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Current Stand Characteristics of Louisiana Timberland Harvested Between 1975 and 1991

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SUMMARY

A study population, using 1,216 forest survey continuous forest inventory (C.F.I.) plots, was constructed to analyze the current stocking trends and performance of timberland harvested in Louisiana between 1975 and 1991. A total of 6,888,000 acres was harvested; 4,011,600 acres by partial harvest, 219,900 acres by seed tree and shelterwood methods, 2,562,000 acres by clearcut, and 94,500 acres by salvage cut.

Of the 2,454,700 acres of clearcut upland forest types, 640,500 acres converted to the oak-hickory type. It is taking 6 to 7 years, after harvesting, for softwoods to reach the 3.0-inch diameter threshold. Additionally, softwood stand volume 13 to 17 years after clearcut harvest is below that expected for normal sites. Low softwood stocking levels and lengthy regeneration lag time are cited as two possible reasons for low yields at this stage of stand development.

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INTRODUCTION

As the difference between tree growth and removals in Louisiana narrows, future inventory levels of available forest resources will be dependent on the disposition of timberland after harvesting operations. The timeliness and adequacy of regeneration on harvested lands will become increasingly important as the demand on timber resources shortens harvesting cycles and includes more and more of the resource base in harvesting activity. It therefore becomes critical that regeneration trends are monitored on harvested timberland so that steps may be taken to ensure adequate regeneration in both quantity and timeliness.

This study was conducted to serve as a pilot in assessing the status and characteristics of Louisiana timberland harvested between 1975 and 1991 and for other Midsouth States as surveys are completed. First, the area of timberland harvested was assessed by the type of harvest method and year of most recent harvest. Next, softwood regeneration on harvested timberland was determined by analyzing the occurrence of change in current forest types from forest types prior to harvesting. Most of the analysis centers on clearcut forest types that had more than 25 percent stocking in pine (longleaf-slash, loblolly-shortleaf, and oak-pine). Last, a portion of this study was in the analysis of stand performance (tree density and accumulation of softwood volume by diameter class as of the 1991 survey date) on clearcut timberland since the year of most recent harvest. Analyzing tree densities and volume accumulation since the year of harvest gives an indication of the rate and degree of recovery from harvesting disturbance.

Tables 1 through 21 are provided in the appendix to supplement the analysis and provide resource information. All tabular data are presented by the year of most recent harvest. The tables provide information on timberland area by type of harvest (tables 1-3), stocking (tables 4-7), clearcut timberland by forest types (tables 8-11), partial cut timberland by forest types (tables 12-15), harvested timberland currently in plantations (table 16), current volume and tree density of harvested timberland by basal area classes (tables 17-19), and current volume and tree density of harvested timberland by diameter classes (tables 20-23).

METHODS

Data from the 1984 and 1991 Louisiana forest surveys were used in this study. The USDA Forest Service, Southern Forest Experiment Station, headquartered in New Orleans, Louisiana, administers the survey; the work unit responsible for conducting the survey is the Forest Inventory and Analysis (FIA) unit, located in Starkville, Mississippi.

The sample design consisted of a two-phase method involving dot counts for timberland area estimation and tree measurements on sample plots for stand estimates and tree attributes. Sample plots were located on a 3-mile square grid and were revisited during successive inventories. At each plot location, a 5-point satellite plot and a 10-point satellite plot were sampled for the 1984 and 1991 surveys, respectively. Trees ≥ 5.0 inches in diameter at breast height (d.b.h.) were selected with a 37.5-basal area factor prism. Saplings (trees ≥ 1.0 inch and < 5.0 inches in d.b.h.) were measured on 7.1-foot radius plots at satellite points 1, 2, and 3. Saplings were also tallied (to supplement stocking assessment only) on points 4 through 10 if less than two live trees ≥ 5.0 inches in d.b.h. were sampled at a specific point. Stocking is expressed as the relative measurement (in percent) of sampled stand density (based upon the aggregation of individual tree density) to the specified density given in table I. Seedlings (trees < 1.0 inch in d.b.h.) were tallied on points 1 through 10 where no live trees ≥ 1.0 inch in d.b.h. occurred in the respective point sample. The sampling procedure was based on the premise of a theoretical maximum plot stocking of 160 percent. Therefore, each satellite point in the sample could not have over 16 percent stocking. This carries implications to the seedling and sapling sample. Only the four most dominant seedlings or saplings were tallied per point because of the 16-percent stocking assignment limitation. Therefore, complete enumerations of seedlings were not done in the sample. Complete sapling enumerations were done on satellite points 1, 2, and 3 but not on points 4 through 10.

The stocking standard in table I (developed in the 1950's by a consortium of forestry professionals from industry and government) was based on basic references for

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normal yield tables of average stocking levels found in natural uncut stands. The survey standard was derived by reducing these normal stocking averages to averages found on recently cut areas judged to be well managed. Thus, the stocking standard used by the forest survey represents about 50 to 70 percent of normal stocking for pole- and sawtimber-sized stands. The sapling and seedling tree standard was reduced even further to less than 50 percent below normal stocking. Originally set at 1,000 trees per acre (t.p.a.), it was revised to 600 t.p.a. in the 1960's to reflect standards based on new studies of southern forests. Reasons for adopting standards so much lower than normal for small trees were based on the well-recognized tendency for young forest stands of varying stocking levels to reach or approach normal stocking as they grow older.

The arbitrary levels of stocking used in this paper were based on this stocking standard. Stands < 60 percent stocked with softwoods were considered understocked, stands stocked with > 60 but < 120 percent softwoods were considered fully stocked, and stands > 120 percent stocked with softwoods were considered overstocked. References to Louisiana's timberland being understocked or overstocked imply comparison to this stocking standard of timber production, in this case, softwood timber production. It is recognized that many owners will have different objectives, both economically and aesthetically. Portions of this paper serve only as a vehicle to demonstrate realized (or unrealized) softwood production based on the stocking standard described.

The year of harvesting for the plot was derived by subtracting the elapsed time (since sample trees had been cut) from the date of sample plot measurement. In some circumstances, trees on the same plot had different removal times. These plots were given an average removal year that was derived by weighting the elapsed time with the tree's

importance (size and number of trees per acre that the tree represented). Another special circumstance involved plots that had harvesting activity within the plot boundaries but where no sample trees were affected. The harvest date for these plots was given as the median year between survey periods. One final adjustment was made to these data. A total of 1,216 plots was designated as harvested in either the 1984 or 1991 survey period. A portion of these (223 plots) was recorded as harvested in both survey periods. For purposes of analysis, these plots were given their respective harvest date only in the 1991 survey period (1985 to 1991) because this represents the most recent disturbance to the plot that affected the major points of analysis in this study.

The year of harvesting for each plot was based on the removal time of individual sample trees. The removal time that field personnel assigned to cut trees was a subjective assessment. Certain guidelines were used in the assignment of removal time: (1) age and condition of sprouts, (2) status of annual rings on trees still standing (sign of release), (3) condition of cut face of stump, (4) bark condition on stump, (5) condition of logging slash, and (6) occurrence of fungi and subsequent extent of development. Obviously, the estimates of removal times for recent cuttings are very good, but the inference becomes weaker as the time period lengthens.

Forest types were assigned quantitatively according to the relative stocking of the most dominant trees. Ownerships were designated by the use of courthouse records. Type of harvesting was assigned to each plot by field personnel. Some judgment was needed to separate commercial harvesting from forest management practices (such as thinning). Harvesting categories assigned in the field were: (1) partial harvest, (2) seed tree/shelterwood cuts, (3) clearcuts of merchantable trees, (4) complete clearcuts, and (5) salvage cuts. To simplify some tables and discussion, salvage cuts and partial harvests were combined into one category (partial harvesting) and seed tree/shelterwood cuts, merchantable clearcuts, and all-tree clearcuts were combined into a second category (clearcutting).

Additional restraints on the data set were that a plot had to be forested in both the 1984 and 1991 surveys. Reversions and diversions in the 1991 data set were not included in the study.

RESULTS AND DISCUSSION

A total of 8,159,900 acres of timberland underwent some form of commercial harvest between 1975 and 1991. Some of this acreage, 1,271,900 acres, was harvested to some degree in both the 1975 to 1984 and 1985 to 1991 survey periods. In order to capture the most recent harvesting disturbance episode for this study, these particular stands were assigned their respective harvesting year only in the 1985 to 1991 survey period. This resulted in a total

Table 1.—Current stocking standard for the South, by tree size

Diameter class*	Stocking standard
Inches	Trees per acre
<1	600
2	560
4	460
6	340
8	240
10	155
12	115
14	90
16	72
18	60
20	51
22	42
24	36
26	31
28	27
30+	24

*In increments of 2 inches; i.e., the 6-inch diameter class includes stems 5.0–6.9 inches in diameter.

of 6,888,000 acres across both survey periods for analysis in the study.

Most harvesting activity (4,011,600 acres) was by partial harvesting (table 1). Clearcutting totaled 2,562,000 acres. Salvage and seed tree harvests were a minor component of harvested stands, less than 5 percent of all harvested acreage. Heaviest cutting (all types of harvesting) in the 1991 survey period was in 1988 and 1989; 1990 had the highest amount of clearcut harvesting, with a total of 311,600 acres.

There were 2,581,100 acres harvested on forest industry timberland (table 2). Approximately one-half of the harvests were partial cuts and one-half were clearcuts. A major proportion of harvest disturbance has been recent, 1987 through 1990 (1,226,400 acres).

Even more acreage was harvested on nonindustrial private forest (NIPF) lands (table 3). Here, 3,852,600 acres were cut, 2,466,800 acres by partial harvest and 1,205,600 acres by clearcut. Even though more total harvesting was done on NIPF lands than forest industry timberlands, equivalent amounts of timberland were clearcut, 1,205,600 and 1,246,100 acres, respectively. Heaviest harvest activity on NIPF lands was recent, 1987 through 1990 (2,035,100 acres).

Stocking was analyzed by both basal area and the survey stocking standard. There was substantial harvested timberland acreage (2,873,600 acres) with < 60 ft² of basal area per acre (as of the 1991 survey) (table 4). The table may be used to demonstrate total stand basal area recovery of harvested stands over time. There were substantial amounts of acreage, in stands harvested after 1985, with < 20 ft² of basal area per acre. In contrast, very few stands had < 20 ft² of basal area per acre 5 to 6 years after harvest; i.e., harvested before 1986. This may reflect the amount of time it takes a tree to reach 1.0 inch in d.b.h. (because only trees ≥ 1.0 inch in d.b.h. are used in the computation of basal area). Stands with more than 100 ft² of basal area per acre occupied 1,457,600 acres of timberland.

The survey stocking classes show only 329,900 acres with total tree stocking < 60 percent (table 5). This is much improved in contrast to the basal area classes. The primary reason for this is that seedlings are included in the assignment of stocking percent but are not included in the basal area assignment. Most of the very low-stocked stands were harvested after 1988 and had not fully recovered (either by planting or natural regeneration) at the time the survey was done.

Excluding hardwoods from the analysis substantially increases the amount of timberland in understocked stands. There are currently 1,289,000 acres of harvested timberland with < 60 percent stocking in softwoods. Most of these stands (905,800 acres) were naturally regenerated after harvest (table 6). However, 383,200 acres were in plantations (table 7).

Surprisingly, timberland stands that were harvested more than 6 years ago had 315,500 acres that were < 60

percent stocked with softwoods. Most of these stands were naturally regenerated (224,700 acres). Approximately 22 percent of the plantations established on these harvested sites were also < 60 percent stocked in softwoods, as were 30 percent of the stands that regenerated naturally. One would expect regenerating stands to approach full stocking as they age, even if initial stocking at the time of a stand establishment was low. In this instance, there may have been seedling failure or the time interval between harvest and stand establishment could have been extremely long (> 5 years).

Tables 8 through 11 characterize clearcut longleaf-slash pine, loblolly-shortleaf pine, oak-pine, and oak-hickory forest types by their respective forest type as of the 1991 survey. These tables imply relative pine stocking (based on the stocking standard) because forest type is based on the dominant species. By tracking forest type from prior-to-harvest up to the current survey, some effects of harvesting disturbance can be analyzed over time. Of the 284,300 acres of clearcut longleaf-slash pine, only 118,700 acres have remained in this type (table 8). In the loblolly-shortleaf pine type, 1,143,300 acres were harvested and 643,500 acres have remained in this type (table 9). The oak-pine type had 568,800 acres clearcut (table 10). Currently, 135,100 acres remain in this type, but 221,500 acres have converted to the loblolly-shortleaf pine type. This represents a notable improvement in relative pine plurality. There were 458,300 acres clearcut in the oak-hickory type; the 1991 survey showed 127,200 acres remaining in this type (table 11). However, much of this timberland has converted to the loblolly-shortleaf pine type (186,700 acres), indicating a notable increase in relative stand plurality of pine.

There is one thing that stands out in these forest-type tables (tables 8 through 11). Very little of the acreage that was harvested between 1975 and 1986 is currently in the oak-hickory forest type, whereas recently harvested stands (1987 to 1991) have higher proportions in the oak-hickory type (fig. 1). This may be attributed to heavy sprouting of hardwoods after harvest and prior to adequate softwood establishment. Hardwoods are often more dominant (in height) than pines at this stage of stand development. Since the survey sample selects the four most dominant seedlings at each satellite point, typing of some stands in the early years after harvest will reflect a hardwood type. Of all upland timberland clearcut since 1975, a total of 640,500 acres is currently in the oak-hickory forest type.

Tables 12 through 15 characterize partially harvested timberland by current forest types for longleaf-slash pine, loblolly-shortleaf pine, oak-pine, and oak-hickory forest types. Most of these partially cut forest types have remained in their former type, but some types did show significant conversions. Most notable were the 516,000 acres of loblolly-shortleaf pine type, which reverted to the oak-pine, oak-hickory, and bottomland hardwood types after harvest. The oak-pine type had 180,600 acres that

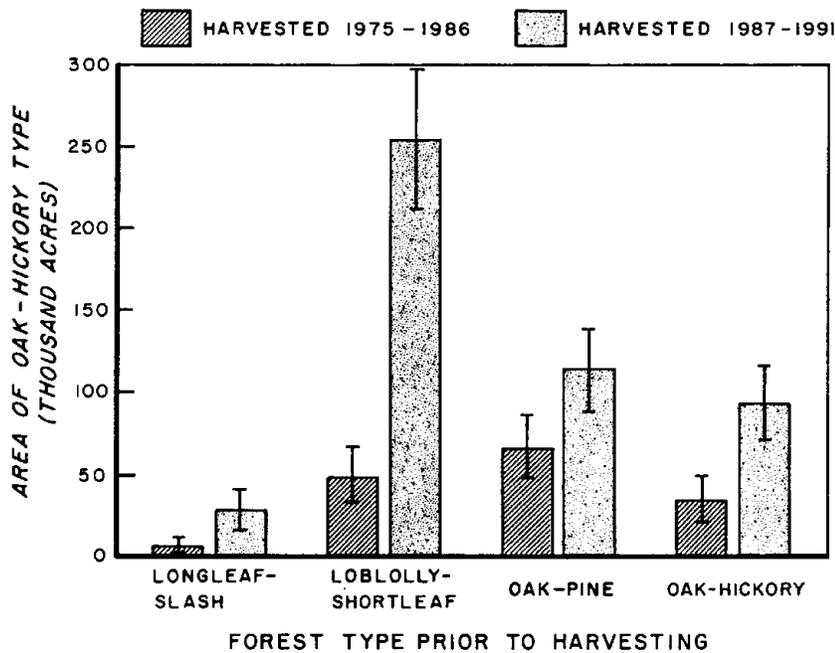


Figure 1.— Area of timberland currently in oak-hickory forest type by period of harvest and forest type prior to harvesting. Bars are one standard error.

converted to the loblolly-shortleaf pine type but lost substantially more acreage, 237,300 acres, into the oak-hickory type. It appears that the selection of pine in partially cut stands caused substantial shifts in forest type depending on the amount of pine volume removed. This, most likely, resulted from leaving residual hardwoods as the major component of these stands.

There are 1,881,900 acres of the harvested study population currently in plantations, which is 27 percent of all timberland harvested since 1975 (and in the study population) (table 16). Of these plantations, the majority was established on lands harvested between 1986 and 1990 and between 1980 and 1982 (note, this is not the date of plantation establishment). Most of the plantations were in the loblolly-shortleaf pine forest type (59 percent).

Plantation acreage in the oak-pine and oak-hickory forest types (389,700 acres) was most likely destined to be in the loblolly-shortleaf pine or longleaf-slash pine forest type. Explanations that may account for the 389,700 acres not being in a pure pine type were stated earlier. Most of this type of phenomenon are on recently harvested timberland. In addition, the plantations may have been hardwood plantings. This is not likely, but the survey sample does not distinguish between hardwood and softwood plantations. These explanations are suggested because only a few thousand acres in the oak-pine type remain in stands harvested before 1982. It is plausible that these stands received less intensive management and establishment practices, or that it takes up to 10 years (in some stand situations) before timberland targeted for plantations gains enough relative pine stocking to be typed as loblolly-shortleaf or longleaf-slash pine. It should be noted that even though pine stock-

ing is the plurality of the stand, the stand may still be inadequately stocked relative to the survey stocking standard.

The current average volume for all timberland harvested since 1975 was 711.8 and 621.1 ft³/acre for softwoods and hardwoods, respectively (table 17). Average volume for clearcut pine types was 384.9 ft³/acre for softwoods and 220.7 ft³/acre for hardwoods (table 18). Timberland harvested between 1975 and 1982 had the highest volumes, as should be expected. This is because of the length of time these stands have had to recover from cutting.

Much of the clearcut oak-hickory type appeared to have converted to a pine type (table 11). Many of these stands harvested before 1986 had large proportions of their volume in softwoods (table 19). There is ample evidence suggesting this in the higher basal area classes. For example, most oak-hickory stands with basal areas higher than 100 ft² and harvested before 1981 are now a pine type. However, the small sample size for these years weakens the inference that all clearcut oak-hickory stands are being converted to pine types.

Current average densities for the clearcut pine types reflect overall evenness between softwoods and hardwoods at 339.3 and 336.5 t.p.a., respectively (table 20). This is because high numbers of hardwoods are in the 1.0- to 2.9-inch diameter range, primarily due to their prolific sprouting capability. However, from 3.0 inches in d.b.h. and higher, the relative number of softwoods per acre is much higher than hardwoods except for the first 6 years after harvest.

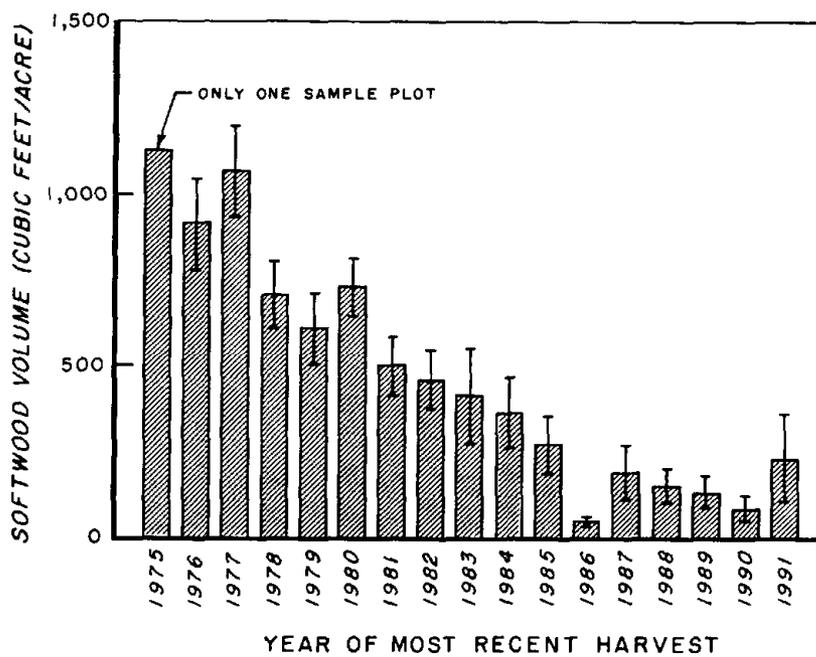


Figure 2.— Current softwood volume by year of harvest for stands that were clearcut and were a pine type prior to harvest. Bars are one standard error.

The number of hardwood trees drops off sharply, in comparison to softwoods, beyond 3.0 inches in diameter. By the time trees are moving into the 7.0- to 8.9-inch diameter range, hardwoods have become a very minor component. Table 20 can be used to illustrate the relative time period for initial waves of the regenerating tree population to reach specific size classes. In Louisiana, it is taking approximately 6 to 7 years (after harvest) before an appreciable number of softwood trees move into the 3.0- to 4.9-inch diameter range. It is taking 8 to 9 years for softwood trees to reach the 5.0- to 6.9-inch range and 11 to 12 years to reach the 7.0- to 8.9-inch range. Additionally, these stands are below the survey stocking standard for these individual size classes. For example, there should be 340 t.p.a. of softwood trees in the 5.0- to 6.9-inch diameter range for a stand to be 100 percent stocked, and 240 t.p.a. in the 7.0- to 8.9-inch diameter range. No average approached either of these levels for stands harvested between 1975 and 1983. Instead, softwoods are spread out over a wide range of diameter classes. For example, 72 percent of the total softwood density of stands harvested in 1982 was in the 1.0- to 2.9-inch diameter class. These are stands harvested 9 years ago. This illustrates that late-established softwood saplings made up the bulk of softwood stocking. Overall, these clearcut stands appear adequately stocked with softwoods when trees in all the 1.0- to 4.9-inch diameter classes are included. However, time since harvest should be considered when discussing adequacy of stocking by size classes. Additionally, averages can be deceiving because there will be values both below and above the average that may affect the results of the analysis. For more

detailed information about the stocking condition of sapling and seedling stands see Rosson, in press.

The yields in cubic-foot volume for clearcut pine types show two different patterns (table 21). Softwood volume increases as time since harvest increases (fig. 2). In contrast, hardwood volume increases very slightly and remained, on an average, at less than 500 ft³/acre on all clearcut pine type stands over the 17-year harvesting period of this study (fig. 3). This indicates management options that favor softwoods.

The average performance of clearcut pine type timberland in the State is below that for normal stands on average sites. Using loblolly pine as a comparison, 20-year-old stands on normal sites (site index 90) average 1,900 to 2,200 ft³/acre for all trees greater than 3.6 inches in d.b.h. (Burns and Honkala 1990). Although no stands in the study were 20 years from harvest, none came close to the 1,900-ft³ standard, and no harvest-year average is expected to reach that standard after 20 years from harvest. Additionally, this study included all softwoods greater than 1.0 inch in d.b.h., making the comparison even less favorable. Stand age was not used in this study, only time since harvest. Therefore, true stand age may be anywhere from 2 to 7 years less than time since harvest.

Many of the oak-hickory stands that were clearcut support substantial amounts of softwoods. Softwood dominance is especially evident in the 4.0-, 6.0-, and 8.0-inch diameter classes (tables 22 and 23). The all-soft and all-hard columns show that many clearcut oak-hickory stands had enough density and volume in softwoods to be classified as a pine type at the time of the 1991 survey.

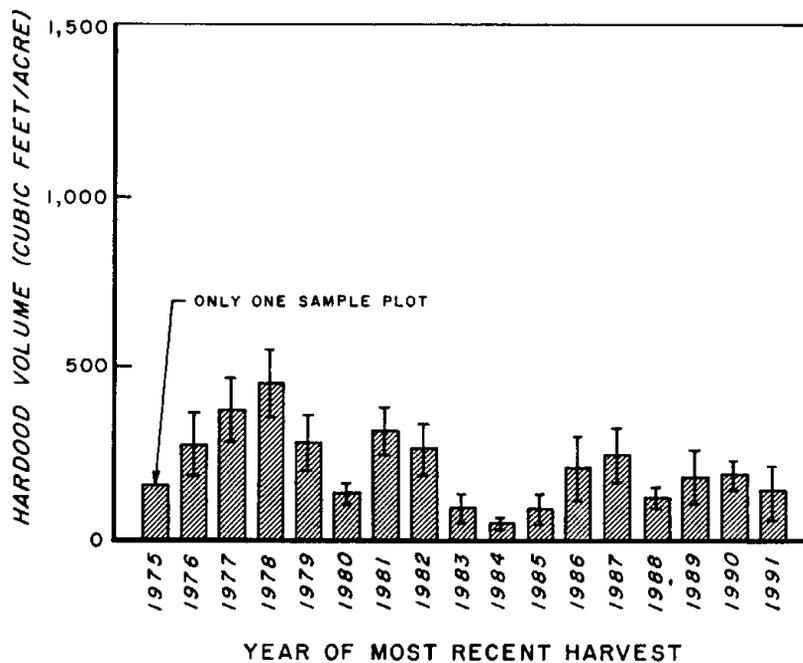


Figure 3— Current hardwood volume by year of harvest for stands that were clearcut and were a pine type prior to harvest. Bars are one standard error.

CONCLUSIONS

This study focused on 6,888,000 acres of timberland that underwent some form of commercial harvesting between 1975 and 1991. The most common harvesting method was partial harvesting (58 percent) followed by clearcutting (37 percent). Most of the harvesting was done on NIPF lands (56 percent).

Because the forest type classification reflects the dominant species in a stand, it can be used to monitor broad changes in stand composition. Specifically, in monitoring the effects of harvesting disturbance, shifts in forest type can be identified. In this study, interest was in how much acreage shifted, after harvesting, from a pine type to the oak-hickory type and, conversely, from the oak-hickory type to a pine type.

Of the 1,996,400 clearcut acres of longleaf-slash pine, loblolly-shortleaf pine, and oak-pine forest types, 1,483,100 acres are currently in a pine type, and 513,300 acres are in the oak-hickory type. Because of the time it takes pines to surpass hardwoods in sample dominance, much of this 513,300 acres in the oak-hickory type will probably convert to a pine type. Currently, in Louisiana, this is taking approximately 6 to 7 years.

On 3,315,200 acres of partial cut stands of longleaf-slash pine, loblolly-shortleaf pine, oak-pine, and oak-hickory forest types, 2,304,200 acres are in a pine type and 382,500 acres are in the oak-hickory type. If pine production is the management goal, these 382,500 acres in the oak-hickory type will need followup treatment for pine establishment.

Louisiana has 905,800 and 383,200 acres of upland clearcut timberland with < 60 percent softwood stocking in naturally regenerated and plantation stands, respectively. Approximately 22 to 30 percent of regenerating stands are still < 60 percent stocked with softwoods 6 or more years after harvesting.

It is taking approximately 6 to 7 years after harvest before initial waves of regenerating softwoods are reaching the 3.0- to 4.9-inch diameter range. Additionally, these stands are below the survey stocking standard for this size class. Although there is evidence in the data of management favoring pine, average per-acre volumes for 15 years after harvest are below the 1,900- to 2,200-ft³/acre standard for normal sites (site index 90) at age 20. Accumulating 100 ft³/acre/year would still place these stands below 1,500 ft³ at 20 years from harvest. Low softwood stocking levels and lengthy regeneration lag time after harvest are cited as two reasons for this volume shortfall.

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Appendix—Tables 1 through 23

Table 1.—Area of timberland harvested by year and type of harvest, Louisiana, 1975-1991*

Year of harvest [†]	n [‡]	S.E. [§]	Type of harvest					
			All types	Partial	Seed tree or shelterwood	Clearcut		Salvage
						Merchantable trees	All trees	
-----Thousand acres-----								
1975	11	0.2886	68.2	41.0	0.0	7.5	19.8	0.0
1976	42	0.1552	233.1	108.3	5.5	52.3	67.0	0.0
1977	62	0.1257	352.5	210.1	28.7	28.8	79.3	5.5
1978	54	0.1360	302.1	150.3	0.0	48.8	91.9	11.0
1979	43	0.1513	245.1	96.3	30.6	28.6	84.0	5.7
1980	77	0.1110	448.9	269.7	27.1	32.2	120.0	0.0
1981	56	0.1332	315.0	130.5	18.2	85.4	69.9	11.0
1982	64	0.1209	380.3	158.9	16.6	84.4	114.9	5.5
1983	21	0.2202	116.9	44.1	0.0	45.0	16.7	11.0
1984	25	0.2014	139.5	77.8	5.2	28.8	27.7	0.0
1985	25	0.1970	145.6	36.3	11.5	26.6	71.2	0.0
1986	59	0.1300	329.8	167.6	4.8	51.0	106.4	0.0
1987	135	0.0846	755.0	498.0	0.0	135.4	111.6	10.1
1988	170	0.0749	950.3	652.8	21.5	150.6	102.5	22.8
1989	190	0.0703	1,068.8	775.6	21.8	140.0	119.6	11.8
1990	130	0.0857	737.8	414.4	11.9	205.0	106.6	0.0
1991	52	0.1367	299.1	180.0	16.6	74.5	28.0	0.0
All years	1,216	0.0206	6,888.0	4,011.6	219.9	1,224.8	1,337.2	94.5
S.E. [§]			0.0206	0.0319	0.1599	0.0653	0.0622	0.2451
n [‡]			1,216	708	39	216	236	17

*Numbers in columns and rows may not total due to rounding.

[†]Most recent harvest.

[‡]Number of sample plots in columns and rows.

[§]Sampling errors (one standard error) for column and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

Table 2.—Area of forest industry timberland harvested by year and type of harvest, Louisiana, 1975-1991*

Year of harvest [†]	n [‡]	S.E. [§]	Type of harvest					
			All types	Partial	Seed tree or shelterwood	Clearcut		Salvage
						Merchantable trees	All trees	
-----Thousand acres-----								
1975	3	0.5125	21.7	0.0	0.0	7.5	14.2	0.0
1976	19	0.2280	109.0	17.0	5.5	39.6	47.0	0.0
1977	23	0.2071	132.0	43.2	16.2	6.1	61.0	5.5
1978	19	0.2322	105.1	34.1	0.0	10.3	55.2	5.5
1979	19	0.2243	112.6	18.5	30.6	6.2	57.3	0.0
1980	25	0.1963	146.7	60.7	5.5	21.0	59.5	0.0
1981	13	0.2805	72.2	16.2	0.0	23.0	33.0	0.0
1982	26	0.1884	159.2	43.0	11.2	25.0	80.1	0.0
1983	10	0.3106	58.9	12.9	0.0	29.3	11.2	5.5
1984	12	0.2963	64.8	31.4	5.2	11.0	17.1	0.0
1985	13	0.2721	76.7	0.0	0.0	11.0	65.7	0.0
1986	28	0.1883	159.3	79.8	0.0	28.7	50.8	0.0
1987	45	0.1486	253.9	143.9	0.0	53.0	57.0	0.0
1988	62	0.1261	350.0	245.4	5.4	45.6	48.0	5.7
1989	63	0.1259	351.4	246.9	5.4	16.9	82.1	0.0
1990	47	0.1438	271.1	149.8	0.0	68.3	52.9	0.0
1991	24	0.2036	136.5	73.7	11.4	40.4	11.1	0.0
All years	451	0.0425	2,581.1	1,216.4	96.4	442.9	803.2	22.2
S.E. [§]			0.0425	0.0655	0.2426	0.1118	0.0819	0.5066
n [‡]			451	214	17	77	139	4

*Numbers in columns and rows may not total due to rounding.

[†]Most recent harvest.

[‡]Number of sample plots in columns and rows.

[§]Sampling errors (one standard error) for column and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

Table 3.—Area of nonindustrial private timberland harvested by year and type of harvest, Louisiana, 1975-1991*

Year of harvest [†]	n [‡]	S.E. [§]	Type of harvest					
			All types	Partial	Seed tree or shelterwood	Clearcut		Salvage
						Merchantable trees	All trees	
-----Thousand acres-----								
1975	8	0.3498	46.5	41.0	0.0	0.0	5.6	0.0
1976	18	0.2370	100.9	81.5	0.0	8.8	10.6	0.0
1977	32	0.1755	183.0	135.7	6.2	22.8	18.3	0.0
1978	31	0.1788	176.4	104.9	0.0	38.5	27.5	5.5
1979	22	0.2132	124.6	69.9	0.0	22.4	26.6	5.7
1980	45	0.1447	267.8	187.6	16.0	11.2	53.0	0.0
1981	38	0.1602	219.1	103.9	18.2	62.4	23.5	11.0
1982	38	0.1594	221.2	115.9	5.5	59.4	34.9	5.5
1983	9	0.3390	49.5	27.5	0.0	11.0	5.5	5.5
1984	11	0.2954	65.2	41.6	0.0	13.1	10.5	0.0
1985	10	0.3111	58.8	29.8	11.5	11.9	5.6	0.0
1986	27	0.1923	152.7	73.8	4.8	22.3	51.8	0.0
1987	72	0.1153	417.0	286.0	0.0	74.8	49.9	6.2
1988	93	0.1013	535.5	351.1	16.1	100.5	50.6	17.1
1989	115	0.0903	667.5	486.2	16.4	119.3	33.8	11.8
1990	72	0.1156	415.1	224.1	11.9	131.9	47.3	0.0
1991	26	0.1929	151.8	106.3	5.2	29.5	10.9	0.0
All years	667	0.0328	3,852.6	2,466.8	111.8	739.8	465.8	68.4
S.E. [§]			0.0269	0.0308	0.2090	0.0662	0.1430	0.1643
n [‡]			667	424	20	129	82	12

*Numbers in columns and rows may not total due to rounding.

[†]Most recent harvest.

[‡]Number of sample plots in columns and rows.

[§]Sampling errors (one standard error) for column and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

Table 4.—Area of timberland harvested (all types of harvests) by year and current basal area class, Louisiana, 1975-1991*

Year of harvest [†]	n [‡]	S.E. [§]	Basal area class (Square feet per acre)						
			All classes	< 20	20-39	40-59	60-79	80-99	≥ 100
-----Thousand acres-----									
1975	11	0.2886	68.2	0.0	0.0	6.3	11.5	11.6	38.9
1976	42	0.1552	233.1	0.0	18.3	21.1	27.7	70.3	95.7
1977	62	0.1257	352.5	0.0	10.7	28.5	36.8	122.2	154.3
1978	54	0.1360	302.1	5.4	19.9	27.1	51.3	73.4	125.0
1979	43	0.1513	245.1	5.7	30.1	51.9	28.9	61.8	66.7
1980	77	0.1110	448.9	5.7	17.8	57.2	94.6	102.5	171.3
1981	56	0.1332	315.0	5.7	57.4	68.6	72.6	68.2	42.4
1982	64	0.1209	380.3	30.1	54.3	53.8	86.6	70.5	85.1
1983	21	0.2202	116.9	29.5	16.3	21.2	21.7	12.9	15.4
1984	25	0.2014	139.5	9.9	26.6	11.6	11.4	21.9	58.1
1985	25	0.1970	145.6	33.0	48.3	22.7	17.6	18.6	5.5
1986	59	0.1300	329.8	118.0	11.6	60.0	64.9	40.2	35.0
1987	135	0.0846	755.0	150.0	114.0	112.4	154.1	98.2	126.3
1988	170	0.0749	950.3	197.7	80.5	121.3	228.0	140.3	182.5
1989	190	0.0703	1,068.8	210.1	127.6	201.9	201.6	206.4	121.2
1990	130	0.0857	737.8	231.1	63.1	122.8	168.7	73.8	78.3
1991	52	0.1367	299.1	76.4	32.2	48.5	45.2	41.0	55.8
All years	1,216	0.0206	6,888.0	1,108.1	728.6	1,036.9	1,323.1	1,233.7	1,457.6
S.E. [§]			0.0206	0.0689	0.0862	0.0714	0.0625	0.0650	0.0593
n [‡]			1,216	196	128	184	235	217	256

*Numbers in columns and rows may not total due to rounding.

[†]Most recent harvest.

[‡]Number of sample plots in columns and rows.

[§]Sampling errors (one standard error) for column and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

Table 5.—*A rea of timberland harvested (all types of harvests) by year and current stocking class, Louisiana, 1975-1991**

Year of harvest [†]	n [‡]	S.E. [§]	Stocking class (range = 0 to 160 percent)							
			All classes	< 20	20-39	40-59	60-79	80-99	100-119	≥ 120
----- <i>Thousand acres</i> -----										
1975	11	0.2886	68.2	0.0	0.0	0.0	5.7	18.1	18.1	26.4
1976	42	0.1552	233.1	0.0	0.0	0.0	16.9	46.9	122.4	47.0
1977	62	0.1257	352.5	0.0	5.5	0.0	13.8	98.7	114.2	120.4
1978	54	0.1360	302.1	0.0	0.0	5.4	0.0	67.9	134.4	94.4
1979	43	0.1513	245.1	0.0	0.0	11.9	0.0	48.3	90.2	94.7
1980	77	0.1110	448.9	0.0	0.0	5.4	10.1	94.1	187.0	152.2
1981	56	0.1332	315.0	0.0	0.0	6.3	23.2	103.8	60.7	121.1
1982	64	0.1209	380.3	5.4	0.0	6.1	5.8	76.0	148.7	138.4
1983	21	0.2202	116.9	0.0	5.5	0.0	16.0	11.7	38.4	45.2
1984	25	0.2014	139.5	0.0	0.0	5.1	0.0	17.2	61.3	55.8
1985	25	0.1970	145.6	0.0	0.0	12.0	5.7	23.9	41.2	62.9
1986	59	0.1300	329.8	0.0	0.0	6.2	22.3	95.4	110.5	95.4
1987	135	0.0846	755.0	0.0	6.2	21.3	81.2	246.9	238.1	161.3
1988	170	0.0749	950.3	5.2	5.2	16.9	118.2	303.2	309.9	191.7
1989	190	0.0703	1,068.8	10.9	6.0	55.8	135.4	333.7	336.3	190.7
1990	130	0.0857	737.8	11.0	22.7	51.7	132.5	180.8	210.8	128.3
1991	52	0.1367	299.1	10.2	4.7	27.3	38.1	64.5	125.7	28.6
All years	1,216	0.0206	6,888.0	42.7	55.8	231.4	624.7	1,831.1	2,347.8	1,754.5
S.E. [§]			0.0206	0.3651	0.3193	0.1558	0.0935	0.0521	0.0450	0.0534
n [‡]			1,216	8	10	41	112	325	410	310

*Numbers in columns and rows may not total due to rounding.

†Most recent harvest.

‡Number of sample plots in columns and rows.

§Sampling errors (one standard error) for column and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

Table 6.—*A rea of clearcut upland forest types that have regenerated naturally, by year and current softwood stocking class, Louisiana, 1975-1991**

Year of harvest [†]	n [‡]	S.E. [§]	Stocking class (range = 0 to 160 percent)							
			All classes	< 20	20-39	40-59	60-79	80-99	100-119	≥ 120
----- <i>Thousand acres</i> -----										
1975	1	0.8721	7.5	0.0	0.0	0.0	0.0	7.5	0.0	0.0
1976	7	0.3915	37.2	5.6	16.0	3.9	6.1	0.0	5.5	0.0
1977	12	0.2870	69.0	5.2	12.3	5.8	12.5	10.8	22.4	0.0
1978	8	0.3591	44.2	6.1	16.7	5.2	5.1	5.6	5.5	0.0
1979	8	0.3526	45.8	10.7	5.6	7.5	6.2	5.2	5.5	5.1
1980	8	0.3724	41.1	0.0	5.8	5.1	4.5	16.5	9.2	0.0
1981	10	0.3113	58.7	17.7	23.6	5.7	6.2	0.0	5.5	0.0
1982	12	0.2820	71.4	23.6	7.5	0.0	16.3	6.5	17.5	0.0
1983	3	0.6014	15.8	0.0	0.0	11.1	0.0	0.0	0.0	4.7
1984	4	0.4866	24.1	6.5	11.7	5.8	0.0	0.0	0.0	0.0
1985	2	0.7146	11.2	5.7	5.5	0.0	0.0	0.0	0.0	0.0
1986	7	0.3829	38.8	16.6	11.2	0.0	5.6	5.4	0.0	0.0
1987	19	0.2318	105.5	36.8	22.8	27.6	18.3	0.0	0.0	0.0
1988	27	0.1931	151.6	84.7	22.1	5.5	23.2	10.6	0.0	5.5
1989	26	0.1967	146.0	83.8	35.0	15.9	0.0	11.4	0.0	0.0
1990	39	0.1585	223.6	168.1	21.4	23.8	10.4	0.0	0.0	0.0
1991	18	0.2375	100.5	83.1	11.6	0.0	5.9	0.0	0.0	0.0
All years	211	0.0662	1,192.1	554.2	228.7	122.9	120.1	79.6	71.2	15.3
S.E. [§]			0.0662	0.0995	0.1567	0.2147	0.2171	0.2671	0.2825	0.6104
n [‡]			211	98	40	22	21	14	13	3

*Numbers in columns and rows may not total due to rounding.

†Most recent harvest.

‡Number of sample plots in columns and rows.

§Sampling errors (one standard error) for column and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

Table 7.—Area of clearcut upland forest types that are currently in plantations, by year and current softwood stocking class, Louisiana, 1975-1991*

Year of harvest [†]	n [‡]	S.E. [§]	Stocking class (range = 0 to 160 percent)							
			All classes	< 20	20-39	40-59	60-79	80-99	100-119	≥ 120
-----Thousand acres-----										
1975	2	0.6337	14.2	0.0	0.0	0.0	0.0	6.7	0.0	7.5
1976	11	0.2991	63.6	0.0	0.0	0.0	16.0	18.6	17.1	11.8
1977	10	0.3164	56.8	0.0	0.0	0.0	22.4	10.7	10.7	13.0
1978	16	0.2575	85.6	0.0	16.8	10.6	5.1	37.1	10.7	5.2
1979	16	0.2487	91.7	5.1	5.7	12.0	16.6	22.4	23.6	6.3
1980	20	0.2211	115.9	0.0	0.0	5.6	29.4	36.0	21.7	23.2
1981	15	0.2630	82.1	0.0	0.0	0.0	23.2	31.6	5.7	21.6
1982	19	0.2219	115.0	0.0	11.4	11.4	18.3	6.1	43.7	24.3
1983	6	0.4037	35.0	7.5	0.0	0.0	0.0	5.5	10.7	11.2
1984	7	0.3896	37.5	0.0	4.7	0.0	5.2	0.0	10.6	17.0
1985	14	0.2657	80.5	0.0	0.0	0.0	26.7	25.0	22.5	6.3
1986	19	0.2289	108.2	11.9	22.8	21.4	18.1	22.8	5.7	5.5
1987	19	0.2290	108.1	6.1	12.5	23.3	30.5	25.0	5.2	5.5
1988	17	0.2430	96.0	6.2	16.4	45.3	16.3	11.8	0.0	0.0
1989	16	0.2533	88.4	10.7	21.3	23.2	15.7	17.5	0.0	0.0
1990	12	0.2808	72.1	5.8	25.3	28.2	6.3	6.5	0.0	0.0
1991	2	0.6907	12.0	6.5	0.0	5.4	0.0	0.0	0.0	0.0
All years	221	0.0642	1,262.7	59.9	137.0	186.3	249.7	283.5	187.8	158.5
S.E. [§]			0.0642	0.3083	0.2032	0.1739	0.1499	0.1405	0.1732	0.1888
n [‡]			221	10	24	33	44	50	33	27

*Numbers in columns and rows may not total due to rounding.

†Most recent harvest.

‡Number of sample plots in columns and rows.

§Sampling errors (one standard error) for column and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

Table 8.—Area of clearcut longleaf-slash pine forest type by year of harvest and current forest type, Louisiana, 1975-1991*

Year of harvest [†]	n [‡]	S.E. [§]	Forest type						
			All types	Longleaf-slash pine	Loblolly-shortleaf pine	Oak-pine	Oak-hickory	Bottomland hardwoods	Nontyped [¶]
-----Thousand acres-----									
1975	0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1976	5	0.4650	26.4	11.2	11.3	3.9	0.0	0.0	0.0
1977	2	0.7249	10.9	0.0	10.9	0.0	0.0	0.0	0.0
1978	2	0.7256	10.8	10.8	0.0	0.0	0.0	0.0	0.0
1979	7	0.3803	39.4	28.6	5.7	0.0	5.1	0.0	0.0
1980	6	0.3996	35.7	17.5	18.2	0.0	0.0	0.0	0.0
1981	3	0.6165	15.0	9.8	0.0	5.2	0.0	0.0	0.0
1982	1	0.0000	6.1	0.0	6.1	0.0	0.0	0.0	0.0
1983	1	0.0000	5.5	5.5	0.0	0.0	0.0	0.0	0.0
1984	1	0.0000	5.2	0.0	5.2	0.0	0.0	0.0	0.0
1985	1	0.0000	5.5	0.0	5.5	0.0	0.0	0.0	0.0
1986	1	0.0000	6.2	6.2	0.0	0.0	0.0	0.0	0.0
1987	3	0.5722	17.4	11.8	5.7	0.0	0.0	0.0	0.0
1988	6	0.4181	32.6	17.2	0.0	10.2	5.2	0.0	0.0
1989	8	0.3556	45.0	0.0	16.8	17.5	5.5	0.0	5.2
1990	4	0.5022	22.6	0.0	5.2	0.0	17.4	0.0	0.0
1991	0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All years	51	0.1403	284.3	118.7	90.3	36.8	33.2	0.0	5.2
S.E. [§]			0.1403	0.2185	0.2507	0.3932	0.4140	0.0000	0.0000
n [‡]			51	21	16	7	6	0	1

*Numbers in columns and rows may not total due to rounding.

†Most recent harvest.

‡Number of sample plots in columns and rows.

§Sampling errors (one standard error) for column and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

¶Stands with 0.0 percent stocking; i.e., no live trees in sample.

Table 9.—Area of clearcut loblolly-shortleaf pine forest type by year of harvest and current forest type, Louisiana, 1975-1991*

Year of harvest [†]	n [‡]	S.E. [§]	Forest type						
			All types	Longleaf-slash pine	Loblolly-shortleaf pine	Oak-pine	Oak-hickory	Bottomland hardwoods	Nontyped [¶]
-----Thousand acres-----									
1975	1	0.0000	6.7	0.0	6.7	0.0	0.0	0.0	0.0
1976	10	0.3129	58.1	0.0	47.2	10.9	0.0	0.0	0.0
1977	11	0.2966	64.6	0.0	52.8	5.8	6.1	0.0	0.0
1978	11	0.3146	57.5	0.0	46.2	5.2	6.1	0.0	0.0
1979	12	0.2854	69.8	6.2	47.1	11.4	5.1	0.0	0.0
1980	11	0.3108	58.9	0.0	58.9	0.0	0.0	0.0	0.0
1981	12	0.2894	67.9	6.2	44.3	11.9	5.5	0.0	0.0
1982	17	0.2380	100.1	0.0	94.6	5.6	0.0	0.0	0.0
1983	5	0.4438	28.9	0.0	15.9	5.5	7.5	0.0	0.0
1984	3	0.5923	16.3	0.0	11.1	5.2	0.0	0.0	0.0
1985	4	0.4759	25.2	0.0	25.2	0.0	0.0	0.0	0.0
1986	15	0.2610	83.4	0.0	45.2	20.2	18.0	0.0	0.0
1987	18	0.2391	99.2	0.0	42.5	28.6	28.2	0.0	0.0
1988	21	0.2175	119.7	0.0	46.2	28.3	45.2	0.0	0.0
1989	16	0.2515	89.7	0.0	23.2	34.4	32.1	0.0	0.0
1990	25	0.1953	148.2	0.0	30.6	12.8	104.8	0.0	0.0
1991	9	0.3403	49.2	0.0	5.9	0.0	43.3	0.0	0.0
All years	201	0.0678	1,143.3	12.4	643.5	185.7	301.7	0.0	0.0
S.E. [§]			0.0678	0.6772	0.0920	0.1742	0.1361	0.0000	0.0000
n [‡]			201	2	113	33	53	0	0

*Numbers in columns and rows may not total due to rounding.

[†]Most recent harvest.

[‡]Number of sample plots in columns and rows.

[§]Sampling errors (one standard error) for column and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

[¶]Stands with 0.0 percent stocking; i.e., no live trees in sample.

Table 10.—Area of clearcut oak-pine forest type by year of harvest and current forest type, Louisiana, 1975-1991*

Year of harvest [†]	n [‡]	S.E. [§]	Forest type						
			All types	Longleaf-slash pine	Loblolly-shortleaf pine	Oak-pine	Oak-hickory	Bottomland hardwoods	Nontyped [¶]
-----Thousand acres-----									
1975	0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1976	2	0.7329	10.6	0.0	5.5	5.1	0.0	0.0	0.0
1977	7	0.3788	39.7	0.0	28.3	0.0	11.4	0.0	0.0
1978	7	0.3808	39.3	0.0	11.2	22.2	5.8	0.0	0.0
1979	2	0.7314	10.7	0.0	10.7	0.0	0.0	0.0	0.0
1980	7	0.3844	38.6	0.0	26.4	12.1	0.0	0.0	0.0
1981	6	0.4058	34.6	0.0	16.1	6.2	6.7	5.6	0.0
1982	5	0.4197	32.4	0.0	13.0	0.0	19.4	0.0	0.0
1983	3	0.5921	16.3	5.5	5.2	5.6	0.0	0.0	0.0
1984	3	0.5908	16.3	0.0	16.3	0.0	0.0	0.0	0.0
1985	3	0.6039	15.6	0.0	15.6	0.0	0.0	0.0	0.0
1986	7	0.3794	39.6	0.0	11.7	0.0	22.4	5.4	0.0
1987	8	0.3511	46.2	0.0	11.2	29.8	5.2	0.0	0.0
1988	9	0.3342	51.0	0.0	16.3	5.7	23.0	6.1	0.0
1989	13	0.2815	71.7	0.0	16.9	20.9	28.3	5.5	0.0
1990	13	0.2795	72.7	0.0	11.4	22.1	33.5	5.6	0.0
1991	6	0.4116	33.6	0.0	5.5	5.4	22.7	0.0	0.0
All years	101	0.0982	568.8	5.5	221.5	135.1	178.4	28.2	0.0
S.E. [§]			0.0982	0.0000	0.1593	0.2046	0.1778	0.4496	0.0000
n [‡]			101	1	40	24	31	5	0

*Numbers in columns and rows may not total due to rounding.

[†]Most recent harvest.

[‡]Number of sample plots in columns and rows.

[§]Sampling errors (one standard error) for column and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

[¶]Stands with 0.0 percent stocking; i.e., no live trees in sample.

Table 11.—Area of clearcut oak-hickory forest type by year of harvest and current forest type, Louisiana, 1975-1991*

Year of harvest [†]	n [‡]	S.E. [§]	Forest type						
			All types	Longleaf-slash pine	Loblolly-shortleaf pine	Oak-pine	Oak-hickory	Bottomland hardwoods	Nontyped [¶]
-----Thousand acres-----									
1975	2	0.6165	15.0	0.0	15.0	0.0	0.0	0.0	0.0
1976	1	0.0000	5.6	0.0	0.0	0.0	0.0	5.6	0.0
1977	2	0.7330	10.6	0.0	10.6	0.0	0.0	0.0	0.0
1978	4	0.5070	22.2	0.0	16.7	5.5	0.0	0.0	0.0
1979	3	0.5671	17.7	0.0	12.2	0.0	5.6	0.0	0.0
1980	4	0.4890	23.8	0.0	18.1	5.8	0.0	0.0	0.0
1981	4	0.4947	23.3	0.0	5.1	11.9	6.3	0.0	0.0
1982	8	0.3446	47.9	0.0	19.0	17.2	5.5	6.3	0.0
1983	0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984	4	0.4891	23.8	0.0	6.1	0.0	11.2	6.5	0.0
1985	8	0.3546	45.3	0.0	39.6	0.0	5.7	0.0	0.0
1986	3	0.5649	17.9	0.0	5.6	12.3	0.0	0.0	0.0
1987	9	0.3349	50.7	6.2	22.8	6.1	10.3	5.4	0.0
1988	8	0.3582	44.4	5.2	5.5	5.5	16.7	11.4	0.0
1989	5	0.4508	28.0	0.0	5.1	0.0	17.4	5.5	0.0
1990	9	0.3302	52.2	0.0	5.5	16.3	24.9	5.5	0.0
1991	5	0.4381	29.7	0.0	0.0	0.0	23.6	6.1	0.0
All years	79	0.1098	458.3	11.4	186.7	80.6	127.2	52.3	0.0
S.E. [§]			0.1098	0.7065	0.1737	0.2655	0.2109	0.3297	0.0000
n [‡]			79	2	32	14	22	9	0

*Numbers in columns and rows may not total due to rounding.

[†]Most recent harvest.

[‡]Number of sample plots in columns and rows.

[§]Sampling errors (one standard error) for column and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

[¶]Stands with 0.0 percent stocking; i.e., no live trees in sample.

Table 12.—Area of partial cut longleaf-slash pine forest type by year of harvest and current forest type, Louisiana, 1975-1991*

Year of harvest [†]	n [‡]	S.E. [§]	Forest type						
			All types	Llongleaf-slash pine	Loblolly-shortleaf pine	Oak-pine	Oak-hickory	Bottomland hardwoods	Nontyped [¶]
-----Thousand acres-----									
1975	0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1976	1	0.0000	5.4	0.0	5.4	0.0	0.0	0.0	0.0
1977	4	0.5298	20.3	20.3	0.0	0.0	0.0	0.0	0.0
1978	0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1979	0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1980	5	0.4501	28.1	28.1	0.0	0.0	0.0	0.0	0.0
1981	1	0.0000	6.1	6.1	0.0	0.0	0.0	0.0	0.0
1982	3	0.5923	16.3	16.3	0.0	0.0	0.0	0.0	0.0
1983	0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984	0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1985	0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986	2	0.6822	12.3	6.2	0.0	0.0	6.1	0.0	0.0
1987	5	0.4786	24.9	24.9	0.0	0.0	0.0	0.0	0.0
1988	8	0.3703	41.5	32.3	5.5	3.7	0.0	0.0	0.0
1989	18	0.2385	99.7	70.0	12.7	17.0	0.0	0.0	0.0
1990	12	0.2911	67.1	67.1	0.0	0.0	0.0	0.0	0.0
1991	1	0.0000	7.5	7.5	0.0	0.0	0.0	0.0	0.0
All years	60	0.1302	329.2	278.8	23.6	20.8	6.1	0.0	0.0
S.E. [§]			0.1302	0.1417	0.4911	0.5243	0.0000	0.0000	0.0000
n [‡]			60	51	4	4	1	0	0

*Numbers in columns and rows may not total due to rounding.

[†]Most recent harvest.

[‡]Number of sample plots in columns and rows.

[§]Sampling errors (one standard error) for column and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

[¶]Stands with 0.0 percent stocking; i.e., no live trees in sample.

Table 13.—Area of partial cut loblolly-shortleaf pine forest type by year of harvest and current forest type, Louisiana, 1975-1991*

Year of harvest [†]	n [‡]	S.E. [§]	Forest type						
			All types	Longleaf-slash pine	Loblolly-shortleaf pine	Oak-pine	Oak-hickory	Bottomland hardwoods	Nontyped [¶]
-----Thousand acres-----									
1975	1	0.0000	5.8	0.0	0.0	0.0	5.8	0.0	0.0
1976	6	0.4185	32.5	0.0	18.1	8.9	0.0	5.5	0.0
1977	9	0.3335	51.2	0.0	32.7	18.5	0.0	0.0	0.0
1978	10	0.3141	57.7	0.0	40.8	11.1	0.0	5.8	0.0
1979	8	0.3548	45.2	0.0	29.4	10.2	5.7	0.0	0.0
1980	13	0.2685	78.8	0.0	56.2	11.9	10.6	0.0	0.0
1981	13	0.2782	73.4	0.0	51.3	16.6	5.5	0.0	0.0
1982	10	0.3111	58.8	0.0	40.9	17.9	0.0	0.0	0.0
1983	2	0.6992	11.7	0.0	0.0	11.7	0.0	0.0	0.0
1984	4	0.5094	22.0	0.0	22.0	0.0	0.0	0.0	0.0
1985	1	0.0000	6.2	0.0	0.0	6.2	0.0	0.0	0.0
1986	10	0.3202	55.5	0.0	40.5	11.2	3.8	0.0	0.0
1987	42	0.1541	236.4	12.1	126.0	74.7	23.6	0.0	0.0
1988	54	0.1373	296.6	6.7	242.2	25.4	22.3	0.0	0.0
1989	61	0.1271	344.9	0.0	227.3	72.2	39.7	5.7	0.0
1990	32	0.1761	181.8	5.5	101.7	52.6	22.0	0.0	0.0
1991	14	0.2736	75.9	0.0	64.9	11.0	0.0	0.0	0.0
All years	290	0.0556	1,634.3	24.4	1,094.0	359.9	139.1	17.0	0.0
S.E. [§]			0.0556	0.4839	0.0694	0.1244	0.2017	0.5794	0.0000
n [‡]			290	4	194	64	25	3	0

*Numbers in columns and rows may not total due to rounding.

[†]Most recent harvest.

[‡]Number of sample plots in columns and rows.

[§]Sampling errors (one standard error) for column and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

[¶]Stands with 0.0 percent stocking; i.e., no live trees in sample.

Table 14.—Area of partial cut oak-pine forest type by year of harvest and current forest type, Louisiana, 1975-1991*

Year of harvest [†]	n [‡]	S.E. [§]	Forest type						
			All types	Longleaf-slash pine	Loblolly-shortleaf pine	Oak-pine	Oak-hickory	Bottomland hardwoods	Nontyped [¶]
-----Thousand acres-----									
1975	0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1976	5	0.4330	30.4	0.0	0.0	24.8	5.6	0.0	0.0
1977	6	0.4133	33.4	0.0	16.9	5.1	11.3	0.0	0.0
1978	7	0.3814	39.2	0.0	10.5	5.6	23.1	0.0	0.0
1979	4	0.4833	24.4	0.0	0.0	12.6	11.8	0.0	0.0
1980	12	0.2849	70.0	0.0	23.2	30.2	12.8	3.8	0.0
1981	4	0.5040	22.4	0.0	0.0	5.6	16.9	0.0	0.0
1982	7	0.3599	44.0	0.0	0.0	23.8	12.6	7.5	0.0
1983	2	0.7868	9.2	0.0	5.5	0.0	3.7	0.0	0.0
1984	2	0.6683	12.8	0.0	0.0	12.8	0.0	0.0	0.0
1985	2	0.7296	10.7	0.0	0.0	10.7	0.0	0.0	0.0
1986	10	0.3242	54.1	0.0	11.3	16.9	20.4	5.7	0.0
1987	16	0.2488	91.7	0.0	23.7	33.0	22.9	12.1	0.0
1988	16	0.2451	94.5	0.0	34.2	31.4	23.4	5.4	0.0
1989	27	0.1952	148.3	5.8	49.5	51.8	26.2	15.0	0.0
1990	13	0.2914	67.0	0.0	0.0	34.0	25.4	7.5	0.0
1991	7	0.3555	45.0	0.0	5.9	18.0	21.2	0.0	0.0
All years	140	0.0822	797.1	5.8	180.6	316.3	237.3	57.1	0.0
S.E. [§]			0.0822	0.0000	0.1767	0.1329	0.1538	0.3157	0.0000
n [‡]			140	1	32	55	42	10	0

*Numbers in columns and rows may not total due to rounding.

[†]Most recent harvest.

[‡]Number of sample plots in columns and rows.

[§]Sampling errors (one standard error) for column and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

[¶]Stands with 0.0 percent stocking; i.e., no live trees in sample.

Table 15.—Area of partial cut oak-hickory forest type by year of harvest and current forest type, Louisiana, 1975-1991*

Year of harvest†	n‡	S.E.§	Forest type						
			All types	Longleaf-slash pine	Loblolly-shortleaf pine	Oak-pine	Oak-hickory	Bottomland hardwoods	Nontyped¶
----- Thousand acres -----									
1975	4	0.4907	23.7	0.0	0.0	0.0	12.3	11.4	0.0
1976	0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1977	7	0.3671	42.3	0.0	11.0	13.8	12.0	5.5	0.0
1978	5	0.4349	30.1	0.0	0.0	17.9	6.7	5.5	0.0
1979	2	0.7131	11.2	0.0	0.0	0.0	11.2	0.0	0.0
1980	4	0.4831	24.4	0.0	0.0	5.2	12.8	6.5	0.0
1981	3	0.5959	16.1	0.0	5.1	5.1	5.9	0.0	0.0
1982	3	0.5945	16.1	0.0	0.0	5.5	5.1	5.6	0.0
1983	0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984	4	0.5007	22.7	0.0	0.0	6.1	11.6	5.1	0.0
1985	0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986	3	0.5942	16.2	0.0	0.0	0.0	11.0	5.2	0.0
1987	15	0.2620	82.7	0.0	5.5	33.7	33.3	10.1	0.0
1988	20	0.2255	111.5	0.0	9.4	12.4	68.1	21.7	0.0
1989	16	0.2469	93.1	0.0	0.0	22.4	46.1	24.5	0.0
1990	6	0.4000	35.6	0.0	0.0	5.6	30.0	0.0	0.0
1991	5	0.4447	28.8	0.0	0.0	6.3	17.0	5.6	0.0
All years	97	0.0995	554.6	0.0	31.0	133.9	283.0	106.6	0.0
S.E.§			0.0995	0.0000	0.4289	0.2056	0.1406	0.2306	0.0000
n‡			97	0	6	23	49	19	0

*Numbers in columns and rows may not total due to rounding.

†Most recent harvest.

‡Number of sample plots in columns and rows.

§Sampling errors (one standard error) for column and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

¶Stands with 0.0 percent stocking; i.e., no live trees in sample.

Table 16.—Area of harvested (all types of harvests) timberland presently in plantations by year of harvest and current forest type, Louisiana, 1975-1991*

Year of harvest†	n‡	S.E.§	Forest type						
			All types	Longleaf-slash pine	Loblolly-shortleaf pine	Oak-pine	Oak-hickory	Bottomland hardwoods	Nontyped¶
----- Thousand acres -----									
1975	2	0.6337	14.2	0.0	14.2	0.0	0.0	0.0	0.0
1976	12	0.2871	69.0	11.2	57.8	0.0	0.0	0.0	0.0
1977	13	0.2781	73.5	10.4	63.1	0.0	0.0	0.0	0.0
1978	18	0.2412	97.5	10.8	57.9	23.0	5.8	0.0	0.0
1979	16	0.2487	91.7	34.8	46.0	5.8	5.1	0.0	0.0
1980	26	0.1932	151.5	28.5	110.9	12.1	0.0	0.0	0.0
1981	19	0.2351	102.6	16.0	68.7	17.8	0.0	0.0	0.0
1982	26	0.1909	155.0	16.3	110.5	22.7	0.0	5.4	0.0
1983	6	0.4037	35.0	11.1	16.4	0.0	7.5	0.0	0.0
1984	8	0.3631	43.2	0.0	38.5	0.0	4.7	0.0	0.0
1985	14	0.2657	80.5	0.0	80.5	0.0	0.0	0.0	0.0
1986	26	0.1964	146.6	12.4	79.9	32.5	21.8	0.0	0.0
1987	35	0.1692	196.8	33.2	103.2	30.9	24.0	5.5	0.0
1988	36	0.1679	199.7	50.9	92.7	44.3	11.8	0.0	0.0
1989	45	0.1495	250.9	66.7	118.2	49.4	10.7	6.0	0.0
1990	27	0.1899	156.6	56.2	52.7	29.2	18.6	0.0	0.0
1991	3	0.5658	17.8	0.0	5.9	5.4	6.5	0.0	0.0
All years	332	0.0513	1,881.9	358.4	1,116.8	273.1	116.6	17.0	0.0
S.E.§			0.0513	0.1246	0.0686	0.1432	0.2204	0.5795	0.0000
n‡			332	64	197	48	20	3	0

*Numbers in columns and rows may not total due to rounding.

†Most recent harvest.

‡Number of sample plots in columns and rows.

§Sampling errors (one standard error) for column and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

¶Stands with 0.0 percent stocking; i.e., no live trees in sample.

Table 17.—Current volume of softwood and hardwood for all forest types and all types of harvests by year of harvest and basal area class, Louisiana, 1975-1991

Year of harvest	Basal area class (Square feet per acre)																
	n [†]	S.E. [‡]	All soft [§]	S.E. [‡]	All hard [¶]	< 20		20-39		40-59		60-79		80-99		≥100	
						Soft [§]	Hard [¶]										
----- Cubic feet per acre -----																	
1975	11	0.3294	687.6	0.1716	1,208.4	0.0	0.0	0.0	0.0	92.9	996.4	54.0	1,171.5	18.6	1,705.2	1,169.7	1,105.5
1976	42	0.1409	889.6	0.1421	819.5	0.0	0.0	296.2	253.8	284.1	404.3	765.8	516.5	659.6	743.1	1,341.2	1,162.8
1977	62	0.1062	918.7	0.1171	822.6	0.0	0.0	272.2	49.3	297.2	457.2	863.1	652.7	687.9	1,064.2	1,274.1	792.5
1978	54	0.1370	759.0	0.1165	847.5	0.0	209.6	223.9	158.0	342.3	447.0	396.9	605.8	492.9	1,059.5	1,272.3	1,046.4
1979	43	0.1569	754.7	0.1657	626.9	190.9	0.0	216.6	61.1	545.8	293.8	399.3	653.0	632.3	956.4	1,475.8	877.7
1980	77	0.0976	911.4	0.1355	725.7	106.1	5.0	240.9	69.3	496.7	211.3	551.7	494.6	935.9	692.8	1,329.7	1,136.6
1981	56	0.1251	604.7	0.1290	542.3	80.2	84.7	268.7	149.0	319.2	469.2	565.6	613.0	1,063.6	666.1	920.7	933.9
1982	64	0.1287	629.4	0.1338	660.1	69.1	58.0	245.4	149.5	310.4	386.7	590.5	455.2	642.3	969.0	1,302.6	1,323.8
1983	21	0.3621	379.6	0.2483	780.0	28.9	121.8	295.4	31.8	178.0	702.8	556.6	1,148.5	0.0	2,121.5	1,487.0	1,296.3
1984	25	0.2653	724.0	0.2085	908.4	70.5	32.3	292.2	136.2	572.6	26.0	39.1	1,235.1	882.4	1,002.4	1,137.6	1,487.2
1985	25	0.2475	355.0	0.2380	333.6	54.7	53.9	246.3	198.2	300.9	361.7	633.8	617.6	514.2	913.3	1,901.3	220.1
1986	59	0.2366	456.6	0.1605	601.2	59.2	16.5	72.3	212.7	353.3	647.0	775.1	652.2	723.4	1,273.9	1,202.9	1,753.5
1987	135	0.1120	655.2	0.0957	599.1	28.1	56.4	169.1	304.2	451.3	413.1	963.7	584.5	730.4	1,100.7	1,584.7	1,302.5
1988	170	0.0910	770.8	0.0781	601.0	56.8	53.5	130.9	338.7	381.2	523.1	576.0	837.2	1,268.8	739.8	1,946.5	959.7
1989	190	0.0809	784.7	0.0884	502.2	13.2	60.0	225.4	322.0	606.3	411.3	1,010.9	573.2	1,278.2	796.1	1,791.9	990.9
1990	130	0.1162	619.4	0.1025	491.1	25.9	57.3	136.2	369.3	376.6	620.0	943.3	649.6	1,259.9	844.0	1,838.9	993.4
1991	52	0.1661	672.1	0.1645	569.6	21.1	33.2	389.4	310.6	353.5	562.4	1,180.3	466.6	890.3	892.4	1,431.6	1,306.0
All years	1,216	0.0329	711.8	0.0316	621.1	36.4	52.8	216.0	247.8	425.2	461.8	755.8	643.8	908.3	904.8	1,470.7	1,092.5
S.E. [‡]			0.0329		0.0316	0.1455	0.1131	0.0849	0.0781	0.0763	0.0595	0.0558	0.0530	0.0588	0.0512	0.0412	0.0518
n [†]			1,216		1,216	196	196	128	128	184	184	235	235	217	217	256	256

*Most recent harvest.

†Number of sample plots in columns and rows.

‡Sampling errors (one standard error) for column and row averages (on a relativized scale ranging from 0.0000 to 1.0000).

§Softwood species.

¶Hardwood species.

Table 18.—Current volume of softwood and hardwood for clearcut^{*} pine types[†] by year of harvest and basal area class, Louisiana, 1975-1991

Year of harvest [‡]	n [§]	S.E. [¶]	Basal area class (Square feet per acre)															
			All soft ^{**}		All hard ^{††}		< 20		20-39		40-59		60-79		80-99		≥100	
			S.E. [¶]		Soft ^{**}	Hard ^{††}	Soft ^{**}	Hard ^{††}	Soft ^{**}	Hard ^{††}	Soft ^{**}	Hard ^{††}	Soft ^{**}	Hard ^{††}	Soft ^{**}	Hard ^{††}	Soft ^{**}	Hard ^{††}
-----Cubic feet per acre-----																		
1975	1	0.0000	1126.4	0.0000	160.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,126.4	160.7	
1976	17	0.1458	919.5	0.3282	280.4	0.0	0.0	385.7	54.1	427.1	123.5	607.9	374.2	968.4	165.2	1,429.2	493.4	
1977	20	0.1236	1069.5	0.2407	378.3	0.0	0.0	296.2	0.0	304.2	298.5	602.1	171.2	925.2	665.9	1,433.0	348.9	
1978	20	0.1378	711.6	0.2129	453.8	0.0	0.0	282.2	54.6	432.6	235.5	523.1	391.7	512.0	711.9	1,189.6	605.9	
1979	21	0.1716	611.3	0.2871	283.2	190.9	0.0	264.9	1.6	462.1	164.3	622.8	373.2	684.6	656.8	1,396.5	218.9	
1980	24	0.1150	732.0	0.2384	134.6	106.1	5.0	316.6	0.0	428.6	207.0	687.4	45.8	1,090.8	188.8	1,301.3	191.4	
1981	21	0.1727	500.9	0.2184	317.5	80.2	84.7	269.4	166.7	186.7	677.7	523.4	551.3	661.2	393.1	1,279.4	209.3	
1982	23	0.1784	455.8	0.2827	263.6	108.8	60.4	278.8	129.8	419.1	259.7	555.1	235.4	542.8	834.0	2,003.2	134.6	
1983	9	0.3399	411.9	0.4792	90.4	19.6	0.0	295.4	31.8	350.5	183.7	1,129.8	196.1	0.0	0.0	0.0	0.0	
1984	7	0.2797	363.7	0.3802	43.5	134.5	61.6	251.9	46.3	503.0	10.4	0.0	0.0	870.8	48.7	0.0	0.0	
1985	8	0.3096	270.9	0.5318	87.8	86.6	36.1	396.5	165.6	478.9	13.2	0.0	0.0	0.0	0.0	0.0	0.0	
1986	23	0.2447	46.6	0.4574	207.0	56.7	18.3	0.0	0.0	0.0	945.0	0.0	909.3	0.0	1,540.0	0.0	0.0	
1987	29	0.4139	190.7	0.3284	245.1	12.9	60.9	181.6	319.9	837.0	69.6	0.0	0.0	126.9	1,466.1	2,941.0	1,498.8	
1988	36	0.3418	150.4	0.2524	119.4	33.3	42.0	132.5	222.8	489.1	371.3	1,009.8	339.5	0.0	0.0	0.0	0.0	
1989	37	0.3654	131.0	0.4406	181.1	15.1	38.0	357.6	173.0	458.9	453.7	0.0	0.0	0.0	0.0	0.0	2,886.5	
1990	42	0.4718	83.0	0.2371	185.3	27.0	42.9	99.6	359.1	109.4	735.9	795.9	690.9	0.0	0.0	0.0	0.0	
1991	15	0.5485	229.4	0.6105	133.5	4.4	29.1	1,394.9	7.4	645.8	289.1	622.7	658.5	0.0	0.0	0.0	0.0	
All years	353	0.0674	384.9	0.0858	220.7	32.7	39.3	277.7	155.9	403.4	323.7	629.5	355.5	743.0	562.0	1,355.1	464.1	
S.E. [¶]			0.0674		0.0858	0.1646	0.1430	0.1036	0.1506	0.1227	0.1520	0.0920	0.1678	0.0997	0.1644	0.0615	0.2066	
n [§]			353		353	141	141	62	62	42	42	39	39	33	33	36	36	

* Clearcut includes seed tree-shelterwood cuts, merchantable clearcuts, and all-tree clearcuts.

† Pine types include longleaf-slash, loblolly-shortleaf, and oak-pine forest types.

‡ Most recent harvest.

§ Number of sample plots in columns and rows.

¶ Sampling errors (one standard error) for column and row averages (on a relativized scale ranging from 0.0000 to 1.0000).

** Softwood species.

†† Hardwood species.

Table 19.—Current volume of softwood and hardwood for clearcut^{*} oak-hickory type by year of harvest and basal area class, Louisiana, 1975-1991

Year of harvest [†]	n [‡]	S.E. [§]	Basal area class (Square feet per acre)															
			All soft [¶]		All hard ^{**}		< 20		20-39		40-59		60-79		80-99		≥100	
			S.E. [§]	n [‡]	S.E. [§]	n [‡]	Soft [¶]	Hard ^{**}										
-----Cubic feet per acre-----																		
1975	2	0.2724	1,403.3	0.5219	559.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1403.3	559.4	
1976	1	0.0000	183.7	0.0000	817.5	0.0	0.0	0.0	0.0	183.7	817.5	0.0	0.0	0.0	0.0	0.0	0.0	
1977	2	0.0083	1,724.5	0.7101	51.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1724.5	51.1	
1978	4	0.3202	894.4	0.4653	212.8	0.0	0.0	0.0	0.0	410.8	293.2	0.0	0.0	0.0	0.0	1378.8	132.3	
1979	3	0.3558	654.5	0.7095	1,007.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	770.9	142.8	603.3	1,387.8	
1980	4	0.2052	1,020.8	0.4202	272.5	0.0	0.0	0.0	0.0	0.0	0.0	831.5	444.8	922.7	186.6	1,469.8	17.7	
1981	4	0.3500	445.6	0.4655	242.5	0.0	0.0	281.2	133.6	485.8	322.8	545.0	180.6	0.0	0.0	0.0	0.0	
1982	8	0.2587	390.6	0.3952	627.7	0.0	0.0	0.0	0.0	342.6	278.2	501.0	358.8	390.7	1,626.0	0.0	0.0	
1983	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1984	4	0.5360	278.6	0.5893	789.6	0.0	0.0	0.0	0.0	636.0	40.3	68.0	1,109.8	0.0	0.0	358.2	1,729.2	
1985	8	0.5374	407.6	0.3600	159.6	5.0	0.0	185.5	123.9	340.0	290.2	0.0	0.0	0.0	0.0	1,901.3	220.1	
1986	3	0.5515	79.7	1.0000	72.1	82.0	0.0	75.3	212.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1987	9	0.7164	142.8	0.3664	113.7	15.5	17.0	95.5	241.7	828.5	193.2	0.0	0.0	0.0	0.0	0.0	0.0	
1988	8	0.6061	84.6	0.5062	386.0	78.7	134.8	0.0	0.0	143.0	590.8	58.6	1,813.2	0.0	0.0	0.0	0.0	
1989	5	0.8226	84.8	0.5353	527.1	22.3	125.8	0.0	0.0	170.7	1,079.5	0.0	0.0	0.0	0.0	0.0	0.0	
1990	9	0.5183	30.9	0.3412	515.3	23.5	94.8	64.4	590.5	0.0	1,187.2	104.3	1,499.9	0.0	0.0	0.0	0.0	
1991	5	0.7279	60.7	0.4890	187.8	81.2	47.8	34.6	365.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
All years	79	0.1572	367.9	0.1546	383.7	44.2	72.7	123.8	248.0	337.3	496.8	439.2	759.7	610.7	922.3	1,249.1	595.8	
S.E. [§]			0.1572		0.1546	0.4260	0.2829	0.2366	0.2011	0.2119	0.1964	0.3147	0.2697	0.3376	0.5554	0.1364	0.4068	
n [‡]			79		79	26	26	12	12	18	18	8	8	4	4	11	11	

*Clearcut includes seed tree-shelterwood cuts, merchantable clearcuts, and all-tree clearcuts.

†Most recent harvest

‡Number of sample plots in columns and rows.

§Sampling errors (one standard error) for column and row averages (on a relativized scale ranging from 0.0000 to 1.0000).

¶Softwood species.

**Hardwood species.

Table 20.—Current density of softwood and hardwood for clearcut* pine types† by year of harvest and diameter class, Louisiana, 1975-1991‡

Year of harvest‡	n¶	S.E.**	All soft††	S.E.**	All hard‡‡	Diameter class													
						1.0-2.9		3.0-4.9		5.0-6.9		7.0-8.9		9.0-10.9		11.0-12.9		≥13.0	
						Soft††	Hard‡‡	Soft††	Hard‡‡	Soft††	Hard‡‡	Soft††	Hard‡‡	Soft††	Hard‡‡	Soft††	Hard‡‡	Soft††	Hard‡‡
-----Number of trees per acre-----																			
1975	1	0.0000	653.6	0.0000	749.3	91.7	733.5	275.1	0.0	240.9	15.8	45.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1976	17	0.2129	562.1	0.2617	546.2	240.1	483.4	150.9	36.2	102.5	16.8	56.0	4.5	8.9	2.3	1.7	1.3	2.1	1.7
1977	20	0.1889	511.6	0.1646	865.3	162.7	785.5	151.3	59.9	119.0	9.3	55.4	4.0	15.4	2.2	4.5	1.0	3.3	3.5
1978	20	0.1849	375.8	0.1614	792.3	104.5	692.4	114.0	69.3	101.9	12.5	42.0	6.0	9.8	5.4	2.0	2.3	1.6	4.4
1979	21	0.1829	548.0	0.2308	547.6	317.8	475.0	109.8	48.9	89.6	10.7	20.4	6.4	6.3	3.6	2.6	1.6	1.6	1.4
1980	24	0.1236	727.9	0.2070	428.4	314.4	393.4	305.8	29.2	87.2	2.0	16.8	1.7	2.0	1.1	0.8	0.4	1.0	0.5
1981	21	0.2141	576.2	0.2296	549.3	285.7	496.4	247.2	33.7	33.6	3.9	5.8	4.5	2.0	4.7	0.9	2.4	1.0	3.7
1982	23	0.1559	830.9	0.1999	411.9	597.1	371.1	193.4	19.5	30.1	8.7	6.7	4.7	0.9	4.0	0.5	2.3	2.2	1.6
1983	9	0.2901	522.4	0.3784	282.0	337.6	260.6	157.5	10.0	23.0	7.0	0.0	2.6	0.9	1.5	0.0	0.0	3.3	0.3
1984	7	0.3416	943.3	0.3380	309.1	736.2	309.1	198.4	0.0	7.3	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1985	8	0.2410	452.2	0.5200	90.1	354.4	83.3	95.2	0.0	0.0	1.3	1.6	1.7	0.0	1.3	0.0	0.8	1.1	1.7
1986	23	0.3154	233.1	0.4071	167.3	228.1	131.8	4.4	11.6	0.0	10.8	0.0	7.3	0.0	3.3	0.5	1.2	0.1	1.3
1987	29	0.3160	189.6	0.2908	171.6	176.7	126.1	5.1	23.8	2.2	11.1	1.5	3.5	1.3	3.4	1.1	1.9	1.7	1.8
1988	36	0.4531	102.9	0.3357	174.7	82.2	143.8	9.7	15.2	5.3	8.8	3.2	4.8	0.4	0.8	0.5	0.7	1.6	0.7
1989	37	0.3716	34.7	0.3500	124.8	24.7	87.2	0.0	19.2	5.2	8.6	1.9	5.4	1.2	1.5	0.4	1.1	1.3	1.8
1990	42	0.3357	6.3	0.2739	145.7	0.0	113.4	0.0	13.8	2.0	9.8	1.3	3.7	1.3	2.0	0.8	1.0	0.8	2.0
1991	15	0.6519	13.8	0.3960	111.0	0.0	93.1	0.0	5.7	4.6	5.6	2.3	3.0	2.5	1.5	2.1	1.2	2.2	1.0
All years	353	0.0737	339.3	0.0734	336.5	195.9	292.4	89.6	25.5	35.7	8.7	12.4	4.3	3.1	2.5	1.2	1.3	1.5	1.8
S.E.**			0.0737		0.0734	0.0979	0.0767	0.1063	0.1391	0.1017	0.1150	0.1205	0.1184	0.1496	0.1349	0.1578	0.1340	0.1686	0.1315

* Clearcut includes seed tree-shelterwood cuts, merchantable clearcuts, and all-tree clearcuts.

† Pine types include longleaf-slash, loblolly-shortleaf, and oak-pine forest types.

‡ Numbers in rows may not total due to rounding.

§ Most recent harvest.

¶ Number of sample plots in rows.

** Sampling errors (one standard error) for column averages and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

†† Softwood species.

‡‡ Hardwood species.

Table 21.—Current volume of softwood and hardwood for clearcut^a pine types^b by year of harvest and diameter class, Louisiana, 1975-1991^c

Year of harvest ^d	n ^e	S.E. ^{**}	All soft ^{††}	S.E. ^{**}	All hard ^{‡‡}	Diameter class													
						1.0-2.9		3.0-4.9		5.0-6.9		7.0-8.9		9.0-10.9		11.0-12.9		≥13.0	
						Soft ^{††}	Hard ^{‡‡}												
----- Cubic feet per acre -----																			
1975	1	0.0000	1126.4	0.0000	160.7	14.0	110.7	461.5	0.0	489.5	50.0	161.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1976	17	0.1458	919.5	0.3282	280.4	64.7	95.0	205.4	54.3	229.4	29.1	242.4	20.6	72.6	16.4	29.5	16.6	75.5	48.4
1977	20	0.1236	1069.5	0.2407	378.3	42.9	138.1	171.5	74.1	261.0	13.9	258.9	18.2	129.4	20.6	67.1	12.4	138.6	101.1
1978	20	0.1378	711.6	0.2129	453.8	27.0	114.1	142.5	81.9	205.3	29.4	175.8	24.7	72.2	41.5	32.0	32.2	56.8	129.9
1979	21	0.1716	611.3	0.2871	283.2	61.0	78.7	126.6	54.2	144.0	23.3	89.5	28.5	57.3	38.7	46.7	21.8	86.2	37.9
1980	24	0.1150	732.0	0.2384	134.6	69.5	71.8	379.6	28.3	153.4	4.2	67.1	4.1	19.8	9.7	13.6	6.1	29.1	10.4
1981	21	0.1727	500.9	0.2184	317.5	54.8	95.3	265.5	40.5	52.4	7.4	27.7	19.2	20.4	33.0	15.9	28.0	64.1	94.2
1982	23	0.1784	455.8	0.2827	263.6	126.2	57.6	164.2	30.6	47.4	17.2	36.0	24.0	8.9	41.8	6.6	32.6	66.5	59.7
1983	9	0.3399	411.9	0.4792	90.4	68.0	31.4	172.5	11.0	29.0	25.5	0.0	5.5	10.2	13.6	0.0	0.0	132.2	3.4
1984	7	0.2797	363.7	0.3802	43.5	154.9	43.5	193.7	0.0	6.3	0.0	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1985	8	0.3096	270.9	0.5318	87.8	111.2	8.4	77.5	0.0	0.0	3.3	15.8	9.9	0.0	7.3	0.0	17.5	66.4	1.4
1986	23	0.2447	46.6	0.4574	207.0	29.6	21.6	2.6	10.5	0.0	26.7	0.0	36.6	0.0	39.9	9.3	22.7	5.1	48.8
1987	29	0.4139	190.7	0.3284	245.1	23.9	19.2	5.4	51.5	6.3	24.8	13.6	22.2	16.1	36.2	24.8	27.1	100.6	64.1
1988	36	0.3418	150.4	0.2524	119.4	12.2	18.7	11.0	18.3	18.1	18.7	22.7	23.8	4.0	6.1	12.9	6.3	69.4	27.4
1989	37	0.3654	131.0	0.4406	181.1	4.1	19.4	0.0	22.1	16.0	15.5	11.2	24.0	13.5	10.8	11.9	14.8	74.4	74.6
1990	42	0.4718	83.0	0.2371	185.3	0.0	30.2	0.0	20.5	5.1	19.8	8.7	17.2	19.4	20.1	20.0	13.4	29.7	64.1
1991	15	0.5485	229.4	0.6105	133.5	0.0	20.7	0.0	4.4	8.6	13.9	11.0	18.4	25.3	17.3	36.4	23.6	148.1	35.2
All years	353	0.0674	384.9	0.0858	220.7	40.1	51.4	100.4	32.9	69.8	18.2	57.1	20.5	28.2	23.0	21.2	17.7	68.1	57.0
S.E. ^{**}			0.0674		0.0858	0.0985	0.0812	0.1089	0.1519	0.1047	0.1232	0.1209	0.1236	0.1445	0.1491	0.1588	0.1441	0.1738	0.1542

^aClearcut includes seed tree-shelterwood cuts, merchantable clearcuts, and all-tree clearcuts.

^bPine types include longleaf-slash, loblolly-shortleaf, and oak-pine forest types.

^cNumbers in rows may not total due to rounding.

^dMost recent harvest.

^eNumber of sample plots in rows.

^{**}Sampling errors (one standard error) for column averages and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

^{††}Softwood species.

^{‡‡}Hardwood species.

Table 22.—Current density of softwood and hardwood for clearcut oak-hickory type by year of harvest and diameter class, Louisiana, 1975-1991[†]

Year of harvest [‡]	n [§]	S.E. [¶]	Diameter class																	
			All soft ^{**}		All hard ^{††}	1.0-2.9		3.0-4.9		5.0-6.9		7.0-8.9		9.0-10.9		11.0-12.9		≥13.0		
			Soft ^{**}	S.E. [¶]		Soft ^{**}	Hard ^{††}													
<i>Number of trees per acre</i>																				
1975	2	0.1878	237.7	0.1286	1,683.4	0.0	1,512.8	0.0	137.5	64.3	22.9	95.7	0.0	65.9	3.3	9.9	6.8	1.9	0.0	
1976	1	0.0000	11.1	0.0000	174.6	0.0	91.7	0.0	0.0	0.0	16.8	9.1	29.6	0.0	21.7	0.0	5.4	2.0	9.4	
1977	2	0.5924	1132.2	0.2664	240.3	428.6	231.0	377.4	0.0	202.6	9.3	96.0	0.0	26.5	0.0	0.0	0.0	1.2	0.0	
1978	4	0.2003	673.6	0.3585	349.0	251.9	321.8	229.1	22.8	127.2	0.0	52.4	0.0	10.9	0.0	1.1	1.2	1.0	3.2	
1979	3	0.6934	409.8	0.4586	851.4	168.1	769.5	112.1	34.9	41.8	17.8	78.3	10.0	8.3	6.5	0.0	3.2	1.2	9.5	
1980	4	0.3933	514.4	0.2625	710.3	151.5	681.6	184.2	21.2	116.6	4.2	50.4	0.0	6.1	0.0	2.4	1.2	3.2	2.1	
1981	4	0.0720	363.5	0.4937	970.1	186.3	889.9	135.6	69.5	31.0	8.4	7.1	2.3	2.1	0.0	0.0	0.0	1.5	0.0	
1982	8	0.3440	314.3	0.2041	873.9	172.1	757.5	54.9	76.9	80.9	19.5	5.0	4.7	0.0	5.9	0.8	4.1	0.6	5.4	
1983	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1984	4	0.9052	526.9	0.6504	685.6	372.7	546.2	141.6	75.5	5.4	24.9	2.9	15.1	1.8	9.0	1.5	5.6	1.0	9.3	
1985	8	0.4992	804.3	0.3997	318.9	539.9	295.0	257.5	11.3	4.8	5.6	1.5	0.0	0.0	2.5	0.0	3.0	0.6	1.5	
1986	3	0.5944	353.8	1.0000	282.7	351.1	248.5	0.0	31.1	0.0	0.0	0.0	3.1	2.8	0.0	0.0	0.0	0.0	0.0	
1987	9	0.4679	143.3	0.5738	95.1	109.3	76.2	20.1	10.1	5.9	1.9	3.9	4.4	3.5	0.6	0.0	0.0	0.5	1.9	
1988	8	0.5347	5.4	0.3584	170.6	0.0	123.5	0.0	22.2	0.0	7.4	1.6	3.5	2.7	7.4	0.6	2.9	0.5	3.6	
1989	5	0.8589	5.7	0.6968	471.9	0.0	420.4	0.0	18.0	5.0	14.3	0.0	11.5	0.0	0.0	1.1	0.7	6.6		
1990	9	0.9709	135.4	0.3108	300.5	131.9	196.8	0.0	71.6	0.0	10.2	1.7	9.7	1.8	4.4	0.0	3.3	0.0	4.6	
1991	5	0.8132	3.7	0.5379	164.0	0.0	117.0	0.0	0.0	33.2	3.1	10.4	0.0	1.8	0.0	1.1	0.6	0.5		
All years	79	0.1907	313.8	0.1388	469.3	177.5	404.6	81.4	38.4	32.4	11.5	15.8	5.6	5.1	3.4	0.7	2.3	0.8	3.5	
S.E. [¶]			0.1907		0.1388	0.2303	0.1477	0.2552	0.1993	0.2168	0.2238	0.2974	0.1884	0.3425	0.2525	0.3773	0.2162	0.2812	0.2185	

*Clearcut includes seed tree-shelterwood cuts, merchantable clearcuts, and all-tree clearcuts.

[†]Numbers in rows may not total due to rounding.

[‡]Most recent harvest.

[§]Number of sample plots in rows.

[¶]Sampling errors (one standard error) for column averages and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

**Softwood species.

††Hardwood species.

Table 23.—Current volume of softwood and hardwood for clearcut^{*} oak-hickory type by year of harvest and diameter class, Louisiana, 1975-1991[†]

Year of harvest [‡]	n [§]	S.E. [¶]	All soft ^{**}	S.E. [¶]	All hard ^{††}	Diameter class													
						1.0-2.9		3.0-4.9		5.0-6.9		7.0-8.9		9.0-10.9		11.0-12.9		≥13.0	
						Soft ^{**}	Hard ^{††}												
-----Cubic feet per acre-----																			
1975	2	0.2724	1,403.3	0.5219	559.4	0.0	164.5	0.0	158.8	160.2	30.0	470.8	0.0	618.3	39.6	122.8	166.6	31.1	0.0
1976	1	0.0000	183.7	0.0000	817.5	0.0	7.4	0.0	0.0	0.0	33.0	61.8	181.4	0.0	201.3	0.0	80.7	121.8	313.8
1977	2	0.0083	1,724.5	0.7101	51.1	155.9	26.5	383.9	0.0	462.9	24.6	470.8	0.0	212.6	0.0	0.0	0.0	38.2	0.0
1978	4	0.3202	894.4	0.4653	212.8	63.9	83.5	272.8	17.2	241.8	0.0	196.8	0.0	86.2	0.0	11.7	15.2	21.3	96.9
1979	3	0.3558	654.5	0.7095	1,007.3	28.1	159.2	104.9	41.9	84.7	39.6	304.1	55.4	56.9	69.4	0.0	67.6	75.8	574.3
1980	4	0.2052	1,020.8	0.4202	272.5	19.9	117.5	233.6	20.7	224.9	10.7	217.0	0.0	69.2	0.0	50.0	19.6	206.2	103.9
1981	4	0.3500	445.6	0.4655	242.5	46.4	156.0	136.1	59.9	65.0	20.0	28.5	6.5	18.3	0.0	0.0	0.0	151.4	0.0
1982	8	0.2587	390.6	0.3952	627.7	40.0	137.3	69.8	59.8	152.3	55.2	22.8	22.6	0.0	83.3	9.6	77.5	96.0	191.8
1983	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984	4	0.5360	278.6	0.5893	789.6	71.0	106.7	109.3	94.7	11.4	61.0	21.9	85.8	13.7	104.8	24.4	92.9	27.0	243.9
1985	8	0.5374	407.6	0.3600	159.6	126.6	45.9	243.3	9.0	6.7	8.1	4.4	0.0	0.0	19.5	0.0	42.9	26.6	34.2
1986	3	0.5515	79.7	1.0000	72.1	64.5	35.3	0.0	19.9	0.0	0.0	0.0	16.9	15.2	0.0	0.0	0.0	0.0	0.0
1987	9	0.7164	142.8	0.3664	113.7	16.6	13.1	23.6	13.8	31.3	4.5	28.7	20.8	33.4	7.4	0.0	0.0	9.2	54.1
1988	8	0.6061	84.6	0.5062	386.0	0.0	21.1	0.0	18.8	0.0	14.5	6.7	22.4	28.3	80.8	15.7	47.8	33.9	180.5
1989	5	0.8226	84.8	0.5353	527.1	0.0	80.8	0.0	18.4	12.9	42.7	0.0	70.2	0.0	0.0	0.0	30.6	71.8	284.3
1990	9	0.5183	30.9	0.3412	515.3	9.4	36.3	0.0	93.4	0.0	33.5	6.7	77.1	14.8	61.1	0.0	72.6	0.0	141.2
1991	5	0.7279	60.7	0.4890	187.8	0.0	20.8	0.0	0.0	0.0	64.5	15.2	48.0	0.0	13.0	0.0	19.8	45.4	21.6
All years	79	0.1572	367.9	0.1546	383.7	37.0	70.1	84.9	39.7	67.4	27.3	70.7	32.8	45.5	39.0	11.0	44.1	51.5	130.7
S.E. [¶]			0.1572		0.1546	0.2515	0.1510	0.2410	0.2122	0.2185	0.2501	0.2959	0.2084	0.3580	0.2812	0.3627	0.2287	0.3357	0.2573

* Clearcut includes seed tree-shelterwood cuts, merchantable clearcuts, and all-tree clearcuts.

[†]Numbers in rows may not total due to rounding.

[‡]Most recent harvest.

[§]Number of sample plots in rows.

[¶]Sampling errors (one standard error) for column averages and row totals (on a relativized scale ranging from 0.0000 to 1.0000).

**Softwood species.

††Hardwood species.

Rosson, James F., Jr. 1994. Current stand characteristics of Louisiana timberland harvested between 1975 and 1991. Res.Pap. SO-279. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station. 22 p.

Commercially harvested timberland was analyzed by past and current forest types, stocking, tree density, and volume. Monitoring sample plots by year of harvest gives indications of rates and degree of recovery from harvesting disturbance.

Keywords: Clearcut, cutting, disturbance, forest survey, regeneration, stand establishment.

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