

August 1996

A.E.A. Information Series No. 145

LOUISIANA RURAL LAND VALUES AND TENURE ARRANGEMENTS

by

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FOREWORD

Rural land comprises 77 percent of Louisiana's total land acreage, with a wide diversity of physical characteristics and use. Therefore, reliable rural real estate market information is expected to be of value to landowners, investors, borrowers, lenders, realtors, appraisers, public taxing authorities, and policy makers. This report presents the results from the second annual Louisiana Rural Land Market Survey. The survey was designed to collect detailed information from rural real estate professionals regarding market conditions in their areas. Results of this study suggest that land values vary by area of the state and the primary commodity grown on the tract. Substantial variation in land value within areas and by parish suggests a number of factors affect rural land values and markets. Further research will be designed to measure the effects of these various factors on rural real estate markets. Given the diversity of the Louisiana rural land market and the uniqueness of submarket areas, information provided herein should be used in a general context. Because location, size of tract, capital improvements, and physical characteristics are important determinants of value, estimates presented in this report should not be used as a guide to value any specific parcel of real estate.

ACKNOWLEDGEMENTS

The authors express their sincere appreciation to the following individuals and organizations who provided detailed rural land market information: commercial bankers, general and residential real estate appraisers, personnel of the Farmers Home Administration, personnel of the Federal Land Bank, members of the Louisiana Chapter of the American Society of Farm Managers and Rural Appraisers, members of the Louisiana Realtors Land Institute, and personnel of the Production Credit Associations. Their responses provided the basis for the estimates in this publication.

Ms. Ming Dai, Instructor/GIS Manager, LSU Department of Agricultural Economics and Agribusiness is acknowledged for her assistance in using the Department's Agricultural Economics Geographic Information System (AEGIS) laboratory to spatially summarize the location of each reported rural real estate sale.

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LOUISIANA RURAL LAND VALUES AND TENURE ARRANGEMENTS

Steven A. Henning, Lonnie R. Vandever, Gary A. Kennedy, and Shane Green*

INTRODUCTION

Changing economic conditions within the agricultural production sector, along with an increasing demand for non-agricultural land, suggest a need for land market research. Substantial changes have occurred in Louisiana land markets over the past 25 years. Between 1970 and 1982, the average per acre value of land and buildings in Louisiana increased from \$321 to \$1,454, which represents nearly a 453 percent increase (Jones et al., 1993). These changes were largely attributed to generally favorable commodity prices, inflationary effects from the general economy, and the demand for agricultural land from farm expansion and non-agricultural uses.

Downward trends in agricultural land values occurred after the early 1980's in Louisiana. USDA estimates indicate land values for Louisiana declined from \$1,454 per acre in 1982 to \$921 per acre in 1987, or a 37 percent decline over the five year period. These trends were caused by a number of economic factors, including relatively low commodity prices, depressed agricultural exports, increased cost of production, and relatively high interest rates. From a financial perspective, this change had a significant affect on the balance sheet of the Louisiana agricultural production sector. Much of the decline in sector equity from \$12,703 million in 1981 to \$7,861 million in 1987 was attributed to declining real estate values.

Substantial changes in rural real estate market activity, along with the fact that farm real estate accounts for approximately 75 percent of all agricultural assets, suggest a need for collecting land market information in Louisiana. Landowners, investors, borrowers, lenders, realtors, and rural appraisers frequently need reliable land value information. In addition, because agricultural real estate comprises 77 percent of Louisiana's total land acreage, reliable rural real estate market information is important for public taxing authorities and policy makers.

This report is the second in a series of reports from an on-going research project in rural land values. This research is aimed at developing a land value data base for Louisiana. This information is expected to be useful to farm credit agencies, appraisers, realtors, extension personnel, policy makers, farmers, and others conducting agricultural research programs. This information is also expected to be vital in managing Louisiana's land resource, which is at the heart of the state's agricultural production sector.

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OBJECTIVES

The general objective of this study is to present land market information for Louisiana covering the period July 1, 1994 to June 30, 1995. This information was collected by the Department of Agricultural Economics and Agribusiness, Louisiana State University Agricultural Center, beginning in August 1995 using the Louisiana Rural Land Market Survey. Specific objectives of the study are to present:

1. a summary of reported rural land values by major commodities for the state and regional agricultural production areas;
2. a summary of reported rural land values by parish;
3. value estimates of different types of agricultural land in Louisiana based on subjective estimates from respondents; and
4. estimates of rental arrangements for selected crops based on subjective estimates from respondents.

PREVIOUS RESEARCH

Land has been, and continues to be, a major capital asset in the Louisiana agricultural production sector. In addition to productive capacity, other factors influencing rural land values are a place to live, pride in ownership, an opportunity to earn returns on investment, and a hedge against inflation (Suter, 1980). These factors, coupled with many other factors that affect land value, have stimulated much interest in rural land values. Previous land market research has generally included studies based on macro data (secondary data) and studies based on micro or land sales data (primary data). Macro studies using secondary data have been used to explain how economic variables impact rural land values, whereas other studies have used detailed land tract sales data (micro data) to analyze rural land values in localized markets. The current research is concerned with studies which have developed procedures for collecting detailed land tract sales data.

Two studies in Louisiana have included a cross-sectional analysis of individual tract sales. In 1974, Ramsey and Corty collected 2,372 bonafide agricultural sales from transfer records in clerk of court and tax assessor offices in every parish except Orleans. Analysis of sales data indicated an inverse relationship between price per acre and tract size in most farming areas. Similarly, results of the study indicated an inverse relationship between price per acre and proximity to a major metropolitan area. In a less intensive study, Vandever and Henning analyzed 32 tracts of land sold at public auction by the Federal Land Bank of Jackson in 1988. Results of the study indicated that size of tract, type of road adjacent to the tract, proportion of cropland, and presence of rice base acreage explained approximately 69 percent of the variation in per acre values in the sample of south-central Louisiana land sales.

Land value research conducted elsewhere has found a wide variety of factors to be operative in state and regional markets. Vollink (1978) partitioned North Carolina into four land market regions to analyze 1975-76 sales data from the Federal Land Bank of Columbia. Flue-cured tobacco allotments had an expected strong positive influence on value in selected areas of the state. In addition, land financed by the Federal Land Bank had significantly lower prices than tracts financed by other lenders. Clifton and Spurlock (1983) analyzed land markets in Florida, Georgia, South Carolina, and North Carolina using Federal Land Bank data. Their results support the hypothesis that a number of independently functioning land markets existed in these states. Other results suggest that the amount of timberland, reasons for purchase, and urban influences are statistically significant in explaining variation in land values.

Several other studies have reported the effects that different farm enterprises have on land values. Spurlock et al. (1988) analyzed the agricultural real estate market in Mississippi for the period January 1976 through May 1987 using Federal Land Bank sale and appraisal data. After dividing the state into ten production regions, they found cattle enterprises had a significantly greater impact on value than soybeans in four areas, with insignificant differences in the other areas. In addition, tracts with soybeans listed as the primary product were valued lower than tracts with cotton and rice listed as primary products. In a study of Oklahoma land values, Kletke (1993) outlined procedures for using the pastureland to cropland value ratio for analyzing sales. Conclusions were that relative prices of pastureland and cropland fluctuate and, to some extent, the ratio of feeder cattle prices to wheat prices can be used to anticipate the direction of future changes in the value of pastureland to value of cropland.

Other studies have reported on trends in agricultural land market activity and identified the primary participants in the market. Vanvig and Hewlett (1990) reported that land values in Wyoming bottomed out in 1988 and early 1989, and began to move upward in the Spring of 1990. They also reported that expansion buyers continued to be the dominant force in the Wyoming land market. A statewide survey of real estate in Minnesota (Brekke, Tao, and Raup, 1993) reported that land values increased 7 percent between July 1991 and July 1992. In addition, buyers who purchased land to increase the size of existing land holdings continued to dominate the Minnesota land market in 1992. In Nebraska, land values were reported to have increased just over four percent for the year ending February 1, 1993; however, not all areas of the state experienced land value increases (Johnson, 1993). Weather was a major contributing factor to geographic patterns of land value changes.

Previous research has also outlined the need and the potential benefits of developing detailed land value data bases. Adrain and Hardy (1989) suggest that land markets are diverse, dynamic, and complex, and that efforts should be devoted to broadening data bases and making analyses at the most disaggregated level possible. The North Central Regional Committee on Land Values (1985) further indicates that, while the interest is great and the perceived benefits of ongoing land market research are substantial, the cost of the research effort is generally quite modest. They further suggest that ongoing land market studies produce much needed information with a minimal resource commitment from the research community.

Kennedy, Henning, and Vandever (1995) reported the results of a Louisiana Rural Land Market Survey for sales occurring between January 1, 1993 and June 30, 1994. A statewide analysis of this data indicated a large amount of variability in per acre rural real estate prices. The mean per acre price of rural real estate was estimated at \$1,037 with a standard deviation of \$1,001.18. Mean per acre prices of cropland were found to vary from \$655 per acre for sales where soybeans were the primary commodity to \$1,467 per acre when sugar cane was the primary commodity.

This study builds on the previous report by documenting land market activity in Louisiana for the period July 1, 1994 to June 30, 1995. Land value estimates presented here will be added to the data base and will be used in future rural real estate market research. This study is expected to be of interest to and used by rural appraisers, agricultural lenders, real estate brokers, extension personnel, public officials and others with a need for such information.

SURVEY PROCEDURES

Data for this study were collected using mail survey techniques. This included a Louisiana Rural Land Market Survey form and a statewide listing of knowledgeable individuals of rural land markets. The listing included 577 individuals who were state certified appraisers, officers in commercial banks, Farmers Home Administration personnel, Federal Land Bank personnel, Production Credit Association personnel, members of the Louisiana Chapter of the American Society of Farm Managers and Rural Appraisers and members of Louisiana Realtors Land Institute.

The Louisiana Rural Land Market Survey was structured to collect two general types of data. The first section of the survey was designed to collect detailed information on actual sales of rural real estate that occurred between July 1, 1994 and June 30, 1995. Respondents were asked to provide as much information as possible on actual sales of rural real estate during the survey period. Respondents were also asked to include only those tracts of ten acres or more in size, tracts outside the city limits of major metropolitan areas, and not to include sales involving close relatives.

Designed to obtain subjective information, the second and third sections of the survey asked for estimates based on the respondents knowledge of the local land market. The second section of the questionnaire was structured to obtain typical rental arrangements for a range of crops grown in the respondent's area. The third section of the survey was developed to obtain subjective estimates of different types of land throughout the state and respondent's expectation of land market activity over the next year.

Established procedures outlined by Dillman (1978) were used to conduct the mail survey. This included mailing the survey in August 1995, sending a post card reminder approximately 10 days after the initial mailing, and sending a duplicate questionnaire in September. Response rates of the groups surveyed are summarized in Table 1. As indicated in Table 1, 167 of 577

responded to the survey, resulting in a response rate of 29 percent. Results in Table 1 generally indicate a variable rate of participation among the different groups and that respondents generally provided multiple sales for the study.

Table 1. Response Frequency by Survey Group, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

Survey Group	Number Surveyed	Number of Respondents	Number of Sales Reported
Commercial Banks	98	36	31
Farmers Home Administration	46	28	66
Production Credit Associations	7	3	19
General Appraisers	168	44	177
Federal Land Banks	9	4	50
Residential Appraisers	203	44	44
Rural Appraisers	17	2	6
Rural Realtors	29	6	48
Total	577	167	441

STATEWIDE ANALYSIS OF REAL ESTATE MARKET ACTIVITY

Annual summary statistics for the Louisiana Rural Land Market Survey are presented and discussed in this section. Respondents reported 441 rural real estate sales for the state. Based on township, range, and section information collected for each sale, the department's Agricultural Economics Geographic Information System (AEGIS) laboratory was used to spatially summarize the location of each sale. Results of the spatial analysis of all sales collected in the survey are shown in Figure 1. With the exception of the New Orleans metropolitan area, the results suggest that reported rural land sales are widely dispersed throughout the state.

Mean and median rural real estate values and other selected information for the state and by primary enterprise are presented in Table 2. For example, of 441 reported rural real estate sales for the state, 21 sales listed cotton as the primary enterprise. Statewide results (Table 2) are presented for cotton, soybeans, sugar cane, corn, rice, beef, dairy, pine timberland, and hardwood timberland.

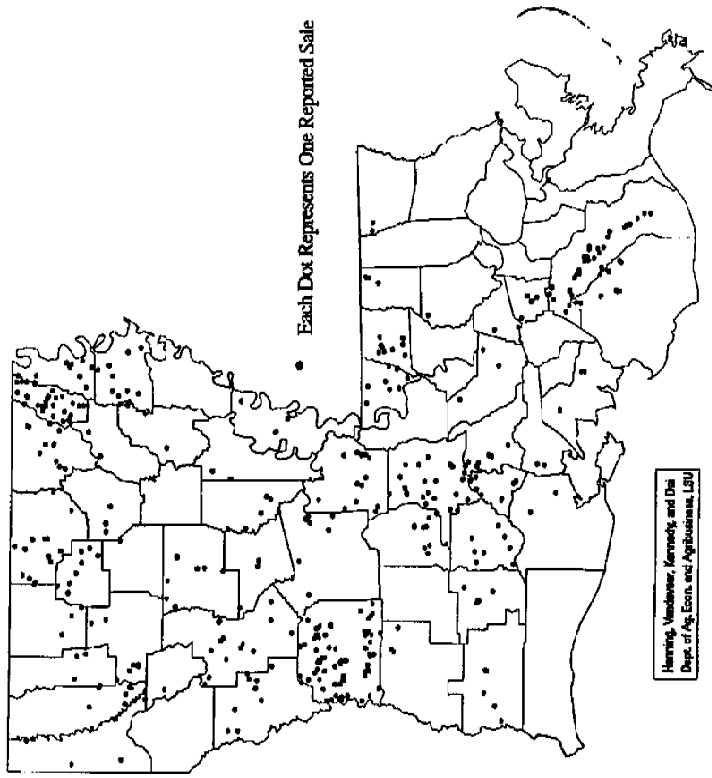


Figure 1. Location of Reported Sales, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

Table 2. Mean and Median Land Values and Other Selected Characteristics, State Summary, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

Selected Land Tract Characteristics	Number of Sales Reported	Minimum	Maximum	Median	Mean	Standard Deviation
State Summary	441					
Price Per Acre (dollars)		50	7,506	807	1,160	1,020.64
Size (acres)		10	19,059	50	193	941.75
Percent Cropland		0	100	0	19	36.62
Percent Pasture		0	100	0	15	31.95
Percent Timber		0	100	0	19	36.29
Sales with Cotton as Primary Enterprise	21					
Price Per Acre (dollars)		325	1,631	797	811	354.78
Size (acres)		16	1,581	303	409	407.94
Percent Cropland		61	100	92	89	11.79
Government Program Base Acres		0	610	36	103	162.56
Sales with Soybeans as Primary Enterprise	20					
Price Per Acre (dollars)		300	2,000	510	681	486.33
Size (acres)		13	841	111	233	268.70
Percent Cropland		46	100	95	91	12.04
Sales with Sugar Cane as Primary Enterprise	24					
Price Per Acre (dollars)		550	3,406	1,314	1,525	756.13
Size (acres)		10	1,800	89	377	588.80
Percent Cropland		30	100	83	74	25.25

Table 2. Mean and Median Land Values and Other Selected Characteristics, State Summary, Continued.

Selected Land Tract Characteristics	Number of Sales Reported	Minimum	Maximum	Median	Mean	Standard Deviation
Sales with Corn as Primary Enterprise	4					
Price Per Acre (dollars)		490	1,000	660	702	219.42
Size (acres)		35	984	95	302	457.18
Percent Cropland		79	96	90	89	8.18
Government Program Base Acres		0	0	0	0	0.00
Sales with Rice as Primary Enterprise	24					
Price Per Acre (dollars)		335	1,200	790	804	200.53
Size (acres)		32	1,858	155	328	494.56
Percent Cropland		85	100	95	93	4.29
Government Program Base Acres		0	628	39	113	165.04
Sales with Beef as Primary Enterprise	30					
Price Per Acre (dollars)		121	2,111	726	828	471.18
Size (acres)		15	19,059	80	818	3,451.52
Percent Pasture		14	100	90	74	29.38
Sales with Dairy as Primary Enterprise	3					
Price Per Acre (dollars)		810	1,700	1,000	1,170	468.79
Size (acres)		10	214	66	97	105.40
Percent Pasture		75	100	75	83	14.43

Table 2. Mean and Median Land Values and Other Selected Characteristics, State Summary, Continued.

Selected Land Tract Characteristics	Number of Sales Reported	Minimum	Maximum	Median	Mean	Standard Deviation
Sales with Cutover Pine Timber as Primary Enterprise						
	7					
Price Per Acre (dollars)		265	934	581	559	225.80
Size (acres)		15	358	73	102	116.18
Percent Timber		67	100	99	93	14.54
Sales with Premerchtable Pine Timber as Primary Enterprise						
	12					
Price Per Acre (dollars)		200	1,159	640	631	295.07
Size (acres)		10	170	50	67	48.32
Percent Timber		25	100	100	90	23.38
Sales with Merchtable Pine Timber as Primary Enterprise						
	38					
Price Per Acre (dollars)		50	4,000	992	1,258	995.10
Size (acres)		10	842	61	106	154.38
Percent Timber		40	100	100	93	17.72

Table 2. Mean and Median Land Values and Other Selected Characteristics, State Summary, Continued.

Selected Land Tract Characteristics	Number of Sales Reported	Minimum	Maximum	Median	Mean	Standard Deviation
Sales with Premerchutable Hardwood						
Timber as Primary Enterprise	3					
Price Per Acre (dollars)		250	350	260	287	55.08
Size (acres)		36	240	50	109	113.95
Percent Timber		100	100	100	100	0.00
Sales with Merchantable Hardwood						
Timber as Primary Enterprise	5					
Price Per Acre (dollars)		357	3,250	600	1,145	1,213.66
Size (acres)		30	850	40	199	363.94
Percent Timber		60	100	100	92	17.89

Estimates presented in Table 2 indicate that the median value of real estate during the survey period was \$807 per acre while the mean value was \$1,160. These estimates along with other statistics reported in Table 2 indicate substantial variability in per acre real estate values. On a statewide basis, per acre values range from \$50 to \$7,506, with a standard deviation estimated at \$1,020.64. Moreover, the sample estimates indicate that the mean size of tract was 193 acres and the mean amount of cropland on tracts was 19 percent.

Mean per acre values for primary enterprises of cropland were estimated to range from \$681 for soybeans to \$1,525 for sugar cane. Similarly, mean per acre values for other enterprises ranged from \$287 for premerchantable hardwood timberland to \$1,258 for merchantable pine timberland. The mean government program base acreage was 103 acres for cotton, compared to 113 acres for rice.

Mean per acre values for primary enterprises also indicate substantial variability. For example, the standard deviation for cotton in Table 2 indicates that approximately 68 percent of the reported land sales where cotton is the primary commodity are expected to fall in the price interval of \$456 to \$1,166 (the mean plus and minus one standard deviation). Much of the variability is due to locational, productivity, size, and other differences that exist among reported real estate sales.

The rural land market survey also asked respondents to identify the principle reason for purchase for each sale tract. Results of this question are illustrated in Figure 2. For the 441 rural land market sales, respondents were able to list the principle reason for purchasing real estate for 255 tracts. Results indicate that expansion of land holdings (37.3 percent), investment (23.1 percent), establishing a rural residence (16.5 percent), and establishing a farm (10.6 percent) were the most frequent reasons for purchasing real estate in the survey sample.

Respondents were asked to identify other significant influences on land value for each sale tract. The frequency distribution of responses to this question is illustrated in Figure 3. Respondents provided information for 218 sale tracts of rural real estate. Results in Figure 3 indicate no other significant influences on land value for 98 of the 218 tract responses (45 percent). However, the results indicate the presence of sizeable influences from factors such as residences, flooding, recreation, highways, and other influences.

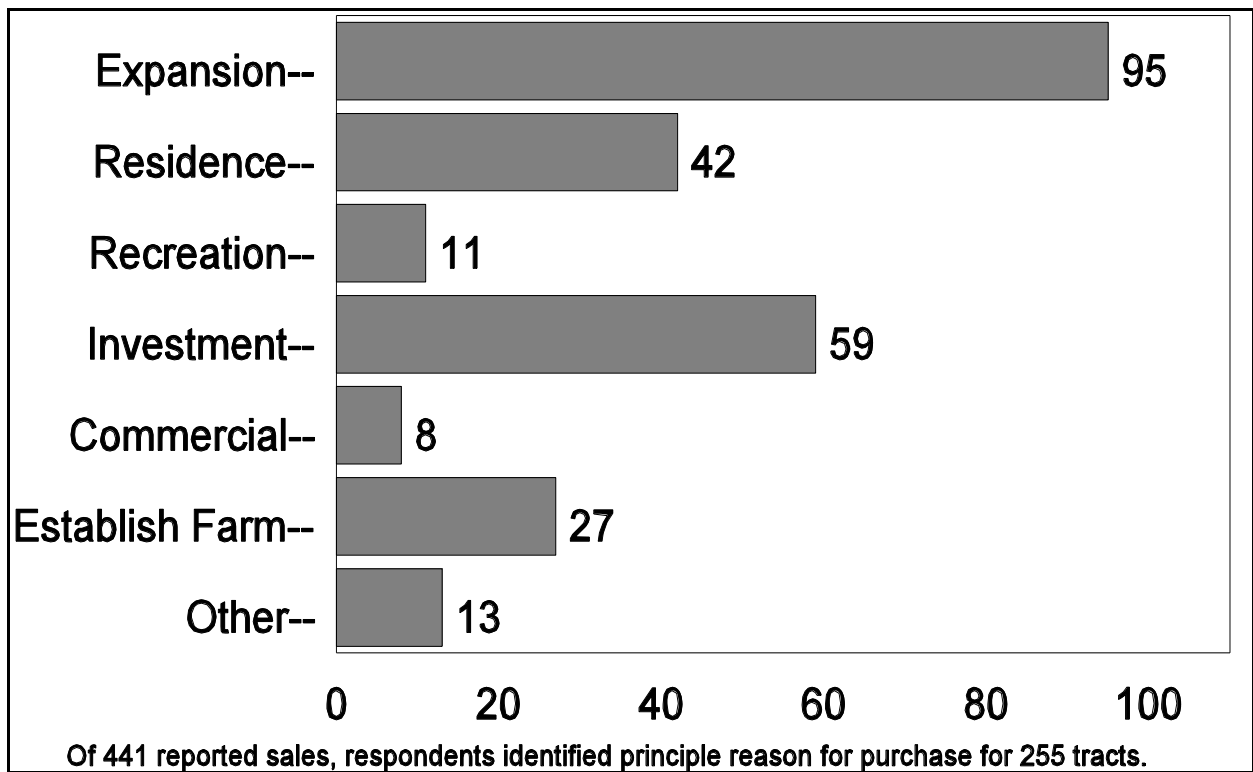


Figure 2. Reason for Real Estate Purchase, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

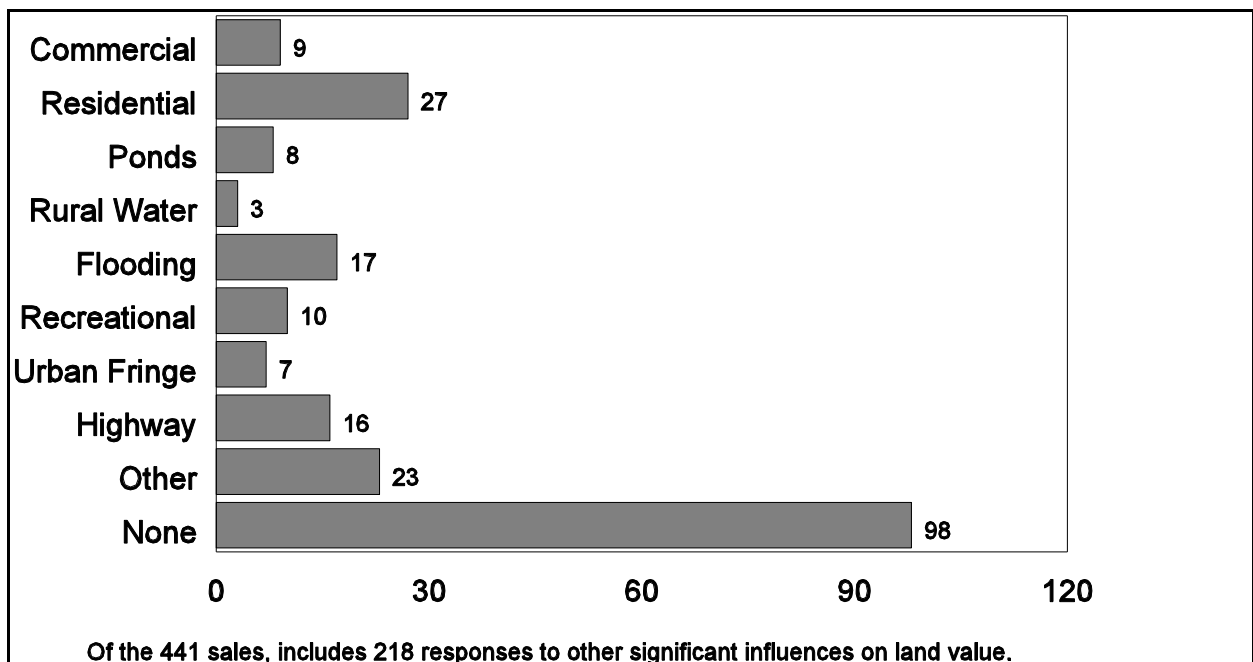


Figure 3. Real Estate Value Influences, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

AREA ANALYSIS

A primary objective of this report was to provide a summary of land values by agricultural production areas of the state, relying on rural real estate sales data reported in the Louisiana Rural Land Market Survey. Respondents were asked to report actual sales of rural real estate for the time period July 1, 1994 to June 30, 1995. As part of the survey, the respondent was asked to indicate the primary agricultural enterprise of each tract reported. A total of 191 of the 441 sales reported indicated one of nine primary agricultural enterprises (corn, cotton, soybeans, sugar cane, rice, beef, dairy, pine timberland, or hardwood timberland).

Following the earlier study (Kennedy, Henning, and Vandever), the state was subdivided into the nine rural land submarket areas (Figure 4). These submarkets represent relatively homogeneous areas with similar factors that influence respective markets. Tables 3-10 summarize the survey data for areas 1-8. Area 9, which had limited rural land transactions, is not reported. Each table summarizes the data for the entire production area and then reports a summary of the data by primary enterprises in the area. Land values are not reported for a primary enterprise when fewer than three sales were reported for the area.

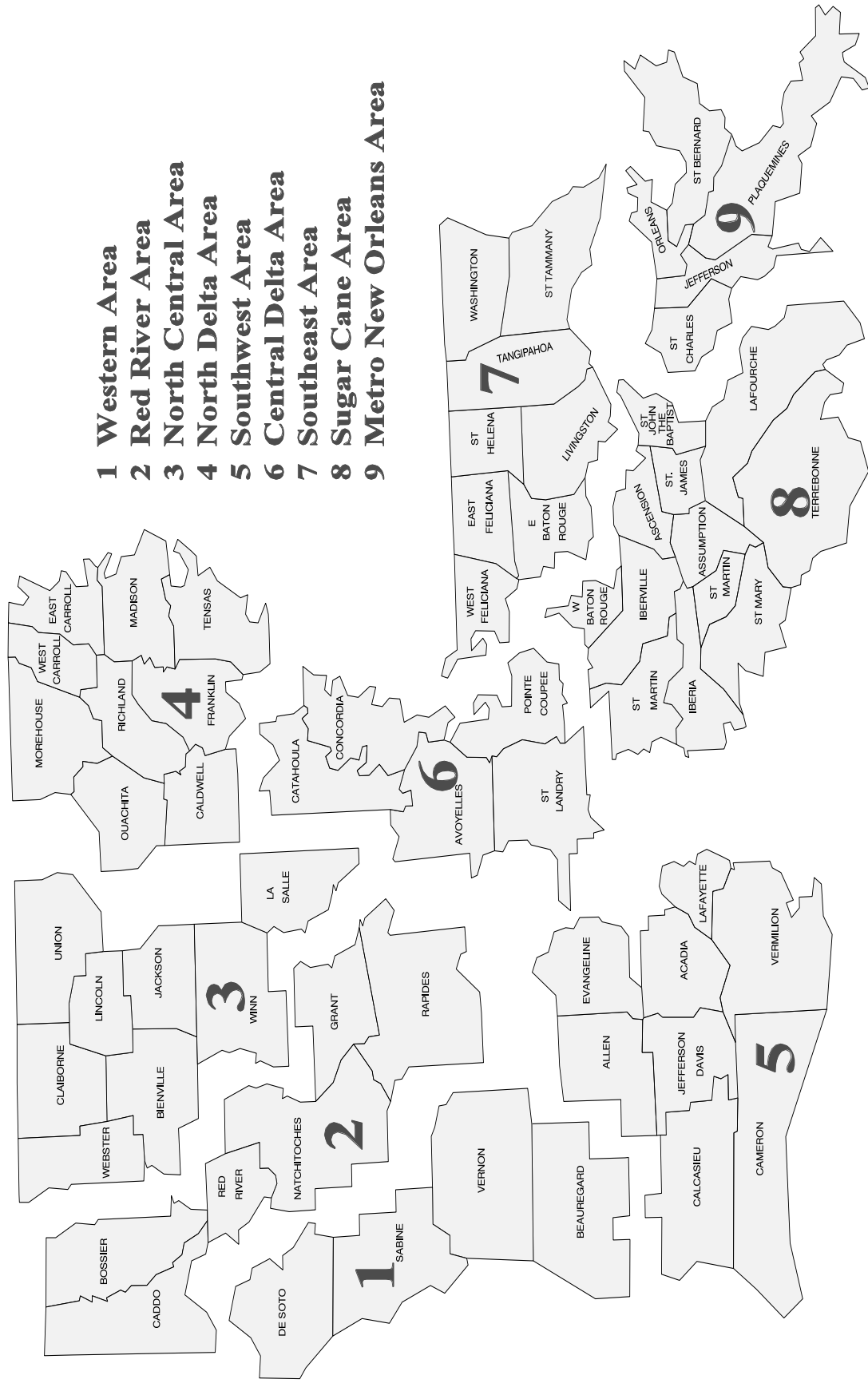
Western Area

The Western Area includes four parishes (Beauregard, Desoto, Sabine, and Vernon) bordering the western boundary of Louisiana along the Toledo Bend Reservoir. Table 3 summarizes selected characteristics of reported sales in the Western Area. This area had the largest number of sales reported (88), representing 20 percent of the sales reported in the state. Per acre values ranged from \$51 to \$7,506, with a median of \$800 and a mean of \$1,000. Tract size varied from a minimum of 10 acres to a maximum of 1,011 acres. Tracts in the Western Area were typically small in size. The median tract size was 30 acres, with a mean tract size of 65 acres. The enterprise mix was varied. Unlike other areas of the study, no cropland was reported for tracts in the Western Area.

Compared to other production areas, a much smaller number of reported sales indicated the primary enterprise of the tract in the Western Area. Results of the survey indicate that merchantable pine timber was the only primary enterprise identified for this area. Tracts with merchantable pine timberland had a median value of \$563 per acre and a mean value of \$644 per acre. Both the range of \$400 to \$1,050 per acre along with the standard deviation of \$286.05 indicate substantial variability in merchantable pine timber land values.

Red River Area

The Red River Area includes six parishes (Bossier, Caddo, Grant, Natchitoches, Rapides, and Red River) in northwest Louisiana that border the northern most portions of the Red River. The survey reported 39 sales in the area (Table 4), representing 9 percent of the sales reported in the state. Per acre values ranged from \$125 to \$2,667, with a median of \$545 and a mean of



- 1 Western Area**
- 2 Red River Area**
- 3 North Central Area**
- 4 North Delta Area**
- 5 Southwest Area**
- 6 Central Delta Area**
- 7 Southeast Area**
- 8 Sugar Cane Area**
- 9 Metro New Orleans Area**

Figure 4. Louisiana Rural Land Submarket Areas.

Table 3. Mean and Median Land Values and Other Selected Characteristics, Western Area, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

Selected Land Tract Characteristics	Number of Sales Reported	Minimum	Maximum	Median	Mean	Standard Deviation
Western Area	88					
Price Per Acre (dollars)		51	7,506	800	1,000	995.28
Size (acres)		10	1,011	30	65	122.37
Percent Cropland		0	0	0	0	0.00
Percent Pasture		0	100	0	7	23.47
Percent Timber		0	100	0	10	28.89
Sales with Merchantable Pine						
Timber as Primary Enterprise	4					
Price Per Acre (dollars)		400	1,050	563	644	286.05
Size (acres)		14	68	32	37	23.57
Percent Timber		100	100	100	100	0.00

Table 4. Mean and Median Land Values and Other Selected Characteristics, Red River Area, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

Selected Land Tract Characteristics	Number of Sales Reported	Minimum	Maximum	Median	Mean	Standard Deviation
Red River Area	39					
Price Per Acre (dollars)		125	2,667	545	803	607.48
Size (acres)		10	1,581	90	196	282.45
Percent Cropland		0	100	0	10	27.99
Percent Pasture		0	100	0	17	31.39
Percent Timber		0	100	100	65	43.22
Sales with Cotton as Primary Enterprise	4					
Price Per Acre (dollars)		325	820	603	588	269.58
Size (acres)		286	1,581	327	630	635.17
Percent Cropland		63	100	71	76	16.79
Government Program Base Acres		0	87	43	43	50.09
Sales with Beef as Primary Enterprise	6					
Price Per Acre (dollars)		400	745	461	531	152.76
Size (acres)		88	558	334	332	207.03
Percent Pasture		35	100	74	72	31.22

Table 4. Mean and Median Land Values and Other Selected Characteristics, Red River Area, Continued.

Selected Land Tract Characteristics	Number of Sales Reported	Minimum	Maximum	Median	Mean	Standard Deviation
Sales with Premerchutable Pine						
Timber as Primary Enterprise	3					
Price Per Acre (dollars)		200	700	406	435	251.29
Size (acres)		10	40	40	30	17.32
Percent Timber		100	100	100	100	0.00
Sales with Merchantable Pine Timber as Primary Enterprise						
	19					
Price Per Acre (dollars)		300	2,667	947	1,144	706.53
Size (acres)		18	236	61	73	56.79
Percent Timber		50	100	100	97	11.46

\$803. Tract size varied from a minimum of 10 acres to a maximum of 1,581 acres. The median tract size was 90 acres, with a mean tract size of 196 acres.

Eighty two percent of the sales reported in the Red River Area indicated one of four primary enterprises (cotton, beef, premerchantable pine timber, and merchantable pine timber). Nineteen tracts, with merchantable pine timber as the primary enterprise, had the highest median (\$947) and mean (\$1,144) per acre values. Tracts with merchantable pine timber ranged in value from \$300 to \$2,667 per acre. Interpreting the standard deviation under the assumptions of the central limit theorem, 68 percent of the merchantable pine timber reported sales are expected to fall within one standard deviation (\$706.53) of the mean. In this instance, the interval is \$437 to \$1,851 per acre.

Tracts with cotton as the primary enterprise reported the largest mean size (630 acres). Government program base acreage in cotton ranged from zero to 87 acres among the four sales reported. Both the median and the mean government program base acres are estimated to be 43 for cotton tracts.

North Central Area

The North Central Area includes eight parishes (Bienville, Claiborne, Jackson, LaSalle, Lincoln, Union, Webster, and Winn). Table 5 summarizes selected characteristics of 51 reported sales in the North Central Area. Per acre values ranged from \$50 to \$3,130, with a median of \$650 and a mean of \$801. Tract size ranged from 15 acres to 842 acres. Tracts in the North Central Area were typically small in size. The median tract size was 60 acres, with a mean tract size of 108 acres.

Sixty-one percent of the tracts in the North Central Area indicated one of five primary enterprises (beef, cutover pine timber, premerchantable pine timber, merchantable pine timber, or premerchantable hardwood timber). Eleven tracts reported beef as the primary enterprise. The median per acre price of land to support the beef enterprise was \$735, with a mean of \$841. The standard deviation for this enterprise was \$316.85, meaning that approximately 68 percent of reported sales are expected to fall within the range of \$524 to \$1,158 per acre. Tracts supporting the beef enterprise were relatively small in size, with a median of 79 acres in size.

Median per acre value estimates for pine timberland in Table 5 indicate that merchantable timber substantially affects rural land values. The median per acre values for cutover pine and premerchantable pine timber were \$600 and \$650, whereas the median per acre value for merchantable pine timber was \$1,217. The standard deviation for merchantable pine timber (\$1,016.45) indicates a large degree of variability in per acre prices.

Table 5. Mean and Median Land Values and Other Selected Characteristics, North Central Area, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

Selected Land Tract Characteristics	Number of Sales Reported	Minimum	Maximum	Median	Mean	Standard Deviation
North Central Area	51					
Price Per Acre (dollars)		50	3,130	650	801	606.33
Size (acres)		15	842	60	108	149.58
Percent Cropland		0	50	0	1	7.00
Percent Pasture		0	100	0	33	43.11
Percent Timber		0	100	10	41	45.67
Sales with Beef as Primary Enterprise	11					
Price Per Acre (dollars)		600	1,750	735	841	316.85
Size (acres)		15	540	79	133	150.65
Percent Pasture		37	100	90	80	22.70
Sales with Cutover Pine as Primary Enterprise	3					
Price Per Acre (dollars)		581	934	600	705	198.55
Size (acres)		15	80	50	48	32.53
Percent Timber		100	100	100	100	0.00

Table 5. Mean and Median Land Values and Other Selected Characteristics, North Central Area, Continued.

Selected Land Tract Characteristics	Number of Sales Reported	Minimum	Maximum	Median	Mean	Standard Deviation
Sales with Premerchutable Pine						
Timber as Primary Enterprise	6					
Price Per Acre (dollars)	250	1,159	650	652	306.29	
Size (acres)	30	170	60	70	50.53	
Percent Timber	25	100	99	86	30.10	
Sales with Merchantable Pine Timber as Primary Enterprise						
	8					
Price Per Acre (dollars)	50	3,130	1,217	1,233	1,016.45	
Size (acres)	17	842	128	249	285.10	
Percent Timber	40	100	95	79	26.83	
Sales with Premerchutable Hardwood						
Timber as Primary Enterprise	3					
Price Per Acre (dollars)	250	350	260	287	55.08	
Size (acres)	36	240	50	109	113.95	
Percent Timber	100	100	100	100	0.00	

Table 6. Mean and Median Land Values and Other Selected Characteristics, North Delta Area, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

Selected Land Tract Characteristics	Number of Sales Reported	Minimum	Maximum	Median	Mean	Standard Deviation
North Delta Area	75					
Price Per Acre (dollars)		246	5,000	600	846	841.58
Size (acres)		10	1,858	84	244	368.41
Percent Cropland		0	100	0	30	43.29
Percent Pasture		0	100	0	3	16.58
Percent Timber		0	100	0	10	28.24
Sales with Cotton as Primary Enterprise	11					
Price Per Acre (dollars)		400	1,333	700	770	330.91
Size (acres)		36	965	660	499	337.60
Percent Cropland		61	96	92	90	9.86
Government Program Base Acres		15	610	100	177	197.77
Sales with Soybeans as Primary Enterprise	4					
Price Per Acre (dollars)		388	650	462	490	116.32
Size (acres)		40	312	120	148	120.18
Percent Cropland		46	100	95	84	25.77

Table 6. Mean and Median Land Values and Other Selected Characteristics, North Delta Area, Continued.

Selected Land Tract Characteristics	Number of Sales Reported	Minimum	Maximum	Median	Mean	Standard Deviation
Sales with Corn as Primary Enterprise	3					
Price Per Acre (dollars)		490	719	600	603	114.53
Size (acres)		50	984	139	391	515.71
Percent Pasture		79	96	95	90	9.54
Government Program Base Acres			0	0		0
Sales with Rice as Primary Enterprise	5					
Price Per Acre (dollars)		335	700	650	578	157.35
Size (acres)		202	1,858	394	936	843.65
Percent Cropland		85	99	95	93	6.20
Government Program Base Acres		0	628	201	311	272.33
Sales with Merchantable Pine Timber	3					
Price Per Acre (dollars)		710	4,000	3,388	2,699	1,749.78
Size (acres)		10	61	45	39	25.91
Percent Timber		50	100	99	83	28.58

North Delta Area

The North Delta Area includes those parishes associated with the Macon Ridge, Mississippi Delta, and Ouachita River Delta areas. Nine parishes (Caldwell, East Carroll, Franklin, Madison, Morehouse, Ouachita, Richland, Tensas, and West Carroll) are located in the North Delta Area. The survey reported 75 sales in the area (Table 6), representing 17 percent of the survey responses. Per acre values ranged from \$246 to \$5,000, with a median of \$600 and a mean of \$846. Tract size varied from a minimum of 10 acres to a maximum of 1,858 acres. Tracts in the North Delta Area were typically larger than other areas of the study. The median tract size was 84 acres, with a mean tract size of 244 acres.

Five primary commodities (cotton, soybeans, corn, rice, and merchantable pine timber) are reported for the North Delta Area (Table 6). Results indicate that cotton is the most frequent primary enterprise in this area. The median per acre value for the cotton tracts was \$700, while the mean per acre value was \$770. The standard deviation for cotton tracts was \$330.91, implying that approximately 68 percent of reported sales are expected to fall within the range of \$439 to \$1,101 per acre. These tracts ranged in size from 36 acres to 965 acres, with a median of 660 acres and mean of 499 acres. Base acres in the government program ranged from 15 to 610 acres. The mean (177 acres) base acreage was well below total mean acreage of cotton in the area.

The second most frequently reported primary enterprise was rice. The median per acre price for rice land was \$650, and its mean value per acre was estimated at \$578. The median government program base acres was 201, while the mean government program base acres was estimated at 311.

Southwest Area

The Southwest Area includes eight parishes (Acadia, Allen, Calcasieu, Cameron, Evangeline, Jefferson Davis, Lafayette, and Vermilion) located near the Gulf of Mexico in the southwest corner of the state. Table 7 summarizes selected characteristics of the 36 reported sales in the Southwest Area. Per acre values ranged from \$250 to \$6,098, with a median of \$850 and a mean of \$1,540. Tract size ranged from 12 acres to 640 acres.

Fifty percent of the reported sales in the Southwest Area indicated rice as the primary enterprise. Median (\$826) and mean (\$856) price per acre estimates for rice tracts were very close. The standard deviation (\$168.83) was also relatively small, implying that 68 percent of the reported rice tracts are expected to fall in the range of \$687 to \$1,025 per acre. Tract size ranged from 32 acres to 640 acres, with a median of 93 acres and a mean of 172 acres. The government program base acres ranged from zero to 248 acres, with a median of 36 acres and a mean of 62 acres.

Central Delta Area

The Central Delta Area includes five parishes (Avoyelles, Catahoula, Concordia, Pointe Coupee, and St. Landry). The survey reported 47 sales in the area (Table 8), representing 11 percent of the survey sales. Per acre values ranged from \$300 to \$2,515, with a median of \$644 and a mean of \$810. Tract size varied from a minimum of 10 acres to a maximum of 1,738 acres. The median tract size was 59 acres, with a mean tract size of 204 acres.

Only a limited number of the 47 sales clearly indicated a primary crop. Cotton (six sales), soybeans (12 sales), and beef (five sales) were the most frequently indicated primary enterprises. Cotton tracts ranged in value from \$644 per acre to \$1,631 per acre, with a median (\$920) and mean (\$1,034) that were similar. The standard deviation was \$370.69, implying that 68 percent of the reported cotton tracts are expected to fall in the range of \$663 to \$1,405 per acre. Tract size varied from 16 acres to 391 acres, with a median of 34 acres and a mean of 96 acres. The government program base acres were much smaller, ranging from zero to 16 acres, with a median and mean equal to seven acres.

Soybean tracts ranged in value from \$341 to \$1,294 per acre, with a median of \$527 and a mean of \$582. The standard deviation of \$248.13 for soybeans is less than the standard deviation for cotton indicating less variability in per acre price where soybeans is the primary enterprise. Tract size ranged from 40 acres to 841 acres, with a median of 125 acres and a mean of 277 acres.

A limited number of sales reported beef as the primary enterprise. These tracts had a median of \$727 per acre and a mean of \$779 per acre. These tracts which were primarily pastureland ranged from 16 acres to 802 acres, with a median of 71 acres and a mean of 277 acres.

Southeast Area

The Southeast Area includes eight parishes (East Baton Rouge, East Feliciana, Livingston, St. Helena, St. Tammany, Tangipahoa, Washington, and West Feliciana). Table 9 summarizes selected characteristics of reported sales in the Southeast Area. Per acre values ranged from \$740 to \$3,639, with a median of \$1,652 and a mean of \$1,865. The standard deviation (\$837.95) implies that 68 percent of the sales are expected to fall in the range of \$1,037 to \$2,703 per acre. Tract size varied from 10 acres to 583 acres. The median tract size was 61 acres, with a mean tract size of 126 acres. Based on the median and mean values of the percent of cropland, tracts in the area could be characterized as having few cropland acres. No tracts by primary enterprise were identified for this area.

Table 7. Mean and Median Land Values and Other Selected Characteristics, Southwest Area, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

Selected Land Tract Characteristics	Number of Sales Reported	Minimum	Maximum	Median	Mean	Standard Deviation
Southwest Area	36					
Price Per Acre (dollars)		250	6,098	850	1,540	1,558.65
Size (acres)		12	640	46	103	132.12
Percent Cropland		0	100	87	52	45.86
Percent Pasture		0	99	0	7	23.75
Percent Timber		0	100	0	9	27.97
Sales with Rice as Primary Enterprise	18					
Price Per Acre (dollars)		575	1,200	826	856	168.83
Size (acres)		32	640	93	172	159.30
Percent Cropland		85	100	95	94	3.86
Government Program Base Acres		0	248	36	62	68.84

Table 8. Mean and Median Land Values and Other Selected Characteristics, Central Delta Area, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

Selected Land Tract Characteristics	Number of Sales Reported	Minimum	Maximum	Median	Mean	Standard Deviation
Central Delta Area	47					
Price Per Acre (dollars)		300	2,515	644	810	461.17
Size (acres)		10	1,738	59	204	332.98
Percent Cropland		0	100	0	45	46.71
Percent Pasture		0	100	0	14	31.59
Percent Timber		0	100	0	10	27.54
Sales with Cotton as Primary Enterprise	6					
Price Per Acre (dollars)		644	1,631	920	1,034	370.69
Size (acres)		16	391	34	96	146.33
Percent Cropland		90	100	95	95	4.08
Government Program Base Acres		0	16	7	7	8.09
Sales with Soybeans as Primary Enterprise	12					
Price Per Acre (dollars)		341	1,294	527	582	248.13
Size (acres)		40	841	125	277	290.01
Percent Cropland		80	98	93	92	5.36
Sales with Beef as Primary Enterprise	5					
Price Per Acre (dollars)		341	1,346	727	779	404.62
Size (acres)		16	802	71	277	341.69
Percent Pasture		20	90	65	60	31.62

Sugar Cane Area

The Sugar Cane Area includes 11 parishes (Ascension, Assumption, Iberia, Iberville, Lafourche, St. James, St. John the Baptist, St. Martin, St. Mary, Terrebonne, and West Baton Rouge) in or adjacent to the Atchafalaya River basin. The survey reported 78 sales in the area (Table 10). Per acre values ranged from \$121 to \$6,335, with a median of \$1,688 and a mean of \$1,849. Tract size varied from a minimum of 10 acres to a maximum of 19,059 acres. The median tract size was 39 acres, with a mean tract size of 401 acres.

Twenty-two of the reported sales in the Sugar Cane Area indicated sugar cane as the primary enterprise. Sugar cane tracts were somewhat similar to statistics reported for the area, with a median of \$1,314 per acre and a mean of \$1,546 per acre. The standard deviation was \$785.02, implying that 68 percent of the reported sugar cane tracts are expected to fall in the range of \$761 to \$2,331 per acre. Tract size ranged from 10 acres to 1,800 acres. While the median (120 acres) was much greater than that of the area, the mean of 409 acres was relatively close to that of the area.

A small number of tracts with beef as the primary enterprise were also reported. The median of these tracts was \$1,100 per acre, with a mean of \$1,168 per acre. Both values were below that of the area as a whole.

Area Summary

Median prices per acre of rural land sales reported are summarized in Figure 5 for eight of the nine agricultural production areas in the state. Area 9 was not included in the current study due to limited data on rural land values. Median values range from \$545 per acre in the Red River Area to \$1,688 in the Sugar Cane Area. Figure 5 illustrates the variation in rural land values across the state and the influence of a variety of factors on local markets. Examples of factors influencing market value include soil productivity, climatic conditions, proximity to urban areas, and supply and demand of suitable properties in respective areas.

Table 9. Mean and Median Land Values and Other Selected Characteristics, Southeast Area, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

Selected Land Tract Characteristics	Number of Sales Reported	Minimum	Maximum	Median	Mean	Standard Deviation
Southeast Area	26					
Price Per Acre (dollars)		740	3,639	1,652	1,865	837.95
Size (acres)		10	583	61	126	146.20
Percent Cropland		0	10	0	0	1.96
Percent Pasture		0	100	50	47	39.65
Percent Timber		0	100	13	39	39.74

Table 10. Mean and Median Land Values and Other Selected Characteristics, Sugar Cane Area, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

Selected Land Tract Characteristics	Number of Sales Reported	Minimum	Maximum	Median	Mean	Standard Deviation
Sugar Cane Area	78					
Price Per Acre (dollars)		121	6,335	1,688	1,849	1,097.53
Size (acres)		10	19,059	39	401	2,170.23
Percent Cropland		0	100	0	21	36.73
Percent Pasture		0	100	0	14	33.21
Percent Timber		0	55	0	1	6.68
Sales with Sugar Cane as Primary Enterprise	22					
Price Per Acre (dollars)		555	3,406	1,314	1,546	785.02
Size (acres)		10	1,800	120	409	605.58
Percent Cropland		30	100	78	72	25.66
Sales with Beef as Primary Enterprise	6					
Price Per Acre (dollars)		121	2,111	1,100	1,168	816.33
Size (acres)		24	19,059	43	3,267	7,737.99
Percent Pasture		14	100	95	71	40.84

RURAL REAL ESTATE VALUES BY PARISH

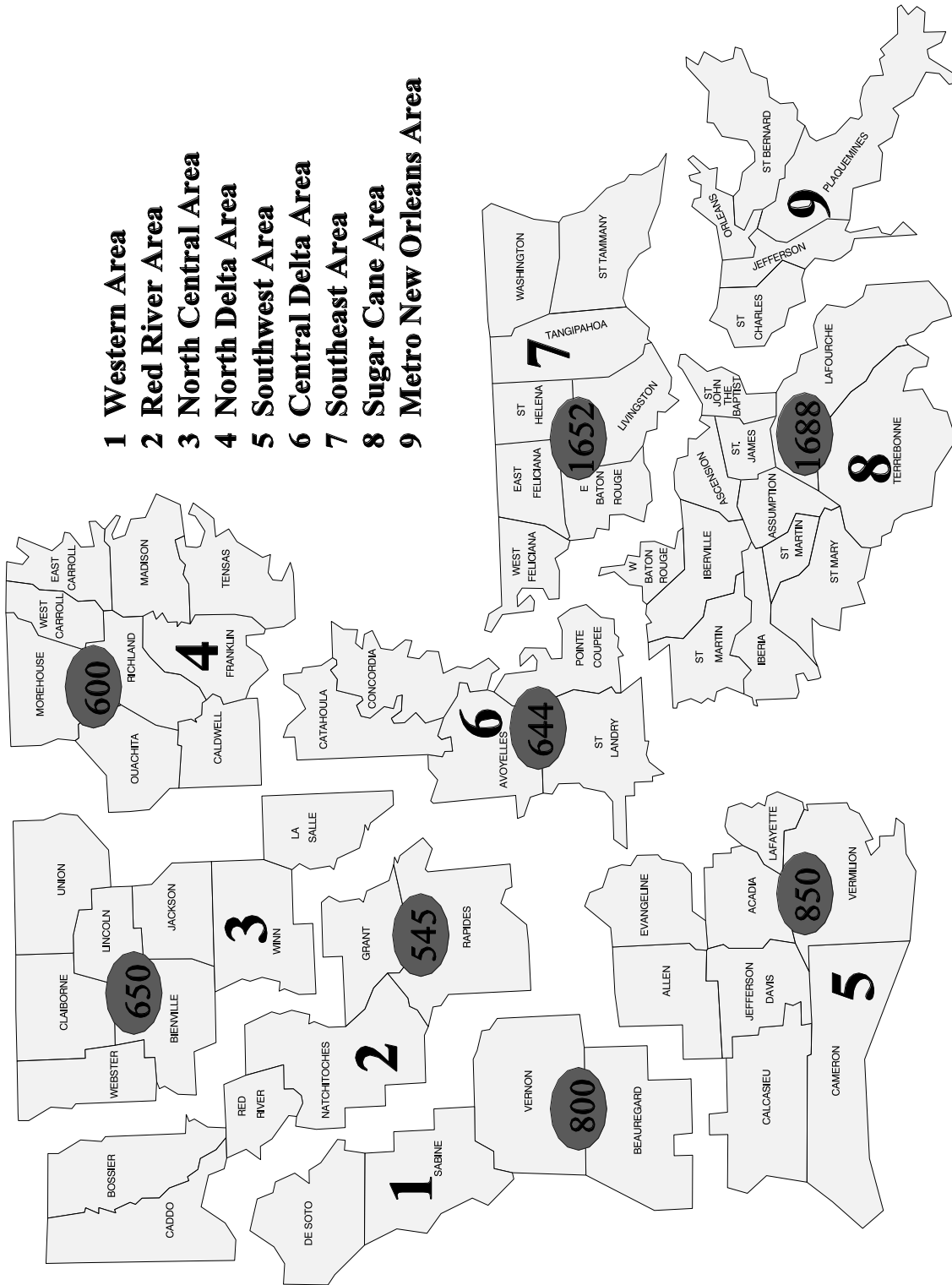
Rural land values by parish are reported in Table 11. Parishes in the New Orleans metropolitan area (Jefferson, Orleans, Plaquemines, St. Bernard, and St. Charles) were not included in this study because of limited rural land sale activity. The Louisiana Rural Land Market Survey collected sales data in 47 of the remaining 59 parishes of the state. To avoid reporting on individual sales, only parishes with three or more sales are reported in Table 11.

Mean per acre prices presented in Table 11 range from \$390 for Winn Parish to \$4,044 for Lafayette Parish. This wide range in prices, along with relatively large respective standard deviations, indicates substantial variability in land values across the state. This suggests a number of other factors including location, productivity of soils, size, investment, and economic development influence land values.

Readers are encouraged to interpret and use estimates presented in Table 11 with caution because of a limited number of observations in some areas, and variation in values for other areas. The number of reported sales range from three for Beauregard, Claiborne and Iberville Parishes to 74 for Vernon Parish. In Lafourche Parish, for example, the range of reported per acre real estate values varies from \$121 to \$6,335. Similarly, the standard deviation for Lafayette Parish indicates that approximately 68 percent of reported land sales are expected to fall in the price range of \$2,443 to \$5,645 per acre (the mean plus and minus one standard deviation).

SUBJECTIVE ESTIMATES OF CROP SHARE/LAND RENTAL MARKETS

The second section of the Louisiana Rural Land Market Survey asked participants to provide estimates of crop cash rent and share rent arrangements in their respective areas. Forty-five of the 167 participating respondents provided typical rental arrangement information. The rental agreement may also include sharing of cost of production expenses. The current survey did not collect information on these arrangements. While the survey respondents are professionals familiar with local land market conditions, the data presented in this section is subjective in nature. Care should be used in relying solely on the information presented here in making market transaction decisions.



- 1 Western Area**
- 2 Red River Area**
- 3 North Central Area**
- 4 North Delta Area**
- 5 Southwest Area**
- 6 Central Delta Area**
- 7 Southeast Area**
- 8 Sugar Cane Area**
- 9 Metro New Orleans Area**

Figure 5. Median Per Acre Rural Real Estate Values by Area, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

Table 11. Selected Tract Sale Statistics by Parish, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

Parish	Number of Sales Reported	Tract Size (acres)		Price Per Acre (dollars)					Standard Deviation
		Median	Mean	Minimum	Maximum	Median	Mean		
Acadia	8	53	62	300	1,200	850	825	290.02	
Avoyelles	14	34	56	400	1,631	1,020	1,005	388.13	
Beauregard	3	68	82	630	1,125	1,050	935	266.79	
Bienville	7	80	93	363	3,130	600	979	982.46	
Bossier	7	94	132	500	1,525	622	751	360.82	
Caddo	5	368	320	385	700	450	487	127.36	
Calcasieu	5	40	52	250	843	600	563	232.96	
Claiborne	3	214	187	750	815	810	792	36.14	
Concordia	4	616	595	519	797	560	609	128.64	
East Carroll	10	410	411	388	1,900	826	971	586.87	
East Feliciana	11	100	173	1,150	3,639	1,750	2,024	786.67	
Evangeline	8	159	172	600	1,039	802	819	157.75	
Grant	4	95	90	125	1,448	598	692	557.34	
Iberville	3	68	117	948	3,250	1,838	2,012	1,160.82	
Jefferson Davis	5	234	277	740	963	779	829	96.32	
Lafayette	8	12	18	2,095	6,098	3,758	4,044	1,601.48	
Lafourche	41	26	508	121	6,335	2,190	2,279	1,124.84	

Table 11. Selected Tract Sale Statistics by Parish, Continued.

Parish	Number of Sales Reported	Tract Size (acres)		Price Per Acre (dollars)					Standard Deviation
		Median	Mean	Minimum	Maximum	Median	Mean		
LaSalle	5	40	239	225	2,626	540	878	1,000.87	
Lincoln	9	65	128	250	1,994	715	894	607.37	
Madison	13	139	315	439	924	600	615	129.81	
Morehouse	11	312	505	335	5,000	650	960	1,347.96	
Natchitoches	14	141	203	265	2,194	696	866	615.03	
Ouchita	4	43	53	600	4,000	3,319	2,810	1,508.63	
Rapides	8	40	41	200	2,667	676	1,051	924.65	
Sabine	11	70	107	338	1,000	528	619	251.02	
Saint Helena	4	102	100	740	1,317	1,072	1,050	246.09	
Saint James	5	554	812	750	1,326	945	982	212.97	
Saint Landry	27	80	236	341	2,515	608	775	503.35	
Saint Martin	9	36	37	400	2,111	1,418	1,404	558.99	
Saint Mary	5	280	868	555	1,438	1,250	1,010	421.64	
Terrebonne	11	54	113	485	1,959	1,545	1,254	554.14	
Union	15	62	93	50	2,000	724	809	430.83	
Vernon	74	25	58	51	7,506	841	1,059	1,069.75	
Webster	4	43	56	260	1,525	898	895	683.39	

Table 11. Selected Tract Sale Statistics by Parish, Continued.

Parish	Number of Sales Reported	Tract Size (acres)		Price Per Acre (dollars)					Standard Deviation
		Median	Mean	Minimum	Maximum	Median	Mean		
West Carroll	34	80	117	246	2,463	527	637	425.56	
West Feliciana	8	53	105	881	3,500	1,773	2,000	862.54	
Winn	7	40	42	250	581	350	390	115.17	

Cash Rental Arrangements

Respondents provided estimates of typical per acre cash rental arrangements in their area for seven different income-generating activities (cotton, soybeans, corn, wheat, rice, pastureland, and hunting/recreation). Results of the survey are reported in Table 12, indicating the number of survey respondents, mean, minimum, and maximum cash rent per acre, and the standard deviation by crop and production area. For any specific crop/activity, no information was reported for areas with fewer than three respondents.

Estimates of cash rental arrangements for cotton were concentrated in the North Delta and Central Delta Areas. The North Delta Area had the largest number of respondents (eight), with cash rent ranging from \$60 to \$100 per acre. The Central Delta Area, with six respondents, ranged from \$45 to \$100 per acre. Mean cash rent values in the two areas were very similar, ranging from \$78 per acre in the North Delta Area to \$80 per acre in the Central Delta Area. The mean for all respondents in the state (16) was also \$78 per acre.

Eighteen respondents provided estimates of soybean cash rents, concentrated primarily in the North Delta and Central Delta Areas. Soybean cash rent was as low as \$10 per acre to as high as \$60 per acre across the state, with a mean value of \$32 per acre. The North Delta Area ranged from \$25 to \$35 per acre, and had a standard deviation of only \$3.76. Cash rents for soybeans in the Central Delta were more variable, ranging from \$20 to \$60 per acre, with a mean cash rent of \$37 per acre and a standard deviation of \$15.38.

Corn cash rent was estimated by 14 respondents in the state, again primarily in the North Delta and Central Delta Areas. Cash rents across the state ranged from \$30 to \$65 per acre, with a mean of \$43 per acre. The Central Delta Area had the largest number of respondents (six) and the largest mean cash rent (\$48).

Wheat cash rent was estimated by ten respondents in the state. Cash rents across the state ranged from \$15 to \$60 per acre, with a mean cash rent of \$35 per acre. The Central Delta Area was the only submarket area with more than three observations (five). Cash rents in the Central Delta also ranged from \$15 to \$60 per acre, but with a larger mean (\$38).

Only 5 respondents reported estimates of cash rent on rice. Cash rent in the state ranged from \$40 to \$100 per acre, with a mean of \$65 per acre. The Central Delta Area had three respondents, with cash rents ranging only \$40 to \$50 per acre and a mean cash rent of \$47 per acre.

Table 12. Estimates of Cash Rental Arrangements, by Activity and Area, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

Area	Number of Survey Respondents	<u>Cash Rent Per Acre (dollars)</u>			Standard Deviation
		Minimum	Maximum	Mean	
Cotton					
State	16	45	100	78	15.90
North Delta Area	8	60	100	78	12.25
Central Delta Area	6	45	100	80	21.21
Soybean					
State	18	10	60	32	12.38
North Delta Area	6	25	35	29	3.76
Central Delta Area	6	20	60	37	15.38
Corn					
State	14	30	65	43	10.30
North Delta Area	3	30	40	37	5.77
Central Delta Area	6	35	65	48	12.94
Wheat					
State	10	15	60	35	13.83
Central Delta Area	5	15	60	38	17.54
Rice					
State	5	40	100	65	25.98
Central Delta Area	3	40	50	47	5.77

Table 12. Estimates of Cash Rental Arrangements, Continued.

Area	Number of Survey Respondents	Cash Rent Per Acre (dollars)			Standard Deviation
		Minimum	Maximum	Mean	
Pasture					
State	26	5	30	15	6.11
Red River Area	3	10	15	12	2.89
North Central Area	4	10	15	13	2.89
North Delta Area	4	6	20	14	7.12
Central Delta Area	7	10	25	16	6.07
Southeast Area	3	12	30	19	9.64
Hunting/Recreation					
State	24	2	50	7	9.62
Red River Area	4	3	10	7	4.04
North Central Area	4	2	4	3	0.82
North Delta Area	3	3	50	21	25.36
Central Delta Area	7	2	8	4	2.00

Twenty-six respondents provided estimates of cash rent on pastureland across the state, with the range from as low as five dollars per acre up to \$30 per acre. The mean cash rent for the state was \$15 per acre. Five of the eight production areas had at least three respondents participating. The means of the production areas ranged from \$12 per acre in the Red River Area to \$19 in the Southeast Area.

Hunting and other recreation activities have become an alternative use of rural land placed in conservation programs, in commercial timberland, or land otherwise unsuitable for traditional cropping activities. Twenty-four respondents provides estimates of cash rent for hunting/recreation activities. The per acre rental rate in the state ranged from two dollars to \$50, with a mean of seven dollars. Four submarket areas (Red River, North Central, North Delta, and Central Delta) reported three or more estimates of per acre cash rent for hunting/recreation use. The highest per acre mean cash rent (\$21) was reported for the North Delta Area. The Central Delta Area reported the lowest mean cash rent (three dollars per acre). Standard deviations for the state and submarket areas reported in Table 12 indicate substantial variability in rental rates for hunting/recreation land.

Share Rental Arrangements

Respondents also provided estimates of typical share rental arrangements in their area for six different crops (cotton, soybeans, corn, wheat, rice, and sugar cane). Results of the survey are reported in Table 13, indicating the number of survey respondents and type of share arrangement. No information was reported for any crop or submarket area with fewer than three respondents. Five share arrangements were reported by the survey respondents. Most arrangements were on the basis of the landlord receiving either one-quarter (25 percent) or one-fifth (20 percent) of the crop as the rental payment. A limited number of respondents reported a share arrangement of one-sixth (16.67 percent) of the crop. One instance each of one-third (33.33 percent) and two-fifths (40 percent) share were reported for soybeans and rice land, respectively. None of the respondents reported sharing of production expenses as a part of rental arrangements.

Twenty respondents indicated share arrangements for cotton across the state, primarily in the North Delta and Central Delta Areas. These are two of the principal cotton producing areas of the state. Sixteen of the 20 respondents indicated that the one-fifth share arrangement was the most common. The remaining four respondents indicated a one-quarter share arrangement.

Soybean share arrangements were reported by 28 respondents in the state. The Central Delta, North Delta, and Southwest Areas accounted for 22 of the reported observations. Fourteen of the 28 respondents indicated a one-fifth share arrangement. The North Delta Area reported an equal number of one-quarter and one-fifth share arrangements (four each). The Central Delta Area reported four different types of share arrangements, ranging from one-third share to one-sixth share. In the Southwest Area four of the five respondents indicated that a one-fifth share arrangement was more typical of that area.

Table 13. Estimates of Share Rental Arrangements, by Activity and Area, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

Area	Number of Survey Respondents	One-Third Share	One-Quarter Share	One-Fifth Share	One-Sixth Share	Two-Fifths Share
Cotton						
State	20		4	16		
North Delta Area	9		3	6		
Central Delta	8			8		
Soybean						
State	28	1	8	14	5	
North Delta Area	8		4	4		
Southwest Area	5			4	1	
Central Delta	9	1	3	3	2	
Corn						
State	19		4	15		
North Delta Area	5		3	2		
Central Delta	8		1	7		
Wheat						
State	18		3	11	4	
North Delta Area	5		3	2		
Central Delta	6			5	1	

Table 13. Estimates of Share Rental Arrangements, Continued.

Area	Number of Survey Respondents	One- Third Share	One- Quarter Share	One- Fifth Share	One- Sixth Share	Two- Fifths Share
Rice Land						
State	10		1	7	1	1
Southwest Area	5			4		1
Central Delta	3			3		
Rice Water						
State	6			3	3	
Southwest Area	3			2	1	
Sugar Cane						
State	6			3	3	
Sugar Cane Area	6			3	3	

Corn share rental arrangements were reported by 19 respondents in the state. The Central Delta and North Delta Areas account for 13 of the 19 estimates. Across the state 15 of the 19 respondents indicated a one-fifth share arrangement as typical. Only the North Delta Area indicated greater preference (three of five responses) for a one-quarter share arrangement.

Eighteen respondents provided information on share arrangements for wheat in the state. Again, the Central Delta and North Delta Areas had the most respondents. Eleven of the 18 respondents reported a one-fifth share rental arrangement. All one-quarter share arrangements were reported in the North Delta Area. Across the state, four respondents reported a one-sixth share arrangement as typical for wheat.

Rice rental arrangements are often divided into a land share and a water share. Land share arrangements were reported in two submarket areas (Southwest and Central Delta Areas). Seven of the ten respondents in this category reported a one-fifth land share (i.e., the landlord receives 20 percent of the crop as rent). Six respondents reported rice water share arrangements, evenly divided between one-fifth share and one-sixth share. Only the Southwest Area had at least three observations. In both cases the landlord/waterlord may also share in paying part of the cost of production. The current survey did not include information on cost sharing arrangements.

Only six respondents provided information on sugar cane share arrangements, all in the Sugar Cane Area. Responses were evenly divided between one-fifth share and one-sixth share.

SUBJECTIVE ESTIMATES OF LAND MARKETS

Survey participants were also asked to provide subjective estimates of land values in their respective agricultural production areas as of June 30, 1994. Respondents were asked to provide information on four types of rural land (dry cropland, irrigated cropland, pastureland, and timberland) in their area. A summary of the mean responses is provided in Table 14. Submarket areas with fewer than three respondents were not reported.

Thirty-four respondents provided information on dry cropland in the state. The mean low value was \$556 per acre, while the mean high was \$1,453. Reported estimates ranged from \$20 to \$6,500 per acre. Average land value estimates provided by respondents resulted in a mean average dry cropland value of \$867 per acre. The standard deviation (\$489.25) was the largest of the four land types. Five of the eight submarket areas had three or more respondents. The Sugar Cane Area reported the largest estimated mean values for low, high, and average dry cropland in the state. The Red River Area reported the smallest mean values for low, high, and average dry cropland.

Estimates of low, high, and average irrigated land value were reported by 20 respondents in the state. The mean low value was \$637 per acre, while the mean high was \$1,197. Reported estimates ranged from \$30 to \$3,000 per acre. Respondents indicated a mean average irrigated

Table 14 . Respondent Estimates of Low, High and Average Land Value, by Land Type and Area, 1995 Louisiana Rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

Area	Number of Survey Respondents	Low		High		Average		Range	
		Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Low	High
Dry Cropland									
State	34	\$ 556	\$ 262.15	\$ 1,453	\$ 1,257.19	\$ 867	\$ 489.25	\$ 20	\$ 6,500
Red River Area	3	325	25.00	900	173.21	533	104.08	300	1,000
North Delta Area	9	419	191.60	929	435.04	647	275.13	20	1,400
Southwest Area	5	650	291.55	1,300	1,024.70	955	626.60	300	3,000
Central Delta Area	8	475	138.87	1,263	658.87	738	192.26	350	2,600
Sugar Cane Area	5	840	207.36	2,460	2,290.85	1,240	468.24	500	6,500
Irrigated Cropland									
State	20	637	204.97	1,197	534.33	904	351.59	30	3,000
North Delta Area	9	587	248.95	1,109	426.86	830	332.57	30	1,500
Southwest Area	4	700	227.30	1,563	1,002.81	1,138	601.91	450	3,000
Central Delta Area	4	700	141.42	1,025	125.83	825	119.02	600	1,200

Table 14. Respondent Estimates of Low, High and Average Land Value, Continued.

Area	Number of Survey Respondents	<u>Low</u>			<u>High</u>			<u>Average</u>		<u>Range</u>	
		Mean	Standard Deviation	Standard Deviation	Mean	Standard Deviation	Standard Deviation	Mean	Standard Deviation	Low	High
Pastureland											
State	38	\$ 515	\$ 247.79	\$ 1,105	\$ 668.70	\$ 751	\$ 376.38	\$ 10	\$ 3,000		
Western Area	3	483	28.87	1,317	775.13	950	404.15	450	2,200		
Red River Area	5	560	185.07	1,040	429.24	690	178.19	350	1,500		
North Central	4	456	123.11	1,113	370.53	767	76.38	275	1,650		
North Delta Area	6	293	165.13	498	275.35	378	203.88	10	850		
Southwest Area	5	660	336.15	1,410	1,102.50	995	669.05	300	3,000		
Central Delta	7	364	80.18	964	692.05	593	211.01	250	2,500		
Southeast Area	3	833	351.19	1,633	750.56	950	70.71	500	2,500		
Sugar Cane Area	5	680	216.79	1,340	466.90	990	296.65	400	1,800		

Table 14. Respondent Estimates of Low, High and Average Land Value, Continued.

Area	Number of Survey Respondents	<u>Low</u>		<u>High</u>		<u>Average</u>		<u>Range</u>	
		Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Low	High
Timberland									
State	28	\$ 338	\$ 168.67	\$ 1,134	\$ 1,131.13	\$ 558	\$ 336.34	\$ 100	\$ 5,000
Western Area	4	375	193.65	3,188	1,818.60	925	596.52	200	5,000
Red River Area	6	283	180.74	733	581.09	496	373.64	150	1,800
North Delta Area	3	317	202.07	850	563.47	500	217.94	100	1,500
Central Delta	8	288	64.09	669	297.53	431	141.26	150	1,200

cropland value of \$904 per acre. Only three submarket areas (North Delta, Southwest, and Central Delta Areas) are reported in Table 14. The Southwest Area reported the largest estimated mean average (\$1,138 per acre), while the Central Delta Area reported the lowest mean average (\$825 per acre) for irrigated cropland.

Estimates of pastureland values in the state were provided by 38 respondents. The mean low value was \$515 per acre, while the mean high was \$1,105. Reported estimates ranged from \$10 to \$3,000 per acre. Respondents indicated a mean average pastureland value of \$751 per acre, with a standard deviation of \$376.38. Responses for all eight submarket areas included in the study are reported in Table 14. Mean values in the Western, Southwest, Southeast, and Sugar Cane Areas ranged from \$950 to \$995 per acre. The lowest mean estimate of pastureland was \$378 per acre in the North Delta Area.

Twenty-eight respondents reported estimates of timberland value across the state. The mean low value was \$338 per acre, while the mean high was \$1,134. Reported estimates ranged from \$100 to \$5,000 per acre. The mean of respondent average estimates for timberland was \$558 per acre. The standard deviation (\$336.34) was the smallest of the four land types. Four of the eight submarket areas had three or more responses. Respondents from the Central Delta Area reported the smallest estimated mean average price per acre (\$431) for timberland in the state. The Western Area had the highest estimated mean average price per acre (\$925).

The survey also asked respondents to indicate any anticipated changes in the average market value of rural land in the next year. Fifty-two of the 167 surveys returned responded to the question. Twenty-four of these respondents (46 percent) expected no change in average market value in their area. Twenty-five respondents (48 percent) expected average market values to increase, with a mean response of 6.6 percent. Only three respondents expected values to decrease in the next year, by an average of 15 percent.

Respondents were asked to list what specific factors were likely to influence average rural land values over the next 12 months. Only 25 respondents indicated specific factors (Figure 6). As indicated in Figure 6, the most frequent response was government programs (32 percent), followed closely by commodity prices (28 percent) and urban expansion (28 percent).

SUMMARY AND CONCLUSIONS

The general objective of this research was to develop and report rural land market information in Louisiana. A review of literature suggested the need for development of such information and the potential of developing this information through the use of mail survey techniques. Results from this study generally indicate that rural land market information can be successfully developed from mail survey techniques. The response rate for the survey was 29 percent, which resulted in the collection of 441 rural land market sales that occurred between July 1, 1994 to June 30, 1995.

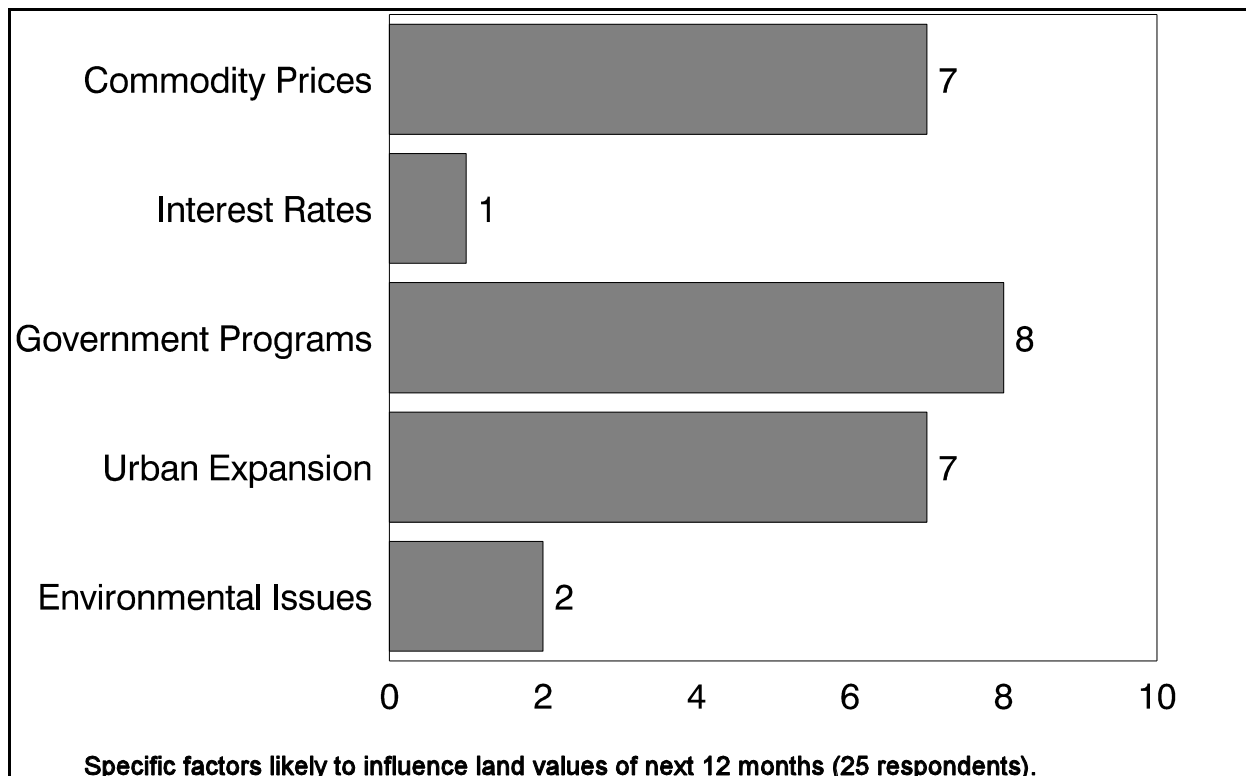


Figure 6. Respondent Expectation of Factors Likely to Influence Rural Land Values, 1995 Louisiana rural Land Market Survey, July 1, 1994 to June 30, 1995 Sale Period.

Data collection procedures also provided the basis for collecting rural land market information throughout the state. A Geographical Information System (GIS) analysis of the 441 rural land market sales (Figure 1) indicates that, with the exception of the parishes in the New Orleans metropolitan area, sales were dispersed throughout the state. With regard to future research, this analysis suggests areas where more emphasis may be directed in collecting rural land market sales.

A relatively large amount of variability in per acre rural real estate prices was indicated by a statewide analysis of the data. The mean per acre price of rural real estate was estimated at \$1,160 with a standard deviation of \$1,020.64. Similarly, rural land values were found to vary when classified by type of primary commodity. Mean per acre prices for cropland were found to vary from \$681 per acre for sales where soybeans were the primary commodity to \$1,525 per acre when sugar cane was the primary commodity.

Other information indicated that the most frequent reason for purchasing rural real estate was for expansion of land holdings. Nearly one-half of respondents (45 percent) did not indicate any other significant influences on prices; however, some respondents did report influences from factors such as residential development, flooding, recreation, urban development, and highways.

Following a format used by Kennedy, Henning, and Vandever, the state was subdivided into nine rural land submarket areas (Figure 4), and statistical measures were computed for each of these areas. In general, the results indicated a substantial amount of variability in reported rural real estate values within areas and across areas. For example, 47 sales were reported in the Central Delta Area, with a mean of \$810 per acre and a standard deviation of \$461.17. This standard deviation indicates that approximately 68 percent of the sales are expected to fall in the price interval of \$349 to \$1,271 (the mean plus and minus one standard deviation). Median per acre real estate sale prices (Figure 5) were found to range from \$545 in the Red River Area to \$1,688 in the Sugar Cane Area.

Mean per acre values by parish were found to vary from \$390 in Winn Parish to \$4,044 in Lafayette Parish. It is expected that much of this variability in tract price results from several factors such as location, productivity of soils, size, investment, economic development, and urban influences.

The study requested survey respondents to provide estimates of cash and share rental arrangements in their respective areas. Results indicated cash rental arrangements vary by commodity. On a statewide basis, the mean cash rent for field crops was estimated to range from \$32 per acre for soybeans to \$78 per acre for cotton. Similar variability was exhibited for share rental arrangements. In this case, the most frequent share rental arrangement across most field crops was either a one-quarter or one-fifth share.

Respondents were also requested to provide subjective estimates of different types of land in their respective areas. In this analysis, the mean per acre value for dry cropland from 34 respondents was estimated at \$867 per acre. These mean estimates for dry cropland ranged from \$533 per acre in the Red River Area to \$1,240 per acre in the Sugar Cane Area. For irrigated cropland, the mean of 20 respondents statewide was estimated at \$904 per acre. In general, subjective estimates of value were found to be consistent with the results from the reported rural real estate sales.

This study provides an initial data base for future land value studies. Trends in rural real estate values may be estimated when estimates from this research are combined with estimates developed over time. Substantial variation in rural real estate values across the state, areas, and commodities suggests the need for additional research aimed at measuring the effect of various factors in rural real estate markets.

The authors caution readers to use care in applying estimates from this study. Estimates from the study are intended to contribute to additional sources of information in the appraisal process and should not be used as the sole source of valuation. Current local market conditions may not be accurately reflected in the results reported here because of limited data in some cases and the complexity of factors influencing values in the local market. Readers are encouraged to thoroughly investigate and analyze current local market conditions as a part of any decision process.

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