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Wood-Based Panel Plant Locations and Timber Availability in Selected U.S. States

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Abstract

This report lists wood-based panel industry plant locations, production capacities, timber inventories, and wood costs for 24 U.S. states. Industry sectors covered include medium-density fiberboard, particleboard, softwood plywood, and oriented strandboard. Maps of major forest producing states show plant locations and the underlying density of timber stocking by county. The study relates physical measures of timber availability to market measures of timber scarcity and draws inferences about the potential of selected states to increase timber output at their present rate of forest productivity.

Keywords: Oriented strandboard, plywood, particleboard, medium-density fiberboard, capacity

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Wood-Based Panel Plant Locations and Timber Availability in Selected U.S. States

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Introduction

The data for this study were compiled with the U.S. wood-based panel industry in mind, but the study has relevance to the entire spectrum of industrial wood-using activities. Our primary intent was to show visually the dispersion of panel plants, to accompany a recently released report (Spelter and others 1997). But we also wanted to superimpose the location of plants from that report on a visual representation of timber availability in each selected state. To complete the connection between timber use and inventory, we also included tables that summarize overall industrial activity and timber prices. Included in these tables are lumber production and pulpwood receipts that allow for simple comparisons of the magnitude of the panel industries relative to lumber and pulp. From these data, it is possible to obtain a general overview of the location of panel plants and a sense for whether plants of a given type are many or few in relation to each other and to the available timber.

Methods

This publication contains maps of 24 major forest producing states, primarily from the eastern United States. West Coast states were not included because of the unavailability at this time of county-by-county timber inventory.

For every state, the density of timber by county is represented on a shaded gradient, with the darkest shading representing the highest stocking. The boundaries of the stocking density classes were made broad to reflect the heightened uncertainty when the sample data upon which these inventory estimates are made are disaggregated to the county level.

Although some states, such as Missouri, lack panel producers, they are included because of the abundance of timber therein. In general, the timber resource represented is the

inventory of growing stock, which is defined by the USDA Forest Service as live trees of commercial species, meeting specified standards of quality and vigor, and at least 12.7 cm in diameter. For Missouri, Minnesota, Montana, and Wisconsin, values for live cull trees were added because this resource forms a significant part of the overall stock. A cull tree is defined as at least 12.7 cm in diameter and unmerchantable for saw logs because of rot, roughness, or species. But such trees are a potential fiber source for composites.

The maps were produced with the Atlas Geographic Information System software package (Atlas GIS) (Environmental Systems Research Inst., Inc., Redlands, CA). The various mills were located on each map according to their zip codes. In certain locales, such as eastern Texas, different types of mills are often contained within the same complex. In some of these cases, we compromised location accuracy for clarity by shifting their positions to nearby zip codes to distinguish one from another. Similarly, if two mills belonging to the same company produced the same product in the same location, we combined them into a single entity.

On the maps, different symbols are used for plywood (circles), for oriented strandboard (OSB) (triangles), and for particleboard/medium-density fiberboard (MDF) plants (stars). The sizes of the symbols, which denote locations of the mills, are proportional to the mills' capacities and are consistent across maps, even though the map scales fluctuate according to state size. Each map is designed by the software to fit onto a single page, and consequently, scale will vary from map to map. The legends to the right of most maps show three sample sizes that are intended to help visualize the amount of capacity indicated at each site.

Accompanying each map is a table containing key industry data consisting of panel sector capacities, softwood lumber production, pulpwood receipts, timber prices, and the ratio

of estimated removals to timber inventory for each state. These data were obtained from a variety of sources. Capacities were derived from Spelter and others (1997) and were modified to reflect changes that have occurred since that report was published.

The USDA Forest Service was the source of timber inventory data (USDA 1996). Values for timber costs were obtained from a southern price reporting concern (University of Georgia, 1980–1997), McLaren (1995–1997), and various State Department of Natural Resources stumpage price reports.

The stumpage prices are statewide averages. Values can vary significantly within a given state based on local market conditions. The U.S. census served as a source for the lumber production and pulpwood receipts.

Results and Discussion

One key item in the tables is the ratio of timber drain to timber inventory. In plant siting studies, this is used as a gauge of physical timber availability, whereas in economic studies (Adams and Haynes 1980), this ratio is often a predictor of timber costs. Another key item is the stumpage price of timber, which is an economic measure of timber scarcity. We contrasted these two items to determine the degree in which the former can be used as a predictor of the latter and what, if anything, these variables imply about relative timber market conditions and timber availability in the various regions.

To obtain a measure of timber drain, we combined plywood, OSB, particleboard, and MDF capacities with lumber production and pulpwood receipts. These categories constitute the bulk of removal except for timber exported from a state in roundwood or chip form or used for miscellaneous products such as fuelwood, posts, poles, pilings, laminated veneer lumber, and hardwood plywood. Residues generated in making plywood and lumber and not accounted for by their capacities or production are picked up in pulpwood receipts and particleboard capacity. These estimates have the advantage of being more current than the periodic timber product utilization estimates made by the Forest Service. Dividing this timber drain number by the inventory approximates the rate of utilization of timber inventory within a given state.

Figures 1 and 2 show this drain/inventory ratio compared with recent pine sawtimber and pulpwood stumpage prices for states located in the East. This region was selected to exclude possible confounding effects of old-growth timber and public forest land set asides on timber values. Figure 1 shows the extent of the correlation that exists between the level of sawtimber stumpage prices and the drain ratios. States with the highest drain ratios, for example, Alabama, Texas, and Mississippi, have the highest stumpage costs while those with the lowest drain ratios, such as Virginia,

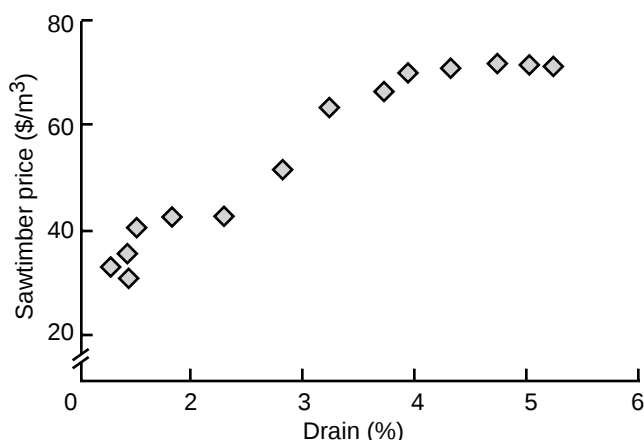


Figure 1—Timber drain compared with sawtimber prices in 14 eastern states.

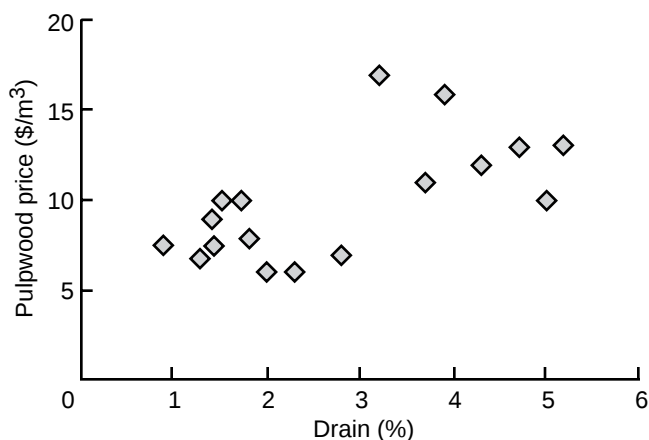


Figure 2—Timber drain compared with pulpwood prices in 17 eastern states.

Tennessee, and Michigan, have the lowest. For pulpwood, the relationship is less exact, but a link between drain and costs is still evident. In states where the drain ratio is greater than 3%, prices for pulpwood tend to be greater than in those where the ratio is less.

The drain/inventory ratio is one of several physical measures of timber availability. By itself, it is incomplete because it omits consideration of timber growth rates. The inverse of the drain/inventory ratio, multiplied by a hundred, represents the number of years to exhaust the present inventory at the given utilization rate, if no replacement were to occur. For Alabama, the 5.2% utilization rate implies about a 20-year harvest cycle, while Minnesota's 1.4% translates to 70 years. Whether or not these represent unsustainable rates of liquidation on the one hand or resource underutilization on the other depends on a region's underlying capacity to grow fiber.

The warm and humid climates of the South with their long growing seasons can sustain shorter harvest cycles than the North with its colder climate and shorter growing seasons.

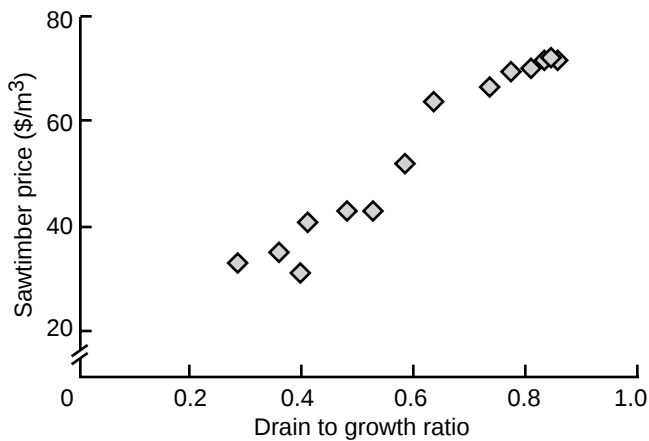


Figure 3—Timber drain to growth ratio compared with sawtimber prices in 14 eastern states.

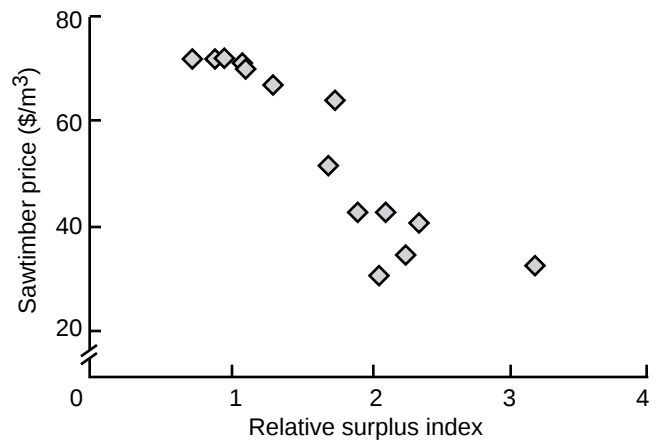


Figure 5—Relative surplus of timber compared with sawtimber prices in 17 eastern states (relative surplus index is gross growth minus drain divided by inventory).

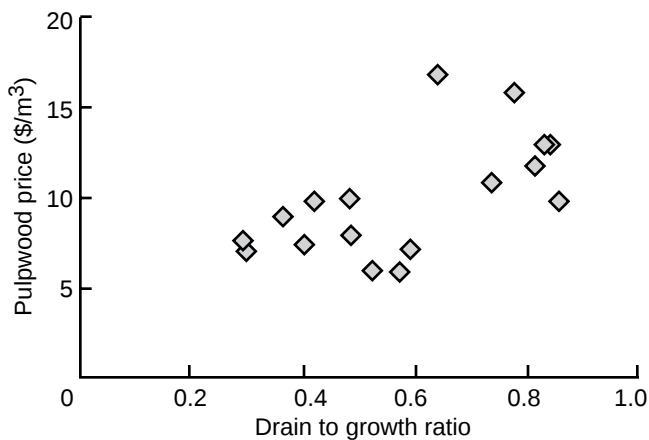


Figure 4—Timber drain to growth ratio compared with pulpwood prices in 17 eastern states.

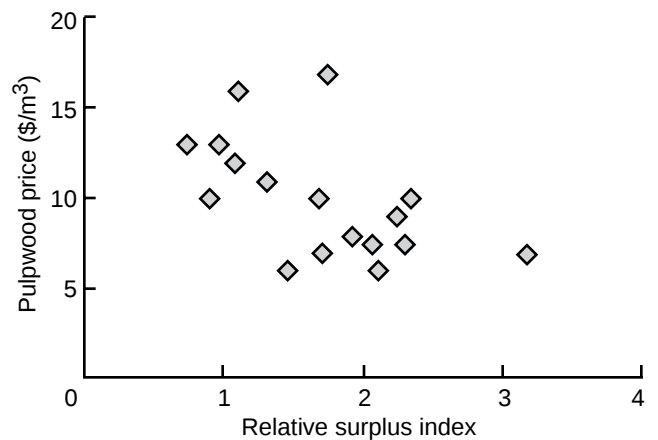


Figure 6—Relative surplus of timber compared with pulpwood prices in 17 eastern states (relative surplus index is gross growth minus drain divided by inventory).

Therefore, another indicator of timber availability complementing the drain/inventory ratio is the ratio between timber drain and growth. When that ratio equals one, harvest and growth are equal. Below one, growth exceeds harvest, while above one, cutting surpasses regrowth.

We define drain the same as before and growth as net growth plus mortality (because that part of the resource remains available for use and is often salvaged). Figures 3 and 4 show this ratio relative to stumpage prices. As before, sawtimber exhibits the clearest correlation between the variables, confirming the results obtained with the drain/inventory ratio. If there existed large stocks of mature timber exhibiting little growth, then the drain/growth ratio could be very large even if the drain/inventory ratio were small, giving mixed signals about the price of timber. The correspondence to prices of the drain/inventory and drain/growth ratios implies that there is little overhang of mature timber in these regions. For pulpwood, the relationship is again not as strong as for

sawtimber but shows two distinct zones between which a clear separation in pulpwood costs occurs. Above a drain/growth ratio of about 0.6, pulpwood prices tend to be higher than when the ratio is less than 0.6. One exception is Maine, which despite a moderately high 0.67 ratio of drain/growth, has below average pine pulpwood stumpage prices. This reflects in part the choice of timber species used to represent pulpwood, which for the sake of simplicity and consistency was pine across all states. In Maine, spruce is also a large component of pulpwood supply and its prices tend to be higher than those of pine.

It is reasonable to suppose that a more complete indicator of a region's timber availability is one that combines both of the above indicators and their three components. If we define timber surplus as gross growth less drain and divide that by inventory, then an indicator of relative surplus is obtained that combines all three variables in one compact index. Figures 5 and 6 show how this index compares with timber

Table 1—Summary of timber availability indicators and 1997 pine stumpage prices by state

Location	Total inventory (×10 ⁶ m ³)	Drain/ inventory (%)	Drain/ growth ratio	Relative surplus (%)	Stumpage price (US\$/m ³)		Soft- wood (%)	Federally owned inventory (%)
					Saw- timber	Pulp- wood		
South								
Alabama	654	5.2	0.84	1.0	72	13	50	5
Texas	360	5.0	0.86	0.9	72	10	60	11
Mississippi	580	4.7	0.84	0.7	72	13	45	14
Louisiana	525	4.3	0.82	1.1	71	12	53	9
Georgia	866	3.9	0.78	1.1	70	16	50	8
South Carolina	470	3.7	0.74	1.3	67	11	50	10
Florida	435	3.2	0.64	1.7	64	17	55	12
Arkansas	612	2.8	0.59	1.7	52	7	40	20
North Carolina	930	2.3	0.53	2.1	43	6	38	10
Virginia	740	1.8	0.48	1.9	43	8	26	13
Tennessee	470	1.3	0.29	3.2	33	9	17	10
North								
Maine	590	2.0	0.57	1.5	NA ^a	6	66	1
Wisconsin	500	1.7	0.48	1.7	NA	8	26	15
Michigan	560	1.5	0.41	2.3	41	10	30	14
Missouri	255	1.5	0.43	2.0	31	NA	7	11
Minnesota	485	1.4	0.36	2.2	35	10	30	14
Kentucky	453	1.0	0.33	2.0	NA	NA	8	7
Pennsylvania	675	0.9	0.29	2.3	NA	NA	9	5
New York	617	0.6	0.17	3.0	NA	NA	23	1
West Virginia	551	0.4	0.14	2.4	NA	NA	6	9

^aData not available.

costs in some states. They confirm the general relationships observed between prices and the drain/inventory ratio and the drain/growth ratio.

Summary of Timber Availability and Costs

Table 1 summarizes the timber inventory data, the availability indicators, and 1997 pine stumpage prices by state for most of the eastern half of the United States. These physical measures of timber availability and prices used to indicate market scarcity are only two of many factors that investors should consider when planning a site for a timber-using investment.

Also, the indexes are gross aggregate measures of availability involving all species and sizes of timber above a certain diameter, so the conclusions here are only a starting point for an analysis of potential timber investment siting for

which the requirements might be more particular. Finally, data on timber inventory do not reflect timber below the 12.7-diameter, as noted earlier. This may be significant because of extensive plantings undertaken within the past decade on Conservation Reserve Program (CRP) lands. The bulge in growth represented by this category will not begin to appear in the data until inventories are taken in the next few years.

With these caveats, our data indicate that states can presently be roughly broken into three broad categories according to timber availability and costs: (i) a high cost group where harvests are close to sustainable levels, (ii) an intermediate cost group where some potential to increase harvests exists, and (iii) a low cost group where there is the greatest potential to increase harvests.

The first group consists of Texas, Louisiana, Mississippi, Alabama, Georgia, and South Carolina. Their drain/inventory ratios range from 3.7% to 5.2%, implying a

harvest cycle of about 25 years or less. Their drain/growth ratios are 74% or higher, implying that their harvests are near or at their sustainable levels at the present rates of growth. Finally, their relative timber surpluses are not much greater than 1% of inventory (depending on how much of the mortality is not recovered, these states could actually be harvesting and losing more than their regrowth, in which case their relative surpluses are actually negative). Prices for pine sawtimber stumpage reflect these conditions and have been around \$70 per m³ in 1997, the highest among the timber producing states across the eastern half of the United States.

The intermediate group lies at the periphery of the states in the first group and includes Florida, North Carolina, Virginia, Arkansas, and the northern states of Maine, Wisconsin, and Michigan. Their drain/inventory ratios range from 1.5% to 3.2%, at the lower end of the range for the first group. Their drain/growth ratios range from 41% to 64%, implying that their harvests are well below their sustainable levels. Finally, their relative timber surpluses lie between 1.3% and 2.3%. These somewhat slack conditions are reflected in prices for sawtimber, which range from around \$40 to around \$60 per cubic meter.

Finally, the low cost group is made up of states located primarily in the eastern hardwood belt where softwoods constitute a relatively small share of the total inventory. This group includes Kentucky, Tennessee, Missouri, Minnesota, Pennsylvania, New York, and West Virginia. The drain/inventory ratios in these primarily northern states range between 0.4% to 1.5%. Relative to gross growth, current drains range from 41% to a mere 14%. Relative surpluses range from 2% for Missouri to a substantial 3.2% for Tennessee. Sawtimber prices for pine range from the low \$30's to the low \$40's per cubic meter.

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URL: <http://www.srsfia.usfs.msstate.edu/scripts/ewdbrs.htm>

Appendix—Panel Plant Capacity and Timber Inventory by State

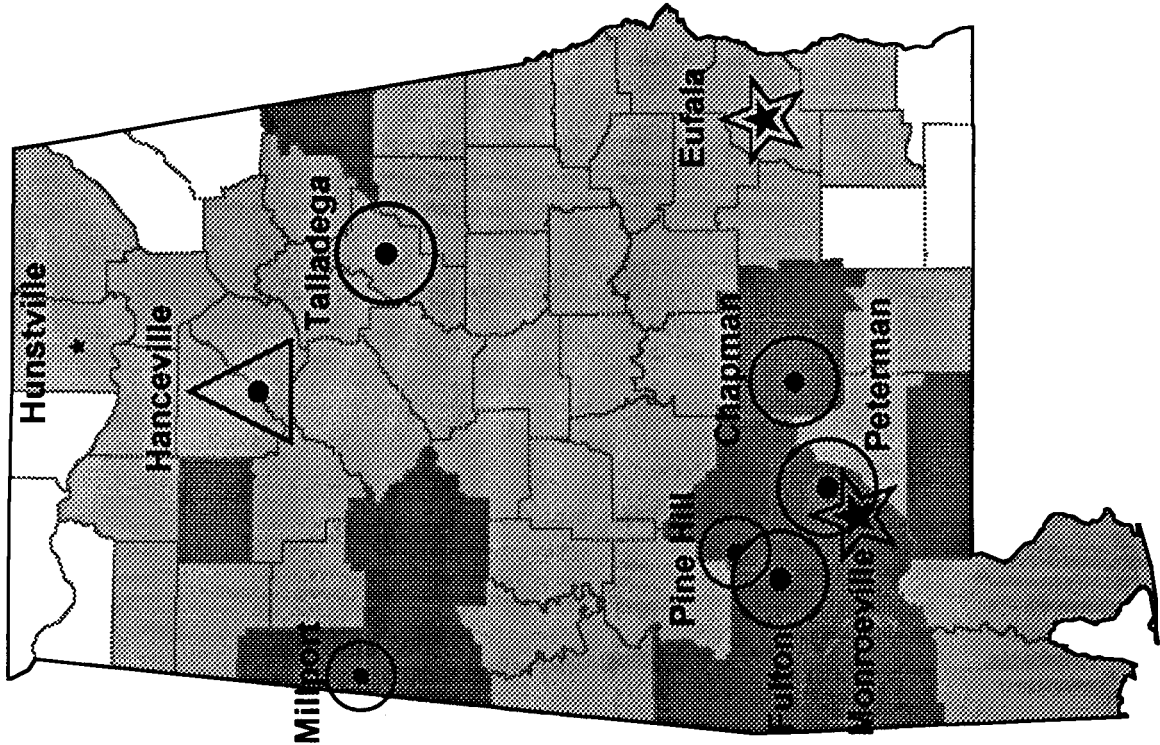
The following maps and tables show past and present capacity of various wood-based panel plants and the availability of timber in the vicinity of these plants for 24 states. The 24 states are presented in alphabetical order.

The symbols on the following maps have been proportionally scaled according to the capacity of the plant they represent. Legends accompany each map that contain the same symbols. The symbols found on the maps are not necessarily the same size as those found in the legends. The symbols in the legends are guidelines to give an indication of the value of capacity. The actual capacity value is given for each plant in the accompanying table.

Abbreviations used in the following maps and tables are as follows: OSB, oriented strandboard; Pbd, particleboard; MDF, medium-density fiberboard.

Alabama

Timber Inventory and Annual Panel Plant Capacity



Plywood Capacity (Thousand m³)

100

200

300

OSB Capacity (Thousand m³)

100

200

300

Pbd/MDF Capacity (Thousand m³)

100

200

300

Alabama

Location		Company	Year built	Year closed	Capacity / Production (Thousand m³)									
					1965	1970	1975	1980	1985	1990	1995	1996	1997	1998
PINE PLYWOOD														
Fulton	Scotch	1965			40	89	89	159	204	235	257	257	257	257
Chapman	Union-Camp	1967				106	106	168	177	186	221	221	221	221
Pine Hill	McM-Bloed	1968				106	106	133	133	119	142	142	142	142
Cordova	Champion	1970	1984			22	62	75						
Andalusia	Independent	1970	1983			27	80	80						
Livingston	Sumter-McBl	1971					89	89						
Talladega	G-P	1975					115	195	200	274	289	289	289	289
Milport	Weyerhaeuss	1977						71	80	111	128	140	140	140
Peterman	G-P	1978			40	350	646	204	204	274	274	274	274	274
								1173	997	1199	1312	1323	1323	1323
TOTAL														
ORIENTED STRANDBOARD														
Hanceville	L-P	1994												
					40	350	646	1173	997	1199	1622	1633	1633	1633
TOTAL														
TOTAL PLYWOOD AND OSB														
PARTICLEBOARD														
Huntsville	Giles-Kend	NA			12	12	12	18	18	11	11	11	11	11
Monroeville	Olink-Temp	1974					142	177	177	212	212	266	266	266
Pine Hill	McM-Bloed	1974	1979				177							
Eufala	L-P	1975	1978		12	12	522	195	195	223	223	277	277	277
TOTAL														
MEDIUM-DENSITY FIBERBOARD														
Eufala	L-P	1979						106	124	221	239	239	239	239
								106	124	221	239	239	239	239
TOTAL														
TOTAL PARTICLEBOARD AND MDF														
LUMBER PRODUCTION														
					12	12	522	301	319	444	462	516	516	516
PULPWOOD RECEIPTS														
					2810	3047	2740	2605	4338	4713	6025	5815	NA	NA
TOTAL DRAIN														
					10745	14162	13998	19348	20012	21905	25880	NA	NA	NA
					13707	17571	17906	23427	25665	28261	33989	NA	NA	NA

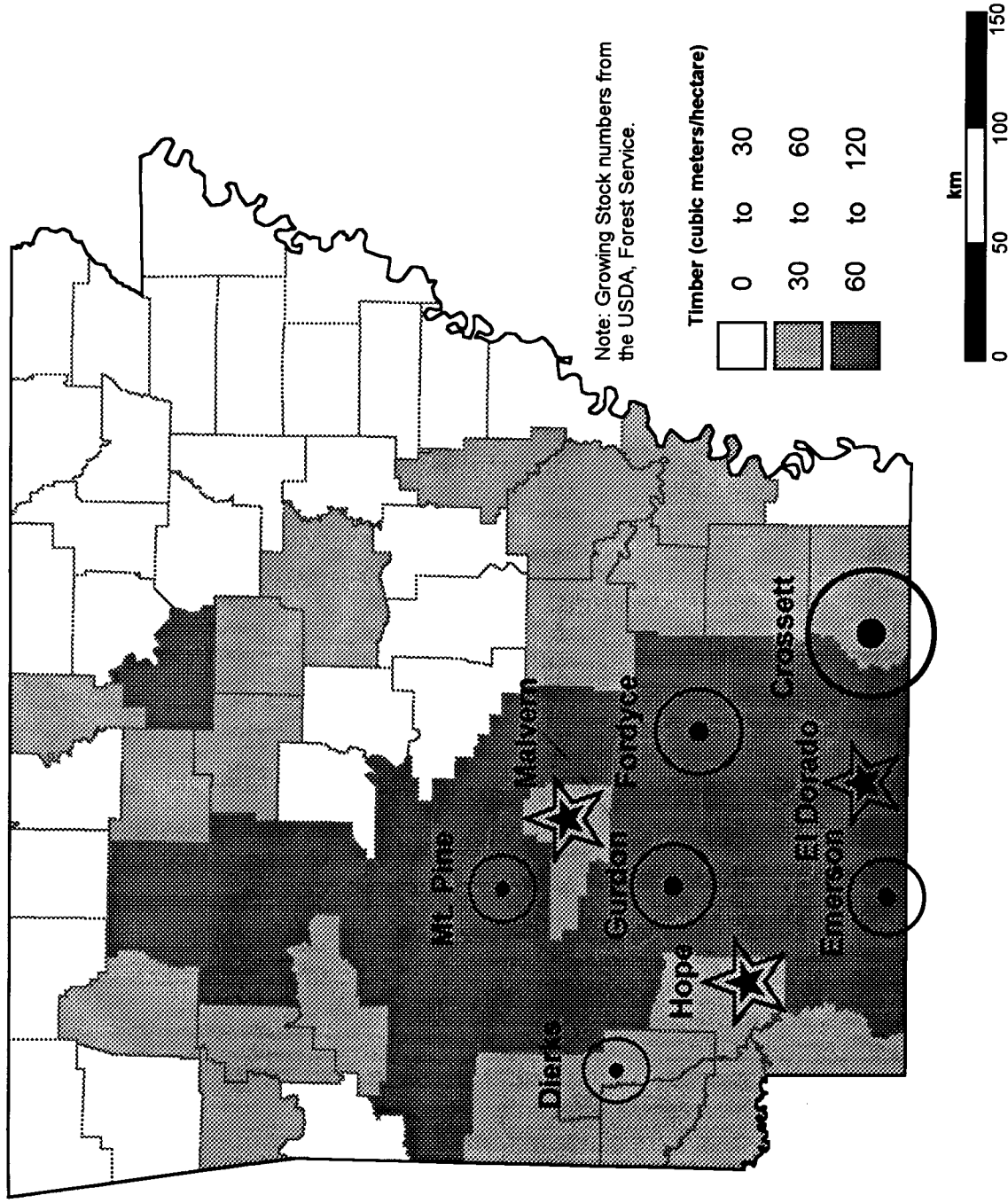
1995 DRAIN / INVENTORY RATIO

0.052

TYPICAL WOOD COSTS (U.S. \$ per m ³)														
Pine sawtimber														
Standing				27	30	32	70	55	72	NA				
Delivered				37	45	50	88	78	92	NA				
Pine pulpwood														
Standing				7	8	9	14	12	13	NA				
Delivered				18	22	21	29	28	30	NA				
Hardwood pulpwood														
Standing				1	2	5	11	8	11	NA				
Delivered				13	14	20	28	25	29	NA				

Arkansas

Timber Inventory and Annual Panel Plant Capacity



Plywood Capacity (Thousand m³)



Pbd/MDF Capacity (Thousand m³)



Arkansas

Location	Company	Year built	Year closed	Capacity / Production (Thousand m³)													
				1965	1970	1975	1980	1985	1990	1995	1996	1997	1998				
PINE PLYWOOD																	
Fortyce	G-P	1964		80	119	133	177	226	252	270	270	270	270				
Crossett1	G-P	1965		53	137	177	177	221	279	292	292	292	292				
Crossett2	G-P	1966			128	177	177	221	283	305	305	283	283				
Gurdon	Arkla	1967	1978		106												
Mt. Pine	Weyerh	1971				75	75	97	106	159	159	159	159				
Dierks	Weyerh	1971				75	75	97	106	158	158	158	158				
Huttig	OlinM>Manv	1971	1986			62	71	89									
Gurdon	I-P	1979					159	217	230	252	252	252	252				
Emerson	Willamette	1979		624	491	805	1035	1310	1420	1644	208	208	208				
TOTAL										1644	1644	1622	1622				
ORIENTED STRANDBOARD																	
TOTAL				624	491	805	1035	1310	1420	1644	1644	1622	1622				
TOTAL PLYWOOD AND OSB																	
PARTICLEBOARD																	
Crossett	G-P	NA	1981	64	112	186	239										
Hope	S. Plaswood	NA	1975		25	25											
Trumann	Singer	NA	1981			39	28										
Malvern	I-P	1968	1975			124											
Hope	Temple Intl.	1996										301	301				
TOTAL				64	136	373	267					301	301				
MEDIUM-DENSITY FIBERBOARD																	
Malvern	Willamette	1983						87	212	216	283	283	283				
El Dorado	Temple-Intl.	1997										133	226				
TOTAL								87	212	216	283	416	416				
TOTAL PARTICLEBOARD AND MDF				64	136	373	267	87	212	216	283	717	717				
LUMBER PRODUCTION																	
TOTAL				3332	3094	2971	3361	3247	4371	5178	5426	NA	NA				
PULPWOOD RECEIPTS																	
TOTAL				4623	5688	7165	9549	9128	11017	9899	NA	NA	NA				
TOTAL DRAIN																	
TOTAL				8643	9409	11315	14212	13771	17021	16937	NA	NA	NA				

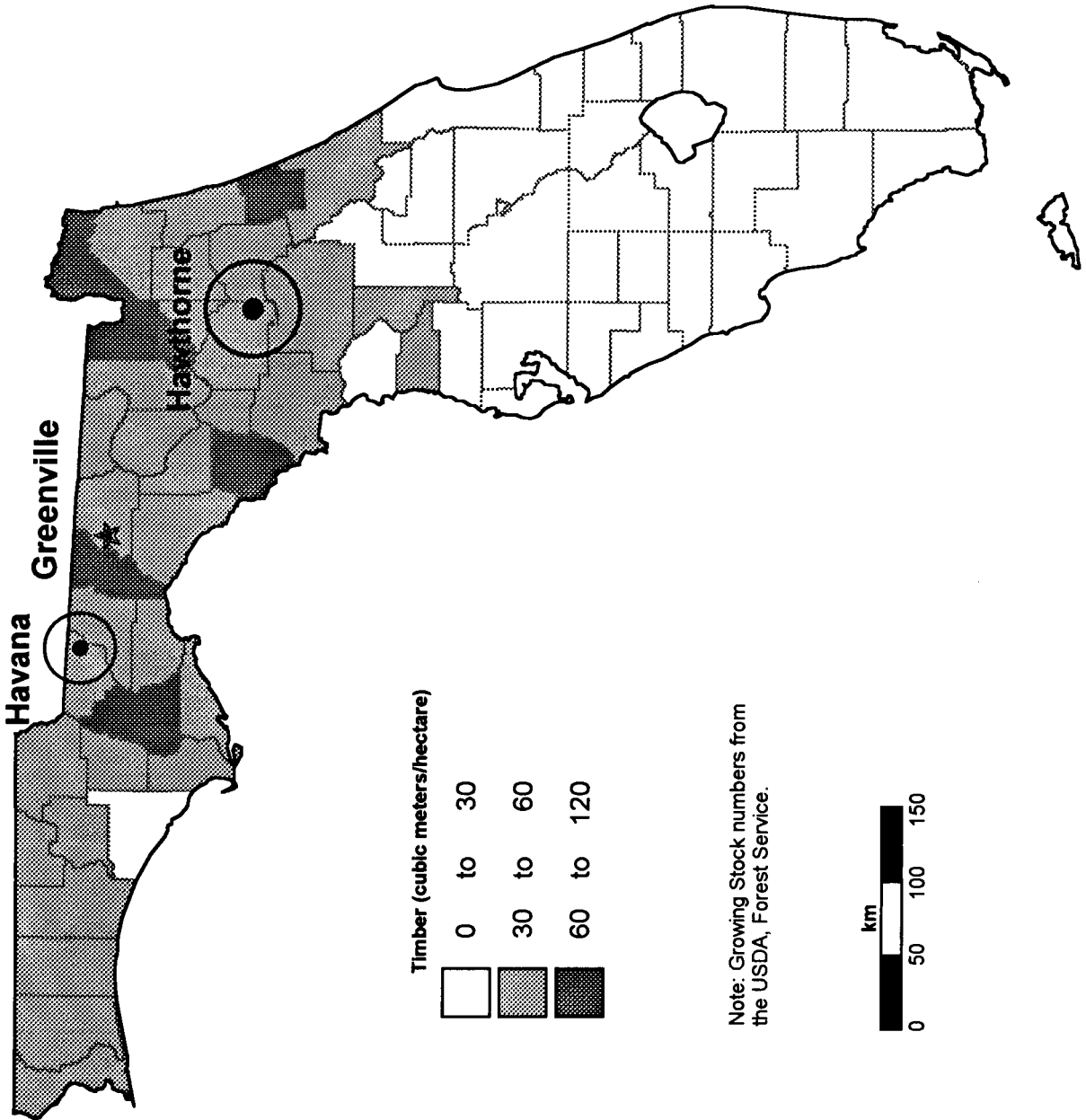
1995 DRAIN / INVENTORY RATIO

0.028

TYPICAL WOOD COSTS (U.S. \$ per m³)														
Pine sawtimber														
Standing				32	27	27	62	49	52	NA				
Delivered				41	38	41	74	65	75	NA				
Pine pulpwood														
Standing				4	6	6	8	7	7	NA				
Delivered				18	21	21	27	24	27	NA				
Hardwood pulpwood														
Standing				1	2	2	6	6	7	NA				
Delivered				15	14	18	24	26	27	NA				

Florida

Timber Inventory and Annual Panel Plant Capacity



Plywood Capacity (Thousand m³)



100



200



300

Pbd/MDF Capacity (Thousand m³)



100



200



300

Florida

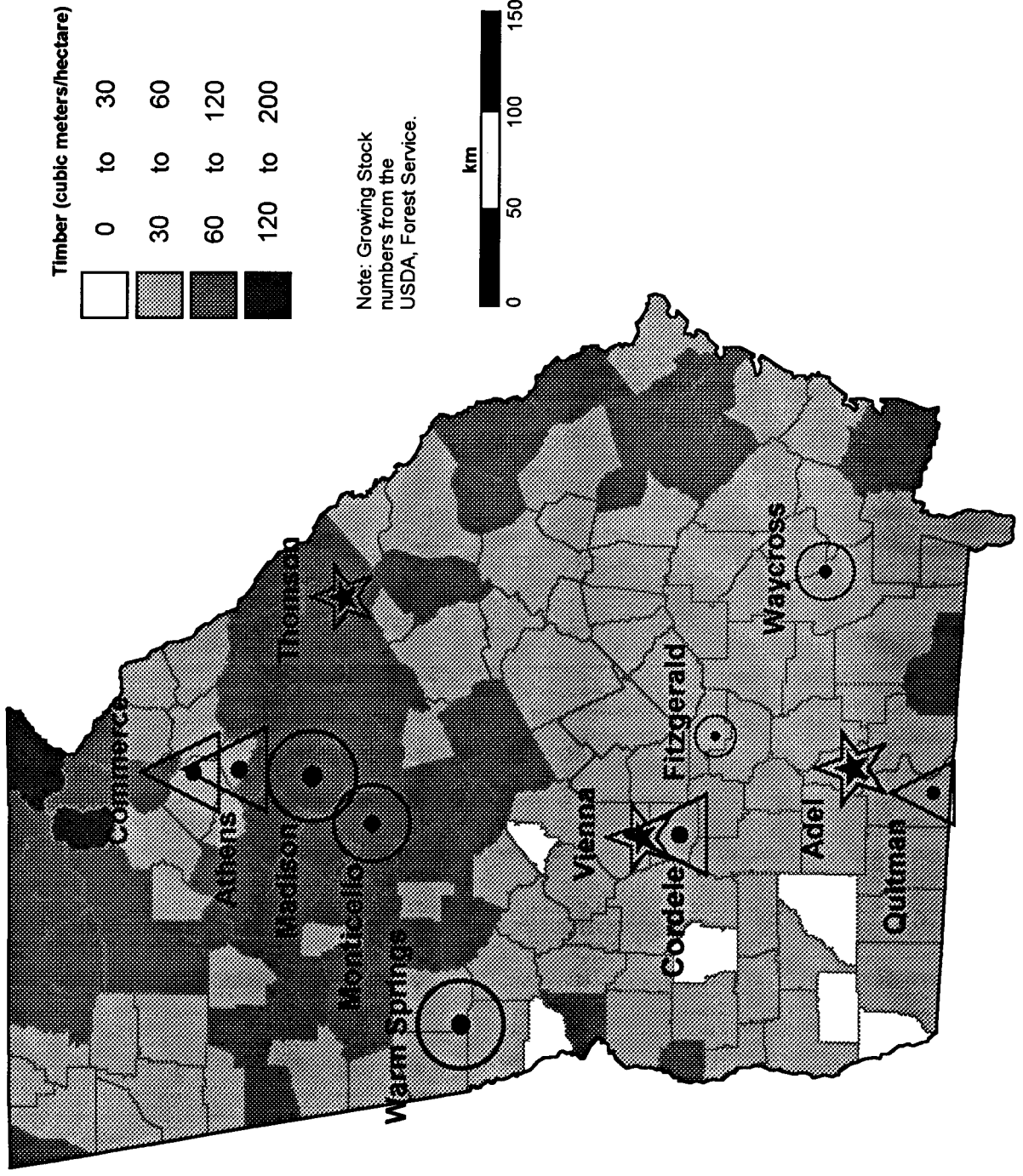
Location	Company	Year built	Year closed	Capacity / Production (Thousand m³)									
				1965	1970	1975	1980	1985	1990	1995	1996	1997	1998
PINE PLYWOOD													
Chiefland	G-P	1967	1980		80	80	80						
Pensacola	B-C	1971	1974					124	127	155	177	177	177
Havana	Coastal	1981						212	243	274	326	326	326
Hawthorne	G-P	1982			80	80	80	336	370	429	503	503	503
TOTAL													
ORIENTED STRANDBOARD													
TOTAL													
TOTAL PLYWOOD AND OSB													
PARTICLEBOARD													
Greenville	Fla-ply	1973				18	28	30	30	30	30	30	30
TOTAL													
MEDIUM-DENSITY FIBERBOARD													
TOTAL													
TOTAL PARTICLEBOARD AND MDF													
LUMBER PRODUCTION													
PULPWOOD RECEIPTS													
TOTAL DRAIN													
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1995 DRAIN / INVENTORY RATIO

TYPICAL WOOD COSTS (U.S. \$ per m ³)													
Pine sawtimber													
Standing				23	28	32	51	58	82	51	64	84	NA
Delivered				34	41	51	82	104	82	82	84	84	NA
Pine pulpwood													
Standing				9	9	14	17	17	16	16	17	31	NA
Delivered				19	22	24	29	29	30	30	31	31	NA
Hardwood pulpwood													
Standing				2	1	4	7	7	6	6	6	23	NA
Delivered				13	14	17	24	28	24	24	23	23	NA

Georgia

Timber Inventory and Annual Panel Plant Capacity



Plywood Capacity (Thousand m³)

100

200

300

OSB Capacity (Thousand m³)

100

200

300

Pbd/MDF Capacity (Thousand m³)

100

200

300

Georgia

Location	Company	Year built	Year closed	Capacity / Production (Thousand m³)									
				1965	1970	1975	1980	1985	1990	1995	1996	1997	1998
PINE PLYWOOD													
Savannah	G-P	1966	1980		89	89							
Cedar Spr.	Gt North>G-P	1968	1994		89	89				142			
Waycross	USPly>Ch Int	1968			49	49		66	89		133	133	133
Monticello	G-P	1970			53	177		230	266	274	239	239	239
Warm Spr.	G-P	1974				146		177	190	261	301	301	301
Madison	GA-Kraft>GP	1979						199	239	274	319	319	319
Fitzgerald	Springfield	1995			279	549		850	908	1040	1039	1058	1058
TOTAL													
ORIENTED STRANDBOARD													
Quitman	Langlade	1988								164	190	168	168
Athens	L-P	1989								283	288	288	288
Commerce	Huber	1989								253	253	253	253
Cordele	I-P	1990								243	270	270	270
TOTAL													
TOTAL PLYWOOD AND OSB													
PARTICLEBOARD				0	279	549		850	908	1983	2041	2037	2037
Adel	Weyerhaeus	1968			62	89		124	133	163	186	248	248
Vienna	G-P	1969			133	159		186	198	202	219	219	219
Thomson	Temple	1974				177		177	191	186	193	193	193
TOTAL													
MEDIUM-DENSITY FIBERBOARD													
Wallacoochee	Langlade	1998			195	425		487	522	550	598	660	660
TOTAL													
TOTAL PARTICLEBOARD AND MDF				0	195	425		487	522	550	598	660	660
LUMBER PRODUCTION				2851	2674	2660		2646	4538	6263	6931	7089	NA
PULPWOOD RECEIPTS				13610	16087	15373		19472	21740	20535	24633	NA	NA
TOTAL DRAIN				16461	19235	19006		23454	27709	29333	34203	NA	NA

1995 DRAIN / INVENTORY RATIO

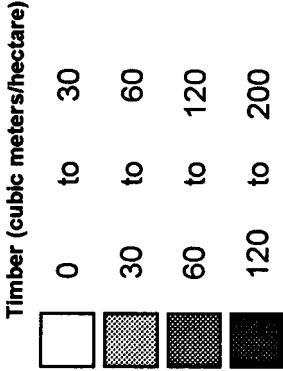
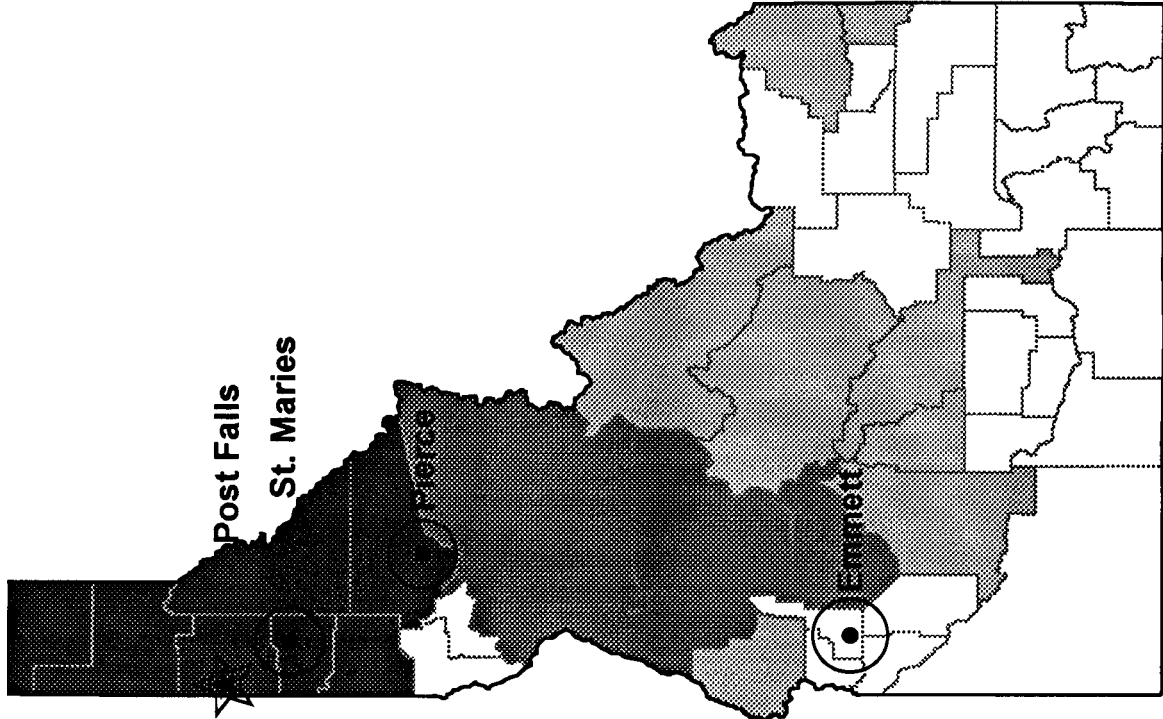
0.039

TYPICAL WOOD COSTS (U.S. \$ per m³)

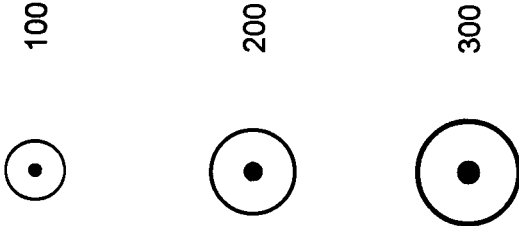
Pine sawtimber													
Standing		27	32				38	70	63		70		NA
Delivered		37	45				49	87	84		86		NA
Pine pulpwood													
Standing		9	9				12	15	14		16		NA
Delivered		18	22				23	29	29		30		NA
Hardwood pulpwood													
Standing		2	1				5	9	7		8		NA
Delivered		13	14				20	26	24		24		NA

Idaho

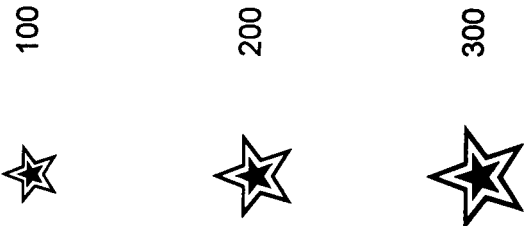
Timber Inventory and Annual Panel Plant Capacity



Plywood Capacity (Thousand m3)



Pbd/MDf Capacity (Thousand m³)



Idaho

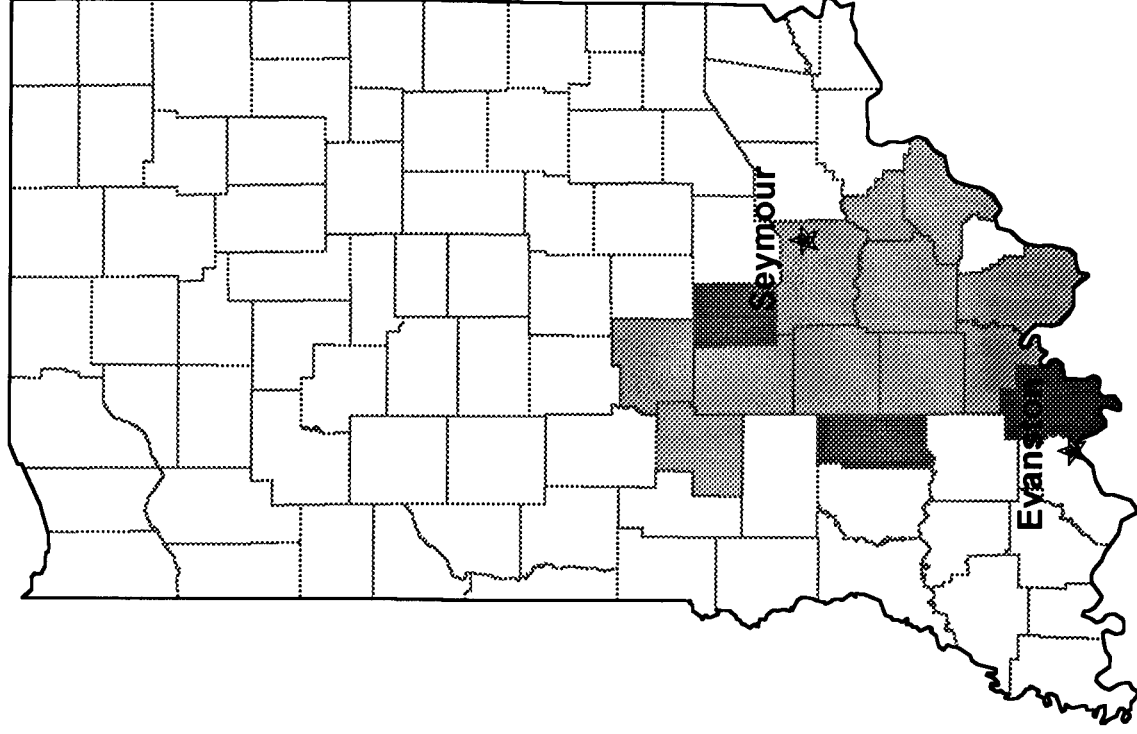
[illegible]

1995 DRAIN / INVENTORY RATIO

		TYPICAL WOOD COSTS (U.S. \$ per m ³)					
Pine sawtimber		8	9	13	35	51	51
Standing							NA
Delivered		25	30	36	60	77	77
Pine pulpwood							NA
Standing		1	1	1	5	12	13
Delivered		16	20	20	28	35	36
Hardwood pulpwood							NA
Standing		NA	NA	NA	NA	NA	NA
Delivered		NA	NA	NA	NA	NA	NA

Indiana

Timber Inventory and Annual Panel Plant Capacity



Pbd/MDF Capacity (Thousand m³)



100



200



300

[illegible]1995 DRAIN / INVENTORY RATIO

	TYPICAL WOOD COSTS (U.S. \$ per m ³)					
Pine sawtimber						
Standing	NA	NA	NA	NA	NA	NA
Delivered	NA	NA	NA	NA	NA	NA
Pine pulpwood						
Standing	NA	NA	NA	NA	NA	NA
Delivered	NA	NA	NA	NA	NA	NA
Hardwood pulpwood						
Standing	NA	NA	NA	NA	NA	NA
Delivered	NA	NA	NA	NA	NA	NA

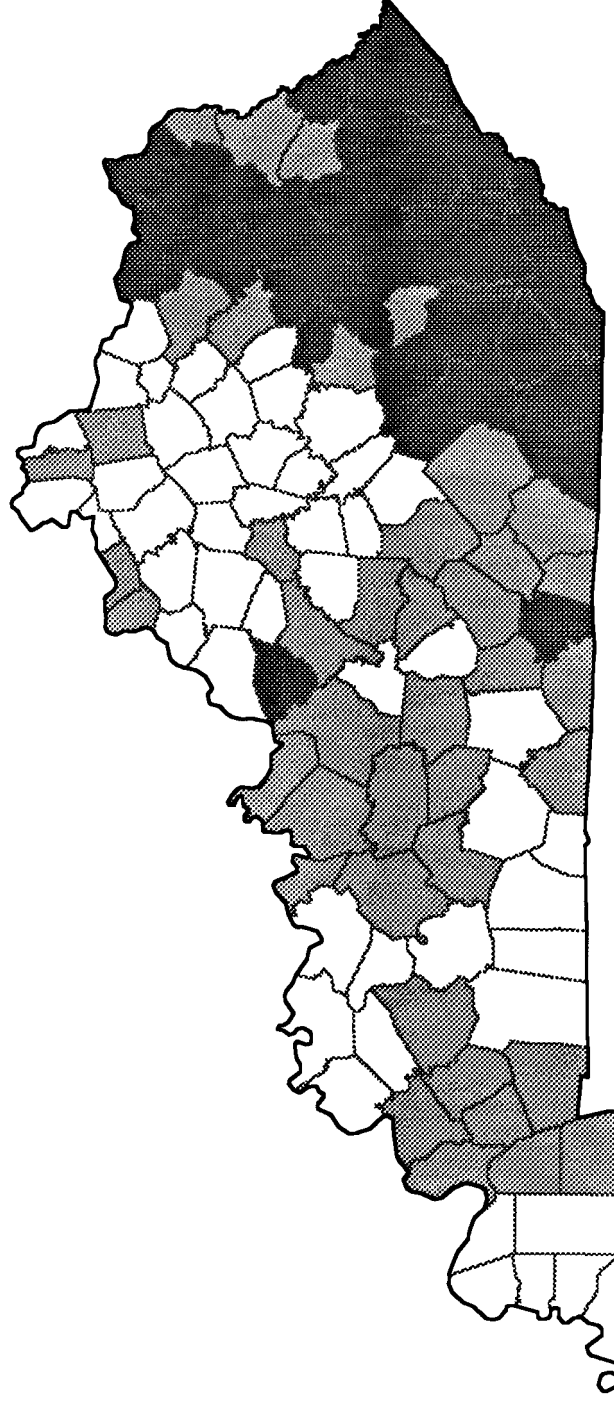
Kentucky Timber Inventory

Timber (cubic meters/hetare)

0 to 30

30 to 60

60 to 120



Note: Growing Stock numbers
from the USDA, Forest Service

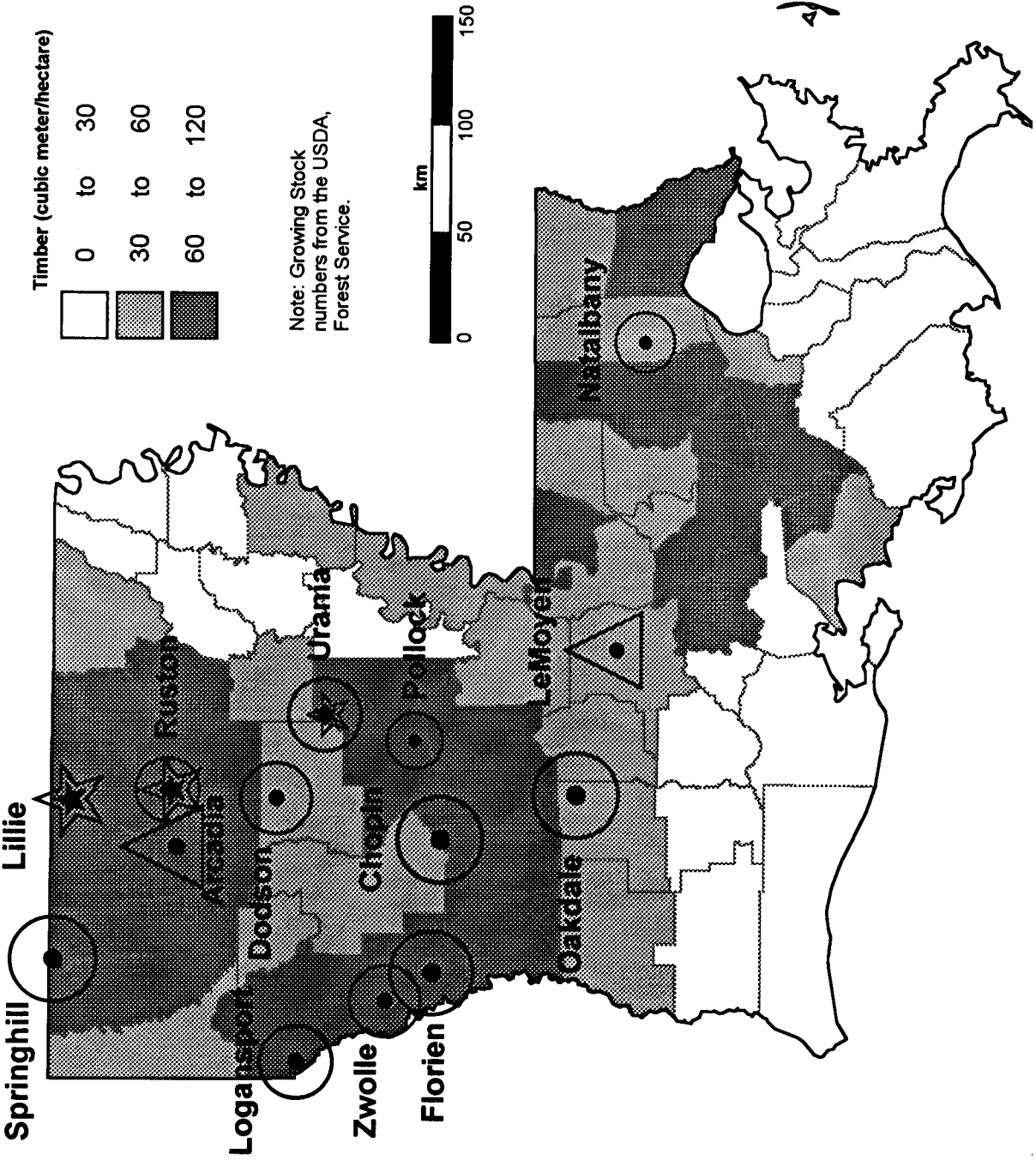
Kentucky

	Capacity / Production (Thousand m³)									
	1965	1970	1975	1980	1985	1990	1995	1996	1997	1998
PINE PLYWOOD										
TOTAL										
ORIENTED STRANDBOARD										
TOTAL										
TOTAL PLYWOOD AND OSB										
PARTICLEBOARD										
TOTAL	0	0	0	0	0	0	0	0	0	0
MEDIUM-DENSITY FIBERBOARD										
TOTAL										
TOTAL PARTICLEBOARD AND MDF										
LUMBER PRODUCTION	1234	1163	970	951	592	1274	1827	1756	NA	NA
PULPWOOD RECEIPTS	NA	NA	NA	NA	NA	4132	3198	NA	NA	NA
TOTAL DRAIN	NA	NA	NA	NA	NA	5406	5025	NA	NA	NA
1995 DRAIN / INVENTORY RATIO	0.011									

	TYPICAL WOOD COSTS (U.S. \$ per m ³)					
Pine sawtimber						
Standing	NA	NA	NA	NA	NA	NA
Delivered	NA	NA	NA	NA	NA	NA
Pine pulpwood						
Standing	NA	NA	NA	NA	NA	NA
Delivered	NA	NA	NA	NA	NA	NA
Hardwood pulpwood						
Standing	NA	NA	NA	NA	NA	NA
Delivered	NA	NA	NA	NA	NA	NA

Louisiana

Timber Inventory and Annual Panel Plant Capacity



Plywood Capacity (Thousand m ²)	100	200	300
OSB Capacity (Thousand m ²)	100	200	300
Pbd/MDF Capacity (Thousand m ²)	100	200	300

Louisiana

Location	Company	Year built	Year closed	Capacity / Production (Thousand m³)									
				1965	1970	1975	1980	1985	1990	1995	1996	1997	1998
PINE PLYWOOD													
Oakdale	Vanply>BC	1965		53	111	146	146	155	230	278	283	285	285
Florien	Vanply>BC	1965		44	111	146	146	155	261	274	274	274	274
Ruston	Santm>Wil	1965		31	71	75	75	102	133	155	155	155	155
Dodson	Hunt>William	1966			115	115	115	133	173	197	197	197	197
Joyce	CZ>Riverwd	1967	1998		75	75	166	173	173	186	186	186	186
Urania	G-P>LP	1970			62	177	195	195	239	212	212	212	212
Taylor	Williamett	1978	1998				115	133	177	186	186	186	186
Zwolle	Williamett	1978					93	95	164	200	200	200	200
Logansport	G-P/LP	1979					142	168	212	212	212	212	212
Pollock	Hunt Plywd	1981						111	102	124	124	124	124
Springhill	L-P	1981						221	239	283	283	283	283
Natabany	Hunt Plywd	1988							133	137	137	137	137
Chopin	Martco	1995								1	133	292	292
TOTAL				128	544	735	1193	1639	2236	2445	2582	2743	2371
ORIENTED STRANDBOARD													
LeMoyen	Martin	1983						142	168	230	230	230	230
Urania	L-P	1984	1997					115	97	119	119		
Arcadia	Williamette	1996									177	266	266
TOTAL								257	266	349	526	496	496
TOTAL PLYWOOD AND OSB PARTICLEBOARD													
Lillie	Olinkr>William	1971				177	177	158	177	212	221	230	230
Urania	G-P > L-P	1971	1983			168	159						
Ruston	Williamette	1972				106	117	149	181	177	177	177	177
TOTAL						451	453	306	358	389	398	407	407
MEDIUM-DENSITY FIBERBOARD													
Urania	L-P	1993								89	89	89	89
TOTAL										89	89	89	89
TOTAL PARTICLEBOARD AND MDF LUMBER PRODUCTION													
				0	0	451	453	306	358	478	487	496	496
				2275	1930	1600	1291	1232	2162	3040	2962	NA	NA
				5422	8653	7882	10238	11055	14173	16166	NA	NA	NA
				7825	11127	10668	13175	14488	19193	22478	NA	NA	NA

1995 DRAIN / INVENTORY RATIO

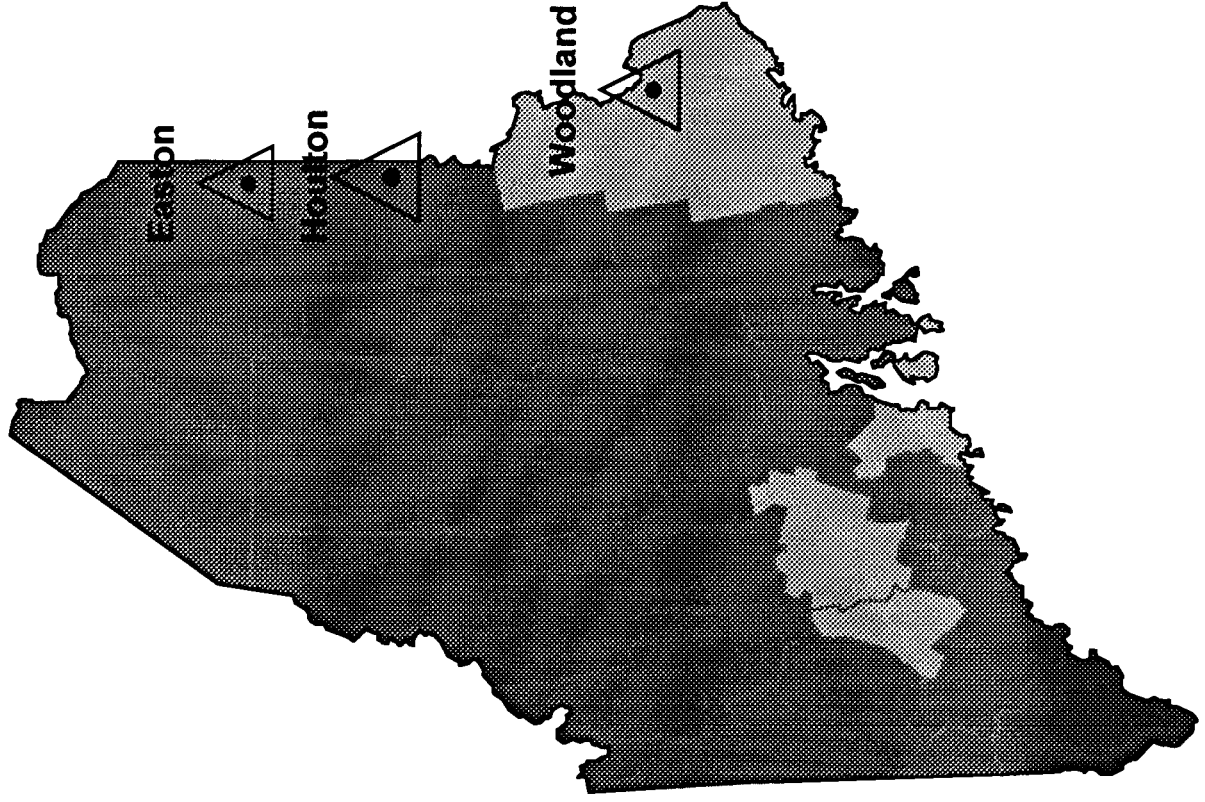
0.043

TYPICAL WOOD COSTS (U.S. \$ per m³)

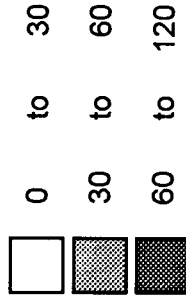
Pine sawtimber													
Standing	36	26	31	64	54	71	NA						
Delivered	44	38	40	78	67	80	NA						
Pine pulpwood													
Standing	4	6	7	11	9	13	NA						
Delivered	18	21	21	29	27	30	NA						
Hardwood pulpwood													
Standing	2	2	2	6	5	10	NA						
Delivered	15	15	19	31	25	24	NA						

Maine

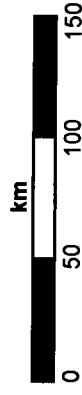
Timber Inventory and Annual Panel Plant Capacity



Timber (cubic meters/hectare)



Note: Growing Stock numbers from the USDA, Forest Service.



OSB Capacity (Thousand m³)



Maine

Location	Company	Year built	Year closed	1965	1970	1975	1980	1985	1990	1995	1996	1997	1998
Capacity / Production (Thousand m³)													
PINE PLYWOOD													
TOTAL													
ORIENTED STRANDBOARD													
Easton	Huber	1983						119	164	164	164	164	164
Houlton	L-P	1982						133	164	230	230	230	230
Woodland	G-P	1981						124	137	177	190	190	190
TOTAL													
TOTAL PLYWOOD AND OSB													
PARTICLEBOARD													
TOTAL													
MEDIUM-DENSITY FIBERBOARD													
TOTAL													
TOTAL PARTICLEBOARD AND MDF													
LUMBER PRODUCTION													
PULPWOOD RECEIPTS													
TOTAL DRAIN													
1995 DRAIN / INVENTORY RATIO													

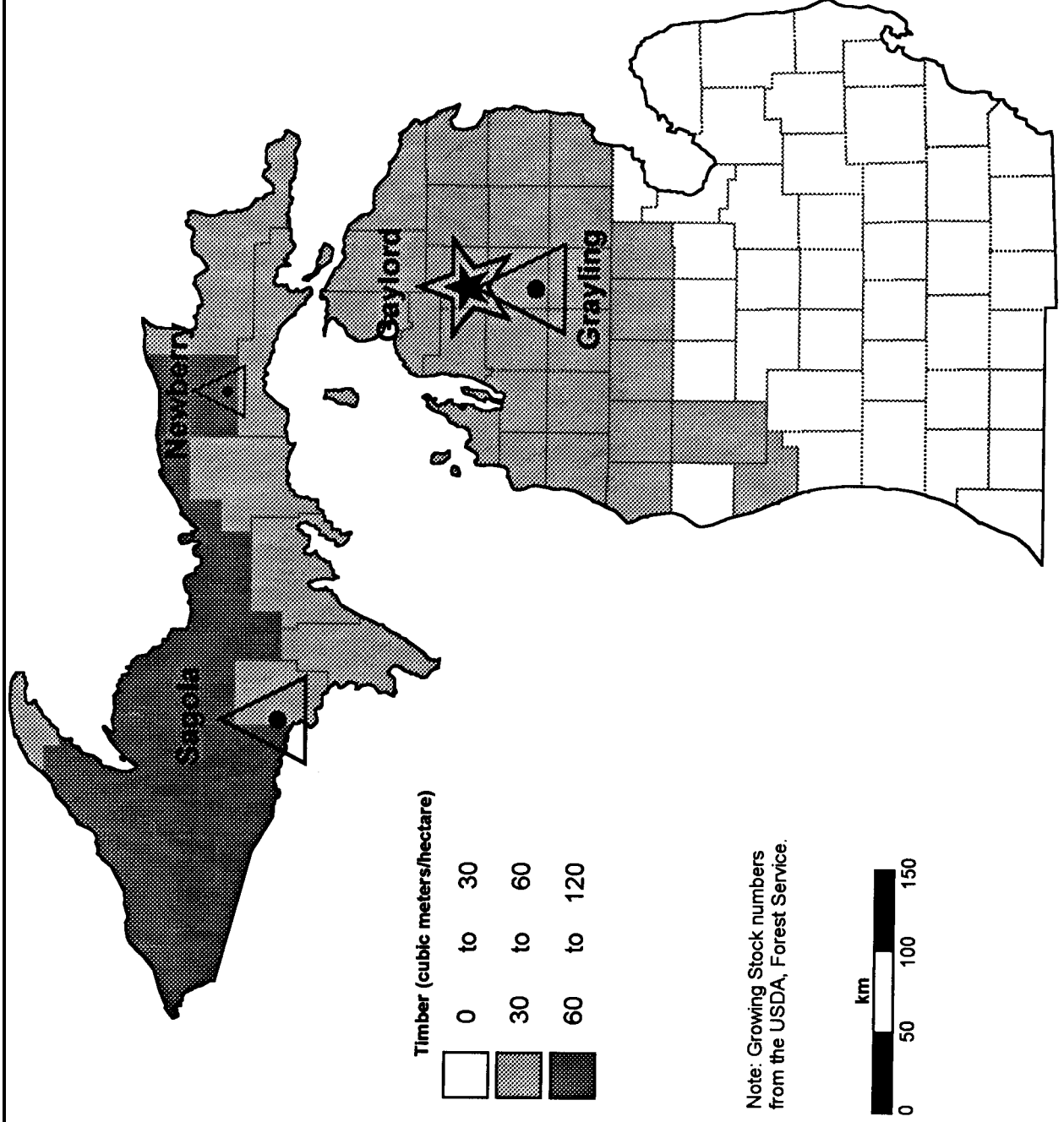
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689	786	861	1723	1975	2438	2523	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	9170	8976	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	11610	11985	NA	NA	NA	NA	NA	NA	NA	NA

0.020

TYPICAL WOOD COSTS (U.S. \$ per m³)													
Pine sawtimber													
Standing			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delivered			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pine pulpwood													
Standing			NA	NA	NA	6	5	NA	NA	5	NA	NA	NA
Delivered			NA	NA	NA	24	23	23	23	23	23	23	23
Hardwood pulpwood													
Standing			NA	NA	NA	6	5	NA	NA	5	NA	NA	NA
Delivered			NA	NA	NA	24	23	23	23	23	23	23	23

Michigan

Timber Inventory and Annual Panel Plant Capacity



OSB Capacity (Thousand m³)

100

200

300

Pbd/MDF Capacity (Thousand m³)

100

200

300

Michigan

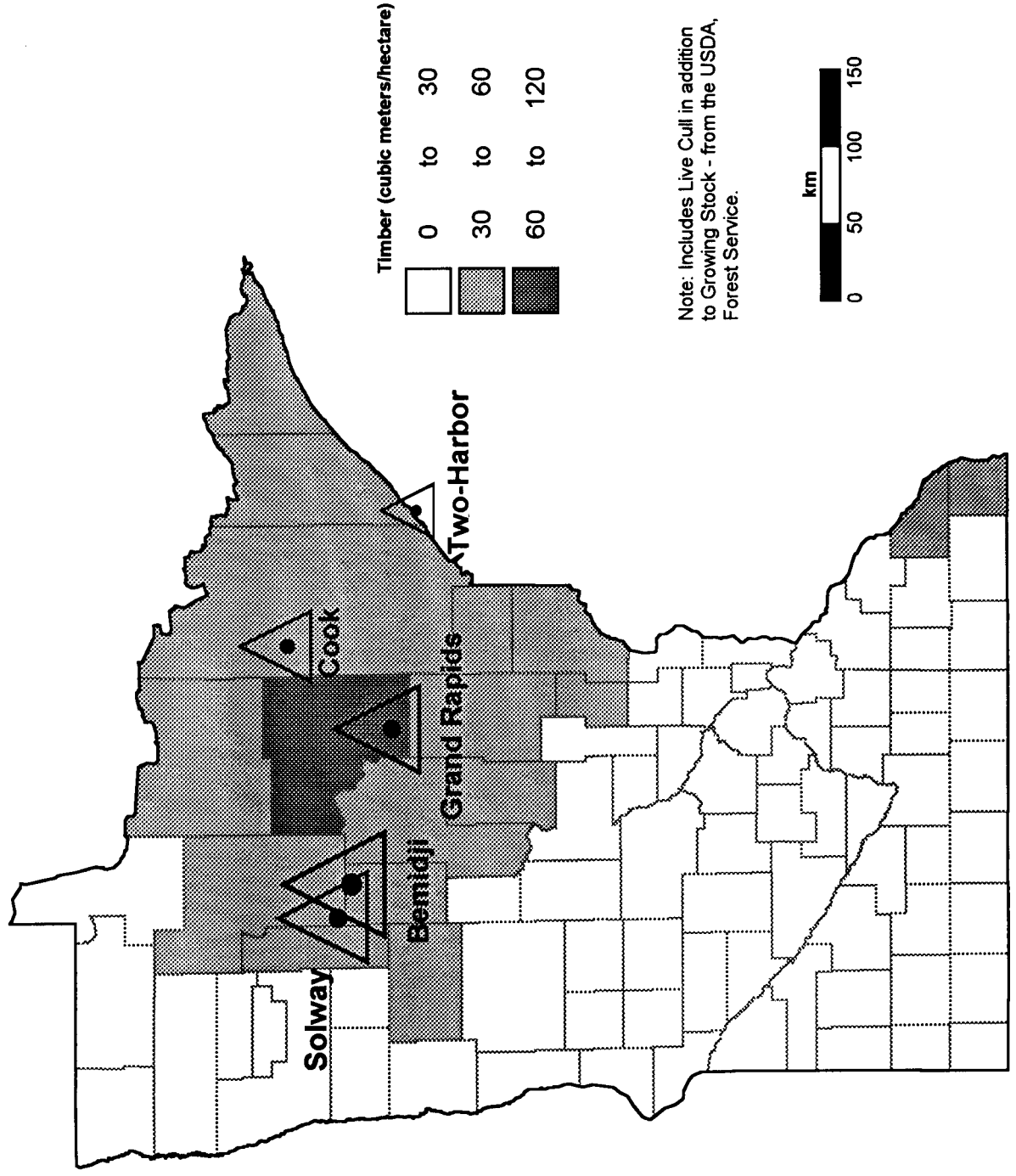
Location	Company	Year built	Year closed	Capacity / Production (Thousand m³)									
				1965	1970	1975	1980	1985	1990	1995	1996	1997	1998
PINE PLYWOOD													
TOTAL													
ORIENTED STRANDBOARD													
Grayling	Weyerhaeuss	1982						266	266	336	336	336	336
Sagola	L-P	1988							319	310	310	310	310
Newberry	L-P	1990								106	111	111	111
TOTAL													
TOTAL PLYWOOD AND OSB													
MEDIUM-DENSITY FIBERBOARD													
TOTAL													
PARTICLEBOARD													
Gaylord	Cham>G-P	NA		71	177	191	319	354	427	435	435	435	435
TOTAL													
TOTAL PARTICLEBOARD AND MDF													
LUMBER PRODUCTION													
PULPWOOD RECEIPTS													
TOTAL DRAIN													
				71	177	191	319	354	427	435	435	435	435
				873	961	748	NA	NA	1652	1543	1539	NA	NA
				NA	NA	NA	NA	NA	5400	5370	NA	NA	NA
				NA	NA	NA	NA	NA	8063	8101	NA	NA	NA

0.015

TYPICAL WOOD COSTS (U.S. \$ per m³)													
Pine sawtimber													
Standing				NA	NA	NA	NA	NA	NA	41	40	41	NA
Delivered				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pine pulpwood													
Standing				NA	4	6	6	6	6	12	11	10	NA
Delivered				NA	16	20	20	20	20	27	29	27	NA
Aspen pulpwood													
Standing				NA	3	5	5	5	5	9	9	9	NA
Delivered				NA	15	19	19	19	19	24	27	26	NA

Minnesota

Timber Inventory and Annual Panel Plant Capacity



OSB Capacity (Thousand m³)

100

200

300

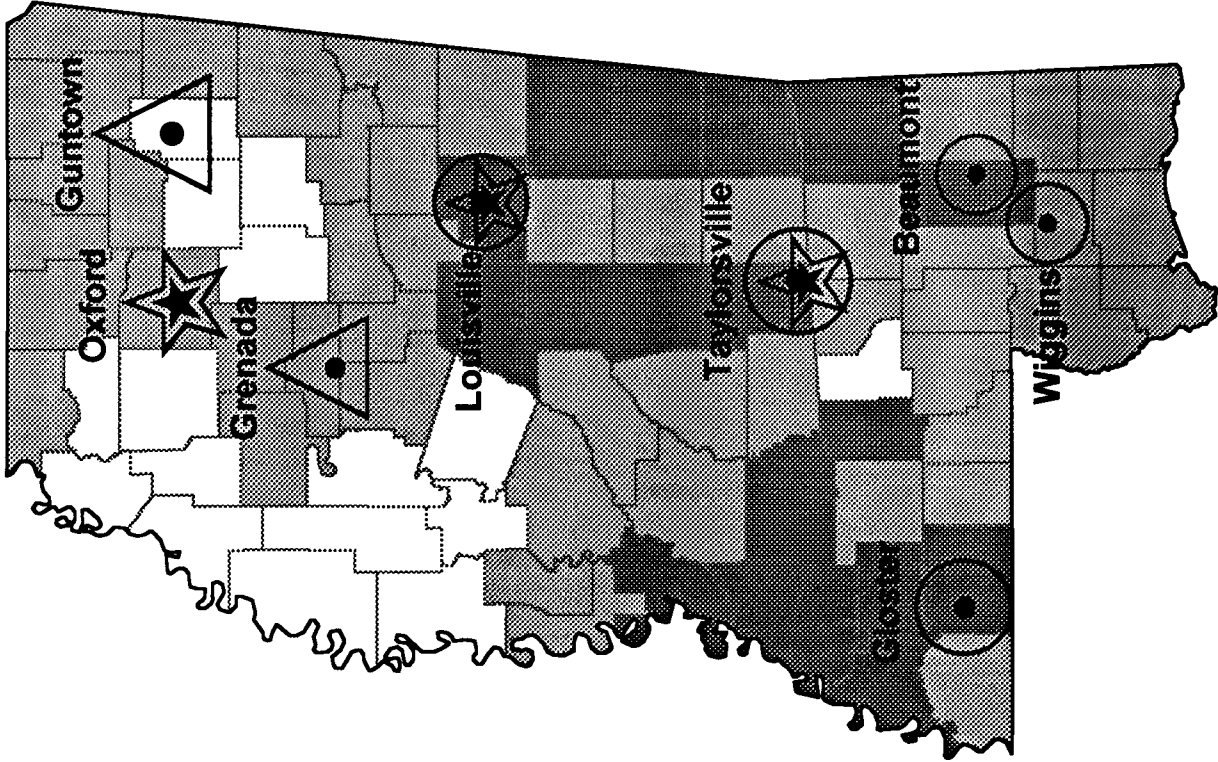
Minnesota

Location	Company	Year built	Year closed	1965	1970	1975	1980	1985	1990	1995	1996	1997	1998
Capacity / Production (Thousand m³)													
PINE PLYWOOD													
TOTAL													
ORIENTED STRANDBOARD													
Gr.Rapids	Blandin>Potl	1972				89	124	248	301	310	310	310	310
Bernidji	Pottlatch	1981						150	195	212	212	212	212
Solway	Norboard	1981						230	230	266	294	335	335
Cook	Pottlatch	1983						159	168	215	215	215	215
Two-Harbor	L-P	1985						89	115	119	119	119	119
Bernidji	Pottlatch	1990							195	220	220	220	220
TOTAL													
TOTAL PLYWOOD AND OSB													
MEDIUM-DENSITY FIBERBOARD													
TOTAL													
PARTICLEBOARD													
TOTAL													
TOTAL PARTICLEBOARD AND MDF													
LUMBER PRODUCTION													
PULPWOOD RECEIPTS													
TOTAL DRAIN													
1995 DRAIN / INVENTORY RATIO													
0.014													

TYPICAL WOOD COSTS (U.S. \$ per m³)													
Pine sawtimber													
Standing				NA	NA	NA	20	36	NA	35	NA	NA	NA
Delivered				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pine pulpwood													
Standing				5	4	5	5	12	10	NA	NA	NA	NA
Delivered				17	18	20	20	30	27	NA	NA	NA	NA
Aspen pulpwood													
Standing				2	2	3	3	8	7	NA	NA	NA	NA
Delivered				14	16	18	18	24	24	NA	NA	NA	NA

Mississippi

Timber Inventory and Annual Plant Capacity



Plywood Capacity (Thousand m³)



100



200



300

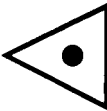
OSB Capacity (Thousand m³)



100



200



300

Pbd/MDF Capacity (Thousand m³)



100



200



300

Mississippi

Location	Company	Year built	Year closed	Capacity / Production (Thousand m³)											
				1965	1970	1975	1980	1985	1990	1995	1996	1997	1998		
PINE PLYWOOD															
Beaumont	Del Pn>Hood	1966	1998		80	80	89	106	124	178	178	178	178	178	178
Philadelphia	Weyerhaeueus	1966			49	49	49	66	75	115	115	115	115	115	115
Louisville	G-P	1966			80	133	177	248	258	258	258	258	258	258	258
Gloster	G-P	1967			124	155	204	239	248	248	257	261	261	261	261
Taylorville	G-P	1969			80	168	221	217	305	323	323	323	323	323	323
Wiggins	I-P>Hood	1971				111	133	155	195	195	187	187	187	187	187
TOTAL					412	695	872	1031	1205	1205	1318	1322	1322	1322	1207
ORIENTED STRANDBOARD															
Grenada	G-P	1985					221	221	266	298	298	298	298	298	298
Guntown	Norboard	1995								89	381	381	385	385	385
TOTAL							221	221	266	387	679	683	683	683	683
TOTAL PLYWOOD AND OSB				0	412	695	872	1252	1471	1705	2002	2006	2006	2006	1890

PARTICLEBOARD																
Louisville	G-P	1967			127	159	177	166	182	230	230	182	230	230	230	230
Oxford	Cl>G-P	1969			177	212	269	342	354	354	354	354	354	354	354	354
Taylorville	G-P	1971				212	186	186	205	274	274	205	274	274	274	274
TOTAL					304	584	632	694	742	858	858	742	858	858	858	858
MEDIUM-DENSITY FIBERBOARD																
Meridian	Kroehler	1970	1978		33	33	33									
TOTAL					33	33	33									
TOTAL PARTICLEBOARD AND MDF				0	337	617	632	694	742	858	858	742	858	858	858	858
LUMBER PRODUCTION				2216	2537	2310	2601	3693	5327	6419	6544	5327	6419	6544	NA	NA
PULPWOOD RECEIPTS				5001	11167	10863	13288	12538	17722	18480	NA	17722	18480	NA	NA	NA
TOTAL DRAIN				7217	14453	14485	17392	18177	25261	27462	NA	25261	27462	NA	NA	NA

1995 DRAIN / INVENTORY RATIO

0.047

TYPICAL WOOD COSTS (U.S. \$ per m³)																
Pine sawtimber																
Standing				32	27	32	70	58	72	NA	NA	32	70	58	72	NA
Delivered				41	39	45	82	69	84	NA	NA	45	82	69	84	NA
Pine pulpwood																
Standing				5	6	6	12	11	13	NA	NA	6	12	11	13	NA
Delivered				18	22	20	26	26	28	NA	NA	20	26	26	28	NA
Hardwood pulpwood																
Standing				2	2	3	7	7	8	NA	NA	3	7	7	8	NA
Delivered				14	15	19	26	23	27	NA	NA	19	26	23	27	NA

Missouri

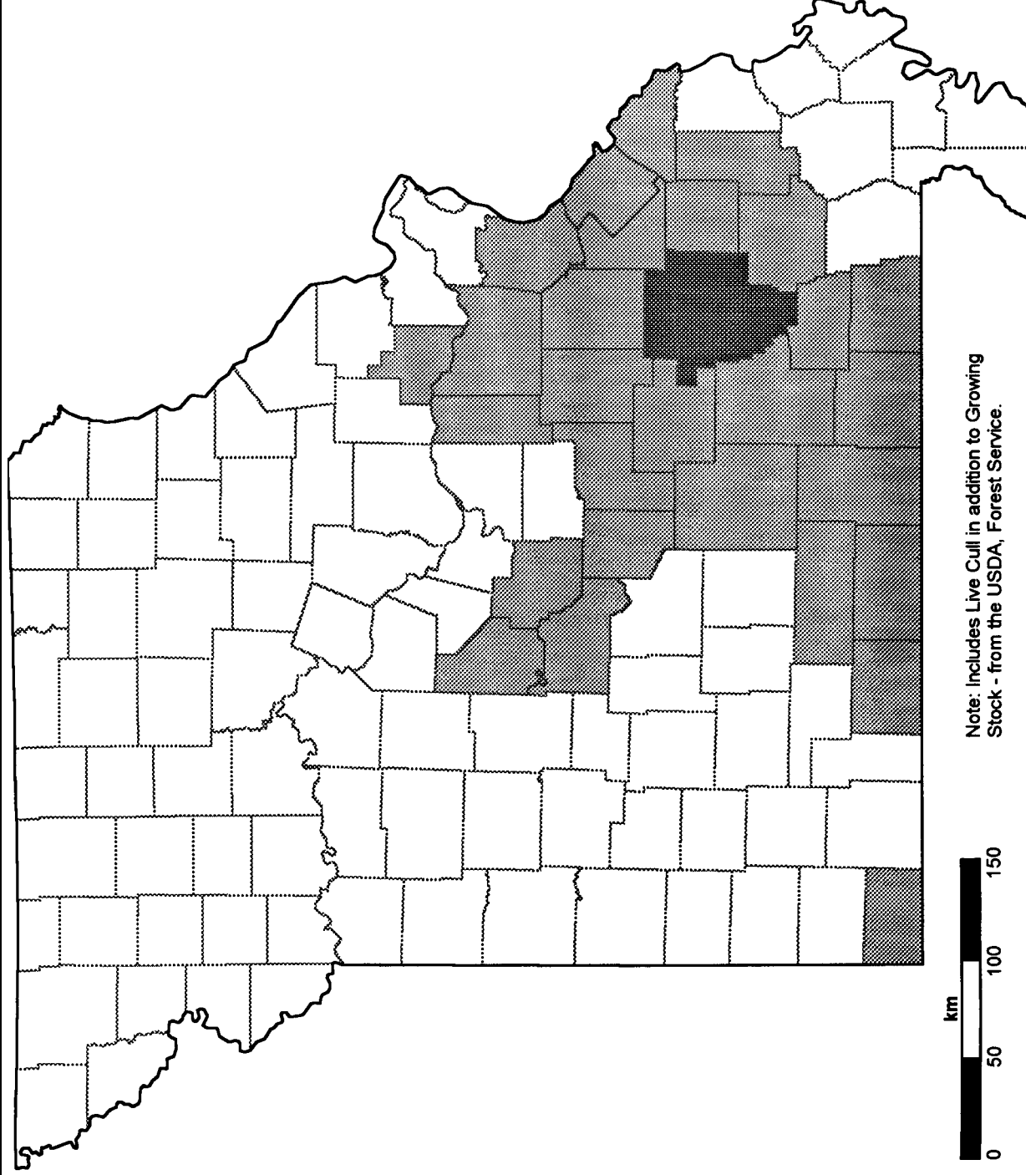
Timber Inventory

Timber (cubic meters/hectare)

0 to 30

30 to 60

60 to 120



Missouri

[illegible]

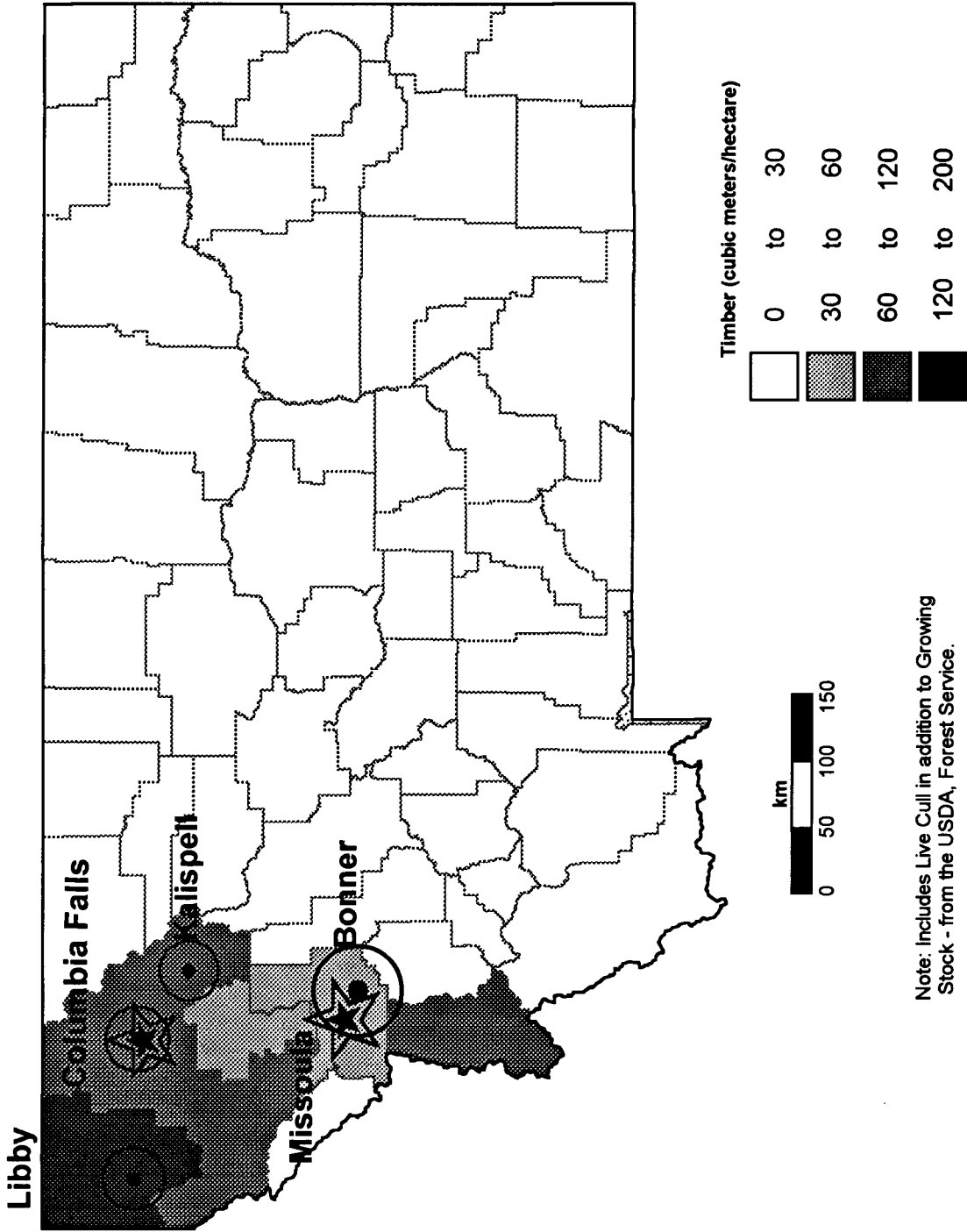
1995 DRAIN / INVENTORY RATIO

Note: Drain / Inventory Ratio based on inventory estimates by the USDA, Forest Service.

TYPICAL WOOD COSTS (U.S. \$ per m ³)						
Pine sawtimber						
Standing	NA	19	33	22	26	NA
Delivered	NA	NA	39	37	46	NA
Pine pulpwood						
Standing	NA	NA	NA	NA	NA	NA
Delivered	NA	NA	NA	NA	NA	NA
Hardwood pulpwood						
Standing	NA	NA	2	2	2	NA
Delivered	NA	NA	NA	NA	NA	NA

Montana

Timber Inventory and Annual Panel Plant Capacity



Plywood Capacity (Thousand m³)

100

200

300

Pbd/MDF Capacity (Thousand m³)

100

200

300

Montana

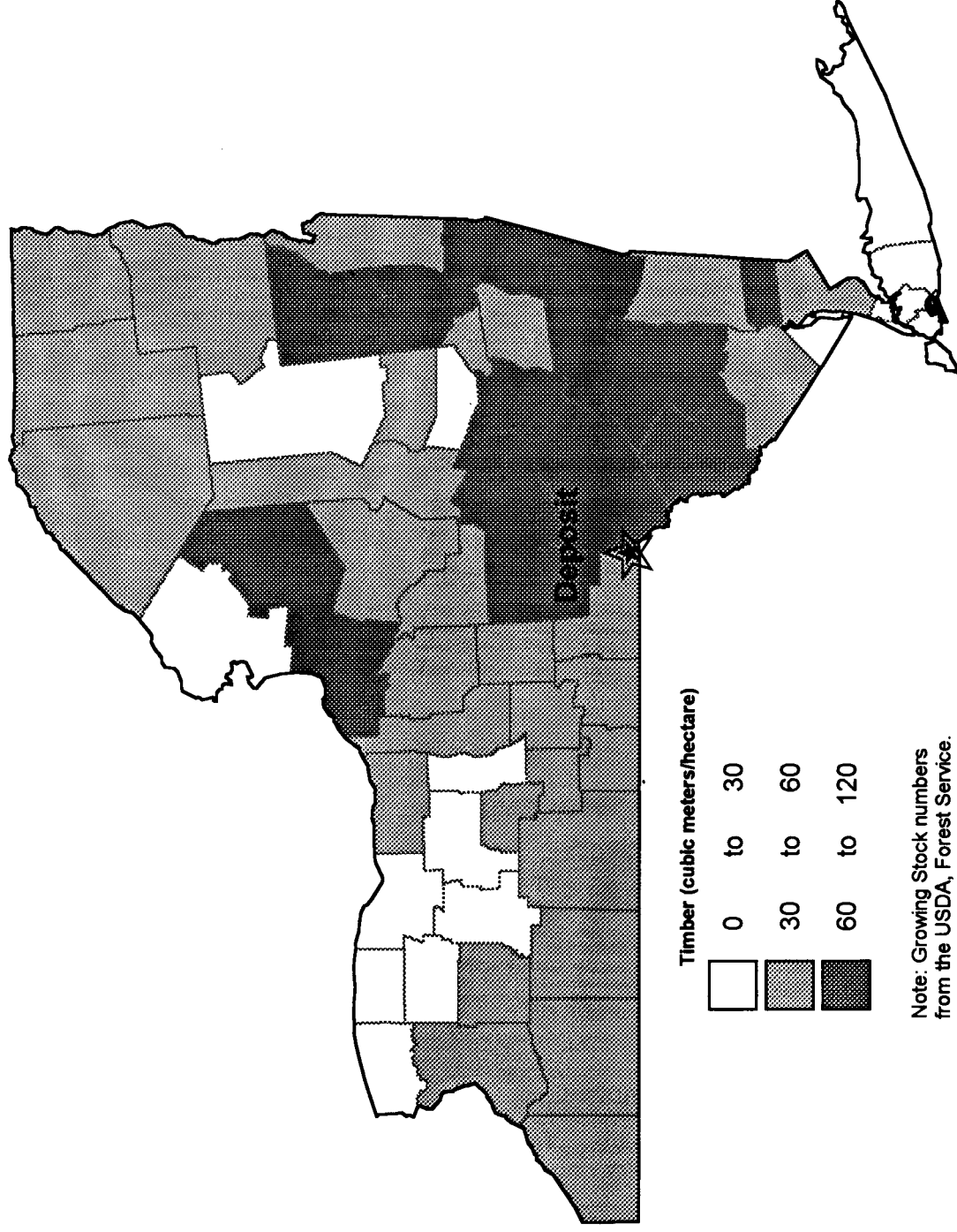
[illegible]

1995 DRAIN / INVENTORY RATIO

		TYPICAL WOOD COSTS (U.S. \$ per m ³)					
Pine sawtimber		8	9	13	35	51	NA
Standing							51
Delivered		25	30	36	60	77	77
Pine pulpwood							NA
Standing		1	1	1	5	12	13
Delivered		16	20	20	28	35	36
Hardwood pulpwood							NA
Standing		NA	NA	NA	NA	NA	NA
Delivered		NA	NA	NA	NA	NA	NA

New York

Timber Inventory and Annual Panel Plant Capacity



Pbd/MDF Capacity (Thousand m³)

100

200

300

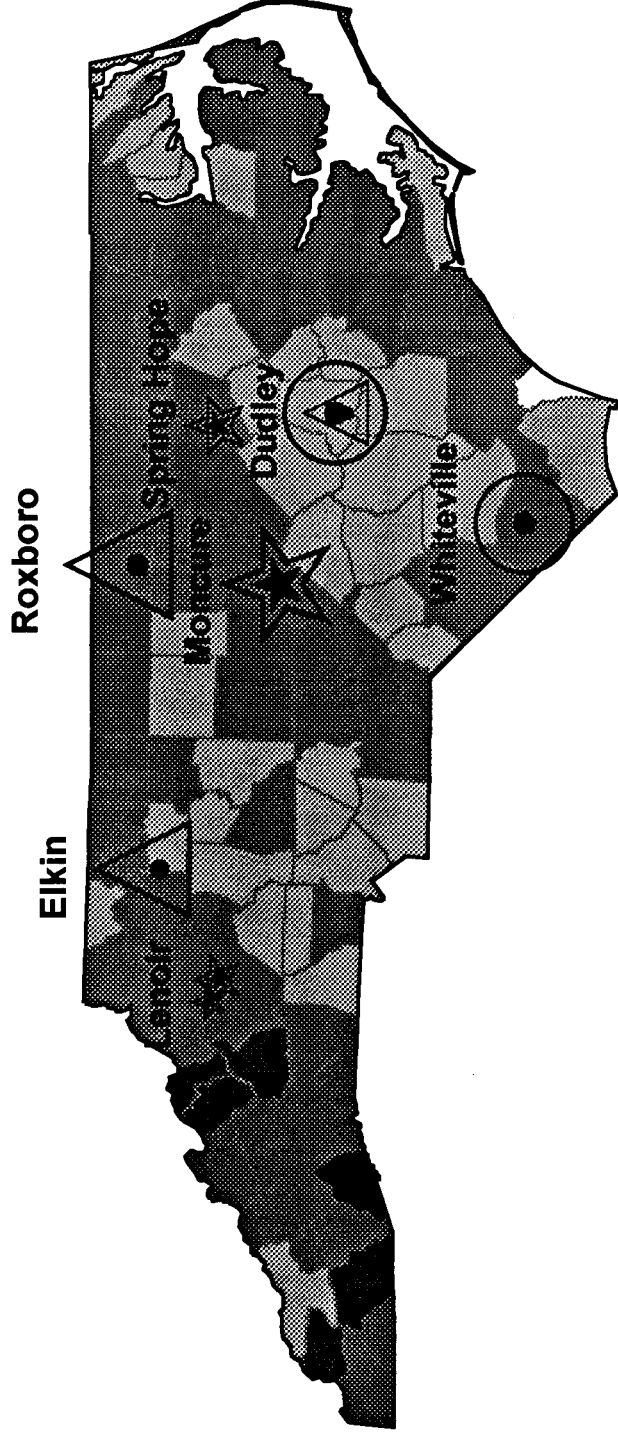
New York

Location	Company	Year built	Year closed	Capacity / Production (Thousand m³)										
				1965	1970	1975	1980	1985	1990	1995	1996	1997	1998	
PINE PLYWOOD														
TOTAL														
ORIENTED STRANDBOARD														
TOTAL														
TOTAL PLYWOOD AND OSB														
PARTICLEBOARD														
TOTAL														
MEDIUM-DENSITY FIBERBOARD														
Deposit	Norbord	1966												
TOTAL														
TOTAL PARTICLEBOARD AND MDF														
LUMBER PRODUCTION														
PULPWOOD RECEIPTS														
TOTAL DRAIN														
1995 DRAIN / INVENTORY RATIO														
0.006														

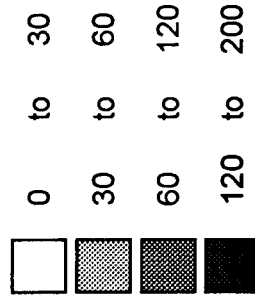
TYPICAL WOOD COSTS (U.S. \$ per m³)														
Pine sawtimber														
Standing				NA			NA	NA	NA	NA	NA	NA	NA	NA
Delivered				NA			NA	NA	NA	NA	NA	NA	NA	NA
Pine pulpwood														
Standing				NA			NA	NA	NA	NA	NA	NA	NA	NA
Delivered				NA			NA	NA	NA	NA	NA	NA	NA	NA
Hardwood pulpwood														
Standing				NA			NA	NA	NA	NA	NA	NA	NA	NA
Delivered				NA			NA	NA	NA	NA	NA	NA	NA	NA

North Carolina

Timber Inventory and Annual Panel Plant Capacity

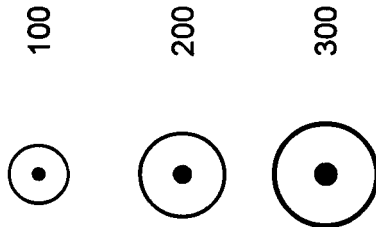


Timber (cubic meters/hectare)

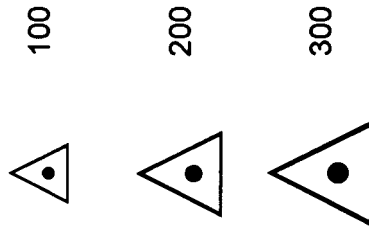


Note: Growing Stock numbers from the USDA, Forest Service.

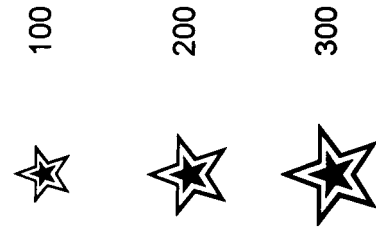
Plywood Capacity (Thousand m³)



OSB Capacity (Thousand m³)



Pbd/MDF Capacity (Thousand m³)



North Carolina

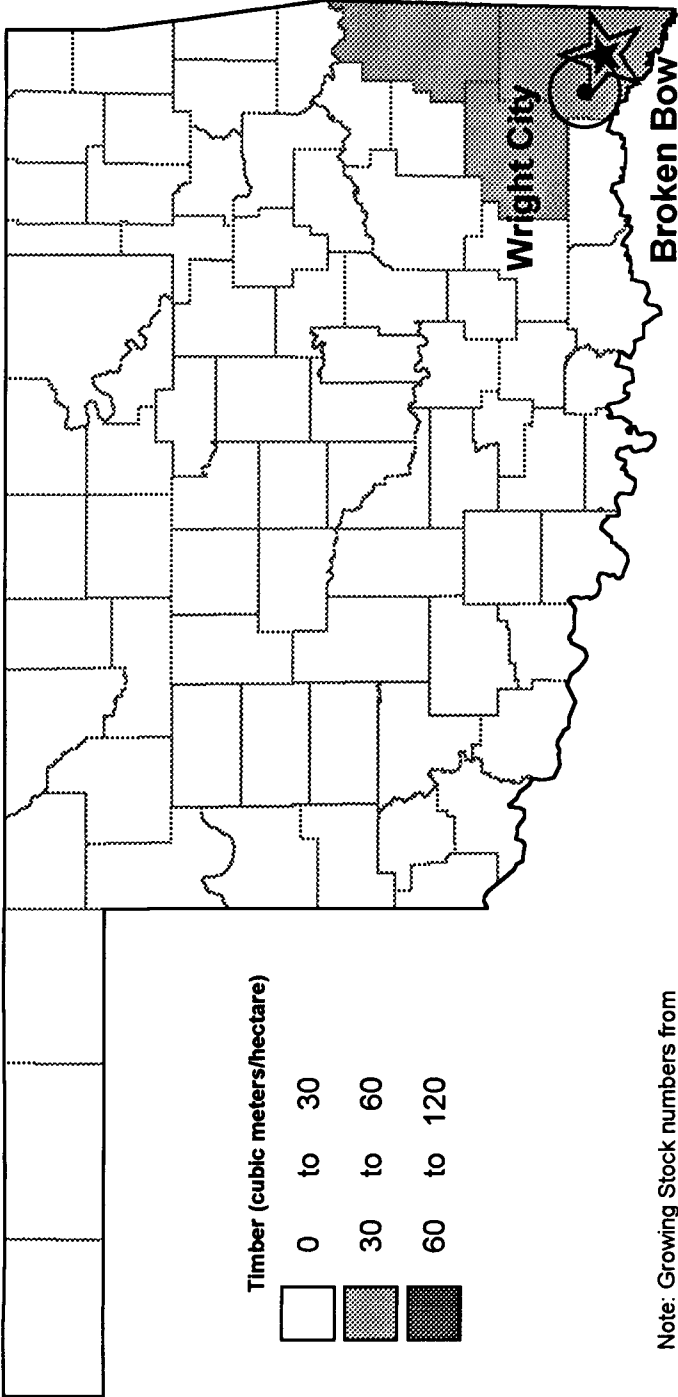
Location	Company	Year built	Year closed	Capacity / Production (Thousand m³)									
				1965	1970	1975	1980	1985	1990	1995	1996	1997	1998
PINE PLYWOOD													
Plymouth	Weyerhaeus	1965	1997	53	64	64	71	89	97	111	124		
Elizabeth City	Triangle	1966	1978		27	27							
Jacksonville	Weyerhaeus	1966	1990		89	89	115	140	137				
Moncure	BC>William	1967	1998		71	74	74	84	97	119	119	119	
Whiteville	G-P	1971			80	133	177	212	248	274	274	274	274
Dudley	G-P	1980		53	329	386	530	649	805	805	818	694	575
TOTAL													
ORIENTED STRANDBOARD													
Dudley	G-P	1983						111	111	124	124	124	124
Elkin	Weyerhaeus	1986							199	230	266	266	266
Roxboro	L-P	1995									292	332	332
TOTAL													
TOTAL PLYWOOD AND OSB													
PARTICLEBOARD													
Farmville	Formica>IP	NA	1973	71	106								
Lenoir	Nu-Wood	1964		13	27	30	42	42	41	41	41	41	41
Lenoir	Broyhill	1976					44	55	50	71	71	71	71
Moncure	Weyerhaeus	1987		84	133	30	86	97	186	186	266	266	266
TOTAL													
MEDIUM-DENSITY FIBERBOARD													
Moncure	Weyerhaeus	1971				110	106	124	133	133	133	133	133
Spring Hope	Masonite	1973				106	131	131	119	122	122	122	122
TOTAL													
TOTAL PARTICLEBOARD AND MDF													
LUMBER PRODUCTION													
PULPWOOD RECEIPTS													
TOTAL DRAIN													
				84	133	246	323	352	528	553	633	633	633
				3158	2764	2544	2634	3330	3844	5154	5270	NA	NA
				6310	9076	8177	10716	10974	12456	14047	NA	NA	NA
				9605	12302	11353	14204	15415	17944	20973	NA	NA	NA

TYPICAL WOOD COSTS (U.S. \$ per m³)

Pine sawtimber													
Standing	25	28	30	36	38	42	NA	NA	NA	NA	NA	NA	NA
Delivered	34	41	42	56	59	62	NA	NA	NA	NA	NA	NA	NA
Pine pulpwood													
Standing	3	4	6	7	6	6	NA	NA	NA	NA	NA	NA	NA
Delivered	16	20	21	24	21	22	NA	NA	NA	NA	NA	NA	NA
Hardwood pulpwood													
Standing	1	1	3	5	5	5	NA	NA	NA	NA	NA	NA	NA
Delivered	13	14	19	23	22	24	NA	NA	NA	NA	NA	NA	NA

Oklahoma

Timber Inventory and Annual Panel Plant Capacity



Plywood Capacity (Thousand m³)



100



200



300

Pdb/MDF Capacity (Thousand m³)



100



200



300

Oklahoma

[illegible]

1995 DRAIN / INVENTORY RATIO

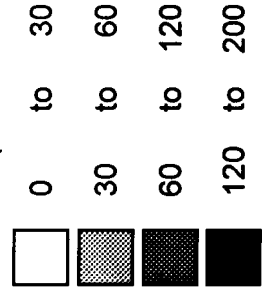
TYPICAL WOOD COSTS (U.S. \$ per m ³)					
Pine sawtimber	Standing	NA	NA	NA	NA
	Delivered	NA	NA	NA	NA
Pine pulpwood	Standing	NA	NA	NA	NA
	Delivered	NA	NA	NA	NA
Hardwood pulpwood	Standing	NA	NA	NA	NA
	Delivered	NA	NA	NA	NA

Pennsylvania

Timber Inventory and Annual Panel Plant Capacity



Timber (cubic meters/hectare)



Note: Growing Stock numbers from the USDA, Forest Service.



Pbd/MDF Capacity (Thousand m³)



100



200



300

Pennsylvania

Location	Company	Year	Capacity / Production (Thousand m³)											
		built	closed	1965	1970	1975	1980	1985	1990	1995	1996	1997	1998	
PINE PLYWOOD														
TOTAL														
ORIENTED STRANDBOARD														
TOTAL														
TOTAL PLYWOOD AND OSB														
PARTICLEBOARD														
Tyrone	Westvaco	NA	1969											
Mt Jewett	Allegheny	1990												
TOTAL														
MEDIUM-DENSITY FIBERBOARD														
Mt Jewett	Allegheny	1995												
Shippenville	MB/Clarion	1996												
TOTAL														
TOTAL PARTICLEBOARD AND MDF														
LUMBER PRODUCTION														
PULPWOOD RECEIPTS														
TOTAL DRAIN														

1995 DRAIN / INVENTORY RATIO

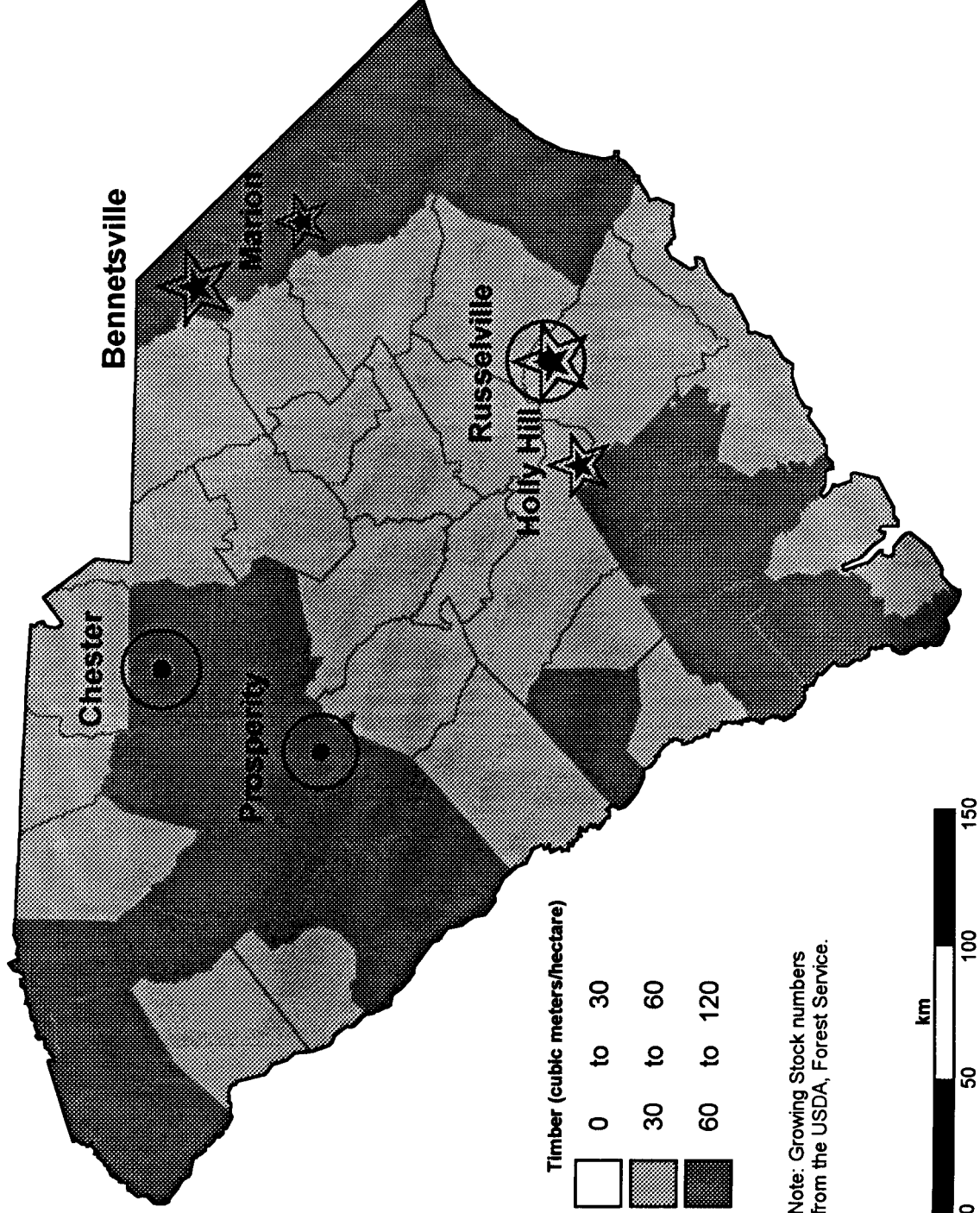
0.009

TYPICAL WOOD COSTS (U.S. \$ per m³)

[illegible]

South Carolina

Timber Inventory and Annual Panel Plant Capacity



Plywood Capacity (Thousand m³)

100

200

300

Pbd/MDF Capacity (Thousand m³)

100

200

300

South Carolina

Location	Company	Year built	Year closed	1965	1970	1975	1980	1985	1990	1995	1996	1997	1998
Capacity / Production (Thousand m³)													
PINE PLYWOOD													
Russelville	G-P	1968			119	133	133	199	243	243	243	243	243
Holly Hill	Holly H.	1972	1981			89	89						
Newberry	USPLY>CI	1974	1989			133	159	164					
Prosperity	G-P	1975				84	115	124	199	218	218	218	218
Chester	B-C>William	1981			119	438	496	624	650	693	693	693	693
TOTAL													
ORIENTED STRANDBOARD													
TOTAL													
TOTAL PLYWOOD AND OSB													
PARTICLEBOARD													
Greenwood	I-P	1970	1974		124	168	186	212	221	278	278	278	278
Russelville	G-P	1971					186	212	221	278	278	278	278
TOTAL													
MEDIUM-DENSITY FIBERBOARD													
Marion	Masonite	1974				101	101	101	112	133	133	133	133
Holly Hill	HH>G-P	1975					110	143	177	177	177	177	177
Bennetsville	William	1990				101	211	244	466	526	540	567	567
TOTAL													
TOTAL PARTICLEBOARD AND MDF													
LUMBER PRODUCTION													
PULPWOOD RECEIPTS													
TOTAL DRAIN													
				0	0	101	396	457	687	804	818	845	845
				1610	2209	2084	2169	2728	3549	3122	3339	NA	NA
				5814	7294	7798	9494	10622	11536	12670	NA	NA	NA
				7424	9622	10421	12555	14431	16422	17289	NA	NA	NA

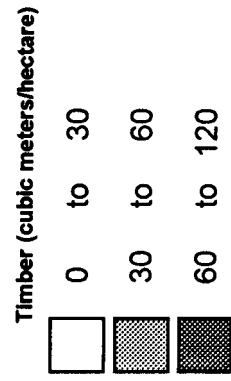
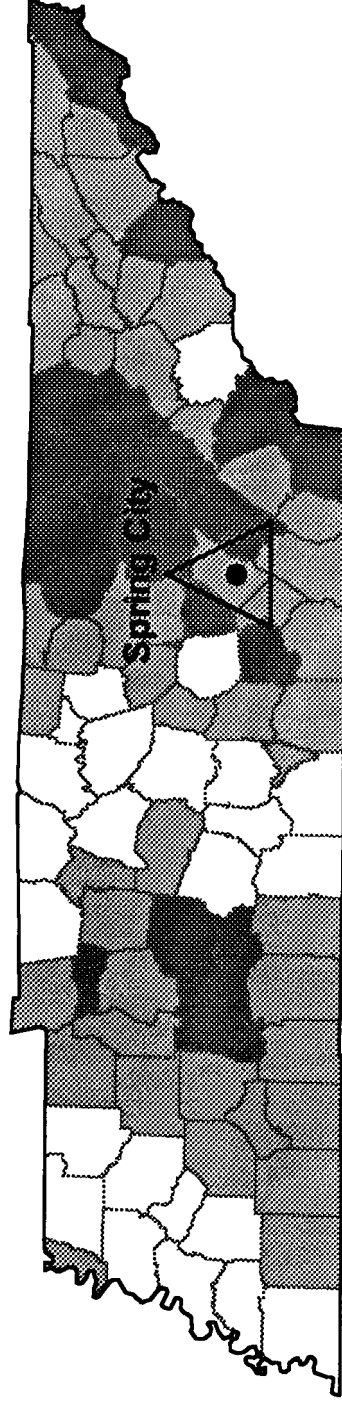
1995 DRAIN / INVENTORY RATIO

0.037

TYPICAL WOOD COSTS (U.S. \$ per m³)													
Pine sawtimber													
Standing						27	32	34	48	59	67	NA	NA
Delivered						37	43	48	73	76	83	NA	NA
Pine pulpwood													
Standing						6	7	7	10	10	11	NA	NA
Delivered						17	22	20	27	25	27	NA	NA
Hardwood pulpwood													
Standing						1	1	3	6	7	8	NA	NA
Delivered						12	13	16	24	24	25	NA	NA

Tennessee

Timber Inventory and Annual Panel Plant Capacity



Note: Growing Stock numbers from the USDA, Forest Service.

0SB Capacity (Thousand m³)



100



200



300

[illegible][illegible]

TOTAL

ORIENTED STRANDBOARD

Spring City	Huber	1997	336
Huber			336

TOTAL

TOTAL PLYWOOD AND OSB	0	0	0	0	0	0	336
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TOTAL PLYWOOD AND OSB	0	0	0	0	0	0	336
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TOTAL

MEDIUM-DENSITY FIBERBOARD

TOTAL

[illegible][illegible][illegible]

PULPWOOD RECEIPTS	919	1254	1642	2731	2740	3160	3894	NA	NA
-------------------	-----	------	------	------	------	------	------	----	----

TOTAL DRAIN	2347	2544	2586	4194	3861	4378	6065	NA	NA
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1995 DRAIN / INVENTORY RATIO

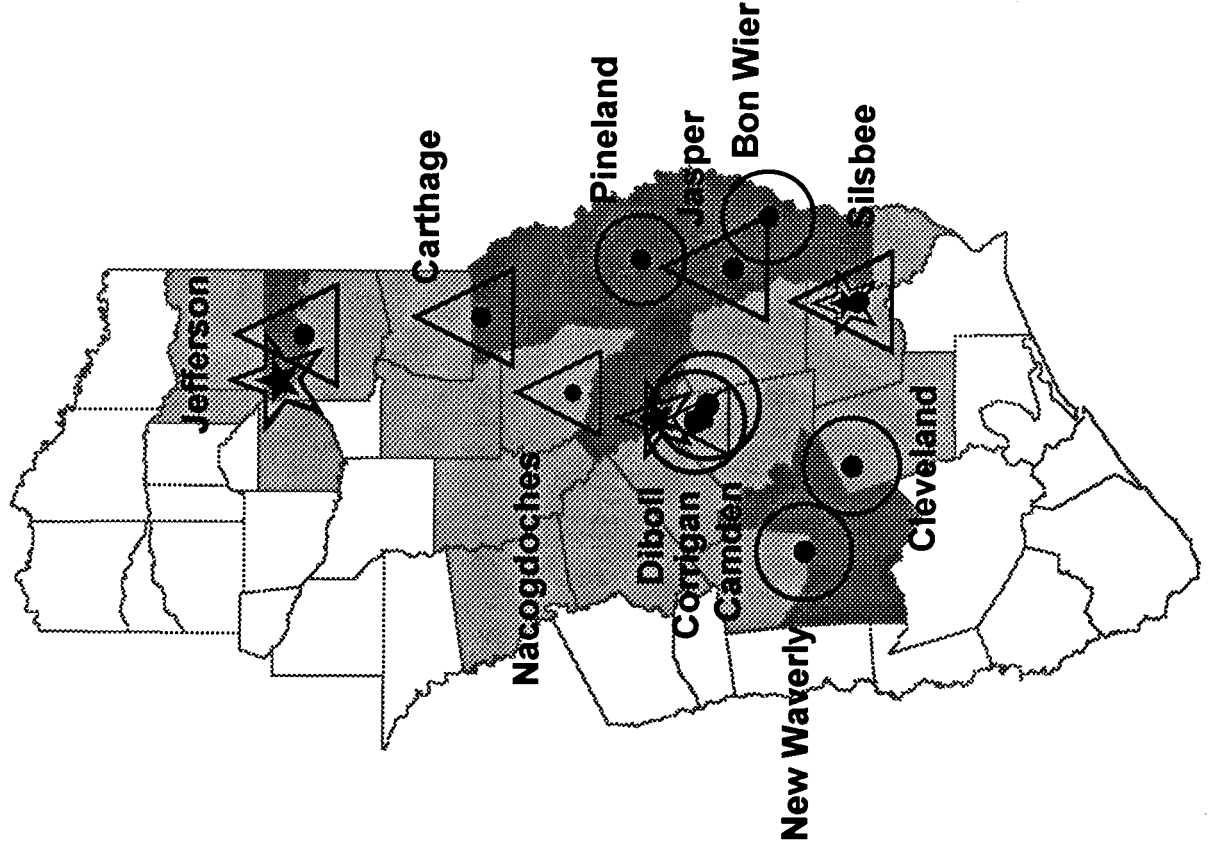
0.013

Pine sawtimber

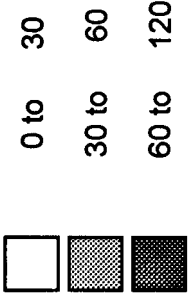
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Eastern Texas

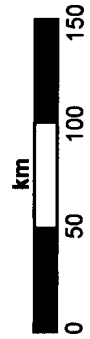
Timber Inventory and Annual Panel Plant Capacity



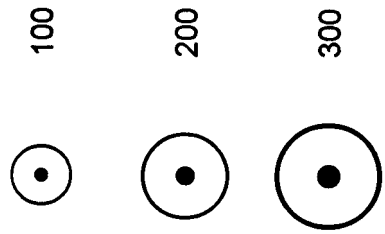
Timber (cubic meters/hectare)



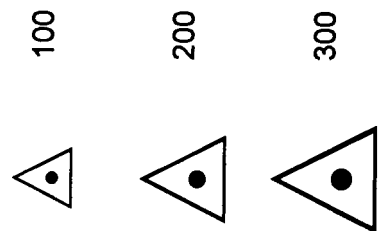
Note: Growing Stock numbers from the USDA, Forest Service.



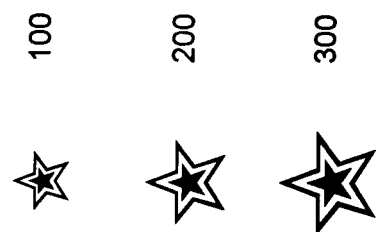
Plywood Capacity (Thousand m³)



OSB Capacity (Thousand m³)



Pbd/MDF Capacity (Thousand m³)



Texas

Location	Company	Year built	Year closed	Capacity / Production (Thousand m³)													
				1965	1970	1975	1980	1985	1990	1995	1996	1997	1998				
PINE PLYWOOD																	
Diboll	SPPCo>TE	1964	1985	62	62	106	106	44									
Silsbee	Kirby	1964	1985	32	53	106	133	142									
Lufkin / Keltys	Angel>L-P	1965	1998	44	64	64	89	137			168	155	155	155			
Nacogdoch	I-P	1969	1979		89	89											
New Waver	G-P>L-P	1971				177	186	199			266	266	266	266			266
Jasper	O-I>L-P	1971	1996			89	124	133			133	133	62				
Corrigan	G-P>CI	1972				168	177	204			264	292	292	292			292
Pineland	Temple	1974				106	137	173			177	221	235	235			235
Bon Wier	Kirby>LP	1975				142	190	208			243	243	243	243			243
Camden	Champ. Int.	1979					204	252			279	310	310	310			319
Cleveland	Kirby>LP	1980		138	267	1046	1505	1739			1795	1850	1762	1776			1621
TOTAL																	
ORIENTED STRANDBOARD																	
Corrigan	L-P	1983						124			124	133	133	133			133
Nacogdoch	I-P	1987									168	212	212	212			212
New Waverly	L-P	1987	1996								80	44	44				
Silsbee	L-P	1991										301	301	301			301
Jefferson	I-P	1996											310	310			310
Jasper	L-P	1996											18	332			332
Carthage	L-P	1997												177			292
TOTAL																	
TOTAL PLYWOOD AND OSB																	
PARTICLEBOARD																	
Jacksonville	Wynnewood	NA	1976	21	21	32											
Silsbee	Evans Pr	1967	1971		127												
Diboll	Temple In.	1971				177	177	181			195	195	195	195			195
Corrigan	G-P > L-P	1973	1978			159											
Silsbee	Kirby>L-P	1974				124	127	127			124	142	142	142			142
Jefferson	I-P	1997												301			301
TOTAL																	
MEDIUM-DENSITY FIBERBOARD																	
TOTAL																	
TOTAL PARTICLEBOARD AND MDF																	
LUMBER PRODUCTION																	
PULPWOOD RECEIPTS																	
TOTAL DRAIN																	

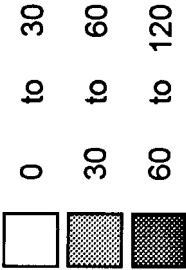
TYPICAL WOOD COSTS (U.S. \$ per m³)

Pine sawtimber													
Standing	38	25	27	67	57	67	NA						
Delivered	46	38	38	81	79	85	NA						
Pine pulpwood													
Standing	4	7	6	9	9	11	NA						
Delivered	18	21	21	25	25	28	NA						
Hardwood pulpwood													
Standing	1	1	3	8	5	8	NA						
Delivered	15	15	20	22	22	27	NA						

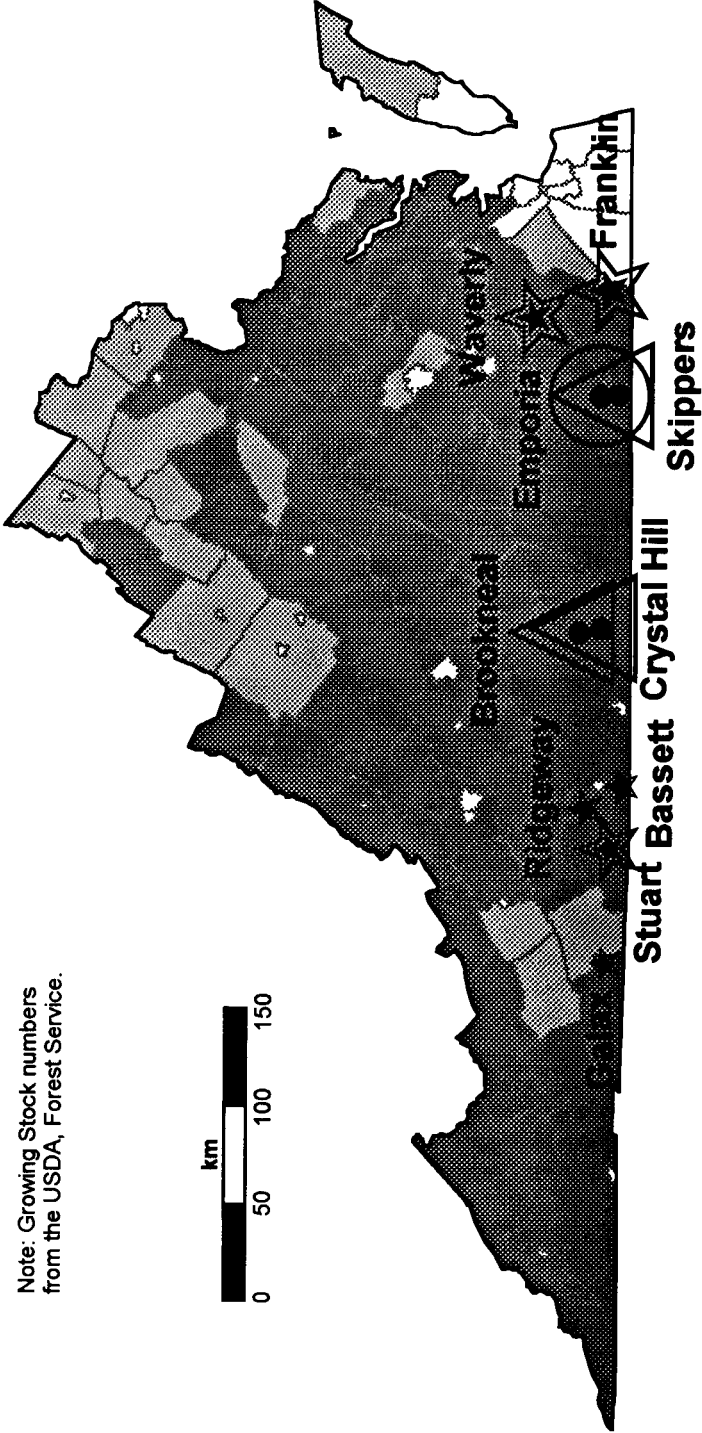
Virginia

Timber Inventory and Annual Panel Plant Capacity

Timber (cubic meters/hectare)



Note: Growing Stock numbers from the USDA, Forest Service.



Plywood Capacity (Thousand m³)	100	200	300
OSB Capacity (Thousand m³)	100	200	300
Pbd/MDF Capacity (Thousand m³)	100	200	300

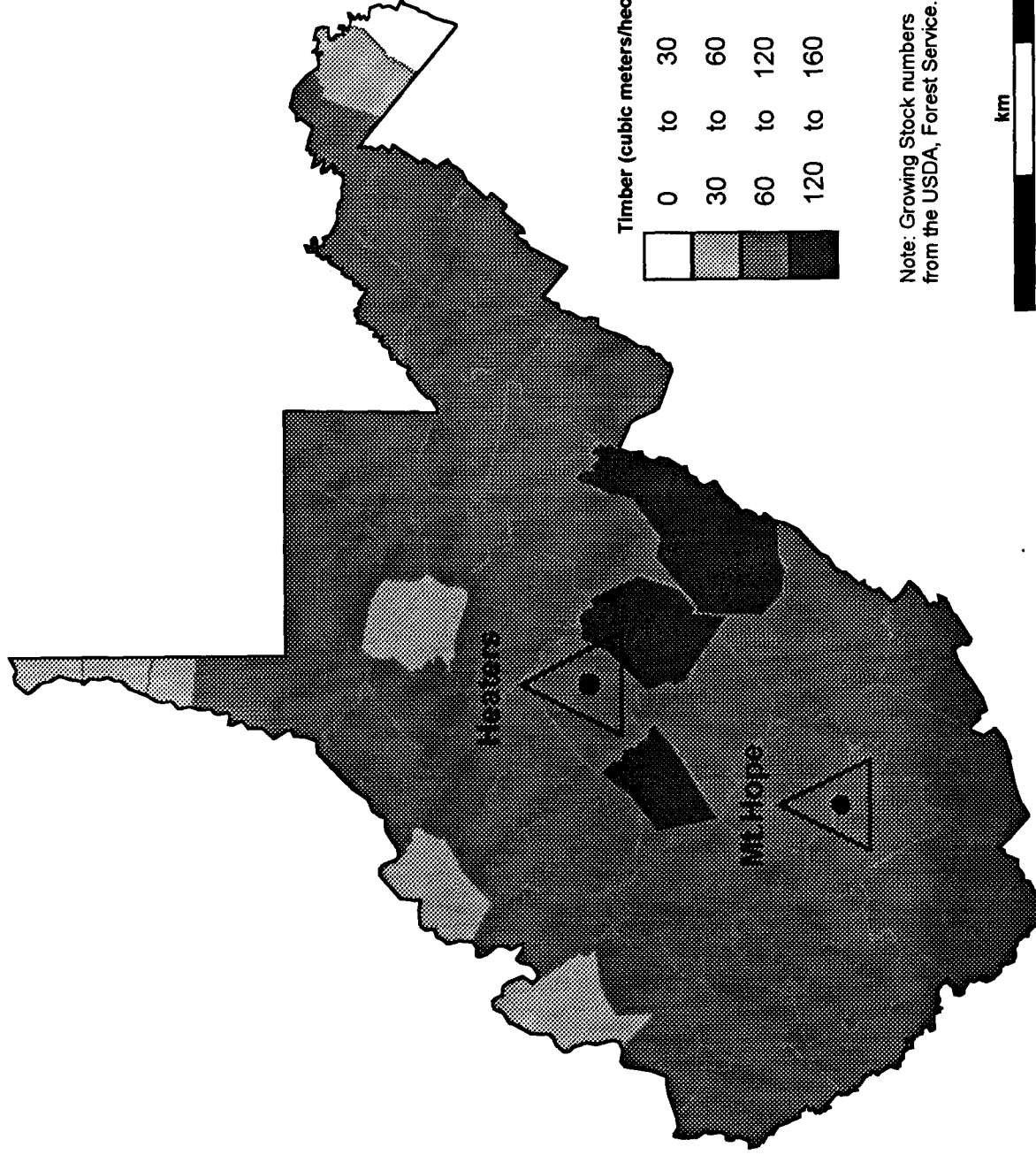
Virginia

Location	Company	Year built	Year closed	Capacity / Production (Thousand m³)										
				1965	1970	1975	1980	1985	1990	1995	1996	1997	1998	
PINE PLYWOOD														
Emporia	G-P	1966			133	142	142	142	221	261	281	281	281	281
TOTAL														
ORIENTED STRANDBOARD														
Skippers	G-P	1985							221	248	309	309	309	309
Dungannon	L-P	1986								106	111	111		
Crystal Hill	Huber	1995									221	301	301	301
Brookneal	G-P	1995							221	354	960	1039	928	929
TOTAL														
TOTAL PLYWOOD AND OSB				0	133	142	142	142	443	615	1241	1320	1210	1210
PARTICLEBOARD														
S. Boston	Cham>G-P	NA	1996	53	53	113	149	177	191	198		198		
Waverly	Masonite>I-P	NA		106	106	142	172	170	182	184		184	184	184
Franklin	Union Camp	1972				124	142	150	159	221	221	221	221	221
Stuart	Stuart >I-P	1973				106	97	97	138	127	127	127	127	127
Galax	Webb	1985						32	27	28	28	28	28	28
Ridgeway	Triwood Inc.	1985						35	35	35	35	35	35	35
TOTAL														
MEDIUM-DENSITY FIBERBOARD				159	159	485	559	662	733	794	794	794	595	595
Bassett														
Bassett	Bassett	1969			35	39	39	39	39	37	37	37	37	37
TOTAL														
TOTAL PARTICLEBOARD AND MDF				159	195	524	598	701	770	831	831	831	632	632
LUMBER PRODUCTION				2679	2542	2046	NA	1973	2872	3066	2969	NA	NA	NA
PULPWOOD RECEIPTS				5350	5310	5163	6667	7816	8059	8206	NA	NA	NA	NA
TOTAL DRAIN				8187	8180	7874	NA	10933	12316	13344	NA	NA	NA	NA

TYPICAL WOOD COSTS (U.S. \$ per m³)														
Pine sawtimber														
Standing	15	21	22	42	39	44	NA							
Delivered	29	34	39	62	57	69	NA							
Pine pulpwood														
Standing	4	5	5	5	7	8	NA							
Delivered	15	18	19	26	25	24	NA							
Hardwood pulpwood														
Standing	1	1	2	3	3	3	NA							
Delivered	12	13	15	23	24	26	NA							

West Virginia

Timber Inventory and Annual Panel Plant Capacity



OSB Capacity (Thousand m³)

100

200

300

West Virginia

Location	Company	Year built	Year closed	1965	1970	1975	Capacity / Production (Thousand m³)						1980	1985	1990	1995	1996	1997	1998
PINE PLYWOOD																			
TOTAL																			
ORIENTED STRANDBOARD																			
Mt.Hope	G-P	1995																	
Heaters	Weyerhaeus	1996																	
TOTAL																			
TOTAL PLYWOOD AND OSB				0	0	0	0	0	0	0	0	0	0	0	0	183	314	314	314
PARTICLEBOARD																			
TOTAL																			
MEDIUM-DENSITY FIBERBOARD																			
TOTAL																			
TOTAL PARTICLEBOARD AND MDF				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LUMBER PRODUCTION				1071	1020	890	NA	NA	1500	1652	1541	NA	NA	NA	NA	1541	NA	NA	NA
PULPWOOD RECEIPTS				NA	NA	NA	NA	NA	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DRAIN				NA	NA	NA	NA	NA	1500	1835	NA	NA	NA	NA	NA	NA	NA	NA	NA

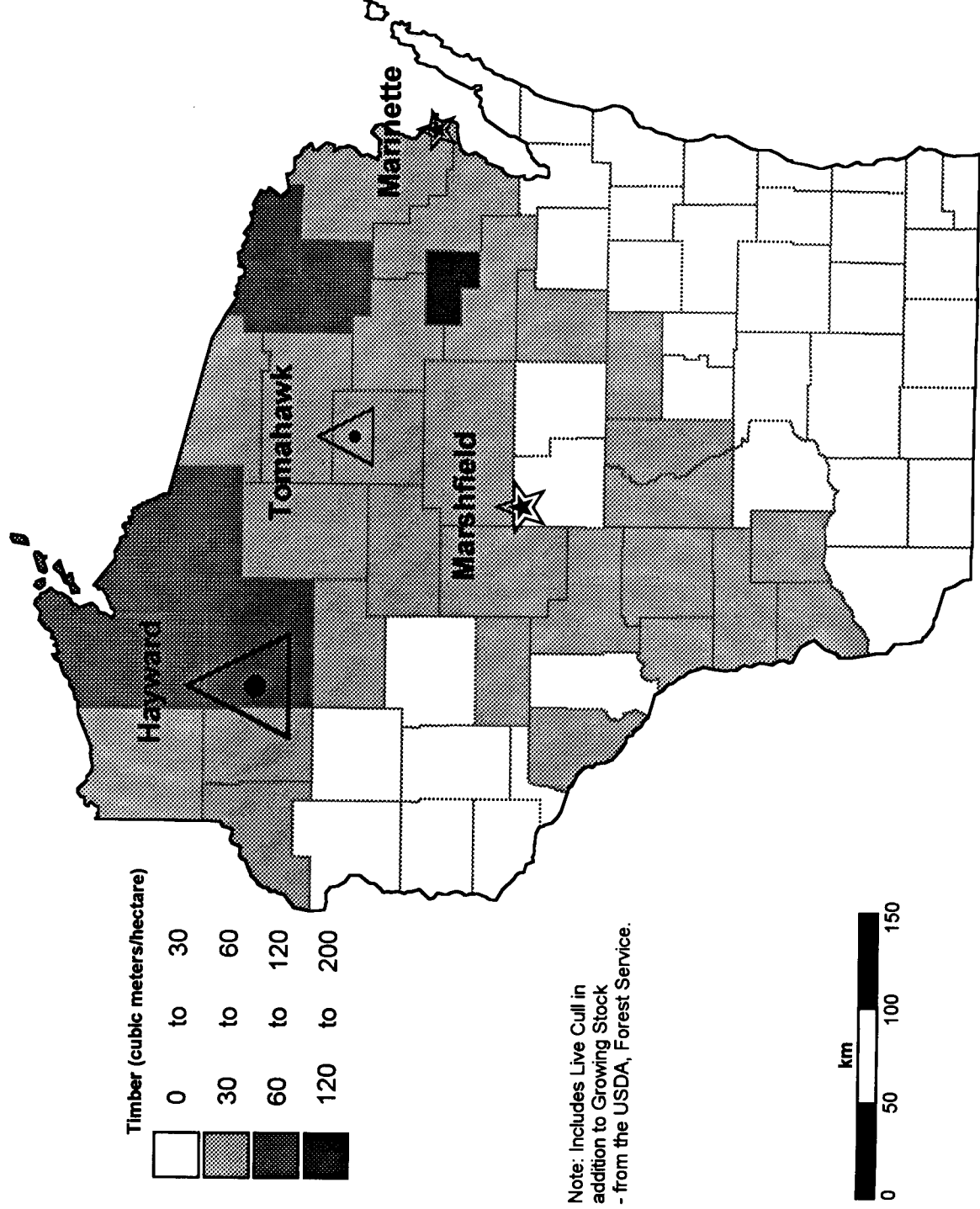
0.003

1995 DRAIN / INVENTORY RATIO

TYPICAL WOOD COSTS (U.S. \$ per m³)															
Pine sawtimber															
Standing				NA			NA		NA		NA		NA		NA
Delivered				NA			NA		NA		NA		NA		NA
Pine pulpwood															
Standing				NA			NA		NA		NA		NA		NA
Delivered				NA			NA		NA		NA		NA		NA
Hardwood pulpwood															
Standing				NA			NA		NA		NA		NA		NA
Delivered				NA			NA		NA		NA		NA		NA

Wisconsin

Timber Inventory and Annual Panel Plant Capacity



OSB Capacity (Thousand m³)

100

200

300

Pbd/IMDF Capacity (Thousand m³)

100

200

300

Wisconsin

Location	Company	Year built	Year closed	1965	1970	1975	1980	1985	1990	1995	1996	1997	1998
PINE PLYWOOD													
TOTAL													
ORIENTED STRANDBOARD													
Hayward	L-P	1978					115	142	204	212	221	221	221
Hayward	L-P	1982						142	204	212	221	221	221
Tomahawk	L-P	1993								133	133	133	133
TOTAL													
TOTAL PLYWOOD AND OSB													
PARTICLEBOARD													
Marinette	Rodman	NA			42	0	115	283	407	558	575	575	575
Marshfield	Weyerhae	1967		27	42		44	62	76	76	76	76	76
TOTAL													
MEDIUM-DENSITY FIBERBOARD													
TOTAL													
TOTAL PARTICLEBOARD AND MDF													
LUMBER PRODUCTION													
PULPWOOD RECEIPTS													
TOTAL DRAIN													
1995 DRAIN / INVENTORY RATIO													
0.017													

TYPICAL WOOD COSTS (U.S. \$ per m³)													
Pine sawtimber													
Standing				NA			NA	NA	NA	NA	NA	NA	NA
Delivered				NA			NA	NA	NA	NA	NA	NA	NA
Pine pulpwood													
Standing				NA			NA	NA	NA	NA	NA	NA	NA
Delivered				NA			NA	NA	NA	NA	NA	NA	NA
Aspen pulpwood													
Standing				2			2	3	3	8	8	NA	NA
Delivered				14			14	17	18	26	25	NA	NA