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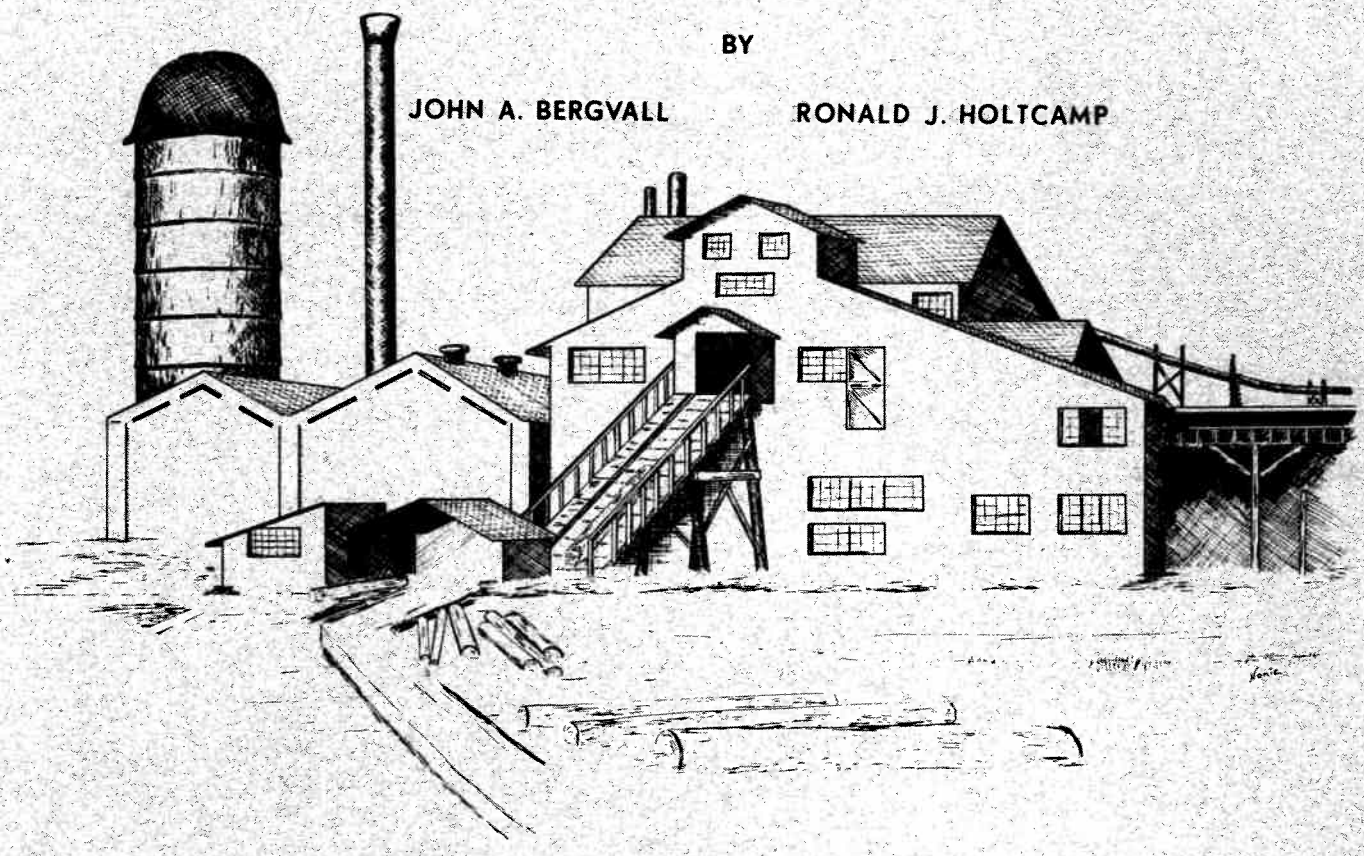
WASHINGTON MILL SURVEY

WOOD CONSUMPTION AND MILL CHARACTERISTICS

1970

BY

JOHN A. BERGVALL RONALD J. HOLTCAMP



STATE OF WASHINGTON

Department of

Natural Resources

BERT L. COLE — COMMISSIONER OF PUBLIC LANDS

DON LEE FRASER — SUPERVISOR

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Inquiries concerning information in this report should be directed to:

John A. Bergvall, Forest Analyst
Washington State Department of Natural Resources
Technical Services Division
P. O. Box 168
Olympia, Washington 98504
Phone No.: Area Code 206 - 753-5338

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FOREWORD

This report presents comprehensive statistics on wood consumption and characteristics of all primary wood processing mills operating in Washington State during calendar year 1970. It documents the findings of the second in a series of biennial surveys regarding wood flow and raw material input to the State's wood-using industries.

These reports are intended to document data for the forest products industry, thus providing information for the forest industry, federal and state lawmakers, public resource managers, and others to whom this information may be useful.

Comparison of compatible statistics from these biennial surveys will indicate the effects of changes in the wood-using industries on other industries, employment, and community development.

The 1970 statistics were obtained from a mail survey conducted in 1971 and supplemented with information received by telephone. Contacts were based on the most recent industry lists, updated by the Department's districts.

Information about individual mills or companies is confidential; all data that could reveal individual identity have been combined with other data to avoid disclosure.

Production data were not a major objective of the survey but were obtained to provide information on wood requirements for given levels of production.

As the survey was a 100 per cent canvass, no sampling error is involved. The information collected from each mill is assumed to be the most reliable and best available. (Discrepancies in the 1968 report have been noted at the end of each industry segment.)

The text highlights the more significant statistics presented in the tables. It also provides a summary background of the timber economy in 1970, as well as some recent trend information.

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FIGURES

TABLES

TOTAL INDUSTRY

HIGHLIGHTS

Industry Characteristics

- 509 mills[1] total

Type of Mill	Number of Mills	Single Shift Capacity
Sawmills	185	10.6 MMBF
Veneer & Plywood	41	5.9 MMSF (⅜" basis)
Pulp & Board	31	11.5 Tons (Daily)
Log Export	55	NA
Shake & Shingle	172	13.9 M Sq.
Pole, Post & Piling	25	10.5 MMCF (yearly)

- Grays Harbor, with 79, was the leading county in number of mills.
- The 28 largest sawmills had 53% of total sawmill capacity.

Wood Consumption

- 7.1 billion board feet of roundwood logs consumed.
- 91 million board feet of peeler cores, cants, blocks, boards, butts, and miscellaneous peeled products.
- 4.7 million tons of chips, sawdust and shavings; 41% imported.
- Leading counties in roundwood use were:
  - Snohomish — 1,109,251 MBF
  - Cowlitz — 1,038,810 MBF
  - Grays Harbor — 830,933 MBF
- Roundwood use by industry:
  - Sawmills — 37%
  - Pulp & Board — 25%
  - Log Export — 24%
  - Veneer & Plywood — 10%
  - Shake & Shingle & Pole, Post, Piling — 4%
- 46% of total wood used by Pulp & Board was in the form of chips, sawdust, and shavings.
- 90% of all logs were from sound live timber.
- 38% of the roundwood volume was hemlock; 37%, Douglas fir; 8% western redcedar.
- Only 3% of all logs were imported, mostly from Oregon.
- 48% of the logs came from Company-owned timberlands; 17%, from National Forests.

Residues

- 5.3 million tons of wood and bark residues were generated by:

Type of Mill	Per Cent	Million Tons
Sawmills	78	4.1
Veneer & Plywood	19	1.0
Shake & Shingle	3	0.2

- 78% of all residue was wood; 22%, bark.
- 94% of wood residues were used and 79 % of the bark. 486,000 tons (wood and bark) were unused.
- 57% of wood residue went to Pulp & Board; 27%, for fuel; 10%, other uses; 6%, unused.
- Residue-producing industries averaged 1.52 tons of by-products per 1,000 board feet of logs consumed (1.18 tons of wood, .34 tons of bark).

[1]*For ease of presentation the term "mill" is used for all types of primary processing plants although it is recognized that some are better described by other terms such as export operations or facilities and pole and piling yards.*

AN OVERVIEW OF THE INDUSTRY

THE TIMBER ECONOMY

Washington's timber industry retained its national importance in 1970. Over 9 per cent of the nation's roundwood[2] was produced in this state. Also, 12.1 per cent of the nation's softwood lumber and 12.6 per cent of the softwood plywood were produced here. The consumption of pulpwood accounted for over 12 per cent of the national total. Washington remains one of the leading states in terms of wood products and roundwood consumption.

The timber industry became relatively more important to the State of Washington in 1970 because of severe reductions in the aerospace industry. The wood products industries employed[3] an average of 61,900 workers per month, a 6.1 per cent decrease from 1968. However, those fewer employees received a larger payroll, 581 million dollars, a 13.2 per cent increase for the two year period. The increased payroll accounted for 24.4 per cent of the total manufacturing payroll in comparison with 21 per cent in 1968. Although in 1970 aerospace still had the largest payroll among Washington's manufacturing industries, the wood products industry replaced it in number of employees.

Washington's 1970 total timber harvest (Figure 1), 6.46 billion board feet, decreased 7.7 per cent from the 1969 harvest of 7 billion board feet, the largest recorded since 1929.[4]

Log use by Washington mills is shown graphically in Figure 2. In developing the graph, final units of production were converted to log equivalents, Scribner scale. The Pole, Post, and Piling Industry is not shown due to graphic limitations, but its high-value products contribute to the total value of the wood products industry.

Lumber, plywood, and public stumpage prices declined during 1970, primarily because of the depressed housing market.

Late 1970 and early 1971 saw a substantial increase in housing starts with commensurate increases in lumber and plywood prices. However, the 1971 price increases slowed as housing starts became stabilized. These and other circumstances point to a cautiously optimistic outlook for Washington's wood products industries in 1971.

INDUSTRY CHARACTERISTICS

The ability of the forest products industry to compete in an environment of changing conditions and markets results from a variety of factors, many of which are beyond the scope of this report. They include policies of land use, forest land management by the public and private sectors, and corporate administration.

Other factors, which are discussed in this report, are the industry's ability to adapt to smaller diameter logs and to utilize a greater variety of species. Increased use of residues has benefited all segments of the industry by turning waste into products. Concern for the environment created stricter controls on the burning of waste residues, thus affecting a traditional operating policy of many firms.

Six segments of the industry are identified in this report: Sawmill, Veneer and Plywood,[5] Pulp and Board, Log Export, Shake and Shingle, and Pole, Post and Piling. Each segment is unique in its raw material requirements, operations, and products. Economic areas are illustrated in Figure 3. Comparisons within segments or

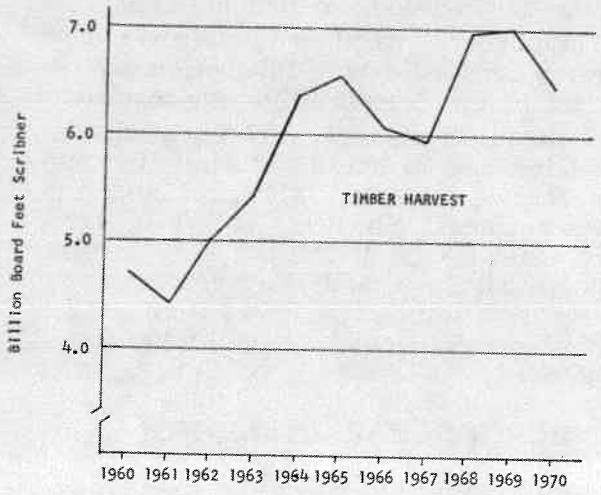
[2] *Hair, Dwight & Alice H. Ulrich, May 1971, "The Demand & Price Situation for Forest Products, 1970-71," Miscellaneous Publication No. 1195; U.S. Department of Agriculture Forest Service, 83 pp. illus.*

[3] *Employment and wage data reported to the Employment Security Department on quarterly tax reports by employers subject to the Washington Employment Security Act. Timber industry employment (SIC24 and 26) does not include some employment, such as longshoremen or truckers, not entirely attributable to the timber industry.*

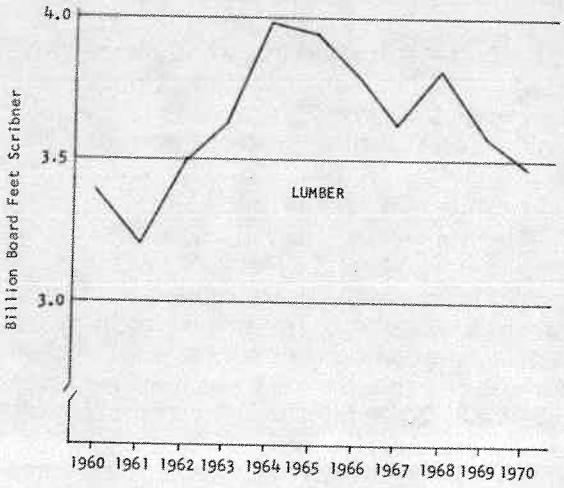
[4] *"1970 Timber Harvest Report," State of Washington Department of Natural Resources, 105 pp. illus.*

[5] *The veneer and plywood industry discussed in this report consists essentially of mills producing softwood veneer and plywood. However, a few of these mills do use relatively small volumes of local hardwoods—largely black cottonwood. Mills producing veneer and plywood from exotic woods—tropical or hardwoods from eastern United States—were not included in the survey.*

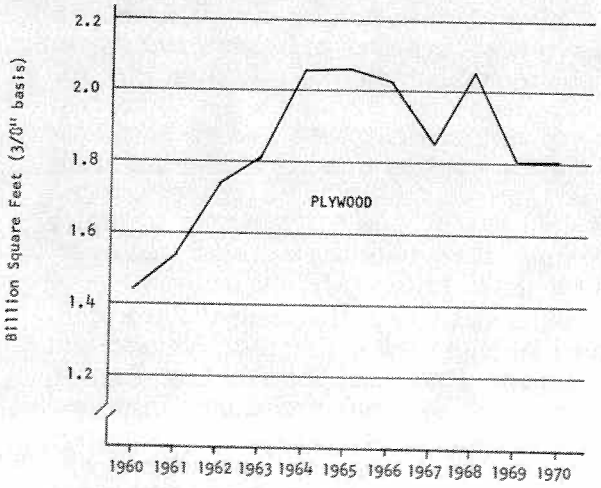
Figure 1.—Output of Major Timber Products for Washington, 1960-1970



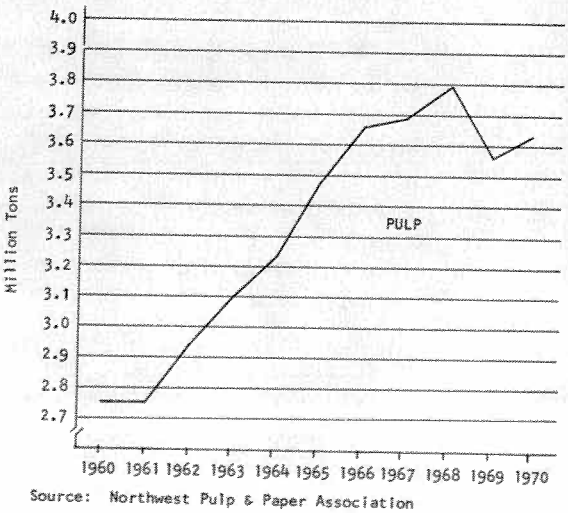
Source: State of Washington Department of Natural Resources



Source: Western Wood Products Association

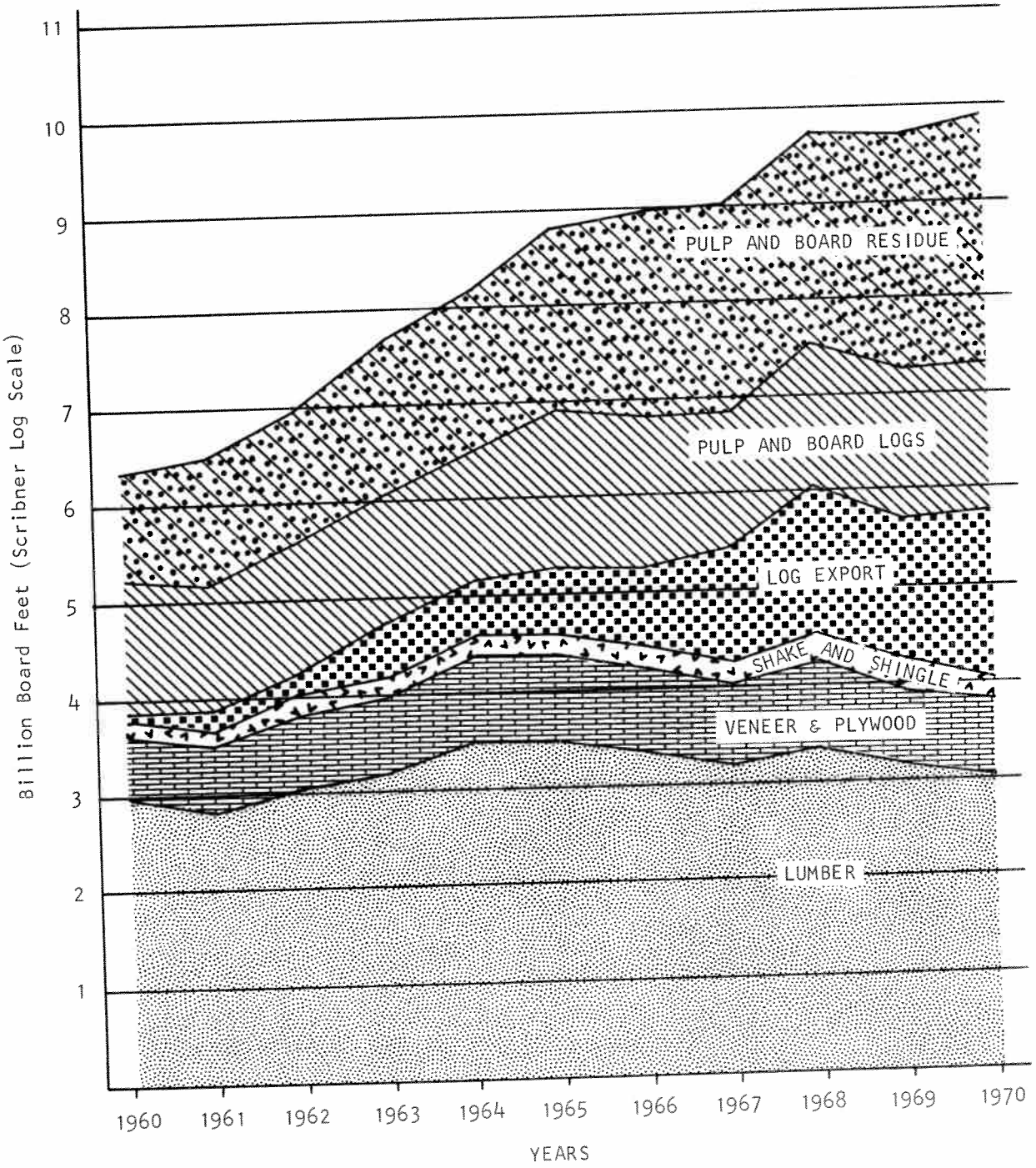


Source: American Plywood Association



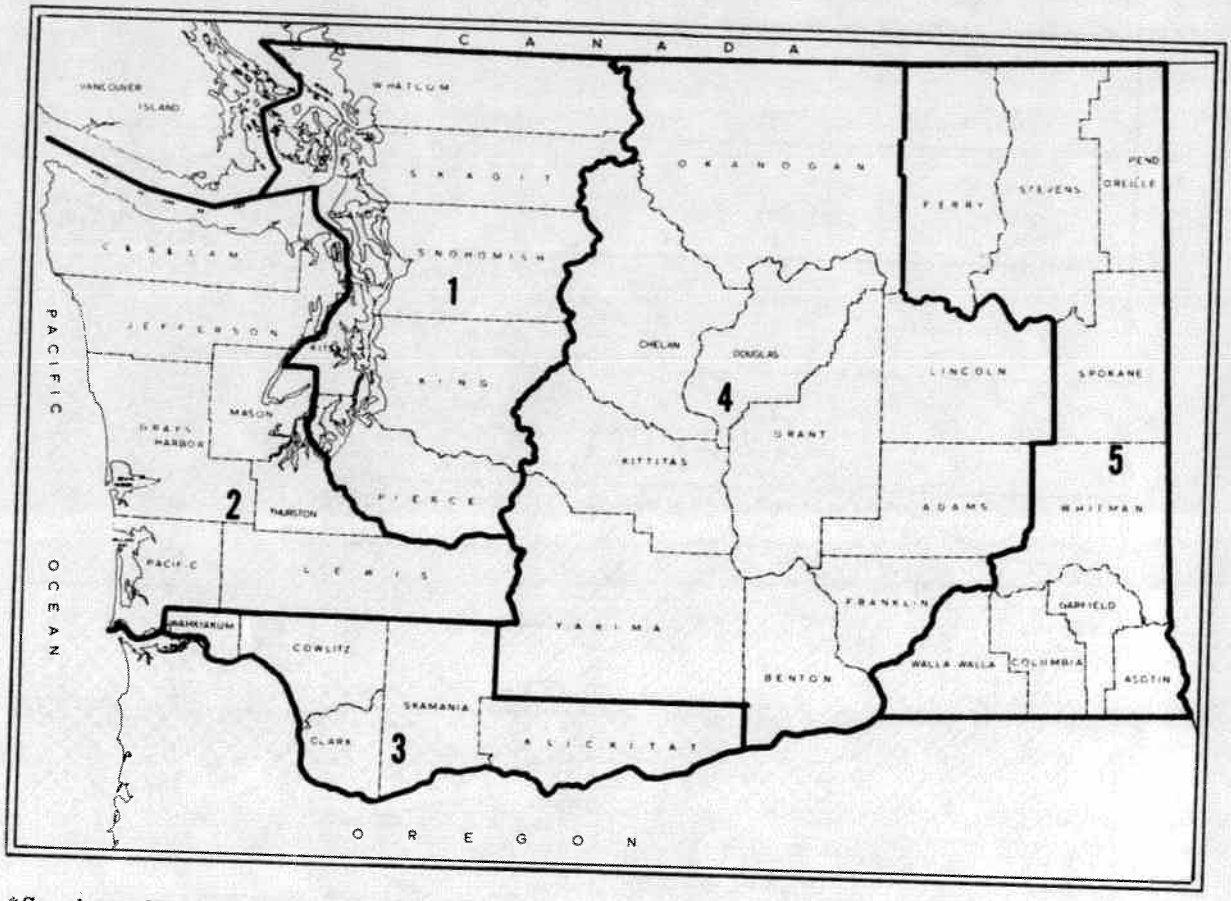
Source: Northwest Pulp & Paper Association

Figure 2.—Washington Wood Use by Major Forest Industries, 1960-1970*
(Converted to Log Equivalent of Final Product)



**Pole, Post and Piling Industry volume less than 100 million board feet*

*Figure 3.—Washington Mill Survey Economic Areas Encompassing the Thirteen Economic Regions**



*See Appendix Page 24 for boundaries of The Thirteen Regions

1 PUGET SOUND
(3) North Puget Sound
(4) Central Puget Sound

2 OLYMPIC PENINSULA
(1) North Coast
(2) South Coast
(5) South Puget Sound

3 LOWER COLUMBIA
(6) Lower Columbia

4 CENTRAL WASHINGTON
(7) Upper Columbia
(8) Yakima Valley
(9) Columbia Basin
(10) Two Rivers

5 INLAND EMPIRE
(11) Northeast
(12) Spokane
(13) Southeast

economic areas can quickly be obtained by using Tables 1-8.

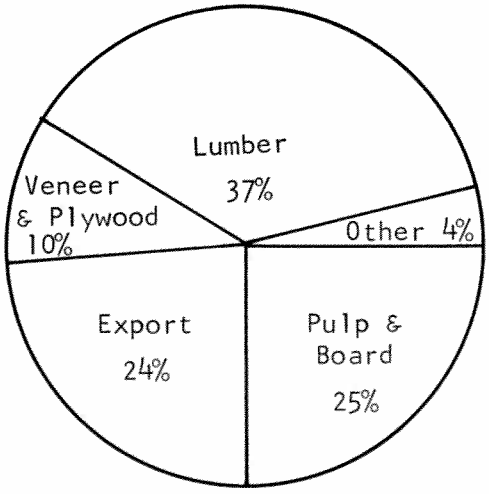
In addition to the 509 mills that operated during 1970, approximately 100 were discovered to be either out of business, not in operation during 1970, or not primary processors of raw wood material.

Production capacity per shift was little changed from 1968. However, the average number of operating days showed a significant decline, reflecting the less favorable market conditions in 1970.

WOOD CONSUMPTION

During 1970, Washington's forest products industries consumed 7 billion board feet of logs,[6] 91 million board feet of other wood, and 4½ million tons of wood residues. Sound live logs made up 90 per cent of the total roundwood, with sawmills consuming the greatest portion (38 per cent). Two per cent (total roundwood) was sound dead logs and again sawmills consumed the major portion (52 per cent). Utility or cull material, the remaining 8 per cent of roundwood, was consumed mainly by the Pulp and Board Industry (61 per cent). Figure 4 illustrates the total log consumption by industrial segment.

Figure 4.—Log Consumption by Type of Industry



[6]*In this report, Scribner log rule has been used to express board foot volume of logs. In some cases, it has been used to provide a board-foot equivalent for chips, cordwood, and other materials commonly measured in units, tons, pieces, etc.*

The 4½ million tons of wood residues consumed by the Pulp and Board Industry consisted of mill residues and material from roundwood chipping plants. This volume can be considered equivalent to 2¼ billion board feet of logs, thus allowing the total wood consumption of the forest products industry to be expressed as 9⅓ billion board feet (Scribner) for 1970.

The forest industries relied on a number of ownerships for their log supply but met over half the demand from their own lands.

Ownership		Per Cent of Log Supply
State		12
National Forest		17
Bureau of Land Management		†
Other Public		5
Total Public		34
Forest Industry	Own Wood Supply	48
	Other Wood Supply	10
Farmer & Misc. Private		8
Total Private		66
All Owners		100

† *less than 0.5*

Ownership dependency can be expressed on an individual mill basis by showing those that obtain more than two-thirds of their logs from a single ownership class.

Ownership		Number of Mills Two-Thirds Dependent
State		18
National Forest		73
Bureau of Land Management		4
Other Public		23
Total Public		118
Forest Industry	Own Wood Supply	45
	Other Wood Supply	76
Farmer & Misc. Private		78
Total Private		199
All Owners		317

Hemlock[7] was the dominant species consumed by the industry during 1970. Its 38 per cent and Douglas fir's 37 per cent accounted for three-fourths of industry's total log requirements. In Western Washington, the three major species, in order of importance, were hemlock, Douglas fir, and western redcedar. Ponderosa pine and Douglas fir were the major species in Eastern Washington.

Most segments of the industry are able to utilize a number of species; however, two segments are very limited. The Pole, Post, and Piling Industry is more than 95 per cent dependent on Douglas fir and western redcedar, and the Shake and Shingle Industry is largely dependent on western redcedar.

Washington's timberlands supplied 97 per cent of the industry's log demand. Oregon contributed 2 per cent, with most (94 per cent) of this volume being consumed in the Lower Columbia Area.[8] The remaining 1 per cent came from British Columbia, Idaho, and Montana.

RESIDUES

Production

The Sawmill, Veneer & Plywood, and Shake & Shingle segments of the industry generated all (5.3 million tons) of the wood and bark residues produced in 1970. These residues are becoming an increasingly important source of raw material for pulp and related industries.

[7]*Western hemlock and mountain hemlock have been combined under the generic designation of hemlock in this report.*

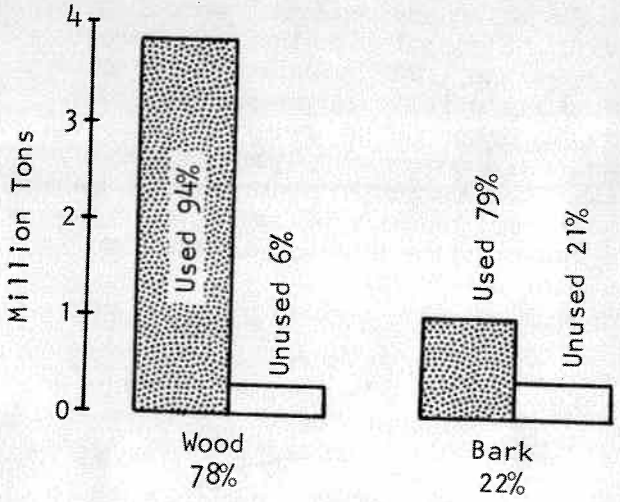
[8]*Although Klickitat County lies east of the Cascade Range, it has been included in the Lower Columbia Area and is considered as part of Western Washington for purposes of this report.*

Utilization

A significant achievement of the forest products industry has been the increased utilization of wood residues, only 6 per cent of which were unused in 1970.

Wood Residue Disposition	Per Cent
Pulp and Board	57
Fuel	27
Other uses	10
Unused	6
All Wood Residue	100

Figure 5.—Relative and Absolute Residue Volume



COMPARISON TO 1968 DATA

Numbers of operations for industry segments indicate the *net* gain or loss of *primary* wood processing facilities since 1968. Specific comparisons should be based on the actual statistics rather than the text percentages which are only valid in discussing the year on which they are based.

MILL CHARACTERISTICS

Size-class

Sawmills (185 in operation) were assigned size-classes based on maximum production for a single shift.

Mill Size-Class	Capacity per Single Shift MBF Scribner
A	120+
B	80-119
C	40-79
D	less than 40

Table 9 gives the number of sawmills per size-class in each county.

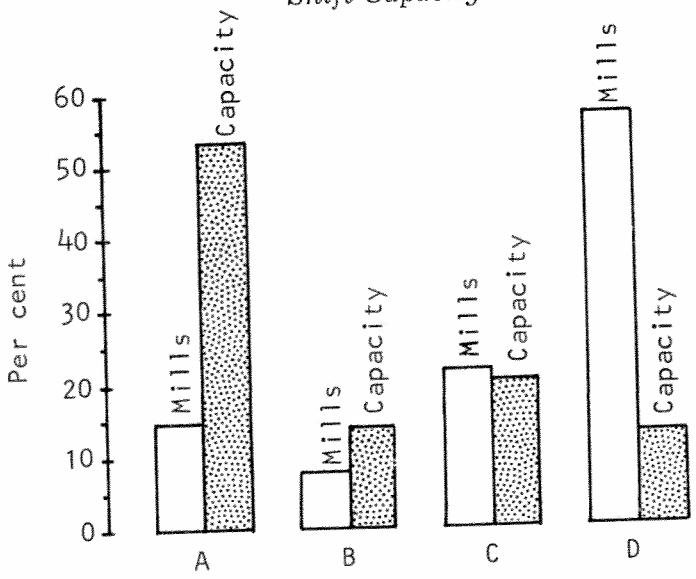
Puget Sound was the leading Area (58 mills) with Snohomish the leading county (21 mills).

Production Capacity

The general trend of the industry has been toward increased shift capacity for size-class A mills.

Year	Mills	Single Shift Capacity
1968	212	10,611,000 BF
1970	185	10,595,000 BF
Change from 1968 to 1970	Down 13%	Down 0.2%

Figure 6.—Per Cent of Sawmills by Size-Class and Per Cent of Total Shift Capacity



Equipment

Planers, chippers, or barkers were used by more than half the sawmills during 1970 (Table 12). Because of increased residue use and air pollution restrictions, less than one-third of the mills operated burners. With the exception of burners for size-class C mills and kilns for size-class B mills, sawmills in size-class A were more fully equipped than any other class of mill.

Equipment	Mill-Size-Class A	B	C	D	All
	per cent				
Planer	96	93	92	55	72
Chipper	100	93	92	23	55
Barker	96	87	89	23	53
Kiln	71	80	66	17	41
Burner	29	27	55	25	32

Information on size and type of headrig is presented in Table 13. Some mills have more than one headrig, but only the largest is represented in the table. For this reason, only 12 mills reported gang, chipping, or scragg double-cut saws as their main headrig. Generally, these types of saws handle logs less than four feet in diameter; circular and band type headrigs usually handle logs four to six feet in diameter.

Age and Ownership

Mill Size-Class	Per Cent Ownership Change Since 1950
A	18
B	53
C	39
D	17
All Mills	25

Two factors account for the small percentage of change in size-class D mills. About 10 per cent of those mills were portable, allowing their owners to take advantage of market variations and short-term timber supplies. The greatest number of marginal mills—those that can afford to operate only under the most favorable conditions—were in the size-class D group. Rather than change ownership, many just went in and out of existence.

Operating Days

The average number of operating days per year reflects the effect of market conditions on the industry. On the basis of the normal five-day work week, the annual total would be about 250 operating days. Operation in Washington's sawmills ranged from 88 days for size-class D mills in the Lower Columbia Area to 245 days for size-class B mills in the Inland Empire Area (Table 15).

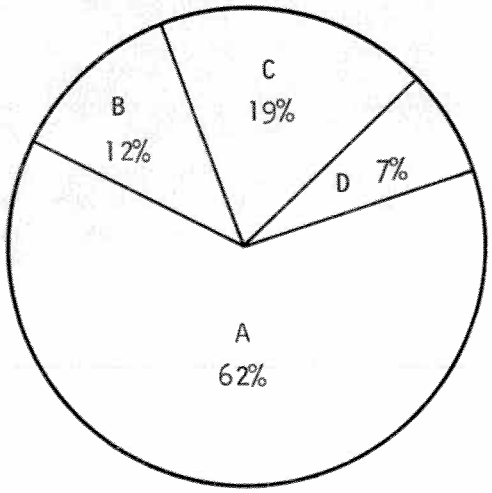
Mill Size-Class	Average Days of Operation
A	230
B	222
C	207
D	147
All Mills	178

WOOD CONSUMPTION

Raw Materials

Resaw and planing mills were not included in this survey because they are secondary manufacturers and do not consume roundwood. Of the 2.7 billion board feet consumed by sawmills during 1970, one per cent was in the form of peeler cores; the rest was roundwood in log form of which sound live logs were 92 per cent, with sound dead and utility grade logs accounting for 2 and 5 per cent respectively (Table 16).

Figure 7.—Sawmill Log Consumption by Mill-Size-Class (Table 17)



Age

Young growth timber (less than 100 years old) was a substantial part of the sawmill consumption during 1970. Tables 17 and 18 provide data on the age of timber consumed by mill-size-class and by county.

Mill Size-Class	Young Growth Per Cent
A	47
B	31
C	34
D	77
All Mills	45

The use of young growth by area shows significantly less variation.

Economic Area	Young Growth Per Cent
Puget Sound	41
Olympic Peninsula	54
Lower Columbia	38
Central Washington	47
Inland Empire	50
Total State	45

Inventories

Inventory reductions contributed eight per cent of the industry's log consumption (Table 19). Mills in the Olympic Peninsula Area obtained one-third of their consumption from inventories, although sawmills in other areas received less than three per cent.

Ownership

Sawmills relied on their own timberlands for 43 per cent of their logs (Table 20).

Ownership	Per Cent of Log Supply
State	8
National Forest	24
Bureau of Land Management	†
Other Public	7
Total Public	39
Forest Industry — Own Wood Supply	43
Forest Industry — Other Wood Supply	9
Farmer & Misc. Private	9
Total Private	61
All Owners	100

† *less than 0.5 per cent*

A breakdown of log source by mill-size-class and type of private ownership shows considerable differences.

Mill Size-Class	Forest Industry: Own Wood Supply	Forest Industry: Other Wood Supply	Other Private
	per cent		
A	61	7	4
B	19	13	10
C	14	11	12
D	7	15	45
All Mills	43	9	9

There were also area variations in ownership dependency. Public timberlands supplied the Central Washington and Inland Empire Area mills with 79 and 56 per cent of their logs respectively. National Forests contributed the greatest portion of public timber in all areas of the State. Table 22 presents the sawmills' relative dependency on various ownerships.

Mill Size-Class	Percent Mills More Than Two-Thirds Dependent on a Single Ownership
A	39
B	67
C	39
D	72
All Mills	60

Dependency information by area and size-class is necessary to evaluate the effects of timber supply policies on the industry.

Species

Douglas fir and hemlock made up 71 per cent of the logs consumed by sawmills during 1970 (Table 23). Figure 8 illustrates the species variation by economic areas.

Douglas fir was used more than any other species. Secondary in importance were: western hardwoods for class D mills, ponderosa pine for class C and B mills, and hemlock for class A mills.

Imports

Only 1.2 per cent of the total log volume was imported: Oregon imports (0.9 per cent), Idaho (0.3 per cent), and British Columbia (less than one tenth of one per cent).

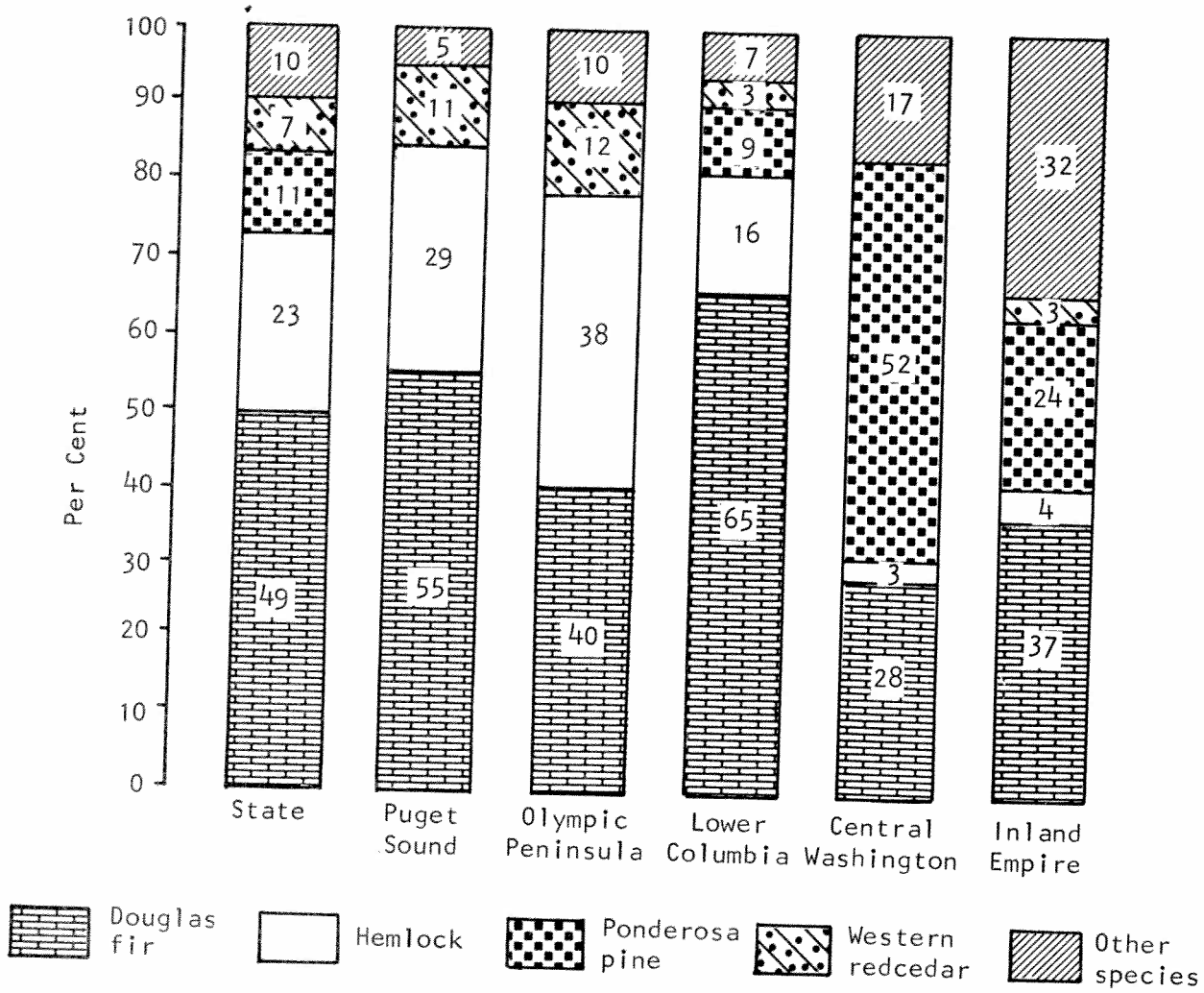
PRODUCTION

Lumber

Sawmills in the State of Washington produced 3,159,761,000 board feet of lumber during 1970. Under the operating conditions reported, the sawmill industry's production was 82 per cent of capacity. Size-class D mills, operating at 69 per cent of capacity, were the most noticeable departure on a mill-size-class basis. Central Washington mills, which operated at 90 per cent of capacity, were the most noticeable departure from the average on an area basis.

Economic Area	Lumber Production Per Cent
Puget Sound	35
Olympic Peninsula	22
Lower Columbia	21
Central Washington	13
Inland Empire	9
Total State	100

Figure 8.—Distribution of Sawmill Log Consumption by Species and Area.



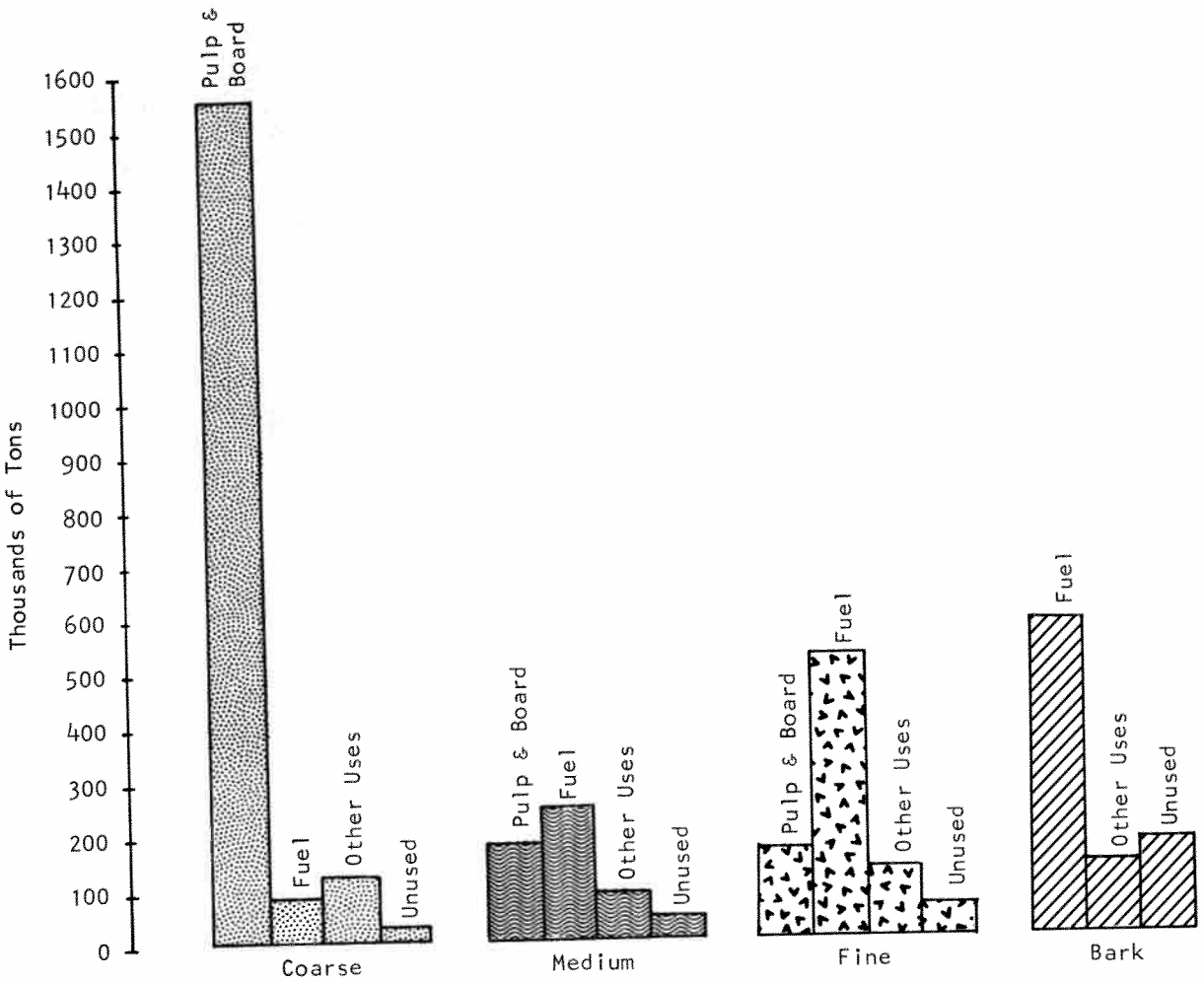
Residues

Production of 3.2 billion board feet of lumber resulted in 4.1 million tons of residue (Table 26) classified as coarse (slabs, edgings, trim, spur ends), medium (shavings), fine (sawdust), and bark. Wood residues (excludes bark) made up 3.2 million tons of the total—approximately one ton for every 1,000 board feet produced.

Uses of residues include: raw material for the Pulp and Board Industry, fuel for industry and the community, animal bedding, garden landscaping and mulch. These and other uses consumed 92 per cent of all residues produced by sawmills. Figure 9 illustrates the uses of each type of residue.

Unused residues were generally burned (but not as a source of fuel), left in the woods (by portable mills), or dumped near the mill site.

Figure 9.—Type and Disposition of Sawmill Residues



Mill Size-Class	Pulp & Board	Fuel	Other Uses	Unused
		Wood Residue Use		
	- - - - - -	per cent	- - - - - -	
A	60	30	9	1
B	59	24	15	2
C	60	22	8	10
D	42	14	21	23
All Mills	59	27	10	4
		Bark Residue Use		
A	..	81	11	8
B	..	37	21	42
C	..	39	22	39
D	..	17	35	48
All Mills	..	65	16	19

COMPARISON TO 1968 DATA

Table 9 of the 1968 report gave the unit of reference for shift capacity as *million board feet;* it should have been *thousand board feet.* The text portion identified shift capacity as *billion board feet* and should have been *million board feet.*

VENEER AND PLYWOOD INDUSTRY

MILL CHARACTERISTICS

Facilities

The 41 softwood veneer and plywood mills were located in each of the State's economic areas and in 19 of the 39 counties (Table 34). Lewis County, with the greatest number of mills (6), contributed to making Olympic Peninsula the leading area in the State (18 mills).

Production Capacity

Table 35 shows the production capacity per shift for each type of mill by county.

Economic Area	Average Shift Capacity per Mill* MSF 3/8" Basis
Lower Columbia	146
Puget Sound	131
Inland Empire	113
Olympic Peninsula	110
Central Washington	108
Total State	123

**Includes Veneer and layup, Veneer only, Layup only*

Most mills in the Olympic Peninsula Area were veneer-only plants. On a statewide basis, these plants had a lesser average-shift capacity than those having veneer and layup facilities.

Mill Type	Average Shift Capacity MSF 3/8" Basis	Number of Mills
Veneer & layup	137	21
Veneer only	112	14
Layup only	96	6
All types	123	41

Equipment

Tables 36 and 37 present statistics on log utilization with respect to lathe diameter limits and size of cores produced. Many mills could handle logs at least five feet in diameter and reduce them to eight-inch (or smaller) diameter cores. Core material was also utilized for posts, for sawing into lumber, and as a source of chips for the Pulp and Board Industry. Another example of utilization shows that 80 per cent of the mills used veneer chippers during 1970, while only 29 per cent used burners (Table 38).

Age and Ownership

More than half the mills (26) had been in their present location for more than 10 years; 18 of those more than 20 years (Table 39).

In the past five years, seven new mills have been built, four of which are in Eastern Washington. The only other Eastern Washington mill is less than 10 years old, an indication that the industry is relatively new in that part of the State.

Operating Days

Operation during 1970 averaged 224 days for all types of mills. Averages for each type of mill by area are shown in Table 40.

WOOD CONSUMPTION

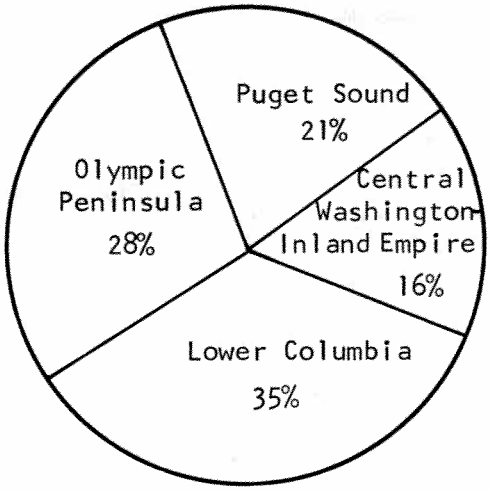
Raw Material

The veneer and plywod industry consumed 688 million board feet of logs during 1970. Nearly all (97 per cent) of this volume consisted of sound live logs (Table 41). Area variation ranged from 93 per cent in the Puget Sound Area to 100 per cent in the Central Washington-Inland Empire Areas. Utility grade (cull) logs accounted for 2 per cent of the total; the remaining 1 per cent, sound dead material.

Age

Old growth timber (more than 100 years old) made up 74 percent of the logs used, with the per cent of use varying considerably among economic areas (Table 42). Greatest use of old growth occurred in the Lower Columbia Area (90 per cent) and the least in the Central Washington-Inland Empire Areas (17 per cent). Total log consumption is shown in Figure 10.

Figure 10.—Veneer and Plywood Log Consumption by Economic Area



Inventories

Log receipts for the industry can be estimated from the mills' inventory changes and consumption during the year. Net inventory changes were generally negative except in the Lower Columbia Area where the net change showed a slight gain (Table 43). From this data, the apparent receipts for 1970 amounted to 663 million board feet. Inventory depletions were a small percentage of the total consumption.

Economic Area	Net Change in Inventory (Per Cent of Total Consumption)
Puget Sound	−8.8%
Olympic Peninsula	−4.3%
Lower Columbia	+0.3%
Central Washington-Inland Empire*	−3.8%
Total State	−3.6%

**Combined to avoid disclosure*

Ownership

Public lands, an important source of logs for the industry, provided over half the logs consumed in the economic areas and 58 per cent of the total industry requirement (Table 44). National Forest lands were the greatest single source of logs.

Economic Area	Source of Logs: National Forest Lands	Source of Logs: Forest Industry Own Wood Supply
	per cent	
Puget Sound	44	43
Olympic Peninsula	62	8
Lower Columbia	30	52
Central Wash.-Inland Empire*	29	23
Total State	42	33

**Combined to avoid disclosure*

Forest Industry's own lands contributed the major portion of wood consumed from private timberlands.

Although these two sources provided the majority of the logs, many other ownerships contributed to the total.

Ownership		Per Cent of Logs Supplied
State		10
National Forest		42
Bureau of Land Management		1
Other Public		5
Total Public		58
Forest Industry	Own Wood Supply	33
	Other Wood Supply	3
Farmer & Misc. Private		6
Total Private		42
All Owners		100

Table 45 shows the dependency of individual mills on each ownership. It indicates that 13 mills were at least two-thirds dependent on public timber; five mills were similarly dependent on private timber.

Species

With 70 per cent of the total, Douglas fir was the leading species used by the industry (Table 46). Second in importance was hemlock, 15 per cent. The Puget

Sound Area showed the most deviation—51 per cent Douglas fir and 43 per cent hemlock. Nearly all cull material was from those two species (Table 47).

Imports

Two areas acquired logs from outside the State. A small amount from British Columbia went to the Puget Sound Area, and a little less than 10 per cent of the Lower Columbia Area's consumption came from Oregon (Table 3). State-wide log imports were three per cent of the total log consumption.

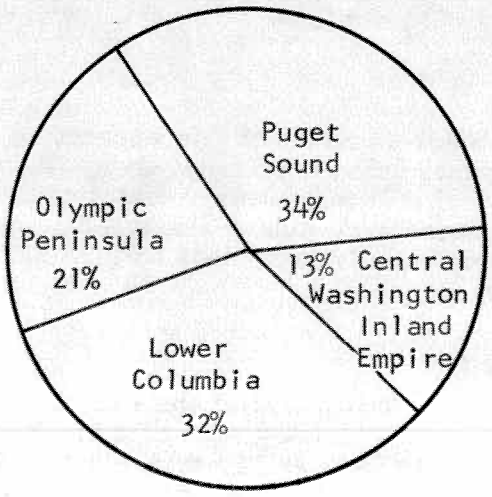
In addition to logs, the veneer and plywood industry used 195,340,000 square feet of 3/8 inch basis veneer in excess of the amount produced during 1970. Converted to Scribner log scale, this is equivalent to about 85 million board feet or about 12 per cent of the industry's total wood consumption.

PRODUCTION

Plywood and Veneer

During 1970, the industry produced 1,804,905,000 square feet (3/8 inch basis) of plywood. This was 12½ per cent of the national total, making Washington the second largest plywood supplier.

Figure 11.—Plywood Production by Economic Area



Under the operating conditions reported by the mills (shift capacity, shifts per day, the days of operation) plywood production was 81 per cent of capacity. Veneer-only plants produced 436,332,000 square feet, 3/8 inch basis veneer, or 86 per cent of capacity.

Residues

One million tons of residue resulted from the manufacture of veneer and plywood (Table 48). Residue utilization is important to the industry and the environment; 95 per cent of all residues were reported to have been used. Unused material comprises volumes which were burned solely for waste disposal or hazard reduction and volume which was not used for any purpose.

Wood residues accounted for 77 per cent of all residues. Four classifications of wood residue were identified: cores, coarse (log trim, roundup and veneer clip, spur trim), medium (panel trim, reject veneer), and fine (sander dust). More than 99 per cent was used—an extremely high utilization.

Wood Residue Use

Residue Type	Pulp & Board	Fuel	Other Uses	Unused
	per cent			
Coarse	86	12	2	†
Cores	47	1	52	†
Medium	1	92	1	6
Fine	..	96	4	†
All wood	57	32	9	2

† *less than 0.5 per cent*

Bark made up the remaining 23 per cent of all residues. Research has been conducted for many years on new uses for bark residues, but without much impact on its use as a fuel.

Bark Residue Use

Use	Per Cent
Fuel	75
Other Uses	7
Unused	18
All bark	100

Production and disposition of residues by economic area are presented in Tables 49 and 50.

COMPARISON TO 1968 DATA

Because layup-only plants have no log consumption, they appeared in various 1968 tables as a counting mechanism only. Comparisons for this type of data involve Veneer & layup and Veneer-only plants.

In Table 34 of the 1968 report, the 10-19 lathe log diameter limit should have been labeled *layup only*. Table 35 of the 1968 report included the 5 layup-only facilities in the *3-inch diameter of cores produced* column.

A coding error was discovered in Table 32 of the 1968 report. The Veneer & Layup capacity for Lewis County was shown as *2,000;* it should have been *200* with similar adjustments in subtotals and State total.

PULP AND BOARD INDUSTRY

MILL CHARACTERISTICS

Facilities

Thirty-one mills, concentrated in 20 communities and owned by 13 separate firms, produced various types of pulp and board. Table 51 shows the geographic distribution of four types of pulp mill and two types of board mill. In number of mills, Puget Sound was the leading area (10 mills); the leading county was Cowlitz (7 mills) in the Lower Columbia Area.

Production Capacity

Two-thirds of all mills are either sulfite or sulfate. They accounted for 83 per cent of the industry's daily production capacity, 11,536 tons (Table 52). Lower Columbia was the major area and Cowlitz the leading county.

Age and Ownership

All mills have occupied their present site for at least 11 years and most (24 mills) for more than 20 years. As shown in Table 53, ownership has been quite stable since only 4 of the 31 mills have changed owners since 1960.

Operating Days

In all economic areas, pulp mills showed greater employment stability than board mills during 1970.

Economic Area	Average Number of Operating Days	
	Pulp	Board
Puget Sound	348	254
Olympic Peninsula	334	286
Lower Columbia	333	...
Inland Empire	341	...
Total State	339	270

WOOD CONSUMPTION

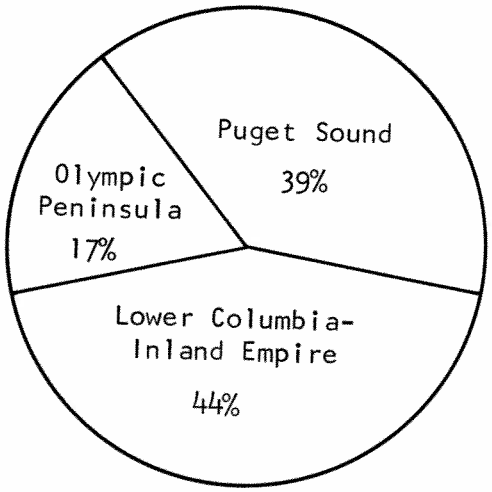
Raw Material

The industry consumed the equivalent of approximately 8.3 million bone dry tons of wood—1.8 billion board feet of roundwood and 4.7 million tons of chips, sawdust and shavings.

Economic Area	Chips From Mill Residue	Round-Wood
	per cent	
Puget Sound	44	48
Olympic Peninsula	16	70
Lower Columbia-Inland Empire*	63	29
Total State	46	44
Million Bone Dry Tons	3.8	3.6

**Combined to avoid disclosure*

Figure 12.—Pulp and Board Wood Consumption by Economic Area (Bone dry tons)



The Pulp and Board Industry is the biggest user of utility grade (cull) logs which supplied 19 per cent of the industry's 1970 roundwood consumption.

Age

Table 56 shows roundwood consumption by age class for each area. Most (77 per cent) of the roundwood came from old growth timber.

Ownership

Private timber holdings supplied 1.5 billion board feet, or 83 per cent of the roundwood (Table 57). No wood came from Bureau of Land Management lands.

Owner	Per Cent of Log Supply
State	8.3
National Forest	6.5
Other Public	2.0
Total Public	16.8
Forest Industry — Own Wood Supply	69.5
Forest Industry — Other Wood Supply	8.2
Farmer & Misc. Private	5.5
Total Private	83.2
All Owners	100

Ownership varied considerably according to area as shown in a different manner in Table 58. Only one mill was more than two-thirds dependent on public timberlands, while 14 mills were similarly dependent on private timberlands.

Species

Roundwood Species Consumed	Per Cent
Western hemlock	57
Douglas fir	23
Hardwoods	10
True firs	7
Western redcedar	2
Spruce	1
Total	100

In Table 59, the species composition of surrounding timberland reflects area differences. Of particular note is the greater reliance on hardwoods (15 per cent) in the Puget Sound Area and the increased use of Douglas fir (49 per cent) in the Lower Columbia-Inland Empire Area.

Utility grade (cull) volume, a significant portion of the total roundwood consumption, was largely hemlock. This species accounted for two-thirds of the industry's total volume.

Imports

Most of the roundwood came from timberlands within the State (Table 3). Imported logs made up 8 per cent of the roundwood consumption with Oregon as the principal source, followed by British Columbia and Idaho. Area diversity is shown by the Olympic Peninsula's use of 100 per cent Washington logs, while the Lower Columbia-Inland Empire Area used about 82 per cent.

Residues

The industry relied heavily on imported residues. About 41 per cent of the chips, sawdust and shavings originated outside the State (Table 60), with Oregon again the major source.

Residue Type	Origin			
	Wash.	Ore.	B.C.	Idaho
	- - - - - per cent - - - - -			
Chips				
Roundwood	61	..	27	12
Residue	59	26	6	9†
Sawdust & Shavings	56	34	9	1
All Types	59	24	8	9†

† *Contains 2 per cent from outside of Idaho*

COMPARISON TO 1968 DATA

All tables for the 1970 report are based on the total number of operations; each operation at a multiple plant facility is considered independently. In the 1968 report, certain tables concerning number of operations were based on a single count for multiple plant facilities.

LOG EXPORT INDUSTRY

INDUSTRY CHARACTERISTICS

The 55 log export (this survey) operations represent activities of 31 firms composed of members of the forest products industry, log export agents, and trading companies. Although trading companies ultimately handle nearly all export logs, this report considers only the volumes they originally obtained. Information concerning those volumes was supplied by log export agents and members of the forest products industry.

Logs were exported from 11 ports, all in Western Washington. The greatest number of operations occurred in the Olympic Peninsula Area (27) and in Grays Harbor County (12).

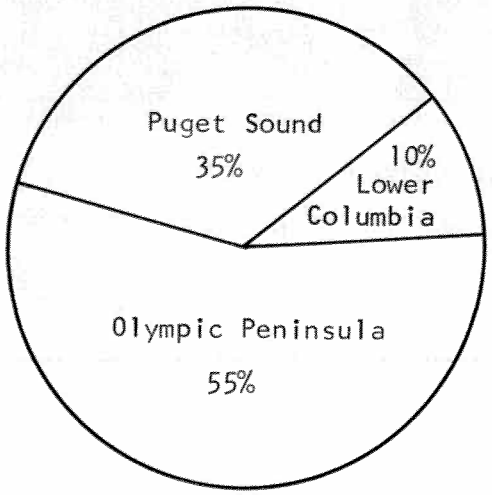
Facilities utilized by the industry are, essentially, the ports. Since ports handle a variety of material, average days of operation and production capacity of the Log Export Industry can not be meaningfully quantified.

About two-thirds (35) of the operations are at least five years old, and 6 have been in operation for more than 20 years. All export firms have tended to exhibit a very stable ownership pattern.

LOG CONSUMPTION

Export shipments totaled 1.7 billion board feet in 1970, making the export industry the third largest consumer of logs in the State. As shown in Figure 13, the Olympic Peninsula was the leading area. For purposes of this report, log consumption is equivalent to export shipments for the year 1970.

Figure 13.—Log Export by Economic Area



Slightly less than 97 per cent of the volume exported was sound live logs; 3 per cent was reported to be utility grade (cull) logs; and less than 1 per cent, sound dead. Over 71 per cent of the logs were from old growth timber.

Ownership		Per Cent of Log Supply
State		23
National Forest		9
Other Public		4
Total Public		36
Forest Industry	Own Wood Supply	41
	Other Wood Supply	12
Farmer & Misc. Private		11
Total Private		64
All Owners		100

Under the reporting conditions described earlier, 73 per cent of the operations were more than two-thirds dependent on a single ownership class for supplies—the highest dependency of any segment of the forest products industry. Sixteen operations were more than two-thirds dependent on their own lands and 9 were similarly dependent on State-owned timberlands.

Log export operations consumed more true fir and spruce than any other industry segment. They were second in consumption of hemlock and third in western redcedar. Hemlock contributed 55 per cent of their total log volume, with Douglas fir accounting for 22 per cent.

Washington's timberlands supplied practically all (99.6 per cent) of the logs exported from the State. Some logs originating in Oregon were exported from the Lower Columbia Area.

COMPARISON TO 1968 DATA

The larger number of operations in 1970 reflects a broader survey base and not necessarily a net increase in size of the industry.

THE SHAKE AND SHINGLE INDUSTRY

MILL CHARACTERISTICS

There were 172 shake, shingle, and hip & ridge mills in operation during 1970. The majority (99) of mills were located in the Olympic Peninsula Area, mainly in Grays Harbor County (55). Although this industry has the second largest number of mills, their combined shift capacity was 13,922 squares—equivalent to about 1,325,000 board feet Scribner (about one-eighth of the sawmill industry's capacity). The average mill size reflects the small investment needed to establish a shake or shingle mill or to reopen an inactive one.

More than two-thirds of the mills operated burners to dispose of waste residues. In contrast, 10 mills used chippers. Because of the volume of material handled, many mills have found it uneconomical to recover their residues.

The industry is characterized by a large number of transient mills having an average life span of only four years. Statistics presented in the tables are for the *operating* mills of 1970, only 80 per cent of which were in operation in 1968. One-third of the mills operating in 1970 had been in their present location and under their present ownership for more than 10 years.

Days of operation averaged 161, the effect of a depressed market.

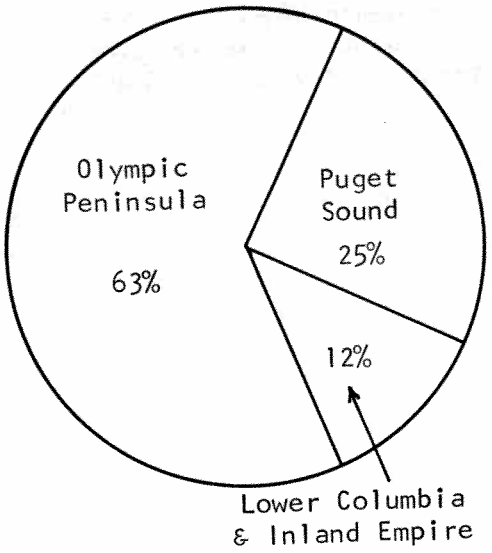
WOOD CONSUMPTION

Industry consumption during 1970 consisted of 188 million board feet of logs and the equivalent of 17 million board feet of blocks, boards, bolts, and other material.

Log volume was predominantly from sound live trees (75 per cent) and included a significant amount of sound dead timber (13 per cent). Utility grade (cull) logs accounted for 4 per cent, and other material for 8 per cent of the total log consumption.

Western redcedar is the only species in Washington State suitable for the manufacture of shakes and shingles. Products specifications further limit the consumption almost entirely to old growth. No other segment of the forest products industry must rely so heavily on a single species or age class.

Figure 14.—Shake and Shingle Wood Consumption by Economic Area



Considering this species dependency, it was not surprising that the industry obtained its wood supply from many ownership classes.

Ownership		Per Cent of Log Supply
State		11
National Forest		17
Bureau of Land Management		1
Other Public		15
Total Public		44
Forest Industry	Own Wood Supply	19
	Other Wood Supply	32
Farmer & Misc. Private		5
Total Private		56
All Owners		100

Individual mill dependency on an ownership class is also much greater. During 1970, 72 per cent of the mills obtained more than two-thirds of their wood supply from a single ownership class—61 mills from public sources, 62 from private sources.

Over 99 per cent of the industry's log consumption came from timberlands in Washington, with imports being limited to mills along the State boundary.

PRODUCTION AND RESIDUES

With total production amounting to 2,144,591 squares of shakes and shingles, the industry operated at 58 per cent of capacity (for 1970 conditions). This production created 188,559 bone dry tons of residue composed of 72 per cent wood (classified as 24 per cent coarse, 48 per cent fine) and 28 per cent bark. As mentioned earlier, recovery of residues is uneconomical for many mills and accounts for the high percentage of unused material.

Residue Type and Distribution

Use	Coarse	Fine	Bark
	- - - - - per cent - - - - -		
Pulp	19	11	..
Fuel	7	14	12
Other	13	17	21
Unused	61	58	67
All	100	100	100

Amount of residue used varied considerably among areas. The Lower Columbia-Inland Empire Area mills used 58 per cent of their residues. A pulp market for fine material was partly responsible for this greater utilization.

COMPARISON TO 1968 DATA

Data presented in the 1970 report is generally more specific as exemplified by the questionnaires shown in the appendices of the respective reports.

POLE, POST, AND PILING INDUSTRY

INDUSTRY CHARACTERISTICS

In terms of number of operations, the the Pole, Post, and Piling Industry is the smallest segment of the forest products industry. The 19 firms making up this segment had 25 separate operations, most of them located in Western Washington.

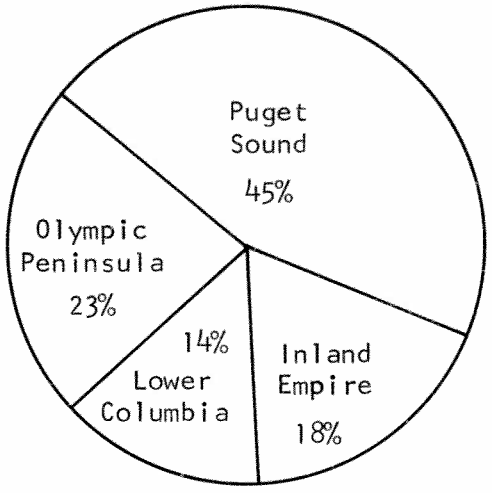
Yearly production capacity for 1970 was roughly 65 million board feet. However, the industry rarely uses the board-foot unit. Cubic feet, lineal feet, or pieces are the more common units of measure, but have been converted to board-foot units for comparison purposes.

Most of the operations had barkers which, considering the products, are almost essential. Many also had equipment for treating wood. The most common treatments were a solution of pentachlorophenol in either a heavy petroleum oil or a light petroleum solvent, creosote, and fire retardants. These facilities were also used for treatment of lumber, plywood, shakes and shingles produced by other segments of the forest products industry.

Variety in materials treated, a limited flexibility in the quality of roundwood used, and a constant demand for its products, have enabled the Pole, Post, and Piling Industry to achieve a high degree of stability. Only two operations have changed ownership since 1960; only three others, since 1950.

The industry averaged 229 days of operation during 1970, surpassed only by the pulp and board mills.

Figure 15.—Pole, Post and Piling Wood Consumption by Economic Area



Ownership		Per Cent of Log Supply
State		15
National Forest		13
Other Public		1
Total Public		29
Forest Industry	Own Wood Supply	5
	Other Wood Supply	42
Farmers & Misc. Private		24
Total Private		71
All Owners		100

Dependency by individual operations on a particular ownership class was the lowest of all segments of the forest products industry. Only 40 per cent obtained more than two-thirds of their logs from a single ownership class.

WOOD CONSUMPTION

Total wood consumption during 1970 was 61,984,000 board feet.

Log consumption was entirely composed of sound material—a quality requirement of the industry—with the majority (69 per cent) of logs coming from young timber.

Two species—Douglas fir and western redcedar—accounted for the bulk (98 per cent) of the log consumption. These two species possess the strength and durability needed for the industry's products.

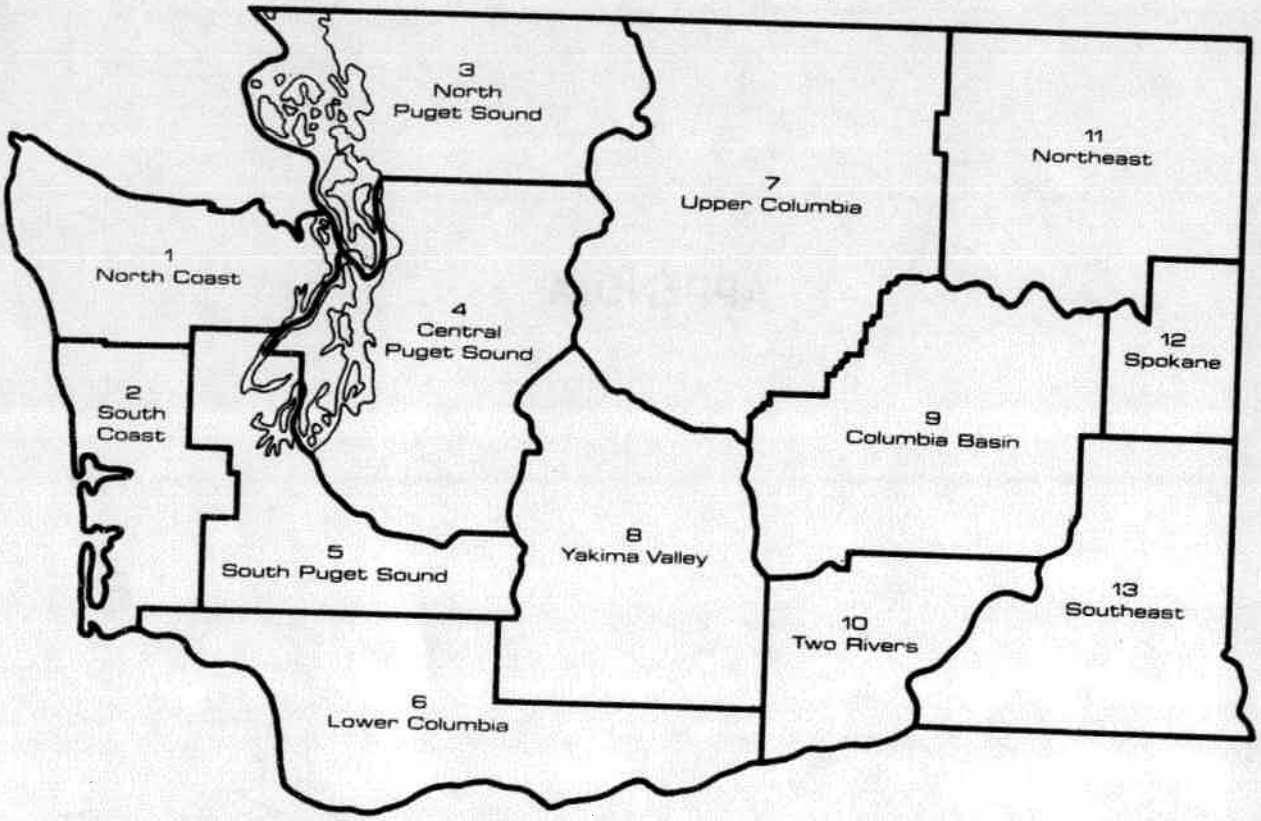
Washington's timberlands supplied 85 per cent of the industry's needs, with the majority of the imports coming from Idaho.

COMPARISON TO 1968 DATA

As with the Shake and Shingle Industry, data presented here is generally more specific than in the previous report.

APPENDIX

FIGURE 16
THIRTEEN ECONOMIC REGIONS



This map shows the thirteen economic regions defined by the Planning and Commerce departments of State government. The regions represent a management approach to the difficult task of integrated planning and industrial/economic development. As such, they are both a stimulator and a measuring device and, whether considered separately or in total, provide a graphic demonstration of Washington's diversity and aggregate strength. To preserve anonymity, we have combined statistics from these regions into five areas as illustrated in Figure 3, page 4.

LOG SCALES

Industries in the survey were requested to provide information on the type of scale they used for measuring logs. Results are summarized in Table 80. Some mills used more than one scale, depending on the type of material, which accounts for 547 responses from the 509 mills.

Scribner was the only board-foot scale reported. Variations in scaling standards (Forest Service, Log Scaling and Grading Bureaus, etc.) are not shown as separate entries in the table. It is apparent from the table that the Scribner long-log scale is favored in Western Washington and the short-log scale in Eastern Washington.

The lumber and veneer and plywood mills relied almost entirely on one or the other of the two Scribner scales. Pulp board mills used tons, cords, and cubic measure as well as board-foot scales. Although the "other industry" mills made extensive use of Scribner scale, they also reported a variety of other measurement units—cords, bolts, pieces, shake blocks, squares, lineal feet, etc.

All roundwood volumes not given in board feet were subsequently converted to Scribner scale which is used as a common denominator for this report.

Bolts, pieces, and shake blocks were generally converted to Scribner scale by the operator. Other measurements were converted as follows:

1 cord	=	500 board feet
1 ton	=	500 board feet
10.5 squares	=	1,000 board feet
1 lineal foot	=	3.8 board feet
1 cubic foot	=	6 board feet

MILL RESIDUES

Very few mills are able to quantify all the uses of residues. Generally, residue which is sold is measured; the higher the price, the more accurate the measurement. Chips used for pulp or board are commonly measured in terms of bone dry units (2,400 lbs.), 200 cubic foot units, or bone dry tons (2,000 lbs.). However, lower value products such as fuel or agricultural mulches are frequently sold by the truckload or cubic yard.

In this study, mills were asked to quantify use of residues when possible. Estimates of relative residue distribution were obtained from operators when quantities were unknown. In such instances, residue production ratios per unit of production from studies of sample mills were used. The residue estimates developed through use of these ratios were allocated on the basis of the estimated relative disposition made by the operator.

The residue factors used are as follows:

HARDWOOD SAWMILL RESIDUES[1]

Average residue developed from producing 1,000 board feet of lumber using a narrow kerf bandsaw.

	200 cu. ft. units	Dry tons
Chips	.97	.82
Bark	.40	.34
Sawdust	.27	.23

[1]*Based on informaton furnished by Northwest Hardwoods, Inc.*

SOFTWOOD SAWMILL RESIDUES[1]

Average quantity of residues developed from producing 1,000 board feet of lumber.

Item	Solid Volume*		Washington	
			Western	Eastern
	Cubic Feet	*Per Cent***	*Dry Weight Tons*	
Wood Residue				
Slabs, Edgings, Sawmill Trim	40	24.2	.512	.480
Planer Trim	3	1.8	.038	.036
Sawdust	22	13.4	.282	.264
Planer Shavings	16	9.7	.205	.192
Total Wood Residue	81	49.1	1.037	.972
Bark	19	11.5	.285	.228
Lumber	65	39.4	.832	.780
Whole Log	165	100.0	2.154	1.980

[1]*Based on data from Oregon mills compiled by Oregon State University, School of Forestry, in 1967. Dry weights adjusted for different species mix utilized in Washington.*
**Equivalent undried solid volume.*
***Per cent by volume.*

SOFTWOOD PLYWOOD RESIDUES[1]

Average quantity of residue developed in producing the equivalent of a thousand square feet of 3/8-inch plywood (rough basis) in 1962.

Plywood Residue	Solid Volume	Dry Weight	Proportion of Dry Weight
	*Cubic Feet**	*Tons*	*Per Cent*
Wood Residues			
Log Trim	3.4	.046	4.4
Cores	3.7	.050	4.7
Veneer Clippings, Roundup and Spur Trim	18.5	.250	23.8
Dry Trim and Layup Loss	6.5	.088	8.4
Sander Dust	1.6	.021	2.0
Total Wood Residue	33.7	.455	43.3
Bark	8.8	.132	12.6
All Residue	42.5	.587	55.9
Plywood	34.3	.463	44.1
Whole Log	76.8	1.050	100.0

[1]*Based on data from Oregon mills compiled in 1967 by Oregon State University School of Forestry. Because of the similarity of mills and species used, no adjustment was made in applying these data to Washington.*
**Volumes are based on equivalent green volume.*

SHINGLE MILL RESIDUES[1]

Average quantity of residue developed in utilizing 1,000 board feet of logs, Scribner scale, or in producing the equivalent volume of 10.5 squares.

Shake and Shingle Residue	Solid Volume		Dry Weight per MBM
	Cubic Feet	*Per Cent*	*Tons*
Shingles:			
Coarse	23	13.7	.22
Fine	78	46.8	.75
Bark	19	11.5	.28
Shakes:			
Coarse	23	13.7	.22
Fine	24	14.5	.23
Bark	19	11.5	.28
Shingle and Shake:			
Coarse	23	13.7	.22
Fine	51	30.6	.49
Bark	19	11.5	.28

[1]*From information provided by the Red Cedar Shingle Bureau.*

COMPUTER PROGRAMS USED FOR THIS REPORT

The Master file is built by a program written in PL/1 (Programming Language 1), a conventional programming language designed to fit the needs of both scientific and business applications.

SMART is the assembler language program written by Maurice F. Witney, Office of the State of Washington Superintendent of Public Instruction. This program was used for retrieval and processing of information contained in the majority of tables in this report.

SMART uses control cards which specify title, heading, data arrangement, and computational requirements necessary to produce the desired table. Information from the control cards is stored by *SMART* which then accesses the master file (card, tape, or disk) for data and produces the report.

The remaining tables were produced by a program called *Mark IV*. *Mark IV* is a file management program produced by Informatics Inc., Van Nuys, California. Tables and reports are produced by supplying parameter cards to the program. The parameter cards determine data selection, computations, report format, data sequence, titles, etc. which will be performed against the master file records to produce the desired report.

SAWMILL QUESTIONNAIRE

STATE OF WASHINGTON
Department of Natural Resources
P. O. Box 168
Olympia, Wash. 98501

FOR OFFICE USE ONLY

WASHINGTON FOREST INDUSTRY SURVEY 1970

SAWMILL QUESTIONNAIRE
(Information on individual plants will be held confidential)

1. Mill Identity

Plant name _____ Prepared by _____

Address _____ Phone # _____
Street or P. O. Box

_____ Date _____
City County State Zip

2. Mill Characteristics

Hours per shift ____. Average number of shifts per day ____.

Maximum capacity per shift _____,000 board feet lumber tally.

Days operated during 1970 _____.

Years mill has been in present location ___; under present ownership ___.

Diameter limit of largest head rig ____in. Type of largest head rig:
circular ___ chipping ___
band ___ scragg ___
gang ___

Equipment operated during 1970

burner ___ planer ___ chipper ___ kiln ___ barker ___

3. Wood Consumption During 1970

a. Sound logs (live trees) _____,000 board feet net scale

b. Sound logs (dead trees) _____,000 board feet net scale

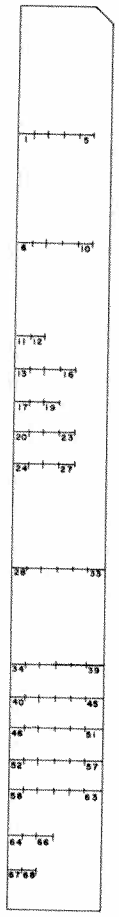
c. Utility logs _____,000 board feet gross scale

d. Peeler cores _____ _____ (Units)

e. Cants___ Lumber___ Other___ _____ _____ (Units)

Log scale(s) used: Scrib. long log___ short log___ ; Internat. ¼"___ ⅛"___
Other scale _____.

Minimum diameter of log used _____ inches.



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Page 1

4. Total Log Inventory:
12/31/70 _____,000 bf.
1/ 1/70 _____,000 bf.

5. Consumption by Species During 1970

Species	Sound logs	Utility logs
Douglas fir	____ %	____ %
Hemlock	____ %	____ %
True firs	____ %	____ %
Spruce	____ %	____ %
Ponderosa Pine	____ %	____ %
Lodgepole Pine	____ %	____ %
Western red cedar	____ %	____ %
Other conifers	____ %	____ %
Western Hardwoods	____ %	____ %
Other _____	____ %	____ %
	100%	100%

6. Origin of Logs Consumed During 1970

a. State or Province of origin

	Sound logs	Utility logs
Washington	____ %	____ %
Oregon	____ %	____ %
Idaho	____ %	____ %
British Columbia	____ %	____ %
Other	____ %	____ %
	100%	100%

b. County of origin (Wash.)

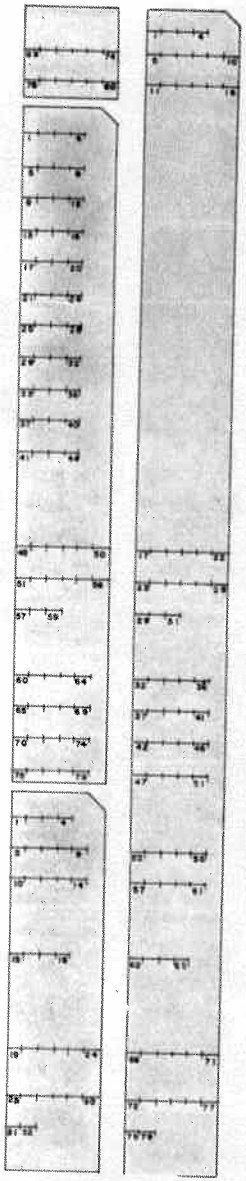
	Sound logs	Utility logs
_____	____ %	____ %
_____	____ %	____ %
_____	____ %	____ %
_____	____ %	____ %
_____	____ %	____ %
Counties outside Wash.	____ %	____ %
	100%	100%

c. Age group

	Sound logs	Utility logs
Old growth (100+ yrs.)	____ %	____ %
Young growth	____ %	____ %
	100%	100%

d. Ownership origin

	Sound logs	Utility logs
State	____ %	____ %
US Forest Service	____ %	____ %
BLM	____ %	____ %
Other Public	____ %	____ %
Forest Industry | Own Supply	____ %	____ %
Forest Industry | Other Supply	____ %	____ %
Farmer & Misc. Private	____ %	____ %
	100%	100%



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Page 2

7. 1970 Lumber Production: Produced _____,000 bf lumber tally

Green ___% Kiln-dried ___% Air-dried ___%

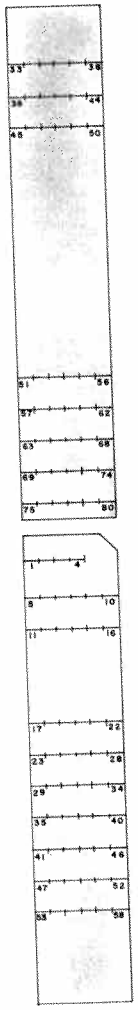
Rough ___% Surfaced ___% Remanufactured ___%

8. Use of Plant Residues

If information on amount of residue use is available in terms of units, please indicate type of unit used e.g. MBDU (2,400 lbs), Tons (2,000 lbs), MCF (200 cubic feet); if not available by unit, estimate the percent of residue for each type of use; if only part of data is available in units, estimate the percent of remaining residue for each type of use.

	Use of residue	Amount	Unit Used	or	Percent of residue
Coarse residue:	For plant fuel				___ %
	Sold for fuel				___ %
	To pulp industry				___ %
	To board industry				___ %
	For other purposes				___ %
	Burned				___ %
	Unburned				___ %

	Use of residue	Amount	Unit Used	or	Percent of residue
Sawdust residue:	For plant fuel				___ %
	Sold for fuel				___ %
	To pulp industry				___ %
	To board industry				___ %
	For other purposes				___ %
	Burned				___ %
	Unburned				___ %



	Use of residue	Amount	Unit Used	or	Percent of residue
Shavings residue:	For plant fuel				___ %
	Sold for fuel				___ %
	To pulp industry				___ %
	To board industry				___ %
	For other purposes				___ %
	Burned				___ %
	Unburned				___ %

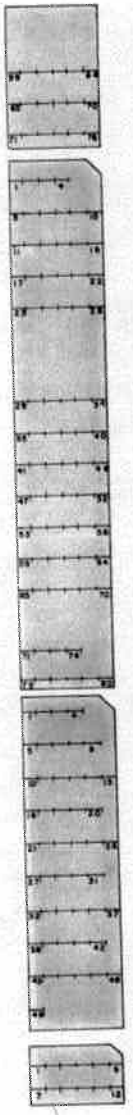
	Use of residue	Amount	Unit Used	or	Percent of residue
Bark residue:	For plant fuel				___ %
	Sold for fuel				___ %
	To pulp industry				___ %
	To board industry				___ %
	For other purposes				___ %
	Burned				___ %
	Unburned				___ %

9. Quantity of Plant Residues Sold to Pulp and Board Industry or Exported

Sold to	County	Amount sold	Transported by		
			Truck	Rail	Barge

Plant has a retail yard Yes___ No___

Thank you for your help with this questionnaire. When you have answered the questions as fully as possible, please fold this form so that our address is showing, and then staple it closed.



VENEER AND PLYWOOD QUESTIONNAIRE

STATE OF WASHINGTON
Department of Natural Resources
P. O. Box 168
Olympia, Wash. 98501

WASHINGTON FOREST INDUSTRY SURVEY 1970

VENEER AND PLYWOOD QUESTIONNAIRE
(Information on individual plants will be held confidential)

FOR OFFICE USE ONLY

1. Mill Identity

Plant name _____ Prepared by _____

Address _____ Phone # _____
Street or P. O. Box

_____ Date _____
City County State Zip

2. Mill Characteristics

Hours per shift ____. Average number of shifts per day ____.

Operation: veneer only ☐ layup only ☐ veneer and layup ☐

Maximum capacity per shift _____,000 sq. ft. 3/8 inch basis

Days operated during 1970 _____.

Years mill has been in present location ____; under present ownership ____.

Lathe diameter limit _____ inches.

Maximum diameter of log used _____ inches; minimum diameter _____ inches

Equipment: 4-foot lathe ☐ cold press ☐ 8-foot lathe ☐ slicer ☐
burner ☐ veneer chipper ☐ hot press ☐ core chipper ☐

Average core size _____ inches.

3. Wood Consumption During 1970

a. Sound logs (live trees) _____,000 board feet

b. Sound logs (dead trees) _____,000 board feet

c. Utility logs _____,000 board feet

d. Purchased or transferred veneer _____,000 sq. ft. 3/8 inch

Log scale(s) used:

Scribner long log ☐ short log ☐ : International 1/4" ☐ 1/8" ☐ :

Other scale _____

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4. Total Log Inventory:

12/31/70 _____,000 bf.

1/ 1/70 _____,000 bf.

5. Consumption by Species During 1970

Species	Sound logs	Utility logs
Douglas fir	____ %	____ %
Hemlock	____ %	____ %
True Firs	____ %	____ %
Spruce	____ %	____ %
Ponderosa Pine	____ %	____ %
Lodgepole Pine	____ %	____ %
Western red cedar	____ %	____ %
Other conifers	____ %	____ %
Western Hardwoods	____ %	____ %
Other _____	____ %	____ %
	100%	100%

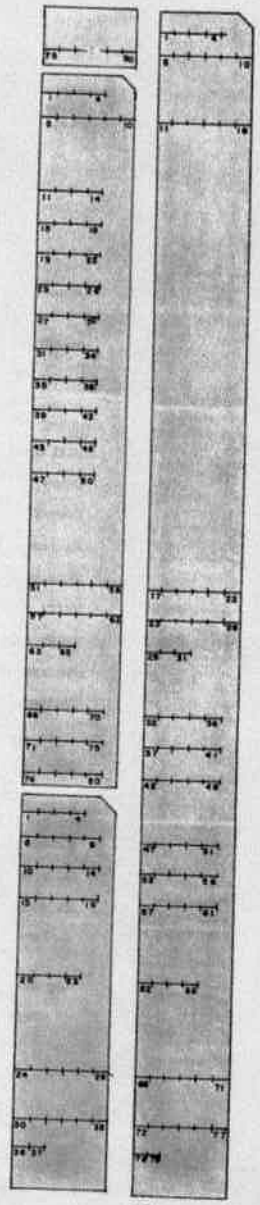
6. Origin of Logs Consumed During 1970

a. State or Province of origin	Sound logs	Utility logs
Washington	____ %	____ %
Oregon	____ %	____ %
Idaho	____ %	____ %
British Columbia	____ %	____ %
Other	____ %	____ %
	100%	100%

b. County of origin (Wash.)	Sound logs	Utility logs
_____	____ %	____ %
_____	____ %	____ %
_____	____ %	____ %
_____	____ %	____ %
_____	____ %	____ %
Counties outside Wash.	____ %	____ %
	100%	100%

c. Age group	Sound logs	Utility logs
Old growth (100 yrs. +)	____ %	____ %
Young growth	____ %	____ %
	100%	100%

d. Ownership origin		Sound logs	Utility logs
State		____ %	____ %
US Forest Service		____ %	____ %
BLM		____ %	____ %
Other Public Forest Industry	Own Supply	____ %	____ %
	Other Supply	____ %	____ %
Farmer & Misc. Private		____ %	____ %
		100%	100%



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7. 1970 Veneer and Plywood Production

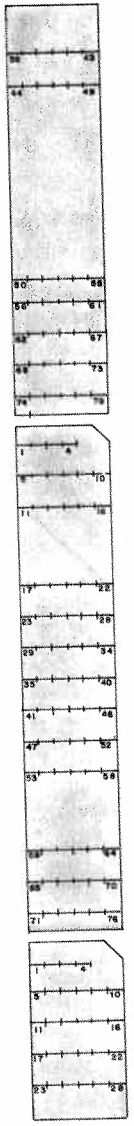
Veneer for sale or transfer _____,000 sq.ft. 3/8 inch___ 1 inch___

Plywood _____,000 sq. ft. 3/8 inch___ 1 inch___

8. Use of Plant Residues

If information on amount of residue is available in terms of units, please indicate type of unit used e.g. BDU (2,400 lbs), Tons (2,000 lbs), CF (200 cubic feet); if not available by unit, estimate the percent of residue for each type of use; if only part of data is available in units, estimate the percent of remaining residue for each type of use.

	Use of residue	Amount	Unit used	or	Percent of residue
Log trim, spur trim, roundup, veneer clip residue:	For plant fuel				%
	Sold for fuel				%
	To pulp industry				%
	To board industry				%
	For other purposes				%
	Burned				%
	Unburned				%
Core residue:	For plant fuel				%
	Sold for fuel				%
	To pulp industry				%
	To board industry				%
	Lumber or other uses				%
	Burned				%
	Unburned				%
Panel trim, reject veneer residue:	For plant fuel				%
	Sold for fuel				%
	For pulp industry				%
	For board industry				%
	For other purposes				%
	Burned				%
	Unburned				%



	Use of residue	Amount	Unit used	or	Percent of residue
Sander dust residue:	For plant fuel				%
	Sold for fuel				%
	To pulp industry				%
	To board industry				%
	For other purposes				%
	Burned				%
	Unburned				%
Bark residue:	For plant fuel				%
	Sold for fuel				%
	To pulp industry				%
	To board industry				%
	For other purposes				%
	Burned				%
	Unburned				%

9. Quantity of Plant Residues Sold to Pulp and Board Industry or Exported

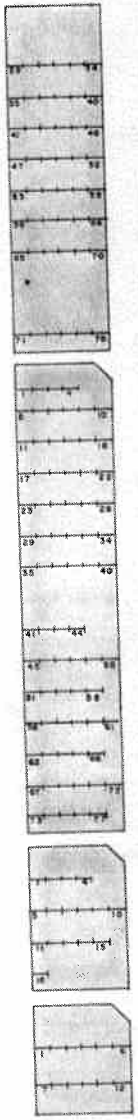
Sold to	Location(county)	Amount sold	Transported by Truck	Rail	Barge

10. Percent Distribution of all Veneer Sold or Transferred by State

Wash. ___% Oregon ___% British Columbia ___% Idaho ___% Calif. ___% Other ___%

11. Plant has a retail yard -- Yes No

Thank you for your help with this questionnaire. When you have answered the questions as fully as possible, please fold this form so that our address is showing, and then staple it closed.



PULP AND BOARD MILL QUESTIONNAIRE

STATE OF WASHINGTON
Department of Natural Resources
P. O. Box 168
Olympia, Wash. 98501

WASHINGTON FOREST INDUSTRY SURVEY 1970

PULP AND BOARD MILL QUESTIONNAIRE
(Information on individual plants will be held confidential)

FOR OFFICE USE ONLY

1. Mill Identity

Plant name _____ Prepared by _____

Address _____ Phone # _____
Street or P. O. Box

_____ Date _____
City County State Zip

2. Mill Characteristics

"Wastepaper" recycling facilities: In 1968☐ 1970☐ Future☐

Maximum daily production capacity _____Tons.

Days operated during 1970 _____.

Years mill has been in present location ___; under present ownership ___.

Pulp operation:
sulfite___ sulfate___ groundwood disk refiner___ drum refiner___ semichemical___

Board operation: hardboard___ particleboard___ insulation board___

3. Wood Consumption During 1970

a. Sound logs (live trees) _____,000 board feet net scale

b. Sound logs (dead trees) _____,000 board feet net scale

c. Utility logs _____,000 board feet gross scale

d. Cordwood (live trees) _____ Cords

e. Cordwood (dead trees) _____Cords

f. Chips from mill residue _____ _____
specify units used

g. Chips other sources* _____ _____
specify units used

h. Sawdust _____ _____
specify units used

i. Shavings _____ _____
specify units used

* Chips from offsite roundwood chipping plants.

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Page 1

4. Consumption by Species During 1970

	Sound logs	Utility logs
Douglas fir	___ %	___ %
Hemlock	___ %	___ %
True Firs	___ %	___ %
Spruce	___ %	___ %
Ponderosa Pine	___ %	___ %
Lodgepole Pine	___ %	___ %
Western red cedar	___ %	___ %
Other softwoods	___ %	___ %
Western hardwoods	___ %	___ %
Other	___ %	___ %
	100%	100%

5. Origin of Wood Consumed During 1970

a. State or Province of origin

	Roundwood	Chips	Sawdust & Shavings
Washington	___ %	___ %	___ %
Oregon	___ %	___ %	___ %
Idaho	___ %	___ %	___ %
British Columbia	___ %	___ %	
Other _____	___ %	___ %	___ %
	100%	100%	

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Page 2

5. Origin of Wood Consumed During 1970 cont.

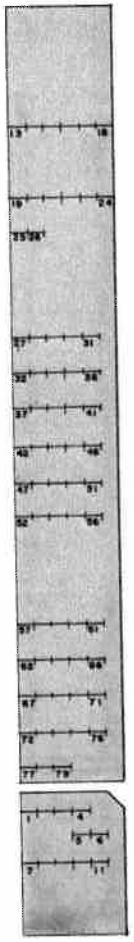
b. Ownership origin:

	Roundwood
State	____ %
US Forest Service	____ %
BLM	____ %
Other public	____ %
Forest Industry — Own Supply	____ %
Forest Industry — Other Supply	____ %
Farmer & Misc. Private	____ %
	100%

c. County of origin (Wash.)

	Roundwood
_____	____ %
_____	____ %
_____	____ %
_____	____ %
_____	____ %
Counties outside Wash.	____ %
	100%

	Chips
_____	____ %
_____	____ %
_____	____ %
_____	____ %
_____	____ %
Counties outside Wash.	____ %
	100%



5. Origin of Wood Consumed During 1970 cont.

c. County of origin (Wash.) cont.

	Sawdust & Shavings
_____	____ %
_____	____ %
_____	____ %
_____	____ %
_____	____ %
Counties outside Wash.	____ %
	100%

d. Age group:

	Roundwood
Old growth (100+ yr.)	____ %
Young growth	____ %
	100%

Thank you for your help with this questionnaire. When you have answered the questions as fully as possible, please fold this form so that our address is showing, and then staple it closed.

LOG EXPORT QUESTIONNAIRE

STATE OF WASHINGTON
Department of Natural Resources
P. O. Box 168
Olympia, Wash. 98501

WASHINGTON FOREST INDUSTRY SURVEY 1970

LOG EXPORT QUESTIONNAIRE
(Information on individual firms will be held confidential)

FOR OFFICE USE ONLY

1. Firm Identity

Name of firm _____ Prepared by _____

Address _____ Phone # _____
Street or P. O. Box

_____ Date _____
City County State Zip

2. Firm Characteristic

Years firm has been in present location ___; under present ownership ___.

3. Wood Receipts During 1970

a. Sound logs (live trees) _____,000 board feet net scale

b. Sound logs (dead trees) _____,000 board feet net scale

c. Utility logs _____,000 board feet gross scale

d. Other _____ _____ _____
(specify) (volume) (units)

Log scale(s) used: Scribner long log☐ Scribner short log☐ Other _____
Breton ☐

EX

FROM _____

_____

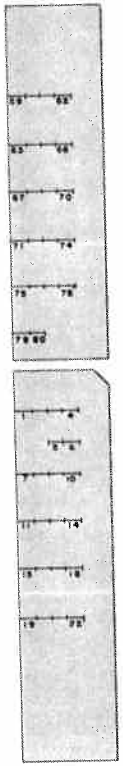
_____

NO POSTAGE STAMP NECESSARY
POSTAGE HAS BEEN PREPAID BY

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES
TECHNICAL SERVICES DIVISION
P.O. BOX 168
OLYMPIA, WASHINGTON 98501

4. Receipts by Species During 1970

Species	Sound logs	Utility logs
Douglas fir	____ %	____ %
Hemlock	____ %	____ %
True Firs	____ %	____ %
Spruce	____ %	____ %
Ponderosa Pine	____ %	____ %
Lodgepole Pine	____ %	____ %
Western red cedar	____ %	____ %
Other conifers	____ %	____ %
Western Hardwoods	____ %	____ %
Other _____	____ %	____ %
	100%	100%



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5. Origin of Logs Received During 1970

a. State or Province of origin:

	Sound logs	Utility logs
Washington	____ %	____ %
Oregon	____ %	____ %
Idaho	____ %	____ %
British Columbia	____ %	____ %
Other	____ %	____ %
	100%	100%

b. County of origin (Wash.):

	Sound logs	Utility logs
_____	____ %	____ %
_____	____ %	____ %
_____	____ %	____ %
_____	____ %	____ %
_____	____ %	____ %
Counties outside Wash.	____ %	____ %
	100%	100%

c. Age group:

	Sound logs	Utility logs
Old growth (100 yrs. +)	____ %	____ %
Young growth	____ %	____ %
	100%	100%

d. Ownership origin:

		Sound logs	Utility logs
State		____ %	____ %
US Forest Service		____ %	____ %
BLM		____ %	____ %
Other Public		____ %	____ %
Forest Industry	Own Supply	____ %	____ %
	Other Supply	____ %	____ %
Farmer & Misc. Private		____ %	____ %
		100%	100%

6. 1970 Shipments

Shipped _____,000 board feet Scribner

Thank you for your help with this questionnaire. When you have answered the questions as fully as possible, please fold this form so that our address is showing, and then staple it closed.

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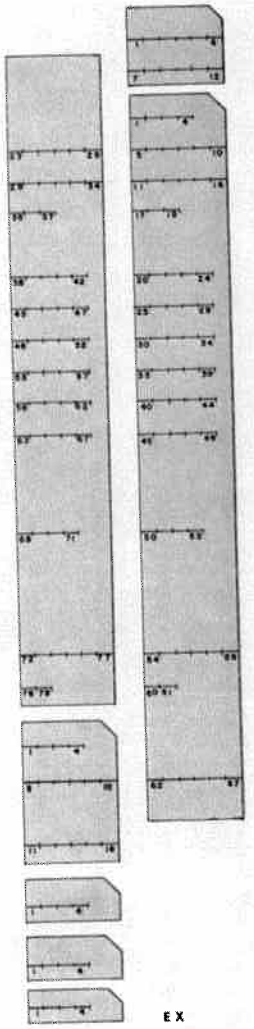

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SHAKE AND SHINGLE MILL QUESTIONNAIRE

STATE OF WASHINGTON
Department of Natural Resources
P. O. Box 168
Olympia, Wash. 98501

WASHINGTON FOREST INDUSTRY SURVEY 1970

SHAKE AND SHINGLE MILL QUESTIONNAIRE
(Information on individual mills will be held confidential)

FOR OFFICE USE ONLY

1. Mill Identity

Mill name _____ Prepared by _____

Address _____ Phone # _____

_____ Date _____

City, County, State Zip

2. Mill Characteristics

Hours per shift ____. Average number of shifts per day ____.

Type of mill: shake ____ shingle ____ hip & ridge ____

Years mill has been in present location ____; under present ownership ____.

Maximum capacity per shift _____ squares or bundles ?

Days operated during 1970 ____.

Equipment operated during 1970: chipper ____ barker ____ burner ____

3. Wood Consumption During 1970

a. Sound logs (live trees) _____,000 board feet net scale

b. Sound logs (dead trees) _____,000 board feet net scale

c. Utility logs _____,000 board feet gross scale

d. Other _____ _____ _____
(amount) (units)

Log scale(s) used: Scribner long log ____ Scribner short log ____ Other ____

4. Consumption by Species During 1970

Sound logs % Western red cedar _____ Other _____ ____%

Utility logs % Western red cedar _____ Other _____ ____%

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5. Origin of Logs Consumed During 1970

a. State or Province of origin:

	Sound logs	Utility logs
Washington	____ %	____ %
Oregon	____ %	____ %
Idaho	____ %	____ %
British Columbia	____ %	____ %
Other	____ %	____ %
	100%	100%

b. County of origin (Wash.)

	Sound logs	Utility logs
_____	____ %	____ %
_____	____ %	____ %
_____	____ %	____ %
_____	____ %	____ %
_____	____ %	____ %
Counties outside Wash.	____ %	____ %
	100%	100%

c. Age group:

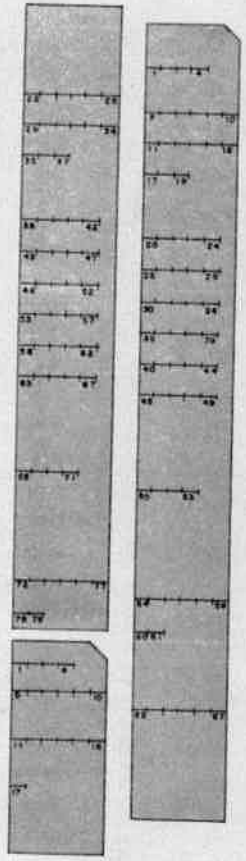
	Sound logs	Utility logs
Old growth (100+ yrs)	____ %	____ %
Young growth	____ %	____ %
	100%	100%

d. Ownership origin:

		Sound logs	Utility logs
State		____ %	____ %
US Forest Service		____ %	____ %
BLM		____ %	____ %
Other Public		____ %	____ %
Forest Industry	Own Supply	____ %	____ %
	Other Supply	____ %	____ %
Farmer & Misc. Private		____ %	____ %
		100%	100%

6. 1970 Production: _____ squares and/or _____ bundles

7. Use of Plant Residues
If information on amount of residue is available in terms of units, please indicate type of unit used e.g. MBM (2,400 lb), Tons (2,000 lb), CF (200 cubic feet); if not available by unit, estimate the percent of residue for each type of use; if only part of data is available in units, estimate the percent of remaining residue for each type of use.



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Page 2

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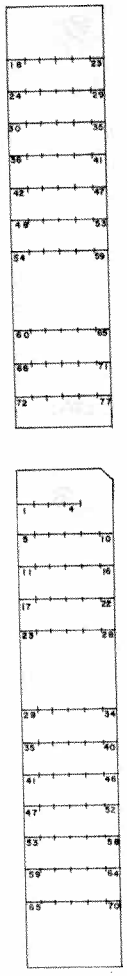
Coarse residue:	Use of residue	Amount	Unit Used	or	Percent of residue
	For plant fuel				%
	Sold for fuel				%
	To pulp industry				%
	To board industry				%
	For other purposes				%
	Burned				%
	Unburned				%

Sawdust residue:	Use of residue	Amount	Unit Used	or	Percent of residue
	For plant fuel				%
	Sold for fuel				%
	To pulp industry				%
	To board industry				%
	For other purposes				%
	Burned				%
	Unburned				%

Shavings residue:	Use of residue	Amount	Unit Used	or	Percent of residue
	For plant fuel				%
	Sold for fuel				%
	To pulp industry				%
	To board industry				%
	For other purposes				%
	Burned				%
	Unburned				%



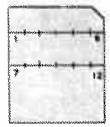
Bark residue:	Use of residue	Amount	Unit Used	or	Percent of residue
	For plant fuel				%
	Sold for fuel				%
	To pulp industry				%
	To board industry				%
	For other purposes				%
	Burned				%
	Unburned				%

8. Quantity of Plant Residues Sold to Pulp and Board Industry or Exported

Sold to	Location (County)	Amount sold	Transported by Truck	Rail	Barge

Plant has a retail yard Yes ☐ No ☐

Thank you for your help with this questionnaire. When you have answered the questions as fully as possible, please fold this form so that our address is showing, and then staple it closed.



POLE, POST, AND PILING QUESTIONNAIRE

FROM _____

_____

_____

NO POSTAGE STAMP NECESSARY
POSTAGE HAS BEEN PREPAID BY

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES
TECHNICAL SERVICES DIVISION
P.O. BOX 168
OLYMPIA, WASHINGTON 98501

STATE OF WASHINGTON
Department of Natural Resources
P. O. Box 168
Olympia, Wash. 98501

FOR OFFICE USE ONLY

WASHINGTON FOREST INDUSTRY SURVEY 1970

POST, POLE, AND PILING QUESTIONNAIRE
(Information on individual firms will be held confidential)

1. Firm Identity

Firm name _____ Prepared by _____

Address _____ Phone # _____
Street or P. O. Box

_____ Date _____
City County State Zip

2. Firm Characteristics

Type of wood treatment used (if any) _____.

Product(s) posts ☐ poles ☐ piling ☐ other _____

Years firm has been in present location ___; under present ownership___.

	Total capacity (___,000 board, lineal, or cubic feet--indicate which)	Treatment capacity
Posts	_____	_____
Poles	_____	_____
Piling	_____	_____

Days operated during 1970 _____.

Equipment operated during 1970 barker ☐ burner ☐

3. Wood Consumption During 1970

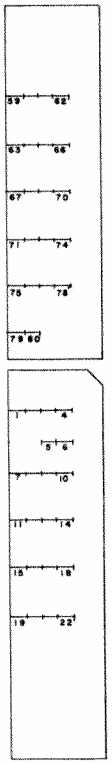
		Produced	Purchased	
a. Barkie Poles	- live	_____,	_____,	000 bd. ft. or cu. ft.
	- dead	_____,	_____,	000 bd. ft. or cu. ft.
b. Green Posts	- live	_____,	_____,	000 bd. ft. or cu. ft.
	- dead	_____,	_____,	000 bd. ft. or cu. ft.

c. Other _____ _____ _____
(specify) (amount) (units)

Log scale(s) used: Scribner long log ☐ Scribner short log ☐ Other ____

4. Consumption by Species During 1970

Species	Sound logs
Douglas fir	_____ %
Hemlock	_____ %
True Firs	_____ %
Spruce	_____ %
Ponderosa Pine	_____ %
Lodgepole Pine	_____ %
Western red cedar	_____ %
Other conifers	_____ %
Western Hardwoods	_____ %
Other _____	_____ %
	100%



5. Origin of Logs Consumed During 1970

a. State or Province of origin: Sound logs

Washington	_____ %
Oregon	_____ %
Idaho	_____ %
British Columbia	_____ %
Other	_____ %
	100%

b. County of origin (Wash.) Sound logs

_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
Counties outside Wash.	_____ %
	100%

c. Age group: Sound logs

Old growth (100 yrs. +)	_____ %
Young growth	_____ %
	100%

d. Ownership origin: Sound logs

State	_____ %
US Forest Service	_____ %
BLM	_____ %
Other Public	_____ %
Forest Industry — Own Supply	_____ %
Forest Industry — Other Supply	_____ %
Farmer & Misc. Private	_____ %
	100%

6. 1970 Shipments

	Treated	Untreated	(indicate which)
Poles	_____,	_____,	000 bd. ft. Scribner or cu.ft.
Piling	_____,	_____,	000 bd. ft. Scribner or cu.ft.
Posts	_____,	_____,	000 bd. ft. Scribner or cu.ft.

Thank you for your help with this questionnaire. When you have answered the questions as fully as possible, please fold this form so that our address is showing, and then staple it closed.

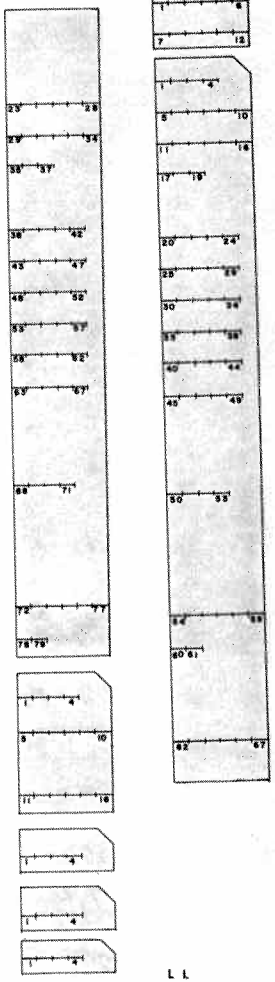


Table 1.—Number of mills in the timber industry in Washington by industry and area, 1970.

Economic area	All industries	Industry					
		Lumber	Veneer and plywood	Pulp and board[1/]	"Other"		
					Shake and shingle	Export[2/]	Pole, post, and piling
Puget Sound	166	58	9	10	56	23	10
Olympic Peninsula	212	53	18	8	99	27	7
Lower Columbia	71	28	9	9	16	5	4
Central Washington	18	16	2	--	--	--	--
Inland Empire	42	30	3	4	1	--	4
Total, State	509	185	41	31	172	55	25

1/ Each pulping process at a multiplant location is considered an individual mill.

2/ Represents the number of identifiable operations involved in the export trade.

Table 2.—Roundwood, other, and residue consumption by mills in Washington by type of material, area, and industry, 1970

Economic area and industry	Roundwood				Other[1]	Residue[2]
	All roundwood	Sound logs		Utility logs		
		Live	Dead			
	-----Thousand board feet, Scribner log rule-----					--Tons--
Puget Sound						
Lumber	911,394	784,562	35,375	91,457	26,805	--
Veneer and plywood	144,547	135,034	2,013	7,500	--	--
Pulp and board	770,231	583,935	--	186,296	[3]	1,656,416
Shake and shingle	45,376	37,543	4,999	2,834	6,305	--
Export	588,826	562,103	904	25,819	--	--
Pole, post, and piling	27,775	27,636	139	--	378	--
Total	2,488,149	2,130,813	43,430	313,906	33,488	1,656,416
Olympic Peninsula						
Lumber	570,366	535,358	8,035	26,973	7,585	--
Veneer and plywood	195,373	188,573	1,700	5,100	--	--
Pulp and board	508,121	479,246	--	28,875	[3]	428,468
Shake and shingle	119,467	94,350	20,944	4,173	10,496	--
Export	944,474	921,070	3,525	19,879	--	--
Pole, post, and piling	14,281	14,281	--	--	261	--
Total	2,352,082	2,232,878	34,204	85,000	18,342	428,468
Lower Columbia						
Lumber	567,383	534,967	11,170	21,246	11,355	--
Veneer and plywood	238,719	233,409	4,000	1,310	--	--
Pulp and board[4]	529,818	389,606	11,498	128,714	--	2,606,328
Shake and shingle[4]	24,068	21,890	1,728	450	591	--
Export	163,885	155,885	--	8,000	--	--
Pole, post, and piling	8,395	8,329	66	--	--	--
Total	1,532,268	1,344,086	28,462	159,720	11,946	2,606,328
Central Washington						
Lumber	344,027	337,399	500	6,128	23,563	--
Veneer and plywood[5]	109,299	109,299	--	--	--	--
Total	453,326	446,698	500	6,128	23,563	--
Inland Empire						
Lumber	239,941	237,176	1,145	1,620	4,000	--
Pole, post, and piling	10,745	9,855	890	--	150	--
Total	250,686	247,031	2,035	1,620	4,150	--
Total, State						
Lumber	2,633,111	2,429,462	56,225	147,424	73,308	--
Veneer and plywood	687,938	666,315	7,713	13,910	--	--
Pulp and board	1,808,170	1,452,787	11,498	343,885	[3]	4,691,212
Shake and shingle	188,911	153,783	27,671	7,457	17,392	--
Export	1,697,185	1,639,058	4,429	53,698	--	--
Pole, post, and piling	61,196	60,101	1,095	--	789	--
Total	7,076,511	6,401,506	108,631	566,374	91,489	4,691,212

[1] Includes peeler cores, cants used by sawmills, blocks, boards, bolts used by shake and shingle mills, and miscellaneous peeled products used by pole, post, and piling mills.

[2] Includes residues from the sawmill, veneer and plywood, and shake and shingle industries, plus chips from roundwood chipping plants.

[3] Cordwood of 79,900 MBF from Puget Sound and 192,180 MBF from Olympic Peninsula included in totals of sound live.

[4] Lower Columbia and Inland Empire combined to avoid disclosure.

[5] Central Washington and Inland Empire combined to avoid disclosure.

Table 3.—Log flows to mills in Washington by state or country of log origin, area, and industry, 1970

(Thousand board feet, Scribner log rule)

Economic area and industry	Origin					
	All	Washington	Oregon	Idaho	British Columbia	Montana
Puget Sound						
Lumber	911,394	910,760	--	--	634	--
Veneer and plywood	144,547	144,197	--	--	350	--
Pulp and board	770,231	720,735	--	9,722	34,966	4,808
Shake and shingle	45,376	45,202	--	--	174	--
Export	588,826	588,487	--	--	339	--
Pole, post, and piling	27,775	24,748	845	--	2,182	--
Total	2,488,149	2,434,129	845	9,722	38,645	4,808
Olympic Peninsula						
Lumber	570,366	569,578	710	--	78	--
Veneer and plywood	195,373	195,373	--	--	--	--
Pulp and board	508,121	508,121	--	--	--	--
Shake and shingle	119,467	119,467	--	--	--	--
Export	944,474	944,474	--	--	--	--
Pole, post, and piling	14,281	14,281	--	--	--	--
Total	2,352,082	2,351,294	710	--	78	--
Lower Columbia						
Lumber	567,383	551,368	16,015	--	--	--
Veneer and plywood	238,719	218,848	19,871	--	--	--
Pulp and board[1/]	529,818	436,386	86,067	7,365	--	--
Shake and shingle[1/]	24,068	22,831	1,012	225	--	--
Export	163,885	158,317	5,568	--	--	--
Pole, post, and piling	8,395	8,296	99	--	--	--
Total	1,532,268	1,396,046	128,632	7,590	--	--
Central Washington						
Lumber	344,027	344,027	--	--	--	--
Veneer and plywood[2/]	109,299	109,299	--	--	--	--
Pulp and board	--	--	--	--	--	--
Shake and shingle	--	--	--	--	--	--
Export	--	--	--	--	--	--
Pole, post, and piling	--	--	--	--	--	--
Total	453,326	453,326	--	--	--	--
Inland Empire						
Lumber	239,941	226,547	6,000	7,394	--	--
Veneer and plywood[2/]	--	--	--	--	--	--
Pulp and board[1/]	--	--	--	--	--	--
Shake and shingle[1/]	--	--	--	--	--	--
Export	--	--	--	--	--	--
Pole, post, and piling	10,745	4,591	--	5,454	700	--
Total	250,686	231,138	6,000	12,848	700	--
Total, State						
Lumber	2,633,111	2,602,280	22,725	7,394	712	--
Veneer and plywood	687,938	667,717	19,871	--	350	--
Pulp and board	1,808,170	1,665,242	86,067	17,087	34,966	4,808
Shake and shingle	188,911	187,500	1,012	225	174	--
Export	1,697,185	1,691,278	5,568	--	339	--
Pole, post, and piling	61,196	51,916	944	5,454	2,882	--
Total	7,076,511	6,865,933	136,187	30,160	39,423	4,808

1/ Inland Empire combined with Lower Columbia to avoid disclosure.

2/ Inland Empire combined with Central Washington to avoid disclosure.

Table 4.—Log flows to mills in Washington area and county of use, 1970 (Thousand board feet,

Economic area and county of use	Total	Economic area and county of origin							
		Puget Sound							
		Island	King	Kitsap	Pierce	San Juan	Skagit	Snohomish	Whatcom
Puget Sound									
Island and San Juan[1/]	8,011	7,691	--	--	--	320	--	--	--
King	315,004	--	206,671	5,104	41,730	--	4,684	14,486	--
Kitsap	51,246	7,474	--	21,101	726	--	--	--	1,271
Pierce	641,485	--	145,589	10,236	234,373	--	18,570	69,900	--
Skagit	156,594	10,598	12,223	--	--	--	60,856	27,039	26,300
Snohomish	1,109,251	--	239,087	--	56,559	640	187,422	390,867	23,672
Whatcom	206,558	2,646	3,731	--	--	1,179	76,507	4,626	68,639
Total	2,488,149	28,409	607,301	36,441	333,388	2,139	348,039	506,918	119,882
Olympic Peninsula									
Clallam	477,938	--	--	--	--	--	--	--	--
Grays Harbor	830,933	--	--	--	--	--	--	40	--
Jefferson	36,188	--	--	1,478	5,911	--	1,056	--	--
Lewis	209,732	--	--	--	1,645	--	--	--	--
Mason	178,028	--	3,666	--	3,666	--	--	--	--
Pacific	330,921	--	7,200	--	1,800	--	--	7,200	--
Thurston	288,342	--	38,223	200	87,372	--	14,802	34,628	--
Total	2,352,082	--	49,089	1,678	100,394	--	15,858	41,868	--
Lower Columbia									
Clark	267,288	--	--	--	--	--	--	--	--
Cowlitz	1,038,810	--	--	--	--	--	--	--	--
Klickitat	140,578	--	--	--	--	--	--	--	--
Skamania	76,071	--	--	--	--	--	--	--	--
Wahkiakum	3,395	--	--	--	--	--	--	--	--
Total	1,526,142	--	--	--	--	--	--	--	--
Central Washington									
Chelan	49,727	--	--	--	--	--	--	--	--
Douglas, Grant, Kittitas, and Lincoln[1/]	75,454	--	--	--	--	--	--	--	--
Okanogan	83,979	--	--	--	--	--	--	--	--
Yakima	189,192	--	--	--	--	--	--	--	--
Total	398,352	--	--	--	--	--	--	--	--
Inland Empire									
Asotin and Walla Walla[1/]	33,750	--	--	--	--	--	--	--	--
Ferry	22,173	--	--	--	--	--	--	--	--
Pend Oreille	17,231	--	--	--	--	--	--	--	--
Spokane	79,567	--	--	--	--	--	--	--	--
Stevens	159,065	--	--	--	--	--	--	--	--
Total	311,786	--	--	--	--	--	--	--	--
Total, State	7,076,511	28,409	656,390	38,119	433,782	2,139	363,897	548,786	119,882

[1/] Combined to avoid disclosure.

by county and out-of-state origins, and by

Scribner log rule)

Economic area and county of origin											
Olympic Peninsula							Lower Columbia				
Clallam	Grays Harbor	Jefferson	Lewis	Mason	Pacific	Thurston	Clark	Cowlitz	Klickitat	Skamania	Wahkiakum
--	--	--	--	--	--	--	--	--	--	--	--
4,250	6,290	10,470	13,829	--	--	--	--	--	--	--	--
--	--	2,586	--	18,088	--	--	--	--	--	--	--
5,360	23,368	460	109,317	8,108	3,556	2,281	8,816	1,551	--	--	--
5,027	--	11,616	2,924	--	--	--	--	--	--	--	--
4,350	306	5,336	189,114	1,114	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
18,987	29,964	30,468	315,184	27,310	3,556	2,281	8,816	1,551	--	--	--
307,629	674	169,557	--	--	--	--	--	--	--	--	--
--	389,915	234,703	1,353	99	204,599	66	--	158	--	--	--
5,454	266	15,892	--	220	--	5,911	--	--	--	--	--
--	1,053	--	175,265	3,378	11,223	4,382	14	4,238	--	8,534	--
--	19,077	--	--	151,619	--	--	--	--	--	--	--
--	85,127	--	1,142	--	226,322	--	--	--	--	--	--
--	2,774	--	35,135	24,553	--	34,889	--	5,083	--	--	1,420
313,083	498,886	420,152	212,895	179,869	442,144	45,248	14	9,479	--	8,534	1,420
--	--	--	1,080	--	743	--	5,924	44,467	68	104,895	29,331
--	--	--	144,421	--	99,774	--	16,870	666,633	3,485	43,675	17,111
--	--	--	--	--	--	--	--	--	54,203	11,400	--
--	--	--	--	--	--	--	--	--	3,960	65,531	--
--	--	--	--	--	856	--	--	--	--	--	2,539
--	--	--	145,501	--	101,373	--	22,794	711,100	61,716	225,501	48,981
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	23,653	--	--
--	--	--	--	--	--	--	--	--	23,653	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
332,070	528,850	450,620	673,580	207,179	547,073	47,529	31,624	722,130	85,369	234,035	50,401

Table 4.—Log flows to mills in Washington by county and out-of-state origins, and by area and county of use, 1970 (continued)
(Thousand board feet, Scribner log rule)

Economic area and county of use	Economic area and county of origin												Out-of-State origin
	Central Washington				Inland Empire								
	Chelan	Kittitas	Okanogan	Yakima	Asotin	Columbia	Ferry	Garfield	Pend Oreille	Spokane	Stevens	Walla Walla	
Puget Sound													
Island and San Juan[1/]	--	--	--	--	--	--	--	--	--	--	--	--	--
King	--	7,150	--	--	--	--	--	--	--	--	--	--	340
Kitsap	--	--	--	--	--	--	--	--	--	--	--	--	--
Pierce	--	--	--	--	--	--	--	--	--	--	--	--	--
Skagit	--	--	--	--	--	--	--	--	--	--	--	--	11
Snohomish	613	--	--	--	--	--	5,154	--	--	--	--	--	5,017
Whatcom	--	578	--	--	--	--	--	--	--	--	--	--	48,652
Total	613	7,728	--	--	--	--	5,154	--	--	--	--	--	54,020
Olympic Peninsula													
Clallam	--	--	--	--	--	--	--	--	--	--	--	--	78
Grays Harbor	--	--	--	--	--	--	--	--	--	--	--	--	--
Jefferson	--	--	--	--	--	--	--	--	--	--	--	--	--
Lewis	--	--	--	--	--	--	--	--	--	--	--	--	--
Mason	--	--	--	--	--	--	--	--	--	--	--	--	--
Pacific	--	--	--	--	--	--	--	--	--	--	--	--	710
Thurston	--	10,683	--	--	--	--	--	--	--	--	--	--	--
Total	--	10,683	--	--	--	--	--	--	--	--	--	--	788
Lower Columbia													
Clark	--	--	--	--	--	--	--	--	--	--	--	--	80,780
Cowlitz	--	--	--	--	--	--	--	--	--	--	--	--	46,841
Klickitat	--	--	--	74,975	--	--	--	--	--	--	--	--	--
Skamania	--	--	--	4,080	--	--	--	--	--	--	--	--	2,500
Wahkiakum	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	79,055	--	--	--	--	--	--	--	--	130,121
Central Washington													
Chelan	49,727	--	--	--	--	--	--	--	--	--	--	--	--
Douglas, Grant, Kittitas, and Lincoln[1/]	--	33,243	--	--	--	--	39,679	--	1,266	--	1,266	--	--
Okanogan	--	--	75,563	--	1,200	--	7,216	--	--	--	--	--	--
Yakima	--	38,592	--	126,947	--	--	--	--	--	--	--	--	--
Total	49,727	71,835	75,563	126,947	1,200	--	46,895	--	1,266	--	1,266	--	--
Inland Empire													
Asotin and Walla Walla[1/]	--	445	--	667	5,250	6,002	1,500	15,365	--	--	--	111	4,410
Ferry	--	--	6,298	--	--	--	9,875	--	--	--	--	6,000	--
Pend Oreille	--	--	--	--	--	--	--	--	16,804	427	--	--	--
Spokane	--	--	2,256	--	--	--	16,085	--	9,035	3,091	27,596	--	21,504
Stevens	--	--	--	--	--	--	54,278	--	20,971	--	83,816	--	--
Total	--	445	8,554	667	5,250	6,002	81,738	15,365	46,810	3,518	111,412	6,111	25,914
Total, State	50,340	90,691	84,117	206,669	6,450	6,002	133,787	15,365	48,076	3,518	112,678	6,111	210,843

[1/] Combined to avoid disclosure.

Table 5.—Relative dependency of Washington mills for logs, 1970
(Number of Mills)

Economic area and industry	National Forest				State				Bureau of Land Management				Other public				Forest industry: Own wood supply				Forest industry: Other wood supply				Farmer & miscellaneous private			
	Dependency percent																											
	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100
Puget Sound																												
Lumber	33	15	3	7	35	21	2	--	58	--	--	--	49	7	1	1	37	8	6	7	41	10	5	2	18	9	9	22
Veneer and plywood	3	--	5	1	3	6	--	--	9	--	--	--	8	1	--	--	5	1	2	1	8	--	--	1	6	3	--	--
Pulp and board	4	6	--	--	4	6	--	--	10	--	--	--	10	--	--	--	2	1	4	3	5	3	2	--	5	3	1	1
Shake and shingle	25	11	3	17	46	8	2	--	53	2	--	1	50	1	3	2	56	--	--	--	28	6	4	18	41	7	1	7
Export	11	5	6	1	10	6	3	4	23	--	--	--	23	--	--	--	16	2	--	5	13	3	1	6	17	4	2	--
Pole, post, and piling	5	4	--	1	3	6	1	--	10	--	--	--	9	--	--	1	7	3	--	--	1	2	5	2	4	4	2	--
Total	81	41	17	27	101	53	8	4	163	2	--	1	149	9	4	4	123	15	12	16	96	24	17	29	91	30	15	30
Olympic Peninsula																												
Lumber	38	5	6	4	35	14	4	--	53	--	--	--	50	1	1	1	41	8	1	3	32	8	8	5	20	7	8	18
Veneer and plywood	7	2	2	7	11	3	3	1	17	--	--	1	17	1	--	--	15	2	1	--	14	4	--	--	10	7	--	1
Pulp and board	3	5	--	--	3	2	3	--	8	--	--	--	6	2	--	--	1	3	2	2	2	5	--	1	4	4	--	--
Shake and shingle	58	18	11	12	65	15	11	8	96	1	--	2	67	8	8	16	97	--	--	2	59	3	14	23	87	5	3	4
Export	21	4	1	1	12	6	4	5	27	--	--	--	22	3	1	1	18	--	--	9	19	5	1	2	17	4	2	4
Pole, post, and piling	4	3	--	--	3	4	--	--	7	--	--	--	6	1	--	--	5	1	1	--	3	--	1	3	1	4	1	1
Total	131	37	20	24	129	44	25	14	208	1	--	3	168	16	10	18	177	14	5	16	129	25	24	34	139	31	14	28
Lower Columbia																												
Lumber	16	3	4	5	17	7	4	--	28	--	--	--	22	2	4	--	19	4	2	3	19	2	6	1	14	6	3	5
Veneer and plywood	1	3	2	3	2	7	--	--	9	--	--	--	8	--	1	--	4	2	2	1	6	3	--	--	8	1	--	--
Pulp and board 1/	10	--	2	1	11	2	--	--	13	--	--	--	11	2	--	--	4	3	2	4	6	4	--	3	9	4	--	--
Shake and shingle 1/	11	3	--	3	13	3	1	--	17	--	--	--	17	--	--	--	16	--	--	1	7	1	2	7	14	2	1	--
Export	--	2	1	--	2	3	--	--	5	--	--	--	5	--	--	--	2	--	1	2	3	1	1	--	4	1	--	--
Pole, post, and piling	2	2	--	--	2	2	--	--	4	--	--	--	4	--	--	--	1	2	1	--	1	--	2	1	--	3	1	--
Total	42	13	9	12	47	24	5	--	76	--	--	--	67	4	5	--	46	11	8	11	42	11	11	12	49	17	5	5
Central Washington																												
Lumber	2	4	5	5	7	8	1	--	15	1	--	--	9	5	1	1	8	4	3	1	13	3	--	--	5	10	--	1
Veneer and plywood 2/	2	1	2	--	2	3	--	--	5	--	--	--	2	2	1	--	3	1	1	--	5	--	--	--	1	3	--	1
Pulp and board	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Shake and shingle	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Export	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pole, post, and piling	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	4	5	7	5	9	11	1	--	20	1	--	--	11	7	2	1	11	5	4	1	18	3	--	--	6	13	--	2
Inland Empire																												
Lumber	13	5	7	5	18	11	1	--	23	7	--	--	26	4	--	--	20	6	3	1	27	3	--	--	6	9	2	13
Veneer and plywood 2/	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pulp and board 1/	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Shake and shingle 1/	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Export	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pole, post, and piling	1	2	1	--	--	1	3	--	4	--	--	--	2	2	--	--	3	1	--	--	3	--	--	1	--	3	1	--
Total	14	7	8	5	18	12	4	--	27	7	--	--	28	6	--	--	23	7	3	1	30	3	--	1	6	12	3	13
Total, State																												
Lumber	102	32	25	26	112	61	12	--	177	8	--	--	156	19	7	3	125	30	15	15	132	26	19	8	63	41	22	59
Veneer and plywood	13	6	11	11	18	19	3	1	40	--	--	1	35	4	2	--	27	6	6	2	33	7	--	1	25	14	--	2
Pulp and board	17	11	2	1	18	10	3	--	31	--	--	--	27	4	--	--	7	7	8	9	13	12	2	4	18	11	1	1
Shake and shingle	94	32	14	32	124	26	14	8	166	3	--	3	134	9	11	18	169	--	--	3	94	10	20	48	142	14	5	11
Export	34	11	8	2	24	15	7	9	55	--	--	--	50	3	1	1	36	2	1	16	35	9	3	8	38	9	4	4
Pole, post, and piling	12	11	1	1	8	13	4	--	25	--	--	--	21	3	--	1	16	7	2	--	8	2	8	7	5	14	5	1
Total	272	103	61	73	304	144	43	18	494	11	--	4	423	42	21	23	380	52	32	45	315	66	52	76	291	103	37	78

1/ Inland Empire has been combined with Lower Columbia to avoid disclosure.

2/ Inland Empire has been combined with Central Washington to avoid disclosure.

Table 6.—Origin of logs consumed in Washington by ownership, 1970 (Thousand board feet, Scribner log rule)

Economic area and industry	All owners	National Forest	State	Bureau of Land Management	Other public	Forest industry		Farmer and miscellaneous private
						Own wood supply	Other wood supply	
Puget Sound								
Lumber	911,394	158,695	62,584	--	8,929	530,891	66,488	83,807
Veneer and plywood	144,547	63,322	9,235	--	1,849	61,574	1,742	6,825
Pulp and board	770,231	29,122	29,684	--	--	544,712	82,615	84,098
Shake and shingle	45,376	16,899	3,484	880	6,476	--	10,205	7,432
Export	588,826	87,563	154,725	--	--	207,222	98,069	41,247
Pole, post, and piling	27,775	6,539	4,855	--	155	514	10,668	5,044
Total	2,488,149	362,140	264,567	880	17,409	1,344,913	269,787	228,453
Olympic Peninsula								
Lumber	570,366	166,136	56,774	--	5,350	168,612	108,587	64,907
Veneer and plywood	195,373	121,148	28,390	6,322	45	15,513	8,346	15,609
Pulp and board	508,121	22,550	114,009	--	26,480	317,852	19,924	7,306
Shake and shingle	119,467	13,710	17,864	245	22,154	23,857	40,352	1,285
Export	944,474	31,001	219,809	--	62,947	391,633	98,226	140,858
Pole, post, and piling	14,281	373	1,560	--	--	413	6,142	5,793
Total	2,352,082	354,918	438,406	6,567	116,976	917,880	281,577	235,758
Lower Columbia								
Lumber	567,383	75,159	42,967	--	48,134	329,056	53,812	18,255
Veneer and plywood	238,719	71,230	24,674	--	4,080	124,561	11,534	2,640
Pulp and board[1/]	529,818	65,456	5,958	--	8,937	393,525	45,892	10,050
Shake and shingle[1/]	24,068	1,319	279	--	--	11,246	10,921	303
Export	163,885	29,020	12,042	--	--	100,549	12,316	9,958
Pole, post, and piling	8,395	245	491	--	--	2,268	2,722	2,669
Total	1,532,268	242,429	86,411	--	61,151	961,205	137,197	43,875
Central Washington								
Lumber	344,027	134,045	37,090	306	99,038	51,842	1,264	20,442
Veneer and plywood[2/]	109,299	31,386	6,315	--	30,334	24,943	--	16,321
Pulp and board	--	--	--	--	--	--	--	--
Shake and shingle	--	--	--	--	--	--	--	--
Export	--	--	--	--	--	--	--	--
Pole, post, and piling	--	--	--	--	--	--	--	--
Total	453,326	165,431	43,405	306	129,372	76,785	1,264	36,763
Inland Empire								
Lumber	239,941	95,357	17,889	11,995	10,325	56,663	2,088	45,624
Veneer and plywood[2/]	--	--	--	--	--	--	--	--
Pulp and board[1/]	--	--	--	--	--	--	--	--
Shake and shingle[1/]	--	--	--	--	--	--	--	--
Export	--	--	--	--	--	--	--	--
Pole, post, and piling	10,745	1,060	1,974	--	190	175	6,300	1,046
Total	250,686	96,417	19,863	11,995	10,515	56,838	8,388	46,670
Total, State								
Lumber	2,633,111	629,392	217,304	12,301	171,776	1,137,064	232,239	233,035
Veneer and plywood	687,938	287,086	68,614	6,322	36,308	226,591	21,622	41,395
Pulp and board	1,808,170	117,128	149,651	--	35,417	1,256,089	148,431	101,454
Shake and shingle	188,911	31,928	21,627	1,125	28,630	35,103	61,478	9,020
Export	1,697,185	147,584	386,576	--	62,947	699,404	208,611	192,063
Pole, post, and piling	61,196	8,217	8,880	--	345	3,370	25,832	14,552
Total	7,076,511	1,221,335	852,652	19,748	335,423	3,357,621	698,213	591,519

1/ Inland Empire combined with Lower Columbia to avoid disclosure.

2/ Inland Empire combined with Central Washington to avoid disclosure.

Table 7.—Log consumption by mills in Washington by species, area, and industry, 1970 (Thousand board feet, Scribner log rule)

Economic area and industry	All species	Douglas fir	Hemlock	True firs	Spruce	Ponderosa pine	Lodgepole pine	Western redcedar	Other softwoods [1]	Hardwoods
Puget Sound										
Lumber	911,394	500,168	266,781	18,219	160	--	248	98,872	354	26,592
Veneer and plywood	144,547	73,038	62,478	616	--	--	--	4,054	1,185	3,176
Pulp and board	770,231	145,315	390,959	77,793	2,540	--	--	39,900	--	113,724
Shake and shingle	45,376	--	--	--	--	--	--	45,376	--	--
Export	588,826	171,510	312,342	65,811	2,177	640	--	32,632	3,714	--
Pole, post, and piling	27,775	15,916	--	--	--	--	--	11,859	--	--
Total	2,488,149	905,947	1,032,560	162,439	4,877	640	248	232,693	5,253	143,492
Olympic Peninsula										
Lumber	570,366	226,719	219,550	20,842	756	2,485	--	67,128	22	32,864
Veneer and plywood	195,373	138,456	29,036	12,715	158	488	7,125	7,395	--	--
Pulp and board	508,121	16,890	438,219	24,220	4,782	--	--	1,478	--	22,532
Shake and shingle	119,467	--	--	--	--	--	--	119,467	--	--
Export	944,474	153,793	538,478	87,680	62,715	--	232	100,424	1,152	--
Pole, post, and piling	14,281	10,007	--	--	--	--	--	4,274	--	--
Total	2,352,082	545,865	1,225,283	145,457	68,411	2,973	7,357	300,166	1,174	55,396
Lower Columbia										
Lumber	567,383	371,429	92,025	23,585	9	49,924	--	15,271	1,707	13,433
Veneer and plywood [2]	238,719	208,322	12,700	5,000	600	7,200	--	2,914	1,983	--
Pulp and board [2]	529,818	258,198	200,509	29,614	--	--	--	--	--	41,497
Shake and shingle [2]	24,068	5	--	--	--	--	--	24,063	--	--
Export	163,885	43,524	90,821	18,831	3,001	--	1,772	3,840	2,096	--
Pole, post, and piling	8,395	6,506	--	--	--	--	--	1,889	--	--
Total	1,532,268	887,984	396,055	77,030	3,610	57,124	1,772	47,977	5,786	54,930
Central Washington										
Lumber	344,027	95,193	9,312	22,986	8,511	177,563	1,916	731	27,815	--
Veneer and plywood [3]	109,299	59,497	--	9,098	6,543	9,939	--	--	24,222	--
Pulp and board	--	--	--	--	--	--	--	--	--	--
Shake and shingle	--	--	--	--	--	--	--	--	--	--
Export	--	--	--	--	--	--	--	--	--	--
Pole, post, and piling	--	--	--	--	--	--	--	--	--	--
Total	453,326	154,690	9,312	32,084	15,054	187,502	1,916	731	52,037	--
Inland Empire										
Lumber	239,941	89,480	9,860	21,551	7,531	57,871	3,358	8,167	38,159	3,964
Veneer and plywood [3]	--	--	--	--	--	--	--	--	--	--
Pulp and board [2]	--	--	--	--	--	--	--	--	--	--
Shake and shingle [2]	--	--	--	--	--	--	--	--	--	--
Export	--	--	--	--	--	--	--	--	--	--
Pole, post, and piling	10,745	--	--	--	--	--	918	9,504	323	--
Total	250,686	89,480	9,860	21,551	7,531	57,871	4,276	17,671	38,482	3,964
Total, State										
Lumber	2,633,111	1,282,989	597,528	107,183	16,967	287,843	5,522	190,169	68,057	76,853
Veneer and plywood	687,938	479,313	104,214	27,429	7,301	17,627	7,125	14,363	27,390	3,176
Pulp and board	1,808,170	420,403	1,029,687	131,627	7,322	--	--	41,378	--	177,753
Shake and shingle	188,911	5	--	--	--	--	--	188,906	--	--
Export	1,697,185	368,827	941,641	172,322	67,893	640	2,004	136,896	6,962	--
Pole, post, and piling	61,196	32,429	--	--	--	--	918	27,526	323	--
Total	7,076,511	2,583,966	2,673,070	438,561	99,483	306,110	15,569	599,238	102,732	257,782

[1] Mostly western larch, but some western white pine, Alaska yellow cedar, and others.

[2] Inland Empire has been combined with Lower Columbia to avoid disclosure.

[3] Inland Empire has been combined with Central Washington to avoid disclosure.

Table 8.—Production and disposition of wood and bark residues by mills in Washington by use, area, and residue-producing industry, 1970 (Tons, dry weight)

Economic area and residue-producing industry	All residues	Wood residue						Bark residue				
		All wood	Used[1]				Unused	All bark	Used[1]			Unused
			Total	Pulp and board	Fuel	Misc.			Total	Fuel	Misc.	
Puget Sound												
Lumber	1,449,456	1,152,273	1,139,622	685,881	301,332	152,409	12,651	297,183	283,207	198,069	85,138	13,976
Veneer and plywood	250,473	189,883	189,244	80,077	100,375	8,792	639	60,590	60,003	60,003	--	587
Other[2]	48,093	35,392	12,292	4,017	3,466	4,809	23,100	12,701	2,823	1,400	1,423	9,878
Total	1,748,022	1,377,548	1,341,158	769,975	405,173	166,010	36,390	370,474	346,033	259,472	86,561	24,441
Olympic Peninsula												
Lumber	975,567	751,414	714,030	420,679	161,713	131,638	37,384	224,153	172,165	148,525	23,640	51,988
Veneer and plywood	276,957	214,357	213,957	150,931	51,641	11,385	400	62,600	39,755	36,902	2,853	22,845
Other[2]	115,252	82,579	32,773	4,045	12,596	16,132	49,806	32,673	10,498	4,247	6,251	22,175
Total	1,367,776	1,048,350	960,760	575,655	225,950	159,155	87,590	319,426	222,418	189,674	32,744	97,008
Lower Columbia												
Lumber	896,906	710,598	689,575	457,237	224,793	7,545	21,023	186,308	163,957	154,048	9,909	22,351
Veneer and plywood	326,377	248,553	248,553	128,765	79,748	40,040	--	77,824	74,379	61,524	12,855	3,445
Other[2/3]	26,214	19,313	11,493	10,900	120	473	7,820	6,901	3,752	620	3,132	3,149
Total	1,249,497	978,464	949,621	596,902	304,661	48,058	28,843	271,033	242,088	216,192	25,896	28,945
Central Washington												
Lumber	469,198	359,696	348,624	195,149	115,335	38,140	11,072	109,502	90,260	71,570	18,690	19,242
Veneer and plywood[4]	146,229	112,640	103,100	78,288	15,850	8,962	9,540	33,589	17,134	17,134	--	16,455
Other[2]	--	--	--	--	--	--	--	--	--	--	--	--
Total	615,427	472,336	451,724	273,437	131,185	47,102	20,612	143,091	107,394	88,704	18,690	35,697
Inland Empire												
Lumber	340,913	248,848	191,478	131,598	52,749	7,131	57,370	92,065	22,602	17,967	4,635	69,463
Veneer and plywood[4]	--	--	--	--	--	--	--	--	--	--	--	--
Other[2/3]	--	--	--	--	--	--	--	--	--	--	--	--
Total	340,913	248,848	191,478	131,598	52,749	7,131	57,370	92,065	22,602	17,967	4,635	69,463
Total, State												
Lumber	4,132,040	3,222,829	3,083,329	1,890,544	855,922	336,863	139,500	909,211	732,191	590,179	142,012	177,020
Veneer and plywood	1,000,036	765,433	754,854	438,061	247,614	69,179	10,579	234,603	191,271	175,563	15,708	43,332
Other[2]	189,559	137,284	56,558	18,962	16,182	21,414	80,726	52,275	17,073	6,267	10,806	35,202
Total	5,321,635	4,125,546	3,894,741	2,347,567	1,119,718	427,456	230,805	1,196,089	940,535	772,009	168,526	255,554

1/ Used residues were not necessarily consumed in the economic area in which they were produced.

2/ Includes shake and shingle mills only.

3/ Inland Empire combined with Lower Columbia to avoid disclosure.

4/ Inland Empire combined with Central Washington to avoid disclosure.

Table 9.—Number of sawmills in Washington, 1970

Economic area and county	All classes	Mill-size-class[1/]			
		D	C	B	A
Puget Sound					
Island	2	2	--	--	--
King	11	5	1	2	3
Kitsap	4	3	--	--	1
Pierce	15	8	2	2	3
San Juan	1	1	--	--	--
Skagit	2	--	1	--	1
Snohomish	21	12	4	2	3
Whatcom	2	1	1	--	--
Total	58	32	9	6	11
Olympic Peninsula					
Clallam	8	7	--	--	1
Grays Harbor	5	1	1	1	2
Jefferson	4	4	--	--	--
Mason	5	2	1	--	2
Thurston	11	10	--	--	1
Lewis	18	10	6	--	2
Pacific	2	--	--	--	2
Total	53	34	8	1	10
Lower Columbia					
Clark	7	6	--	1	--
Cowlitz	10	4	3	1	2
Skamania	4	2	--	--	2
Wahkiakum	1	1	--	--	--
Klickitat	6	2	3	--	1
Total	28	15	6	2	5
Central Washington					
Chelan	3	--	2	1	--
Grant	1	--	1	--	--
Kittitas	2	1	1	--	--
Okanogan	6	3	1	2	--
Yakima	3	--	1	1	1
Lincoln	1	--	--	--	1
Total	16	4	6	4	2
Inland Empire					
Asotin	1	--	--	1	--
Ferry	6	5	1	--	--
Pend Oreille	3	2	1	--	--
Spokane	4	2	1	1	--
Stevens	14	9	5	--	--
Walla Walla	2	1	1	--	--
Total	30	19	9	2	--
Total, State	185	104	38	15	28

[1/] Mill-size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,000, C = 40,000-79,000, D = less than 40,000

Table 10.—Installed 8-hour capacity of sawmills in Washington by mill-size-class, area, and county, 1970
(Thousand board feet, Scribner log rule)

Economic area and county	Total capacity	Mill-size-class[1/]			
		D	C	B	A
Puget Sound	45	45	--	--	--
Island	832	82	40	210	500
King	230	40	--	--	190
Kitsap	781	46	125	210	400
Pierce	5	5	--	--	--
San Juan	165	--	40	--	125
Skagit	1,460	165	225	210	860
Snohomish	70	20	50	--	--
Whatcom					
Total	3,588	403	480	630	2,075
Olympic Peninsula	230	80	--	--	150
Clallam	452	35	57	80	280
Grays Harbor	43	43	--	--	--
Jefferson	482	22	40	--	420
Mason	288	138	--	--	150
Thurston	715	90	355	--	270
Lewis	380	--	--	--	380
Pacific					
Total	2,590	408	452	80	1,650
Lower Columbia	148	48	--	100	--
Clark	1,209	87	152	100	870
Cowlitz	308	18	--	--	290
Skamania	5	5	--	--	--
Wahkiakum	510	40	190	--	280
Klickitat					
Total	2,180	198	342	200	1,440
Central Washington	230	--	140	90	--
Chelan	70	--	70	--	--
Grant	100	25	75	--	--
Kittitas	316	46	60	210	--
Okanogan	395	--	60	85	250
Yakima	150	--	--	--	150
Lincoln					
Total	1,261	71	405	385	400
Inland Empire	80	--	--	80	--
Asotin	92	47	45	--	--
Ferry	72	22	50	--	--
Pend Oreille	176	26	65	85	--
Spokane	466	207	259	--	--
Stevens	90	20	70	--	--
Walla Walla					
Total	976	322	489	165	--
Total, State	10,595	1,402	2,168	1,460	5,565

[1/] Mill-size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,000, C = 40,000-79,000, D = less than 40,000.

Table 11.—Number of sawmills in Washington by mill-size-class, area, and selected equipment, 1970

Economic area and selected equipment	All classes	Mill-size-class[1/]			
		D	C	B	A
Puget Sound					
Barker	32	8	8	5	11
Chipper	32	8	7	6	11
Planer	47	22	8	6	11
Burner	7	6	1	--	--
Kiln	25	7	5	4	9
Olympic Peninsula					
Barker	22	5	6	1	10
Chipper	25	7	7	1	10
Planer	35	18	7	1	9
Burner	15	4	6	1	4
Kiln	18	9	4	1	4
Lower Columbia					
Barker	14	3	5	2	4
Chipper	16	3	6	2	5
Planer	16	3	6	2	5
Burner	8	2	2	1	3
Kiln	11	--	5	1	5
Central Washington					
Barker	12	1	6	3	2
Chipper	12	1	6	3	2
Planer	13	2	5	4	2
Burner	6	--	4	1	1
Kiln	11	1	4	4	2
Inland Empire					
Barker	18	7	9	2	--
Chipper	16	5	9	2	--
Planer	22	12	9	1	--
Burner	23	14	8	1	--
Kiln	10	1	7	2	--
Total, State					
Barker	98	24	34	13	27
Chipper	101	24	35	14	28
Planer	133	57	35	14	27
Burner	59	26	21	4	8
Kiln	75	18	25	12	20

[1/] Mill-size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,000, C = 40,000-79,000, D = less than 40,000.

Table 12.—Number of sawmills in Washington by selected equipment, area, and county, 1970

Economic area and county	Barker	Chipper	Planer	Burner	Kiln
Puget Sound					
Island	1	1	1	1	1
King	7	8	11	1	7
Kitsap	2	1	3	2	2
Pierce	7	7	10	--	3
San Juan	--	--	1	--	--
Skagit	2	1	2	--	2
Snohomish	11	12	17	2	8
Whatcom	2	2	2	1	2
Total	32	32	47	7	25
Olympic Peninsula					
Clallam	2	2	7	2	3
Grays Harbor	4	5	5	3	3
Jefferson	--	--	2	1	--
Mason	3	3	4	1	3
Thurston	2	2	3	1	1
Lewis	9	11	12	6	7
Pacific	2	2	2	1	1
Total	22	25	35	15	18
Lower Columbia					
Clark	2	2	3	--	1
Cowlitz	7	7	6	1	4
Skamania	2	3	2	3	2
Wahkiakum	--	--	--	--	--
Klickitat	3	4	5	4	4
Total	14	16	16	8	11
Central Washington					
Chelan	3	3	3	1	3
Grant	1	1	--	--	--
Kittitas	1	1	1	1	1
Okanogan	3	3	5	1	3
Yakima	3	3	3	2	3
Lincoln	1	1	1	1	1
Total	12	12	13	6	11
Inland Empire					
Asotin	1	1	--	1	1
Ferry	2	1	2	6	1
Pend Oreille	1	1	2	2	1
Spokane	3	3	4	1	2
Stevens	10	9	12	12	4
Walla Walla	1	1	2	1	1
Total	18	16	22	23	10
Total, State	98	101	133	59	75

Table 13.—Number of sawmills in Washington by type and size of headrig,[1] area, and mill-size-class, 1970

Economic area and mill-size-class[2]	Circular saw				Band saw				Gang saw			Chipping saw			Scragg double cut saw		
	2 ft.	4 ft.	6 ft.	8+ ft.	4 ft.	6 ft.	8 ft.	10+ ft.	2 ft.	3 ft.	4 ft.	2 ft.	3 ft.	4 ft.	2 ft.	3 ft.	4 ft.
Puget Sound																	
D	4	13	10	--	5	--	--	--	--	--	--	--	--	--	--	--	--
C	--	1	2	--	3	3	--	--	--	--	--	--	--	--	--	--	--
B	--	--	--	--	1	2	2	--	--	--	--	1	--	--	--	--	--
A	--	--	--	--	1	2	2	3	--	1	--	1	--	--	1	--	--
Total	4	14	12	--	10	7	4	3	--	1	--	2	--	--	1	--	--
Olympic Peninsula																	
D	5	12	5	1	4	1	--	--	1	--	--	--	--	--	4	--	1
C	--	2	1	--	3	1	--	1	--	--	--	--	--	--	--	--	--
B	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--
A	--	1	--	--	4	3	1	--	--	--	--	1	--	--	--	--	--
Total	5	15	6	1	11	5	1	2	1	--	--	1	--	--	4	--	1
Lower Columbia																	
D	1	9	2	1	--	1	1	--	--	--	--	--	--	--	--	--	--
C	--	2	--	--	--	4	--	--	--	--	--	--	--	--	--	--	--
B	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--
A	--	--	--	--	--	3	--	1	--	1	--	--	--	--	--	--	--
Total	1	11	2	1	--	9	2	1	--	1	--	--	--	--	--	--	--
Central Washington																	
D	--	1	2	--	--	1	--	--	--	--	--	--	--	--	--	--	--
C	--	--	--	--	2	3	1	--	--	--	--	--	--	--	--	--	--
B	--	1	--	--	1	2	--	--	--	--	--	--	--	--	--	--	--
A	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--
Total	--	2	2	--	3	7	2	--	--	--	--	--	--	--	--	--	--
Inland Empire																	
D	--	12	5	--	1	1	--	--	--	--	--	--	--	--	--	--	--
C	--	1	2	--	4	1	1	--	--	--	--	--	--	--	--	--	--
B	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--
A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	13	7	--	5	3	2	--	--	--	--	--	--	--	--	--	--
Total, State																	
D	10	47	24	2	10	4	1	--	1	--	--	--	--	--	4	--	1
C	--	6	5	--	12	12	2	1	--	--	--	--	--	--	--	--	--
B	--	1	--	--	2	6	4	1	--	--	--	1	--	--	--	--	--
A	--	1	--	--	5	9	4	4	--	2	--	2	--	--	1	--	--
Total	10	55	29	2	29	31	11	6	1	2	--	3	--	--	5	--	1

1/ Sizes of headrigs are upper limits. Thus the 6-foot size class includes saws 49 through 72 inches.

2/ Mill-size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,000, C = 40,000-79,000, D = less than 40,000.

Table 14.—Number of sawmills in Washington by years of tenure of present ownership, years of site occupancy, and mill-size-class, 1970

Present mill-size-class[1]	Site occupancy (years)	All mills	Tenure of present mill ownership (years)				
			0-2	3-5	6-10	11-20	21+
D	0 - 2	9	1	2	2	1	3
	3 - 5	10	--	9	--	1	--
	6 - 10	16	1	1	13	1	--
	11 - 20	34	3	2	2	26	1
	21+	35	1	2	1	5	26
	Total	104	6	16	18	34	30
C	0 - 2	3	3	--	--	--	--
	3 - 5	2	--	1	1	--	--
	6 - 10	1	--	--	1	--	--
	11 - 20	14	2	--	4	8	--
	21+	18	3	--	1	5	9
	Total	38	8	1	7	13	9
B	6 - 10	2	--	1	1	--	--
	11 - 20	3	--	--	--	3	--
	21+	10	2	1	3	1	3
	Total	15	2	2	4	4	3
A	0 - 2	1	1	--	--	--	--
	3 - 5	1	--	1	--	--	--
	6 - 10	2	--	--	2	--	--
	11 - 20	5	--	--	1	4	--
	21+	19	--	--	2	2	15
	Total	28	1	1	5	6	15
Total, State	0 - 2	13	5	2	2	1	3
	3 - 5	13	--	11	1	1	--
	6 - 10	21	1	2	17	1	--
	11 - 20	56	5	2	7	41	1
	21+	82	6	3	7	13	53
	Total	185	17	20	34	57	57

[1] Mill-size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,000, C = 40,000-79,000, D = less than 40,000.

Table 15.—Average number of operating days of sawmills in Washington by area and mill-size-class, 1970

Economic area and mill-size-class[1]	Average number of operating days per year
Puget Sound	
D	157
C	191
B	215
A	237
Average	183
Olympic Peninsula	
D	173
C	222
B	240
A	236
Average	193
Lower Columbia	
D	88
C	203
B	241
A	201
Average	143
Central Washington	
D	139
C	166
B	207
A	240
Average	178
Inland Empire	
D	136
C	239
B	245
A	--
Average	174
Total, State	
D	147
C	207
B	222
A	230
Average	178

[1] Mill-size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,000, C = 40,000-79,000, D = less than 40,000.

Table 16.—Wood consumption by sawmills in Washington by type of material consumed, area, and mill-size-class, 1970
(Thousand board feet)

Economic area and mill-size-class[1]	All wood	Roundwood				Other	
		All roundwood	Sound logs		Utility logs	Peeler cores	Cants
			Live	Dead			
	- - - - - - - - - Scribner log rule - - - - - - - - -					- Lumber tally -	
Puget Sound							
D	48,627	48,397	44,562	2,040	1,795	--	230
C	95,140	78,714	74,451	1,219	3,044	--	16,426
B	88,340	85,297	82,700	2,000	597	--	3,043
A	706,092	698,986	582,849	30,116	86,021	3,400	3,706
Total	938,199	911,394	784,562	35,375	91,457	3,400	23,405
Olympic Peninsula							
D	63,429	59,207	53,131	726	5,350	125	4,097
C	87,614	85,466	72,285	130	13,051	--	2,148
B and A[2]	426,908	425,693	409,942	7,179	8,572	1,215	--
Total	577,951	570,366	535,358	8,035	26,973	1,340	6,245
Lower Columbia							
D	14,234	11,993	11,316	60	617	2,241	--
C	110,579	110,579	101,864	1,600	7,115	--	--
B and A[2]	453,925	444,811	421,787	9,510	13,514	9,114	--
Total	578,738	567,383	534,967	11,170	21,246	11,355	--
Central Washington							
D	15,450	15,450	15,150	300	--	--	--
C	85,144	85,144	85,144	--	--	--	--
B and A[2]	266,996	243,433	237,105	200	6,128	11,386	12,177
Total	367,590	344,027	337,399	500	6,128	11,386	12,177
Inland Empire							
D	42,136	38,136	37,521	45	570	--	4,000
C and B[2]	201,805	201,805	199,655	1,100	1,050	--	--
Total	243,941	239,941	237,176	1,145	1,620	--	4,000
Total, State							
D	183,876	173,183	161,680	3,171	8,332	2,366	8,327
C	537,122	518,548	490,738	3,549	24,261	--	18,574
B	324,200	321,157	301,684	8,021	11,452	--	3,043
A	1,661,221	1,620,223	1,475,360	41,484	103,379	25,115	15,883
Total	2,706,419	2,633,111	2,429,462	56,225	147,424	27,481	45,827

[1] Mill-size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,000, C = 40,000-79,000, D = less than 40,000.

[2] Combined to avoid disclosure.

Table 17.—Log consumption by sawmills in Washington by timber age group, area, and mill-size-class, 1970

(Thousand board feet, Scribner log rule)

Economic area and mill-size-class[1]	All age groups	Old growth (100+ years)	Young growth (less than 100 years)
Puget Sound			
D	48,397	7,768	40,629
C	78,714	45,180	33,534
B	85,297	50,045	35,252
A	698,986	438,620	260,366
Total	911,394	541,613	369,781
Olympic Peninsula			
D	59,207	5,064	54,143
C	85,466	60,790	24,676
B and A[2]	425,693	197,381	228,312
Total	570,366	263,235	307,131
Lower Columbia			
D	11,993	609	11,384
C	110,579	72,345	38,234
B and A[2]	444,811	275,997	168,814
Total	567,383	348,951	218,432
Central Washington			
D	15,450	13,700	1,750
C	85,144	67,132	18,012
B and A[2]	243,433	101,834	141,599
Total	344,027	182,666	161,361
Inland Empire			
D	38,136	12,313	25,823
C and B[2]	201,805	108,036	93,769
Total	239,941	120,349	119,592
Total, State			
D	173,183	39,454	133,729
C	518,548	342,634	175,914
B	321,157	221,510	99,647
A	1,620,223	853,216	767,007
Total	2,633,111	1,456,814	1,176,297

[1] Mill-size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,000, C = 40,000-79,000, D = less than 40,000.

[2] Combined to avoid disclosure.

Table 18.—Log consumption by sawmills in Washington by timber age group, area, and county, 1970

(Thousand board feet, Scribner log rule)

Economic area and county	All age groups	Old growth (100+ years)	Young growth (less than 100 years)
Puget Sound			
Island and San Juan[1/]	8,011	345	7,666
King	224,596	201,023	23,573
Kitsap	49,870	4,870	45,000
Pierce	166,607	37,964	128,643
Skagit and Whatcom[1/]	51,498	12,950	38,548
Snohomish	410,812	284,461	126,351
Total	911,394	541,613	369,781
Olympic Peninsula			
Clallam	45,426	36,627	8,799
Grays Harbor and Pacific[1/]	207,978	42,173	165,805
Jefferson	4,470	1,560	2,910
Mason	122,415	90,384	32,031
Thurston	47,862	15,760	32,102
Lewis	142,215	76,731	65,484
Total	570,366	263,235	307,131
Lower Columbia			
Clark	36,703	31,237	5,466
Cowlitz and Wahkiakum[1/]	378,061	210,695	167,366
Klickitat	121,578	86,985	34,593
Skamania	31,041	20,034	11,007
Total	567,383	348,951	218,432
Central Washington			
Chelan, Douglas, and Lincoln[1/]	122,469	52,341	70,128
Kittitas and Yakima[1/]	145,166	63,600	81,566
Okanogan	76,392	66,725	9,667
Total	344,027	182,666	161,361
Inland Empire			
Asotin and Walla Walla[1/]	33,750	21,250	12,500
Ferry	22,173	1,489	20,684
Pend Oreille	16,154	15,428	726
Spokane	64,940	29,455	35,485
Stevens	102,924	52,727	50,197
Total	239,941	120,349	119,592
Total, State	2,633,111	1,456,814	1,176,297

1/ Combined to avoid disclosure.

Table 19.—Log inventory changes, log consumption, and apparent log receipts by sawmills in Washington by area, 1970
(Thousand board feet, Scribner log rule)

Economic area	Log inventory			1970 log consumption	Apparent 1970 log receipts
	January 1, 1970	December 31, 1970	Net change		
Puget Sound	180,107	176,160	-3,947	911,394	907,447
Olympic Peninsula	447,443	259,068	-188,375	570,366	381,991
Lower Columbia	74,229	58,776	-15,453	567,383	551,930
Central Washington	128,127	124,376	-3,751	344,027	340,276
Inland Empire	36,168	34,172	-1,996	239,941	237,945
Total, State	866,074	652,552	-213,522	2,633,111	2,419,589

Table 20.—Origin of logs consumed by sawmills in Washington by ownership class, area, and mill-size-class, 1970
(Thousand board feet, Scribner log rule)

Economic area and mill-size-class[1]	All owners	State	National Forest	Bureau of Land Management	Other public	Forest industry		Farmer and miscellaneous private
						Own wood supply	Other wood supply	
Puget Sound								
D	48,397	3,655	7,192	--	1,476	7,792	1,384	26,898
C	78,714	5,867	11,053	--	5,727	23,970	15,138	16,959
B	85,297	6,539	45,621	--	--	1,937	17,000	14,200
A	698,986	46,523	94,829	--	1,726	497,192	32,966	25,750
Total	911,394	62,584	158,695	--	8,929	530,891	66,488	83,807
Olympic Peninsula								
D	59,207	5,404	2,978	--	1,390	2,167	21,172	26,096
C	85,466	3,706	42,528	--	--	6,469	21,446	11,317
B and A[2]	425,693	47,664	120,630	--	3,960	159,976	65,969	27,494
Total	570,366	56,774	166,136	--	5,350	168,612	108,587	64,907
Lower Columbia								
D	11,993	1,568	1,927	--	360	451	3,107	4,580
C	110,579	13,596	14,975	--	47,774	12,004	16,845	5,385
B and A[2]	444,811	27,803	58,257	--	--	316,601	33,860	8,290
Total	567,383	42,967	75,159	--	48,134	329,056	53,812	18,255
Central Washington								
D	15,450	3,948	5,644	--	3,525	50	--	2,283
C	85,144	12,719	55,588	--	8,303	2,105	958	5,471
B and A[2]	243,433	20,423	72,813	306	87,210	49,687	306	12,688
Total	344,027	37,090	134,045	306	99,038	51,842	1,264	20,442
Inland Empire								
D	38,136	3,171	11,892	1,045	700	2,432	713	18,183
C and B[2]	201,805	14,718	83,465	10,950	9,625	54,231	1,375	27,441
Total	239,941	17,889	95,357	11,995	10,325	56,663	2,088	45,624
Total, State								
D	173,183	17,746	29,633	1,045	7,451	12,892	26,376	78,040
C	518,548	50,481	195,918	10,950	71,304	73,638	55,387	60,870
B	321,157	32,571	103,424	306	50,856	60,217	43,144	30,639
A	1,620,223	116,506	300,417	--	42,165	990,317	107,332	63,486
Total	2,633,111	217,304	629,392	12,301	171,776	1,137,064	232,239	233,035

[1] Mill-size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,000, C = 40,000-79,000, D = less than 40,000.

[2] Combined to avoid disclosure.

Table 21.—Origin of logs consumed by sawmills in Washington by ownership class, area, and county, 1970

(Thousand board feet, Scribner log rule)

Economic area and county	All owners	State	National Forest	Bureau of Land Management	Other public	Forest industry		Farmer and miscellaneous private
						Own wood supply	Other wood supply	
Puget Sound								
Island and San Juan[1/]	8,011	--	--	--	--	3,517	--	4,494
King	224,596	6,575	31,275	--	1,095	159,400	21,940	4,311
Kitsap	49,870	5,108	4,500	--	32	18,000	9,900	12,330
Pierce	166,607	16,460	39,277	--	5,250	63,504	23,231	18,885
Skagit and Whatcom[1/]	51,498	15,574	12,460	--	--	619	4,178	18,667
Snohomish	410,812	18,867	71,183	--	2,552	285,851	7,239	25,120
Total	911,394	62,584	158,695	--	8,929	530,891	66,488	83,807
Olympic Peninsula								
Clallam	45,426	23,149	7,557	--	4,023	20	8,259	2,418
Grays Harbor and Pacific[1/]	207,978	10,650	19,179	--	--	128,580	35,369	14,200
Jefferson	4,470	1,590	840	--	--	--	364	1,676
Mason	122,415	331	62,942	--	--	31,462	26,224	1,456
Thurston	47,862	9,000	9,000	--	1,327	--	12,625	15,910
Lewis	142,215	12,054	66,618	--	--	8,550	25,746	29,247
Total	570,366	56,774	166,136	--	5,350	168,612	108,587	64,907
Lower Columbia								
Clark	36,703	5,284	10,080	--	--	19,094	--	2,245
Cowlitz and Wahkiakum[1/]	378,061	23,881	10,500	--	4,429	290,079	39,312	9,860
Klickitat	121,578	12,175	29,275	--	43,705	19,883	14,500	2,040
Skamania	31,041	1,627	25,304	--	--	--	--	4,110
Total	567,383	42,967	75,159	--	48,134	329,056	53,812	18,255
Central Washington								
Chelan, Douglas, and Lincoln[1/]	122,469	9,365	60,618	306	21,563	22,231	484	7,902
Kittitas and Yakima[1/]	145,166	6,405	43,956	--	61,919	29,344	780	2,762
Okanogan	76,392	21,320	29,471	--	15,556	267	--	9,778
Total	344,027	37,090	134,045	306	99,038	51,842	1,264	20,442
Inland Empire								
Asotin and Walla Walla[1/]	33,750	125	18,025	--	125	--	375	15,100
Ferry	22,173	5,000	5,136	5,060	5,000	27	--	1,950
Pend Oreille	16,154	--	13,500	--	--	--	--	2,654
Spokane	64,940	678	6,941	3,000	4,500	40,141	--	9,680
Stevens	102,924	12,086	51,755	3,935	700	16,495	1,713	16,240
Total	239,941	17,889	95,357	11,995	10,325	56,663	2,088	45,624
Total, State	2,633,111	217,304	629,392	12,301	171,776	1,137,064	232,239	233,035

1/ Combined to avoid disclosure.

Table 22.—Relative dependency of Washington sawmills for logs by ownership origin, area, and mill-size-class, 1970

(Number of mills)

Economic area and mill-size-class[1]	National Forest				State				Bureau of Land Management				Other public				Forest industry: Own wood supply				Forest industry: Other wood supply				Farmer and miscellaneous private			
	Dependency percent																											
	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100
Puget Sound																												
D	26	4	--	2	25	6	1	--	32	--	--	--	27	4	1	--	25	2	3	2	27	2	2	1	3	3	6	20
C	2	6	--	1	4	5	--	--	9	--	--	--	6	2	--	1	4	3	--	2	3	4	2	--	3	3	2	1
B	2	--	1	3	3	3	--	--	6	--	--	--	6	--	--	--	4	2	--	--	5	--	--	1	4	1	--	1
A	3	5	2	1	3	7	1	--	11	--	--	--	10	1	--	--	4	1	3	3	6	4	1	--	8	2	1	--
Total	33	15	3	7	35	21	2	--	58	--	--	--	49	7	1	1	37	8	6	7	41	10	5	2	18	9	9	22
Olympic Peninsula																												
D	30	2	2	--	24	7	3	--	34	--	--	--	32	--	1	1	29	3	1	1	23	2	6	3	7	5	5	17
C	4	--	2	2	5	3	--	--	8	--	--	--	8	--	--	--	6	2	--	--	5	1	1	1	5	1	1	1
B and A[2]	4	3	2	2	6	4	1	--	11	--	--	--	10	1	--	--	6	3	--	2	4	5	1	1	8	1	2	--
Total	38	5	6	4	35	14	4	--	53	--	--	--	50	1	1	1	41	8	1	3	32	8	8	5	20	7	8	18
Lower Columbia																												
D	11	--	2	2	13	1	1	--	15	--	--	--	14	--	1	--	11	1	1	2	12	--	2	1	5	2	3	5
C	3	1	1	1	2	2	2	--	6	--	--	--	1	2	3	--	5	1	--	--	3	1	2	--	4	2	--	--
B and A[2]	2	2	1	2	2	4	1	--	7	--	--	--	7	--	--	--	3	2	1	1	4	1	2	--	5	2	--	--
Total	16	3	4	5	17	7	4	--	28	--	--	--	22	2	4	--	19	4	2	3	19	2	6	1	14	6	3	5
Central Washington																												
D	1	1	1	1	3	1	--	--	4	--	--	--	3	1	--	--	3	--	--	1	4	--	--	--	1	2	--	1
C	--	2	1	3	2	3	1	--	6	--	--	--	4	2	--	--	2	3	1	--	4	2	--	--	2	4	--	--
B and A[2]	1	1	3	1	2	4	--	--	5	1	--	--	2	2	1	1	3	1	2	--	5	1	--	--	2	4	--	--
Total	2	4	5	5	7	8	1	--	15	1	--	--	9	5	1	1	8	4	3	1	13	3	--	--	5	10	--	1
Inland Empire																												
D	13	2	2	2	15	3	1	--	16	3	--	--	18	1	--	--	15	3	1	--	18	1	--	--	2	3	1	13
C and B[2]	--	3	5	3	3	8	--	--	7	4	--	--	8	3	--	--	5	3	2	1	9	2	--	--	4	6	1	--
Total	13	5	7	5	18	11	1	--	23	7	--	--	26	4	--	--	20	6	3	1	27	3	--	--	6	9	2	13
Total, State																												
D	81	9	7	7	80	18	6	--	101	3	--	--	94	6	3	1	83	9	6	6	84	5	10	5	18	15	15	56
C	9	11	9	9	15	20	3	--	34	4	--	--	26	8	3	1	21	12	3	2	23	9	5	1	18	14	4	2
B	5	2	3	5	7	7	1	--	14	1	--	--	12	2	--	1	10	2	2	1	10	2	1	2	8	6	--	1
A	7	10	6	5	10	16	2	--	28	--	--	--	24	3	1	--	11	7	4	6	15	10	3	--	19	6	3	--
Total	102	32	25	26	112	61	12	--	177	8	--	--	156	19	7	3	125	30	15	15	132	26	19	8	63	41	22	59

[1] Mill-size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,000, C = 40,000-79,000, D = less than 40,000.

[2] Combined to avoid disclosure.

Table 23.—Log consumption by sawmills in Washington by species, area, and mill-size-class, 1970

(Thousand board feet, Scribner log rule)

Economic area and mill-size-class[1]	All species	Douglas fir	Hemlock	True firs	Spruce	Ponderosa pine	Lodgepole pine	Western redcedar	Other softwoods	Hardwoods
Puget Sound										
D	48,397	20,501	2,646	40	--	--	--	13,255	158	11,797
C	78,714	29,830	4,921	2,089	160	--	248	26,475	196	14,795
B	85,297	24,766	36,731	3,500	--	--	--	20,300	--	--
A	698,986	425,071	222,483	12,590	--	--	--	38,842	--	--
Total	911,394	500,168	266,781	18,219	160	--	248	98,872	354	26,592
Olympic Peninsula										
D	59,207	21,068	396	32	--	--	--	5,575	22	32,114
C	85,466	35,259	20,562	8,040	--	--	--	20,855	--	750
B and A[2]	425,693	170,392	198,592	12,770	756	2,485	--	40,698	--	--
Total	570,366	226,719	219,550	20,842	756	2,485	--	67,128	22	32,864
Lower Columbia										
D	11,993	8,178	2,550	--	9	164	--	1,038	--	54
C	110,579	16,040	14,070	13,930	--	49,760	--	2,150	1,250	13,379
B and A[2]	444,811	347,211	75,405	9,655	--	--	--	12,083	457	--
Total	567,383	371,429	92,025	23,585	9	49,924	--	15,271	1,707	13,433
Central Washington										
D	15,450	4,135	--	--	1,218	6,100	282	--	3,715	--
C	85,144	34,648	1,345	8,034	3,323	25,943	611	731	10,509	--
B and A[2]	243,433	56,410	7,967	14,952	3,970	145,520	1,023	--	13,591	--
Total	344,027	95,193	9,312	22,986	8,511	177,563	1,916	731	27,815	--
Inland Empire										
D	38,136	17,200	273	1,821	536	13,194	--	1,956	2,992	164
C and B[2]	201,805	72,280	9,587	19,730	6,995	44,677	3,358	6,211	35,167	3,800
Total	239,941	89,480	9,860	21,551	7,531	57,871	3,358	8,167	38,159	3,964
Total, State										
D	173,183	71,082	5,865	1,893	1,763	19,458	282	21,824	6,887	44,129
C	518,548	173,431	45,886	47,948	9,796	106,568	4,217	54,821	43,157	32,724
B	321,157	101,859	65,346	7,375	4,652	82,487	1,023	40,859	17,556	--
A	1,620,223	936,617	480,431	49,967	756	79,330	--	72,665	457	--
Total	2,633,111	1,282,989	597,528	107,183	16,967	287,843	5,522	190,169	68,057	76,853

1/ Mill-size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,000, C = 40,000-79,000, D = less than 40,000.

2/ Combined to avoid disclosure.

Table 24.—Log consumption by sawmills in Washington by species, area, and type of material, 1970

(Thousand board feet, Scribner log rule)

Economic area and type of material	All species	Douglas fir	Hemlock	True firs	Spruce	Ponderosa pine	Lodgepole pine	Western redcedar	Other softwoods	Hardwoods
Puget Sound	819,937	454,978	227,116	17,069	160	--	248	95,040	354	24,972
Sound	91,457	45,190	39,665	1,150	--	--	--	3,832	--	1,620
Utility										
Total	911,394	500,168	266,781	18,219	160	--	248	98,872	354	26,592
Olympic Peninsula	543,393	223,707	213,596	18,366	756	2,485	--	55,797	22	28,664
Sound	26,973	3,012	5,954	2,476	--	--	--	11,331	--	4,200
Utility										
Total	570,366	226,719	219,550	20,842	756	2,485	--	67,128	22	32,864
Lower Columbia	546,137	365,209	83,987	22,765	9	49,824	--	15,218	1,707	7,418
Sound	21,246	6,220	8,038	820	--	100	--	53	--	6,015
Utility										
Total	567,383	371,429	92,025	23,585	9	49,924	--	15,271	1,707	13,433
Central Washington	337,899	92,803	7,719	22,986	8,511	175,418	1,916	731	27,815	--
Sound	6,128	2,390	1,593	--	--	2,145	--	--	--	--
Utility										
Total	344,027	95,193	9,312	22,986	8,511	177,563	1,916	731	27,815	--
Inland Empire	238,321	89,138	9,847	21,051	7,523	57,386	3,350	7,974	38,088	3,964
Sound	1,620	342	13	500	8	485	8	193	71	--
Utility										
Total	239,941	89,480	9,860	21,551	7,531	57,871	3,358	8,167	38,159	3,964
Total, State	2,485,687	1,225,835	542,265	102,237	16,959	285,113	5,514	174,760	67,986	65,018
Sound	147,424	57,154	55,263	4,946	8	2,730	8	15,409	71	11,835
Utility										
Total	2,633,111	1,282,989	597,528	107,183	16,967	287,843	5,522	190,169	68,057	76,853

Table 25.—Log consumption by sawmills in Washington by species, area, and county, 1970

(Thousand board feet, Scribner log rule)

Economic area and county	All species	Douglas fir	Hemlock	True firs	Spruce	Ponderosa pine	Lodgepole pine	Western redcedar	Other softwoods	Hardwoods
Puget Sound										
Island and San Juan[1/]	8,011	6,713	1,229	--	--	--	--	69	--	--
King	224,596	67,684	120,713	7,850	--	--	--	27,359	--	990
Kitsap	49,870	44,440	3,600	--	--	--	--	210	--	1,620
Pierce	166,607	83,051	64,474	6,530	--	--	--	3,311	--	9,241
Skagit and Whatcom[1/]	51,498	30,405	5,508	1,946	160	--	248	6,930	196	6,105
Snohomish	410,812	267,875	71,257	1,893	--	--	--	60,993	158	8,636
Total	911,394	500,168	266,781	18,219	160	--	248	98,872	354	26,592
Olympic Peninsula										
Clallam	45,426	17,051	21,790	1,980	756	--	--	2,821	--	1,028
Grays Harbor and Pacific[1/]	207,978	42,521	103,038	9,590	--	2,485	--	43,573	--	6,771
Jefferson	4,470	2,164	--	--	--	--	--	1,786	--	520
Lewis	142,215	63,760	35,387	9,272	--	--	--	13,896	--	19,900
Mason	122,415	57,746	58,570	--	--	--	--	3,452	22	2,625
Thurston	47,862	43,477	765	--	--	--	--	1,600	--	2,020
Total	570,366	226,719	219,550	20,842	756	2,485	--	67,128	22	32,864
Lower Columbia										
Clark	36,703	20,286	14,347	--	--	--	--	2,016	--	54
Cowlitz and Wahkiakum[1/]	378,061	283,432	70,184	130	9	--	--	10,927	--	13,379
Klickitat	121,578	42,654	4,310	21,400	--	49,924	--	2,040	1,250	--
Skamania	31,041	25,057	3,184	2,055	--	--	--	288	457	--
Total	567,383	371,429	92,025	23,585	9	49,924	--	15,271	1,707	13,433
Central Washington										
Chelan, Douglas, and Lincoln[1/]	122,469	35,578	8,012	9,808	2,442	57,362	611	731	7,925	--
Kittitas and Yakima[1/]	145,166	34,437	1,300	13,178	520	94,951	--	--	780	--
Okanogan	76,392	25,178	--	--	5,549	25,250	1,305	--	19,110	--
Total	344,027	95,193	9,312	22,986	8,511	177,563	1,916	731	27,815	--
Inland Empire										
Asotin and Walla Walla[1/]	33,750	7,450	--	13,175	2,375	8,250	--	375	2,125	--
Ferry	22,173	9,186	--	--	1,013	2,288	1,000	--	8,522	164
Pend Oreille	16,154	7,760	--	2,421	--	1,761	--	1,401	2,811	--
Spokane	64,940	20,655	4,782	525	907	27,152	--	1,834	9,085	--
Stevens	102,924	44,429	5,078	5,430	3,236	18,420	2,358	4,557	15,616	3,800
Total	239,941	89,480	9,860	21,551	7,531	57,871	3,358	8,167	38,159	3,964
Total, State	2,633,111	1,282,989	597,528	107,183	16,967	287,843	5,522	190,169	68,057	76,853

1/ Combined to avoid disclosure.

Table 26.—Production and disposition of wood and bark residues by sawmills in Washington by area and mill-size class, 1970
(Tons, dry weight)

Economic area and mill-size-class[1/]	All residues			Wood residue			Bark residue		
	Total	Used[2/]	Unused	Total	Used[2/]	Unused	Total	Used[2/]	Unused
Puget Sound									
D	63,357	49,515	13,842	50,446	42,825	7,621	12,911	6,690	6,221
C	129,293	120,498	8,795	102,725	97,695	5,030	26,568	22,803	3,765
B	167,360	163,370	3,990	144,901	144,901	--	22,459	18,469	3,990
A	1,089,446	1,089,446	--	854,201	854,201	--	235,245	235,245	--
Total	1,449,456	1,422,829	26,627	1,152,273	1,139,622	12,651	297,183	283,207	13,976
Olympic Peninsula									
D	79,080	55,103	23,977	60,957	45,078	15,879	18,123	10,025	8,098
C	156,552	123,782	32,770	125,282	110,977	14,305	31,270	12,805	18,465
B and A[3/]	739,935	707,310	32,625	565,175	557,975	7,200	174,760	149,335	25,425
Total	975,567	886,195	89,372	751,414	714,030	37,384	224,153	172,165	51,988
Lower Columbia									
D	17,149	16,638	511	13,600	13,295	305	3,549	3,343	206
C	169,171	164,266	4,905	140,362	140,362	--	28,809	23,904	4,905
B and A[3/]	710,586	672,628	37,958	556,636	535,918	20,718	153,950	136,710	17,240
Total	896,906	853,532	43,374	710,598	689,575	21,023	186,308	163,957	22,351
Central Washington									
D	17,385	16,306	1,079	13,442	12,591	851	3,943	3,715	228
C	110,987	102,483	8,504	85,037	80,933	4,104	25,950	21,550	4,400
B and A[3/]	340,826	320,095	20,731	261,217	255,100	6,117	79,609	64,995	14,614
Total	469,198	438,884	30,314	359,696	348,624	11,072	109,502	90,260	19,242
Inland Empire									
D	48,574	22,911	25,663	39,169	21,966	17,203	9,405	945	8,460
C and B[3/]	292,339	191,169	101,170	209,679	169,512	40,167	82,660	21,657	61,003
Total	340,913	214,080	126,833	248,848	191,478	57,370	92,065	22,602	69,463
Total Washington									
D	225,545	160,473	65,072	177,614	135,755	41,859	47,931	24,718	23,213
C	774,013	652,101	121,912	621,381	558,767	62,614	152,632	93,334	59,298
B	492,447	436,384	56,063	375,314	369,310	6,004	117,133	67,074	50,059
A	2,640,035	2,566,562	73,473	2,048,520	2,019,497	29,023	591,515	547,065	44,450
Total	4,132,040	3,815,520	316,520	3,222,829	3,083,329	139,500	909,211	732,191	177,020

1/ Mill-size-classes identified as follows: Class A mills = 120,000+ board-foot capacity per 8-hour shift, B = 80,000-119,000, C = 40,000-79,000, D = less than 40,000.

2/ Used residues were not necessarily consumed in the economic area in which they were produced.

3/ Combined to avoid disclosure.

Table 27.—Production and disposition of bark residue by sawmills in Washington by use, area, and mill-size-class, 1970

(Tons, dry weight)

Economic area and mill-size-class[1/]	All bark	Used[2/]					Unused
		Total	Pulp	Board	Fuel	Miscellaneous	
Puget Sound							
D	12,911	6,690	--	--	1,280	5,410	6,221
C	26,568	22,803	--	--	11,060	11,743	3,765
B	22,459	18,469	--	--	8,209	10,260	3,990
A	235,245	235,245	--	--	177,520	57,725	--
Total	297,183	283,207	--	--	198,069	85,138	13,976
Olympic Peninsula							
D	18,123	10,025	--	--	1,415	8,610	8,098
C	31,270	12,805	--	--	3,590	9,215	18,465
B and A[3/]	174,760	149,335	--	--	143,520	5,815	25,425
Total	224,153	172,165	--	--	148,525	23,640	51,988
Lower Columbia							
D	3,549	3,343	--	--	1,761	1,582	206
C	28,809	23,904	--	--	18,572	5,332	4,905
B and A[3/]	153,950	136,710	--	--	133,715	2,995	17,240
Total	186,308	163,957	--	--	154,048	9,909	22,351
Central Washington							
D	3,943	3,715	--	--	3,700	15	228
C	25,950	21,550	--	--	17,550	4,000	4,400
B and A[3/]	79,609	64,995	--	--	50,320	14,675	14,614
Total	109,502	90,260	--	--	71,570	18,690	19,242
Inland Empire							
D	9,405	945	--	--	--	945	8,460
C and B[3/]	82,660	21,657	--	--	17,967	3,690	61,003
Total	92,065	22,602	--	--	17,967	4,635	69,463
Total, State							
D	47,931	24,718	--	--	8,156	16,562	23,213
C	152,632	93,334	--	--	59,714	33,620	59,298
B	117,133	67,074	--	--	43,194	23,880	50,059
A	591,515	547,065	--	--	479,115	67,950	44,450
Total	909,211	732,191	--	--	590,179	142,012	177,020

[1/] Mill-size-classes identified as follows: Class A mills = 120,000+ board-foot capacity per 8-hour shift, B = 80,000-119,000, C = 40,000-79,000, D = less than 40,000.

[2/] Used residues were not necessarily consumed in the economic area in which they were produced.

[3/] Combined to avoid disclosure.

Table 28.—Production and disposition of type of residue, use, area, and (Tons,

Economic area and mill-size-class[1]	All types							Coarse[3]					
	Total	Total used[2]	Pulp	Board	Fuel	Misc.	Unused	Total	Total used[2]	Pulp	Board	Fuel	Misc.
Puget Sound													
D	50,446	42,825	14,165	--	6,740	21,920	7,621	28,281	27,589	14,165	--	5,830	7,594
C	102,725	97,695	43,669	--	23,228	30,798	5,030	53,823	49,253	36,809	--	9,860	2,584
B	144,901	144,901	93,195	--	23,550	28,156	--	80,479	80,479	80,479	--	--	--
A	854,201	854,201	534,852	--	247,814	71,535	--	476,007	476,007	446,612	--	22,395	7,000
Total	1,152,273	1,139,622	685,881	--	301,332	152,409	12,651	638,590	633,328	578,065	--	38,085	17,178
Olympic Peninsula													
D	60,957	45,078	30,235	1,565	5,775	7,503	15,879	40,218	30,680	23,530	1,565	4,200	1,385
C	125,282	110,977	97,787	5,640	4,415	3,135	14,305	70,489	67,009	64,644	--	315	2,050
B and A[6]	565,175	557,975	258,830	26,622	151,523	121,000	7,200	317,664	317,664	205,472	14,142	--	98,050
Total	751,414	714,030	386,852	33,827	161,713	131,638	37,384	428,371	415,353	293,646	15,707	4,515	101,485
Lower Columbia													
D	13,600	13,295	9,121	--	3,150	1,024	305	8,138	7,948	5,363	--	2,230	355
C	140,362	140,362	88,253	430	47,378	4,301	--	85,631	85,631	68,108	--	16,878	645
B and A[6]	556,636	535,918	357,012	2,421	174,265	2,220	20,718	308,029	303,465	292,740	--	10,725	--
Total	710,598	689,575	454,386	2,851	224,793	7,545	21,023	401,798	397,044	366,211	--	29,833	1,000
Central Washington													
D	13,442	12,591	4,573	--	7,434	584	851	5,814	5,298	4,573	--	700	25
C	85,037	80,933	40,718	6,000	23,310	10,905	4,104	41,740	41,025	36,718	--	4,307	--
B and A[6]	261,217	255,100	119,578	24,280	84,591	26,651	6,117	126,439	126,109	116,098	--	6,853	3,158
Total	359,696	348,624	164,869	30,280	115,335	38,140	11,072	173,993	172,432	157,389	--	11,860	3,183
Inland Empire													
D	39,169	21,966	12,700	2,110	1,015	6,141	17,203	21,690	15,303	12,700	--	675	1,928
C and B[6]	209,679	169,512	116,788	--	51,734	990	40,167	114,268	108,556	107,756	--	800	--
Total	248,848	191,478	129,488	2,110	52,749	7,131	57,370	135,958	123,859	120,456	--	1,475	1,928
Total, State													
D	177,614	135,755	70,794	3,675	24,114	37,172	41,859	104,141	86,818	60,331	1,565	13,635	11,287
C	621,381	558,767	362,628	12,070	134,240	49,829	62,614	342,159	327,974	291,335	--	31,360	5,279
B	375,314	369,310	219,695	2,421	92,090	55,104	6,004	202,810	202,188	191,380	--	7,653	3,155
A	2,048,520	2,019,497	1,168,362	50,902	605,478	194,755	29,023	1,129,600	1,125,036	972,724	14,142	33,120	105,050
Total	3,222,829	3,083,329	1,821,476	69,068	855,922	336,863	139,500	1,778,710	1,742,016	1,515,767	15,707	85,768	124,774

1/ Mill-size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,000, C = 40,000-79,000, D = less than 40,000.

2/ Used residues were not necessarily consumed in the economic area in which they were produced.

3/ Slabs, edgings, trim, and spur ends.

4/ Shavings.

5/ Sawdust

6/ Combined to avoid disclosure.

wood residues by sawmills in Washington by mill-size-class, 1970 dry weight)

Unused	Medium[4] Total	Medium[4] Total used[2]	Medium[4] Pulp	Medium[4] Board	Medium[4] Fuel	Medium[4] Misc.	Medium[4] Unused	Fine[5] Total	Fine[5] Total used[2]	Fine[5] Pulp	Fine[5] Board	Fine[5] Fuel	Fine[5] Misc.	Fine[5] Unused
692	8,256	6,541	--	--	525	6,016	1,715	13,909	8,695	--	--	385	8,310	5,214
4,570	20,766	20,766	5,200	--	4,255	11,311	--	28,136	27,676	1,660	--	9,113	16,903	460
--	24,726	24,726	3,943	--	7,950	12,833	--	39,696	39,696	8,773	--	15,600	15,323	--
--	142,600	142,600	57,095	--	73,290	12,215	--	235,594	235,594	31,145	--	152,129	52,320	--
5,262	196,348	194,633	66,238	--	86,020	42,375	1,715	317,335	311,661	41,578	--	177,227	92,856	5,674
9,538	5,461	5,416	2,690	--	445	2,281	45	15,278	8,982	4,015	--	1,130	3,837	6,296
3,480	24,699	17,589	13,289	--	4,100	200	7,110	30,094	26,379	19,854	5,640	--	885	3,715
--	97,230	95,925	16,781	10,121	52,603	16,420	1,305	150,281	144,386	36,577	2,359	98,920	6,530	5,895
13,018	127,390	118,930	32,760	10,121	57,148	18,901	8,460	195,653	179,747	60,446	7,999	100,050	11,252	15,906
190	1,104	1,104	942	--	--	162	--	4,358	4,243	2,816	--	920	507	115
--	19,986	19,986	3,610	430	12,486	3,460	--	34,745	34,745	16,535	--	18,014	196	--
4,564	100,585	87,260	37,785	2,421	47,054	--	13,325	148,022	145,193	26,487	--	116,486	2,220	2,829
4,754	121,675	108,350	42,337	2,851	59,540	3,622	13,325	187,125	184,181	45,838	--	135,420	2,923	2,944
516	3,059	3,059	--	--	3,040	19	--	4,569	4,234	--	--	3,694	540	335
715	18,195	16,771	--	6,000	4,771	6,000	1,424	25,102	23,137	4,000	--	14,232	4,905	1,965
330	51,398	48,103	--	24,280	11,655	12,168	3,295	83,380	80,888	3,480	--	66,083	11,325	2,492
1,561	72,652	67,933	--	30,280	19,466	18,187	4,719	113,051	108,259	7,480	--	84,009	16,770	4,792
6,387	6,575	2,945	--	--	--	2,945	3,630	10,904	3,718	--	2,110	340	1,268	7,186
5,712	40,879	28,509	1,630	--	26,789	90	12,370	54,532	32,447	7,402	--	24,145	900	22,085
12,099	47,454	31,454	1,630	--	26,789	3,035	16,000	65,436	36,165	7,402	2,110	24,485	2,168	29,271
17,323	24,455	19,065	3,632	--	4,010	11,423	5,390	49,018	29,872	6,831	2,110	6,469	14,462	19,146
14,185	116,925	96,021	23,729	6,430	44,801	21,061	20,904	162,297	134,772	47,564	5,640	58,079	23,489	27,525
622	70,449	68,259	7,633	2,421	33,204	25,001	2,190	102,055	98,863	20,682	--	51,233	26,948	3,192
4,564	353,690	337,955	107,971	34,401	166,948	28,635	15,735	565,230	556,506	87,667	2,359	405,410	61,070	8,724
36,694	565,519	521,300	142,965	43,252	248,963	86,120	44,219	878,600	820,013	162,744	10,109	521,191	125,969	58,587

Table 29.—Production and disposition of wood and bark residues by sawmills in Washington by area and county, 1970

(Tons, dry weight)

Economic area and county	All residues			Wood residue			Bark residue		
	Total	Used[1]	Unused	Total	Used[1]	Unused	Total	Used[1]	Unused
Puget Sound									
Island and San Juan[2]	12,440	7,421	5,019	10,970	7,421	3,549	1,470	--	1,470
King	341,504	339,578	1,926	275,883	275,123	760	65,621	64,455	1,166
Kitsap	88,474	86,929	1,545	69,244	67,839	1,405	19,230	19,090	140
Pierce	281,150	280,983	167	219,782	219,630	152	61,368	61,353	15
Skagit and Whatcom[2]	79,011	71,301	7,710	63,926	59,466	4,460	15,085	11,835	3,250
Snohomish	646,877	636,617	10,260	512,468	510,143	2,325	134,409	126,474	7,935
Total	1,449,456	1,422,829	26,627	1,152,273	1,139,622	12,651	297,183	283,207	13,976
Olympic Peninsula									
Clallam	78,700	75,735	2,965	61,605	59,380	2,225	17,095	16,355	740
Grays Harbor and Pacific[2]	358,323	342,288	16,035	282,163	277,723	4,440	76,160	64,565	11,595
Jefferson	6,156	3,668	2,488	4,638	2,838	1,800	1,518	830	688
Mason	221,605	218,485	3,120	158,835	157,705	1,130	62,770	60,780	1,990
Thurston	69,354	52,915	16,439	53,619	41,915	11,704	15,735	11,000	4,735
Lewis	241,429	193,104	48,325	190,554	174,469	16,085	50,875	18,635	32,240
Total	975,567	886,195	89,372	751,414	714,030	37,384	224,153	172,165	51,988
Lower Columbia									
Clark	53,201	53,183	18	41,851	41,843	8	11,350	11,340	10
Cowlitz and Wahkiakum[2]	604,378	597,333	7,045	477,377	477,297	80	127,001	120,036	6,965
Skamania	63,870	45,457	18,413	51,865	42,372	9,493	12,005	3,085	8,920
Klickitat	175,457	157,559	17,898	139,505	128,063	11,442	35,952	29,496	6,456
Total	896,906	853,532	43,374	710,598	689,575	21,023	186,308	163,957	22,351
Central Washington									
Chelan, Douglas, and Lincoln[2]	145,567	128,562	17,005	110,297	106,447	3,850	35,270	22,115	13,155
Kittitas and Yakima[2]	232,167	228,447	3,720	177,662	176,662	1,000	54,505	51,785	2,720
Okanogan	91,464	81,875	9,589	71,737	65,515	6,222	19,727	16,360	3,367
Total	469,198	438,884	30,314	359,696	348,624	11,072	109,502	90,260	19,242
Inland Empire									
Asotin and Walla Walla[2]	71,077	34,022	37,055	31,949	28,462	3,487	39,128	5,560	33,568
Ferry	28,659	26,966	1,693	23,144	21,936	1,208	5,515	5,030	485
Pend Oreille	22,809	18,842	3,967	18,440	16,755	1,685	4,369	2,087	2,282
Spokane	83,455	67,604	15,851	66,134	57,679	8,455	17,321	9,925	7,396
Stevens	134,913	66,646	68,267	109,181	66,646	42,535	25,732	--	25,732
Total	340,913	214,080	126,833	248,848	191,478	57,370	92,065	22,602	69,463
Total, State	4,132,040	3,815,520	316,520	3,222,829	3,083,329	139,500	909,211	732,191	177,020

1/ Used residues were not necessarily consumed in the area or county in which produced.

2/ Combined to avoid disclosure.

Table 30.—Production and disposition of bark residue by sawmills in Washington by use, area, and county, 1970

(Tons, dry weight)

Economic area and county	All bark	Used[1]					Unused
		Total	Pulp	Board	Fuel	Miscellaneous	
Puget Sound							
Island and San Juan[2]	1,470	--	--	--	--	--	1,470
King	65,621	64,455	--	--	49,395	15,060	1,166
Kitsap	19,230	19,090	--	--	18,755	335	140
Pierce	61,368	61,353	--	--	21,479	39,874	15
Skagit and Whatcom[2]	15,085	11,835	--	--	7,995	3,840	3,250
Snohomish	134,409	126,474	--	--	100,445	26,029	7,935
Total	297,183	283,207	--	--	198,069	85,138	13,976
Olympic Peninsula							
Clallam	17,095	16,355	--	--	15,805	550	740
Grays Harbor and Pacific[2]	76,160	64,565	--	--	57,000	7,565	11,595
Jefferson	1,518	830	--	--	205	625	688
Mason	62,770	60,780	--	--	60,720	60	1,990
Thurston	15,735	11,000	--	--	10,980	20	4,735
Lewis	50,875	18,635	--	--	3,815	14,820	32,240
Total	224,153	172,165	--	--	148,525	23,640	51,988
Lower Columbia							
Clark	11,350	11,340	--	--	9,911	1,429	10
Cowlitz and Wahkiakum[2]	127,001	120,036	--	--	118,096	1,940	6,965
Skamania	12,005	3,085	--	--	--	3,085	8,920
Klickitat	35,952	29,496	--	--	26,041	3,455	6,456
Total	186,308	163,957	--	--	154,048	9,909	22,351
Central Washington							
Chelan, Douglas, and Lincoln[2]	35,270	22,115	--	--	16,995	5,120	13,155
Kittitas and Yakima[2]	54,505	51,785	--	--	38,230	13,555	2,720
Okanogan	19,727	16,360	--	--	16,345	15	3,367
Total	109,502	90,260	--	--	71,570	18,690	19,242
Inland Empire							
Asotin and Walla Walla[2]	39,128	5,560	--	--	4,380	1,180	33,568
Ferry	5,515	5,030	--	--	2,510	2,520	485
Pend Oreille	4,369	2,087	--	--	2,052	35	2,282
Spokane	17,321	9,925	--	--	9,025	900	7,396
Stevens	25,732	--	--	--	--	--	25,732
Total	92,065	22,602	--	--	17,967	4,635	69,463
Total, State	909,211	732,191	--	--	590,179	142,012	177,020

[1] Used residues were not necessarily consumed in the economic area in which they were produced.

[2] Combined to avoid disclosure.

Table 31.—Production and disposition of type of residue, use, area, and (Tons,

Economic area and county	All types							Coarse[1]				
	Total	Total used[4]	Pulp	Board	Fuel	Other	Unused	Total	Total used[4]	Pulp	Board	Fuel
Puget Sound												
Island and San Juan[5]	10,970	7,421	5,000	--	115	2,306	3,549	5,515	5,175	5,000	--	115
King	275,883	275,123	184,140	--	72,295	18,688	760	150,880	150,880	132,180	--	10,910
Kitsap	69,244	67,839	34,340	--	32,284	1,215	1,405	37,075	37,075	34,340	--	2,090
Pierce	219,782	219,630	108,859	--	87,723	23,048	152	120,482	120,335	107,559	--	11,533
Skagit and Whatcom[5]	63,926	59,466	27,934	--	1,902	29,630	4,460	35,821	31,361	27,934	--	1,457
Snohomish	512,468	510,143	325,608	--	107,013	77,522	2,325	288,817	288,502	271,052	--	11,980
Total	1,152,273	1,139,622	685,881	--	301,332	152,409	12,651	638,590	633,328	578,065	--	38,085
Olympic Peninsula												
Clallam	61,605	59,380	47,660	--	10,140	1,580	2,225	39,865	38,380	37,660	--	540
Grays Harbor and Pacific[5]	282,163	277,723	77,053	--	75,795	124,875	4,440	146,105	144,765	46,655	--	60
Jefferson	4,638	2,838	380	--	2,170	288	1,800	2,785	1,625	--	--	1,550
Mason	158,835	157,705	79,320	26,622	49,043	2,720	1,130	94,987	94,987	78,195	14,142	450
Thurston	53,619	41,915	19,870	1,565	19,695	785	11,704	29,838	23,095	19,870	1,565	1,200
Lewis	190,554	174,469	162,569	5,640	4,870	1,390	16,085	114,791	112,501	111,266	--	715
Total	751,414	714,030	386,852	33,827	161,713	131,638	37,384	428,371	415,353	293,646	15,707	4,515
Lower Columbia												
Clark	41,851	41,843	31,822	2,421	7,114	486	8	27,143	27,135	26,670	--	235
Cowlitz and Wahkiakum[5]	477,377	477,297	305,783	--	168,705	2,809	80	269,863	269,823	254,768	--	15,010
Skamania	51,865	42,372	31,936	--	10,436	--	9,493	30,357	25,758	25,758	--	--
Klickitat	139,505	128,063	84,845	430	38,538	4,250	11,442	74,435	74,328	59,015	--	14,588
Total	710,598	689,575	454,386	2,851	224,793	7,545	21,023	401,798	397,044	366,211	--	29,833
Central Washington												
Chelan, Douglas, and Lincoln[5]	110,297	106,447	54,468	1,110	44,009	6,860	3,850	59,675	58,960	54,468	--	4,307
Kittitas and Yakima[5]	177,662	176,662	83,854	29,170	37,333	26,305	1,000	81,657	81,657	76,374	--	5,283
Okanogan	71,737	65,515	26,547	--	33,993	4,975	6,222	32,661	31,815	26,547	--	2,270
Total	359,696	348,624	164,869	30,280	115,335	38,140	11,072	173,993	172,432	157,389	--	11,860
Inland Empire												
Asotin and Walla Walla[5]	31,949	28,462	22,812	--	4,700	950	3,487	20,222	19,800	19,800	--	--
Ferry	23,144	21,936	11,350	--	10,400	186	1,208	12,418	11,593	11,350	--	195
Pend Oreille	18,440	16,755	9,280	--	7,340	135	1,685	9,870	9,355	9,280	--	--
Spokane	66,134	57,679	33,585	--	20,614	3,480	8,455	34,725	34,725	31,710	--	1,245
Stevens	109,181	66,646	52,461	2,110	9,695	2,380	42,535	58,723	48,386	48,316	--	35
Total	248,848	191,478	129,488	2,110	52,749	7,131	57,370	135,958	123,859	120,456	--	1,475
Total, State	3,222,829	3,083,329	1,821,476	69,068	855,922	336,863	139,500	1,778,710	1,742,016	1,515,767	15,707	85,768

1/ Coarse residue includes slabs, edgings, sawmill trim and planer trim.

2/ Medium residue is planer shavings.

3/ Fine residue is sawdust.

4/ Used residues were not necessarily consumed in the economic area in which they were produced.

5/ Combined to avoid disclosure.

wood residues by sawmills in Washington by county, 1970 dry weight)

Other	Unused	Medium[2/] Total	Medium Total used[4/]	Medium Pulp	Medium Board	Medium Fuel	Medium Other	Medium Unused	Fine[3/] Total	Fine Total used[4/]	Fine Pulp	Fine Board	Fine Fuel	Fine Other	Fine Unused
60	340	3,185	1,665	--	--	--	1,665	1,520	2,270	581	--	--	--	581	1,689
7,790	--	47,077	47,077	26,745	--	15,395	4,937	--	77,926	77,166	25,215	--	45,990	5,961	760
645	--	13,145	12,950	--	--	12,710	240	195	19,024	17,814	--	--	17,484	330	1,210
1,243	147	38,719	38,719	--	--	29,625	9,094	--	60,581	60,576	1,300	--	46,565	12,711	5
1,970	4,460	10,540	10,540	--	--	170	10,370	--	17,565	17,565	--	--	275	17,290	--
5,470	315	83,682	83,682	39,493	--	28,120	16,069	--	139,969	137,959	15,063	--	66,913	55,983	2,010
17,178	5,262	196,348	194,633	66,238	--	86,020	42,375	1,715	317,335	311,661	41,578	--	177,227	92,856	5,674
180	1,485	10,220	10,175	--	--	9,600	575	45	11,520	10,825	10,000	--	--	825	695
98,050	1,340	53,850	51,635	12,845	--	21,110	17,680	2,215	82,208	81,323	17,553	--	54,625	9,145	885
75	1,160	411	411	380	--	--	31	--	1,442	802	--	--	620	182	640
2,200	--	25,369	25,369	550	10,121	14,488	210	--	38,479	37,349	575	2,359	34,105	310	1,130
460	6,743	7,925	7,925	--	--	7,845	80	--	15,856	10,895	--	--	10,650	245	4,961
520	2,290	29,615	23,415	18,985	--	4,105	325	6,200	46,148	38,553	32,318	5,640	50	545	7,595
101,485	13,018	127,390	118,930	32,760	10,121	57,148	18,901	8,460	195,653	179,747	60,446	7,999	100,050	11,252	15,906
230	8	7,907	7,907	600	2,421	4,879	7	--	6,801	6,801	4,552	--	2,000	249	--
45	40	79,245	79,245	37,680	--	41,425	140	--	128,269	128,229	13,335	--	112,270	2,624	40
--	4,599	8,722	5,177	2,277	--	2,900	--	3,545	12,786	11,437	3,901	--	7,536	--	1,349
725	107	25,801	16,021	1,780	430	10,336	3,475	9,780	39,269	37,714	24,050	--	13,614	50	1,555
1,000	4,754	121,675	108,350	42,337	2,851	59,540	3,622	13,325	187,125	184,181	45,838	--	135,420	2,923	2,944
185	715	14,990	12,580	--	1,110	5,700	5,770	2,410	35,632	34,907	--	--	34,002	905	725
--	--	41,470	41,470	--	29,170	--	12,300	--	54,535	53,535	7,480	--	32,050	14,005	1,000
2,998	846	16,192	13,883	--	--	13,766	117	2,309	22,884	19,817	--	--	17,957	1,860	3,067
3,183	1,561	72,652	67,933	--	30,280	19,466	18,187	4,719	113,051	108,259	7,480	--	84,009	16,770	4,792
--	422	4,650	2,350	--	--	2,300	50	2,300	7,077	6,312	3,012	--	2,400	900	765
48	825	4,335	4,270	--	--	4,225	45	65	6,391	6,073	--	--	5,980	93	318
75	515	3,515	2,650	--	--	2,590	60	865	5,055	4,750	--	--	4,750	--	305
1,770	--	14,299	14,299	--	--	13,744	555	--	17,110	8,655	1,875	--	5,625	1,155	8,455
35	10,337	20,655	7,885	1,630	--	3,930	2,325	12,770	29,803	10,375	2,515	2,110	5,730	20	19,428
1,928	12,099	47,454	31,454	1,630	--	26,789	3,035	16,000	65,436	36,165	7,402	2,110	24,485	2,168	29,271
124,774	36,694	565,519	521,300	142,965	43,252	248,963	86,120	44,219	878,600	820,013	162,744	10,109	521,191	125,969	58,587

Table 32.—Lumber production by sawmills in Washington by degree of manufacture and mill-size-class, 1970
(Thousand board feet, lumber tally)

Economic area and mill-size-class[1]	Green	Kiln-dried	Air-dried	Total	Rough	Surfaced	Remanufactured
Puget Sound							
D	35,152	12,268	1,470	48,890	16,411	29,819	2,660
C	84,127	20,545	1,809	106,481	28,526	70,455	7,500
B	44,479	56,383	1,000	101,862	6,193	92,669	3,000
A	291,537	539,067	--	830,604	96,163	702,330	32,111
Total	455,295	628,263	4,279	1,087,837	147,293	895,273	45,271
Olympic Peninsula							
D	31,314	26,953	38	58,305	26,463	30,753	1,089
C	30,629	69,484	1,300	101,413	9,073	92,160	180
B and A[2]	277,498	235,323	38,033	550,854	59,779	488,087	2,988
Total	339,441	331,760	39,371	710,572	95,315	611,000	4,257
Lower Columbia							
D	13,771	1,660	65	15,496	10,799	4,697	--
C	23,492	79,029	12,800	115,321	9,608	98,533	7,180
B and A[2]	178,066	362,317	--	540,383	62,184	478,199	--
Total	215,329	443,006	12,865	671,200	82,591	581,429	7,180
Central Washington							
D	1,138	15,824	300	17,262	1,338	15,924	--
C	58,554	40,310	629	99,493	40,205	59,288	--
B and A[2]	19,963	282,132	705	302,800	4,916	286,343	11,541
Total	79,655	338,266	1,634	419,555	46,459	361,555	11,541
Inland Empire							
D	29,989	8,000	3,291	41,280	9,653	31,627	--
C and B[2]	49,008	160,033	20,276	229,317	17,547	211,770	--
Total	78,997	168,033	23,567	270,597	27,200	243,397	--
Total, State							
D	111,364	64,705	5,164	181,233	64,664	112,820	3,749
C	241,370	331,882	25,047	598,299	91,082	492,357	14,860
B	110,018	239,457	13,472	362,947	37,066	322,881	3,000
A	705,965	1,273,284	38,033	2,017,282	206,046	1,764,596	46,640
Total	1,168,717	1,909,328	81,716	3,159,761	398,858	2,692,654	68,249

[1] Mill-size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,000, C = 40,000-79,000, D = less than 40,000.

[2] Combined to avoid disclosure.

Table 33.—Lumber production by sawmills in Washington by mill-size-class and area, 1970

(Thousand board feet, lumber tally)

Economic area	All classes	Mill-size-class[1/]			
		D	C	B	A
Puget Sound	1,087,837	48,890	106,481	101,862	830,604
Olympic Peninsula[2/]	710,572	58,305	101,413	--	550,854
Lower Columbia[2/]	671,200	15,496	115,321	--	540,383
Central Washington[2/]	419,555	17,262	99,493	--	302,800
Inland Empire[3/]	270,597	41,280	229,317	--	--
Total	3,159,761	181,233	652,025	101,862	2,224,641

1/ Mill-size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,000, C = 40,000-79,000, D = less than 40,000.

2/ B and A combined to avoid disclosure

3/ B and C combined to avoid disclosure

Table 34.—Number of veneer and plywood mills in Washington, 1970

Economic area and county	All types	Veneer only	Layup only	Veneer and layup
Puget Sound				
King	2	--	--	2
Pierce	3	--	1	2
Skagit	1	--	--	1
Snohomish	2	--	--	2
Whatcom	1	--	--	1
Total	9	--	1	8
Olympic Peninsula				
Clallam	1	--	--	1
Grays Harbor	5	1	1	3
Jefferson	1	1	--	--
Mason	2	1	1	--
Thurston	3	1	2	--
Lewis	6	6	--	--
Total	18	10	4	4
Lower Columbia				
Clark	2	--	--	2
Cowlitz	2	--	--	2
Skamania	4	3	--	1
Klickitat	1	--	--	1
Total	9	3	--	6
Central Washington				
Okanogan	1	--	--	1
Yakima	1	--	--	1
Total	2	--	--	2
Inland Empire				
Spokane	1	--	1	--
Stevens	2	1	--	1
Total	3	1	1	1
Total, State	41	14	6	21

Table 35.—Installed 8-hour capacity of veneer and plywood mills in Washington by type of mill, area, and county, 1970
(Thousand square feet, 3/8-inch basis)

Economic area and county	Veneer only	Layup only	Veneer and layup
Puget Sound			
King	--	--	310
Pierce	--	40	275
Skagit	--	--	165
Snohomish	--	--	235
Whatcom	--	--	150
Total	--	40	1,135
Olympic Peninsula			
Clallam	--	--	144
Grays Harbor	200	183	253
Jefferson	100	--	--
Mason	216	80	--
Thurston	50	163	--
Lewis	595	--	--
Total	1,161	426	397
Lower Columbia			
Clark	--	--	325
Cowlitz	--	--	410
Skamania	296	--	80
Klickitat	--	--	200
Total	296	--	1,015
Central Washington			
Okanogan	--	--	50
Yakima	--	--	165
Total	--	--	215
Inland Empire			
Spokane	--	110	--
Stevens	110	--	120
Total	110	110	120
Total, State	1,567	576	2,882

Table 36.—Number of veneer and plywood mills in Washington by lathe log diameter limit and area, 1970

Economic area	Lathe log diameter limit							
	Layup only	20-29	30-39	40-49	50-59	60-69	70-79	80+
Puget Sound	1	--	--	1	--	1	2	4
Olympic Peninsula	4	--	1	5	--	2	2	4
Lower Columbia	--	--	--	1	--	1	1	6
Central Washington	--	--	--	--	--	1	--	1
Inland Empire	1	--	1	--	--	1	--	--
Total, State	6	--	2	7	--	6	5	15

Table 37.—Number of veneer and plywood mills in Washington by size of core produced and area, 1970

Economic area	Diameter of cores (inches)								No lathe or core
	3	4	5	6	7	8	9	10	
Puget Sound	--	--	1	3	1	2	--	1	1
Olympic Peninsula	1	1	4	2	3	3	--	--	4
Lower Columbia	--	--	1	2	2	4	--	--	--
Central Washington	--	--	1	1	--	--	--	--	--
Inland Empire	--	--	2	--	--	--	--	--	1
Total, State	1	1	9	8	6	9	--	1	6

Table 38.—Number of veneer and plywood mills in Washington having selected equipment, by area and county, 1970

Economic area and county	4-foot lathe	8-foot lathe	Slicer	Veneer chipper	Core chipper	Cold press	Hot press	Burner
Puget Sound								
King	--	1	1	2	2	1	2	--
Pierce	1	2	--	2	--	--	3	--
Skagit	1	1	--	1	1	1	1	--
Snohomish	2	1	--	2	2	2	1	1
Whatcom	1	1	--	1	1	--	1	--
Total	5	6	1	8	6	4	8	1
Olympic Peninsula								
Clallam	--	1	1	1	--	--	1	--
Grays Harbor	2	3	--	3	2	2	2	1
Jefferson	--	1	--	1	1	--	--	1
Mason	--	1	--	1	1	--	1	--
Thurston	1	--	--	--	1	2	2	--
Lewis	4	2	--	6	4	--	--	5
Total	7	8	1	12	9	4	6	7
Lower Columbia								
Clark	2	2	--	2	2	--	2	--
Cowlitz	--	1	--	2	1	1	2	--
Skamania	3	2	--	4	2	--	1	1
Klickitat	--	1	--	1	--	--	1	--
Total	5	6	--	9	5	1	6	1
Central Washington								
Okanogan	1	--	--	1	1	--	1	--
Yakima	1	1	--	1	1	--	1	--
Total	2	1	--	2	2	--	2	--
Inland Empire								
Spokane	--	--	--	--	--	--	1	1
Stevens	--	2	1	2	2	--	1	2
Total	--	2	1	2	2	--	2	3
Total, State	19	23	3	33	24	9	24	12

Table 39.—Number of veneer and plywood mills in Washington by years of tenure of present mill ownership, area, and years of site occupancy, 1970

Economic area and site occupancy (years)	All mills	Tenure of present mill ownership (years)				
		0-2	3-5	6-10	11-20	21+
Puget Sound						
11-20	2	--	--	--	2	--
21+	7	1	--	--	1	5
Total	9	1	--	--	3	5
Olympic Peninsula						
0-2	1	1	--	--	--	--
3-5	1	--	1	--	--	--
6-10	6	1	1	4	--	--
11-20	3	--	--	--	3	--
21+	7	--	--	2	1	4
Total	18	2	2	6	4	4
Lower Columbia						
3-5	1	--	1	--	--	--
6-10	1	--	--	1	--	--
11-20	3	--	--	--	3	--
21+	4	--	--	1	2	1
Total	9	--	1	2	5	1
Central Washington						
0-2	1	1	--	--	--	--
6-10	1	--	--	1	--	--
Total	2	1	--	1	--	--
Inland Empire						
3-5	3	2	1	--	--	--
Total, State						
0-2	2	2	--	--	--	--
3-5	5	2	3	--	--	--
6-10	8	1	1	6	--	--
11-20	8	--	--	--	8	--
21+	18	1	--	3	4	10
Total	41	6	4	9	12	10

Table 40.—Average number of operating days of veneer and plywood mills in Washington by type of mill and area, 1970

Economic area	Veneer only	Layup only	Veneer and layup
Puget Sound	--	200	254
Olympic Peninsula	205	248	282
Lower Columbia	138	--	250
Central Washington	--	--	174
Inland Empire	99	99	300
Total, State	183	215	253

Table 41.—Log consumption by veneer and plywood mills in Washington by type of material and area, 1970
(Thousand board feet, Scribner log rule)

Economic area	Total roundwood	Sound logs		Utility logs
		Live	Dead	
Puget Sound	144,547	135,034	2,013	7,500
Olympic Peninsula	195,373	188,573	1,700	5,100
Lower Columbia	238,719	233,409	4,000	1,310
Central Washington and Inland Empire[1/]	109,299	109,299	--	--
Total, State	687,938	666,315	7,713	13,910

1/ Combined to avoid disclosure.

Table 42.—Log consumption by veneer and plywood mills in Washington by timber age group and area, 1970
(Thousand board feet, Scribner log rule)

Economic area	All age groups	Old growth (100+ years)	Young growth (less than 100 years)
Puget Sound	144,547	123,246	21,301
Olympic Peninsula	195,373	155,357	40,016
Lower Columbia	238,719	213,810	24,909
Central Washington and Inland Empire 1/	109,299	18,572	90,727
Total, State	687,938	510,985	176,953

1/ Combined to avoid disclosure.

Table 43.—Log inventory changes, log consumption, and apparent log receipts by veneer and plywood mills in Washington by area, 1970
(Thousand board feet, Scribner log rule)

Economic area	Log inventory			1970 log consumption	Apparent 1970 log receipts
	January 1, 1970	December 31, 1970	Net change		
Puget Sound	46,732	34,034	-12,698	144,547	131,849
Olympic Peninsula	41,102	32,615	-8,487	195,373	186,886
Lower Columbia	42,803	43,471	668	238,719	239,387
Central Washington and Inland Empire 1/	24,153	20,006	-4,147	109,299	105,152
Total, State	154,790	130,126	-24,664	687,938	663,274

1/ Combined to avoid disclosure.

Table 44.—Origin of logs consumed by veneer and plywood mills in Washington by ownership class, area, and county, 1970
(Thousand board feet, Scribner log rule)

Economic area and county	All owners	State	National Forest	Bureau of Land Management	Other public	Forest industry		Farmer and miscellaneous private
						Own wood supply	Other wood supply	
Puget Sound								
King and Pierce[1/]	66,879	2,916	19,648	--	1,849	37,966	--	4,500
Skagit, Snohomish, and Whatcom[1/]	77,668	6,319	43,674	--	--	23,608	1,742	2,325
Total	144,547	9,235	63,322	--	1,849	61,574	1,742	6,825
Olympic Peninsula								
Clallam, Jefferson, and Mason[1/]	91,482	21,532	45,682	--	--	13,750	6,600	3,918
Grays Harbor	30,960	--	21,278	6,322	--	--	1,371	1,989
Thurston and Lewis[1/]	72,931	6,858	54,188	--	45	1,763	375	9,702
Total	195,373	28,390	121,148	6,322	45	15,513	8,346	15,609
Lower Columbia								
Clark and Cowlitz[1/]	174,719	17,584	25,790	--	--	120,761	10,584	--
Skamania and Klickitat[1/]	64,000	7,090	45,440	--	4,080	3,800	950	2,640
Total	238,719	24,674	71,230	--	4,080	124,561	11,534	2,640
Central Washington and Inland Empire								
Okanogan, Yakima, Spokane, and Stevens[1/]	109,299	6,315	31,386	--	30,334	24,943	--	16,321
Total, State	687,938	68,614	287,086	6,322	36,308	226,591	21,622	41,395

[1/] Combined to avoid disclosure.

Table 45.—Relative dependency of Washington veneer and plywood mills for logs by ownership origin and area, 1970
(Number of mills)

Economic area	National Forest				State				Bureau of Land Management				Other public				Forest industry: Own wood supply				Forest industry: Other wood supply				Farmer and miscellaneous private			
	Dependency percent																											
	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100
Puget Sound	3	--	5	1	3	6	--	--	9	--	--	--	8	1	--	--	5	1	2	1	8	--	--	1	6	3	--	--
Olympic Peninsula	7	2	2	7	11	3	3	1	17	--	--	1	17	1	--	--	15	2	1	--	14	4	--	--	10	7	--	1
Lower Columbia	1	3	2	3	2	7	--	--	9	--	--	--	8	--	1	--	4	2	2	1	6	3	--	--	8	1	--	--
Central Washington and Inland Empire[1]	2	1	2	--	2	3	--	--	5	--	--	--	2	2	1	--	3	1	1	--	5	--	--	--	1	3	--	1
Total, State	13[@]	6	11	11	18[@]	19	3	1	40[@]	--	--	1	35[@]	4	2	--	27[@]	6	6	2	33[@]	7	--	1	25[@]	14	--	2

[1] Combined to avoid disclosure.

[@] Includes 6 layup-only mills.

Table 46.—Log consumption by veneer and plywood mills in Washington by species, area, and county, 1970

(Thousand board feet, Scribner log rule)

Economic area and county	All species	Douglas fir	Hemlock	True firs	Spruce	Ponderosa pine	Lodgepole pine	Western redcedar	Other softwoods	Hardwoods
Puget Sound										
King and Pierce[1/]	66,879	26,550	34,441	616	--	--	--	3,764	308	1,200
Skagit, Snohomish, and Whatcom[1/]	77,668	46,488	28,037	--	--	--	--	290	877	1,976
Total	144,547	73,038	62,478	616	--	--	--	4,054	1,185	3,176
Olympic Peninsula										
Clallam, Jefferson, and Mason[1/]	91,482	70,947	13,489	--	--	--	7,046	--	--	--
Grays Harbor	30,961	12,501	7,385	3,000	158	488	79	7,350	--	--
Thurston and Lewis[1/]	72,930	55,008	8,162	9,715	--	--	--	45	--	--
Total	195,373	138,456	29,036	12,715	158	488	7,125	7,395	--	--
Lower Columbia										
Clark and Cowlitz[1/]	174,719	160,572	10,350	--	--	--	--	2,914	883	--
Skamania and Klickitat[1/]	64,000	47,750	2,350	5,000	600	7,200	--	--	1,100	--
Total	238,719	208,322	12,700	5,000	600	7,200	--	2,914	1,983	--
Central Washington and Inland Empire										
Okanogan, Yakima, Spokane, and Stevens[1/]	109,299	59,497	--	9,098	6,543	9,939	--	--	24,222	--
Total, State	687,938	479,313	104,214	27,429	7,301	17,627	7,125	14,363	27,390	3,176

1/ Combined to avoid disclosure.

Table 47.—Log consumption by veneer and plywood mills in Washington by species, area, and type of material, 1970
(Thousand board feet, Scribner log rule)

Economic area and type of material	All species	Douglas fir	Hemlock	True firs	Spruce	Ponderosa pine	Lodgepole pine	Western redcedar	Other softwoods	Hardwoods
Puget Sound										
Sound[1]	137,047	66,948	61,113	616	--	--	--	4,054	1,185	3,131
Utility	7,500	6,090	1,365	--	--	--	--	--	--	45
Total	144,547	73,038	62,478	616	--	--	--	4,054	1,185	3,176
Olympic Peninsula										
Sound[1]	190,273	136,666	25,726	12,715	158	488	7,125	7,395	--	--
Utility	5,100	1,790	3,310	--	--	--	--	--	--	--
Total	195,373	138,456	29,036	12,715	158	488	7,125	7,395	--	--
Lower Columbia										
Sound[1]	237,408	207,339	12,372	5,000	600	7,200	--	2,914	1,983	--
Utility	1,311	983	328	--	--	--	--	--	--	--
Total	238,719	208,322	12,700	5,000	600	7,200	--	2,914	1,983	--
Central Washington and Inland Empire[2]										
Sound[1]	109,299	59,497	--	9,098	6,543	9,939	--	--	24,222	--
Utility	--	--	--	--	--	--	--	--	--	--
Total	109,299	59,497	--	9,098	6,543	9,939	--	--	24,222	--
Total, State										
Sound[1]	674,027	470,450	99,211	27,429	7,301	17,627	7,125	14,363	27,390	3,131
Utility	13,911	8,863	5,003	--	--	--	--	--	--	45
Total	687,938	479,313	104,214	27,429	7,301	17,627	7,125	14,363	27,390	3,176

1/ Includes both live and dead logs.

2/ Combined to avoid disclosure.

Table 48.—Production and disposition of wood and bark residues by veneer and plywood mills in Washington by area and county, 1970
(Tons, dry weight)

Economic area and county	All residues			Wood residue			Bark residue		
	Total	Used[1]	Unused	Total	Used[1]	Unused	Total	Used[1]	Unused
Puget Sound									
King Pierce[2]	112,768	112,768	--	83,973	83,973	--	28,795	28,795	--
Skagit, Snohomish, and Whatcom[2]	137,705	136,479	1,226	105,910	105,271	639	31,795	31,208	587
Total	250,473	249,247	1,226	189,883	189,244	639	60,590	60,003	587
Olympic Peninsula									
Clallam, Jefferson, and Mason[2]	116,985	114,605	2,380	88,205	87,805	400	28,780	26,800	1,980
Grays Harbor	64,735	61,215	3,520	54,655	54,655	--	10,070	6,550	3,520
Thurston and Lewis[2]	95,247	77,902	17,345	71,497	71,497	--	23,750	6,405	17,345
Total	276,957	253,712	23,245	214,357	213,957	400	62,600	39,755	22,845
Lower Columbia									
Clark and Cowlitz[2]	267,175	267,175	--	203,275	203,275	--	63,900	63,900	--
Skamania and Klickitat[2]	59,202	55,757	3,445	45,278	45,278	--	13,924	10,479	3,445
Total	326,377	322,932	3,445	248,553	248,553	--	77,824	74,379	3,445
Central Washington and Inland Empire									
Yakima, Okanogan, Spokane, and Stevens[2]	146,229	120,234	25,995	112,640	103,100	9,540	33,589	17,134	16,455
Total, State	1,000,036	946,125	53,911	765,433	754,854	10,579	234,603	191,271	43,332

[1] Used residues were not necessarily consumed in the area or county in which produced.

[2] Combined to avoid disclosure.

Table 49.—Production and disposition of wood residue by veneer and plywood mills in Washington by type of residue, use, area, and county, 1970
(Tons, dry weight)

Economic area and county	All types						Coarse and medium [1]						Fine [2]					
	Total	Total used [3]	Pulp & board	Fuel	Misc.	Unused	Total	Total used [3]	Pulp & board	Fuel	Misc.	Unused	Total	Total used [3]	Pulp & board	Fuel	Misc.	Unused
Puget Sound																		
King and Pierce [4]	83,973	83,973	37,028	38,603	8,342	--	76,976	76,976	37,028	31,606	8,342	--	6,997	6,997	--	6,997	--	--
Skagit, Snohomish, and Whatcom [4]	105,910	105,271	43,049	61,772	450	639	98,594	98,048	43,049	54,549	450	546	7,316	7,223	--	7,223	--	93
Total	189,883	189,244	80,077	100,375	8,792	639	175,570	175,024	80,077	86,155	8,792	546	14,313	14,220	--	14,220	--	93
Olympic Peninsula																		
Clallam, Jefferson, and Mason [4]	88,205	87,805	64,470	14,835	8,500	400	86,065	85,665	64,470	12,695	8,500	400	2,140	2,140	--	2,140	--	--
Grays Harbor	54,655	54,655	27,666	26,839	150	--	50,273	50,273	27,666	22,457	150	--	4,382	4,382	--	4,382	--	--
Thurston and Lewis [4]	71,497	71,497	58,795	9,967	2,735	--	69,578	69,578	58,795	8,048	2,735	--	1,919	1,919	--	1,919	--	--
Total	214,357	213,957	150,931	51,641	11,385	400	205,916	205,516	150,931	43,200	11,385	400	8,441	8,441	--	8,441	--	--
Lower Columbia																		
Clark and Cowlitz [4]	203,275	203,275	105,940	70,590	26,745	--	193,150	193,150	105,940	61,510	25,700	--	10,125	10,125	--	9,080	1,045	--
Skamania and Klickitat [4]	45,278	45,278	22,825	9,158	13,295	--	42,176	42,176	22,825	6,056	13,295	--	3,102	3,102	--	3,102	--	--
Total	248,553	248,553	128,765	79,748	40,040	--	235,326	235,326	128,765	67,566	38,995	--	13,227	13,227	--	12,182	1,045	--
Central Washington and Inland Empire																		
Yakima, Okanogan, Spokane, and Stevens [4]	112,640	103,100	78,288	15,850	8,962	9,540	109,573	100,033	78,288	13,125	8,620	9,540	3,067	3,067	--	2,725	342	--
Total, State	765,433	754,854	438,061	247,614	69,179	10,579	726,385	715,899	438,061	210,046	67,792	10,486	39,048	38,955	--	37,568	1,387	93

[1] Coarse residue includes log trim, cores, veneer clippings, rejected veneer, roundup, spur trim.

[2] Fine residue includes sawdust and sander dust.

[3] Used residues were not necessarily consumed in the area or county in which produced.

[4] Combined to avoid disclosure.

Table 50.—Production and disposition of bark residue by veneer and plywood mills in Washington by use, area, and county, 1970
(Tons, dry weight)

Economic area and county	All bark	Total used	Used[1]				Unused
			Pulp	Board	Fuel	Other	
Puget Sound							
King and Pierce[2]	28,795	28,795	--	--	28,795	--	--
Skagit, Snohomish, and Whatcom[2]	31,795	31,208	--	--	31,208	--	587
Total	60,590	60,003	--	--	60,003	--	587
Olympic Peninsula							
Clallam, Jefferson, and Mason[2]	28,780	26,800	--	--	26,800	--	1,980
Grays Harbor	10,070	6,550	--	--	6,550	--	3,520
Thurston and Lewis[2]	23,750	6,405	--	--	3,552	2,853	17,345
Total	62,600	39,755	--	--	36,902	2,853	22,845
Lower Columbia							
Clark and Cowlitz[2]	63,900	63,900	--	--	53,340	10,560	--
Skamania and Klickitat[2]	13,924	10,479	--	--	8,184	2,295	3,445
Total	77,824	74,379	--	--	61,524	12,855	3,445
Central Washington and Inland Empire							
Yakima, Okanogan, Spokane, and Stevens[2]	33,589	17,134	--	--	17,134	--	16,455
Total, State	234,603	191,271	--	--	175,563	15,708	43,332

[1] Used residues were not necessarily consumed in the area or county in which produced.

[2] Combined to avoid disclosure.

Table 51.—Number of pulp and board mills in Washington, 1970

Economic area and county	All mills	Type of pulpmill				Type of board mill	
		Sulfite	Sulfate	Groundwood	Semichemical	Hardboard	Insulation board
Puget Sound							
Pierce	2	--	1	1	--	--	--
Skagit	2	1	--	--	--	1	--
Snohomish	4	2	2	--	--	--	--
Whatcom	2	1	--	--	1	--	--
Total	10	4	3	1	1	1	--
Olympic Peninsula							
Clallam	4	2	--	2	--	--	--
Grays Harbor	2	2	--	--	--	--	--
Jefferson	1	--	1	--	--	--	--
Mason	1	--	--	--	--	--	1
Total	8	4	1	2	--	--	1
Lower Columbia							
Clark	2	1	1	--	--	--	--
Cowlitz	7	1	4	1	1	--	--
Total	9	2	5	1	1	--	--
Inland Empire							
Spokane	2	1	--	1	--	--	--
Walla Walla	2	--	1	--	1	--	--
Total	4	1	1	1	1	--	--
Total, State	31	11	10	5	3	1	1

Table 52.—Installed 24-hour capacity of pulp and board mills in Washington by type of mill, area, and county, 1970

(Tons)

Economic area and county	All mills	Type of pulpmill				Type of board mill	
		Sulfite	Sulfate	Groundwood	Semichemical	Hardboard	Insulation board
Puget Sound							
Pierce	1,295	--	935	360	--	--	--
Skagit	182	130	--	--	--	52	--
Snohomish	1,710	1,170	540	--	--	--	--
Whatcom	558	514	--	--	44	--	--
Total	3,745	1,814	1,475	360	44	52	--
Olympic Peninsula							
Clallam	1,046	560	--	486	--	--	--
Grays Harbor	910	910	--	--	--	--	--
Jefferson	425	--	425	--	--	--	--
Mason	150	--	--	--	--	--	150
Total	2,531	1,470	425	486	--	--	150
Lower Columbia							
Clark	1,000	360	640	--	--	--	--
Cowlitz	3,390	280	2,640	10	460	--	--
Total	4,390	640	3,280	10	460	--	--
Inland Empire							
Spokane	120	40	--	80	--	--	--
Walla Walla	750	--	500	--	250	--	--
Total	870	40	500	80	250	--	--
Total, State	11,536	3,964	5,680	936	754	52	150

Table 53.—Number of pulp and board mills in Washington by years of tenure of present ownership and years of site occupancy, 1970

Mill type and site occupancy (years)	Tenure of present ownership (years)				
	0-2	3-5	6-10	11-20	21+
Sulfite:					
11-20	--	--	--	1	--
21+	2	--	--	1	7
Sulfate					
11-20	--	--	--	4	--
21+	--	--	--	1	5
Groundwood					
21+	1	--	--	--	4
Semichemical					
11-20	--	--	--	1	--
21+	--	--	--	--	2
Hardboard					
11-20	1	--	--	--	--
Insulation board					
21+	--	--	--	--	1
Total	4	--	--	8	19

Table 54.—Average number of operating days of pulp and board mills in Washington by area, 1970

Economic area	Pulp	Board
Puget Sound	348	254
Olympic Peninsula	334	286
Lower Columbia	333	--
Inland Empire	341	--
Total, State	339	270

Table 55.—Wood consumption by pulp and board mills in Washington by type of material consumed and area, 1970

Economic area	Roundwood				Other				
	Total	Sound logs		Utility logs	Total	Chips		Sawdust	Shavings
		live[1]	dead			From mill residue	From roundwood chipping mill		
	Thousand board feet, Scribner log rule				Tons				
Puget Sound	770,231	583,935[1]	--	186,296	1,656,416	1,400,261	254,704	1,451	--
Olympic Peninsula	508,121	479,246[1]	--	28,875	428,468	135,779	229,595	63,094	--
Lower Columbia and Inland Empire[2]	529,818	389,606	11,498	128,714	2,606,328	2,318,099	--	210,801	77,428
Total, State	1,808,170	1,452,787	11,498	343,885	4,691,212	3,854,139	484,299	275,346	77,428

1/ Includes cordwood: 79,900 MBF from Puget Sound and 192,180 MBF from Olympic Peninsula.

2/ Combined to avoid disclosure.

Table 56.—Log consumption by pulp and board mills in Washington by timber age group and area, 1970
(Thousand board feet, Scribner log rule)

Economic area	All age groups	Old growth (100+ years)	Young growth (less than 100 years)
Puget Sound	770,231	560,336	209,895
Olympic Peninsula	508,121	392,227	115,894
Lower Columbia and Inland Empire[1/]	529,818	434,820	94,998
Total, State	1,808,170	1,387,383	420,787

1/ Combined to avoid disclosure

Table 57.—Ownership origin of logs consumed by pulp and board mills in Washington by area, 1970

(Thousand board feet, Scribner log rule)

Economic area	All owners	National Forest	State	Bureau of Land Management	Other public	Forest industry		Farmer and miscellaneous private
						Own wood supply	Other wood supply	
Puget Sound	770,231	29,122	29,684	--	--	544,712	82,615	84,098
Olympic Peninsula	508,121	22,550	114,009	--	26,480	317,852	19,924	7,306
Lower Columbia-Inland Empire[1/]	529,818	65,456	5,958	--	8,937	393,525	45,892	10,050
Total, State	1,808,170	117,128	149,651	--	35,417	1,256,089	148,431	101,454

1/ Combined to avoid disclosure.

Table 58.—Relative dependency of Washington pulp and board mills for logs by ownership origin and area, 1970

(Number of mills)

Economic area	National Forest				State				Bureau of Land Management				Other public				Forest industry								Farmer and miscellaneous private			
																	Own wood supply				Other wood supply							
	Dependency percent																											
	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100
Puget Sound	4	6	--	--	4	6	--	--	10	--	--	--	10	--	--	--	2	1	4	3	5	3	2	--	5	3	1	1
Olympic Peninsula	3	5	--	--	3	2	3	--	8	--	--	--	6	2	--	--	1	3	2	2	2	5	--	1	4	4	--	--
Lower Columbia and Inland Empire[1/]	10	--	2	1	11	2	--	--	13	--	--	--	11	2	--	--	4	3	2	4	6	4	--	3	9	4	--	--
Total, State	17	11	2	1	18	10	3	--	31	--	--	--	27	4	--	--	7	7	8	9	13	12	2	4	18	11	1	1

1/ Combined to avoid disclosure.

Table 59.—Log consumption by pulp and board mills in Washington by species, area, and type of material, 1970
(Thousand board feet, Scribner log rule)

Economic area and type of material	All species	Douglas fir	Hemlock	True fir	Spruce	Western redcedar	Hardwood[1/]
Puget Sound							
Sound	583,935	145,079	231,824	52,848	2,540	39,900	111,744
Utility	186,296	236	159,135	24,945	--	--	1,980
Total	770,231	145,315	390,959	77,793	2,540	39,900	113,724
Olympic Peninsula							
Sound	479,246	5,078	424,408	22,822	4,700	444	21,794
Utility	28,875	11,812	13,811	1,398	82	1,034	738
Total	508,121	16,890	438,219	24,220	4,782	1,478	22,532
Lower Columbia and Inland Empire[2/]							
Sound	401,104	208,236	144,126	17,187	--	--	31,555
Utility	128,714	49,962	56,383	12,427	--	--	9,942
Total	529,818	258,198	200,509	29,614	--	--	41,497
Total, State							
Sound	1,464,285	358,393	800,358	92,857	7,240	40,344	165,093
Utility	343,885	62,010	229,329	38,770	82	1,034	12,660
Total	1,808,170	420,403	1,029,687	131,627	7,322	41,378	177,753

1/ Cottonwood and alder.
2/ Combined to avoid disclosure.

Table 60.—Consumption of mill residues and chips from off-site roundwood chippers, 1970

(Tons, dry weight)

Economic area and type of material	Total volume	Washington	Oregon	Idaho	British Columbia	Montana
Puget Sound						
Chip residue	1,400,261	1,053,294	--	72,888	206,779	67,300
Chip roundwood	254,704	87,096	--	58,248	109,360	--
Sawdust & shavings	1,451	1,451	--	--	--	--
Total	1,656,416	1,141,841	--	131,136	316,139	67,300
Olympic Peninsula						
Chip residue	135,779	120,493	--	--	15,286	--
Chip roundwood	229,595	205,916	--	--	23,679	--
Sawdust & shavings	63,094	29,276	--	--	33,818	--
Total	428,468	355,685	--	--	72,783	--
Lower Columbia and Inland Empire[1/]						
Chip residue	2,318,099	1,080,743	1,020,443	192,040	--	24,873
Chip roundwood	--	--	--	--	--	--
Sawdust & shavings	288,229	167,226	119,083	1,920	--	--
Total	2,606,328	1,247,969	1,139,526	193,960	--	24,873
Total, State						
Chip residue	3,854,139	2,254,530	1,020,443	264,928	222,065	92,173
Chip roundwood	484,299	293,012	--	58,248	133,039	--
Sawdust & shavings	352,774	197,953	119,083	1,920	33,818	--
Total	4,691,212	2,745,495	1,139,526	325,096	388,922	92,173

1/ Combined to avoid disclosure.

Table 61.—Number of "other industry" mills in Washington, 1970
(Number of mills)

Economic area and county	All types	Shake and shingle	Export	Pole, post, and piling
Puget Sound				
King	8	4	2	2
Kitsap	2	--	--	2
Pierce	9	1	7	1
Skagit	24	21	1	2
Snohomish	33	23	8	2
Whatcom	13	7	5	1
Total	89	56	23	10
Olympic Peninsula				
Clallam	28	20	7	1
Grays Harbor	67	55	12	--
Jefferson	5	5	--	--
Mason	2	--	--	2
Thurston	10	1	6	3
Lewis	13	12	--	1
Pacific	8	6	2	--
Total	133	99	27	7
Lower Columbia				
Clark	8	6	1	1
Cowlitz	12	5	4	3
Skamania	1	1	--	--
Wahkiakum	4	4	--	--
Total	25	16	5	4
Inland Empire				
Pend Oreille	1	--	--	1
Spokane	1	--	--	1
Stevens	3	1	--	2
Total	5	1	--	4
Total, State	252	172	55	25

Table 62.—Installed capacity of "other industry" mills in Washington by area and county, 1970

Economic area and county	Shake and shingle (Single Shift)	Pole, post, and piling (Yearly)
	(Squares)	(M bd. ft., Scribner log rule)
Puget Sound		
King	223	1/
Kitsap	--	1/
Pierce	20	1/
Skagit	1,987	1/
Snohomish	1,986	1/
Whatcom	261	1/
Total	4,477	27,434
Olympic Peninsula		
Clallam	1,918	1/
Grays Harbor	5,148	--
Jefferson	152	--
Mason	--	1/
Thurston	160	1/
Lewis	389	1/
Pacific	757	
Total	8,524	15,159
Lower Columbia		
Clark	179	1/
Cowlitz	411	1/
Skamania	5	--
Wahkiakum	291	--
Total	886	9,368
Inland Empire		
Pend Oreille	--	1/
Spokane	--	1/
Stevens	35	1/
Total	35	12,985
Total, State	13,922	64,946

1/ County totals not shown to avoid disclosure.

Table 63.—Number of "other industry" mills in Washington with selected equipment, by area and county, 1970

Economic area and county	Chipper	Barker	Burner
Puget Sound			
King	--	2	3
Kitsap	--	1	--
Pierce	--	1	1
Skagit	1	2	18
Snohomish	3	2	12
Whatcom	--	1	6
Total	4	9	40
Olympic Peninsula			
Clallam	--	1	16
Grays Harbor	4	1	36
Jefferson	--	--	3
Mason	--	2	--
Thurston	--	2	2
Lewis	--	1	10
Pacific	1	1	5
Total	5	8	72
Lower Columbia			
Clark	--	--	1
Cowlitz	1	4	1
Wahkiakum	--	--	3
Total	1	4	5
Inland Empire			
Spokane	--	1	1
Stevens	--	2	1
Total	--	3	2
Total, State	10	24	119

Table 64.—Number of "other industry" mills in Washington by years of tenure of present ownership, type of mill, and years of site occupancy, 1970

Type of mill and site occupancy (years)	All mills	Tenure of present mill ownership (years)				
		0-2	3-5	6-10	11-20	21+
Shake and shingle						
0-2	34	29	3	1	1	--
3-5	28	2	26	--	--	--
6-10	51	6	2	43	--	--
11-20	40	5	3	5	27	--
21+	19	2	1	3	3	10
Total	172	44	35	52	31	10
Export						
0-2	4	4	--	--	--	--
3-5	13	3	9	1	--	--
6-10	17	--	--	17	--	--
11-20	10	--	--	--	10	--
21+	11	4	--	1	--	6
Total	55	11	9	19	10	6
Pole, post, and piling						
3-5	4	1	3	--	--	--
6-10	6	--	--	6	--	--
11-20	4	--	1	--	3	--
21+	11	--	2	--	3	6
Total	25	1	6	6	6	6
Total						
0-2	38	33	3	1	1	--
3-5	45	6	38	1	--	--
6-10	74	6	2	66	--	--
11-20	54	5	4	5	40	--
21+	41	6	3	4	6	22
Total	252	56	50	77	47	22

Table 65.—Average number of operating days per year of "other industry" mills in Washington by type of mill and area, 1970

Economic area	Shake and shingle	Pole, post, and piling
Puget Sound	165	258
Olympic Peninsula	158	180
Lower Columbia	167	253
Inland Empire	150	216
Total, State	161	229

Table 66.—Log consumption by "other industry" mills in Washington by type of material, area, and type of mill, 1970
(Thousand board feet, Scribner log rule)

Economic area and type of mill	All types	Sound logs		Utility logs	Other
		Live	Dead		
Puget Sound					
Shake and shingle	51,681	37,543	4,999	2,834	6,305
Export	588,826	562,103	904	25,819	--
Pole, post, and piling	28,153	27,636	139	--	378
Total	668,660	627,282	6,042	28,653	6,683
Olympic Peninsula					
Shake and shingle	129,963	94,350	20,944	4,173	10,496
Export	944,474	921,070	3,525	19,879	--
Pole, post, and piling	14,542	14,281	--	--	261
Total	1,088,979	1,029,701	24,469	24,052	10,757
Lower Columbia					
Shake and shingle[1/]	24,659	21,890	1,728	450	591
Export	163,885	155,885	--	8,000	--
Pole, post, and piling	8,395	8,329	66	--	--
Total	196,939	186,104	1,794	8,450	591
Inland Empire					
Pole, post, and piling	10,895	9,855	890	--	150
Total, State					
Shake and shingle	206,303	153,783	27,671	7,457	17,392
Export	1,697,185	1,639,058	4,429	53,698	--
Pole, post, and piling	61,985	60,101	1,095	--	789
Total	1,965,473	1,852,942	33,195	61,155	18,181

1/ Lower Columbia and Inland Empire combined to avoid disclosure.

Table 67.—Log consumption by "other industry" mills in Washington by timber age group, area, and type of mill, 1970
(Thousand board feet, Scribner log rule)

Economic area and type of mill	All age groups	Old growth (100+ years)	Young growth (less than 100 years)
Puget Sound			
Shake and shingle	45,376	44,407	969
Export	588,826	507,025	81,801
Pole, post, and piling	27,775	7,840	19,935
Total	661,977	559,272	102,705
Olympic Peninsula			
Shake and shingle	119,467	118,222	1,245
Export	944,474	586,114	358,360
Pole, post, and piling	14,281	1,379	12,902
Total	1,078,222	705,715	372,507
Lower Columbia			
Shake and shingle 1/	24,068	24,068	--
Export	163,885	114,022	49,863
Pole, post, and piling	8,395	3,226	5,169
Total	196,348	141,316	55,032
Inland Empire			
Shake and shingle 1/	--	--	--
Pole, post, and piling	10,745	6,563	4,182
Total	10,745	6,563	4,182
Total, State			
Shake and shingle	188,911	186,697	2,214
Export	1,697,185	1,207,161	490,024
Pole, post, and piling	61,196	19,008	42,188
Total	1,947,292	1,412,866	534,426

1/ Combined to avoid disclosure.

Table 68.—Ownership origin of logs consumed by "other industry" mills in Washington by area and type of mill, 1970
(Thousand board feet, Scribner log rule)

Economic area and type of mill	All owners	State	National Forest	Bureau of Land Management	Other public	Forest industry		Farmer and miscellaneous private
						Own wood supply	Other wood supply	
Puget Sound								
Shake and shingle	45,376	3,484	16,899	880	6,476	--	10,205	7,432
Export	588,826	154,725	87,563	--	--	207,222	98,069	41,247
Pole, post, and piling	27,775	4,855	6,539	--	155	514	10,668	5,044
Total	661,977	163,064	111,001	880	6,631	207,736	118,942	53,723
Olympic Peninsula								
Shake and shingle	119,467	17,864	13,710	245	22,154	23,857	40,352	1,285
Export	944,474	219,809	31,001	--	62,947	391,633	98,226	140,858
Pole, post, and piling	14,281	1,560	373	--	--	413	6,142	5,793
Total	1,078,222	239,233	45,084	245	85,101	415,903	144,720	147,936
Lower Columbia								
Shake and shingle [1]	24,068	279	1,319	--	--	11,246	10,921	303
Export	163,885	12,042	29,020	--	--	100,549	12,316	9,958
Pole, post, and piling	8,395	491	245	--	--	2,268	2,722	2,669
Total	196,348	12,812	30,584	--	--	114,063	25,959	12,930
Inland Empire								
Shake and shingle [1]	--	--	--	--	--	--	--	--
Pole, post, and piling	10,745	1,974	1,060	--	190	175	6,300	1,046
Total	10,745	1,974	1,060	--	190	175	6,300	1,046
Total, State								
Shake and shingle	188,911	21,627	31,928	1,125	28,630	35,103	61,478	9,020
Export	1,697,185	386,576	147,584	--	62,947	699,404	208,611	192,063
Pole, post, and piling	61,196	8,880	8,217	--	345	3,370	25,832	14,552
Total	1,947,292	417,083	187,729	1,125	91,922	737,877	295,921	215,635

[1] Lower Columbia and Inland Empire combined to avoid disclosure.

Table 69.—Ownership origin of logs consumed by "other industry" mills in Washington by area and county, 1970
(Thousand board feet, Scribner log rule)

Economic area and county	All owners	State	National Forest	Bureau of Land Management	Other public	Forest industry		Farmer and miscellaneous private
						Own wood supply	Other wood supply	
Puget Sound								
King	43,692	2,473	13,604	2	16	13,600	5,656	8,341
Kitsap	1,376	6	--	--	--	--	1,354	16
Pierce	319,919	100,829	30,412	--	--	161,262	15,842	11,574
Skagit	35,475	1,920	10,835	758	4,791	--	10,334	6,837
Snohomish	209,444	44,840	48,168	--	1,824	15,862	75,828	22,922
Whatcom	52,071	12,996	7,982	120	--	17,012	9,928	4,033
Total	661,977	163,064	111,001	880	6,631	207,736	118,942	53,723
Olympic Peninsula								
Clallam	226,580	111,705	25,257	--	436	31,360	53,494	4,328
Grays Harbor	393,035	121,481	7,670	200	31,513	93,683	81,771	56,717
Mason, Jefferson [1]	2,920	962	--	45	972	300	307	334
Thurston	232,480	1,948	11,933	--	51,776	91,488	1,131	74,204
Lewis	2,586	1,780	224	--	--	--	357	225
Pacific	220,621	1,357	--	--	404	199,072	7,660	12,128
Total	1,078,222	239,233	45,084	245	85,101	415,903	144,720	147,936
Lower Columbia								
Clark	8,460	132	1,319	--	--	6,800	164	45
Cowlitz	184,363	12,533	29,265	--	--	107,263	22,667	12,635
Skamania and Wahkiakum [2]	3,525	147	--	--	--	--	3,128	250
Total	196,348	12,812	30,584	--	--	114,063	25,959	12,930
Inland Empire								
Pend Oreille, Spokane, and Stevens [1]	10,745	1,974	1,060	--	190	175	6,300	1,046
Total, State	1,947,292	417,083	187,729	1,125	91,922	737,877	295,921	215,635

[1] Combined to avoid disclosure.

[2] Combined to avoid disclosure; includes Shake and Shingle volume for Stevens County.

Table 70.—Relative dependency of Washington "other industry" mills for logs by ownership origin, area, and type of mill, 1970
(Number of mills)

Economic area and type of mill	National Forest				State				Bureau of Land Management				Other public				Forest industry: Own wood supply				Forest industry: Other wood supply				Farmer and miscellaneous private			
	Dependency percent																											
	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100	0	1-32	33-66	67-100
Puget Sound																												
Shake and shingle	25	11	3	17	46	8	2	--	53	2	--	1	50	1	3	2	56	--	--	--	28	6	4	18	41	7	1	7
Export	11	5	6	1	10	6	3	4	23	--	--	--	23	--	--	--	16	2	--	5	13	3	1	6	17	4	2	--
Pole, post, and piling	5	4	--	1	3	6	1	--	10	--	--	--	9	--	--	1	7	3	--	--	1	2	5	2	4	4	2	--
Total	41	20	9	19	59	20	6	4	86	2	--	1	82	1	3	3	79	5	--	5	42	11	10	26	62	15	5	7
Olympic Peninsula																												
Shake and shingle	58	18	11	12	65	15	11	8	96	1	--	2	67	8	8	16	97	--	--	2	59	3	14	23	87	5	3	4
Export	21	4	1	1	12	6	4	5	27	--	--	--	22	3	1	1	18	--	--	9	19	5	1	2	17	4	2	4
Pole, post, and piling	4	3	--	--	3	4	--	--	7	--	--	--	6	1	--	--	5	1	1	--	3	--	1	3	1	4	1	1
Total	83	25	12	13	80	25	15	13	130	1	--	2	95	12	9	17	120	1	1	11	81	8	16	28	105	13	6	9
Lower Columbia																												
Shake and shingle	10	3	--	3	12	3	1	--	16	--	--	--	16	--	--	--	15	--	--	1	6	1	2	7	13	2	1	--
Export	2	2	1	--	2	3	--	--	5	--	--	--	5	--	--	--	2	--	1	2	3	1	1	--	4	1	--	--
Pole, post, and piling	2	2	--	--	2	2	--	--	4	--	--	--	4	--	--	--	1	2	1	--	1	--	2	1	--	3	1	--
Total	14	7	1	3	16	8	1	--	25	--	--	--	25	--	--	--	18	2	2	3	10	2	5	8	17	6	2	--
Inland Empire																												
Shake and shingle	1	--	--	--	1	--	--	--	1	--	--	--	1	--	--	--	1	--	--	--	1	--	--	--	1	--	--	--
Pole, post, and piling	1	2	1	--	--	1	3	--	4	--	--	--	2	2	--	--	3	1	--	--	3	--	--	1	--	3	1	--
Total	2	2	1	--	1	1	3	--	5	--	--	--	3	2	--	--	4	1	--	--	4	--	--	1	1	3	1	--
Total, State																												
Shake and shingle	94	32	14	32	124	26	14	8	166	3	--	3	134	9	11	18	169	--	--	3	94	10	20	48	142	14	5	11
Export	34	11	8	2	24	15	7	9	55	--	--	--	50	3	1	1	36	2	1	16	35	9	3	8	38	9	4	4
Pole, post, and piling	12	11	1	1	8	13	4	--	25	--	--	--	21	3	--	1	16	7	2	--	8	2	8	7	5	14	5	1
Total	140	54	23	35	156	54	25	17	246	3	--	3	205	15	12	20	221	9	3	19	137	21	31	63	185	37	14	16

Table 71.—Log consumption by "other industry" mills in Washington by species, area, and county, 1970
(Thousand board feet, Scribner log rule)

Economic area and county	All species	Douglas fir	Hemlock	True firs	Spruce	Ponderosa pine	Lodgepole pine	Western redcedar	Other softwoods
Puget Sound									
King	43,692	12,524	24,035	2,059	--	--	--	4,634	440
Kitsap	1,376	1,376	--	--	--	--	--	--	--
Pierce	319,919	110,061	165,445	20,338	1,837	--	--	20,990	1,248
Skagit	35,475	5,751	--	--	--	--	--	29,724	--
Snohomish	209,444	48,898	99,799	31,518	340	640	--	26,782	1,467
Whatcom	52,071	8,816	23,063	11,896	--	--	--	7,737	559
Total	661,977	187,426	312,342	65,811	2,177	640	--	89,867	3,714
Olympic Peninsula									
Clallam	226,580	12,498	120,390	24,417	17,362	--	--	51,913	--
Grays Harbor	393,035	20,467	189,603	52,487	19,293	--	232	110,101	852
Jefferson	2,307	--	--	--	--	--	--	2,307	--
Mason	613	493	--	--	--	--	--	120	--
Thurston	232,480	98,207	113,151	10,776	1,878	--	--	8,438	30
Lewis	2,586	160	--	--	--	--	--	2,426	--
Pacific	220,621	31,975	115,334	--	24,182	--	--	48,860	270
Total	1,078,222	163,800	538,478	87,680	62,715	--	232	224,165	1,152
Lower Columbia									
Clark	8,460	1,319	4,416	520	204	--	136	1,865	--
Cowlitz	184,363	48,716	86,405	18,311	2,797	--	1,636	24,402	2,096
Skamania and Wahkiakum[1/] [2/]	3,525	--	--	--	--	--	--	3,525	--
Total	196,348	50,035	90,821	18,831	3,001	--	1,772	29,792	2,096
Inland Empire									
Pend Oreille, Spokane, and Stevens[1/]	10,745	--	--	--	--	--	918	9,504	323
Total, State	1,947,292	401,261	941,641	172,322	67,893	640	2,922	353,328	7,285

1/ Combined to avoid disclosure.

2/ Combined to avoid disclosure; includes Shake and Shingle volume for Stevens County.

Table 72.—Log consumption by "other industry" mills in Washington by species, area, and type of material, 1970
(Thousand board feet, Scribner log rule)

Economic area and type of material	All species	Douglas fir	Hemlock	True firs	Spruce	Ponderosa pine	Lodgepole pine	Western redcedar	Other softwood
Puget Sound									
Sound	633,324	180,063	299,341	64,549	2,105	637	--	82,936	3,693
Utility	28,653	7,363	13,001	1,262	72	3	--	6,931	21
Total	661,977	187,426	312,342	65,811	2,177	640	--	89,867	3,714
Olympic Peninsula									
Sound	1,054,170	160,007	527,821	84,534	61,527	--	232	218,927	1,122
Utility	24,052	3,793	10,657	3,146	1,188	--	--	5,238	30
Total	1,078,222	163,800	538,478	87,680	62,715	--	232	224,165	1,152
Lower Columbia									
Sound	187,898	49,870	84,021	18,511	2,761	--	1,612	29,027	2,096
Utility 1/	8,450	165	6,800	320	240	--	160	765	--
Total	196,348	50,035	90,821	18,831	3,001	--	1,772	29,792	2,096
Inland Empire									
Sound	10,745	--	--	--	--	--	918	9,504	323
Utility 1/	--	--	--	--	--	--	--	--	--
Total	10,745	--	--	--	--	--	918	9,504	323
Total, State									
Sound	1,886,137	389,940	911,183	167,594	66,393	637	2,762	340,394	7,234
Utility	61,155	11,321	30,458	4,728	1,500	3	160	12,934	51
Total	1,947,292	401,261	941,641	172,322	67,893	640	2,922	353,328	7,285

1/ Inland Empire combined with Lower Columbia to avoid disclosure.

Table 73.—Log consumption by "other industry" mills in Washington by species, area, and type of mill, 1970
(Thousand board feet, Scribner log rule)

Economic area and type of mill	All species	Douglas fir	Hemlock	True firs	Spruce	Ponderosa pine	Lodgepole pine	Western redcedar	Other softwoods
Puget Sound									
Shake & shingle	45,376	--	--	--	--	--	--	45,376	--
Export	588,826	171,510	312,342	65,811	2,177	640	--	32,632	3,714
Pole, post and piling	27,775	15,916	--	--	--	--	--	11,859	--
Total	661,977	187,426	312,342	65,811	2,177	640	--	89,867	3,714
Olympic Peninsula									
Shake & shingle	119,467	--	--	--	--	--	--	119,467	--
Export	944,474	153,793	538,478	87,680	62,715	--	232	100,424	1,152
Pole, post and piling	14,281	10,007	--	--	--	--	--	4,274	--
Total	1,078,222	163,800	538,478	87,680	62,715	--	232	224,165	1,152
Lower Columbia									
Shake & shingle 1/	24,068	5	--	--	--	--	--	24,063	--
Export	163,885	43,524	90,821	18,831	3,001	--	1,772	3,840	2,096
Pole, post and piling	8,395	6,506	--	--	--	--	--	1,889	--
Total	196,348	50,035	90,821	18,831	3,001	--	1,772	29,792	2,096
Inland Empire									
Shake & shingle 1/	--	--	--	--	--	--	--	--	--
Export	--	--	--	--	--	--	--	--	--
Pole, post and piling	10,745	--	--	--	--	--	918	9,504	323
Total	10,745	--	--	--	--	--	918	9,504	323
Total, State									
Shake & shingle	188,911	5	--	--	--	--	--	188,906	--
Export	1,697,185	368,827	941,641	172,322	67,893	640	2,004	136,896	6,962
Pole, post and piling	61,196	32,429	--	--	--	--	918	27,526	323
Total	1,947,292	401,261	941,641	172,322	67,893	640	2,922	353,328	7,285

1/ Inland Empire combined with Lower Columbia to avoid disclosure.

Table 74.—Sound log consumption by "other industry" mills in Washington by species, area, and type of mill, 1970
(Thousand board feet, Scribner log rule)

Economic area and type of mill	All species	Douglas fir	Hemlock	True firs	Spruce	Ponderosa pine	Lodgepole pine	Western redcedar	Other softwoods
Puget Sound									
Shake and shingle	42,542	--	--	--	--	--	--	42,542	--
Export	563,007	164,147	299,341	64,549	2,105	637	--	28,535	3,693
Pole, post, and piling	27,775	15,916	--	--	--	--	--	11,859	--
Total	633,324	180,063	299,341	64,549	2,105	637	--	82,936	3,693
Olympic Peninsula									
Shake and shingle	115,294	--	--	--	--	--	--	115,294	--
Export	924,595	150,000	527,821	84,534	61,527	--	232	99,359	1,122
Pole, post, and piling	14,281	10,007	--	--	--	--	--	4,274	--
Total	1,054,170	160,007	527,821	84,534	61,527	--	232	218,927	1,122
Lower Columbia									
Shake and shingle	23,618	--	--	--	--	--	--	23,618	--
Export	155,885	43,364	84,021	18,511	2,761	--	1,612	3,520	2,096
Pole, post, and piling	8,395	6,506	--	--	--	--	--	1,889	--
Total	187,898	49,870	84,021	18,511	2,761	--	1,612	29,027	2,096
Inland Empire									
Pole, post, and piling	10,745	--	--	--	--	--	918	9,504	323
Total, State									
Shake and shingle	181,454	--	--	--	--	--	--	181,454	--
Export	1,643,487	357,511	911,183	167,594	66,393	637	1,844	131,414	6,911
Pole, post, and piling	61,196	32,429	--	--	--	--	918	27,526	323
Total	1,886,137	389,940	911,183	167,594	66,393	637	2,762	340,394	7,234

Table 75.—Utility log consumption by "other industry" mills in Washington by species, area, and type of mill, 1970
(Thousand board feet, Scribner log rule)

Economic area and type of mill	All species	Douglas fir	Hemlock	True firs	Spruce	Ponderosa pine	Lodgepole pine	Western redcedar	Other softwoods
Puget Sound									
Shake and shingle	2,834	--	--	--	--	--	--	2,834	--
Export	25,819	7,363	13,001	1,262	72	3	--	4,097	21
Total	28,653	7,363	13,001	1,262	72	3	--	6,931	21
Olympic Peninsula									
Shake and shingle	4,173	--	--	--	--	--	--	4,173	--
Export	19,879	3,793	10,657	3,146	1,188	--	--	1,065	30
Total	24,052	3,793	10,657	3,146	1,188	--	--	5,238	30
Lower Columbia									
Shake and shingle [1/]	450	5	--	--	--	--	--	445	--
Export	8,000	160	6,800	320	240	--	160	320	--
Total	8,450	165	6,800	320	240	--	160	765	--
Inland Empire									
Shake and shingle [1/]	--	--	--	--	--	--	--	--	--
Total, State									
Shake and shingle	7,457	5	--	--	--	--	--	7,452	--
Export	53,698	11,316	30,458	4,728	1,500	3	160	5,482	51
Total	61,155	11,321	30,458	4,728	1,500	3	160	12,934	51

[1/] Inland Empire combined with Lower Columbia to avoid disclosure.

Table 76.—Production and disposition of wood and bark residues by shake and shingle mills in Washington by area and county, 1970
(Tons dry weight)

Economic area and county	All residues			Wood residue			Bark residue		
	Total	Used[1]	Unused	Total	Used[1]	Unused	Total	Used[1]	Unused
Puget Sound									
King and Pierce[2]	3,070	395	2,675	2,789	299	2,490	281	96	185
Skagit	26,508	7,108	19,400	18,863	5,358	13,505	7,645	1,750	5,895
Snohomish	16,133	7,310	8,823	12,074	6,333	5,741	4,059	977	3,082
Whatcom	2,382	302	2,080	1,666	302	1,364	716	--	716
Total	48,093	15,115	32,978	35,392	12,292	23,100	12,701	2,823	9,878
Olympic Peninsula									
Clallam	25,501	1,235	24,266	18,313	958	17,355	7,188	277	6,911
Grays Harbor	52,708	22,357	30,351	37,659	17,518	20,141	15,049	4,839	10,210
Jefferson	1,703	165	1,538	1,099	147	952	604	18	586
Lewis and Thurston[2]	5,330	79	5,251	3,633	55	3,578	1,697	24	1,673
Pacific	30,010	19,435	10,575	21,875	14,095	7,780	8,135	5,340	2,795
Total	115,252	43,271	71,981	82,579	32,773	49,806	32,673	10,498	22,175
Lower Columbia and Inland Empire[2]									
Clark	1,528	441	1,087	1,065	326	739	463	115	348
Cowlitz	19,806	14,699	5,107	14,718	11,062	3,656	5,088	3,637	1,451
Skamania, Stevens, and Wahkiakum[2]	4,880	105	4,775	3,530	105	3,425	1,350	--	1,350
Total	26,214	15,245	10,969	19,313	11,493	7,820	6,901	3,752	3,149
Total, State	189,559	73,631	115,928	137,284	56,558	80,726	52,275	17,073	35,202

[1] Used residues were not necessarily consumed in the economic area in which they were produced.

[2] Combined to avoid disclosure.

Table 77.—Production and disposition of wood residues by shake and shingle mills in Washington by type of residue, use, area, and county, 1970
(Tons, dry weight)

Economic area and county	All types						Coarse[1]						Fine[2]					
	Total	Total used[3]	Pulp & board	Fuel	Misc.	Unused	Total	Total used[3]	Pulp & board	Fuel	Misc.	Unused	Total	Total used[3]	Pulp & board	Fuel	Misc.	Unused
Puget Sound																		
King and Pierce[4]	2,789	299	--	30	269	2,490	927	82	--	--	82	845	1,862	217	--	30	187	1,645
Skagit	18,863	5,358	450	1,378	3,530	13,505	6,364	1,343	450	688	205	5,021	12,499	4,015	--	690	3,325	8,484
Snohomish	12,074	6,333	3,567	1,970	796	5,741	3,749	2,726	2,095	470	161	1,023	8,325	3,607	1,472	1,500	635	4,718
Whatcom	1,666	302	--	88	214	1,364	662	97	--	88	9	565	1,004	205	--	--	205	799
Total	35,392	12,292	4,017	3,466	4,809	23,100	11,702	4,248	2,545	1,246	457	7,454	23,690	8,044	1,472	2,220	4,352	15,646
Olympic Peninsula																		
Clallam	18,313	958	--	865	93	17,355	6,021	247	--	210	37	5,774	12,292	711	--	655	56	11,581
Grays Harbor	37,659	17,518	4,045	11,731	1,742	20,141	13,100	5,172	2,525	1,730	917	7,928	24,559	12,346	1,520	10,001	825	12,213
Jefferson	1,099	147	--	--	147	952	535	72	--	--	72	463	564	75	--	--	75	489
Lewis and Thurston[4]	3,633	55	--	--	55	3,578	1,435	27	--	--	27	1,408	2,198	28	--	--	28	2,170
Pacific	21,875	14,095	--	--	14,095	7,780	6,780	4,435	--	--	4,435	2,345	15,095	9,660	--	--	9,660	5,435
Total	82,579	32,773	4,045	12,596	16,132	49,806	27,871	9,953	2,525	1,940	5,488	17,918	54,708	22,820	1,520	10,656	10,644	31,888
Lower Columbia and Inland Empire	1,065	326	--	15	311	739	401	125	--	15	110	276	664	201	--	--	201	463
Clark	14,718	11,062	10,900	--	162	3,656	5,007	3,890	3,800	--	90	1,117	9,711	7,172	7,100	--	72	2,539
Cowlitz													2,315	50	--	50	--	2,265
Skamania, Stevens, and Wahkiakum[4]	3,530	105	--	105	--	3,425	1,215	55	--	55	--	1,160						
Total	19,313	11,493	10,900	120	473	7,820	6,623	4,070	3,800	70	200	2,553	12,690	7,423	7,100	50	273	5,267
Total, State	137,284	56,558	18,962	16,182	21,414	80,726	46,196	18,271	8,870	3,256	6,145	27,925	91,088	38,287	10,092	12,926	15,269	52,801

1/ End block trim, spalts.

2/ Splints and sawdust.

3/ Used residues were not necessarily consumed in the economic area in which they were produced.

4/ Combined to avoid disclosure.

Table 78.—Production and disposition of bark residues by shake and shingle mills in Washington by use, area, and county, 1970
(Tons, dry weight)

Economic area and county	Bark						
	Total	Total used[1/]	Pulp	Board	Fuel	Misc.	Unused
Puget Sound							
King and Pierce[2/]	281	96	--	--	--	96	185
Skagit	7,645	1,750	--	--	840	910	5,895
Snohomish	4,059	977	--	--	560	417	3,082
Whatcom	716	--	--	--	--	--	716
Total	12,701	2,823	--	--	1,400	1,423	9,878
Olympic Peninsula							
Clallam	7,188	277	--	--	245	32	6,911
Grays Harbor	15,049	4,839	--	--	4,002	837	10,210
Jefferson	604	18	--	--	--	18	586
Lewis and Thurston	1,697	24	--	--	--	24	1,673
Pacific	8,135	5,340	--	--	--	5,340	2,795
Total	32,673	10,498	--	--	4,247	6,251	22,175
Lower Columbia and Inland Empire[2/]							
Clark	463	115	--	--	--	115	348
Cowlitz	5,088	3,637	--	--	620	3,017	1,451
Skamania, Stevens, and Wahkiakum[2/]	1,350	--	--	--	--	--	1,350
Total	6,901	3,752	--	--	620	3,132	3,149
Total, State	52,275	17,073	--	--	6,267	10,806	35,202

[1/] Used residues were not necessarily consumed in the economic area in which they were produced.

[2/] Combined to avoid disclosure.

Table 79.—Production by "other industries" in Washington by type of mill and area, 1970

Economic area	Shake and shingle	Export	Pole, post, and piling
	(Squares)	(M bd. ft., Scribner log rule)	
Puget Sound	577,136	588,822	26,498
Olympic Peninsula	1,324,070	944,473	13,668
Lower Columbia	239,635	163,885	6,352
Inland Empire	3,750	--	10,895
Total, State	2,144,591	1,697,180	57,413

Table 80.—Log scales used by timber industries in Washington by type of scale, area, and industry, 1970

(Number of reported uses)

Economic area and industry	Scribner		Other[1/]
	Long log	Short log	
Puget Sound			
Lumber	44	21	12
Veneer and plywood	8	--	1
Other	63	9	29
Total	115	30	42
Olympic Peninsula			
Lumber	44	16	4
Veneer and plywood	14	1	1
Other	97	7	41
Total	155	24	46
Lower Columbia			
Lumber	20	10	2
Veneer and plywood	9	1	1
Other	21	2	8
Total	50	13	11
Central Washington			
Lumber	6	10	1
Veneer and plywood	--	2	--
Other	--	--	--
Total	6	12	1
Inland Empire			
Lumber	9	25	--
Veneer and plywood	--	2	1
Other	2	--	3
Total	11	27	4
Total, State			
Lumber	123	82	19
Veneer and plywood	31	6	4
Other	183	18	81
Total	337	106	104

[1/] Cords, bolts, shake blocks, lineal feet, pieces, tons, cubic feet, units, and others.