidence interval in Table 5 relative to 1991 median prices for each land market area are shown in Table 6. The median price per acre from 1991 may have declined as much as 8 percent or as little as 4 percent from 1990 levels, according to calculated limits of the confidence interval.

Tract Size Variations

Size of tracts sold can influence the price per acre. Specifically, price per acre typically declines as property size increases. Thus, size variations can affect the median price observed in a market. Consequently, price changes in areas with statistically significant shifts in size of tracts sold could be associated with size and not with market shifts. In other words, a shift could result from a change in market composition rather than a trend in prices. For example, high cattle prices may encourage the purchase of ranchland while low cotton prices might discourage farmland acquisition. More ranches probably would sell in such a market. Because ranches generally are larger than farms, the typical size would expand and price per acre would drop, as it did in the Panhandle–North (LMA 1). However, as commodity prices returned to a more normal relationship, the mix of properties would include more farmland and the typical price per acre would rise while typical size would drop.

Analyses of tract size in the 1991 Texas rural land market are presented in Tables 7 through 9. Interpretation of the tables parallels Tables 4 through 6 as just discussed.

Conclusion and Outlook

The 1991 statewide rural land market dropped 8 percent in response to war, recession and uncertainty. However, the effects of those phenomena should diminish in 1992 as Texas land prices reflect more normal circumstances. Uncertainty about the economy in general and property rights issues create a market in which regional weakness probably will persist through 1992. Although statewide prices will likely rebound from 1991 levels, prospects for a broad-based recovery appear remote.

Locally, a trend toward increased numbers of sales of small tracts well suited to recreational use should continue. In some areas, a shortage of good quality properties may occur; however, prices in these markets will continue to lag far behind former high levels, and prospects for significant appreciation in the short run appear dim. Nevertheless, most of the decline for this property type probably has occurred.

Larger rangeland properties continue to face a market with relatively few buyers. Downward pressures on prices will be countered by the financial strength of surviving owners. This property type faces a problematic future.

Farmland prices now closely reflect agricultural profits. Prospects for 1992-93 depend on income banked throughout the year. Conditions in crops and commodities markets point to mixed results for farmland sales. In the Panhandle, the cotton crop was decimated by unfavorable weather. However, the losses occurred early enough to allow farmers to collect crop insurance and replant alternative crops. Therefore, the final effect of this potential disaster on incomes is clouded. Although the remainder of Texas escaped this crop disaster, current and future prices for cotton and other farm products are modest at best and reflect expectations of little change. Balancing positive and negative factors suggests little change in farm incomes and, therefore, little movement in farmland prices.

Table 7. Tract Size Changes in Texas Rural Land Sold, 1990-91

Land Market Area	Median Size (acres)		Shifts in Size: Change, 1990-91		
	1990	1991	acre	%	Test
1 Panhandle--North	322	635	313	97	*
2 Panhandle--Central	320	290	-30	-9	
3 South Plains	160	175	15	9	
4 Permian--West	180	177	-3	-2	
5 Canadian Breaks	1,092	640	-452	-41	*
6 Rolling Plains--North	210	284	74	35	
7 Rolling Plains--Central	160	157	-3	-2	*
8 Trans-Pecos	6,118	5,025	-1,093	-18	
9 Edwards Plateau--West	488	640	152	31	
10 Edwards Plateau--South	191	199	8	4	
11 Rio Grande Plains	669	516	-153	-23	
12 North Central Plains	162	173	11	7	
13 Crosstimbers	159	165	6	4	
14 Hill Country--North	201	217	16	8	
15 Hill Country--West	305	300	-5	-2	
16 Highland Lakes	141	178	37	26	
17 Hill Country--South	147	266	119	81	
18 San Antonio	97	99	2	2	
19 Coastal Prairie--North	78	79	1	1	
20 Coastal Prairie--South	136	129	-7	-5	
21 Coastal Prairie--Middle	120	100	-20	-17	
22 Texoma	79	77	-2	-3	
23 Fort Worth Prairie	72	86	14	19	
24 Dallas Prairie	73	77	4	5	
25 Blacklands--North	100	107	7	7	
26 Blacklands--South	90	75	-15	-17	
27 Brazos	68	80	12	18	
28 Houston	60	65	5	8	
29 Northeast	85	70	-15	-18	
30 Piney Woods--North	86	95	9	10	
31 Piney Woods--South	61	82	21	34	
32 Lower Rio Grande Valley	39	55	16	41	*
33 El Paso	65	79	14	22	
State	135	138	3	2	

Note: *Test* column shows the result of a Mann-Whitney test of the indicated changes.

*Indicates significance at the 95 percent level.

**Indicates significance at the 99 percent level.

All others showed no statistically verifiable trend.

Source: Real Estate Center at Texas A&M University

Table 8. Acreage Distribution of Texas Rural Land Sales, 1991

Land Market Area	Number of Sales	Size in Acres		
		Lower Quartile	Median	Upper Quartile**
1 Panhandle--North	70	320	635	648
2 Panhandle--Central	116	160	290	353
3 South Plains	134	150	175	320
4 Permian--West	158	153	177	322
5 Canadian Breaks	37	320	640	960
6 Rolling Plains--North	133	160	284	400
7 Rolling Plains--Central	100	87	157	223
8 Trans-Pecos	NA	2,900	5,025	11,271
9 Edwards Plateau--West	118	310	640	2,038
10 Edwards Plateau--South	133	94	199	529
11 Rio Grande Plains	74	250	516	1,262
12 North Central Plains	186	100	173	320
13 Crosstimbers	96	100	165	291
14 Hill Country--North	127	140	217	425
15 Hill Country--West	65	139	300	678
16 Highland Lakes	87	78	178	354
17 Hill Country--South	NA	129	266	450
18 San Antonio	126	54	99	189
19 Coastal Prairie--North	225	52	79	136
20 Coastal Prairie--South	137	75	129	252
21 Coastal Prairie--Middle	131	54	100	185
22 Texoma	126	39	77	165
23 Fort Worth Prairie	95	41	86	281
24 Dallas Prairie	124	53	77	147
25 Blacklands--North	237	54	107	199
26 Blacklands--South	191	47	75	135
27 Brazos	195	46	80	139
28 Houston	133	44	65	119
29 Northeast	199	48	70	138
30 Piney Woods--North	117	52	95	188
31 Piney Woods--South	35	50	82	133
32 Lower Rio Grande Valley	66	32	55	206
33 El Paso	NA	70	79	391
State	3,811	65	138	310

*25 percent of the sales had sizes equal to or less than this size.
**75 percent of the sales had sizes equal to or less than this size.
NA indicates fewer than 30 sales reported.
Source: Real Estate Center at Texas A&M University

Table 9. Confidence Intervals of 95 Percent for Tract Size of Texas Rural Land, 1991

Land Market Area	Number of Sales	Acres		
		Lower Limit	Median	Upper Limit
1 Panhandle--North	70	462	635	640
2 Panhandle--Central	116	205	290	320
3 South Plains	134	160	175	216
4 Permian--West	158	161	177	200
5 Canadian Breaks	37	320	640	646
6 Rolling Plains--North	133	200	284	320
7 Rolling Plains--Central	100	137	157	160
8 Trans-Pecos	NA	1,280	5,025	11,413
9 Edwards Plateau--West	118	466	640	853
10 Edwards Plateau--South	133	133	199	257
11 Rio Grande Plains	74	347	516	875
12 North Central Plains	186	160	173	203
13 Crosstimbers	96	157	165	196
14 Hill Country--North	127	191	217	293
15 Hill Country--West	65	180	300	436
16 Highland Lakes	87	122	178	224
17 Hill Country--South	NA	127	266	450
18 San Antonio	126	75	99	119
19 Coastal Prairie--North	225	70	79	91
20 Coastal Prairie--South	137	107	129	160
21 Coastal Prairie--Middle	131	81	100	132
22 Texoma	126	56	77	98
23 Fort Worth Prairie	95	70	86	107
24 Dallas Prairie	124	63	77	97
25 Blacklands--North	237	96	107	121
26 Blacklands--South	191	68	75	95
27 Brazos	195	67	80	86
28 Houston	133	55	65	76
29 Northeast	199	59	70	80
30 Piney Woods--North	117	67	95	126
31 Piney Woods--South	35	52	82	104
32 Lower Rio Grande Valley	66	40	55	90
33 El Paso	NA	69	79	87
State	3,811	131	138	147

NA indicates fewer than 30 sales reported.

Source: Real Estate Center at Texas A&M University

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Appendix A
Inventory of Texas Rural Land

The following tables contain statistics on land devoted to different agricultural uses. These estimates are derived from data collected by the Property Tax Division of the Texas Comptrollers Office from tax rolls in each Texas school district. The tables include the total area in acres and square miles, 1991 median school property taxes based on both agricultural value and market value, median estimated income and median assessed value for each type of land. Because all Texas land is subject to school taxes, this inventory covers the entire stock of rural land devoted to agricultural uses.

Open-space taxation is based on land productivity and open-space taxes depend on the estimated net income. Market-value taxation ignores productivity valuation and bases taxes on current land values. The assessed market value serves as a base for school taxes.

Panhandle--North Land Market Area 1	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Irrigated cropland	546,728	854	12	2.37	5.34	25.89	452
Native pasture	2,429,117	3,795	54	0.39	1.04	4.39	91
Nonirrigated cropland	1,555,387	2,430	34	1.04	2.22	11.57	199
Other	1,308	2	0	5.47	0.02	59.66	2
Total	4,532,540	7,082	100				

Panhandle--Central Land Market Area 2	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	8,344	13	0	0.12	0.16	1.25	13
Improved pasture	27,256	43	1	0.40	1.09	5.23	114
Irrigated cropland	745,765	1,165	15	2.67	5.30	33.72	508
Native pasture	2,159,933	3,375	43	0.40	1.13	4.90	103
Nonirrigated cropland	2,105,232	3,289	42	1.33	2.36	15.02	208
Total	5,046,530	7,885	100				

South Plains Land Market Area 3	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	167,768	262	3	0.35	0.65	4.24	56
Improved pasture	17,255	27	0	0.46	2.41	5.59	237
Irrigated cropland	825,283	1,290	17	3.69	6.90	41.62	615
Native pasture	1,458,135	2,278	30	0.35	1.00	3.88	85
Nonirrigated cropland	2,339,830	3,656	49	1.75	3.46	21.50	306
Other	187	0	0	1.55	0.01	18.17	1
Total	4,808,458	7,513	100				

Permian--West Land Market Area 4	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	178,178	278	3	0.07	0.12	0.67	11
Improved pasture	48,626	76	1	0.47	1.21	5.41	110
Irrigated cropland	1,063,779	1,662	17	2.66	5.47	29.99	469
Native pasture	2,760,393	4,313	43	0.29	0.95	2.91	88
Nonirrigated cropland	2,385,223	3,727	37	1.52	3.05	16.45	270
Orchard	1,486	2	0	3.68	8.48	33.62	754
Other	5,275	8	0	1.99	0.06	22.30	6
Total	6,442,960	10,067	100				

Canadian Breaks Land Market Area 5							
	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	19 ,912	31	1	0.06	0.93	0.62	75
Irrigated cropland	47,672	74	1	1.67	4.47	16.88	403
Native pasture	2,652,702	4,145	81	0.35	1.60	3.83	130
Nonirrigated cropland	534,326	835	16	1.12	2.59	10.62	220
Other	6,597	10	0	0.53	0.01	5.08	1

Rolling Plains--North Land Market Area 6							
	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	126,550	198	2	0.05	0.66	0.62	62
Improved pasture	35,119	55	1	0.69	1.80	8.75	194
Irrigated cropland	65,655	103	1	1.66	3.74	17.80	323
Native pasture	4,638,670	7,248	74	0.27	0.92	3.41	93
Nonirrigated cropland	1,403,559	2,193	22	1.07	2.06	12.84	190
Orchard	80	0	0	0.75	1.72	8.20	150
Other	29,565	46	0	1.59	0.01	22.00	1
Total	6,299,198	9,842	100				

Rolling Plains--Central Land Market Area 7	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	146,548	229	4	0.10	0.48	1.09	36
Improved pasture	193,508	302	5	1.00	3.79	10.17	309
Irrigated cropland	3,838	6	0	1.70	4.47	17.30	332
Native pasture	2,066,063	3,228	50	0.40	2.11	4.00	171
Nonirrigated cropland	1,685,454	2,634	41	1.35	5.58	13.16	451
Orchard	24	0	0	1.95	6.12	19.83	500
Other	3,523	6	0	1.32	0.05	13.29	4

Trans-Pecos Land Market Area 8	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	2,674	4	0	0.01	0.12	0.15	10
Improved pasture	176,036	275	1	0.04	0.52	0.47	44
Irrigated cropland	176,887	276	1	1.27	2.38	14.04	211
Native pasture	15,801,764	24,690	98	0.07	0.59	0.84	51
Orchard	2,337	4	0	1.87	3.09	21.82	250
Total	16,159,698	25,250	100				

Edwards Plateau--West Land Market Area 9							
	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	120,473	188	1	0.02	0.48	0.31	51
Improved pasture	26,104	41	0	0.45	3.15	6.10	350
Irrigated cropland	113,183	177	1	1.72	7.34	25.52	735
Native pasture	11,556,542	18,057	94	0.26	1.94	3.21	200
Nonirrigated cropland	477,822	747	4	0.76	4.59	9.55	413
Orchard	551	1	0	1.75	4.58	22.24	445
Other	9,479	15	0	0.65	0.01	11.21	1
Total	12,304,154	19,225	100				

Edwards Plateau--South Land Market Area 10							
	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	291,650	456	7	0.32	6.88	3.59	598
Improved pasture	208,184	325	5	0.75	6.47	8.96	580
Irrigated cropland	204,039	319	5	2.77	10.07	32.09	829
Native pasture	2,398,765	3,748	57	0.48	5.61	5.68	529
Nonirrigated cropland	311,045	486	7	1.36	7.52	14.90	710
Orchard	11,992	19	0	4.10	15.59	46.62	1,426
Other	777,787	1,215	19	0.36	1.72	4.73	177
Total	4,203,462	6,568	100				

Rio Grande Plains Land Market Area 11	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	373,162	583	4	0.18	1.17	1.51	80
Improved pasture	374,952	586	4	0.82	5.69	6.71	382
Irrigated cropland	41,172	64	0	3.21	9.93	32.78	702
Native pasture	7,683,853	12,006	80	0.57	4.79	4.82	320
Nonirrigated cropland	225,972	353	2	1.59	6.00	13.46	470
Orchard	1,111	2	0	3.03	10.15	28.15	758
Other	863,201	1,349	9	0.66	4.20	7.10	381
Total	9,563,423	14,943	100				

North Central Plains Land Market Area 12	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	63,792	100	1	0.10	1.37	1.04	113
Improved pasture	134,142	210	2	0.72	3.79	7.99	343
Irrigated cropland	61,530	96	1	1.96	5.49	21.91	437
Native pasture	5,150,682	8,048	70	0.40	2.93	4.11	272
Nonirrigated cropland	1,858,697	2,904	25	1.40	4.84	16.05	423
Orchard	2.516	4	0	3.08	7.83	34.08	728
Other	64,255	100	1	0.28	0.04	3.45	3
Total	7,335,614	11,462	100				

Crosstimbers Land Market Area 13 Land Class	Area			School Property Taxes		Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)		
Barren land	179	0	0	0.23	0.27	2.49	20
Improved pasture	131,927	206	4	0.72	5.80	7.47	566
Irrigated cropland	29,045	45	1	2.86	8.53	31.12	812
Native pasture	2,707,096	4,230	74	0.53	4.86	5.62	411
Nonirrigated cropland	777,916	1,215	21	0.93	6.62	9.90	568
Orchard	12,519	20	0	2.50	7.83	29.13	748
Other	5.407	8	0	2.07	0.05	25.27	4
Total	3,664,089	5,725	100				

Hill Country--North Land Market Area 14 Land Class	Area			School Property Taxes		Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)		
Barren land	10	0	0	0.42	3.58	4.36	300
Improved pasture	123,360	193	4	0.92	5.29	9.96	501
Irrigated cropland	7,122	11	0	2.20	8.99	24.15	770
Native pasture	2,341,741	3,659	83	0.60	4.72	7.23	452
Nonirrigated cropland	346,438	541	12	1.09	5.30	12.82	510
Orchard	8,494	13	0	4.10	12.58	46.75	1,127
Other	6,117	10	0	0.95	0.19	9.57	16
Total	2,833,282	4,427	100				

Hill Country--West Land Market Area 15							
	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Improved pasture	98,606	154	7	0.69	6.30	7.47	550
Irrigated cropland	988	2	0	0.80	8.02	8.72	700
Native pasture	1,338,202	2,091	91	0.34	3.89	4.58	351
Nonirrigated cropland	16,819	26	1	0.63	7.25	8.48	654
Orchard	1,005	2	0	3.49	24.79	39.05	2,196
Other	19,532	31	1	0.54	1.12	7.25	120
Total	1,475,152	2,305	100				

Highland Lakes Land Market Area 16							
	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	84,073	131	3	0.31	8.92	3.13	701
Improved pasture	111,242	174	5	0.98	10.38	9.43	959
Irrigated cropland	8,259	13	0	1.56	9.51	15.24	830
Native pasture	1,837,226	2,871	75	0.68	8.42	6.77	773
Nonirrigated cropland	62,233	97	3	1.05	10.96	9.42	908
Orchard	2,862	4	0	3.14	27.22	34.34	2,045
Other	343,175	536	14	0.60	3.70	6.60	328
Total	2,449,070	3,827	100				

Hill Country--South Land Market Area 17							
	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	4,040	6	0	0.07	4.10	0.75	333
Improved pasture	43,859	69	3	0.71	12.32	7.20	1,141
Irrigated cropland	1,396	2	0	0.93	13.61	9.96	1,175
Native pasture	1,428,470	2,232	86	0.57	9.68	5.41	859
Nonirrigated cropland	39,726	62	2	0.90	12.52	10.58	1,081
Orchard	1,205	2	0	2.99	31.20	27.66	2,916
Other	144,643	226	9	0.61	3.48	5.38	246
Total	1,663,339	2,599	100				

San Antonio Land Market Area 18							
	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	13,814	22	1	0.13	15.25	1.13	1,133
Improved pasture	623,187	974	25	1.08	19.42	10.58	1,389
Irrigated cropland	52,155	81	2	3.63	8.69	34.36	721
Native pasture	1,369,420	2,140	54	0.57	10.69	6.23	797
Nonirrigated cropland	462,456	723	18	1.76	20.09	16.15	1,500
Orchard	7,190	11	0	4.73	40.94	45.56	2,631
Other	622	1	0	16.43	13.92	175.90	1,002
Total	2,528,844	3,951	100				

Coastal Prairie--North Land Market Area 19							
	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	54,133	85	2	0.24	7.72	2.51	710
Improved pasture	754,218	1,178	25	1.12	8.87	11.21	923
Irrigated cropland	149,826	234	5	2.08	10.25	23.29	869
Native pasture	1,826,263	2,854	62	0.74	8.51	8.13	816
Nonirrigated cropland	175,240	274	6	1.46	11.14	16.16	1,017
Orchard	868	1	0	1.74	14.06	20.68	1,379
Timber	3,490	5	0	2.22	25.02		
Total	2,964,038	4,631	100				

Coastal Prairie--South Land Market Area 20							
	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	91,637	143	2	0.31	4.28	3.43	319
Improved pasture	496,772	776	12	1.18	10.92	11.20	836
Irrigated cropland	1,385	2	0	3.99	61.27	39.71	4,900
Native pasture	2,206,001	3,447	54	0.60	8.55	5.97	717
Nonirrigated cropland	1,137,732	1,778	28	3.23	10.72	31.65	860
Orchard	146	0	0	2.72	7.34	31.15	617
Other	187,801	293	5	4.35	5.90	51.65	614
Total	4,121,474	6,440	100				

Coastal Priarie--Middle Land Market Area 21							
	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	166,630	260	7	1.69	5.14	21.74	479
Improved pasture	64,884	101	3	1.11	9.54	12.45	904
Irrigated cropland	353,064	552	14	2.53	8.90	29.13	760
Native pasture	1,344,688	2,101	53	0.72	7.97	8.10	718
Nonirrigated cropland	590,571	923	23	2.56	9.97	27.26	827
Orchard	1,345	2	0	3.32	18.64	35.54	1,583
Other	16,072	25	1	4.29	0.10	48.75	9
Total	2,537,254	3,964	100				

Texoma Land Market Area 22							
	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	16,541	26	1	0.30	6.37	2.65	576
Improved pasture	217,532	340	11	1.41	9.55	14.32	813
Irrigated cropland	3,480	5	0	2.73	15.17	31.12	1,219
Native pasture	1,221,287	1,908	62	0.83	8.61	8.47	774
Nonirrigated cropland	434,823	679	22	1.90	9.39	18.66	772
Orchard	2,241	4	0	2.10	15.70	21.66	1,392
Other	67,156	105	3	0.74	0.82	8.10	71
Total	1,963,060	3,067	100				

Fort Worth Prairie Land Market Area 23	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	66,652	104	3	0.49	9.04	4.23	680
Improved pasture	350,739	548	15	1.24	17.47	10.58	1,357
Irrigated cropland	10,916	17	0	2.62	16.58	26.77	1,308
Native pasture	1,630,135	2,547	71	0.79	16.04	7.47	1,192
Nonirrigated cropland	239,094	374	10	1.59	18.74	17.14	1,387
Orchard	6,760	11	0	3.04	21.47	31.14	1,549
Other	426	1	0	3.67	0.97	32.04	74
Total	2,304,722	3,601	100				

Dallas Prairie Land Market Area 24	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	31,968	50	1	0.49	11.75	4.41	870
Improved pasture	608,453	951	22	1.36	27.66	13.07	2,138
Irrigated cropland	794	1	0	1.34	10.76	15.11	904
Native pasture	1,401,305	2,190	50	0.90	24.50	8.09	1,825
Nonirrigated cropland	744,240	1,163	26	2.61	27.83	24.90	2,149
Orchard	5,844	9	0	4.37	24.25	39.99	1,808
Timber	7,793	12	0	1.79	18.10		
Other	12,826	20	0	2.79	0.11	26.09	8
Total	2,813,223	4,396	100				

Blacklands--North Land Market Area 25	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	19,069	30	0	0.27	4.70	3.11	427
Improved pasture	850,960	1,330	18	1.19	7.64	14.23	688
Irrigated cropland	2,356	4	0	2.70	10.38	28.64	1,000
Native pasture	2,550,562	3,985	55	0.73	7.20	8.09	629
Nonirrigated cropland	1,191,598	1,862	26	1.85	8.21	21.17	728
Orchard	1,668	3	0	2.72	12.00	28.64	1,000
Timber	209	0	0	3.28	37.37		
Other	25,389	40	1	1.03	0.70	13.08	67
Total	4,641,811	7,253	100				

Blacklands--South Land Market Area 26	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	89,556	140	3	0.34	12.57	3.11	858
Improved pasture	592,951	926	21	0.98	17.03	10.33	1,226
Irrigated cropland	1,397	2	0	3.31	23.16	28.50	1,746
Native pasture	1,504,119	2,350	54	0.65	15.94	5.87	1,142
Nonirrigated cropland	512,743	801	19	2.29	17.05	22.07	1,209
Orchard	2,172	3	0	5.69	23.53	55.33	1,633
Timber	363	1	0	2.16	21.13		
Other	62,502	98	2	0.32	0.04	3.51	3
Total	2,765,803	4,322	100				

Brazos Land Market Area 27							
	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	104.517	163	4	0.38	5.83	3.98	498
Improved pasture	653.406	1.021	23	0.95	11.29	10.61	978
Irrigated cropland	34.479	54	1	2.93	11.03	36.53	935
Native pasture	1.784.116	2.788	64	0.64	9.87	7.24	881
Nonirrigated cropland	80.580	126	3	1.93	11.60	21.50	1.022
Orchard	1.595	2	0	2.63	18.34	28.02	1.579
Timber	64.991	102	2	2.38	25.61		
Other	80.913	126	3	0.46	3.21	3.86	258
Total	2.804.597	4.382	100				

Houston Land Market Area 28							
	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	56,165	88	1	0.54	15.43	4.98	1,055
Improved pasture	312,240	488	8	1.66	32.51	14.95	2,352
Irrigated cropland	505,269	789	13	3.30	17.83	31.63	1,373
Native pasture	1,868,162	2,919	47	0.96	21.02	8.72	1,681
Nonirrigated cropland	404,677	632	10	2.10	31.44	18.69	2,135
Orchard	6,318	10	0	4.37	33.41	47.31	2,397
Timber	796,248	1,244	20	2.72	10.89	26.33	826
Other	33,618	53	1	5.23	0.28	45.80	19
Total	3,982,697	6,223	100				

Northeast Land Market Area 29							
	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	41,633	65	1	0.13	0.52	1.65	53
Improved pasture	1,054,166	1,647	28	1.16	7.90	12.70	715
Irrigated cropland	4,376	7	0	3.12	3.64	37.35	350
Native pasture	1,312,693	2,051	35	0.72	7.68	7.60	677
Nonirrigated cropland	343,506	537	9	1.47	8.98	15.78	844
Orchard	2,552	4	0	2.35	12.43	28.27	1,100
Timber	1,014,212	1,585	27	1.35	5.96	16.79	584
Other	28,845	45	1	3.76	0.24	41.02	16
Total	3,801,983	5,941	100				

Piney Woods--North Land Market Area 30							
	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	65,009	102	1	0.87	5.98	8.72	559
Improved pasture	1,015,044	1,586	21	1.11	9.27	11.83	765
Irrigated cropland	0	0					
Native pasture	1,609,146	2,514	33	0.79	9.44	8.16	721
Nonirrigated cropland	63,699	100	1	1.11	9.97	11.21	813
Orchard	3,930	6	0	2.68	13.00	27.45	1,043
Timber	1,919,948	3,000	40	1.96	17.10	20.02	1,368
Other	157,567	246	3	1.77	0.39	18.67	32
Total	4,834,343	7.554	100				

Piney Woods--South Land Market Area 31	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	1,252	2	0	2.56	11.00	24.86	859
Improved pasture	143,806	225	5	1.54	11.05	17.43	962
Native pasture	386,709	604	12	1.03	10.35	11.20	885
Nonirrigated cropland	2,267	4	0	1.31	11.13	13.70	1,101
Orchard	25	0	0	3.29	12.23	47.68	1,422
Timber	2,559,675	3,999	81	2.59	9.77	26.63	749
Other	55,035	86	2	0.49	0.59	5.60	60
Total	3,148,769	4,920	100				

Lower Rio Grande Valley Land Market Area 32	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value ($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Barren land	53,085	83	4	0.25	16.61	2.49	1,357
Improved pasture	126,362	197	8	2.01	23.38	19.29	1,888
Irrigated cropland	445,083	695	29	5.83	26.98	60.73	2,079
Native pasture	473,211	739	31	0.58	19.18	6.16	1,430
Nonirrigated cropland	380,552	595	25	3.72	10.16	37.10	932
Orchard	36,782	57	2	6.47	43.07	62.61	3,453
Other	1,055	2	0	0.66	0.23	7.22	17
Total	1,516,130	2,369	100				

El Paso Land Market Area 33							
	Area			School Property Taxes			
Land Class	Acres	Square Miles	Percent of Total	Open Space ($/acre)	Market Value($/acre)	Estimated Net Income ($/acre)	Assessed Market Value ($/acre)
Improved pasture	520	1	0	8.18	105.64	80.92	5,725
Irrigated cropland	42,076	66	37	8.72	78.52	80.93	6,063
Native pasture	65,025	102	57	0.13	25.66	1.25	2,043
Orchard	5,332	8	5	10.38	97.29	85.05	7,189
Other	762	1	1	4.65	0.11	41.49	8
Total	113,715	178	100				

Appendix B
Texas Land Market Areas by Counties

Land Market Area 1
- Dallam
- Hansford
- Hartley
- Moore
- Ochiltree
- Sherman

Land Market Area 2
- Armstrong
- Briscoe
- Carson
- Castro
- Deaf Smith
- Gray
- Parmer
- Randall
- Swisher

Land Market Area 3
- Borden
- Crosby
- Dawson
- Floyd
- Garza
- Hale
- Lubbock
- Lynn

Land Market Area 4
- Andrews
- Bailey
- Cochran
- Ector
- Gaines
- Hockley
- Howard
- Lamb
- Martin
- Midland
- Terry
- Yoakum

Land Market Area 5
- Hemphill
- Hutchinson
- Lipscomb
- Oldham
- Potter
- Roberts

Land Market Area 6
- Childress
- Collingsworth
- Cottle
- Dickens
- Donley
- Hall
- Kent
- King
- Motley
- Stonewall
- Wheeler

Land Market Area 7
- Fisher
- Jones
- Mitchell
- Nolan
- Runnels
- Scurry
- Taylor

Land Market Area 8
- Brewster
- Crane
- Culberson
- Hudspeth
- Jeff Davis
- Loving
- Pecos
- Presidio
- Reeves
- Terrell
- Ward
- Winkler

Land Market Area 9
- Coke
- Concho
- Crockett
- Edwards
- Glasscock
- Irion
- Kinney
- Reagan
- Schleicher
- Sterling
- Sutton
- Tom Green
- Upton
- Val Verde

Land Market Area 10
- Frio
- Maverick
- Medina
- Uvalde
- Zavala

Land Market Area 11
- Brooks
- Dimmit
- Duval
- Jim Hogg
- Kenedy
- La Salle
- McMullen
- Starr
- Webb
- Zapata

Land Market Area 12
- Archer
- Baylor
- Clay
- Foard
- Hardeman
- Haskell
- Jack
- Knox
- Shackelford
- Stephens
- Throckmorton
- Wichita
- Wilbarger
- Young

Land Market Area 13
- Brown
- Callahan
- Coleman
- Comanche
- Eastland
- Erath

Land Market Area 14
- Hamilton
- McCulloch
- Mills
- Lampasas
- San Saba

Land Market Area 15
- Kimble
- Menard
- Real

Land Market Area 16
- Burnet
- Gillespie
- Llano
- Mason

Land Market Area 17
- Bandera
- Blanco
- Kendall
- Kerr

Land Market Area 18
- Atascosa
- Bexar
- Comal
- Guadalupe
- Karnes
- Wilson

Land Market Area 19
- Colorado
- DeWitt
- Fayette
- Gonzales
- Lavaca

Land Market Area 20
- Aransas
- Bee
- Goliad
- Jim Wells
- Kleberg
- Live Oak
- Nueces
- Refugio
- San Patricio

Land Market Area 21
- Calhoun
- Jackson
- Matagorda
- Victoria
- Wharton

Land Market Area 22
- Cooke
- Fannin
- Grayson
- Montague

Land Market Area 23
- Hood
- Johnson

Palo Pinto
Parker
Somervell
Tarrant
Wise

Land Market Area 24
Collin
Dallas
Denton
Ellis
Hunt
Kaufman
Rains
Rockwall
Van Zandt

Land Market Area 25
Bell
Bosque
Coryell
Falls
Freestone
Hill
Limestone
McLennan
Navarro

Land Market Area 26
Bastrop
Caldwell
Hays
Lee
Milam
Travis
Williamson

Land Market Area 27
Brazos
Burleson
Grimes
Leon
Madison
Robertson
Washington

Land Market Area 28
Austin
Brazoria
Chambers
Fort Bend
Galveston
Hardin
Harris
Jefferson
Liberty
Montgomery
Orange
San Jacinto
Walker
Waller

Land Market Area 29
Bowie
Camp
Cass
Delta
Franklin
Hopkins
Lamar
Marion
Morris
Red River
Titus
Upshur
Wood

Land Market Area 30
Anderson
Cherokee
Gregg
Harrison
Henderson
Houston
Nacogdoches
Panola
Rusk
Shelby
Smith

Land Market Area 31
Angelina
Jasper
Newton
Polk
Sabine
San Augustine
Trinity
Tyler

Land Market Area 32
Cameron
Hidalgo
Willacy

Land Market Area 33
El Paso

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