

1982

WASHINGTON

MILL

SURVEY

WOOD CONSUMPTION AND MILL CHARACTERISTICS

WASHINGTON MILL SURVEY
SERIES REPORT NO. 8

DECEMBER 1983

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ACKNOWLEDGMENTS

We appreciate the support of the major forest industry associations and of individual mill owners and operators who provided data for this survey.

Gratitude is also expressed to Department of Natural Resources staff who helped make this report possible. Larry Jennings with the Data Processing Section greatly aided with computer systems support. Others included Rachael Burke, John Bergvall, Michael Dickter, Carol Lind and Cathy Rucker.

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FOREWORD

This report presents comprehensive statistics on wood consumption and the characteristics of primary wood processing mills¹ operating in the State of Washington during calendar year 1982. It documents the findings of the eighth biennial survey about mill characteristics, wood flows and the input of raw materials into the state's six wood-using industries:

- o Sawmills
- o Veneer and plywood mills
- o Pulp and board mills
- o Pole, post and piling Mills
- o Shake and shingle mills
- o Log export operations

The 1982 statistics were obtained from a mail survey with telephone followup conducted in 1983. Firms contacted were based on the most up-to-date mailing list compiled.

Since this survey was a 100 percent canvas, no sampling error is involved.

¹Mills that use roundwood or are the original firm to process the raw material.

However, in a few cases, some data had to be estimated based on extrapolations from previous reports. Log imports to Washington from British Columbia Crown lands are included in the out-of-state National Forest category. In total, this report provides the best and most reliable estimate of the status of wood-using industries in Washington as of 1982.

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

While not a major objective of the survey, production data were obtained to provide information on wood requirements for given levels of production and to generate residue volumes.

The text highlights some statistics presented in the tables. It also provides a summary of the 1982 timber economy as well as recent trend information.

It is expected that the residue, commodity production and wood consumption information will aid in tracking production and consumption trends.

ABBREVIATIONS

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BF = board feet

M = thousand

MBF = thousand board feet Scribner

MMBF = million board feet Scribner

SF = square feet

MSF = thousand square feet 3/8 inch basis

MMSF = million square feet 3/8 inch basis

Square = square feet

M sq. = thousand squares

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Table number cross index
(Between the eight Washington mill survey reports†)
report year and table number

1982, 1980 and 1978	1978	1974	1972 and 1970	1968	1982	1980 and 1978	1976	1974	1972 and 1970	1968
1	1	1	1	1†	41	41	42	41	39	38
2	2,26†,76†	2,25,74†	2,24,72†	2†,23,67†	42	42	43	42	40	37
3	3	3	3	3†	--	43	44	43	41	38
4	4	4	4	4	--	44	45	44	42	39
5	5	5	81	—	43	45	46	45	43	40
6	6	6,47,80,72	5,45,58,70	5,42,55,68	--	46	47	46	44	41
7	7,81,77†	7,70,59	6,68,57	64,54	--	47	48,49	48,49†	46,47†	43,44†
8	8,78†	8,75,74†	7,73,72†	6†,87†	--	48	50	50	48	45
9	9	9	8	7	44	49	51	51	49	46
10	10,60	69†,58	67†,56	63†,53	--	50	52	52	50	47
11	11	10	9	8	45	51	53	—	—	—
12	12	11	10	9	46	52	54	53	51	48
13	13	12	11	10	47	53	55	54	52	49
14	14	13	12	11	48	54	56	55	53	50†
15	15	14	13	12	49	55	57	56	54	51
16	16	15	14	13	50	56	58	—	—	—
17	17	16	15	14	51	57	59	57	55†	52†
18	18	17	16	15	52	58	62	61	59	56
19	19	18	17	16	53	59	63	62	60	—
20	20	19	18	17	54	60	64	63,64,67	61,62,65	57,58,61
21	21	20	19	18	55	61	65	65†	63†	59†
22	22	21	20	19	56	62	66	66	64	60
23	23	22	21	20	57	63	67	68	66	62
24	24	23	22	21	58	64	68	71†	69†	65†
25	25	24	23	22	59	65	69	78	76	69
26	27	26	25	24	60	66	70	79	77	70
27	28	27	26	25	61	67	71	80	78	71
28	29	28	28	26	62	68	72	81†	79†	—
29	30	29	27	27	63	69	73	63,64,67	61,62,65	57,61
30	31	30	29	28	64	70	74	66	64	60
31	32	31	31	29	65	71	75	65†	63†	59†
32	33	32	30	30	66	--	--	--	--	--
33	34	33	32	—	67	72	78	81	79	—
34	35	34	—	—	68	73	79	68†	66†	62†
35	36	35	—	—	69	74	80	66	64	60
36	37	36	34	31	70	75	81	—	—	—
37	38	37	35	32	71	76	82	73†	71†	68†
38	39	38	36	34	72	77	7†	70†	68†	64†
39	40	39	37	35	—	—	—	76	74	—
40	41	40	38	33	—	—	—	77	75	—
					—	—	—	82	80	72

†Base year 1980

‡Contains part of the same information

COMPARISON

1972 - 1974 - 1976 - 1978 - 1980 - 1982

This section graphically compares data developed from the 1972, 1974, 1976, 1978, 1980 and 1982 surveys.

Number of Mills Included in the Surveys*

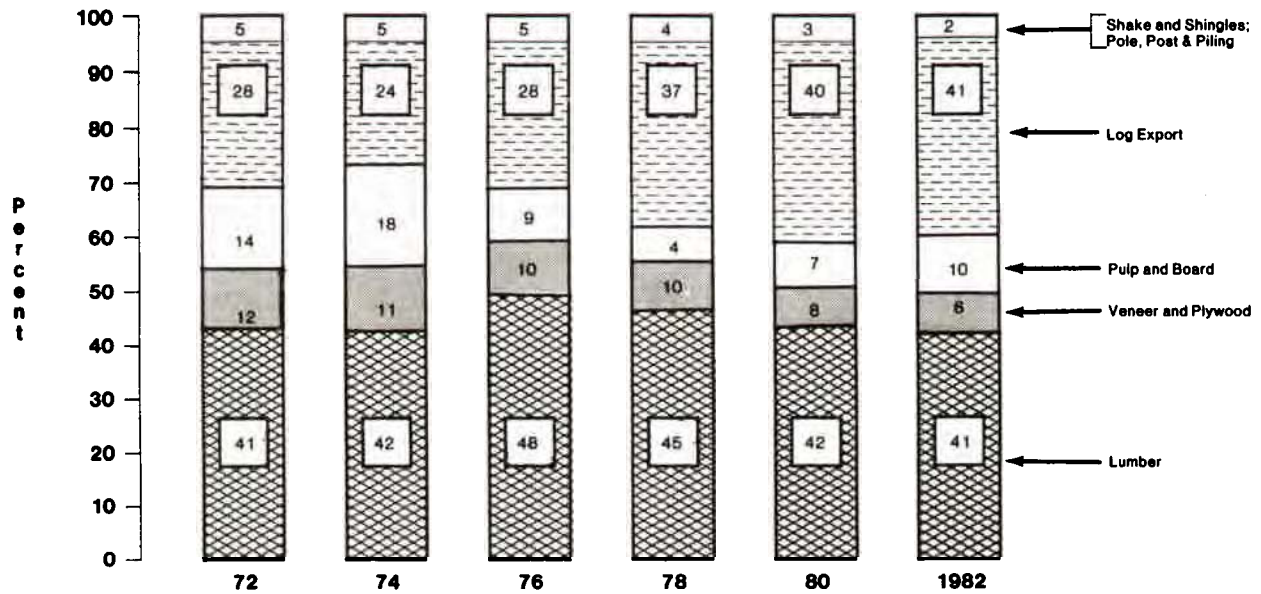
	1972	1974	1976	1978	1980	1982
Sawmills	177	187	175	182	208	169
Veneer and Plywood	41	37	36	36	34	27
Pulp and Board	26	25	26	26	23	21
Shake and Shingle	176	205	252	337	267	195
Pole, Post and Piling	25	23	22	23	21	13
Log Export	<u>96</u>	<u>90</u>	<u>81</u>	<u>160</u>	<u>134</u>	<u>124</u>
Totals	541	567	592	764	687	549

* Only primary wood processing mills that operated during the survey year are included.

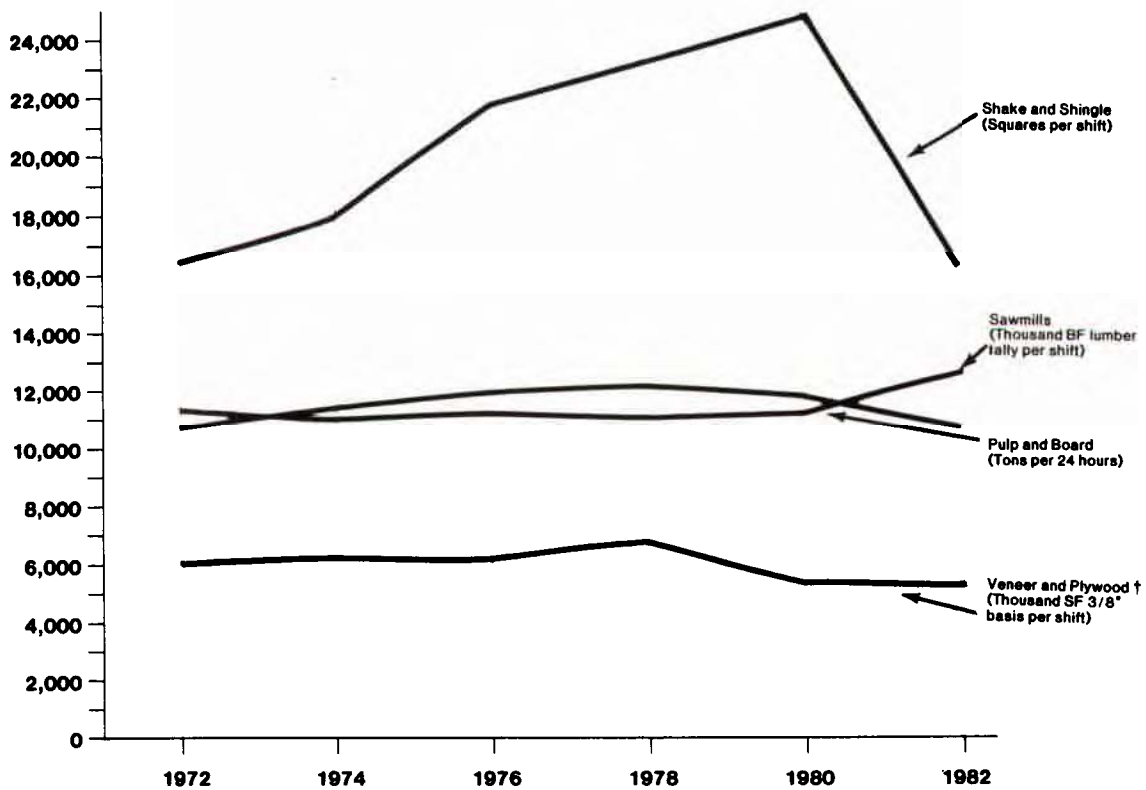
Trends

- o The total number of operations in the forest products industry decreased 20 percent from 1980 to 1982. The Pole, Post and Piling sector declined 38 percent; Shake and Shingle decreased 27 percent; Veneer and Plywood decreased 21 percent; and Sawmills decreased 19 percent. All sectors declined, but Pulp and Board and Log Export declined less than 10 percent.
- o The Lumber sector has shown a modest decline in roundwood consumption with a drop of 13 percent from 1980 to 1982.
- o The Log Export sector continued to account for an increasing share of total log consumption, expanding by one percent to 41 percent since 1980. Log Export is now the largest sector in terms of roundwood consumption. However, log export volume actually declined from 2.3 to 2.1 billion board feet Scribner from 1980 to 1982 which was an 8 percent decline.
- o Douglas fir accounted for 46 percent of the harvest volume in 1982, an increase of 5 percent from 1980. Douglas fir also expanded substantially as a portion of the Log Export sector's log consumption to 56 percent.
- o Those mills more than two-thirds dependent on a single ownership class for log supply decreased from 428 in 1980 to 346 in 1982. The total number of mills more than two-thirds dependent on public ownership decreased 23 percent; private ownerships had an 18 percent decrease. However, the percent of all operating mills more than two-thirds dependent on a single owner class increased slightly from 62 percent in 1980 to 63 percent in 1982.
- o The percent of wood and bark residues that are used continued to increase and in total reached 97 percent in 1982. The increase from 1980 was one percent. The Lumber sector increased use to slightly more than 98 percent. The Veneer and Plywood sector also had a use level slightly in excess of 98 percent. The Shake and Shingle Industry lags substantially, with the use of residues only at the 56 percent level.

Log consumption by type of industry (percent)



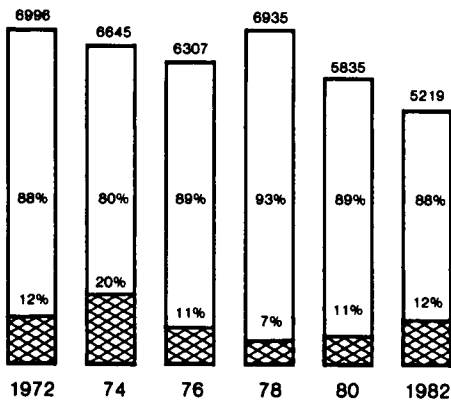
Installed shift capacity



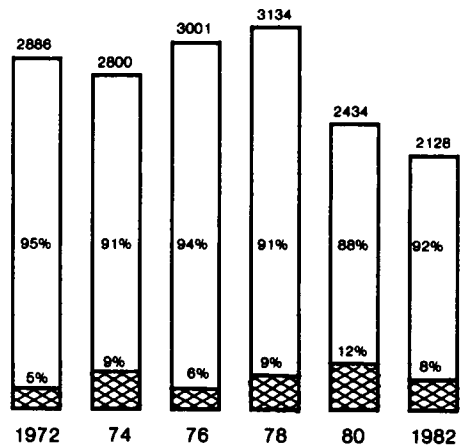
† Capacity excludes veneer capacity within a veneer and layup plant but includes layup and veneer-only, and layup-only operations.

**Roundwood consumption and percent utility logs by industry
(Million board feet Scribner)**

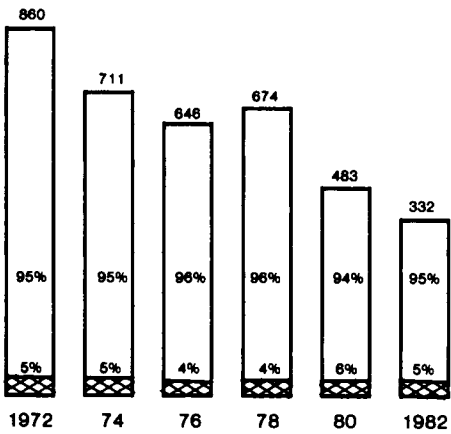
State Total



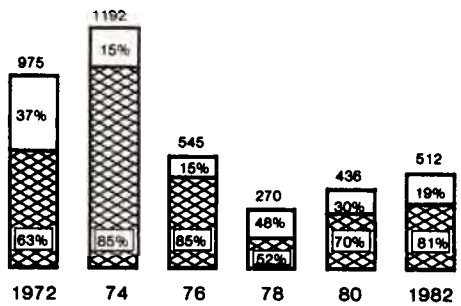
Lumber



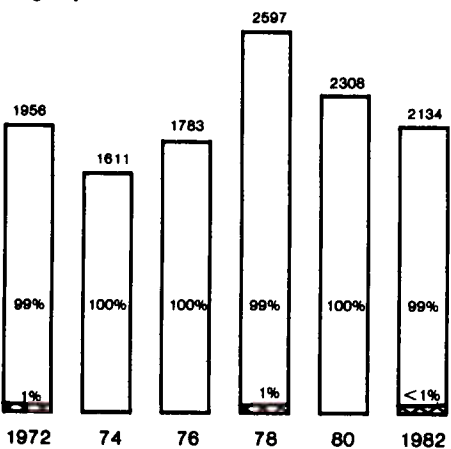
Veneer and Plywood



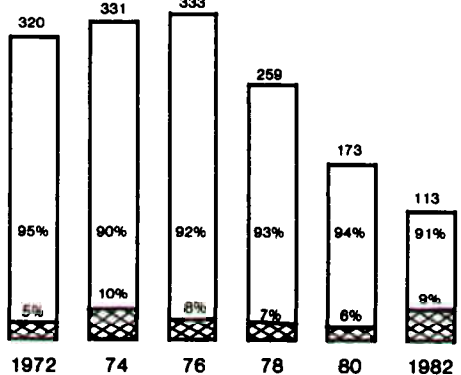
Pulp and Board



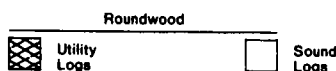
Log Export



Shake & Shingle; Pole, Post & Piling

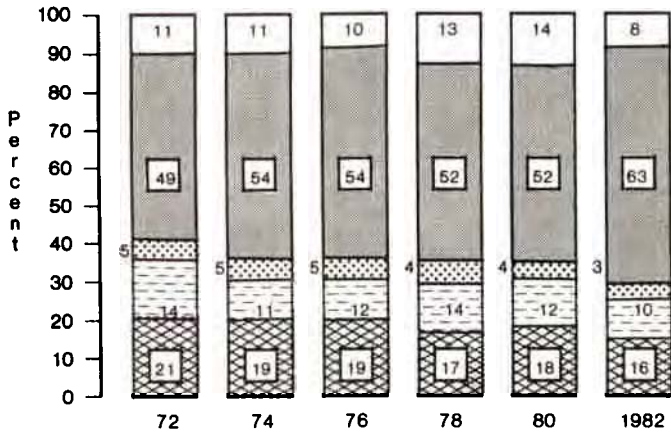


NOTE: Scale for height of bar is different for each industry. Hence visual comparison among the different industries is not valid.

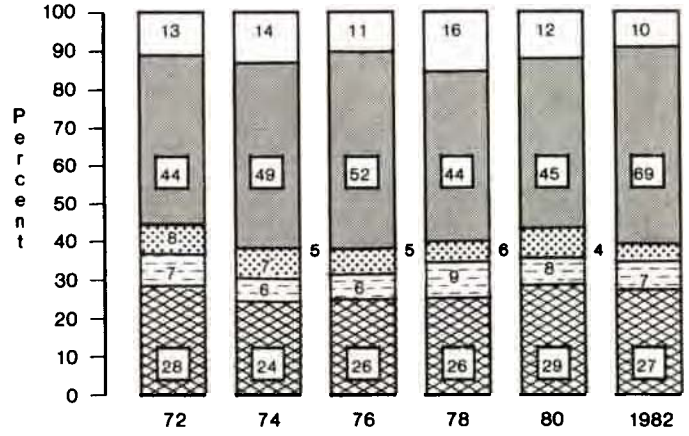


Log consumption by ownership class by industry (percent)

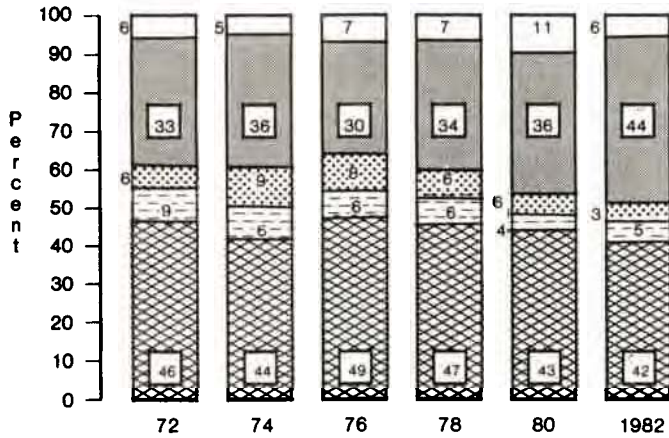
State Total



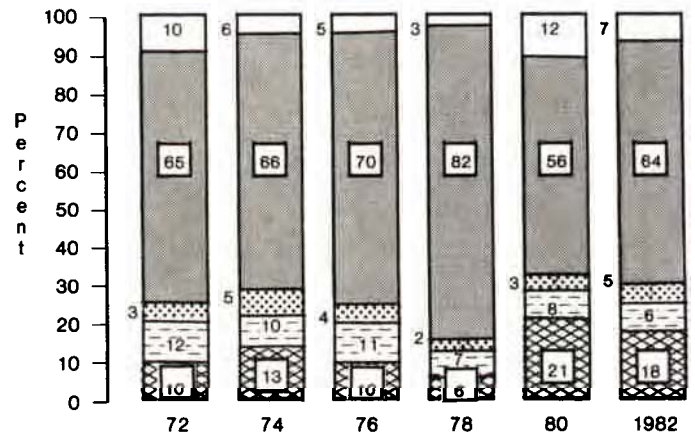
Lumber



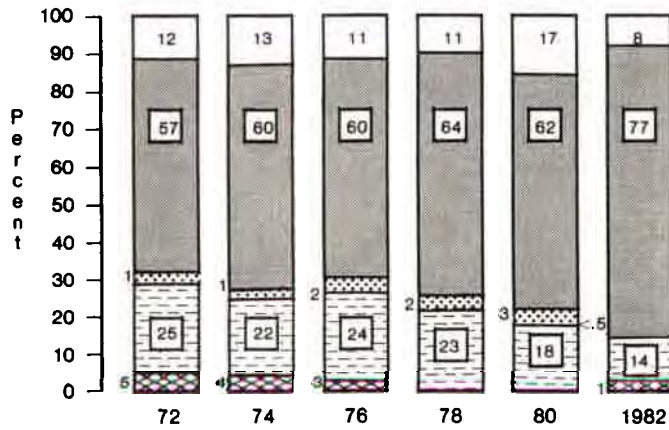
Veneer and Plywood



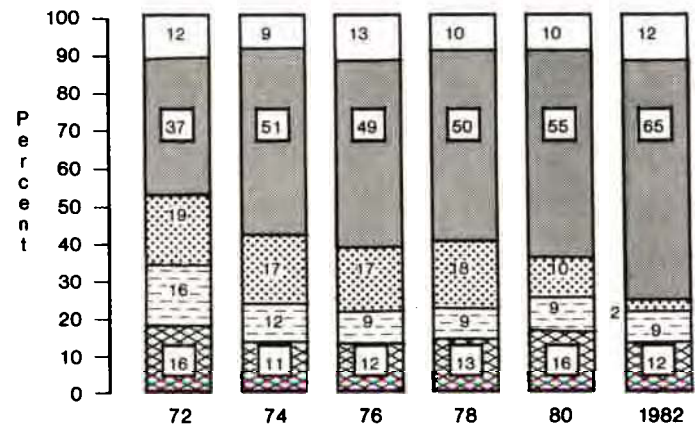
Pulp and Board



Log Export



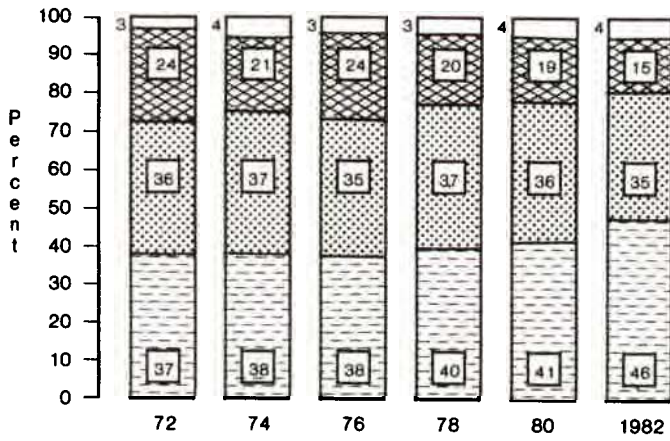
Shake & Shingle; Pole, Post & Piling



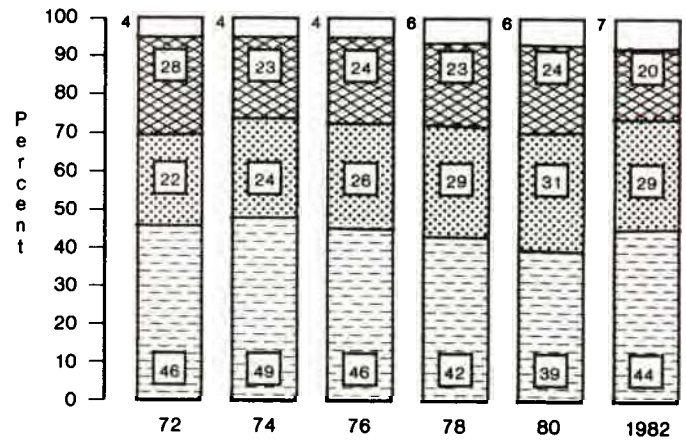
National Forest
 State
 Other Public
 Forest Industry
 Farmer and Misc. Private

Log consumption by species by industry (percent)

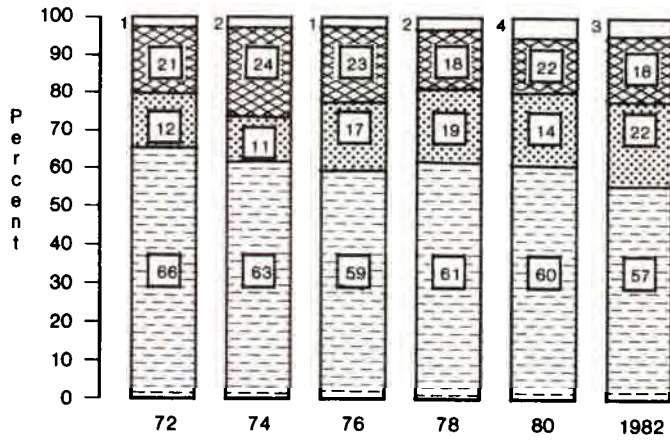
State Total



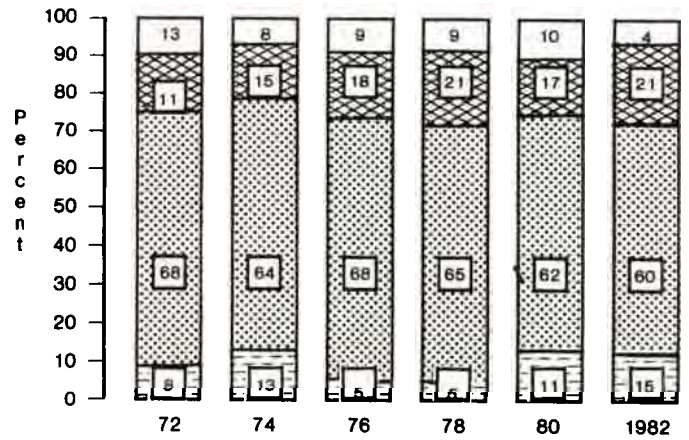
Lumber



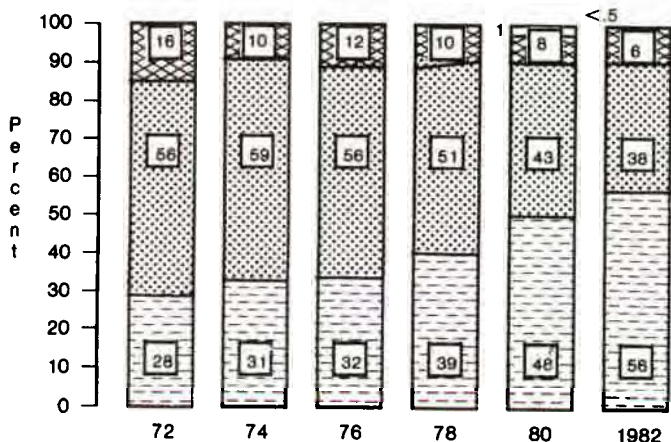
Veneer and Plywood



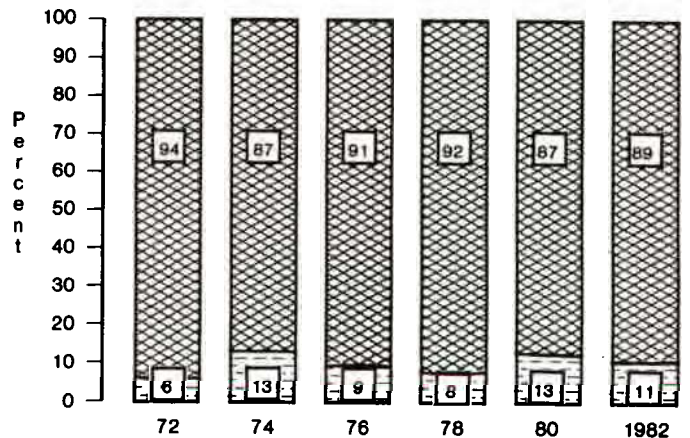
Pulp and Board



Log Export



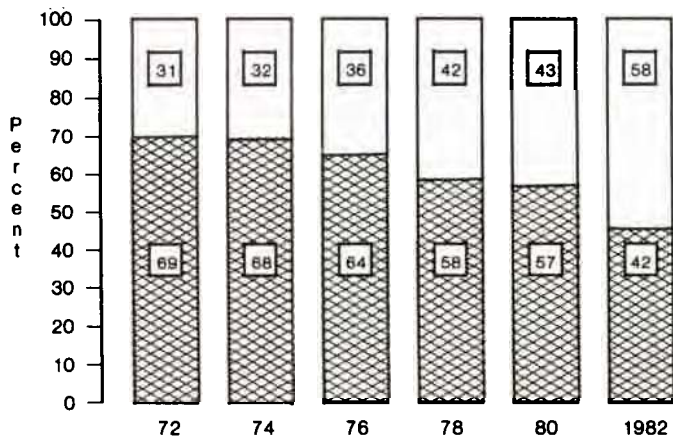
Shake & Shingle; Pole, Post & Piling



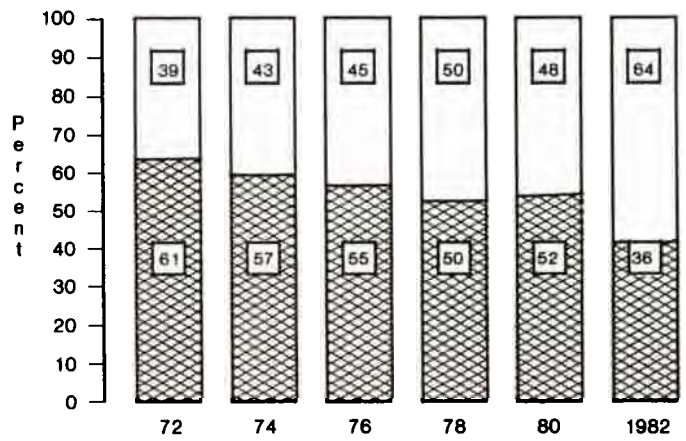
 Douglas Fir
  Hemlock
  Other Softwoods
  Hardwoods

Log consumption by timber age group by industry (percent)

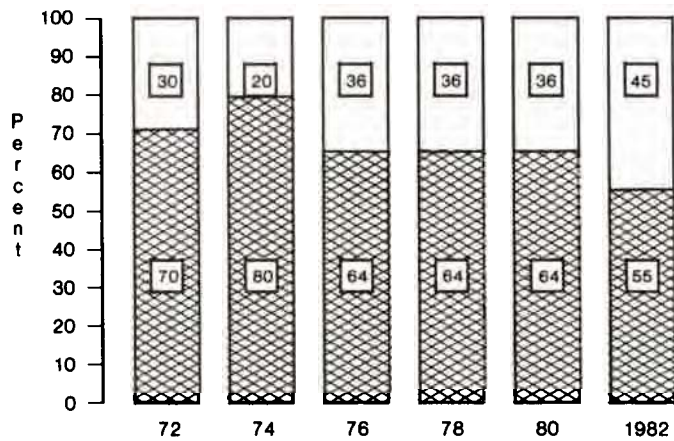
State Total



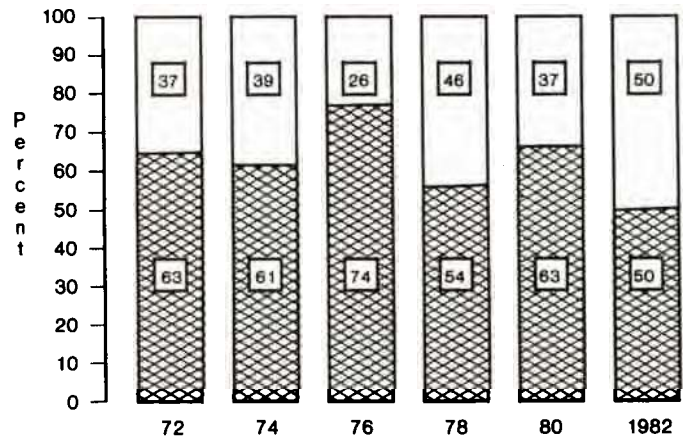
Lumber



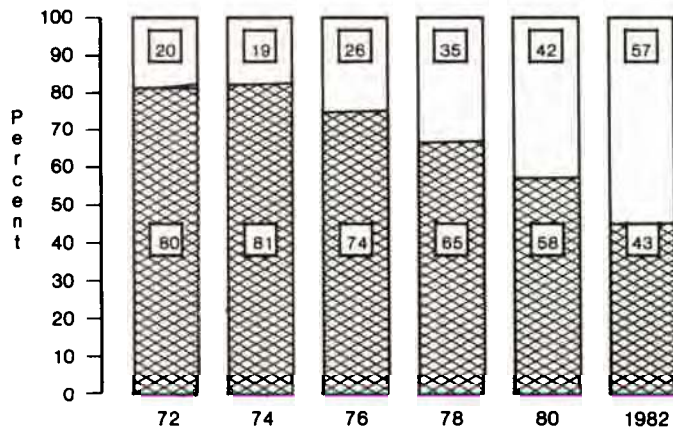
Veneer and Plywood



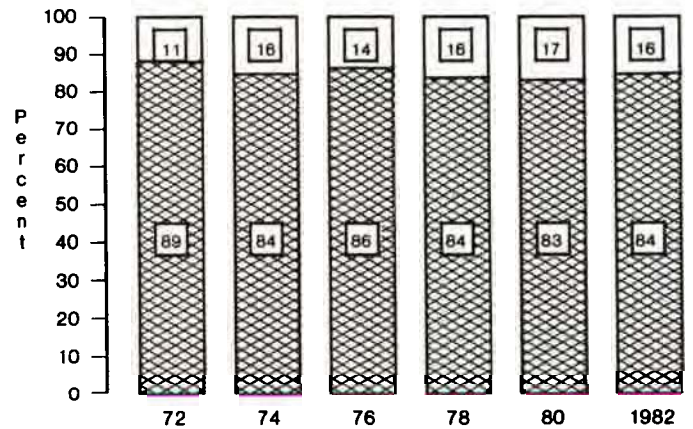
Pulp and Board




Log Export



Shake & Shingle; Pole, Post & Piling

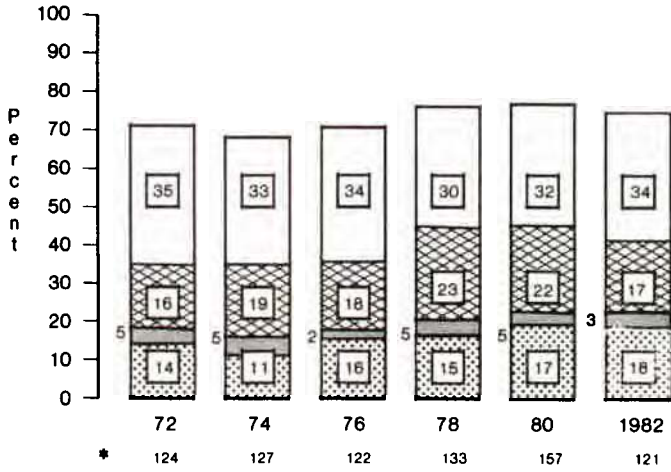


 Old Growth (100+ Years)

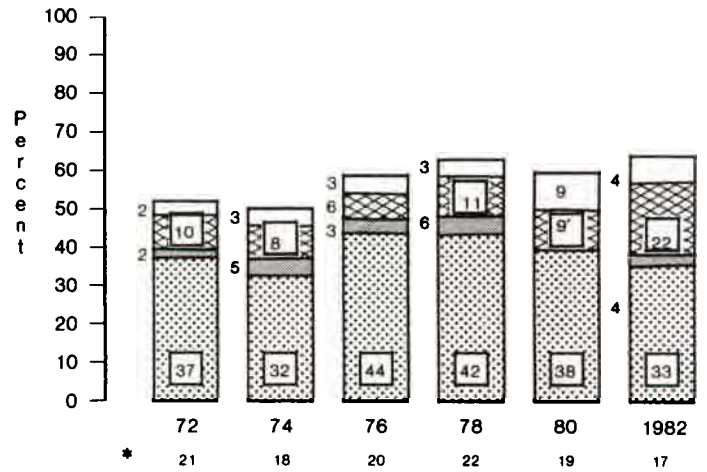
 Young Growth (Less Than 100 Years)

Number of mills and percent of mills more than two-thirds dependent on a single ownership class for logs by industry

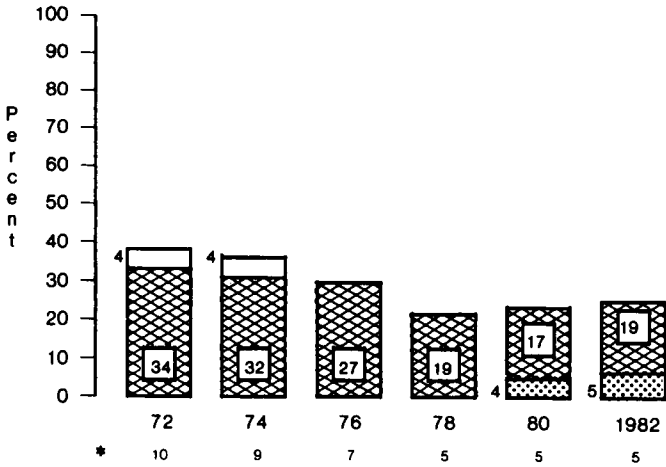
Lumber



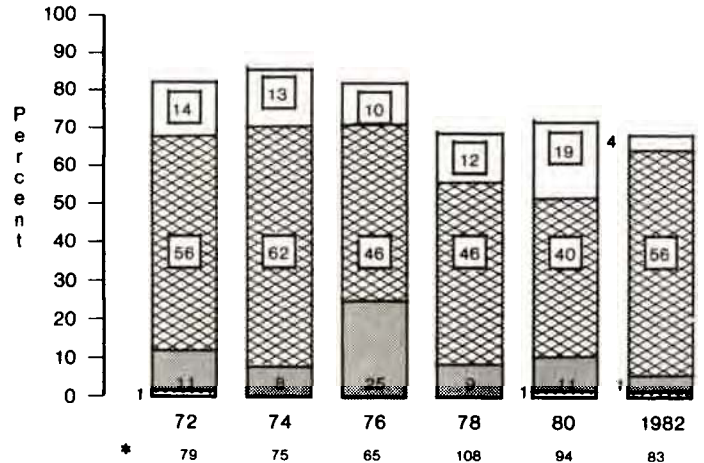
Veneer and Plywood



Pulp and Board

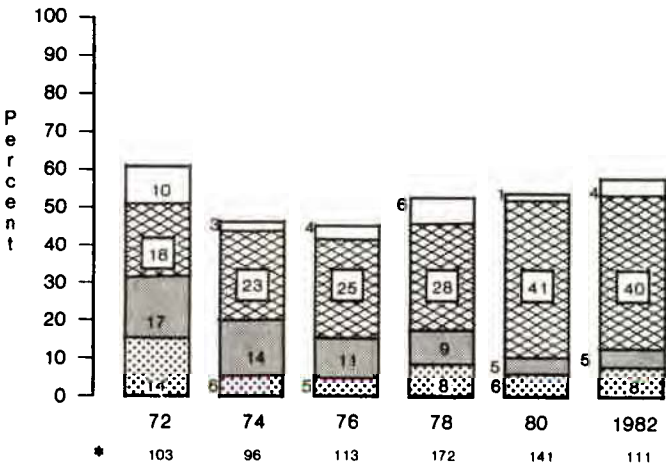


Log Export

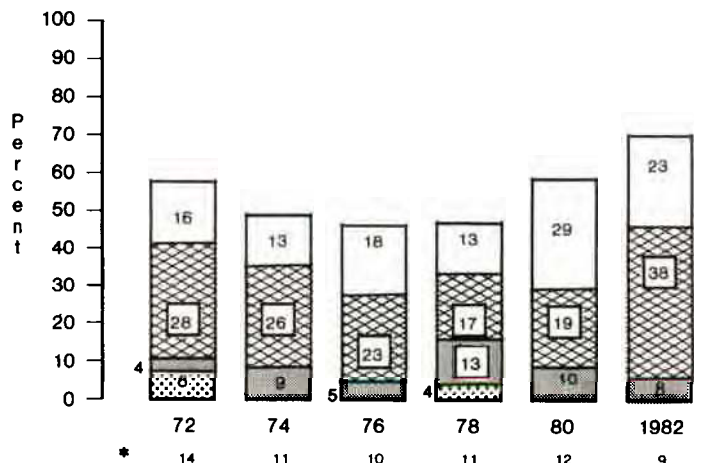


Comparable data not available for 1968 and 1970 surveys

Shake & Shingle



Pole, Post & Piling

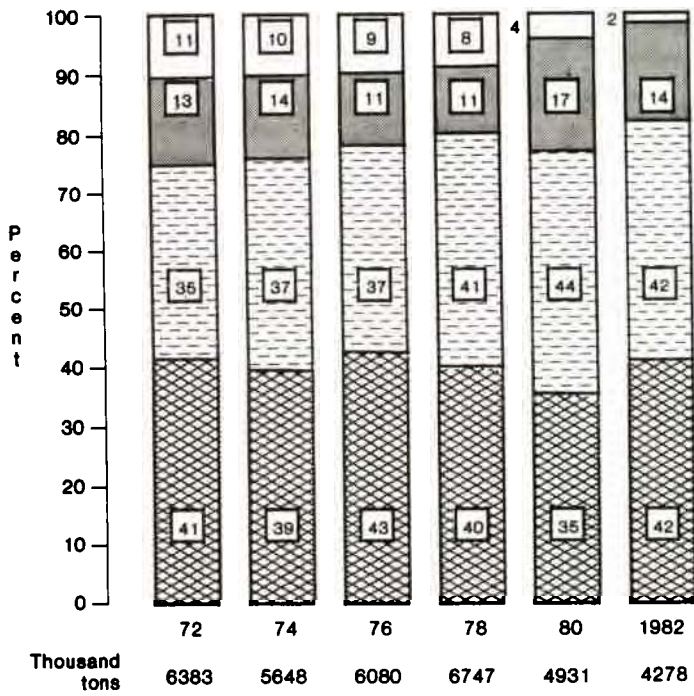


National Forest
 State and Other Public
 Forest Industry
 Farmer and Misc. Private

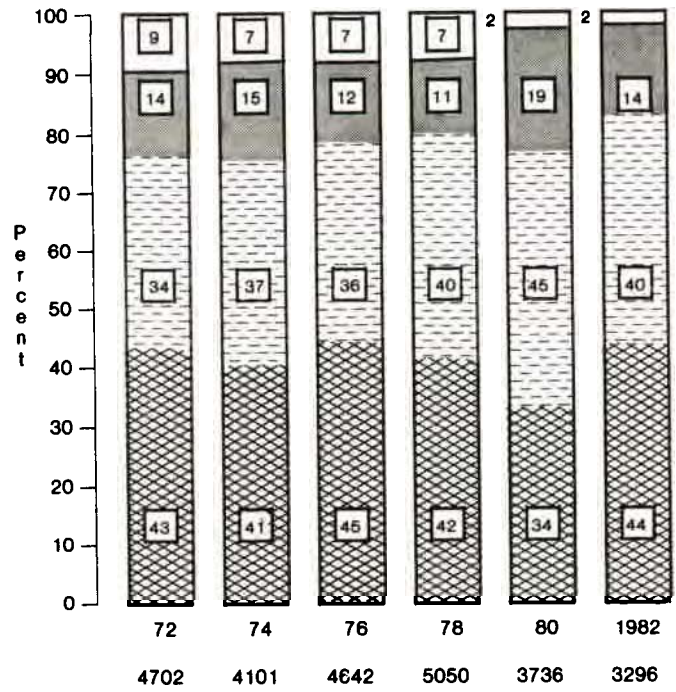
* Number of mills 2/3 dependent

Production and disposition of wood and bark residue by use and by industry (percent)

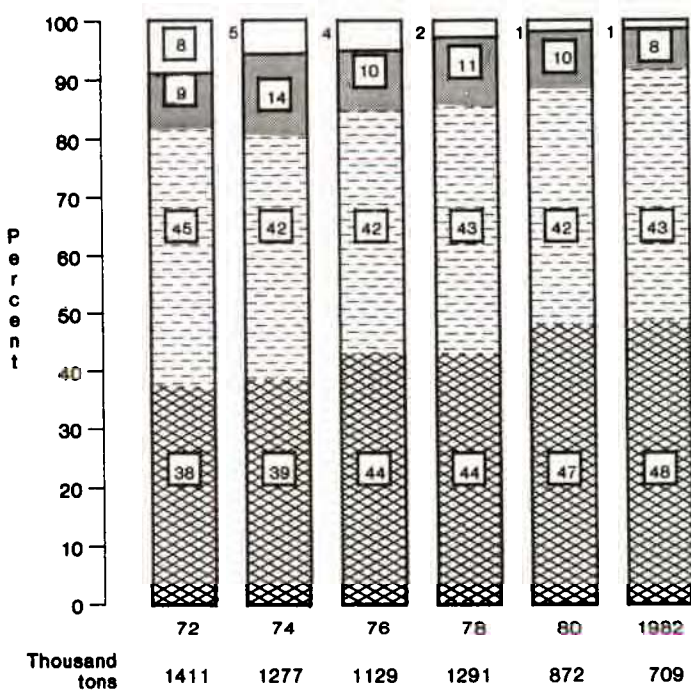
State Total



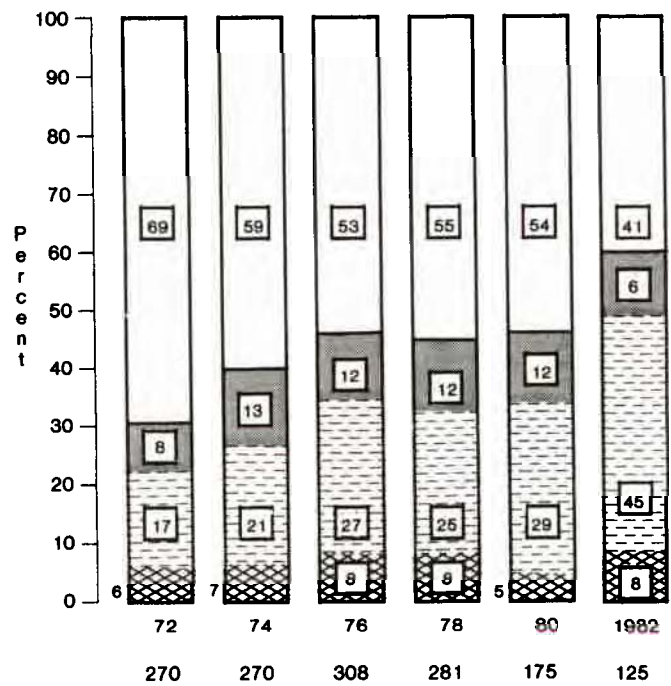
Lumber



Veneer and Plywood



Shake and Shingle



HIGHLIGHTS

Industry Characteristics

■ 549 mill† total:

Type of mill	Number of mills	Single shift capacity
Sawmills	169	10.9 MMBF
Veneer & Plywood	27	4.5 MMSF (% basis)
Pulp	21	12.3 M Tons (Daily)
Log Export	124	NA
Shake & Shingle	195	16.2 M Sq.
Pole, Post & Piling	13	54.9 MMBF (Peeling—yearly)

- o Grays Harbor County led with 102 operations.
- o The 42 largest sawmills (Class A) had 64 percent of the total sawmilling capacity.

Wood Consumption

- o 5.2 billion board feet of roundwood logs were consumed.
- o 31 million board feet (log scale) of peeler cores, cants, blocks, bolts and miscellaneous peeled products were consumed.
- o 5.5 million tons of chips, sawdust and shavings were consumed by the Pulp and Board Industry.

■ Leading counties in roundwood use were:

Cowlitz	1,051 MMBF
Snohomish	829 MMBF
Grays Harbor and Jefferson††	825 MMBF
Kitsap and Pierce††	722 MMBF

††Combined to avoid disclosure

†For presentation use 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.

More wood was consumed in each of these counties or county combinations than in the combined Central Washington and Inland Empire Economic Areas.

■ Roundwood use by industry:

Log export	41%
Sawmills	41%
Pulp & board	10%
Veneer & plywood	6%
Shake & shingle	2%
Pole, post & piling	<.5%

- o 84 percent of total wood used by Pulp and Board was in the form of chips, sawdust, shavings and wastepaper.
- o 88 percent of all log volume used was from sound timber.
- o 46 percent of roundwood volume was Douglas fir; 35 percent hemlock; and 5 percent western redcedar.
- o 5 percent of all log volume was imported; slightly less than 50 percent of this volume came from Oregon.
- o 63 percent of log volume came from forest-industry timberlands; 16 percent from National Forests; 10 percent from State.
- o 74 percent of National Forest log volume statewide came from combined harvests in the Gifford Pinchot, Olympic and Mt. Baker-Snoqualmie National Forests; 26 percent from Gifford Pinchot and 24 percent each from Olympic and Mt. Baker-Snoqualmie.

Residues

4.3 million tons of wood and bark residues were generated by:

<u>Type of mill</u>	<u>Percent</u>	<u>Million tons</u>
Sawmills	77	3.3
Veneer & Plywood	17	0.7
Shake & Shingle & Other	6	0.3

- o 75 percent of all residue was wood: 25 percent was bark. Ninety-seven percent of wood residues and 97 percent of the bark were used. There were 118,427 tons of wood and bark unused.
- o 56 percent of wood residue went to Pulp and Board; 30 percent to fuel; 11 percent other uses; 3 percent was unused.

AN OVERVIEW OF THE INDUSTRY

THE TIMBER ECONOMY

The Washington forest products industry was staggered in 1980 by a severe national slump in housing construction, primarily because of high interest rates. The housing slump continued on into 1981 and then a national recession began in July. This recession continued for 16 months until November, 1982 and then the economy began to slowly expand. The "early '80s recession" matched in duration the long recession of the mid-1970s, and these two recessions rank as the longest of the eight recessions in the post-World War II era. During 1982, real Gross National Product in the United States actually declined 1.9 percent.

Washington continues to rank high in the Wood Products sector, producing 8.5 percent of the roundwood and 13.8 percent of the softwood lumber in the nation. The state also produced 7.1 percent of the plywood production and accounted for 75 percent of the softwood log exports nationally.

National housing starts were only 1,062,200 in 1982, a 36-year low. Comparing the housing situation in Washington with the nation shows a much more severe reduction in the state than for the nation. Housing starts nationally declined by 39 percent from 1979 to 1982; in Washington state they declined 66 percent.

YEAR	HOUSING STARTS	
	National (Millions)	Washington (Thousands)
1979	1.74	50.6
1980	1.32	32.8
1981	1.10	24.3
1982	1.06	17.3

Changes from 1980 to 1982 were:¹

- o Plywood production down 12.5 percent to 1.2 billion square feet, 3/8-inch basis.
- o Softwood lumber production down 5 percent to 3 billion board feet.
- o Log export volume down very slightly. However, 1981 had a dip of about 25 percent below the 1980 shipment volume. The Chinese entered the market in strong fashion in 1982 to provide the rebound.
- o Chip export volume down 10 percent to 388 thousand tons.

Washington's total timber harvest (Figure 1) for 1982 was 5.1 billion board feet, up slightly from the 1981 level, but 11 percent below the 1980 harvest. The harvest for 1982 is at a level similar to that of 20 years earlier. To add further perspective, the peak year for timber harvest was 1973 with 7.8 billion board feet removed.

Total wood used by Washington mills is shown in Figure 2. In developing this graph final units of production were converted to log equivalents, Scribner scale. Pulp and Board residue volume consumed does not represent additional timber harvest but is the use of by-products primarily from the Lumber and Veneer and Plywood sectors. The Pole, Post and Piling sector is not shown due to graphics limitations, consuming only 17 million board feet (a fraction of 1 percent of all roundwood consumed). However, it produces high value specialty products and deserves to be recognized.

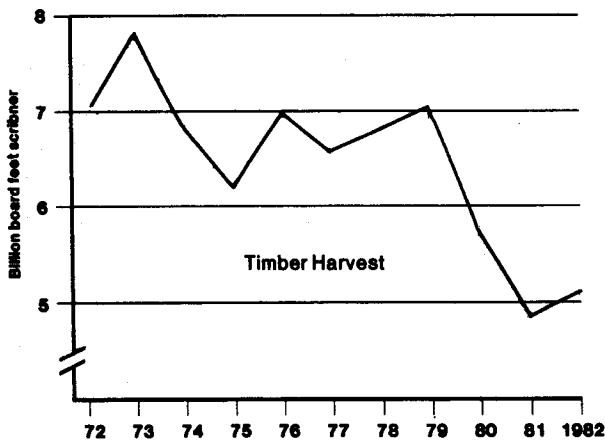
¹Production figures beyond Figure 2 are based on mill survey results.

Employment² in lumber and wood products (SIC 24) reflects the sagging economy, dropping 16 percent from 1980 to 39,000 in 1982. Employment in paper and allied products (SIC 26) also declined, but only 8 percent from 1980 to 16,200 in 1982. These data compare with national employment declines of 10.2 percent for lumber and wood products and 4.8 percent for paper and allied products. What these numbers show is a more severe contraction of the forest products industry in the State

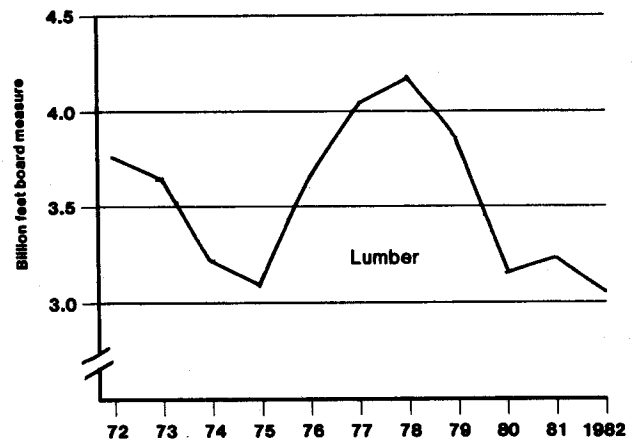
of Washington relative to the national average during the period 1980-1982.

²Employment and wage data were reported to the State of Washington Department of Employment Security in quarterly tax reports, subject to the Washington Employment Security Act. Timber industry employment (SIC 24 and 26) did not include some workers, such as longshore workers and truckers, whose employment was not entirely attributable to the timber industry.

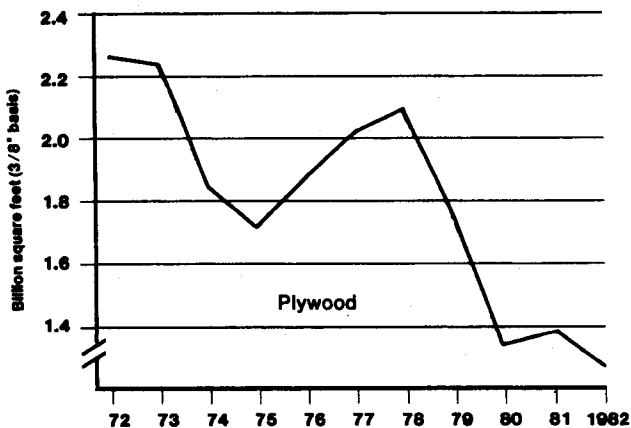
Figure 1 Output of major timber products for Washington, 1972-1982



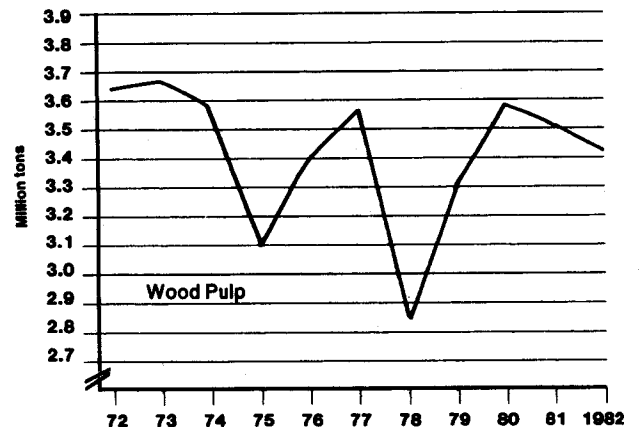
Source: State of Washington
Department of Natural Resources



Source: Western Wood Products Association



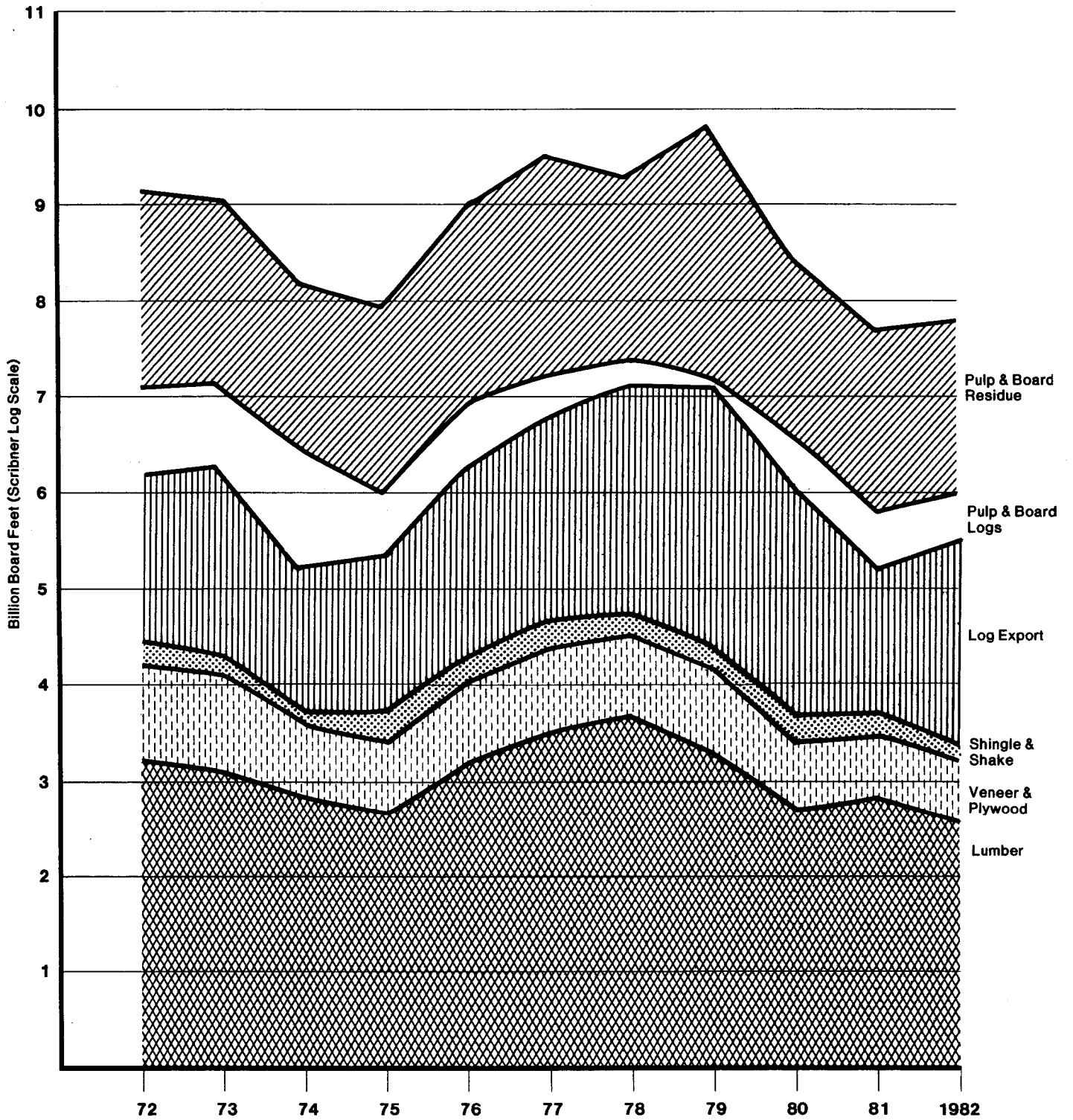
Source: American Plywood Association



Source: Northwest Pulp & Paper Association
Current Industrial Reports
(Pulp, Paper and Board—M26A)

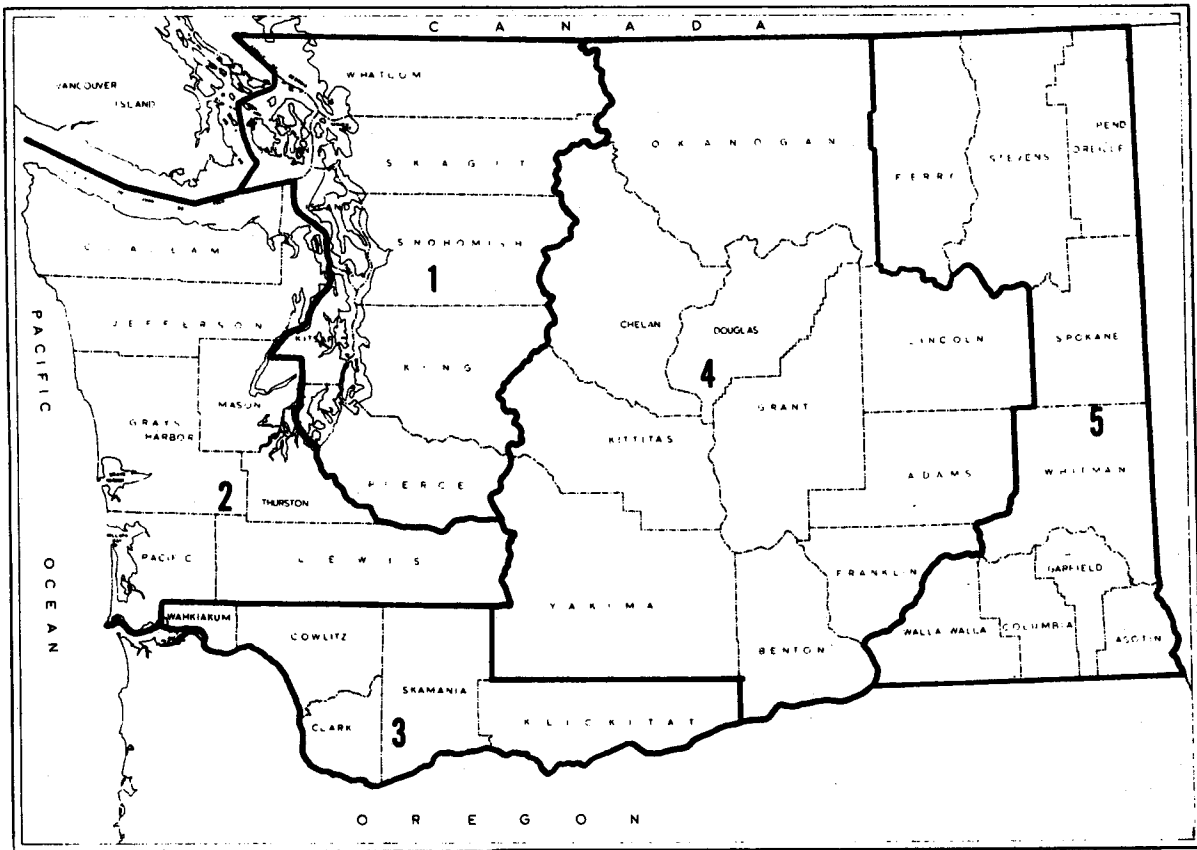
Note: 1982 estimated

**Figure 2 Washington wood use by major forest industries, 1972-1982†
(Converted to log equivalent of final product)**



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

Figure 3 Washington mill survey five economic areas encompassing the thirty-nine counties



The five Economic Areas used in this report to show regional consumption of wood and regional production of wood products are:

1. Puget Sound
2. Olympic Peninsula
3. Lower Columbia
4. Central Washington
5. Inland Empire

INDUSTRY CHARACTERISTICS

The industry is divided into six segments for purposes of description in this report: Lumber; Veneer and Plywood;³ Pulp and Board; Log Ex-

port; Shake and Shingle; and Pole, Post and Piling. Where individual industry data were sufficient to avoid disclosure of confidential information, each industry sector was described separately. When fewer than three operations existed in a county, two or more counties were combined to present industry information. Also, the data are presented for each of the five Economic Areas delineated in Figure 3. In all

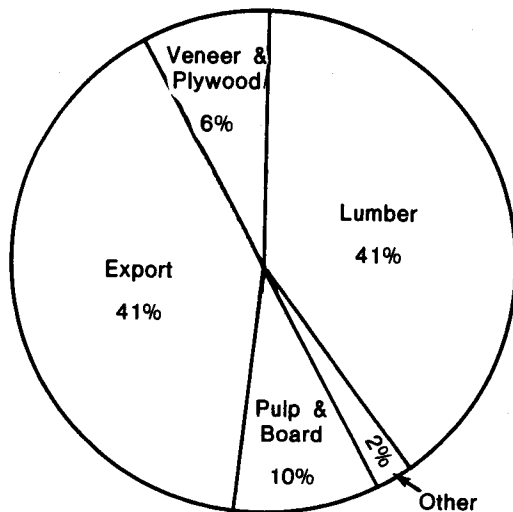
³The Veneer and Plywood Industry consists mainly of mills producing softwood veneer and plywood. However, a few of these mills do use small volumes of local hardwoods.

cases, data are provided at the most detailed level feasible without disclosing proprietary information. Wherever feasible, these groupings have remained the same as those used in previous surveys to allow comparison. Comparison between industry sectors and Economic Areas can be made by using Tables 1 through 10 in the Appendix.

WOOD CONSUMPTION

During 1982, Washington's primary forest products industries consumed about 5.2 billion board feet of logs⁴, 31 million board feet of other wood and 5.5 million tons of chips and wood residue. Sound logs comprised 88 percent of the total roundwood. Export accounted for 46 percent of sound log-use while sawmills consumed 43 percent. Utility and cull logs account for 12 percent of total roundwood with the Pulp and Board Industry consuming 67 percent of these materials. Figure 4 illustrates the total log consumption by industry sector.

Figure 4 Log consumption by type of industry



The 5.5 million tons of chips and residues consumed by the Pulp and Board Industry consisted of mill re-

sidues and material from roundwood chipping plants as well as other fiber residues. This volume is equivalent to 2.8 billion board feet of roundwood logs. Thus, total wood consumption by the forest products industry can be expressed as the equivalent of 8.0 billion board feet (Scribner) for 1982. However, most of the chips were by-products from manufacturing operations.

The forest products industries relied on a number of ownerships for their log supplies. Yet over 60 percent of industry consumption (including log export) was met from forest industry lands. This is interesting in light of the fact that forest industry only owns 26 percent of the commercial forest lands in the state. It reflects in part the bidding for stumpage on public lands in 1979 and 1980. Owners of overbid sales found that it was not economical to log and some chose not to harvest these sales when the recession occurred.

Ownership	Log supply (Percent)
State	10
National Forest	16
Bureau of Land Management	†
<u>Other public</u>	<u>2</u>
Total public	28
Forest Industry	{ Own wood supply 24
	{ Other wood supply 40
<u>Farmer & Misc. private</u>	<u>8</u>
Total private	72
All owners	100

†Less than 0.5 percent.

⁴Scribner 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.

Log flows came from the following National Forests:

<u>National Forest</u>	<u>National Forest log flow</u>
	(Percent)
Gifford Pinchot	26
Olympic	24
Mt. Baker—Snoqualmie	24
Wenatchee	13
Okanogan	5
Colville	3
<u>Other</u>	<u>5</u>
All National Forests	100

Dependence for timber supply by ownership class is expressed by summing individual mills that obtain more than two-thirds of their logs from a single ownership class. Percents are taken as a share of 549 mills in the state.

<u>Ownership</u>	<u>Mills Over two-thirds dependent</u>	
	(Number)	(Percent)
State	44	8.0
National Forest	30	5.5
Bureau of Land Management	—	—
<u>Other public</u>	<u>8</u>	<u>1.5</u>
Total public	82	15.0
Forest { Own wood supply	29	5.3
Industry { Other wood supply	162	29.5
<u>Farmer & Misc. private</u>	<u>73</u>	<u>13.3</u>
Total private	264	48.1
All owners	346	63.1

At the state level, Douglas fir (46 percent) and hemlock⁵ (35 percent)

⁵Western hemlock and mountain hemlock have been combined under the generic designation of hemlock in this report.

were the dominant species consumed by the industry during 1982. In Western Washington the three major species (in order of importance) were Douglas fir, hemlock and western redcedar. Douglas fir and Ponderosa pine were the major species in Eastern Washington.

Most segments of the industry use several species; however, two sectors tend to be species-specific. The Pole, Post and Piling Industry is 70 percent dependent on Douglas fir. The Shake and Shingle Industry is almost exclusively dependent on western redcedar.

Washington supplied 95 percent of the industry's log consumption. Oregon contributed 2.5 percent, with most (81 percent of this volume being consumed in the Lower Columbia Area⁶).

RESIDUES

Production

The Sawmill; Veneer and Plywood; Shake and Shingle; Pole, Post and Piling; and Export segments of the industry generated 4.3 million tons of wood and bark residues in 1982. Of this amount, the Sawmill, and Veneer and Plywood sectors provided 94 percent of the total and of their share, 98 percent was utilized.

Of all residues produced, 97 percent was used. The Pulp and Board Industry took 1.8 million tons (42 percent) while fuel use accounted for nearly 1.8 million tons (42 percent) of all residues.

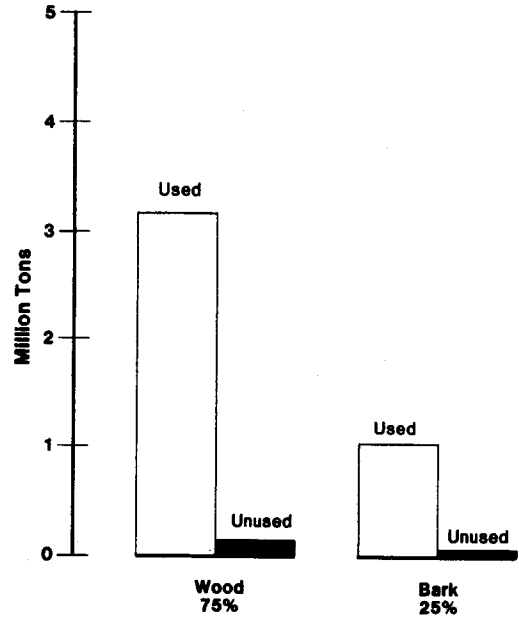
Utilization

A significant achievement of the forest products industry has been the relatively high use of wood residues. Only 3 percent was unused in 1982.

⁶Although Klickitat County lies east of the Cascade Range, it has been included in the Lower Columbia Area and is considered part of Western Washington for report purposes.

Wood residue disposition	Percent
Pulp & Board	56
Fuel	30
Other uses	11
Unused	3
All wood residue	100

Figure 5 Relative and absolute residue volume



1982 SUMMARY

LUMBER INDUSTRY

MILL CHARACTERISTICS

Primary Operations

Only sawmills that were primary processors of roundwood were included in this survey. However, data on nonroundwood consumed by these mills (peeler cores and cants) were also gathered and included (Table 18).

Size-Class

There were 169 sawmills operating in 1982. They are classified by size-class based on the maximum production for a single 8-hour shift.

Mill size-class	Capacity per single 8-hour shift (MBF Lumber Tally)
A	120+
B	80-119
C	40-79
D	less than 40

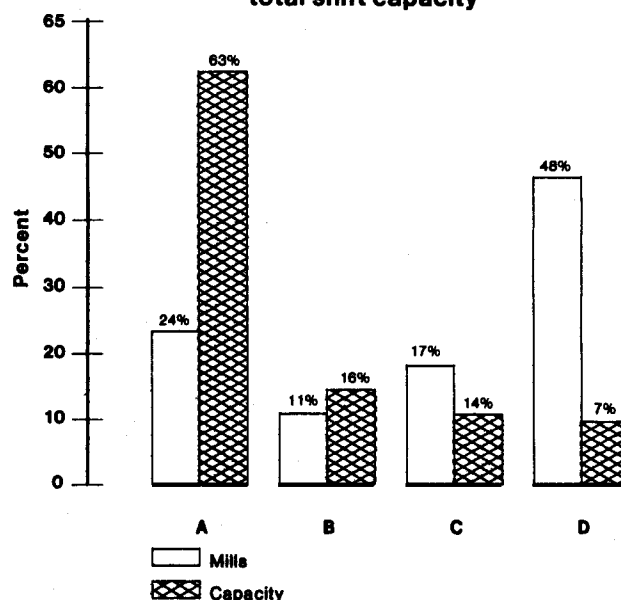
The 169 sawmills operating in 1982 represent a decrease of 39 from the mills reported in 1980. The distribution of all mills by economic area, county and mill size-class is provided in Table 11. Since 1970, Snohomish County has had the most mills and continues to dominate with 21 mills. Clallam County follows with 14. Among the five Economic Areas, the Puget Sound Area leads with 55 mills. The Olympic Peninsula is second with 53 mills. State-wide the number of mills has decreased since 1980, as has the single shift capacity to 10,931 MBF representing an 8 percent decline.

Production Capacity

The number of Class D capacity mills decreased by 35 and mill capacity declined by 36 percent since 1980. Class C mills again declined with the loss of one mill, a 3 percent decline, while capacity increased 4

percent. Class B mills decreased by 6 and mill capacity declined 19 percent. Class A mills increased by 3 to 42 mills while mill capacity increased 1 percent.

Figure 6 Percent of sawmills by size-class and percent of total shift capacity



Equipment

Planers, barkers and chippers were used by more than half the sawmills during 1982 (Table 13). Only 5 percent of the mills had burners, while 37 percent operated kilns. The percent of mills having varied equipment is shown below:

Equipment	Mill size-class				
	A	B	C	D	All
	(Percent)				
Planer	81	89	82	28	57
Chipper	93	100	93	15	56
Barker	98	94	100	7	54
Kiln	67	78	39	9	36
Burner	2	0	14	5	5

Information on size and type of headrig is presented in Table 15. Circular saws are most numerous with 84. However, 83 band saws account for 75 percent of lumber produced by type of headrig (Table 35). The 19 chipping saws were next with 15 per-

cent, followed by circular saws with 5 percent and scragg saws with 4 percent. Band saws accounted for 71 percent of Class A production, 78 percent of Class B, 89 percent of Class C, and 38 percent of Class D (Table 34).

Site and Ownership Tenure

Site and ownership tenure by mill size-class are cross-tabulated in Table 16. The data shows that size-class D mills have shorter site occupancy than larger mills. This is partially because some size-class D mills are portable and moved from site to site.

Mill size-class	Over 10 Years	
	Under present ownership	At present site
	(Percent)	
A	57	86
B	56	83
C	48	70
D	46	50
All mills	50	66

Operating Days

The normal 5-day work week results in about 250 potential operating days per year. In 1982, the average ranged from a low of 61 days for size-class D mills in the Inland Empire to a high of 223 days for size-class C in the Lower Columbia Area (Table 17).

Mill size-class	Average days of operation 1982	Percent increase/decrease from 1980
A	186	-11
B	197	-12
C	185	-11
D	113	+2
All mills	153	-2

WOOD CONSUMPTION

Raw Materials

This survey only includes mills that consume roundwood logs. Resaw and planing mills were not included. However, 6.6 million board feet of wood consumed by the mills surveyed were not in log form but were either from peeler cores or cants. Ninety-two percent of the logs consumed were sound and 8 percent were utility grade (Table 18).

Roundwood Age

Nearly two-thirds of logs consumed by sawmills during 1982 were classified young growth timber (less than 100 years old). This is a continuation of the trend to young growth which was interrupted because of timber salvage following the 1980 volcanic eruption of Mount St. Helens.

Economic Area	Mill size-class†			
	A	B&C	D	All mills
	(Young growth percent)			
Puget Sound	68	87	79	72
Olympia Peninsula	61	83	49	66
Lower Columbia	†	59†	45	59
Central Washington	39	71†	41†	54
Inland Empire	†	59†	69	59
Total state	62†	67†	58†	64

†Refer to Table 19 for size-class combinations.

Consumption by timber age, Economic Area, county and mill size-class is provided in Tables 19 and 20.

The data shows the consumption of young growth in the Lower Columbia and Central Washington Areas has risen substantially since the 1980 Survey. This is because the timber salvage following the Mount St. Helens' eruption had been essentially completed by 1982.

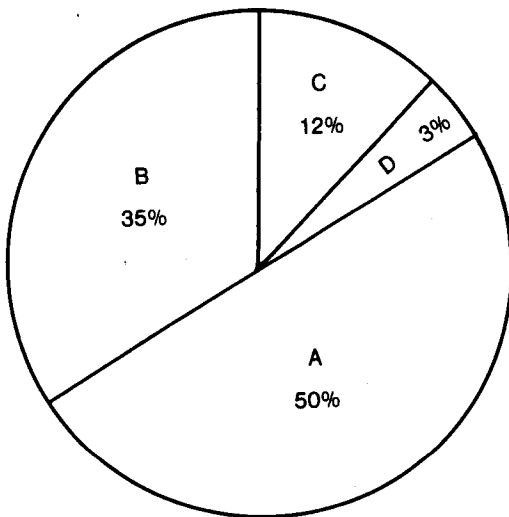
Ownership

Sawmills relied on public timberlands for 38 percent of their logs (Table 22).

<u>Ownership</u>	<u>Log supply</u> (Percent)
State	7
National Forest	27
Bureau of Land Management	†
Other public	4
<u>Total public</u>	<u>38</u>
Forest Industry	{ Own wood supply 40
	{ Other wood supply 12
Farmer & Misc. private	10
<u>Total private</u>	<u>62</u>
All owners	100

†Less than 0.5 percent

Figure 7 Sawmill log consumption by mill size-class (Table 18)



A breakdown of ownership sources by mill size-class shows size-class A mills were more dependent on public timber.

<u>Mill size-class†</u>	<u>Forest industry</u>		<u>All public</u>
	<u>Own wood supply</u>	<u>Other wood supply</u>	
	(Percent)		
A	43	7	44
B	41	14	34
C	35	25	24
D	2	35	32
<u>All mills</u>	<u>40</u>	<u>12</u>	<u>38</u>

†Refer to Table 22 for size-class combinations

Public timberlands supplied Central Washington, Inland Empire and Olympic Peninsula Area sawmills with 70, 35 and 44 percent of their logs, respectively (Table 22). Comparable figures for Puget Sound and Lower Columbia Area Mills are 33 and 21 percent.

Ninety-three percent of sawmills more than two-thirds dependent on Farmer and Miscellaneous Private ownership are size-class D mills. Dependency data are useful in evaluating the effects of timber supply policies on the industry (Table 24).

<u>Ownership</u>	<u>Mills more than two-thirds dependent on a single type of ownership</u> (Percent)
State	18
National Forest	2
Bureau of Land Management	—
Other public	1
<u>Total public</u>	<u>21</u>
Forest Industry	{ Own wood supply 11
	{ Other wood supply 7
Farmer & Misc. private	34
<u>Total private</u>	<u>52</u>
All owners	73

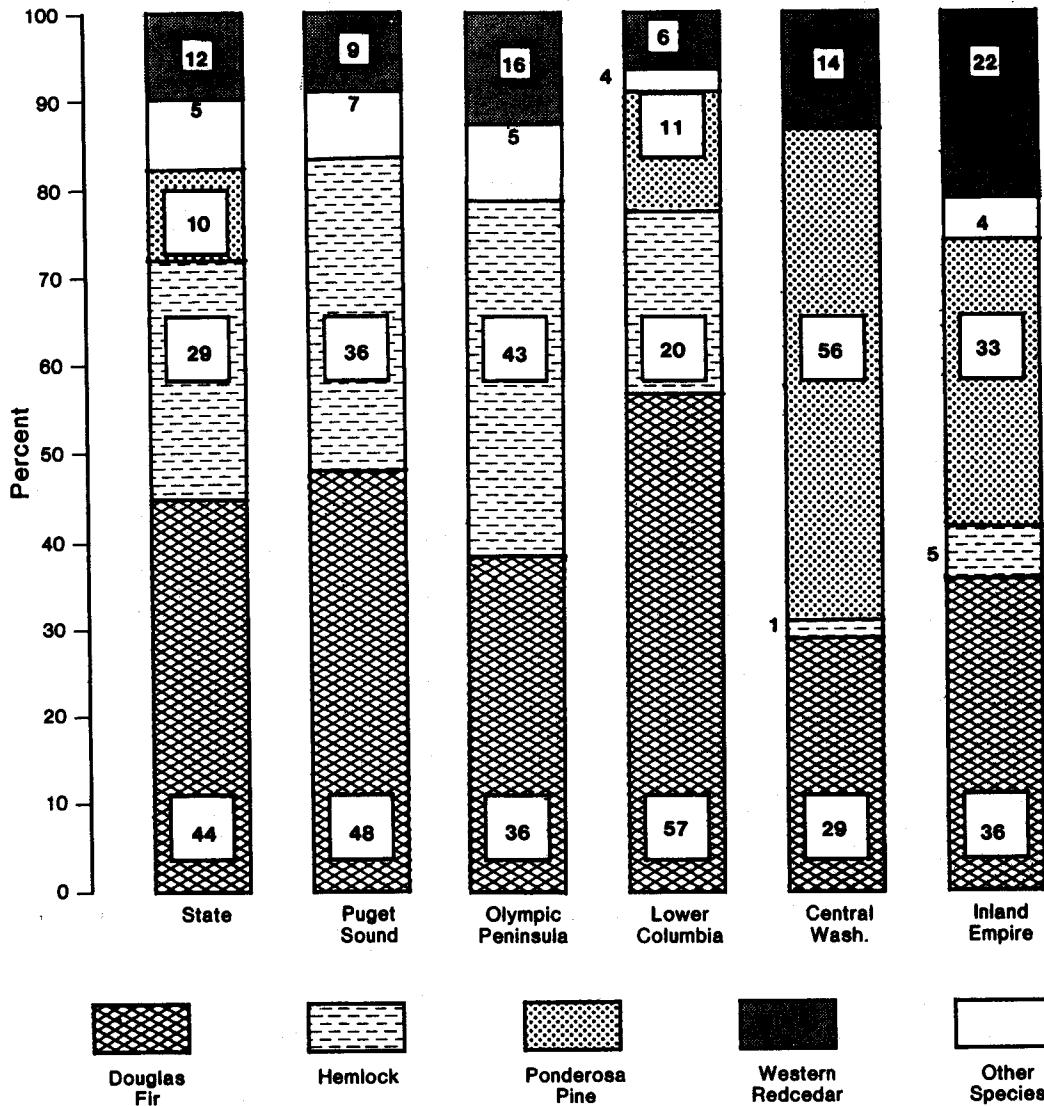
Species

During 1982 sawmills used 44 percent Douglas fir logs and 29 percent hemlock logs (Table 25). Figure 8 illustrates species variation by Economic Area.

The two leading species consumed in each Economic Area were:

- Puget Sound - Douglas fir, hemlock
- Olympic - hemlock, Douglas fir
- Lower Columbia - Douglas fir, hemlock
- Central Washington - ponderosa pine, Douglas fir
- Inland Empire - Douglas fir, ponderosa pine

Figure 8 Sawmill log consumption by species and area



Minimum Log Diameter

Over one-third of the mills in the state accepted small diameter logs in 1982. The Lower Columbia Area had a 31 percent decline. All other areas had an increase.

Mills accepting logs with small-end diameters under 6 inches (Percent)

Economic Area	6 inches (Percent)
Puget Sound	40
Olympic Peninsula	32
Lower Columbia	22
Central Washington	36
Inland Empire	46
Total state	36

Imports

Washington timberlands supplied over 95 percent of the logs consumed; almost 3 percent came from Oregon. The remainder came mainly from Idaho and British Columbia (Table 3).

PRODUCTION

Lumber

Sawmills in Washington produced 2.8 billion board feet of lumber during 1982. Lumber produced by the 169 primary sawmills surveyed was 30 percent rough and 54 percent green (Table 33).

<u>Economic area</u>	<u>Lumber production (Percent)</u>
Puget Sound	29
Olympic Peninsula	30
Lower Columbia	24
Central Washington	9
<u>Inland Empire</u>	<u>8</u>
Total state	100

Residues

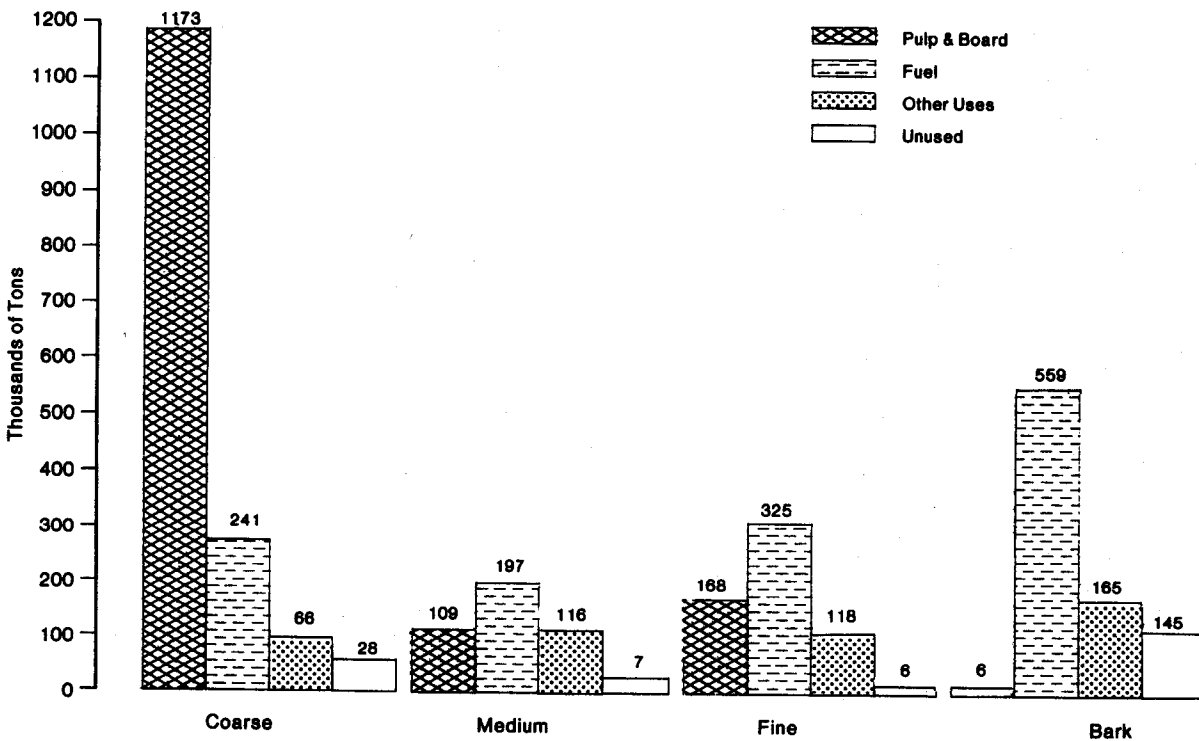
Lumber production of 2.8 billion board feet resulted in 3.3 million tons of residue (Table 30). Bark accounted for 23 percent of the total while wood was the balance. The wood residues are classified in 3

categories: coarse (slabs, edgings, trim and spur ends); medium (shavings); and fine (sawdust) shown in Table 28. These wood residues made up 2.6 million tons of the total, or 0.9 tons for every 1,000 board feet of lumber produced.

Residue uses include raw material for the Pulp and Board Industry, fuel for industry and community, animal bedding, gardening, landscaping and mulch. These and other uses consumed 98 percent of all residues produced by sawmills (Figure 9).

Unused residue was 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	Wood residue use			
	Pulp & board	Fuel	Other uses	Unused
	(Percent)			
A	52	31	16	1
B†	67	26	7	<.5
C	57	30	7	6
D††	14	53	17	16
All mills	57	30	11	2

†Class B includes Class A for Inland Empire and Central Washington

††Class D includes Class C for Lower Columbia

Mill size-class	Bark residue use			
	Pulp & board	Fuel	Other uses	Unused
	(Percent)			
A	—	70	30	—
B†	1	88	8	3
C	3	66	31	<.5
D††	3	51	21	25
All mills	1	75	22	2

†Class B includes Class A for Inland Empire and Central Washington

††Class D includes Class C for Lower Columbia

VENEER and PLYWOOD INDUSTRY

MILL CHARACTERISTICS

Facilities

The 27 veneer and plywood mills surveyed were distributed throughout the Economic Areas and in 16 of the 39 counties. All but 3 of the mills were located in Western Washington (Table 36). Grays Harbor County had a total of 4 mills. The Olympic Peninsula led with 12 mills.

Production Capacity

Table 37 shows the production capacity per shift for each type of mill by county.

<u>Economic area</u>	Average shift capacity per mill† <u>MSF %" basis</u>
Puget Sound	169
Olympic Peninsula	152
Lower Columbia	199
Central Columbia	193
<u>Inland Empire</u>	<u>160</u>
Total state	168

†Excludes veneer capacity within a veneer and layup plant, but includes layup and veneer-only, and layup-only operations

Veneer-only mills had a lower average shift capacity than other types of mills.

<u>Mill type</u>	Average shift capacity MSF <u>%" basis</u>	Number of mills
Veneer & layup†	172	15
Veneer-only	144	7
<u>Layup-only</u>	<u>192</u>	<u>5</u>
All types	168	27

†Excludes veneer capacity within a veneer and layup plant

Equipment

Tables 38 and 39 present statistics on log use relative to lathe diameter limits and size of cores produced. Half the mills could handle logs 5 feet or larger in diameter. One mill could peel to a 5-inch core diameter while 5 mills produced cores that fell in the 11+ inches category. The other 16 mills with peeling operations are in the 6- to 10-inch core diameter range.

About half of the core material was used as a source of chips for the Pulp Industry and most of the remainder for other purposes such as lumber, fuel and posts. Twenty of the mills used veneer chippers during 1982 while only one mill used a burner (Table 40).

Site and Ownership Tenure

All mills have been at their present site and 85 percent under the same ownership for more than 10 years (Table 41).

Operating Days

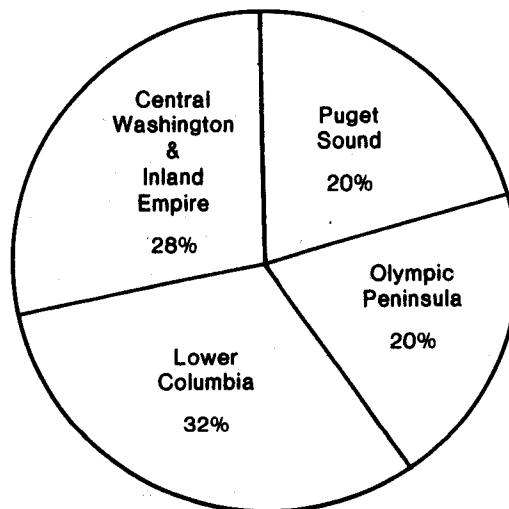
Veneer-only mills operated fewer days on the average with veneer and layup mills second. Averages for each mill type by Area are shown in Table 42.

WOOD CONSUMPTION

Raw Material

The Veneer and Plywood Industry consumed 332 million board feet of logs during 1982. Utility grade logs accounted for 5 percent of this volume (Table 2). Utility log consumption by Area varied from 11 percent in the Puget Sound Area to 2 percent in the Olympic Peninsula, Central Washington and Inland Empire Areas (Figure 10).

Figure 10 Veneer and plywood log consumption by economic area



Roundwood Age

Timber more than 100 years old composed 55 percent of the logs used. Use of old growth varied from 32 percent in the Puget Sound Area to 64 percent in the Lower Columbia Area (Table 10).

Ownership

Public lands were the source of 50 percent of logs consumed by the industry. National Forest lands were the greatest single source (Table 7). The Forest Industry lands contributed over 40 percent of the wood consumed. Although these two sources provided the majority of logs, other ownerships also contributed 14 percent.

<u>Ownership</u>	<u>Logs supplied</u> (Percent)
State	5
National Forest	42
Bureau of Land Management	—
Other public	3
<u>Total public</u>	<u>50</u>
Forest Industry	{ Own wood supply 31
	{ Other wood supply 13
Farmer & Misc. private	6
<u>Total private</u>	<u>50</u>
All owners	100

The National Forests provided over half the volume consumed in the Lower Columbia Area. In Eastern Washington, Forest Industry provided 40 percent of the volume harvested from forest industry owned lands.

<u>Economic</u>	<u>Source of logs</u>	
	<u>National forest lands</u>	<u>Forest industry own wood supply</u>
	(Percent)	
Puget Sound	48	36
Olympic Peninsula	27	1
Lower Columbia	52	39
Central Washington & Inland Empire	<u>35</u>	<u>40</u>
Total state	42	31

Table 6 shows the dependency of individual mills on each ownership class. Ten mills were at least two-thirds dependent on public lands (with all but one dependent on National Forest Lands) while seven mills were similarly dependent on private lands.

Species

Fifty-seven percent of the logs used by the industry were Douglas fir (Table 8). Second in importance was hemlock with 22 percent. The Lower Columbia Area used 66 percent Douglas fir and 26 percent hemlock. In Eastern Washington, Douglas fir was the most widely used species accounting for 61 percent of the consumption. True firs followed with 19 percent. The Olympic Peninsula was the only Area to use western redcedar, which provided 9 percent of its consumption.

Imports

Two Economic Areas acquired logs from outside the state, but these imports accounted for less than one percent of the industry's log consumption. The Lower Columbia Area imported the greater volume, but it accounted for less than 2 percent of its log consumption (Table 3).

Veneer

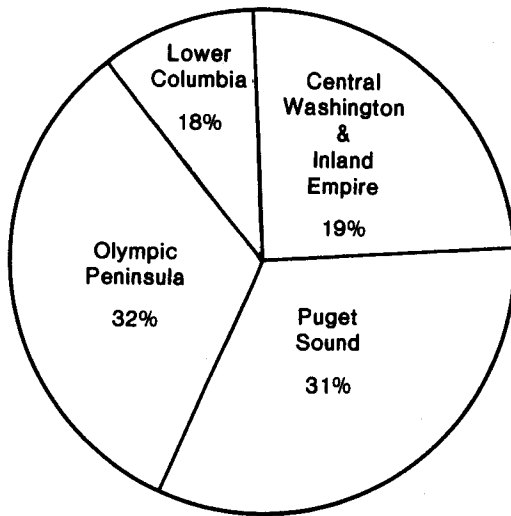
In addition to logs, the industry consumed 221,249,000 square feet of 3/8-inch veneer more than it produced for sale or transfer during 1982. Converted to Scribner log scale (at 2.5 square feet per board foot) this is equivalent to about 88 million board feet or 9 percent of the industry's total wood consumption. This veneer originated from inventory reductions or was imported from out-of-state.

PRODUCTION

Veneer and Plywood

During 1982, individual mills produced 1,264,343,000 square feet (3/8-inch basis) of plywood (Table 45). They also produced 435,950,000 feet (3/8-inch basis) of veneer that was sold or transferred to other mills.

Figure 11 Plywood production by economic area



Residues

Residues that come from the manufacture of veneer and plywood amounted to 0.71 million tons and 98 percent of this volume was productively used (Table 9).

Wood residue accounted for 80 percent of all residues. Bark composed the remaining 20 percent. Three classifications of wood residues were identified: coarse (log trim, cores, round-up, veneer clip, spur trim); medium (panel trim, reject veneer); and fine (sander dust). These were over 98 percent used (Table 44).

Residue type	Residue use			
	Pulp & board	Fuel	Other uses	unused
	(Percent)			
Cores	50	1	49	—
Coarse & medium (less cores)	66	32	—	2
<u>Fine</u>	<u>—</u>	<u>93</u>	<u>—</u>	<u>7</u>
All wood	60	30	9	1
<u>Bark</u>	<u>—</u>	<u>95</u>	<u>3</u>	<u>2</u>
All residue	48	43	7	2

Production and disposition of residues by Economic Area is presented in Tables 9 and 44.

PULP and BOARD INDUSTRY

MILL CHARACTERISTICS

Facilities

Each operation at a multiple plant facility is considered a separate mill. Twenty-one mills were identified: 6 sulfite, 7 sulfate, 4 groundwood and 4 semichemical. No board mills operated in 1982. Operations were located in 10 counties. Cowlitz County was the leading county with 5 mills. The leading Area was the Lower Columbia with 7 mills, followed by Puget Sound with 6 mills (Table 46).

Production Capacity

Daily pulp production capacity was 12,348 tons. Of the 21 pulp mills, 13 were either sulfite or sulfate (62 percent). They accounted for 76 percent of the daily capacity (Table 47).

<u>Economic area</u>	<u>Percent of pulp capacity</u>
Puget Sound	23
Olympic Peninsula	20
Lower Columbia	49
<u>Inland Empire</u>	<u>8</u>
Total state	100

Site and Ownership Tenure

Site occupancy by 20 of the 21 mills has been for over 10 years. For 19 mills it has been for more than 20 years (Table 48). Twenty of the mills have been in the present ownership for over 10 years, and 15 of the mills has been held by a single owner for over 20 years.

Operating Days

The average number of operating days per year for pulp mills decreased between 1980 and 1982 to 314 days (Table 49).

<u>Economic area</u>	<u>Average number of operating days</u>
	<u>Pulp</u>
Puget Sound	315
Olympic Peninsula	315
Lower Columbia	314
<u>Inland Empire</u>	<u>309</u>
Total state	314

WOOD CONSUMPTION

Raw Material

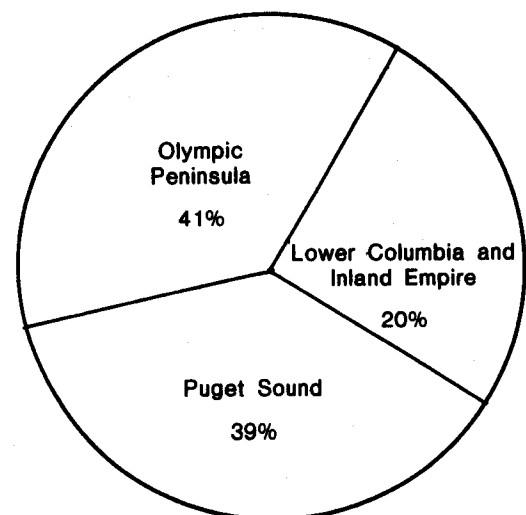
The industry consumed 512 million board feet of roundwood and 5.5 million bone dry tons of chips, sawdust, shavings and wastepaper (Table 51). In total this is the equivalent of approximately 6.6 million bone dry tons of wood. Eighty-four percent of the raw material consumed by the industry was in the form of chips and other residues with the balance roundwood. The percent of consumption in each area was:

<u>Economic area</u>	<u>Chips from mill residue</u>	<u>Roundwood</u>
	(Percent)	
Puget Sound	58	21
Olympic Peninsula	36	33
<u>Lower Columbia & Inland Empire†</u>	<u>66</u>	<u>6</u>
Total state	57	16
Million bone dry tons	3.8	1.0

†Combined to avoid disclosure

The Pulp and Board Industry was the largest user of utility grade (cull) logs, accounting for nearly two-thirds of all utility logs consumed in 1982 (Table 2). Within this industry, utility logs accounted for 81 percent of roundwood consumed (Table 51).

Figure 12 Percent of roundwood consumed by economic area



Roundwood Age

Table 10 shows roundwood consumption by age class for each Economic Area. For the Pulp and Board Industry statewide, old growth timber accounted for 50 percent of the roundwood consumed. This is 7 percent lower than in 1980.

Ownership

Private timber holdings supplied 71 percent of the total roundwood consumed (Table 7).

<u>Ownership</u>	<u>Log supply</u> (Percent)
State	6
National Forest	18
Bureau of Land Management	3
<u>Other public</u>	<u>2</u>
Total public	29
Forest	{ Own wood supply 48 { Other wood supply 16
Industry	
<u>Farmer & Misc. private</u>	<u>7</u>
Total private	<u>71</u>
All owners	100

One mill was more than two-thirds dependent on public timberlands. Four mills were more than two-thirds dependent on private timberlands for logs they used (Table 6).

Species

Hemlock accounted for 60 percent of the industry's roundwood log consumption. The greatest volume of hemlock was harvested in the Olympic Peninsula Area (Table 52).

<u>Roundwood</u> <u>species consumed</u>	<u>Percent</u>
Hemlock	60
Douglas fir	15
True firs	12
Hardwoods	4
Lodgepole pine	3
Spruce	3
<u>Other softwoods</u>	<u>3</u>
Total	100

Origin

Eighty-eight percent of roundwood consumed by the Pulp and Board Industry came from within the state. The remaining 12 percent was imported from Oregon, Idaho, British Columbia and elsewhere. Mills in the Lower Columbia Area imported 22 percent of their logs from Oregon (Table 3).

Residues

Chips and other residues constituted the major sources of raw material for the industry (Table 51).

<u>Residue</u> <u>type</u>	<u>Total</u> <u>volume</u> (Percent)
Chips	
Residue	57
Roundwood	21
Sawdust & shavings	5
<u>Wastepaper</u>	<u>1</u>
All types	84
<u>Logs</u>	<u>16</u>
Total	100

SHAKE and SHINGLE INDUSTRY

MILL CHARACTERISTICS

There were 195 shake, shingle and hip, and ridge mills operating during 1982 which is a decline of 27 percent from 1980. Of the total, 66 percent (128) of the mills were located in the Olympic Peninsula Area. Of these, nearly half were in Grays Harbor County (Table 54).

The single shift capacity of Shake and Shingle Industry mills operating in 1982 was 16,224 squares. This is equivalent to approximately 1.6 million board feet Scribner log scale.

Sixty-nine mills used burners to dispose of wood residues. In contrast, 19 mills used chippers (Table 55).

Twenty-five percent of the mills have been operating at their present site for 5 years or less, while 36 percent have been under present ownership for 5 years or less. Forty-four percent of the mills operating in 1982 have been in their present location more than 10 years, but only 32 percent have been under present ownership for more than 10 years (Table 56).

The number of mill operation days averaged 144 during 1982 (Table 54). This is a 3 percent increase from the average of 140 days in 1980.

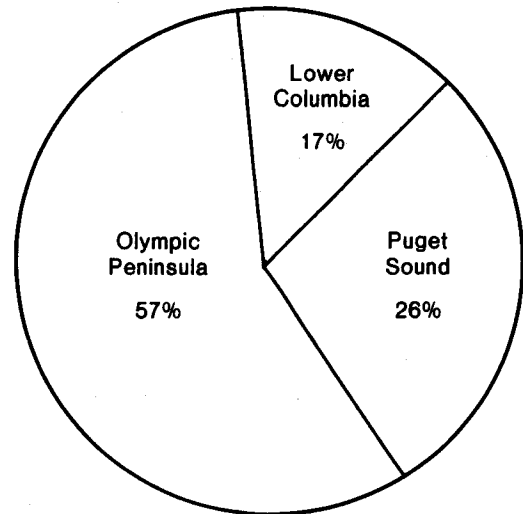
WOOD CONSUMPTION

Industry consumption during 1982 was 96 million board feet of logs and the equivalent of 24 million board feet in blocks, bolts and other material (Table 57). Of the total volume, sound logs accounted for 73 percent; utility grade (cull logs) accounted for 7 percent and other materials accounted for 20 percent.

Western redcedar is the most important species in Washington suitable for the manufacture of shakes and shingles. In the 1982 survey, west-

ern redcedar was used almost exclusively (Table 8). Product specifications further limit consumption. Ninety-six percent of the materials used were old growth (Table 10).

Figure 13 Shake and shingle roundwood consumption by economic area



Because of the species dependency, the industry obtained its log supply from many ownership classes (Table 58). However, 69 percent of the timber came from forest industry lands.

<u>Ownership</u>	<u>Log supply</u> (Percent)
State	8
National Forest	14
Bureau of Land Management	<.5
Other public	2
<u>Total public</u>	<u>24</u>
Forest	{ Own wood supply 11 { Other wood supply 58
Industry	
Farmer & Misc. private	7
<u>Total private</u>	<u>76</u>
All owners	100

During 1982, about 57 percent of the individual mills obtained more than two-thirds of their log supply from a single ownership class: 26 mills from public sources, 85 from private sources (Table 6).

Ninety-seven percent of the industry's log consumption came from Washington. Most of the rest came from

British Columbia, with a small amount from Oregon and others (Table 3).

PRODUCTION AND RESIDUES

Production amounted to 1,553,394 squares: 71 percent were shakes, 26 percent were shingles and 3 percent were hip, ridge, shims and others (Table 62). This production resulted in 125,241 bone dry tons of residues, composed of 72 percent wood and 28 percent bark (Table 59). When use of residues is considered, only 59 percent were used: 59 percent of wood residues and 59 percent of bark. The Lower Columbia Area mills are a notable exception to the state average with 99.9 percent of the residues being used.

Wood residues are divided into two size classes. Coarse materials accounted for 38 percent of the total

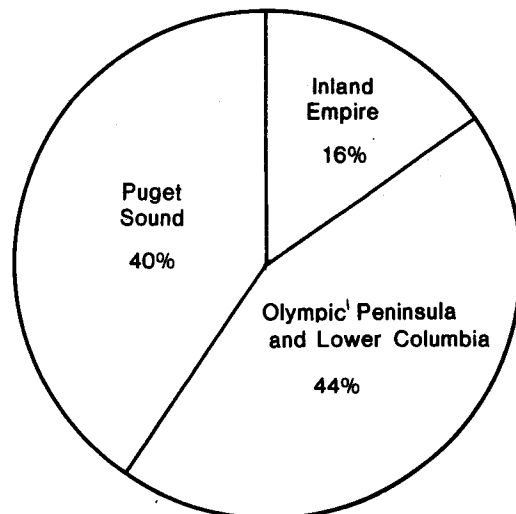
and fine materials accounted for 62 percent (Table 60). However, 59 percent of coarse wood residues and 59 percent of the fine wood residues were used.

For many mills it is not economical to recover residues. Low product volume of the mill operation probably is the major factor. Also, some of the residues produced by this sector are left in the woods rather than produced at mill sites. This occurs when mills use blocks, bolts or boards as a raw material, instead of logs.

<u>Use</u>	<u>Residue type & distribution</u>		
	<u>Course</u>	<u>Fine</u>	<u>Bark</u>
	(Percent)		
Pulp & board	12	6	6
Fuel	40	46	48
Other	7	7	5
<u>Unused</u>	<u>41</u>	<u>41</u>	<u>41</u>
All	100	100	100

POLE, POST and PILING INDUSTRY

Figure 14 Pole, post and piling wood consumption by economic area



INDUSTRY CHARACTERISTICS

The smallest segment of the forest products industry (13 mills) had 77 percent of its operations located in Western Washington.

The reported annual peeling capacity for 1982 was 54 million board feet, coupled with 42 million board feet treatment capacity (Table 63). This industry rarely uses the board foot unit of measure. However, data for this report have been converted to board foot units for comparison.

All operations had either a barker or a peeler which was essential for preparing the products (Table 65). Of the 13 mills, 9 had facilities for treating wood. One mill reported using water-borne salts treatment. Others used pentachlorophenol with different carriers and/or cresote.

From 1980 to 1982 the Pole, Post and Piling Industry declined by 8 operations. This nearly 40 percent decline resulted in a more concentrated industry since peeling capacity increased 16 percent. Of the 1982 mills, 77 percent of the operations have been under the same ownership more than 10 years (Table 64).

The industry averaged 142 days of peeling operation. Treatment facilities operated an average of 209 days (Table 63).

WOOD CONSUMPTION

Total wood consumption during 1982 was 17,025,000 board feet with sound logs accounting for 93 percent of all log consumption (Table 2). Post volume has been classified as utility logs and accounts for 7 percent of total volume.

The Pole, Post and Piling Sector is oriented primarily to young growth timber. In 1982, 83 percent of logs consumed were classified as young growth (Table 10).

Nearly 70 percent of the mills (9 mills) were over two-thirds dependent on a single owner class for their log supplies (Table 6). This included one operation dependent on Public Timber, 5 operations dependent on Forest Industry timber and 3 operations dependent on other private timber.

<u>Ownership</u>	<u>Log supply</u> (Percent)
State	16
National Forest	3
Other public	1
<u>Total public</u>	<u>20</u>
Forest Industry	{ Own wood supply 6
	{ Other wood supply 37
<u>Farmer & Misc. private</u>	<u>37</u>
<u>Total private</u>	<u>80</u>
All owners	100

Douglas fir and western redcedar, used principally for poles and piling, accounted for 85 percent of the total log consumption (Table 8). These two species are well suited for pole and piling uses because they possess the needed strength and durability.

Washington timberlands supplied 96 percent of the industry's needs with nearly 4 percent coming from Oregon. The remaining less than 0.5 percent came from the "other" origin category (Table 3).

LOG EXPORT INDUSTRY

INDUSTRY CHARACTERISTICS

The 124 log export operations reported in this survey represent trading companies, log brokers or other firms who ship logs from nine public port areas in the state. Please note that each port used by a firm is considered a separate operation. Fifty-nine operations were located in the Puget Sound Area followed by the Olympic Peninsula Area with 39 (Table 68).

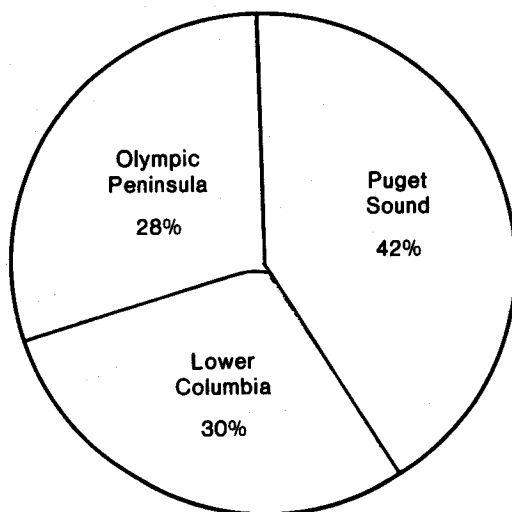
Sixty-nine percent of the operations have used the present site for over 5 years (Table 69).

Since ports handle a variety of materials, the Log Export Industry's average days of operation and production capacity cannot be meaningfully quantified.

LOG CONSUMPTION

Export shipments totaled 2.1 billion board feet in 1982, making the Export Industry the largest log consumer in Washington for the first time (Table 3). The Export Industry's log consumption is considered to be equivalent to log export shipments for the year 1982.

Figure 15 Log export by economic area



Most logs exported were sound. Less than 0.5 percent of the export volume was utility grade logs (Table 2).

<u>Ownership</u>	<u>Log supply</u> (Percent)
State	14
National Forest	1
<u>Other public</u>	<u>†</u>
Total public	15
Forest Industry	77
<u>Farmer & Misc. private</u>	<u>8</u>
Total private	85
All owners	100

†Less than 0.5 present

Sixty-seven percent of the operations were more than two-thirds dependent for supplies on a single ownership class. Sixty-nine of 124 operations were more than two-thirds dependent on Forest Industry lands, 5 on other private lands, 8 on state lands and one on National Forest lands (Table 6).

Log export operations consumed more Douglas fir, hemlock and spruce than any other industry (Table 8). Of the logs exported, Douglas fir ranked first with over half the volume, followed by hemlock with nearly 40 percent.

<u>Species</u>	<u>Log supply</u> (Percent)
Douglas fir	56
Hemlock	38
True firs	2
Western redcedar	2
Spruce	1
<u>All others</u>	<u>1</u>
Total all species	100

Washington timberlands supplied 96 percent of logs exported from the state (Table 3). Those logs originating in Oregon and British Columbia were primarily moved through the Lower Columbia and Puget Sound Areas, respectively.

HARDWOOD INDUSTRY

NOTE: The following information was extracted from the data in previous sections and is included here for your convenience.

INTRODUCTION

Processing hardwoods is another segment of the Washington wood products industry. Many different species, including alder, maple and cottonwood are processed by sawmills, veneer and plywood mills, and pulp mills. Finished products are shipped throughout the United States for use in furniture, other specialty products and pulp. The market for hardwood chips is also growing in Washington as well as abroad.

INDUSTRY CHARACTERISTICS

In 1982, there were 11 sawmills, one veneer and plywood operation, and 2 pulp mills using hardwoods for over 90 percent of their log or chip consumption. Mills using hardwood were located in the following counties:

County	Sawmills		Veneer & plywood		Pulp	
	Number of mills and dependency on hardwood					
	Under 90%	90% +	Under 90%	90% +	Under 90%	90% +
Clallam	1	—	—	—	1	—
Clark	3	—	—	—	—	—
Cowlitz	1	1	—	—	1	1
Grays Harbor	—	1	—	—	2	—
Jefferson	1	—	—	—	1	—
King	2	—	—	—	—	—
Kittitas	—	—	—	—	—	—
Lewis	1	3	1	—	—	—
Mason	—	1	—	—	—	—
Okanogan	—	—	—	—	—	—
Pacific	—	1	—	—	—	—
Pierce	1	—	1	—	1	—
Skagit	—	1	—	—	—	—
Snohomish	1	3	—	1	2	—
Spokane	1	—	—	—	—	—
Thurston	—	—	—	—	—	—
Walla Walla	1	—	—	—	—	—
Whatcom	1	—	—	—	—	1
Total	14	11	2	1	8	2

Twelve Washington sawmills were dependent upon hardwoods for at least two-thirds of their consumption.

WOOD CONSUMPTION

Hardwood log consumption by mills in 1982 was 183,193,000 board feet Scribner (Table 8). This is a 20 percent decline in volume from 1980. However, 76,134 bone dry tons of hardwood chips from roundwood were consumed by the Pulp Industry. This was more than a 30 percent increase from 1980 to 1982.

Industry	Hardwood log consumption (Percent)
Sawmills	80
Pulp & Board	13
Veneer & Plywood	5
Export	2
Total industry	100

In 1982, 146,668,000 board feet of hardwoods were consumed by sawmills. This was almost 7 percent of their all-species consumption and was a slight volume increase over 1980. Of this amount, 98 percent of hardwood volume consumed was by those sawmills more than two-thirds dependent on hardwoods. Nearly 60 percent of these mills were size-class D mills. However, size-class B mills consumed 54 percent of the hardwood volume (Table 25).

The Veneer and Plywood Industry consumed 9,040,000 feet of Western hardwoods or 3 percent of their total log consumption (Table 8). This was less than half the hardwood volume consumed in 1980.

The Pulp Industry used 22,944,000 board feet of hardwood logs in 1982 (4 percent of their all-species log consumption). This was a decrease of 49 percent from their 1980 hardwood log consumption. In addition, this industry consumed 89,494 bone dry tons of chips from hardwood roundwood (Table 52). This chip consumption represented a 54 percent increase since 1980. Apparently the Pulp Industry is buying chips in the open market rather than buying logs and then chipping them.

HARDWOOD SUPPLY

Lewis, Pacific and Snohomish counties accounted for nearly half the hardwood supplied to sawmills 90 percent + dependent upon hardwoods in 1982. Of the 144,104,000 board feet consumed by these mills in 1982, the following counties supplied the following percents (based on a proportional distribution):

<u>County</u>	<u>Percent</u>
Lewis	25
Snohomish	13
Pacific	10
King, Kitsap & Island	10
Skagit and Whatcom	9
Grays Harbor	8
Cowlitz	7
Wahkiakum	4
Mason	4
Clallam & Jefferson	2
Thurston	2
<u>Out-of-state</u>	<u>6</u>
Total	100

OWNERSHIP

The hardwood consumed by sawmills 90 percent + dependent on hardwoods came largely from private ownership. It is apparent from the data that hardwood mills tend to be very specialized. This is reflected by the fact that 60 percent of the volume came from other forest industry wood supply.

Sawmill Hardwood Log Consumption Mills 90%+ Dependent on Hardwoods

<u>Ownership</u>	<u>Volume MBF (Scribner)</u>	<u>Log supply (Percent)</u>
State	9,207	6
National Forest	0	0
<u>Other public</u>	<u>23</u>	<u>1</u>
Total public	9,230	6
Forest { Own wood supply	9,490	7
Industry { Other wood supply	85,986	60
<u>Farmer and Misc. private</u>	<u>39,398</u>	<u>27</u>
Total private	134,934	94
All owners	144,104	100

†Less than 0.05 percent

HARDWOOD HARVEST

The State of Washington Department of Natural Resources "Timber Harvest Report" lists the following hardwood harvest information for 1982:

<u>Species</u>	<u>1982 harvest MBF, Scribner</u>	<u>Species (Percent)</u>
Red Alder	109,768	45
Other species	56,135	23
<u>Cull & utility</u>	<u>76,915</u>	<u>32</u>
Total	242,818	100

Of the above total, 1,049,000 board feet were harvested in Eastern Washington. This is less than 0.5 percent of the statewide hardwood harvest.

APPENDIX

MEASUREMENT UNITS

Scribner is the only board foot scale used in this report, but some mills use more than one scale. Others use cubic scale, although there appears to be no strong shift toward the use of cubic measurement.

Lumber, veneer and plywood mills relied almost entirely on Scribner scale. Pulp and board mills used tons, cords and cubic measure as well as board foot scale. Although the Export; Shake and Shingle; and Pole, Post and Piling 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.

Board foot is the unit of measure used in this report for all wood consumption. An exception is allowed for purchased or transferred

veneer consumed by plywood mills (square feet, 3/8-inch basis) and chips and other residue consumed by pulp mills (bone dry tons).

The following measurement units were used:

- o Board foot lumber tally is used for Lumber production.
- o Square feet 3/8-inch basis is used for Plywood and Veneer production.
- o Square (10'x10' area coverage) is used for Shake and Shingle production.
- o Board foot Scribner is used for Log Export shipments and for Pole, Post and Piling production.

Bolts, pieces and shake blocks were generally converted to Scribner scale by the operator. Measurement equivalencies are shown below.

Unit Conversion Used in this Report

Lumber Industry

1.3 board feet
lumber tally = 1 board foot, Scribner (Approximately)

Veneer and Plywood (3/8-inch basis)

2.5 square feet = 1 board foot, Scribner
1 square foot = 0.885 square meters
1,130 square feet = 1 cubic meter

Pulp and Board

1 cord = 500 board feet = 2.41 cubic meters(S.W.E.)¹
1 short ton = 500 board feet = 0.907 metric tons
200 cubic foot units = 1 bone dry ton = 0.907 metric tons
1 bone dry unit = 1.2 bone dry tons = 1.088 metric tons

Shake and Shingle

10 squares² = 1,000 board feet = 4.7 cubic Meters(S.W.E.)¹

Pole, Post and Piling

1 cubic foot = 6 board feet

All Industries

211.9 board feet = 1 cubic meter

¹ (S.W.E.) = solid wood equivalent

² One square covers 100 square feet

MILL RESIDUES

Residue production figures in this report are calculated, not reported values. The mills were asked merely to indicate on a percent basis the uses made of their various residues. These percents were applied to residue estimates developed using the following residue factors:

Softwood Sawmill Residues†

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

<u>Item</u>	<u>Solid volume††</u>		<u>Dry weight</u> (Tons)	<u>Residue type</u>
	(Cubic feet)	(Percent)		
Wood residue				
Slabs, edgings, sawmill trim	36	24.8	0.486	} Coarse
Planer trim	3	2.1	0.041	
Sawdust	16	11.0	0.216	} Fine
Planer shavings	<u>16</u>	<u>11.0</u>	<u>0.216</u>	
Total wood residue	71	48.9	0.959	Medium
Bark	17	11.7	0.258	Bark
Lumber	<u>57</u>	<u>39.4</u>	<u>0.864</u>	
Whole log	145	100.0	2.081	

†Based on data from Oregon mills compiled by Oregon State University, School of Forestry, in 1967, and adjusted for changes in lumber standards by James O. Howard, Resource Analyst, Pacific Northwest Forest and Range Experiment Station. Dry weights adjusted for different species mix utilized in Washington.

††Green Volume.

Softwood Plywood Residues†

Average quantity of residue developed in producing the equivalent of 1,000 square feet of 3/4-inch plywood (rough basis).

<u>Plywood residue</u>	<u>Solid volume</u>		<u>Dry weight</u> (Tons)	<u>Residue type</u> (Percent)
	(Cubic feet††)			
Wood residue				
Log trim	3.4	0.048	4.2	} Coarse
Cores	6.3	0.088	7.8	
Veneer clippings, roundup & spur trim	19.3	0.270	23.7	
Dry trim & layup loss	6.3	0.088	7.8	Medium
Sander dust	<u>1.6</u>	<u>0.022</u>	<u>1.9</u>	Fine
Total wood residue	36.9	0.516	45.4	
Bark	<u>8.8</u>	<u>0.132</u>	<u>11.6</u>	Bark
All residue	45.7	0.648	57.0	
Plywood	34.9	0.489	43.0	
Whole log	<u>80.6</u>	<u>1.137</u>	<u>100.0</u>	

†All residue factors except sander dust and bark from data collected via various mill studies by the Characterization and Utilization of Western Softwoods and Forest Residues Project, Pacific Northwest Forest and Range Experiment Station, and compiled by James O. Howard, Resource Analyst. Sander dust and bark factors 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.

††Green Volume.

Shingle Mill Residues†

Average quantity of residue developed in utilizing 1,000 board feet of logs, Scribner scale, or in producing the equivalent volume of 10 squares.

Shake and shingle residue

	<u>Solid volume</u>		<u>Dry weight</u>
	(Cubic Feet)	(Percent)	(Tons)
Shingles:			
Coarse	23	13.7	0.22
Fine	78	46.8	0.75
Bark	19	11.5	0.28
Shakes:			
Coarse	23	13.7	0.22
Fine	24	14.5	0.23
Bark	19	11.5	0.28

†From information provided by the Red Cedar Shingle Bureau

Hardwood Sawmill Residues†

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

<u>Item</u>	<u>200 cu. ft.</u>	<u>Dry weight</u>	<u>Residue</u>
	(Units)	(Tons)	type
Wood residue			
Slabs, edgings, sawmill			
Trim & planer trim	0.71	0.60	Coarse
Planer shavings	0.26	0.22	Medium
Sawdust	0.27	0.23	Fine
Bark	0.40	0.34	Bark

†Based on information furnished by Northwest Hardwoods, Inc.

SAWMILL QUESTIONNAIRE

WASHINGTON FOREST INDUSTRY SURVEY 1982 Sawmill Questionnaire

(Information on individual plants will be held confidential)

1. Mill Identity

Firm Name _____ Prepared by _____

Address _____ Street or P. O. Box _____ Name of Mill Manager _____

City _____ State _____ Zip Code _____ Phone # _____

Mill Location _____ City _____ County _____ Date _____

2. Mill Characteristics

Hours per shift _____ Average number of shifts per day _____

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

Days operated during 1982 _____

Years mill has been in present location _____

Under present ownership _____

Type of Head Rig (Check those that apply)	Maximum Log Diameter (inches)	Percent of Total Production From Each Type
Circular <input type="checkbox"/>	_____	_____ %
Band <input type="checkbox"/>	_____	_____ %
Gang <input type="checkbox"/>	_____	_____ %
Chipping <input type="checkbox"/>	_____	_____ %
Scragg <input type="checkbox"/>	_____	_____ %

Equipment operated during 1982 (check those that apply)

Burner Planer Chipper Kiln Barker

Minimum diameter of log used _____ inches.

Is there a retail yard at this mill location? Yes No

3. Wood Consumption During 1982 (If not in Scribner, please indicate scale and conversion)

a. Log Consumption _____,000 board feet net scale

Percent of log consumption from dead trees _____ %

Percent of log consumption of utility grade* _____ %

b. Peeler cores _____ (Units)

c. Cants _____ Lumber _____ Other _____ (Units)

Specify log scale used if other than Scribner and conversion factor, if appropriate: _____

*Utility logs - Less than Number 3 sawlogs in grade or having the following minimum specifications: 6 inch diameter, 12 foot length, 50+ percent gross scale chippable.

4. Total Log Inventory:

(Beginning of Year) 1/01/82 _____,000 Board feet

(End of Year) 12/31/82 _____,000 Board feet

5. Log Consumption by Species During 1982

Douglas fir	_____ %
Hemlock	_____ %
True firs	_____ %
Spruce	_____ %
Ponderosa pine	_____ %
Lodgepole pine	_____ %
Western redcedar	_____ %
Other conifers	_____ %
Western hardwoods	_____ %
Other hardwoods	_____ %
	100 %

6. Origin of Logs Consumed During 1982

a. State or Province of Origin

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

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VENEER AND PLYWOOD QUESTIONNAIRE

WASHINGTON FOREST INDUSTRY SURVEY 1982 Veneer and Plywood Questionnaire

(Information on individual plants will be held confidential)

1. Mill Identity

Firm Name _____ Prepared by _____
 Address _____ Street or P. O. Box _____
 City _____ State _____ Zip Code _____
 Mill Location _____ City _____ County _____
 Name of Mill Manager _____ Phone # _____ Date _____

2. Mill Characteristics

Hours per shift _____. Average number of shifts per day _____.
 Operations: Veneer only Layout only Veneer and Layout
 Maximum veneer capacity per shift _____,000 sq. ft. 3/8 inch basis.
 Maximum layout capacity per shift _____,000 sq. ft. 3/8 inch basis.
 Days operated during 1982 _____
 Years mill has been in present location _____
 Years under present ownership _____
 Lath diameter limit (maximum log size) _____ inches.
 Minimum diameter of log used _____ inches.
 Equipment:

4-foot lathe slicer cold press veneer chipper
 8-foot lathe burner hot press core chipper
 Average core size _____ inches.
 Is there a retail yard at this mill location? Yes No

3. Wood Consumption During 1982

(If not in Scribner, please indicate scale and conversion)
 a. Log consumption _____,000 board feet net scale.
 Percent of log consumption from dead trees _____.
 Percent of log consumption of utility grade* _____.
 *Utility logs - less than Number 3 sawlogs in grade or having the following minimum specifications: 6 inch diameter, 12 foot length, 50 + percent gross scale chipplable.

b. Purchased or transferred in veneer _____,000 sq. ft. 3/8 inch.
 Specify log scale used if other than Scribner and conversion factor, if appropriate: _____

4. Total Log Inventory:

(Beginning of Year) 1/01/82 _____,000 Board feet
 (End of Year) 12/31/82 _____,000 Board feet

5. Log Consumption by Species During 1982

Douglas fir _____ %
 Hemlock _____ %
 True firs _____ %
 Spruce _____ %
 Ponderosa pine _____ %
 Lodgepole pine _____ %
 Western redcedar _____ %
 Other conifers _____ %
 Western hardwoods _____ %
 Other hardwoods _____ %
 _____ 100 %

6. Origin of Logs Consumed During 1982

a. State or Province of Origin
 Washington _____ %
 Oregon _____ %
 Idaho _____ %
 British Columbia _____ %
 Other _____ %
 _____ 100 %
 b. County of Origin (Washington)
 _____ %
 _____ %
 _____ %
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 _____ %
 From Outside Washington _____ %
 _____ 100 %
 c. Age Group
 Old Growth (100 Years +) _____ %
 Young Growth _____ %
 _____ 100 %

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d. Ownership Origin

State _____ %
 U.S. Forest Service* _____ %
 BLM _____ %
 Other Public (Indian, etc.) _____ %
 Forest Industry { Own Supply _____ % (from timberlands owned by your company)
 { Other Supply _____ % (from other forest lands)
 Farmer & Misc. Private _____ %
 100 _____ %

Name of National Forest _____ %
 _____ %

7. 1982 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 _____

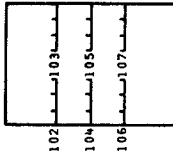
8. Disposition of Plant Residues During 1982

Indicate disposition of residue by type as a percent.

USED	Log trim, Spur trim, Roundup, Veneer clip	Core	Panel trim Reject veneer	Sander Dust	Bark
	67	68	63	70	71
	72	73	74	75	76
	77	78	79	80	81
	82	83	84	85	86
	87	88	89	90	91
UNUSED					
Burned	92	93	94	95	96
Unburned	97	98	99	100	101
	100	100	100	100	100

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

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



10. If you desire to receive a copy of the Mill Survey report resulting from this study, please check here ().

11. The Department of Natural Resources plans to publish a Forest Products Directory listing the name and address of each plant. Also, with your permission, we would like to include the following selected information concerning your plant:

- Daily per shift production class converted as follows:
 under 15 MBF, 15 to 29 MBF, 30 to 39 MBF, 40 to 49 MBF, over 50 MBF
- Number of shifts per day
- Species processed
- Maximum and minimum log diameter limits
- Type of plant
- Lathe and press equipment
- Retail yard - () Yes () No
- Does your mill presently export products abroad? () Yes () No
 If your mill does not export, is your firm interested in exporting?
 () Yes () No

() Permission granted to place the selected information in the Directory.
 () Permission granted, but do not include the circled items on the above list.

Thank you for your help with this questionnaire. When you have answered the questions as completely as possible, please fold this form, enclose it in the postage paid envelope provided and mail it.

PULP AND BOARD MILL QUESTIONNAIRE

WASHINGTON FOREST INDUSTRY SURVEY 1982

Pulp and Board Mill Questionnaire

(Information on individual plants will be held confidential)

1. Mill Identity

Firm Name _____ Prepared by _____

Address _____ Street or P. O. Box _____ Name of Mill Manager _____

City _____ State _____ Zip Code _____ Phone Number _____

City _____ State _____ Zip Code _____ Date _____

City _____ State _____ Zip Code _____

2. Mill Characteristics

a. Operation (Use a different form for each type of operation)

<p>PULP MILL</p> <p>Sulfite _____</p> <p>Sulfate _____</p> <p>Groundwood _____</p> <p>Disk refiner _____</p> <p>Drum refiner _____</p> <p>Semichemical _____</p> <p>Production Capacity _____</p> <p>BD Tons/24 hrs. _____</p> <p>units, if different _____</p>	<p>BOARD MILL</p> <p>Hardboard _____</p> <p>Particleboard _____</p> <p>Insulation board _____</p>
--	--

Million sq. ft./yr. _____

Specify basis: 1/8" _____, 1/2" _____, 3/4" _____

c. Mill Production in 1982

<p>Newsprint _____ (tons)</p> <p>Bleached Papers _____ (tons)</p> <p>Unbleached (Not newsprint) _____ (tons)</p> <p>Market pulp _____ (BD tons)</p> <p>Other Paper Products _____ (tons)</p>	<p>Hardboard _____ Million sq. ft./yr. _____ basis</p> <p>Particleboard _____ Million sq. ft./yr. _____ basis</p> <p>Insulation board _____ Million sq. ft./yr. _____ basis</p>
--	---

d. Days Operated During 1982 _____

e. Years mill has been in present location _____

Years under present ownership _____

3. Wood Consumption During 1982 (see page 4 for definitions)

a. Log Consumption _____,000 board feet gross scale

Percent of sound logs from dead trees _____%

Percent of utility logs and cordwood _____%

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1117 _____

1118 _____

1119 _____

1120 _____

1121 _____

1122 _____

1123 _____

1124 _____

1125 _____

1126 _____

1127 _____

1128 _____

1129 _____

1130 _____

1131 _____

1132 _____

1133 _____

1134 _____

1135 _____

1136 _____

1137 _____

1138 _____

1139 _____

1140 _____

1141 _____

1142 _____

1143 _____

1144 _____

1145 _____

1146 _____

1147 _____

1148 _____

1149 _____

11

5. Origin of Wood Consumed During 1982

a. State or Province of Origin

Washington	_____	Logs	_____
Oregon	_____	Chips from Roundwood	_____
Idaho	_____	Chipping Plants	_____
British Columbia	_____		_____
Other	_____		_____
	100 %		100 %
Washington	_____	Sawdust & Shavings	_____
Oregon	_____	Bark	_____
Idaho	_____		_____
British Columbia	_____		_____
Other	_____		_____
	100 %		100 %

b. Ownership Origin:

State	_____	Logs	_____
U.S. Forest Service*	_____		_____
BLM	_____		_____
Other Public (Indian, etc.)	_____		_____
Forest Industry	_____		_____
Farmer & Misc. Private	_____		_____
Name of National Forest	_____		_____
	\$: _____		\$: _____
	\$: _____		\$: _____

c. Age Group

Old Growth (100 Years +)	_____	Logs	_____
Young Growth	_____		_____
	100 %		100 %

d. County of Origin (Washington)

_____	_____	Logs	_____
_____	_____		_____
_____	_____		_____
_____	_____		_____
_____	_____		_____
From Outside Washington	_____		_____
	100 %		100 %

DEFINITIONS

Wood Consumption - Items a-h indicate the nature of the wood or fiber as it comes into your woodyard—before any processing or breakdown.

Utility Logs - Logs of lower quality than Number 3 sawlogs or usually having the following minimum specifications: 6 inches diameter, 12 foot length, 50 + percent of gross scale chipable.

Cordwood - Any log below the minimum specification stated for utility logs.

Specify log scale used if other than Scribner and conversion factor, if appropriate:

6. If you desire to receive a copy of the Mill Survey report resulting from this study, please check here ().

7. The Department of Natural Resources plans to publish a Forest Products Directory listing the name and address of each plant. Also, with your permission, we would like to include the following selected information concerning your plant:

1. Daily per shift production class converted as follows:
under 15 MBF, 15 to 29 MBF, 30 to 39 MBF, 40 to 49 MBF, over 50 MBF
2. Species processed
3. Type of plant
4. Does your mill presently export products abroad? () Yes () No
() Yes () No

() Permission granted to place the selected information in the Directory.
() Permission granted, but do not include the circled items on the above list.

Thank you for your help with this questionnaire. When you have answered the questions as fully as possible, please fold this form, enclose it in the postage paid envelope and mail it.

c. Age Group:

Old Growth (100 Years +) _____ %
 Young Growth _____ %
 _____ 100%

d. Ownership Origin:

State _____ %
 U.S. Forest Service* _____ %
 BLM _____ %
 Other Public (Indian, etc.) _____ %
 Forest Industry { Own Supply _____ % (from timberlands owned by your company)
 Other Supply _____ % (from other forest industry timberlands)
 Farmer & Misc. Private _____ %
 _____ 100%

*Name of National Forest _____ %
 _____ %

6. 1982 Production:

Shakes _____ squares or _____ bundles
 Shingles _____ squares or _____ bundles
 Hip & ridge _____ squares or _____ bundles
 Other _____ squares or _____ bundles

7. Disposition of Residue (Indicate residue by type as a percent)

If you used logs, explain use of coarse, sawdust and bark.

If you only used blocks, bolts, lumber, etc., only explain use of coarse and sawdust.

USED	Coarse	Sawdust	Bark
For plant fuel	52%	53%	54%
Sold for fuel	55%	56%	57%
For pulp (incl. export)	58%	59%	60%
For board	61%	62%	63%
For other purposes	64%	65%	66%
UNUSED			
Burned	67%	68%	69%
Unburned	70%	71%	72%
	100%	100%	100%

35	_____
36	_____
37	_____
38	_____
39	_____
40	_____
41	_____
42	_____
43	_____
44	_____
45	_____
46	_____
47	_____
48	_____
49	_____
50	_____
51	_____

General Definitions

- Utility logs - Logs of lower quality than Number 3 sawlogs and usually having the following minimum specifications: 6 inches diameter, 12 foot length, 50 + percent of gross scale.
- Other - Any other roundwood or other material (blocks, bolts, boards, etc.).

8. If you desire to receive a copy of the Mill Survey report, please check here ()

9. The Department of Natural Resources plans to publish a Forest Products Directory listing the name and address of each plant. Also, with your permission, we would like to include the following selected information concerning your plant:

- Daily per shift production class converted as follows: under 15 MBF, 15 to 29 MBF, 30 to 39 MBF, 40 to 49 MBF, over 50 MBF
- Number of shifts per day
- Type of product
- Retail yard - () Yes () No
- Does your mill presently export products abroad? () Yes () No
 If your mill does not export, is your firm interested in exporting? () Yes () No

() Permission granted to place the selected information in the Directory.

() Permission granted, but do not include the circled items on the above list.

Thank you for your help with this questionnaire. When you have answered the questions as completely as possible, please fold, enclosed it in the postage paid envelope and mail it.

POLE, POST AND PILING QUESTIONNAIRE

WASHINGTON FOREST INDUSTRY SURVEY 1982

Post, Pole and Piling Questionnaire

(Information on individual firms will be held confidential)

1. Mill Identity

Firm Name _____ Prepared by _____

Address _____ Name of Mill Manager _____

Street or P. O. Box _____ Phone # _____

City _____ State _____ Zip Code _____ Date _____

Mill Location _____ City _____ County _____

2. Mill Characteristics

Type of wood treatment used (if any) _____; under present ownership _____

Years mill has been in present location _____

Peeling Capacity	Treatment Capacity	Specify Units
daily or yearly		1,000 bd. ft. <input type="checkbox"/>
(circle one)		cbdtc ft. * <input type="checkbox"/>
		lineal ft. * <input type="checkbox"/>
		pieces * <input type="checkbox"/>

Posts _____

Poles _____

Piling _____

Days operated during 1982 Peeling _____

Treatment _____

Equipment operated during 1982 Barker _____ Burner _____

*IMPORTANT: If capacity numbers above are not given in MBF Scribner, please complete the following:

Average Length _____ Average Small End Diameter _____

Log Scale Used _____

3. Wood Consumption During 1982

Consumption	Specify Units		
a. Posts _____	1,000 bd. ft. <input type="checkbox"/>	cbdtc ft. <input type="checkbox"/>	lineal ft. <input type="checkbox"/>
b. Barkie poles _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Barkie piling _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Specify log scale used if other than Scribner and conversion factor, if appropriate: _____

4. Consumption by Species During 1982

Species	Logs
Douglas fir _____	_____ %
Hemlock _____	_____ %
True firs _____	_____ %
Spruce _____	_____ %
Ponderosa pine _____	_____ %
Lodgepole pine _____	_____ %
Western redcedar _____	_____ %
Other conifers _____	_____ %
Red alder _____	_____ %
Other hardwoods _____	_____ %
	100 %

5. Origin of Logs Consumed During 1982

a. State or Province of Origin:

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

FOR OFFICE USE ONLY

16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

LOG EXPORT QUESTIONNAIRE

WASHINGTON FOREST INDUSTRY SURVEY 1982

Log Export Questionnaire

(Information on individual firms will be held confidential)

FOR OFFICE
USE ONLY

1. Firm Identity _____

Firm Name _____ Prepared by _____

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

City _____ State _____ Zip Code _____ Date _____

2. Port of Operation _____

IF MORE THAN ONE PORT OF OPERATION, USE ADDITIONAL FORMS WHICH WILL BE SUPPLIED PROMPTLY ON REQUEST (Phone Loren Gee in Olympia collect, 753-3841)

Data below this line should relate only to the Port listed above.

3. Years firm has used this Port for log export _____

4. Quantity exported from this Port during 1982 (See page 4 for general definitions).

a. Logs _____,000 Bd. Ft.

Percent of logs from dead trees _____%

Percent of logs utility grade _____%

b. Other _____ Specify _____

Specify log scale used if other than Scribner and conversion factor, if appropriate:

5. Export by Species During 1982

Species	Logs
Douglas fir	_____ %
Hemlock	_____ %
True firs	_____ %
Spruce	_____ %
Ponderosa pine	_____ %
Lodgepole pine	_____ %
Western redcedar	_____ %
Other conifers	_____ %
Western hardwoods	_____ %
Other hardwoods	_____ %
	100 %

6. Origin of Logs Exported During 1982

a. State or Province of Origin:	
Washington	_____ %
Oregon	_____ %
Idaho	_____ %
British Columbia	_____ %
Other	_____ %
	100 %

b. County of Origin (Washington)	
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
From Outside Washington	_____ %
	100 %

10	_____
11	_____
12	_____
13	_____
14	_____
15	_____
16	_____
17	_____
18	_____
19	_____
20	_____
21	_____
22	_____
23	_____
24	_____
25	_____
26	_____
27	_____
28	_____
29	_____
30	_____
31	_____

COMPUTER PROGRAMS USED FOR THIS REPORT

The automated Mill Survey System was developed on an IBM 370/158 MVS computer at the Washington Data Processing Service Center; Olympia, Washington.

The master file was built and edited by programs written in ANSI COBOL. Each mill type has its own independent edit program and was designed so that data changes could be made by Department of Natural Resources staff using on-line terminals. The calculations for the various tables and summaries were produced by separate ANSI COBOL programs. There are two programs for each table. One selects the data from the master file; the other program summarizes and formats the table.

The program package was designed to handle other states' data with minor modifications.

There is a complete documentation package for this system that consists of the following:

- o Warnier Diagram for each program
- o Sample input documents
- o Keypunch instructions
- o File descriptions for each file
- o Data description including edit criteria for each field.
- o Reasonableness edits for each input file
- o Edit error message tables for each input file
- o Report layouts of each output report
- o Sample output reports
- o Source program listings
- o Job Control Language listings for execution of system

WASHINGTON SUMMARY, 1982

Table 1 Number of mills in the timber industry, by industry, area and county

Economic Area and County	Industry						
	All industries	Lumber	Veneer and plywood	Pulp and board ¹	Shake and shingle	Export ²	Pole, post and piling
Puget Sound							
Island	2	2	--	--	--	--	--
King	14	8	2	--	4	--	--
Kitsap	3	2	--	--	--	--	1
Pierce	43	10	3	2	4	23	1
San Juan	1	1	--	--	--	--	--
Skagit	27	5	--	--	21	1	--
Snohomish	74	21	1	2	14	34	2
Whatcom	15	6	1	2	4	1	1
Total	179	55	7	6	47	59	5
Olympic Peninsula							
Clallam	70	14	2	2	40	12	--
Grays Harbor	102	11	4	2	62	23	--
Jefferson	10	6	--	1	3	--	--
Lewis	28	11	2	--	15	--	--
Mason	9	5	1	--	2	--	1
Pacific	9	4	--	--	5	--	--
Thurston	11	2	3	--	1	4	1
Total	239	53	12	5	128	39	2
Lower Columbia							
Clark	14	7	1	2	2	1	1
Cowlitz	51	8	1	5	10	25	2
Klickitat	6	5	1	--	--	--	--
Skamania	4	2	2	--	--	--	--
Wahkiakum	4	1	--	--	3	--	--
Total	79	23	5	7	15	26	3
Central Washington							
Adams	--	--	--	--	--	--	--
Benton	--	--	--	--	--	--	--
Chelan	3	2	--	--	1	--	--
Douglas	--	--	--	--	--	--	--
Franklin	--	--	--	--	--	--	--
Grant	--	--	--	--	--	--	--
Kittitas	--	--	--	--	--	--	--
Lincoln	1	1	--	--	--	--	--
Okanogan	8	7	1	--	--	--	--
Yakima	5	4	1	--	--	--	--
Total	17	14	2	--	1	--	--
Inland Empire							
Asotin	2	2	--	--	--	--	--
Columbia	1	1	--	--	--	--	--
Ferry	2	2	--	--	--	--	--
Garfield	--	--	--	--	--	--	--
Pend Oreille	5	3	--	--	2	--	--
Spokane	4	3	--	1	--	--	--
Stevens	17	11	1	--	2	--	3
Walla Walla	4	2	--	2	--	--	--
Whitman	--	--	--	--	--	--	--
Total	35	24	1	3	4	--	3
Total, State	549	169	27	21	195	124	13

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

WASHINGTON SUMMARY, 1982

Table 2 Primary wood consumption by type of material, area and industry

Economic area and industry	Roundwood			Other ¹	Residue ²
	ALL roundwood	Sound logs	Utility logs		
--Thousand board feet, Scribner log rule--					Bone dry tons
Puget Sound					
Lumber	600,875	564,380	36,495	500	--
Veneer & plywood	66,062	59,088	6,974	--	--
Pulp & board	199,204	1,040	198,164	--	1,538,887
Shake & shingle	24,905	20,742	4,163	3,315	--
Export	904,747	898,191	6,556	--	--
Pole, post & piling	6,872	6,872	--	--	--
Total	1,802,665	1,550,313	252,352	3,815	1,538,887
Olympic Peninsula					
Lumber	693,822	582,373	111,449	458	--
Veneer & plywood	66,724	65,622	1,102	--	--
Pulp & board	207,451	84,422	123,029	--	847,716
Shake & shingle	55,035	51,552	3,483	19,456	--
Export	607,687	604,775	2,912	535	--
Pole, post & piling ³	--	--	--	--	--
Total	1,630,719	1,388,744	241,975	20,449	847,716
Lower Columbia					
Lumber	469,258	453,447	15,811	424	--
Veneer & plywood	107,111	99,393	7,718	--	--
Pulp & board ⁴	105,228	11,188	94,040	--	3,162,763
Shake & shingle	15,863	15,037	826	602	--
Export	621,915	621,660	255	--	--
Pole, post & piling ³	7,570	7,509	61	--	--
Total	1,326,945	1,208,234	118,711	1,026	3,162,763
Central Washington					
Lumber	204,955	199,463	5,492	5,254	--
Veneer & plywood ⁵	91,981	90,366	1,615	--	--
Pulp & board	--	--	--	--	--
Shake & shingle ⁵	270	270	--	237	--
Export	--	--	--	--	--
Pole, post & piling	--	--	--	--	--
Total	297,206	290,099	7,107	5,491	--
Inland Empire					
Lumber	159,375	156,800	2,575	--	--
Veneer & plywood ⁵	--	--	--	--	--
Pulp & board ⁴	--	--	--	--	--
Shake & shingle ⁵	--	--	--	--	--
Export	--	--	--	--	--
Pole, post & piling	2,583	1,481	1,102	--	--
Total	161,958	158,281	3,677	--	--
Total, State					
Lumber	2,128,285	1,956,463	171,822	6,636	--
Veneer & plywood	331,878	314,469	17,409	--	--
Pulp & board	511,883	96,650	415,233	--	5,549,366
Shake & shingle	96,073	87,601	8,472	23,610	--
Export	2,134,349	2,124,626	9,723	535	--
Pole, post & piling	17,025	15,862	1,163	--	--
Total	5,219,493	4,595,671	623,822	30,781	5,549,366

¹Includes peeler cores, lumber and cants used by sawmills (converted to log scale assuming 30 percent overrun), blocks, boards, bolts used by shake and shingle mills, and miscellaneous peeled products used by pole, post, and piling mills

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

³Olympic Peninsula and Lower Columbia combined to avoid disclosure

⁴Lower Columbia and Inland Empire combined to avoid disclosure

⁵Inland Empire and Central Washington combined to avoid disclosure

WASHINGTON SUMMARY, 1982

**Table 3 Log flows to mills by state or province of log origin, area and industry
(Thousand board feet, Scribner log rule)**

Economic area and industry	Origin					
	All	Washington	Oregon	Idaho	British Columbia	Other
Puget Sound						
Lumber	600,874	600,314	176	--	385	--
Veneer & plywood	66,062	64,462	1,600	--	--	--
Pulp & board	199,204	176,469	--	2,383	10,176	10,176
Shake & shingle	24,905	22,518	--	--	2,287	100
Export	904,747	859,845	--	--	44,902	--
Pole, post & piling	6,872	6,733	66	--	--	73
Total	1,802,665	1,730,341	1,842	2,383	57,750	10,349
Olympic Peninsula						
Lumber	693,822	688,057	3,865	--	1,900	--
Veneer & Plywood	66,724	66,724	--	--	--	--
Pulp & board	207,451	204,946	--	--	2,505	--
Shake & shingle	55,035	54,875	8	--	152	--
Export	607,687	607,013	251	--	423	--
Pole, post & piling	4,327	4,327	--	--	--	--
Total	1,635,046	1,625,942	4,124	--	4,980	--
Lower Columbia						
Lumber	469,258	405,230	34,028	--	--	30,000
Veneer & Plywood	107,111	105,451	1,660	--	--	--
Pulp & board ¹	105,228	67,084	23,065	3,511	11,568	--
Shake & shingle	15,863	15,863	--	--	--	--
Export	621,915	577,240	44,675	--	--	--
Pole, post & piling	3,243	2,671	572	--	--	--
Total	1,322,618	1,173,539	104,000	3,511	11,568	30,000
Central Washington						
Lumber	204,955	204,955	--	--	--	--
Veneer & plywood ²	91,981	91,981	--	--	--	--
Pulp & board	--	--	--	--	--	--
Shake & shingle ²	270	270	--	--	--	--
Export	--	--	--	--	--	--
Pole, post & piling	--	--	--	--	--	--
Total	297,206	297,206	--	--	--	--
Inland Empire						
Lumber	159,375	126,914	19,038	13,423	--	--
Veneer & Plywood ²	--	--	--	--	--	--
Pulp & board ¹	--	--	--	--	--	--
Shake & shingle ²	--	--	--	--	--	--
Export	--	--	--	--	--	--
Pole, post & piling	2,583	2,583	--	--	--	--
Total	161,958	129,497	19,038	13,423	--	--
Total, State						
Lumber	2,128,285	2,025,470	57,107	13,423	2,285	30,000
Veneer & Plywood	331,878	328,618	3,260	--	--	--
Pulp & board	511,883	448,499	23,065	5,894	24,249	10,176
Shake & shingle	96,073	93,526	8	--	2,439	100
Export	2,134,349	2,044,098	44,926	--	45,325	--
Pole, post & piling	17,025	16,314	638	--	--	73
Total	5,219,493	4,956,525	129,004	19,317	74,298	40,349

¹Inland Empire combined with Lower Columbia to avoid disclosure

²Inland Empire combined with Central Washington to avoid disclosure

WASHINGTON SUMMARY, 1982

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

Economic area and county of use	Total	Economic area and county of origin						
		Puget Sound						
		Island and San Juan ¹	King	Kitsap	Pierce	Skagit	Snohomish	Whatcom
Puget Sound								
Island/San Juan ¹	4,993	4,948	--	--	--	--	--	45
King	137,838	--	90,089	--	15,811	570	13,167	--
Kitsap/Pierce ¹	722,480	--	140,251	24,587	184,225	2,232	4,856	1,737
Skagit	41,456	40	187	--	--	18,318	6,424	11,022
Snohomish	828,844	667	55,403	282	10,255	202,928	289,270	49,110
Whatcom	67,054	--	6,318	--	5,679	31,869	6,120	15,321
Total	1,802,665	5,655	292,248	24,869	215,970	255,917	319,837	77,235
Olympic Peninsula								
Clallam	230,150	75	--	--	--	2,223	222	--
Grays Harbor/Jefferson ¹	825,265	--	2,168	400	904	12,817	299	--
Lewis	195,446	--	2,000	--	4,045	--	--	--
Mason	220,676	--	--	--	--	--	--	--
Pacific	55,941	--	--	--	--	--	--	--
Thurston	107,568	--	415	--	59,897	580	--	--
Total	1,635,046	75	4,583	400	64,846	15,620	521	--
Lower Columbia								
Clark	119,339	--	--	--	16	--	--	--
Cowlitz	1,051,528	--	630	560	560	4,011	--	--
Klickitat/Skamania ¹	149,620	--	--	--	--	--	--	--
Wahkiakum	1,538	--	--	--	--	--	--	--
Total	1,322,025	--	630	560	576	4,011	--	--
Central Washington								
Chelan/Lincoln/Okanogan/Yakima	261,694	--	890	--	--	--	--	--
Total	261,694	--	890	--	--	--	--	--
Inland Empire								
Asotin/Walla Walla ¹	45,745	--	--	--	--	--	--	--
Columbia/Ferry ¹	34,222	--	--	--	--	--	--	--
Pend Oreille	7,119	--	--	--	--	--	--	--
Spokane	23,763	--	--	--	--	--	--	--
Stevens	87,214	--	--	--	--	--	--	--
Total	198,063	--	--	--	--	--	--	--
Total, State	5,219,493	5,730	298,351	25,829	281,392	275,548	320,358	77,235

¹Combined to avoid disclosure

Table 4 (Continued) Log flows to mills by county and out-of-state origins, and by area and county of use (Thousand board feet, 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	Wakiakum
--	--	--	--	--	--	--	--	--	--	--	--
2,850	--	5,130	7,442	1,639	--	570	--	--	--	--	--
1,338	9,423	21,427	167,257	58,283	372	46,744	3,060	3,974	--	30	--
--	--	--	--	--	--	--	--	--	--	--	--
15,389	7,188	11,652	72,810	6,920	4,176	12,807	--	--	--	5,123	--
1,747	--	--	--	--	--	--	--	--	--	--	--
21,324	16,611	38,209	247,509	66,842	4,548	60,121	3,060	3,974	--	5,153	--
171,373	4,618	48,710	--	--	--	--	--	--	--	--	--
13,863	521,103	131,070	5,563	19,803	92,271	19,266	--	19	--	8	4,106
760	4,199	760	109,973	--	3,900	18,544	2,907	11,182	--	29,411	2,000
1,120	7,243	1,680	1,120	207,737	38,504	1,766	--	--	--	--	--
--	10,448	--	2,854	--	--	--	--	--	--	--	4,135
887	6,404	720	12,725	8,141	--	14,865	--	1,797	--	--	--
188,003	554,015	182,940	132,235	235,681	134,675	54,441	2,907	12,998	--	29,419	10,241
--	--	--	304	--	4,760	16	6,621	35,289	--	32,473	7,552
2,674	2,689	4,011	114,046	--	3,484	5,563	12,507	660,825	547	39,524	85,665
--	--	--	--	--	--	--	--	--	61,393	63,976	--
--	234	--	--	--	90	--	--	--	--	--	1,214
2,674	2,923	4,011	114,350	--	8,334	5,579	19,128	696,114	61,940	135,973	94,431
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	22,153	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
212,001	573,549	225,160	494,094	302,523	147,557	120,141	25,095	713,086	84,093	170,545	104,672

WASHINGTON SUMMARY, 1982

Table 4 (Continued) Log flows to mills by county and out-of-state origins, and by area and county of use (Thousand board feet, Scribner log rule)

Economic area and county of use	Economic area and					
	Central Washington					
	Chelan	Douglas	Kittitas	Lincoln	Okanogan	Yakima
Puget Sound						
Island/San Juan ¹	--	--	--	--	--	--
King	--	--	--	--	570	--
Kitsap/Pierce ¹	1,067	--	27,401	--	900	--
Skagit	--	--	--	--	--	--
Snohomish	26,972	--	14,349	--	--	--
Whatcom	--	--	--	--	--	--
Total	28,039	--	41,750	--	1,470	--
Olympic Peninsula						
Clallam	--	--	--	--	--	--
Grays Harbor/Jefferson ¹	--	--	1,204	--	--	--
Lewis	--	--	--	--	--	--
Mason	--	--	--	--	--	--
Pacific	--	--	--	--	--	--
Thurston	1,137	--	--	--	--	--
Total	1,137	--	1,204	--	--	--
Lower Columbia						
Clark	--	--	--	--	--	--
Cowlitz	--	--	--	--	--	--
Klickitat/Skamania ¹	--	--	--	--	--	22,203
Wahkiakum	--	--	--	--	--	--
Total	--	--	--	--	--	22,203
Central Washington						
Chelan/Lincoln/ Okanogan/Yakima ¹	34,925	--	29,593	--	88,213	85,579
Total	34,925	--	29,593	--	88,213	85,579
Inland Empire						
Asotin/Walla Walla ¹	--	--	--	--	5,550	--
Columbia/Ferry ¹	--	--	--	--	--	--
Pend Oreille	--	--	--	--	--	--
Spokane	--	--	--	--	--	--
Stevens	--	--	--	28	--	--
Total	--	--	--	28	5,550	--
Total, State	64,101	--	72,547	28	95,233	107,782

¹Combined to avoid disclosure

Table 4 (Continued) Log flows to mills by county and out-of-state origins, and by area and county of use (Thousand board feet, Scribner log rule)

county of origin								
Inland Empire								Out-of-State origin
Asotin	Columbia	Ferry	Garfield	Pend Oreille	Spokane	Stevens	Walla Walla	
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	24,216
--	--	--	--	--	--	--	--	4,565
--	--	--	--	--	--	--	--	43,543
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	72,324
--	--	--	--	--	--	--	--	2,929
--	--	--	--	--	--	--	--	401
--	--	--	--	--	--	--	--	5,765
--	--	--	--	--	--	--	--	10
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	9,105
--	--	--	--	--	--	--	--	32,308
--	--	--	--	--	--	--	--	114,232
--	--	--	--	--	--	--	--	2,048
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	148,588
--	--	--	--	--	--	--	--	--
--	--	341	--	--	--	--	--	--
7,059	2,846	--	2,943	--	--	--	2,869	30,028
--	222	25,400	--	--	--	3,050	--	--
--	--	--	--	4,745	1,040	1,214	--	120
--	--	33,051	--	55	20,857	47	--	2,804
--	--	--	--	8,386	1,413	44,336	--	--
7,059	3,068	58,451	2,943	13,186	23,310	48,647	2,869	32,952
7,059	3,068	58,792	2,943	13,186	23,310	48,647	2,869	262,969

WASHINGTON SUMMARY, 1982

Table 5 Log flows to mills from National Forests, by area and industry
(Thousand board feet, Scribner log rule)

Economic Area ¹	All National Forest	Mount Baker-Snoqualmie	Colville	Gifford Pinchot	Okanogan	Olympic	Wenatchee	Umatilla	Out-of-State National Forest
Puget Sound	252,085	196,898	--	2,558	1,363	13,753	5,271	--	32,242
Olympic Peninsula	259,018	362	--	69,498	--	189,158	--	--	--
Lower Columbia	147,256	--	--	141,809	--	6	--	--	5,441
Central Washington	138,583	5,211	223	--	31,357	--	101,792	--	--
Inland Empire	39,274	--	21,954	--	10,466	--	--	6,854	--
Total, State	836,216	202,471	22,177	213,865	43,186	202,917	107,063	6,854	37,683
Industry									
Lumber	571,469	130,357	20,271	107,530	27,339	183,483	91,494	6,854	4,141
Veneer & Plywood	137,840	29,900	1,420	60,086	15,847	14,348	14,938	--	1,301
Pulp & board	91,682	33,440	444	45,688	--	835	372	--	10,903
Shake & shingle	13,324	8,774	--	243	--	4,048	259	--	21,338
Export	21,338	--	--	--	--	--	--	--	--
Pole, post & piling	563	--	42	318	--	203	--	--	--
Total, All Industries	836,216	202,471	22,177	213,865	43,186	202,917	107,063	6,854	37,683

¹Note: Combinations made in Table 7 are also used here to avoid disclosure

²No log receipts into Washington reported from the Kaniksu National Forest in 1982.

WASHINGTON SUMMARY, 1982

**Table 7 Log consumption by ownership, area and industry
(Thousand board feet, Scribner log rule)**

Economic area and industry	All Owners	State	National ¹ Forest	Bureau of Land Management	Forest Industry			
					Other Public	Own wood supply	Other wood supply	Farmer and miscellaneous Private
Puget Sound								
Lumber	600,875	49,875	143,838	--	6,952	286,027	70,947	43,236
Veneer & plywood	66,062	--	31,731	--	--	23,847	9,684	800
Pulp & board	199,204	19,913	46,203	--	7,268	35,889	64,786	25,145
Shake & shingle	24,905	2,364	8,772	--	--	--	8,714	5,055
Export	904,747	121,814	21,338	--	4,020	38,929	638,786	79,860
Pole, post & piling	6,872	1,261	203	--	--	582	3,047	1,779
Total	1,802,665	195,227	252,085	--	18,240	385,274	795,964	155,875
Olympic Peninsula								
Lumber	693,822	58,542	235,809	468	13,790	196,501	133,377	55,335
Veneer & plywood	66,724	9,229	17,956	--	1,644	600	22,781	14,514
Pulp & board	207,451	5,269	835	--	1,604	175,151	14,444	10,148
Shake & shingle	55,035	4,839	4,215	43	2,149	4,035	37,854	1,900
Export	607,687	109,211	--	--	1,993	8,545	453,232	34,706
Pole, post & piling ²	--	--	--	--	--	--	--	--
Total	1,630,719	187,090	258,815	511	21,180	384,832	661,688	116,603
Lower Columbia								
Lumber	469,258	28,179	47,323	--	21,557	296,349	53,687	22,163
Veneer & plywood	107,111	7,400	55,540	--	--	41,420	--	2,751
Pulp & board ³	105,228	6,484	44,644	16,800	--	31,996	4,382	922
Shake & shingle	15,863	277	77	--	--	6,132	9,158	219
Export	621,915	64,355	--	--	--	2,910	509,233	45,417
Pole, post & piling ²	7,570	818	319	--	--	480	3,171	2,782
Total	1,326,945	107,513	147,903	16,800	21,557	379,287	579,631	74,254
Central Washington								
Lumber	204,955	2,650	107,130	341	33,502	40,155	1,558	19,619
Veneer & plywood ⁴	91,981	1,410	32,613	--	7,322	37,074	10,566	2,996
Pulp & board	--	--	--	--	--	--	--	--
Shake & shingle ⁴	270	--	260	--	--	--	--	10
Export	--	--	--	--	--	--	--	--
Pole, post & piling	--	--	--	--	--	--	--	--
Total	297,206	4,060	140,003	341	40,824	77,229	12,124	22,625
Inland Empire								
Lumber	159,375	5,827	37,369	--	13,187	35,417	1,760	65,815
Veneer & plywood ⁴	--	--	--	--	--	--	--	--
Pulp & board ³	--	--	--	--	--	--	--	--
Shake & shingle ⁴	--	--	--	--	--	--	--	--
Export	--	--	--	--	--	--	--	--
Pole, post & piling	2,583	569	41	--	240	--	--	1,733
Total	161,958	6,396	37,410	--	13,427	35,417	1,760	67,548
Total, State								
Lumber	2,128,285	145,073	571,469	809	88,988	854,449	261,329	206,168
Veneer & plywood	331,878	18,039	137,840	--	8,966	102,941	43,031	21,061
Pulp & board	511,883	31,666	91,682	16,800	8,872	243,036	83,612	36,215
Shake & shingle	96,073	7,480	13,324	43	2,149	10,167	55,726	7,184
Export	2,134,349	295,380	21,338	--	6,013	50,384	1,601,251	159,983
Pole, post & piling	17,025	2,648	563	--	240	1,062	6,218	6,294
Total	5,219,493	500,286	836,216	17,652	115,228	1,262,039	2,051,167	436,905

¹National Forest includes Canadian federal and British Columbia provincial forests

²Olympic Peninsula combined with Lower Columbia to avoid disclosure

³Inland Empire combined with Lower Columbia to avoid disclosure

⁴Inland Empire combined with Washington to avoid disclosure

WASHINGTON SUMMARY, 1982

**Table 8 Log consumption by species, area and industry
(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	Hardwoods
Puget Sound										
Lumber	600,875	290,971	214,681	5,049	98	40	41	42,247	151	47,597
Veneer & plywood	66,062	22,004	28,395	8,300	505	--	--	--	218	6,640
Pulp & board	199,204	25,652	100,127	59,178	6,874	2,180	1,453	726	1,453	1,561
Shake & shingle	24,905	--	--	--	--	--	--	24,905	--	--
Export	904,747	545,645	300,171	17,717	7,966	135	575	22,135	7,707	2,696
Pole, post & piling	6,872	4,689	--	--	--	--	--	2,183	--	--
Total	1,802,665	888,961	643,374	90,244	15,443	2,355	2,069	92,196	9,529	58,494
Olympic Peninsula										
Lumber	693,822	252,545	299,959	9,213	5,277	--	3	34,112	3,732	88,981
Veneer & plywood	66,724	41,662	15,782	--	44	--	--	6,236	600	2,400
Pulp & board	207,451	5,619	173,425	--	7,024	--	--	--	--	21,383
Shake & shingle	55,035	--	--	--	--	--	--	--	--	--
Export	607,687	177,386	378,898	12,400	17,573	427	251	54,858	177	--
Pole, post & piling	4,327	4,327	--	--	--	--	--	16,282	3,212	1,258
Total	1,635,046	481,539	868,064	21,613	29,918	427	254	111,488	7,721	114,022
Lower Columbia										
Lumber	469,258	275,961	91,863	15,066	469	52,295	--	18,987	4,579	10,038
Veneer & plywood	107,111	70,169	27,914	7,348	780	900	--	--	--	--
Pulp & board ¹	105,228	47,376	34,999	593	280	--	13,160	8,820	--	--
Shake & shingle	15,863	--	--	--	--	--	--	15,863	--	--
Export	621,915	464,841	133,807	2,320	3,007	133	--	7,366	9,854	587
Pole, post & piling	3,243	2,957	--	--	--	--	--	286	--	--
Total	1,322,618	861,304	288,583	25,327	4,536	53,328	13,160	51,322	14,433	10,625
Central Washington										
Lumber	204,955	58,557	2,100	20,598	3,127	115,670	2,206	--	2,697	--
Veneer & plywood ²	91,981	56,362	--	17,589	1,128	6,995	1,235	--	8,672	--
Pulp & board	--	--	--	--	--	--	--	--	--	--
Shake & shingle ²	270	--	--	--	--	--	--	270	--	--
Export	--	--	--	--	--	--	--	--	--	--
Pole, post & piling	--	--	--	--	--	--	--	--	--	--
Total	297,206	114,919	2,100	38,187	4,255	122,665	3,441	270	11,369	--
Inland Empire										
Lumber	159,375	57,019	7,858	12,394	4,005	53,168	17,068	6,266	1,545	52
Veneer & plywood ²	--	--	--	--	--	--	--	--	--	--
Pulp & board ¹	--	--	--	--	--	--	--	--	--	--
Shake & shingle ²	--	--	--	--	--	--	--	--	--	--
Export	--	--	--	--	--	--	--	--	--	--
Pole, post & piling	2,583	--	--	--	--	--	2,583	--	--	--
Total	161,958	57,019	7,858	12,394	4,005	53,168	19,651	6,266	1,545	52
Total, State										
Lumber	2,128,285	935,053	616,461	62,320	12,976	221,173	19,318	101,612	12,704	146,668
Veneer & plywood	331,878	190,197	72,091	33,237	2,457	7,895	1,235	6,236	9,490	9,040
Pulp & board	511,883	78,647	308,551	59,771	14,178	2,180	14,613	9,546	1,453	22,944
Shake & shingle	96,073	--	--	--	--	--	--	95,896	177	--
Export	2,134,349	1,187,872	812,876	32,437	28,546	695	826	45,783	20,773	4,541
Pole, post & piling	17,025	11,973	--	--	--	--	2,583	2,469	--	--
Total	5,219,493	2,403,742	1,809,979	187,765	58,157	231,943	38,575	261,542	44,597	183,193

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

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

WASHINGTON SUMMARY, 1982

Table 9 Production and disposition of wood and bark residues, by area and industry (Tons, dry weight)

Economic area and residue-producing industry	Wood residue							Bark residue						
	All residues	All wood	Total	Used ¹				All bark	Total	Used ¹				
				Pulp and board	Fuel	Other	Unused			Pulp and board	Fuel	Other	Unused	
Puget Sound														
Lumber	952,370	739,454	737,297	325,448	233,465	178,384	2,157	212,916	212,453	2,585	95,487	114,381	463	
Veneer & plywood	172,698	140,993	139,409	70,352	62,489	6,568	1,584	31,705	30,642	--	30,642	--	1,063	
Shake & shingle	29,705	21,100	13,145	412	11,103	1,630	7,955	8,605	4,975	--	4,366	609	3,630	
Other ²	42,266	--	--	--	--	--	--	42,266	42,266	--	10,399	31,867	--	
Total	1,197,039	901,547	889,851	396,212	307,057	186,582	11,696	295,492	290,336	2,585	140,894	146,857	5,156	
Olympic Peninsula														
Lumber	1,014,011	785,474	763,316	432,752	254,776	75,788	22,158	228,537	225,955	302	189,355	36,298	2,582	
Veneer & plywood	148,643	123,023	118,452	64,302	43,984	10,166	4,571	25,620	24,134	--	19,827	4,307	1,486	
Shake & shingle	75,834	55,899	26,573	4,210	18,587	3,776	29,326	19,935	9,495	1,005	7,666	824	10,440	
Other ²	35,186	--	--	--	--	--	--	35,186	35,186	--	17,128	18,058	--	
Total	1,273,674	964,396	908,341	501,264	317,347	89,730	56,055	309,278	294,770	1,307	233,976	59,487	14,508	
Lower Columbia														
Lumber	758,899	581,136	581,132	422,228	117,562	41,342	4	177,763	177,763	2,786	168,000	6,977	--	
Veneer & plywood	235,987	184,334	184,334	126,172	26,384	31,778	--	51,653	51,653	--	51,653	--	--	
Shake & shingle	19,415	13,365	13,350	3,086	9,888	376	15	6,050	6,050	952	5,034	64	--	
Other ²	69,547	--	--	--	--	--	--	69,547	69,547	--	66,731	2,816	--	
Total	1,083,848	778,835	778,816	551,486	153,834	73,496	19	305,013	305,013	3,738	291,418	9,857	--	
Central Washington														
Lumber	310,894	244,296	230,664	113,686	113,983	2,995	13,632	66,598	63,333	--	57,655	5,678	3,265	
Veneer & plywood ³	152,117	121,153	117,786	80,345	37,441	--	3,367	30,964	30,964	--	30,486	478	--	
Shake & shingle ³	287	222	137	--	2	135	85	65	65	--	--	65	--	
Other ²	--	--	--	--	--	--	--	--	--	--	--	--	--	
Total	463,298	365,671	348,587	194,031	151,426	3,130	17,084	97,627	94,362	--	88,141	6,221	3,265	
Inland Empire														
Lumber	259,804	202,219	199,430	155,306	43,061	1,063	2,789	57,585	50,106	--	48,462	1,554	7,569	
Veneer & plywood ³	--	--	--	--	--	--	--	--	--	--	--	--	--	
Shake & shingle ³	--	--	--	--	--	--	--	--	--	--	--	--	--	
Other ²	801	--	--	--	--	--	--	801	515	--	--	515	286	
Total	260,605	202,219	199,430	155,306	43,061	1,063	2,789	58,386	50,531	--	48,462	2,069	7,855	
Total, State														
Lumber	3,295,978	2,552,579	2,511,839	1,449,420	762,847	299,572	40,740	743,399	729,520	5,673	558,959	164,888	13,879	
Veneer & plywood	709,445	569,503	559,981	341,171	170,298	48,512	9,522	139,942	137,393	--	132,608	4,785	2,549	
Shake & shingle	125,241	90,586	53,205	7,708	39,580	5,917	37,381	34,655	20,585	1,957	17,066	1,562	14,070	
Other ²	147,800	--	--	--	--	--	--	147,800	147,514	--	94,258	53,256	286	
Total	4,278,464	3,212,668	3,125,025	1,798,299	972,725	354,001	87,643	1,065,796	1,035,012	7,630	802,891	224,491	30,784	

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

²Includes log export, and pole and piling operations

³Inland Empire combined with Central Washington to avoid disclosure

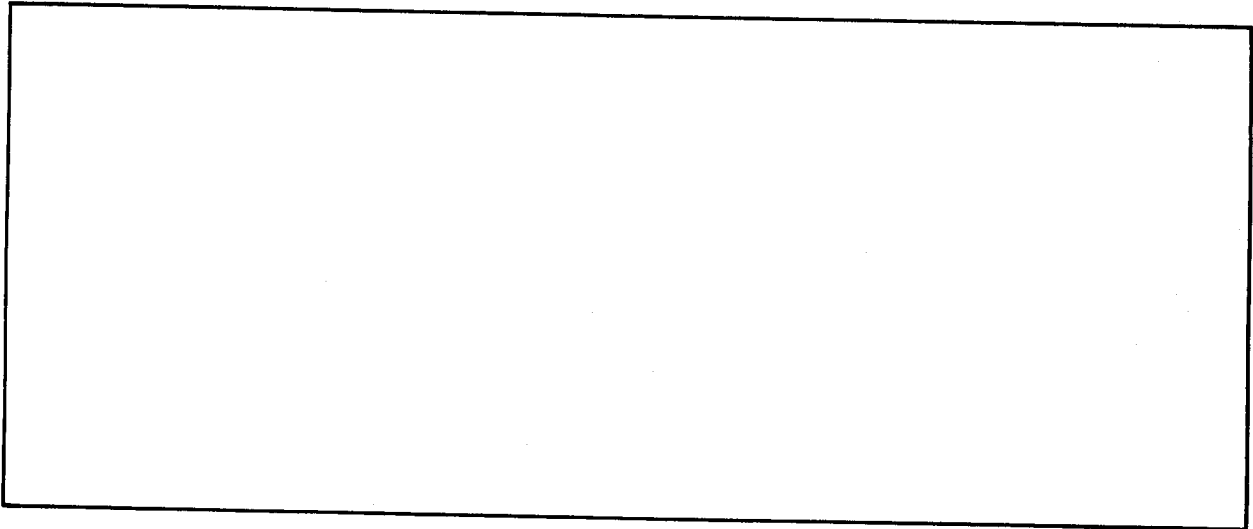
WASHINGTON SUMMARY, 1982

**Table 10 Log consumption by timber age, area and industry
(Thousand board feet, Scribner log rule)**

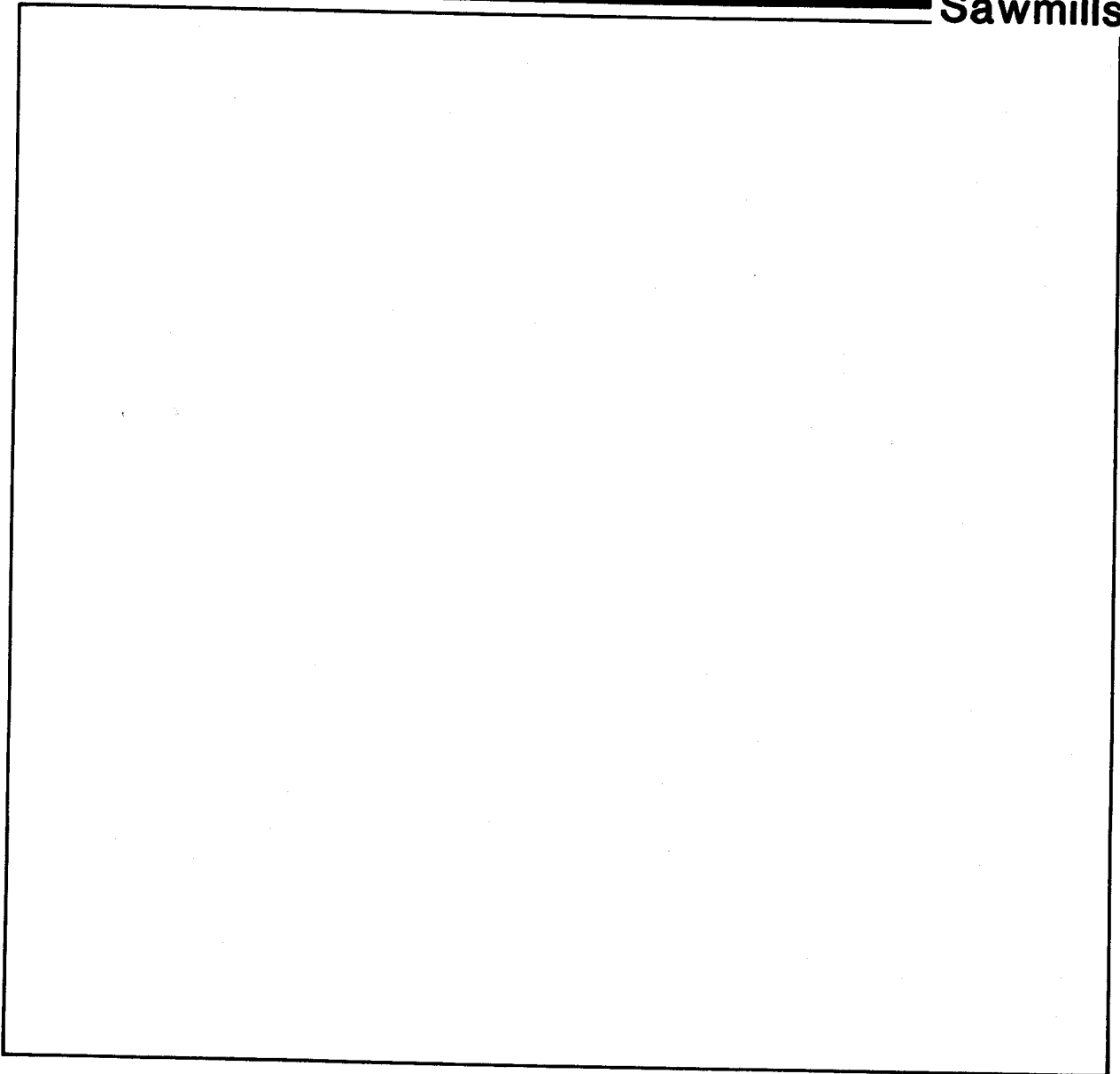
Economic area and industry	All age groups	Old growth (100+ years)	Young growth (less than 100 years)
Puget Sound			
Lumber	600,875	169,793	431,082
Veneer & plywood	66,062	21,467	44,595
Pulp & board	199,204	175,484	23,720
Shake & shingle	24,905	24,578	327
Export	904,747	418,528	486,219
Pole, post & piling	6,872	57	6,815
Total	1,802,665	809,907	992,758
Olympic Peninsula			
Lumber	693,822	236,204	457,618
Veneer & plywood	66,724	35,000	31,724
Pulp & board	207,451	32,428	175,023
Shake & shingle	55,035	51,389	3,646
Export	607,687	198,455	409,232
Pole, post & piling	4,327	204	4,123
Total	1,635,046	553,680	1,081,366
Lower Columbia			
Lumber	469,258	190,406	278,852
Veneer & plywood	107,111	68,547	38,564
Pulp & board ¹	105,228	47,869	57,359
Shake & shingle	15,863	15,860	3
Export	621,915	292,804	329,111
Pole, post & piling	3,243	255	2,988
Total	1,322,618	615,741	706,877
Central Washington			
Lumber	204,955	94,667	110,288
Veneer & plywood ²	91,981	57,177	34,804
Pulp & board	--	--	--
Shake & shingle ²	270	270	--
Export	--	--	--
Pole, post & piling	--	--	--
Total	297,206	152,114	145,092
Inland Empire			
Lumber	159,375	64,795	94,580
Veneer & plywood ²	--	--	--
Pulp & board ¹	--	--	--
Shake & shingle ²	--	--	--
Export	--	--	--
Pole, post & piling	2,583	2,299	284
Total	161,958	67,094	94,864
Total, State			
Lumber	2,128,285	755,865	1,372,420
Veneer & plywood	331,878	182,191	149,687
Pulp & board	511,883	255,781	256,102
Shake & shingle	96,073	92,097	3,976
Export	2,134,349	909,787	1,224,562
Pole, post & piling	17,025	2,815	14,210
Total	5,219,493	2,198,536	3,020,957

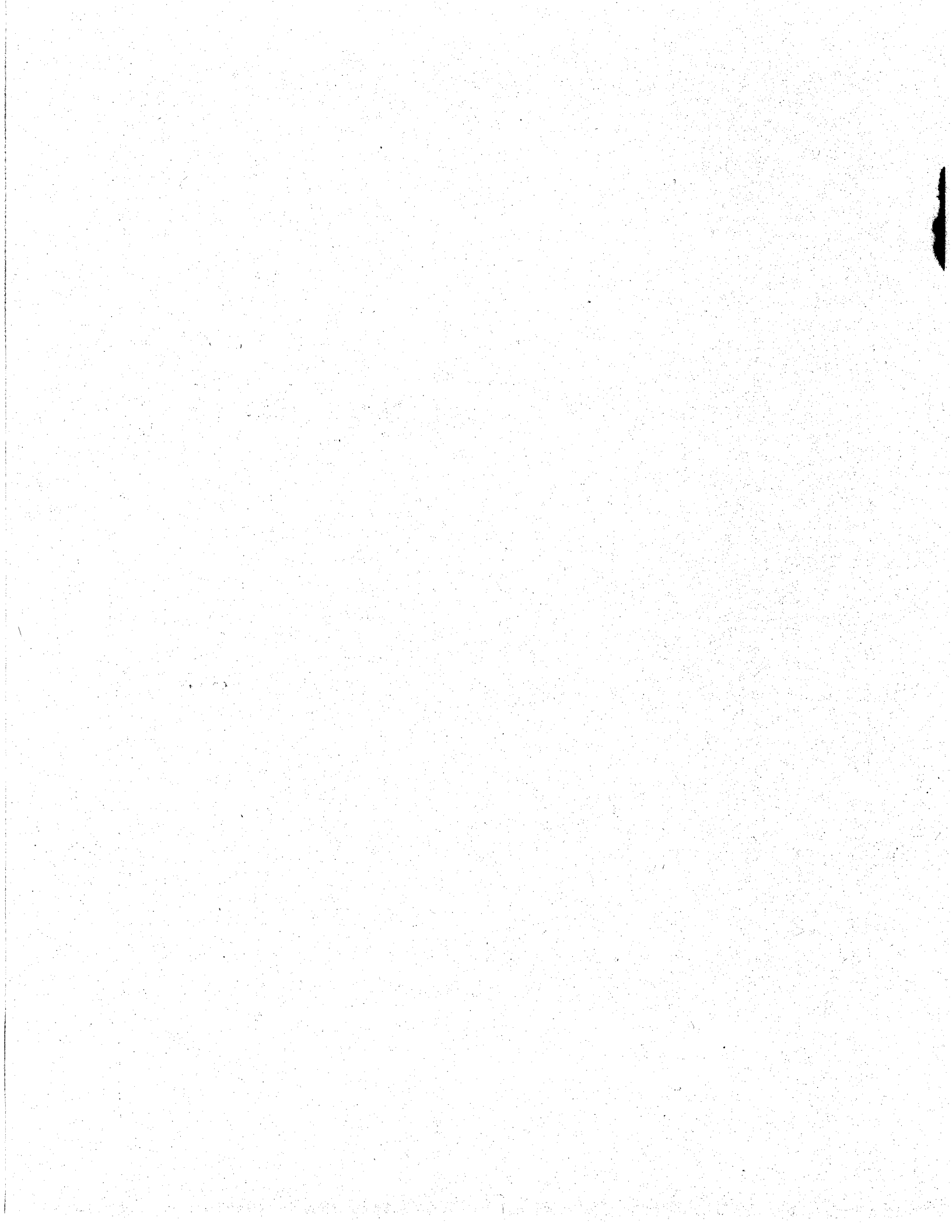
¹Inland Empire combined with Lower Columbia to avoid disclosure

²Inland Empire combined with Central Washington to avoid disclosure



Sawmills





WASHINGTON SAWMILLS, 1982

Table 11 Number of sawmills by mill size-class, area and county

Economic area and county	All classes	Mill size-class ¹			
		D	C	B	A
Puget Sound					
Island	2	1	1	--	--
King	8	4	--	1	3
Kitsap	2	1	--	--	1
Pierce	10	3	1	1	5
San Juan	1	1	--	--	--
Skagit	5	4	--	--	1
Snohomish	21	11	2	3	5
Whatcom	6	5	1	-	--
Total	55	30	5	5	15
Olympic Peninsula					
Clallam	14	13	--	--	1
Grays Harbor	11	5	2	1	3
Jefferson	6	5	--	1	--
Lewis	11	2	3	1	5
Mason	5	1	1	1	2
Pacific	4	1	1	--	2
Thurston	2	--	1	--	1
Total	53	27	8	4	14
Lower Columbia					
Clark	7	5	2	--	--
Cowlitz	8	2	2	--	4
Klickitat	5	1	1	2	1
Skamania	2	--	--	--	2
Wahkiakum	1	1	--	--	--
Total	23	9	5	2	7
Central Washington					
Chelan	2	--	--	1	1
Lincoln	1	--	--	--	1
Okanogan	7	3	1	1	2
Yakima	4	--	--	3	1
Total	14	3	1	5	5
Inland Empire					
Asotin	2	1	--	1	--
Columbia	1	1	--	--	--
Ferry	2	--	1	--	1
Pend Oreille	3	1	2	--	--
Spokane	3	2	--	1	--
Stevens	11	6	5	--	--
Walla Walla	2	1	1	--	--
Total	24	12	9	2	1
Total, State	169	81	28	18	42

¹ Mill size-class identified as follows: Class A mills = 120,000 + board foot capacity per shift, B = 80,000 - 119,999, C = 40,000 - 79,999, D = less than 40,000

WASHINGTON SAWMILLS, 1982

Table 12 Installed eight-hour single shift capacity by mill size-class, area and county (Thousand board feet, lumber tally)

Economic area and county	Total capacity	Mill size-class ¹			
		D	C	B	A
Puget Sound					
Island	47	2	45	--	--
King	670	38	--	100	532
Kitsap	278	3	--	--	275
Pierce	847	10	40	92	705
San Juan	4	4	--	--	--
Skagit	162	37	--	--	125
Snohomish	1,510	151	110	280	969
Whatcom	88	18	70	--	--
Total	3,606	263	265	472	2,606
Olympic Peninsula					
Clallam	266	116	--	--	150
Grays Harbor	836	60	80	100	596
Jefferson	132	42	--	90	--
Lewis	959	12	165	100	682
Mason	672	35	75	100	462
Pacific	323	1	50	--	272
Thurston	225	--	65	--	160
Total	3,413	266	435	390	2,322
Lower Columbia					
Clark	155	35	120	--	--
Cowlitz	1,189	15	100	--	1,074
Klickitat	468	13	75	200	180
Skamania	320	--	--	--	320
Wahkiakum	6	6	--	--	--
Total	2,138	69	295	200	1,574
Central Washington					
Chelan	225	--	--	100	125
Lincoln	130	--	--	--	130
Okanogan	453	13	60	80	300
Yakima	435	--	--	310	125
Total	1,243	13	60	490	680
Inland Empire					
Asotin	94	4	--	90	--
Columbia	6	6	--	--	--
Ferry	203	--	53	--	150
Pend Oreille	93	3	90	--	--
Spokane	90	10	--	80	--
Stevens	290	35	255	--	--
Walla Walla	74	2	72	--	--
Total	850	60	470	170	150
Total, State	11,250	671	1,525	1,722	7,332

¹Mill size-classes identified as follows: Class A mills = 120,000 + board foot capacity per 8-hour shift; B = 80,000 - 119,999; C = 40,000 - 79,999; D = less than 40,000

WASHINGTON SAWMILLS, 1982

Table 13 Number of sawmills with selected equipment, by mill size-class and area

Economic area and mill size-class ¹	Barker	Chipper	Planer	Burner	Kiln
Puget Sound					
D	3	6	11	--	2
C	5	4	5	1	3
B	4	5	4	--	3
A	14	14	13	--	9
Total	26	29	33	1	17
Olympic Peninsula					
D	3	6	6	3	4
C	8	8	5	--	2
B	4	4	4	--	4
A	14	13	12	1	9
Total	29	31	27	4	19
Lower Columbia					
D	--	--	2	--	1
C	5	5	5	--	2
B	2	2	1	--	1
A	7	6	5	--	4
Total	14	13	13	--	8
Central Washington					
D	--	--	--	--	--
C	1	1	1	1	--
B	5	5	5	--	4
A	5	5	3	--	5
Total	11	11	9	1	9
Inland Empire					
D	--	--	4	1	--
C	9	8	7	2	4
B	2	2	2	--	2
A	1	1	1	--	1
Total	12	11	14	3	7
Total, State					
D	6	12	23	4	7
C	28	26	23	4	11
B	17	18	16	--	14
A	41	39	34	1	28
Total	92	95	96	9	60

¹Mill size-classes identified as follows: Class A mills = 120,000 + board foot capacity per shift; B = 80,000 - 119,999; C = 40,000 - 79,999; D = less than 40,000

WASHINGTON SAWMILLS, 1982

Table 14 Number of sawmills with selected equipment, by area and county

Economic area and county	Barker	Chipper	Planer	Burner	Kiln
Puget Sound					
Island	1	1	1	1	1
King	4	4	5	--	2
Kitsap	1	1	2	--	--
Pierce	7	6	6	--	4
San Juan	--	--	1	--	--
Skagit	2	2	2	--	2
Snohomish	10	14	15	--	7
Whatcom	1	1	1	--	1
Total	26	29	33	1	17
Olympic Peninsula					
Clallam	2	3	4	1	2
Grays Harbor	7	7	4	1	3
Jefferson	1	1	1	1	1
Lewis	9	10	9	--	6
Mason	5	5	4	--	4
Pacific	3	3	3	1	3
Thurston	2	2	2	--	--
Total	29	31	27	4	19
Lower Columbia					
Clark	2	2	4	--	1
Cowlitz	6	5	4	--	2
Klickitat	4	4	3	--	3
Skamania	2	2	2	--	2
Wahkiakum	--	--	--	--	--
Total	14	13	13	--	8
Central Washington					
Chelan	2	2	2	--	2
Lincoln	1	1	--	--	1
Okanogan	4	4	3	1	2
Yakima	4	4	4	--	4
Total	11	11	9	1	9
Inland Empire					
Asotin	1	1	1	--	1
Ferry	2	2	2	--	2
Pend Oreille	2	2	1	--	1
Spokane	1	1	1	--	1
Stevens	5	4	7	3	1
Walla Walla	1	1	2	--	1
Total	12	11	14	3	7
Total, State	92	95	96	9	60

WASHINGTON SAWMILLS, 1982

Table 15 Number of sawmills by headrig type and size, area and mill size-class

Economic area and mill size- class ¹	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	3	17	3	4	3	--	--	--	1	--	1	--	--	--	--	--	--
C	--	--	--	--	5	--	--	--	--	--	--	1	--	--	--	--	--
B	--	1	--	--	2	2	--	--	--	--	--	1	--	--	1	--	--
A	--	1	--	--	9	4	1	--	--	--	--	5	--	--	--	--	--
Total	3	19	3	4	19	6	1	--	1	--	1	7	--	--	1	--	--
Olympic Peninsula																	
D	3	9	3	9	3	1	--	--	--	--	--	--	--	--	--	--	--
C	1	1	--	--	4	2	--	--	--	--	--	--	--	--	--	--	--
B	--	--	--	--	--	2	--	--	--	--	--	2	--	--	--	--	--
A	--	--	--	--	8	4	1	--	--	1	--	7	--	--	1	--	--
Total	4	10	3	9	15	9	1	--	--	1	--	9	--	--	1	--	--
Lower Columbia																	
D	2	4	2	1	1	--	--	--	--	--	--	--	--	--	--	--	--
C	--	--	--	--	1	3	--	--	1	--	--	--	--	--	--	--	--
B	--	--	--	--	--	2	--	--	1	--	--	--	--	--	--	--	--
A	--	--	--	--	2	3	2	--	1	1	--	1	--	--	1	--	--
Total	2	4	2	1	4	8	2	--	3	1	--	1	--	--	1	--	--
Central Washington																	
D	--	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--
B	1	--	--	--	1	3	--	--	--	--	--	1	--	--	--	--	--
A	--	--	--	--	--	4	--	--	--	--	--	1	--	--	--	--	--
Total	1	2	1	--	1	8	--	--	--	--	--	2	--	--	--	--	--
Inland Empire																	
D	3	6	2	--	1	--	--	--	--	--	--	--	--	--	--	--	--
C	--	3	1	--	4	1	--	--	--	--	--	--	--	--	--	--	--
B	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--
A	1	--	--	--	1	--	--	--	--	--	--	--	--	--	1	--	--
Total	4	9	3	--	7	2	--	--	--	--	--	--	--	--	1	--	--
Total, State																	
D	11	38	11	14	8	1	--	--	1	--	1	--	--	--	--	--	--
C	1	4	1	--	14	7	--	--	1	--	--	1	--	--	--	--	--
B	1	1	--	--	4	10	--	--	1	--	--	4	--	--	1	--	--
A	1	1	--	--	20	15	4	--	1	2	--	14	--	--	3	--	--
Total	14	44	12	14	46	33	4	--	4	2	1	19	--	--	4	--	--

¹ Mill size-classes identified as follows: Class A mills = 120,000 + board foot capacity per shift, B = 80,000 - 119,999
C = 40,000 - 79,999, D = less than 40,000

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

WASHINGTON SAWMILLS, 1982

Table 16 Number of sawmills by tenure of present ownership, years of site occupation and mill size-class

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	7	6	1	--	--	--
	3-5	16	--	15	1	--	--
	6-10	18	--	1	15	1	1
	11-20	16	--	1	2	13	--
	21+	24	--	1	1	2	20
	Total		81	6	19	19	16
C	0-2	1	1	--	--	--	--
	3-5	2	--	2	--	--	--
	6-10	5	--	--	5	--	--
	11-20	2	--	--	1	--	1
	21+	18	1	--	4	4	9
	Total		28	2	2	10	4
B	0-2	--	--	--	--	--	--
	3-5	2	--	1	--	--	--
	6-10	2	--	--	2	--	--
	11-20	4	2	--	--	2	--
	21+	10	--	2	1	2	5
	Total		18	2	3	3	4
A	0-2	--	--	--	--	--	--
	3-5	2	--	2	--	--	--
	6-10	4	--	--	4	--	--
	11-20	7	--	--	1	6	--
	21+	29	1	1	9	2	16
	Total		42	1	3	14	8
Total State	0-2	8	7	1	--	--	--
	3-5	22	--	20	1	--	1
	6-10	29	--	1	26	1	1
	11-20	29	2	1	4	21	1
	21+	81	2	4	15	10	50
	Total		169	11	27	46	32

¹Mill size-classes identified as follows: Class A mills = 120,000 + board foot capacity per shift, B = 80,000 - 119,999, C = 40,000 - 79,999, D = less than 40,000

WASHINGTON SAWMILLS, 1982

Table 17 Average number of operating days by area and mill size-class

Economic area and mill size-class ¹	Average number of operating days per year	Economic area and mill size-class ¹	Average number of operating days per year
Puget Sound		Central Washington	
D	118	D ³	115
C	175	B	152
B	193	A	120
A	188		--
Average	149	Average	130
Olympic Peninsula		Inland Empire	
D	131	D	61
C	179	C	175
B	215	B ²	210
A	208		
Average	165	Average	123
Lower Columbia		Total, State	
D	114	D ⁴	113
C	223	C	185
B ²	213	B ⁵	197
		A	186
Average	177	Average	153

¹Mill size-classes identified as follows: Class A mills = 120,000 + board foot capacity per 8-hour shift, B = 80,000 - 119,999, C = 40,000 - 79,999, D = less than 40,000

²Size-class A combined with size-class B to avoid disclosure

³Size-class D combined with size-class C to avoid disclosure

⁴Size-class D includes size-class C for Central Washington

⁵Size-class B includes size-class A for Lower Columbia and Inland Empire

WASHINGTON SAWMILLS, 1982

**Table 18 Type of wood consumed, by area and mill size-class
(Thousand board feet, Scribner log rule)**

Economic area and mill size- class ¹	Roundwood			Other	
	All roundwood	Sound logs	Utility logs	Peeler cores	Cants
	Scribner log rule			Lumber tally	
Puget Sound					
D	22,716	20,484	2,232	--	--
C	20,240	19,991	249	--	--
B	77,350	57,475	19,875	--	--
A	480,569	466,430	14,139	500	--
Total	600,875	564,380	36,495	500	--
Olympic Peninsula					
D	32,260	27,084	5,176	--	--
C	82,640	81,027	1,613	--	--
B	91,455	69,638	21,817	1	--
A	487,467	404,624	82,843	457	--
Total	693,822	582,373	111,449	458	--
Lower Columbia					
D	1,786	1,472	314	--	--
C	65,950	65,184	766	--	424
B and A ²	401,522	386,791	14,731	--	--
Total	469,258	453,447	15,811	--	424
Central Washington					
D and C ³	7,147	7,009	138	--	--
B	95,661	93,410	2,251	--	--
A	102,147	99,044	3,103	--	5,254
Total	204,955	199,463	5,492	--	5,254
Inland Empire					
D	1,498	1,423	75	--	--
C	87,897	87,697	200	--	--
B and A ²	69,980	67,680	2,300	--	--
Total	159,375	156,800	2,575	--	--
Total, State					
D ³	65,407	57,472	7,935	--	--
C	256,727	253,899	2,828	--	424
B ⁴	735,968	674,994	60,974	1	5,254
A	1,070,183	970,098	100,085	957	--
Total	2,128,285	1,956,463	171,822	958	5,678

¹ Mill size-classes identified as follows: Class A mills = 120,000 + board foot capacity per shift, B = 80,000 - 119,999, C = 40,000 - 79,999, D = less than 40,000

² Combined to avoid disclosure

³ Total for Class D includes Class C for Central Washington

⁴ Total for Class B includes Class A for Inland Empire and Lower Columbia

WASHINGTON SAWMILLS, 1982

**Table 19 Age of logs consumed, by area and mill size-class
(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	22,716	4,880	17,836
C	20,240	4,024	16,216
B	77,350	8,524	68,826
A	480,569	152,365	328,204
Total	600,875	169,793	431,082
Olympic Peninsula			
D	32,260	16,512	15,748
C	82,640	9,805	72,835
B	91,455	19,499	71,956
A	487,467	190,388	297,079
Total	693,822	236,204	457,618
Lower Columbia			
D	1,786	977	809
C	65,950	25,520	40,430
B and A ²	401,522	163,909	237,613
Total	469,258	190,406	278,852
Central Washington			
D and C ²	7,147	4,236	2,911
B	95,661	28,038	67,623
A	102,147	62,393	39,754
Total	204,955	94,667	110,288
Inland Empire			
D	1,498	469	1,029
C	87,897	39,046	48,851
B and A ²	69,980	25,280	44,700
Total	159,375	64,795	94,580
Total, State			
D ³	65,407	27,074	38,333
C	256,727	78,395	178,332
B ⁴	735,968	245,250	490,718
A	1,070,183	405,146	665,037
Total	2,128,285	755,865	1,372,420

¹ Mill size-classes identified as follows: Class A mills = 120,000 + board foot capacity per shift, B = 80,000 - 119,999, C = 40,000 - 79,999, D = less than 40,000

² Combined to avoid disclosure

³ Total for Class D includes Class C for Central Washington

⁴ Total for Class B includes Class A for Inland Empire and Lower Columbia

WASHINGTON SAWMILLS, 1982

**Table 20 Log consumption by timber age, area and county
(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/San Juan ¹	4,993	--	4,993
King	104,337	73,247	31,090
Kitsap/Pierce ¹	183,076	28,814	154,262
Skagit	20,525	3,470	17,055
Snohomish	281,808	63,678	218,130
Whatcom	6,136	584	5,552
Total	600,875	169,793	431,082
Olympic Peninsula			
Clallam	41,874	26,614	15,260
Grays Harbor	179,354	71,221	108,133
Jefferson	15,882	12,371	3,511
Lewis	185,930	37,231	148,699
Mason/Thurston ¹	216,549	68,120	148,429
Pacific	54,233	20,647	33,586
Total	693,822	236,204	457,618
Lower Columbia			
Clark	15,155	6,922	8,233
Cowlitz	341,195	130,802	210,393
Klickitat	87,630	30,516	57,114
Skamania/Wahkiakum ¹	25,278	22,166	3,112
Total	469,258	190,406	278,852
Central Washington			
Chelan/Lincoln ¹	41,898	27,974	13,924
Okanogan	55,031	40,263	14,768
Yakima	108,026	26,430	81,596
Total	204,955	94,667	110,288
Inland Empire			
Asotin and Walla Walla ¹	45,745	24,392	21,353
Columbia/Ferry ¹	34,222	1,450	32,772
Pend Oreille/Spokane	30,289	2,510	27,779
Stevens	49,119	36,443	12,676
Total	159,375	64,795	94,580
Total, State	2,128,285	755,865	1,372,420

¹Combined to avoid disclosure

WASHINGTON SAWMILLS, 1982

Table 21 Log inventory changes, log consumption, and apparent log receipts by area (Thousand board feet, Scribner log rule)

Economic area	Log Inventory			1982 log consumption	Apparent 1982 log receipts
	January 1, 1982	December 31, 1982	Net Change		
Puget Sound	104,054	83,767	-20,287	600,875	580,588
Olympic Peninsula	116,426	88,762	-27,664	693,822	666,158
Lower Columbia	59,186	59,590	+404	469,258	469,662
Central Washington	62,814	38,894	-23,920	204,955	181,035
Inland Empire	44,529	30,173	-14,356	159,375	145,019
Total, State	387,009	301,186	-85,823	2,128,285	2,042,462

WASHINGTON SAWMILLS, 1982

**Table 22 Ownership origin of logs consumed, by area and mill size-class
(Thousand board feet, Scribner log rule)**

Economic area and mill size- class ¹	All		National Forest	Bureau of Land Management	Other Public	Forest Industry		Farmer and miscellaneous private
	Owners	State				Own wood supply	Other wood supply	
Puget Sound								
D	22,716	1,430	1,430	--	696	1,002	9,614	8,544
C	20,240	1,228	5,511	--	861	4,950	4,565	3,125
B	77,350	5,505	6,275	--	55	17,600	34,855	13,060
A	480,569	41,712	130,622	--	5,340	262,475	21,913	18,507
Total	600,875	49,875	143,838	--	6,952	286,027	70,947	43,236
Olympic Peninsula								
D	32,260	4,247	6,973	468	--	100	12,039	8,433
C	82,640	7,787	11,755	--	--	11,970	46,426	4,702
B	91,455	14,279	30,081	--	--	10,403	26,000	10,692
A	487,467	32,229	187,000	--	13,790	174,028	48,912	31,508
Total	693,822	58,542	235,809	468	13,790	196,501	133,377	55,335
Lower Columbia								
D	1,786	--	10	--	--	--	938	838
C	65,950	767	5,520	--	2,389	38,748	14,043	4,483
B and A ²	401,522	27,412	41,793	--	19,168	257,601	38,706	16,842
Total	469,258	28,179	47,323	--	21,557	296,349	53,687	22,163
Central Washington								
D and C ²	7,147	42	4,876	341	--	--	--	1,888
B	95,661	390	68,558	--	4,565	18,490	1,558	2,100
A	102,147	2,218	33,696	--	28,937	21,665	--	15,631
Total	204,955	2,650	107,130	341	33,502	40,155	1,558	19,619
Inland Empire								
D	1,498	--	356	--	75	10	--	1,057
C	87,897	1,328	19,216	--	5,763	35,407	2	26,181
B and A ²	69,980	4,499	17,797	--	7,349	--	1,758	38,577
Total	159,375	5,827	37,369	--	13,187	35,417	1,760	65,815
Total, State								
D ³	65,407	5,719	13,645	809	771	1,112	22,591	20,760
C	256,727	11,110	42,002	--	9,013	91,075	65,036	38,491
B ⁴	735,968	52,085	164,504	--	31,137	304,094	102,877	81,271
A	1,070,183	76,159	351,318	--	48,067	458,168	70,825	65,646
Total	2,128,285	145,073	571,469	809	88,988	854,449	261,329	206,168

¹ Mill size-class identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,999, C = 40,000-79,999, D = less than 40,000

² Combined to avoid disclosure

³ Total for Class D includes Class C for Central Washington

⁴ Total for Class B includes Class A for Inland Empire and Lower Columbia

WASHINGTON SAWMILLS, 1982

**Table 23 Ownership origin of logs consumed, by area and county
(Thousand board feet, Scribner log rule)**

Economic area and county	All		National Forest	Bureau of Land Management	Other Public	Forest Industry		Farmer and miscellaneous private
	Owners	State				Own wood supply	Other wood supply	
Puget Sound								
Island/San Juan ¹	4,993	--	--	--	--	3,150	--	1,843
King	104,337	4,902	15,120	--	--	81,394	1,446	905
Kitsap/Pierce ¹	183,076	28,244	28,267	--	4,770	87,117	26,504	8,174
Skagit	20,525	5,650	1,650	--	113	1,000	446	11,666
Snohomish	281,808	9,931	97,940	--	638	113,366	41,016	18,917
Whatcom	6,136	1,148	861	--	861	--	1,535	1,731
Total	600,875	49,875	143,838	--	6,952	286,027	70,947	43,236
Olympic Peninsula								
Clallam	41,874	3,421	21,225	--	--	100	11,175	5,953
Grays Harbor	179,354	17,363	26,105	468	2,777	98,764	27,761	6,116
Jefferson	15,882	12,641	998	--	--	--	1,764	479
Lewis	185,930	12,864	63,408	--	10,500	22,196	50,831	26,131
Mason/Thurston ¹	216,549	2,342	124,073	--	--	54,311	22,342	13,481
Pacific	54,233	9,911	--	--	513	21,130	19,504	3,175
Total	693,822	58,542	235,809	468	13,790	196,501	133,377	55,335
Lower Columbia								
Clark	15,155	414	5,520	--	--	--	8,043	1,178
Cowlitz	341,195	23,400	12,010	--	--	249,053	42,000	14,732
Klickitat	87,630	4,365	7,725	--	21,557	46,090	2,480	5,413
Skamania/Wahkiakum ¹	25,278	--	22,068	--	--	1,206	1,164	840
Total	469,258	28,179	47,323	--	21,557	296,349	53,687	22,163
Central Washington								
Chelan/Lincoln ¹	41,898	--	13,200	--	4,094	17,122	--	7,482
Okanogan	55,031	2,260	19,985	341	17,724	2,584	--	12,137
Yakima	108,026	390	73,945	--	11,684	20,449	1,558	--
Total	204,955	2,650	107,130	341	33,502	40,155	1,558	19,619
Inland Empire								
Asotin/Walla Walla ¹	45,745	2,199	6,856	--	1,099	--	1,758	33,833
Columbia/Ferry ¹	34,222	450	23,050	--	6,250	--	--	4,472
Pend Oreille/Spokane ¹	30,289	2,900	5,099	--	--	--	--	22,290
Stevens	49,119	278	2,364	--	5,838	35,417	2	5,220
Total	159,375	5,827	37,369	--	13,187	35,417	1,760	65,815
Total, State	2,128,285	145,073	571,469	809	88,988	854,449	261,329	206,168

¹ Combined to avoid disclosure

WASHINGTON SAWMILLS, 1982

Table 24 Number of mills dependent upon ownerships, by area and mill size-class

Economic area and mill size-class ¹	National Forest			State			Bureau of Land Management			Other Public			Forest Industry			Farmer & miscellaneous private											
	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	0	1-32	33-66	0	1-32	33-66	0	1-32	33-66	0	1-32	33-66	0	1-32	33-66									
Puget Sound	27	1	1	25	4	1	--	--	30	--	--	27	3	--	--	28	1	1	--	24	1	3	2	4	1	5	20
D	2	1	--	3	2	--	--	--	5	--	--	4	1	--	--	3	--	1	1	2	2	1	--	1	4	--	--
C	3	1	--	1	2	3	--	--	5	--	--	4	1	--	--	3	1	--	1	1	1	2	1	3	1	1	--
B	5	4	1	5	6	9	--	--	15	--	--	12	3	--	--	6	1	3	5	8	6	1	--	8	6	1	--
A	37	7	2	9	36	18	1	--	55	--	--	47	8	--	--	40	3	5	7	35	10	7	3	16	12	7	20
Total	17	3	4	3	17	7	2	1	26	1	--	27	--	--	--	26	1	--	--	21	2	--	4	8	4	2	13
Olympic Peninsula	3	3	--	2	5	1	--	--	8	--	--	8	--	--	--	7	--	--	1	3	--	2	3	4	4	--	--
D	1	1	--	2	1	2	--	--	4	--	--	4	--	--	--	2	2	--	2	3	--	1	--	1	3	--	--
C	1	1	--	2	1	2	--	--	4	--	--	4	--	--	--	2	2	--	2	3	--	1	--	1	3	--	--
B	5	1	4	4	4	9	1	--	14	--	--	9	4	--	--	1	4	6	2	7	6	1	--	6	6	2	--
A	26	8	8	11	24	23	4	2	52	1	--	48	4	--	--	1	39	9	2	34	8	4	7	19	17	4	13
Total	8	1	--	8	1	--	--	--	9	--	--	9	--	--	--	9	--	--	--	8	--	--	1	1	--	--	8
Lower Columbia	4	--	--	1	3	2	--	--	5	--	--	4	1	--	--	3	--	--	2	2	1	1	1	3	1	1	--
D	4	2	1	2	3	6	--	--	9	--	--	6	2	1	--	2	3	1	3	6	2	1	--	5	4	--	--
C	16	3	1	3	14	9	--	--	23	--	--	19	3	1	--	14	3	1	5	16	3	2	2	9	5	1	8
Total	2	--	--	2	2	1	--	1	3	1	--	4	--	--	--	4	--	--	--	4	--	--	--	--	3	--	1
Central Washington	--	--	2	3	4	1	--	--	5	--	--	4	1	--	--	3	--	2	--	4	1	--	--	4	1	--	--
D and C ²	1	1	3	--	4	1	--	--	5	--	--	2	1	2	--	1	2	2	--	5	--	--	--	1	2	2	--
B	3	1	5	5	10	3	--	1	13	1	--	10	2	2	--	8	2	4	--	13	1	--	--	5	6	2	1
Total	10	1	--	1	12	--	--	12	--	--	--	11	--	--	--	1	10	2	--	12	--	--	--	1	1	--	10
Inland Empire	2	3	2	2	5	4	--	--	9	--	--	7	2	--	--	6	1	--	2	8	1	--	--	3	2	1	3
D	1	1	1	--	1	2	--	--	3	--	--	1	2	--	--	3	--	--	--	2	1	--	--	--	1	1	1
C	13	5	3	3	18	6	--	--	24	--	--	19	4	--	--	1	19	3	--	22	2	--	--	4	4	2	14
Total	64	6	5	7	64	13	3	2	80	1	1	78	3	--	--	1	77	4	1	69	3	3	7	14	9	7	52
Total, State	11	7	2	7	13	13	1	--	27	--	--	23	4	--	--	19	1	1	6	15	4	4	4	11	11	2	3
D ³	9	5	4	8	11	14	--	1	26	--	--	19	6	1	--	13	6	3	4	16	5	4	1	13	10	2	1
C	11	6	8	9	14	19	1	--	34	--	--	23	8	2	--	1	11	9	7	20	12	2	--	15	14	5	--
B ⁴	95	24	19	31	102	59	5	3	167	1	1	143	21	3	--	2	120	20	12	170	24	13	12	53	44	16	56
Total																											

¹ Mill size-classes identified as follows: Class A mills = 120,000+ board foot capacity per shift, B = 80,000 - 119,999, C = 40,000 - 79,999, D = less than 40,000

² Combined to avoid disclosure

³ Total for Class D includes Class C for Central Washington

⁴ Total for Class B includes Class A for Inland Empire and Lower Columbia

WASHINGTON SAWMILLS, 1982

**Table 25 Log consumption by species, area and mill size-class
(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	22,716	1,962	985	32	1	--	1	12,459	151	7,125
C	20,240	12,034	4,423	567	97	40	40	1,375	--	1,664
B	77,350	--	19,300	3,000	--	--	--	16,242	--	38,808
A	480,569	276,975	189,973	1,450	--	--	--	12,171	--	--
Total	600,875	290,971	214,681	5,049	98	40	41	42,247	151	47,597
Olympic Peninsula										
D	32,260	2,582	4,253	4	18	--	3	8,227	3,732	13,441
C	82,640	16,758	3,092	2,250	--	--	--	25,000	--	35,540
B	91,455	18,811	32,153	380	111	--	--	--	--	40,000
A	487,467	214,394	260,461	6,579	5,148	--	--	885	--	--
Total	693,822	252,545	299,959	9,213	5,277	--	3	34,112	3,732	88,981
Lower Columbia										
D	1,786	1,106	61	13	469	19	--	80	--	38
C	65,950	24,256	177	4,777	--	9,316	--	17,424	--	10,000
B and A ²	401,522	250,599	91,625	10,276	--	42,960	--	1,483	4,579	--
Total	469,258	275,961	91,863	15,066	469	52,295	--	18,987	4,579	10,038
Central Washington										
D and C ²	7,147	6,442	--	--	352	141	183	--	29	--
B	95,661	34,734	2,100	15,798	2,051	39,564	223	--	1,191	--
A	102,147	17,381	--	4,800	724	75,965	1,800	--	1,477	--
Total	204,955	58,557	2,100	20,598	3,127	115,670	2,206	--	2,697	--
Inland Empire										
D	1,498	651	17	57	1	208	335	65	112	52
C	87,897	30,173	7,841	5,861	3,345	28,410	8,083	3,901	283	--
B and A ²	69,980	26,195	--	6,476	659	24,550	8,650	2,300	1,150	--
Total	159,375	57,019	7,858	12,394	4,005	53,168	17,068	6,266	1,545	52
Total, State										
D ³	65,407	12,743	5,316	106	841	368	522	20,831	4,024	20,656
C	256,727	83,221	15,533	13,455	3,442	37,766	8,123	47,700	283	47,204
B ⁴	735,968	330,339	145,178	35,930	2,821	107,074	8,873	20,025	6,920	78,808
A	1,070,183	508,750	450,434	12,829	5,872	75,965	1,800	13,056	1,477	--
Total	2,128,285	935,053	616,461	62,320	12,976	221,173	19,318	101,612	12,704	146,668

¹Mill size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,999, C = 40,000-79,999, D = less than 40,000

²Combined to avoid disclosure

³Total for Class D includes Class C for Central Washington

⁴Total for Class B includes Class A for Inland Empire and Lower Columbia

WASHINGTON SAWMILLS, 1982

**Table 26 Log consumption by species, area and county
(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	Hardwoods
Puget Sound										
Island/San Juan ¹	4,993	4,294	675	23	--	--	--	1	--	--
King	104,337	52,454	45,423	3,000	1	--	--	3,458	--	1
Kitsap/Pierce ¹	183,076	121,654	44,281	950	--	--	--	15,383	--	808
Skagit	20,525	6,284	5,040	--	--	--	--	5,331	150	3,720
Snohomish	281,808	104,482	118,108	780	40	40	41	16,912	1	41,404
Whatcom	6,136	1,803	1,154	296	57	--	--	1,162	--	1,664
Total	600,875	290,971	214,681	5,049	98	40	41	42,247	151	47,597
Olympic Peninsula										
Clallam	41,874	8,210	24,508	--	2,903	--	--	5,863	390	--
Grays Harbor	179,354	45,884	115,876	8,247	1,371	--	3	31	942	7,000
Jefferson	15,882	91	11,007	4	111	--	--	2,268	2,400	1
Lewis	185,930	55,330	59,589	962	280	--	--	9,829	--	59,940
Mason/Thurston ¹	216,549	141,230	53,819	--	--	--	--	16,000	--	5,500
Pacific	54,233	1,800	35,160	--	612	--	--	121	--	16,540
Total	693,822	252,545	299,959	9,213	5,277	--	3	34,112	3,732	88,981
Lower Columbia										
Clark	15,155	14,984	61	4	--	1	--	72	--	33
Cowlitz	341,195	230,559	75,533	3,259	--	--	--	17,839	4,000	10,005
Klickitat	87,630	21,525	9,704	4,786	--	50,614	--	1,001	--	--
Skamania/Wahkiakum ¹	25,278	8,893	6,565	7,017	469	1,680	--	75	579	--
Total	469,258	275,961	91,863	15,066	469	52,295	--	18,987	4,579	10,038
Central Washington										
Chelan/Lincoln ¹	41,898	13,068	2,100	6,900	--	18,030	1,800	--	--	--
Okanogan	55,031	12,929	--	--	1,391	38,688	406	--	1,617	--
Yakima	108,026	32,560	--	13,698	1,736	58,952	--	--	1,080	--
Total	204,955	58,557	2,100	20,598	3,127	115,670	2,206	--	2,697	--
Inland Empire										
Asotin/ Walla Walla ¹	45,745	15,135	6,875	4,201	3,741	14,347	1,422	--	--	24
Columbia/Ferry ¹	34,222	18,800	--	22	--	2,500	12,000	900	--	--
Pend Oreille/Spokane ¹	30,289	6,416	965	4,702	62	11,763	2,458	2,462	1,433	--
Stevens	49,119	16,668	18	3,469	202	24,558	1,188	2,904	112	--
Total	159,375	57,019	7,858	12,394	4,005	53,168	17,068	6,266	1,545	52
Total, State	2,128,285	935,053	616,461	62,320	12,976	221,173	19,318	101,612	12,704	146,668

¹Combined to avoid disclosure

WASHINGTON SAWMILLS, 1982

Table 27 Production and disposition of wood and bark residues, by area and mill size-class (Tons, dry weight)

Economic area and mill size-class ¹	All residue			Wood residue			Bark residue		
	Total	Used ²	Unused	Total	Used ²	Unused	Total	Used ²	Unused
Puget Sound									
D	35,224	33,436	1,788	26,998	25,673	1,325	8,226	7,763	463
C	35,877	35,656	221	28,000	27,779	221	7,877	7,877	--
B	90,618	90,007	611	67,843	67,232	611	22,775	22,775	--
A	790,651	790,651	--	616,613	616,613	--	174,038	174,038	--
Total	952,370	949,750	2,620	739,454	737,297	2,157	212,916	212,453	463
Olympic Peninsula									
D	44,968	35,715	9,253	33,734	27,063	6,671	11,234	8,652	2,582
C	99,955	84,468	15,487	75,915	60,428	15,487	24,040	24,040	--
B	152,046	152,046	--	116,771	116,771	--	35,275	35,275	--
A	717,042	717,042	--	559,054	559,054	--	157,988	157,988	--
Total	1,014,011	989,271	24,740	785,474	763,316	22,158	228,537	225,955	2,582
Lower Columbia									
D	2,124	2,120	4	1,582	1,578	4	542	542	--
C	103,004	103,004	--	79,890	79,890	--	23,114	23,114	--
B and A ³	653,771	653,771	--	499,664	499,664	--	154,107	154,107	--
Total	758,899	758,895	4	581,136	581,132	4	177,763	177,763	--
Central Washington									
D and C ³	11,108	6,140	4,968	8,729	6,068	2,661	2,379	72	2,307
B	144,578	141,081	3,497	113,802	111,263	2,539	30,776	29,818	958
A	155,208	146,776	8,432	121,765	113,333	8,432	33,443	33,443	--
Total	310,894	293,997	16,897	244,296	230,664	13,632	66,598	63,333	3,265
Inland Empire									
D	2,028	664	1,364	1,542	569	973	486	95	391
C	145,458	143,488	1,970	112,668	110,852	1,816	32,790	32,636	154
B and A ³	112,318	105,294	7,024	88,009	88,009	--	24,309	17,285	7,024
Total	259,804	249,446	10,358	202,219	199,430	2,789	57,585	50,016	7,569
Total, State									
D ⁴	95,452	78,075	17,377	72,585	60,951	11,634	22,867	17,124	5,743
C	384,294	366,616	17,678	296,473	278,949	17,524	87,821	87,667	154
B ⁵	1,153,331	1,142,199	11,132	886,089	882,939	3,150	267,242	259,260	7,982
A	1,662,901	1,654,469	8,432	1,297,432	1,289,000	8,432	365,469	365,469	--
Total	3,295,978	3,241,359	54,619	2,552,579	2,511,839	40,740	743,399	729,520	13,879

¹ Mill size-class identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,999, C = 40,000-79,999, 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

⁴ Total for Class D includes Class C for Central Washington

⁵ Total for Class B includes Class A for Inland Empire and Lower Columbia

WASHINGTON SAWMILLS, 1982

Table 28 Production and disposition of wood residues, by area and mill size-class (Tons, dry weight)

Economic area and mill size-class ¹	All types							Coarse ^{3,9}						
	Total	Total used ²	Pulp	Board ⁹	Fuel	Other	Unused	Total	Total used ²	Pulp	Fuel	Other	Unused	
Puget Sound														
D	26,998	25,673	3,932	--	12,937	8,804	1,325	16,209	15,282	3,722	9,154	2,406	927	
C	28,000	27,779	11,856	--	5,655	10,268	221	15,913	15,913	11,856	4,057	--	--	
B	67,843	67,232	22,980	--	36,800	7,452	611	43,097	42,486	20,886	21,600	--	611	
A	616,613	616,613	286,680	--	178,073	151,860	--	355,765	355,765	286,680	54,550	14,535	--	
Total	739,454	737,297	325,448	--	233,465	178,384	2,157	430,984	429,446	323,144	89,361	16,941	1,538	
Olympic Peninsula														
D	33,734	27,063	916	--	24,471	1,676	6,671	21,605	17,130	536	15,445	1,149	4,475	
C	75,915	60,428	41,177	--	16,278	2,973	15,487	46,845	37,254	26,724	8,166	2,364	9,591	
B	116,771	116,771	54,089	3,781	45,145	13,756	--	68,465	68,465	45,665	22,800	--	--	
A	559,054	559,054	306,774	26,015	168,882	57,383	--	322,962	322,962	259,197	25,554	38,211	--	
Total	785,474	763,316	402,956	29,796	254,776	75,788	22,158	459,877	445,811	332,122	71,965	41,724	14,066	
Lower Columbia														
D	1,582	1,578	--	--	271	1,307	4	1,106	1,102	--	271	831	4	
C	79,890	79,890	43,553	5,803	24,534	6,000	--	46,270	46,270	31,232	9,038	6,000	--	
B and A ⁶	499,664	499,664	367,688	5,184	92,757	34,035	--	314,789	314,789	290,313	24,476	--	--	
Total	581,136	581,132	411,241	10,987	117,562	41,342	4	362,165	362,161	321,545	33,785	6,831	4	
Central Washington														
D and C ⁶	8,729	6,068	5,486	--	495	87	2,661	4,864	4,849	4,714	109	26	15	
B	113,802	111,263	35,949	14,754	57,652	2,908	2,539	62,871	60,913	34,265	26,648	--	1,958	
A	121,765	113,333	47,773	9,724	55,836	--	8,432	68,317	59,885	47,773	12,112	--	8,432	
Total	244,296	230,664	89,208	24,478	113,983	2,995	13,632	136,052	125,647	86,752	38,869	26	10,405	
Inland Empire														
D	1,542	569	--	--	325	244	973	998	334	--	321	13	664	
C	112,668	110,852	59,598	7,699	42,736	819	1,816	66,984	65,680	59,598	6,082	--	1,304	
B and A ⁶	88,009	88,009	75,841	12,168	--	--	--	49,657	49,657	49,657	--	--	--	
Total	202,219	199,430	135,439	19,867	43,061	1,063	2,789	117,639	115,671	109,255	6,403	13	1,968	
Total, State														
D ⁷	72,585	60,951	10,334	--	38,499	12,118	11,634	44,782	38,697	8,972	25,300	4,425	6,085	
C	296,473	278,949	156,184	13,502	89,203	20,060	17,524	176,012	165,117	129,410	27,343	8,364	10,895	
B ⁸	886,089	882,939	556,547	35,887	232,354	58,151	3,150	538,879	536,310	440,786	95,524	--	2,569	
A	1,297,432	1,289,000	641,227	35,739	402,791	209,243	8,432	747,044	738,612	593,650	92,216	52,746	8,432	
Total	2,552,579	2,511,839	1,364,292	85,128	762,847	299,572	40,740	1,506,717	1,478,736	1,172,818	240,383	65,535	27,981	

¹Mill size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,999; C = 40,000-79,999; D = less than 40,000

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

³Slabs, edgings, trim, and spur ends

⁴Shavings

⁵Sawdust

⁶Combined to avoid disclosure

⁷Total for Class D includes Class C for Lower Columbia

⁸Total for Class B includes Class A for Inland Empire and Central Washington

⁹The Board column in the "Coarse" section had no figures so the column was deleted because of space needs.

Table 28 (Continued) Production and disposition of wood residues, by area and mill size-class (Tons, dry weight)

Total	Total used ²	Medium ⁴					Unused	Total	Total used ²	Fine ⁵				
		Pulp	Board	Fuel	Other	Unused				Pulp	Board	Fuel	Other	Unused
4,257	4,257	--	--	1,203	3,054	--	6,532	6,134	210	--	2,580	3,344	398	
5,597	5,452	--	--	--	5,452	145	6,490	6,414	--	--	1,598	4,816	76	
7,660	7,660	190	--	7,470	--	--	17,086	17,086	1,904	--	7,730	7,452	--	
115,037	115,037	--	--	58,479	56,558	--	145,811	145,811	--	--	65,044	80,767	--	
132,551	132,406	190	--	67,152	65,064	145	175,919	175,445	2,114	--	76,952	96,379	474	
3,508	3,152	174	--	2,975	3	356	8,621	6,781	206	--	6,051	524	1,840	
10,254	6,323	4,969	--	1,354	--	3,931	18,816	16,851	9,484	--	6,758	609	1,965	
20,851	20,851	2,808	3,781	9,246	5,016	--	27,455	27,455	5,616	--	13,099	8,740	--	
103,724	103,724	18,723	11,980	64,406	8,615	--	132,368	132,368	28,854	14,035	78,922	10,557	--	
138,337	134,050	26,674	15,761	77,981	13,634	4,287	187,260	183,455	44,160	14,035	104,830	20,430	3,805	
24	24	--	--	--	24	--	452	452	--	--	--	452	--	
14,725	14,725	5,069	5,803	3,853	--	--	18,895	18,895	7,252	--	11,643	--	--	
55,856	55,856	--	5,184	16,637	34,035	--	129,019	129,019	77,375	--	51,644	--	--	
70,605	70,605	5,069	10,987	20,490	34,059	--	148,366	148,366	84,627	--	63,287	452	--	
1,874	--	--	--	--	--	1,874	1,991	1,219	772	--	386	61	772	
25,166	24,785	--	14,754	7,123	2,908	381	25,765	25,565	1,684	--	23,881	--	200	
24,314	24,314	--	9,724	14,590	--	--	29,134	29,134	--	--	29,134	--	--	
51,354	49,099	--	24,478	21,713	2,908	2,255	56,890	55,918	2,456	--	53,401	61	972	
141	15	--	--	--	15	126	403	220	--	--	4	216	183	
18,233	18,156	--	7,699	9,780	677	77	27,451	27,016	--	--	26,874	142	435	
18,000	18,000	5,832	12,168	--	--	--	20,352	20,352	20,352	--	--	--	--	
36,374	36,171	5,832	19,867	9,780	692	203	48,206	47,588	20,352	--	26,878	358	618	
9,804	7,448	174	--	4,178	3,096	2,356	17,999	14,806	1,188	--	9,021	4,597	3,193	
48,809	44,656	10,038	13,502	14,987	6,129	4,153	71,652	69,176	16,736	--	46,873	5,567	2,476	
127,533	127,152	8,830	35,887	40,476	41,959	381	219,677	219,477	106,931	--	96,354	16,192	200	
243,075	243,075	18,723	21,704	137,475	65,173	--	307,313	307,313	28,854	14,035	173,100	91,324	--	
429,221	422,331	37,765	71,093	197,116	116,357	6,890	616,641	610,772	153,709	14,035	325,348	117,680	5,869	

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Table 29 Production and disposition of bark residues, by area and mill size-class (Tons, dry weight)

Economic area and mill size-class ¹	All bark	Used ²					Unused
		Total	Pulp	Board	Fuel	Other	
Puget Sound							
D	8,226	7,763	311	--	3,342	4,110	463
C	7,877	7,877	--	--	2,738	5,139	--
B	22,775	22,775	2,274	--	13,157	7,344	--
A	174,038	174,038	--	--	76,250	97,788	--
Total	212,916	212,453	2,585	--	95,487	114,381	463
Olympic Peninsula							
D	11,234	8,652	302	--	8,133	217	2,582
C	24,040	24,040	--	--	9,613	14,427	--
B	35,275	35,275	--	--	26,231	9,044	--
A	157,988	157,988	--	--	145,378	12,610	--
Total	228,537	225,955	302	--	189,355	36,298	2,582
Lower Columbia							
D	542	542	--	--	95	447	--
C	23,114	23,114	2,786	--	13,798	6,530	--
B and A ³	154,107	154,107	--	--	154,107	--	--
Total	177,763	177,763	2,786	--	168,000	6,977	--
Central Washington							
D and C ³	2,379	72	--	--	22	50	2,307
B	30,776	29,818	--	--	24,702	5,116	958
A	33,443	33,443	--	--	32,931	512	--
Total	66,598	63,333	--	--	57,655	5,678	3,265
Inland Empire							
D	486	95	--	--	88	7	391
C	32,790	32,636	--	--	31,785	851	154
B and A ³	24,309	17,285	--	--	16,589	696	7,024
Total	57,585	50,016	--	--	48,462	1,554	7,569
Total, State							
D ⁴	22,867	17,124	613	--	11,680	4,831	5,743
C	87,821	87,667	2,786	--	57,934	26,947	154
B ⁵	267,242	259,260	2,274	--	234,786	22,200	7,982
A	365,469	365,469	--	--	254,559	110,910	--
Total	743,399	729,520	5,673	--	558,959	164,888	13,879

¹ Mill size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,999, C = 40,000-79,999, 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

⁴ Includes Class C for Lower Columbia

⁵ Includes Class A for Inland Empire and Central Washington

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Table 30 Production and disposition of wood and bark residues, by area and county (Tons, dry weight)

Economic area and county	All residues			Wood residues			Bark residues		
	Total	Used ¹	Unused	Total	Used ¹	Unused	Total	Used ¹	Unused
Puget Sound									
Island/San Juan ²	9,181	8,960	221	7,215	6,994	221	1,966	1,966	--
King	163,580	163,491	89	124,878	124,789	89	38,702	38,702	--
Kitsap/Pierce ²	321,095	320,481	614	251,340	250,727	613	69,755	69,754	1
Skagit	37,956	36,299	1,657	29,462	28,237	1,225	8,494	8,062	432
Snohomish	410,857	410,818	39	319,046	319,037	9	91,811	91,781	30
Whatcom	9,701	9,701	--	7,513	7,513	--	2,188	2,188	--
Total	952,370	949,750	2,620	739,454	737,297	2,157	212,916	212,453	463
Olympic Peninsula									
Clallam	66,207	62,382	3,825	51,066	48,139	2,927	15,141	14,243	898
Grays Harbor	215,412	214,414	998	167,009	166,266	743	48,403	48,148	255
Jefferson	26,224	21,794	4,430	20,386	17,385	3,001	5,838	4,409	1,429
Lewis	263,490	248,003	15,487	200,765	185,278	15,487	62,725	62,725	--
Mason/Thurston ²	367,073	367,073	--	286,964	286,964	--	80,109	80,109	--
Pacific	75,605	75,605	--	59,284	59,284	--	16,321	16,321	--
Total	1,014,011	989,271	24,740	785,474	763,316	22,158	228,537	225,955	2,582
Lower Columbia									
Clark	26,733	26,733	--	20,588	20,588	--	6,145	6,145	--
Cowlitz	540,386	540,386	--	411,054	411,054	--	129,332	129,332	--
Klickitat	139,390	139,386	4	108,793	108,789	4	30,597	30,597	--
Skamania/Wahkiakum ²	52,390	52,390	--	40,701	40,701	--	11,689	11,689	--
Total	758,899	758,895	4	581,136	581,132	4	177,763	177,763	--
Central Washington									
Chelan/Lincoln ²	63,257	54,825	8,432	49,347	40,915	8,432	13,910	13,910	--
Okanogan	89,736	81,271	8,465	70,158	64,958	5,200	19,578	16,313	3,265
Yakima	157,901	157,901	--	124,791	124,791	--	33,110	33,110	--
Total	310,894	293,997	16,897	244,296	230,664	13,632	66,598	63,333	3,265
Inland Empire									
Asotin/Walla Walla ²	75,190	75,173	17	59,232	59,227	5	15,958	15,946	12
Columbia/Ferry ²	62,288	62,288	--	48,966	48,966	--	13,322	13,322	--
Pend Oreille/Spokane ²	42,846	35,624	7,222	33,002	32,855	147	9,844	2,769	7,075
Stevens	79,480	76,361	3,119	61,019	58,382	2,637	18,461	17,979	482
Total	259,804	249,446	10,358	202,219	199,430	2,789	57,585	50,016	7,569
Total, State	3,295,978	3,241,359	54,619	2,552,579	2,511,839	40,740	743,399	729,520	13,879

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

²Combined to avoid disclosure

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**Table 31 Production and disposition of wood residues, by area and county
(Tons, dry weight)**

Economic area and county	All types							Coarse ^{1,6}					
	Total	Total used ⁴	Pulp	Board ⁶	Fuel	Other	Unused	Total	Total used ⁴	Pulp	Fuel	Other	Unused
Puget Sound													
Island/San Juan ⁵	7,215	6,994	3,741	--	263	2,990	221	4,017	4,017	3,741	263	13	--
King	124,878	124,789	80,945	--	18,421	25,423	89	79,056	79,022	78,851	164	7	34
Kitsap/Pierce ⁵	251,340	250,727	101,853	--	141,859	7,015	613	142,465	141,852	101,853	39,767	232	613
Skagit	29,462	28,237	1,951	--	10,465	15,821	1,225	17,308	16,426	1,951	7,213	7,262	882
Snohomish	319,046	319,037	136,958	--	58,400	123,679	9	183,843	183,834	136,748	37,897	9,189	9
Whatcom	7,513	7,513	--	--	4,057	3,456	--	4,295	4,295	--	4,057	238	--
Total	739,454	737,297	325,448	--	233,465	178,384	2,157	430,984	429,446	323,144	89,361	16,941	1,538
Olympic Peninsula													
Clallam	51,066	48,139	--	--	10,297	37,842	2,927	30,934	29,110	--	7,332	21,778	1,824
Grays Harbor	167,009	166,266	104,203	--	61,425	638	743	98,214	97,692	93,447	4,226	19	522
Jefferson	20,386	17,385	8,898	--	7,220	1,267	3,001	11,926	9,797	8,898	--	899	2,129
Lewis	200,765	185,278	112,312	--	59,154	13,812	15,487	122,921	113,330	65,668	47,623	39	9,591
Mason/Thurston ⁵	286,964	286,964	149,343	29,796	87,989	19,836	--	163,037	163,037	142,605	3,828	16,604	--
Pacific	59,284	59,284	28,200	--	28,691	2,393	--	32,845	32,845	21,504	8,956	2,385	--
Total	785,474	763,316	402,956	29,796	254,776	75,788	22,158	459,877	445,811	332,122	71,965	41,724	14,066
Lower Columbia													
Clark	20,588	20,588	19,906	--	252	430	--	12,553	12,553	12,085	252	216	--
Cowlitz	411,054	411,054	333,191	--	37,704	40,159	--	263,236	263,236	257,148	--	6,088	--
Klickitat	108,793	108,789	28,962	5,803	74,014	10	4	62,499	62,495	28,962	33,533	--	4
Skamania/Wahkiakum ⁵	40,701	40,701	29,182	5,184	5,592	743	--	23,877	23,877	23,350	--	527	--
Total	581,136	581,132	411,241	10,987	117,562	41,342	4	362,165	362,161	321,545	33,785	6,831	4
Central Washington													
Chelan/Lincoln ⁵	49,347	40,915	5,467	--	35,448	--	8,432	28,415	19,983	5,467	14,516	--	8,432
Okanogan	70,158	64,958	38,362	--	26,128	468	5,200	39,998	38,025	37,590	409	26	1,973
Yakima	124,791	124,791	45,379	24,478	52,407	2,527	--	67,639	67,639	43,695	23,944	--	--
Total	244,296	230,664	89,208	24,478	113,983	2,995	13,632	136,052	125,647	86,752	38,869	26	10,405
Inland Empire													
Asotin/Walla Walla ⁵	59,232	59,227	44,227	743	14,246	11	5	32,600	32,600	32,563	37	--	--
Columbia/Ferry ⁵	48,966	48,966	35,696	8,640	4,566	64	--	27,214	27,214	27,056	158	--	--
Pend Oreille/Spokane ⁵	33,002	32,855	20,228	3,528	9,081	18	147	20,107	20,004	14,348	5,643	13	103
Stevens	61,019	58,382	35,288	6,956	15,168	970	2,637	37,718	35,853	35,288	565	--	1,865
Total	202,219	199,430	135,439	19,867	43,061	1,063	2,789	117,639	115,671	109,255	6,403	13	1,968
Total, State	2,552,579	2,511,839	1,364,292	85,128	762,847	299,572	40,740	1,506,717	1,478,736	1,172,818	240,383	65,535	27,981

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

²Medium residue is planer shavings

³Fine residue is sawdust

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

⁵Combined to avoid disclosure

⁶The Board column under "Coarse" has been deleted due to space limitations. There were no figures in this column.

Table 31 (Continued) Production and disposition of wood residues, by area and county
(Tons, dry weight)

Total	Total used ⁴	Medium ²					Unused	Total	Total used ⁴	Fine ³				
		Pulp	Board	Fuel	Other	Unused				Pulp	Board	Fuel	Other	Unused
1,553	1,408	--	--	--	1,408	145	1,645	1,569	--	--	--	1,569	76	
13,423	13,423	190	--	9,922	3,311	--	32,399	32,344	1,904	--	--	22,105	55	
50,490	50,490	--	--	47,315	3,175	--	58,385	58,385	--	--	8,335	3,608	--	
5,114	5,114	--	--	35	5,079	--	7,040	6,697	--	--	54,777	3,480	343	
60,482	60,482	--	--	9,880	50,602	--	74,721	74,721	210	--	3,217	63,888	--	
1,489	1,489	--	--	--	1,489	--	1,729	1,729	--	--	10,623	1,729	--	
132,551	132,406	190	--	67,152	65,064	145	175,919	175,445	2,114	--	76,952	96,379	474	
7,455	7,099	--	--	13	7,086	356	12,677	11,930	--	--	2,952	8,978	747	
28,655	28,655	2,808	--	25,847	--	--	40,140	39,919	7,948	--	31,352	619	221	
3,574	3,574	--	--	3,574	--	--	4,886	4,014	--	--	3,646	368	872	
28,383	24,452	18,963	--	472	5,017	3,931	49,461	47,496	27,681	--	11,059	8,756	1,965	
57,208	57,208	1,555	15,761	38,361	1,531	--	66,719	66,719	5,183	14,035	45,800	1,701	--	
13,062	13,062	3,348	--	9,714	--	--	13,377	13,377	3,348	--	10,021	8	--	
138,337	134,050	26,674	15,761	77,981	13,634	4,287	187,260	183,455	44,160	14,035	104,830	20,430	3,805	
2,893	2,893	2,869	--	--	24	--	5,142	5,142	4,952	--	--	190	--	
40,088	40,088	2,200	--	3,853	34,035	--	107,730	107,730	73,843	--	33,851	36	--	
20,586	20,586	--	5,803	14,783	--	--	25,708	25,708	--	--	25,698	10	--	
7,038	7,038	--	5,184	1,854	--	--	9,786	9,786	5,832	--	3,738	216	--	
70,605	70,605	5,069	10,987	20,490	34,059	--	148,366	148,366	84,627	--	63,287	452	--	
9,287	9,287	--	--	9,287	--	--	11,645	11,645	--	--	11,645	--	--	
13,771	11,516	--	--	11,135	381	2,255	16,389	15,417	772	--	14,584	61	972	
28,296	28,296	--	24,478	1,291	2,527	--	28,856	28,856	1,684	--	27,172	--	--	
51,354	49,099	--	24,478	21,713	2,908	2,255	56,890	55,918	2,456	--	53,401	61	972	
13,273	13,273	5,832	743	6,695	3	--	13,359	13,354	5,832	--	7,514	8	5	
10,599	10,599	--	8,640	1,959	--	--	11,153	11,153	8,640	--	2,449	64	--	
4,656	4,653	--	3,528	1,125	--	3	8,239	8,198	5,880	--	2,313	5	41	
7,846	7,646	--	6,956	1	689	200	15,455	14,883	--	--	14,602	281	572	
36,374	36,171	5,832	19,867	9,780	692	203	48,206	47,588	20,352	--	26,878	358	618	
429,221	422,331	37,765	71,093	197,116	116,357	6,890	616,641	610,772	153,709	14,035	325,348	117,680	5,869	

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**Table 32 Production and disposition of bark residues, by area and county
(Tons, dry weight)**

Economic area and county	All bark	Used ¹					Unused
		Total	Pulp	Board	Fuel	Other	
Puget Sound							
Island/San Juan ²	1,966	1,966	--	--	129	1,837	--
King	38,702	38,702	2,274	--	11,830	24,598	--
Kitsap/Pierce ²	69,755	69,754	--	--	65,872	3,882	1
Skagit	8,494	8,062	--	--	82	7,980	432
Snohomish	91,811	91,781	311	--	16,745	74,725	30
Whatcom	2,188	2,188	--	--	829	1,359	--
Total	212,916	212,453	2,585	--	95,487	114,381	463
Olympic Peninsula							
Clallam	15,141	14,243	--	--	3,539	10,704	898
Grays Harbor	48,403	48,148	--	--	48,139	9	255
Jefferson	5,838	4,409	--	--	4,356	53	1,429
Lewis	62,725	62,725	302	--	45,124	17,299	--
Mason/Thurston ²	80,109	80,109	--	--	71,886	8,223	--
Pacific	16,321	16,321	--	--	16,311	10	--
Total	228,537	225,955	302	--	189,355	36,298	2,582
Lower Columbia							
Clark	6,145	6,145	2,786	--	95	3,264	--
Cowlitz	129,332	129,332	--	--	125,889	3,443	--
Klickitat	30,597	30,597	--	--	30,585	12	--
Skamania/ Wahkiakum ²	11,689	11,689	--	--	11,431	258	--
Total	177,763	177,763	2,786	--	168,000	6,977	--
Central Washington							
Chelan/Lincoln ²	13,910	13,910	--	--	13,910	--	--
Okanogan	19,578	16,313	--	--	16,263	50	3,265
Yakima	33,110	33,110	--	--	27,482	5,628	--
Total	66,598	63,333	--	--	57,655	5,678	3,265
Inland Empire							
Asotin/ Walla Walla ²	15,958	15,946	--	--	15,250	696	12
Columbia/Ferry ²	13,322	13,322	--	--	13,322	--	--
Pend Oreille/ Spokane ²	9,844	2,769	--	--	2,763	6	7,075
Stevens	18,461	17,979	--	--	17,127	852	482
Total	57,585	50,016	--	--	48,462	1,554	7,569
Total, State	743,399	729,520	5,673	--	558,959	164,888	13,879

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

²Combined to avoid disclosure

WASHINGTON SAWMILLS, 1982

**Table 33 Degree of lumber manufacture, by area and mill size-class
(Thousand board feet, lumber tally)**

Economic area and mill size-class ¹	Green	Kiln-dried	Air-dried	Total	Rough	Surfaced
Puget Sound						
D	23,855	5,391	653	29,899	10,263	19,636
C	21,090	6,161	2,685	29,936	4,049	25,887
B	51,313	25,445	--	76,758	41,691	35,067
A	381,154	293,937	--	675,091	142,495	532,596
Total	477,412	330,934	3,338	811,684	198,498	613,186
Olympic Peninsula						
D	24,726	14,235	80	39,041	23,052	15,989
C	57,768	27,809	--	85,577	38,457	47,120
B	30,902	93,751	--	124,653	28,537	96,116
A	291,456	320,828	560	612,844	132,599	480,245
Total	404,852	456,623	640	862,115	222,645	639,470
Lower Columbia						
D	2,020	62	20	2,102	1,986	116
C	57,877	28,965	--	86,842	18,847	67,995
B and A ²	441,492	142,859	12,981	597,332	338,727	258,605
Total	501,389	171,886	13,001	686,276	359,560	326,716
Central Washington						
D and C ²	8,663	--	571	9,234	557	8,677
B	25,436	91,457	2,415	119,308	2,785	116,523
A	13,464	121,434	--	134,898	22,323	112,575
Total	47,563	212,891	2,986	263,440	25,665	237,775
Inland Empire						
D	1,772	--	129	1,901	1,235	666
C	54,127	70,972	2,014	127,113	42,675	84,438
B and A ²	37,891	56,335	--	94,226	10,890	83,336
Total	93,790	127,307	2,143	223,240	54,800	168,440
Total, State						
D ³	61,036	19,688	1,453	82,177	37,093	45,084
C	190,862	133,907	4,699	329,468	104,028	225,440
B ⁴	587,034	409,847	15,396	1,012,277	422,630	589,647
A	686,074	736,199	560	1,422,833	297,417	1,125,416
Total	1,525,006	1,299,641	22,108	2,846,755	861,168	1,985,587

¹ Mill size-classes identified as follows: Class A mills = 120,000+ board foot capacity per 8-hour shift, B = 80,000-119,999, C = 40,000-79,999, D = less than 40,000

² Combined to avoid disclosure

³ Total for Class D includes Class C for Central Washington

⁴ Total for Class B includes Class A for Inland Empire and Lower Columbia

WASHINGTON SAWMILLS, 1982

**Table 34 Lumber production by headrig type, mill size-class and area
(Thousand board feet, lumber tally)**

Economic area and mill size- class ¹	All types	Circular saw	Band saw	Gang saw	Chipping saw	Scragg double cut saw
Puget Sound						
D	29,899	20,602	6,492	2,805	--	--
C	29,936	--	28,871	--	1,065	--
B	76,758	9,104	47,606	--	12,600	7,448
A	675,091	40,200	509,032	--	95,166	30,693
Total	811,684	69,906	592,001	2,805	108,831	38,141
Olympic Peninsula						
D	39,041	23,546	15,495	--	--	--
C	85,577	19,255	66,322	--	--	--
B	124,653	--	67,586	--	57,067	--
A	612,844	--	387,983	6,200	182,507	36,154
Total	862,115	42,801	537,386	6,200	239,574	36,154
Lower Columbia						
D	2,102	2,102	--	--	--	--
C	86,842	--	86,842	--	--	--
B and A ²	597,332	--	517,553	30,866	36,538	12,375
Total	686,276	2,102	604,395	30,866	36,538	12,375
Central Washington						
D and C ²	9,234	289	8,945	--	--	--
B	119,308	2,787	83,834	--	32,687	--
A	134,898	--	118,898	--	16,000	--
Total	263,440	3,076	211,677	--	48,687	--
Inland Empire						
D	1,901	1,841	60	--	--	--
C	127,113	15,250	111,863	--	--	--
B and A ²	94,226	--	74,226	--	--	20,000
Total	223,240	17,091	186,149	--	--	20,000
Total, State						
D ³	82,177	48,380	30,992	2,805	--	--
C ⁴	329,468	34,505	293,898	--	1,065	--
B ⁴	1,012,277	11,891	790,805	30,866	138,892	39,823
A	1,422,833	40,200	1,015,913	6,200	293,673	66,847
Total	2,846,755	134,976	2,131,608	39,871	433,630	106,670

¹ Mill size-classes identified as follows: Class A mills = 120,000 + board foot capacity per 8-hour shift, B = 80,000 - 119,999, C = 40,000 - 79,999, D = less than 40,000

² Combined to avoid disclosure

³ Total for Class D includes Class C for Central Washington

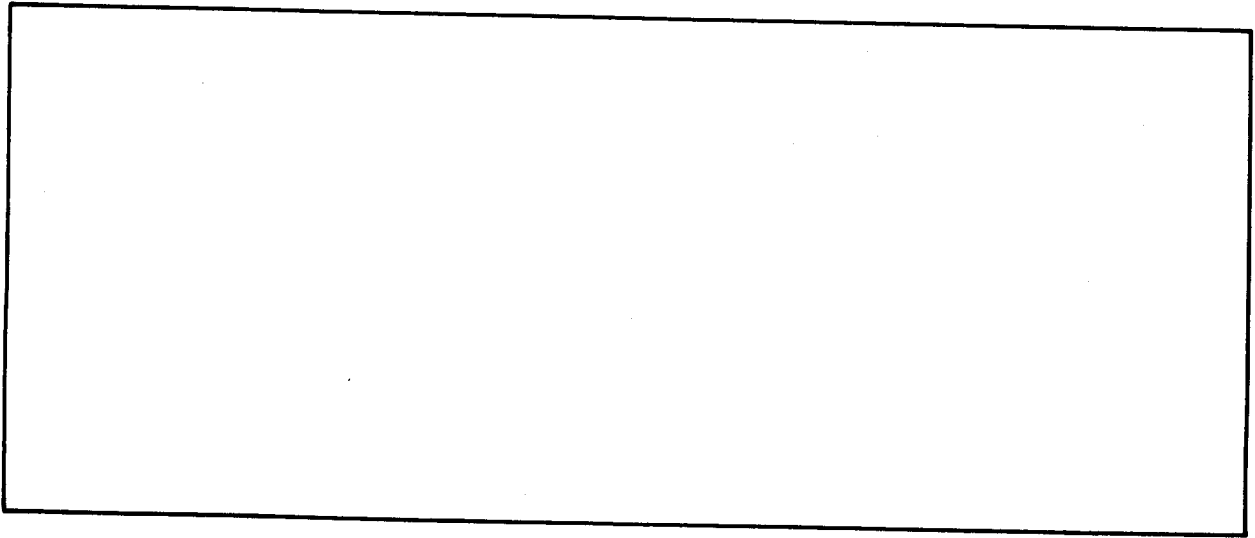
⁴ Total for Class B includes Class A for Inland Empire and Lower Columbia

WASHINGTON SAWMILLS, 1982

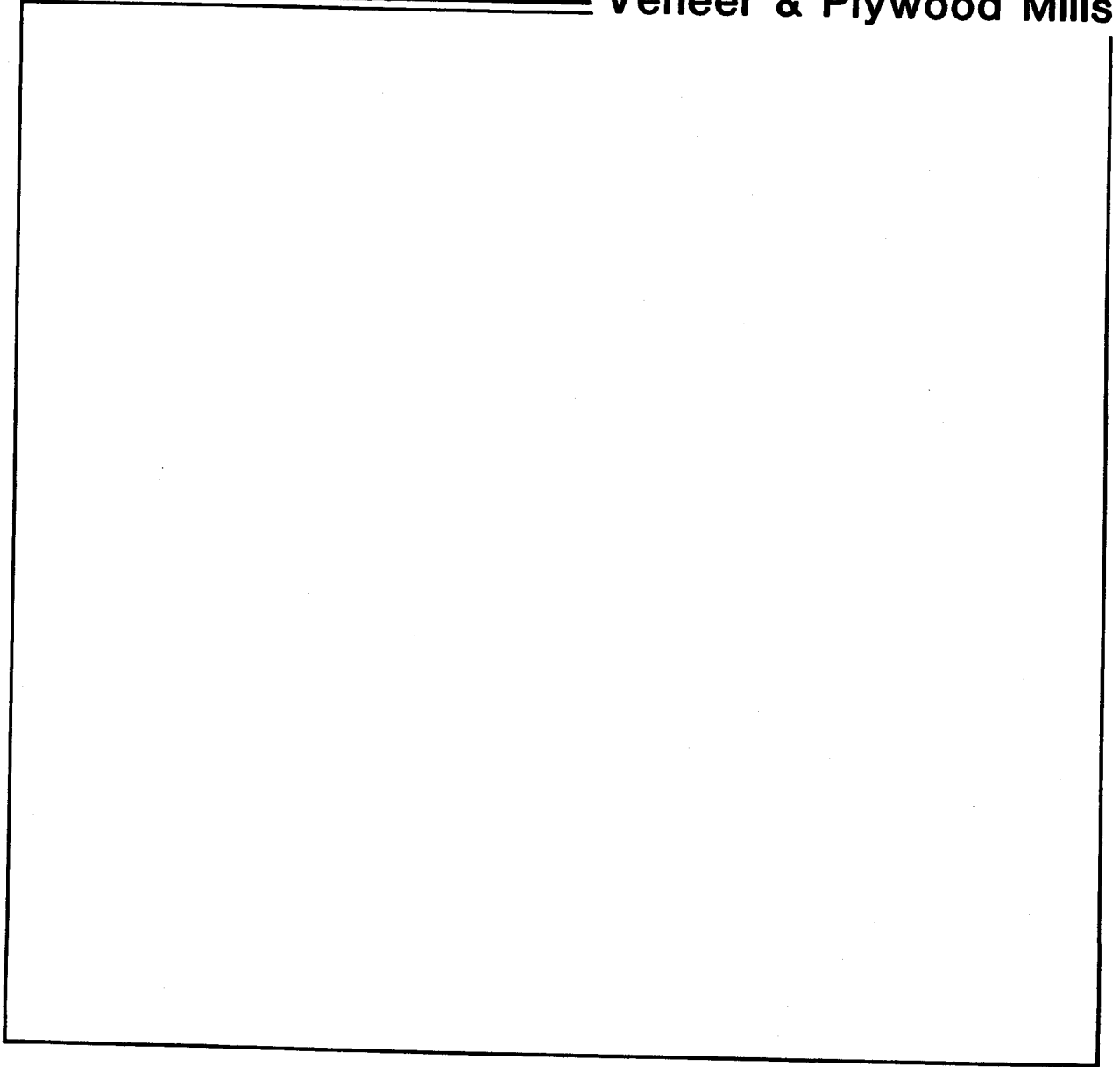
**Table 35 Lumber production by headrig type, area and county
(Thousand board feet, lumber tally)**

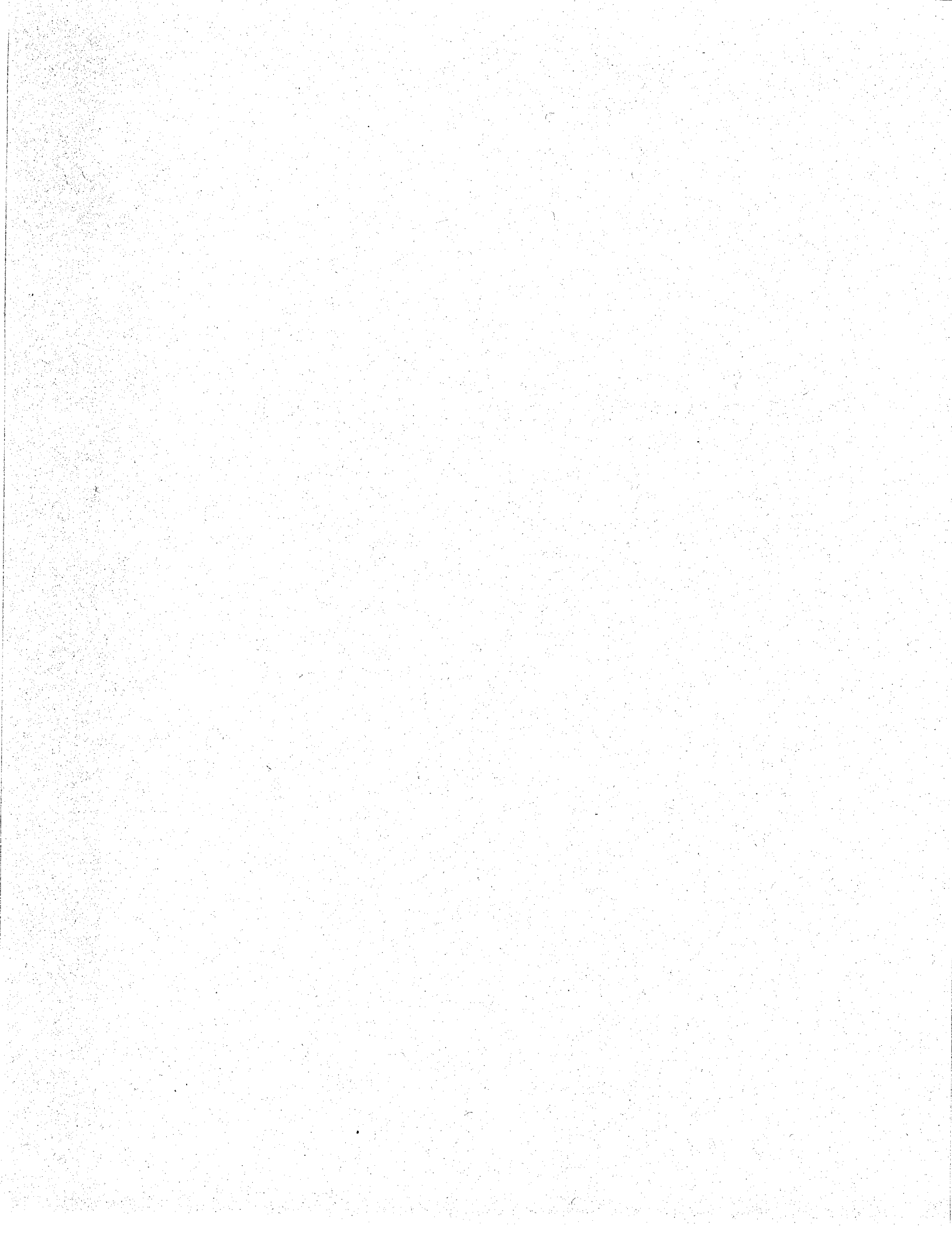
Economic area and county	All types	Circular saw	Band saw	Gang saw	Chipping saw	Scragg double cut saw
Puget Sound						
Island/San Juan ¹	7,625	525	6,035	--	1,065	--
King	150,024	398	149,626	--	--	--
Kitsap/Pierce ¹	270,309	10,413	157,255	--	64,500	38,141
Skagit	32,403	1,983	19,554	--	10,866	--
Snohomish	343,432	56,132	252,095	2,805	32,400	--
Whatcom	7,891	455	7,436	--	--	--
Total	811,684	69,906	592,001	2,805	108,831	38,141
Olympic Peninsula						
Clallam	58,716	10,213	48,503	--	--	--
Grays Harbor	185,402	88	148,350	--	36,964	--
Jefferson	22,636	5,750	16,886	--	--	--
Lewis	225,272	15,075	146,743	--	27,300	36,154
Mason/Thurston ¹	308,489	6,380	167,604	--	134,505	--
Pacific	61,600	5,295	9,300	6,200	40,805	--
Total	862,115	42,801	537,386	6,200	239,574	36,154
Lower Columbia						
Clark	23,821	888	22,933	--	--	--
Cowlitz	498,118	167	461,413	--	36,538	--
Klickitat	119,028	47	97,317	9,289	--	12,375
Skamania/Wahkiakum ¹	45,309	1,000	22,732	21,577	--	--
Total	686,276	2,102	604,395	30,866	36,538	12,375
Central Washington						
Chelan/Lincoln	53,921	--	37,921	--	16,000	--
Okanogan ¹	75,906	3,076	72,830	--	--	--
Yakima	133,613	--	100,926	--	32,687	--
Total	263,440	3,076	211,677	--	48,687	--
Inland Empire						
Asotin/Walla Walla ¹	61,858	67	61,791	--	--	--
Columbia/Ferry ¹	51,640	11,640	20,000	--	--	20,000
Pend Oreille/Spokane ¹	38,154	158	37,996	--	--	--
Stevens	71,588	5,226	66,362	--	--	--
Total	223,240	17,091	186,149	--	--	20,000
Total, State	2,846,755	134,976	2,131,608	39,871	433,630	106,670

¹Combined to avoid disclosure



Veneer & Plywood Mills





WASHINGTON VENEER AND PLYWOOD MILLS, 1982

Table 36 Number of veneer and plywood mills by type, area and county

Economic area and county	All types	Veneer only	Layup only	Veneer and layup
Puget Sound				
King	2	--	--	2
Pierce	3	--	2	1
Snohomish	1	--	--	1
Whatcom	1	--	--	1
Total	7	--	2	5
Olympic Peninsula				
Clallam	2	1	--	1
Grays Harbor	4	1	1	2
Lewis	2	2	--	--
Mason	1	--	--	1
Thurston	3	1	2	--
Total	12	5	3	4
Lower Columbia				
Clark	1	--	--	1
Cowlitz	1	1	--	--
Klickitat	1	--	--	1
Skamania	2	1	--	1
Total	5	2	--	3
Central Washington				
Okanogan	1	--	--	1
Yakima	1	--	--	1
Total	2	--	--	2
Inland Empire				
Stevens	1	--	--	1
Total	1	--	--	1
Total, State	27	7	5	15

WASHINGTON VENEER AND PLYWOOD MILLS, 1982

**Table 37 Installed eight-hour single shift capacity by type of mill, area and county
(Thousand square feet, 3/4-inch basis)**

Economic area and county	Type of Operation			
	Veneer only	Layup only	Veneer and Layup	
			Veneer	Layup
<hr/>				
Puget Sound				
King	--	--	350	350
Pierce	--	306	150	150
Skagit	--	--	--	--
Snohomish	--	--	70	30
Whatcom	--	--	160	320
Total	--	306	730	850
<hr/>				
Olympic Peninsula				
Clallam	92	--	180	180
Grays Harbor	200	225	130	420
Jefferson	--	--	--	--
Lewis	200	--	--	--
Mason	--	--	290	45
Thurston	60	400	--	--
Total	552	625	600	645
<hr/>				
Lower Columbia				
Clark	--	--	225	200
Cowlitz	400	--	--	--
Klickitat	--	--	170	170
Skamania	60	--	166	166
Total	460	--	561	536
<hr/>				
Central Washington				
Kittitas	--	--	--	--
Okanogan	--	--	300	240
Yakima	--	--	145	145
Total	--	--	445	385
<hr/>				
Inland Empire				
Stevens	--	--	160	160
Total	--	--	160	160
<hr/>				
Total, State	1,012	931	2,496	2,576

WASHINGTON VENEER AND PLYWOOD MILLS, 1982

Table 38 Number of mills by lathe log diameter limit and area

Economic area	Lathe log diameter limit							
	Layup Only	20-29	30-39	40-49	50-59	60-69	70-79	80+
Puget Sound	2	--	1	1	--	1	1	1
Olympic Peninsula	3	--	2	1	1	1	1	3
Lower Columbia	--	--	--	2	--	--	--	3
Central Washington	--	--	1	1	--	--	--	--
Inland Empire	--	--	1	--	--	--	--	--
Total, State	5	--	5	5	1	2	2	7

Table 39 Number of mills by minimum core size produced and area

Economic area	Diameter of cores (inches)									No lathe or core
	3	4	5	6	7	8	9	10	11+	
Puget Sound	--	--	--	--	--	--	1	1	3	2
Olympic Peninsula	--	--	1	1	--	2	--	3	2	3
Lower Columbia	--	--	--	1	--	2	1	1	--	--
Central Washington	--	--	--	1	1	--	--	--	--	--
Inland Empire	--	--	--	--	--	1	--	--	--	--
Total, State	--	--	1	3	1	5	2	5	5	5

WASHINGTON VENEER AND PLYWOOD MILLS, 1982

Table 40 Number of mills having selected equipment, by area and county

Economic area and county	4-foot lathe	8-foot lathe	Slicer	Veneer chipper	Core chipper	Cold Press	Hot Press	Burner
Puget Sound								
King	--	2	--	1	1	--	1	--
Pierce	1	2	--	2	1	1	3	--
Skagit	--	--	--	--	--	--	--	--
Snohomish	1	--	--	1	1	1	--	--
Whatcom	1	1	--	2	1	--	1	--
Total	3	5	--	5	4	2	5	--
Olympic Peninsula								
Clallam	1	1	--	1	1	--	1	--
Grays Harbor	1	2	--	3	1	--	3	--
Jefferson	--	--	--	--	--	--	--	--
Lewis	2	--	--	2	1	--	--	--
Mason	--	1	--	1	1	--	1	--
Thurston	1	--	--	--	--	--	2	--
Total	5	4	--	7	4	--	7	--
Lower Columbia								
Clark	1	1	--	1	1	--	1	--
Cowlitz	--	1	--	1	--	--	--	--
Klickitat	--	1	--	1	--	--	1	--
Skamania	2	1	--	2	2	--	1	--
Total	3	4	--	5	3	--	3	--
Central Washington								
Kittitas	--	--	--	--	--	--	--	--
Okanogan	1	1	--	1	--	--	1	1
Yakima	1	1	--	1	1	--	1	--
Total	2	2	--	2	1	--	2	1
Inland Empire								
Stevens	--	1	--	1	1	--	1	--
Total	--	1	--	1	1	--	1	--
Total, State	13	16	--	20	13	2	18	1

WASHINGTON VENEER AND PLYWOOD MILLS, 1982

Table 41 Number of mills by tenure of present ownership, by area and years of site occupancy

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						
21+	7	--	--	--	--	7
Total	7	--	--	--	--	7
Olympic Peninsula						
11-20	4	--	--	1	3	--
21+	8	--	1	1	1	5
Total	12	--	1	2	4	5
Lower Columbia						
11-20	1	--	--	--	1	--
21+	4	--	--	--	--	4
Total	5	--	--	--	1	4
Central Washington						
11-20	1	--	--	1	--	--
21+	1	--	--	--	--	1
Total	2	--	--	1	--	1
Inland Empire						
11-20	1	--	--	--	1	--
Total	1	--	--	--	1	--
Total, State						
0-2	--	--	--	--	--	--
3-5	--	--	--	--	--	--
6-10	--	--	--	--	--	--
11-20	7	--	--	2	5	--
21+	20	--	1	1	1	17
Total	27	--	1	3	6	17

WASHINGTON VENEER AND PLYWOOD MILLS, 1982

Table 42 Average number of operating days, by type of mill and area

Economic area	Veneer only	Layup only	Veneer and layup
Puget Sound	--	236	243
Olympic Peninsula	199	231	201
Lower Columbia	185	--	243
Central Washington	--	--	164
Inland Empire	--	--	208
Total, State	195	233	219

**Table 43 Log inventory changes, log consumption and apparent log receipts
(Thousand board feet, Scribner log rule)**

Economic area	Log Inventory			1982 log consumption	Apparent 1982 log receipts
	January 1, 1982	December 31, 1982	Net change		
Puget Sound	20,246	27,690	+ 7,444	66,062	73,506
Olympic Peninsula	38,175	18,195	-19,980	66,724	46,744
Lower Columbia	26,758	22,956	- 3,802	107,111	103,309
Central Washington/ Inland Empire ¹	21,796	30,316	+ 8,520	91,981	100,501
Total, State	106,975	99,157	- 7,818	331,878	324,060

¹Combined to avoid disclosure

WASHINGTON VENEER AND PLYWOOD MILLS, 1982

Table 44 Production and disposition of wood residues, by area
(Tons, dry weight)

Economic area	Total	Total Used ¹	Used			Unused	
			Pulp and board	Fuel	Other		
Puget Sound							
	Coarse ² & medium ³	132,297	132,297	70,352	55,377	6,568	--
	Fine ⁴	8,696	7,112	--	7,112	--	1,584
Total	140,993	139,409	70,352	62,489	6,568	1,584	
Olympic Peninsula							
	Coarse ² & medium ³	114,178	110,064	64,302	35,596	10,166	4,114
	Fine ⁴	8,845	8,388	--	8,388	--	457
Total	123,023	118,452	64,302	43,984	10,166	4,571	
Lower Columbia							
	Coarse ² & medium ³	179,242	179,242	126,172	21,292	31,778	--
	Fine ⁴	5,092	5,092	--	5,092	--	--
Total	184,334	184,334	126,172	26,384	31,778	--	
Central Washington/ Inland Empire ⁵							
	Coarse ² & medium ³	115,970	112,603	80,345	32,258	--	3,367
	Fine ⁴	5,183	5,183	--	5,183	--	--
Total	121,153	117,786	80,345	37,441	--	3,367	
Total, State							
	Coarse ² & medium ³	541,687	534,206	341,171	144,523	48,512	7,481
	Fine ⁴	27,816	25,775	--	25,775	--	2,041
Total	569,503	559,981	341,171	170,298	48,512	9,522	

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

²Coarse residue includes log trim, cores, veneer clippings, roundup and spur trim

³Medium residue includes reject veneer and panel trim

⁴Fine residue includes sawdust and sander dust

⁵Combined to avoid disclosure

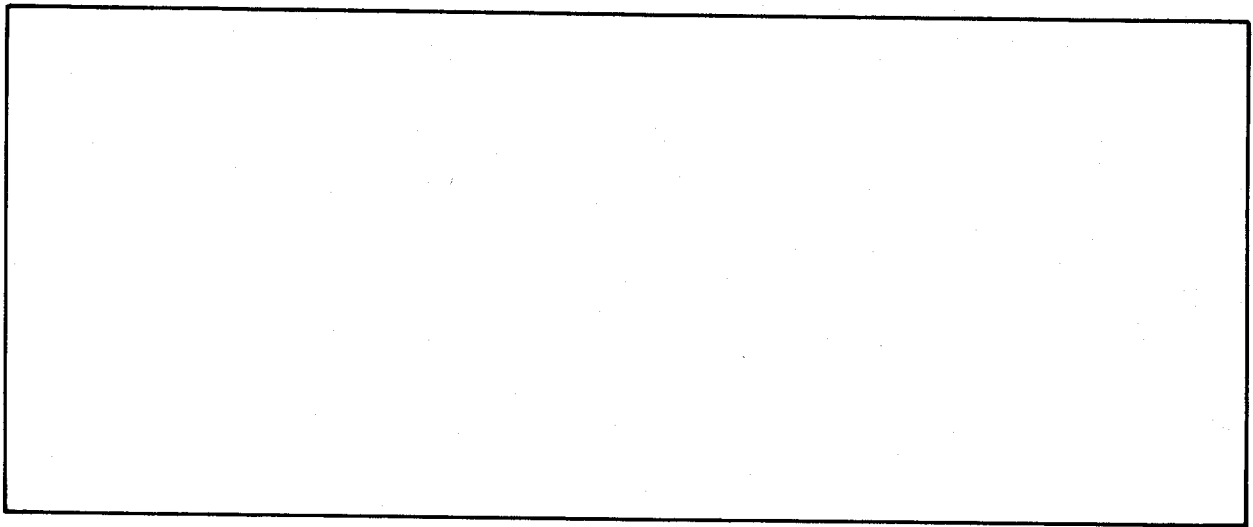
WASHINGTON VENEER AND PLYWOOD MILLS, 1982

Table 45 Veneer and plywood production, by area and county
(Thousand square feet, 3/4-inch basis)

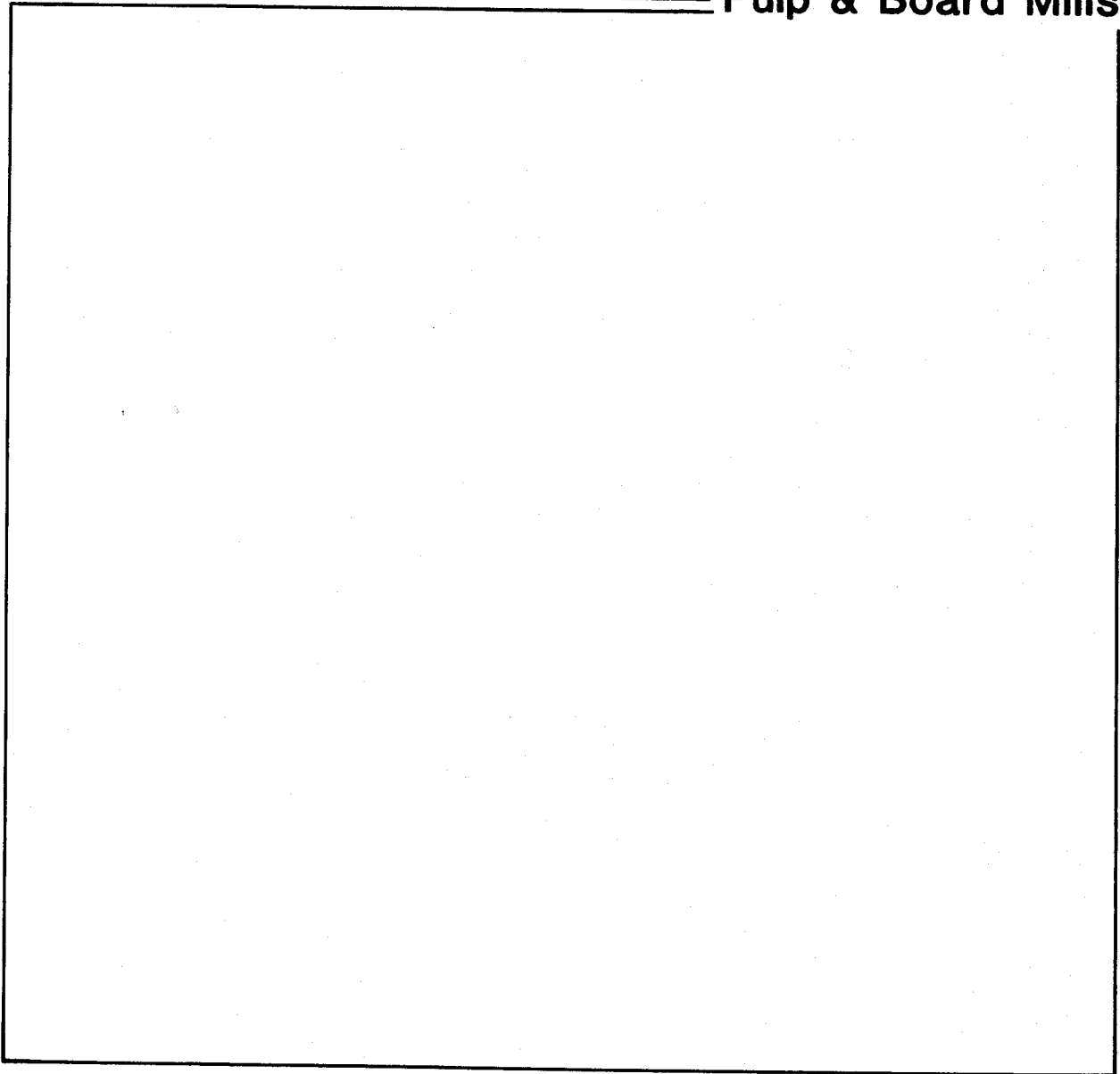
Economic area and county	Veneer	Plywood
Puget Sound King/Pierce/ Snohomish/Whatcom ²	81,820	395,215
Olympic Peninsula Clallam/Grays Harbor/ Lewis/ Mason/ Thurston ²	173,726	402,070
Lower Columbia Clark/Cowlitz/Klickitat/ Skamania ²	180,404	231,462
Central Washington/ Inland Empire ² Okanogan/Yakima ²	--	235,596
Total, State	435,950	1,264,343

¹Includes hardwood and softwood faced plywood

²Combined to avoid disclosure



Pulp & Board Mills



WASHINGTON PULP AND BOARD MILLS

Table 46 Number of pulp and board mills, by type and county¹

Economic area and county	Type of Pulp Mill				
	All mills	Sulfite	Sulfate	Groundwood	Semichemical
Puget Sound					
Pierce	2	--	1	1	--
Snohomish	2	1	1	--	--
Whatcom	2	1	--	--	1
Total	6	2	2	1	1
Olympic Peninsula					
Clallam	2	1	--	1	--
Grays Harbor	2	2	--	--	--
Jefferson	1	--	1	--	--
Total	5	3	1	1	--
Lower Columbia					
Clark	2	1	1	--	--
Cowlitz	5	--	2	1	2
Total	7	1	3	1	2
Inland Empire					
Spokane	1	--	--	1	--
Walla Walla	2	--	1	--	1
Total	3	--	1	1	1
Total, State	21	6	7	4	4

¹No board mills operated in Washington State since 1982

WASHINGTON PULP AND BOARD MILLS

Table 47 Installed capacity by type of mill, area and county

Economic area and county	Type of Pulp Mill				
	All mills	Sulfite	Sulfate	Groundwood	Semichemical
----- Bone Dry Tons ¹ -----					
Puget Sound					
Pierce	1,430	--	1,000	430	--
Snohomish	889	465	424	--	--
Whatcom	531	486	--	--	45
Total	2,850	951	1,424	430	45
Olympic Peninsula					
Clallam	1,000	500	--	500	--
Grays Harbor	885	885	--	--	--
Jefferson	540	--	540	--	--
Total	2,425	1,385	540	500	--
Lower Columbia					
Clark	1,160	368	792	--	--
Cowlitz	4,832	--	3,255	1,200	377
Total	5,992	368	4,047	1,200	377
Inland Empire					
Spokane	190	--	--	190	--
Walla Walla	891	--	643	--	248
Total	1,081	--	643	190	248
Total, State	12,348	2,704	6,654	2,320	670

¹Twenty-four hour capacity

WASHINGTON PULP AND BOARD MILLS

Table 48 Number of mills by tenure of present ownership and years of site occupancy

Mill type and site occupancy (years)	Tenure of present ownership (years)				
	0-2	3-5	6-10	11-20	21+
Sulfite 21+	--	--	--	2	4
Sulfate 21+	--	--	--	--	7
Groundwood 3-5	--	1	--	--	--
21+	--	--	--	1	2
Semichemical 11-20	--	--	--	1	--
21+	--	--	--	1	2
Total	--	1	--	5	15

Table 49 Average number of operating days by area

Economic area	Pulp
Puget Sound	315
Olympic Peninsula	315
Lower Columbia	314
Inland Empire	309
Total, State	314

WASHINGTON PULP AND BOARD MILLS

**Table 50 Mill production¹ by type of product, area and type of operation
(Bone dry tons)**

Economic area	Type of Product					
	All products	Newsprint	Bleached paper	Unbleached paper	Other paper	Market pulp
Puget Sound	881,658	148,899	17,600	197,728	163,550	353,881
Olympic Peninsula	545,221	2,043	113,562	95,125	--	334,491
Lower Columbia/ Inland Empire ¹	1,760,553	417,886	605,687	643,420	66,177	27,383
Total, State	3,187,432	568,828	736,849	936,273	229,727	715,755
Type of Operation						
Total, State						
Sulfite	646,733	--	69,300	450	91,750	485,233
Sulfate	1,602,153	--	553,987	751,467	66,177	230,522
Groundwood	938,546	568,828	113,562	184,356	71,800	--
Total	3,187,432	568,828	736,849	936,273	229,727	715,755

¹Combined to avoid disclosure

Table 51 Type of wood consumed by area

Economic area	Roundwood			Other					
	Total	Sound logs	Utility logs	Total	Chips		Sawdust	Shavings	Waste-Paper
					From mill residue	From roundwood chipping mill			
	<u>Thousand board feet, Scribner log rule</u>			<u>Bone Dry Tons</u>					
Puget Sound	199,204	1,040	198,164	1,538,887	1,117,443	421,444	--	--	--
Olympic Peninsula	207,451	84,422	123,029	847,716	449,679	371,785	25,860	--	392
Lower Columbia/ Inland Empire ¹	105,228	11,188	94,040	3,162,763	2,209,864	613,228	297,338	--	42,333
Total, State	511,883	96,650	415,233	5,549,366	3,776,986	1,406,457	323,198	--	42,725

¹Combined to avoid disclosure

WASHINGTON PULP AND BOARD MILLS

Table 52 Roundwood and chip consumption by species and area
 (Log consumption: Thousand board feet, Scribner log rule)
 (Chip consumption: Bone dry tons)

Economic area and type of material	All species	Douglas fir	Hemlock	True firs	Spruce	Lodgepole pine	Other softwoods	Hardwoods
Puget Sound								
Total logs	199,204	25,652	100,127	59,178	6,874	1,453	4,359	1,561
Chips								
Roundwood	421,444	259,308	106,028	12,104	--	2,830	11,832	29,342
Residue ¹	1,117,443	--	--	--	--	--	--	--
Total chips	1,538,887	259,308	106,028	12,104	--	2,830	11,832	29,342
Olympic Peninsula								
Total logs	207,451	5,619	173,425	--	7,024	--	--	21,383
Chips								
Roundwood	371,785	49,528	225,757	--	67,421	--	13,808	15,271
Residue ¹	449,679	--	--	--	--	--	--	--
Total chips	821,464	49,528	225,757	--	67,421	--	13,808	15,271
Lower Columbia/ Inland Empire²								
Total logs	105,228	47,376	34,999	593	280	13,160	8,820	--
Chips								
Roundwood	613,228	143,958	95,426	1,155	39,742	149,533	139,951	43,463
Residue ¹	2,209,864	--	--	--	--	--	--	--
Total chips	2,823,092	143,958	95,426	1,155	39,742	149,533	139,951	43,463
Total, State								
Total logs	511,883	78,647	308,551	59,771	14,178	14,613	13,179	22,944
Chips								
Roundwood	1,406,457	452,794	427,211	13,259	107,163	152,363	165,591	88,076
Residue ¹	3,776,986	--	--	--	--	--	--	--
Total chips	5,183,443	452,794	427,211	13,259	107,163	152,363	165,591	88,076

¹Species breakdown for residue chips is not available

²Combined to avoid disclosure

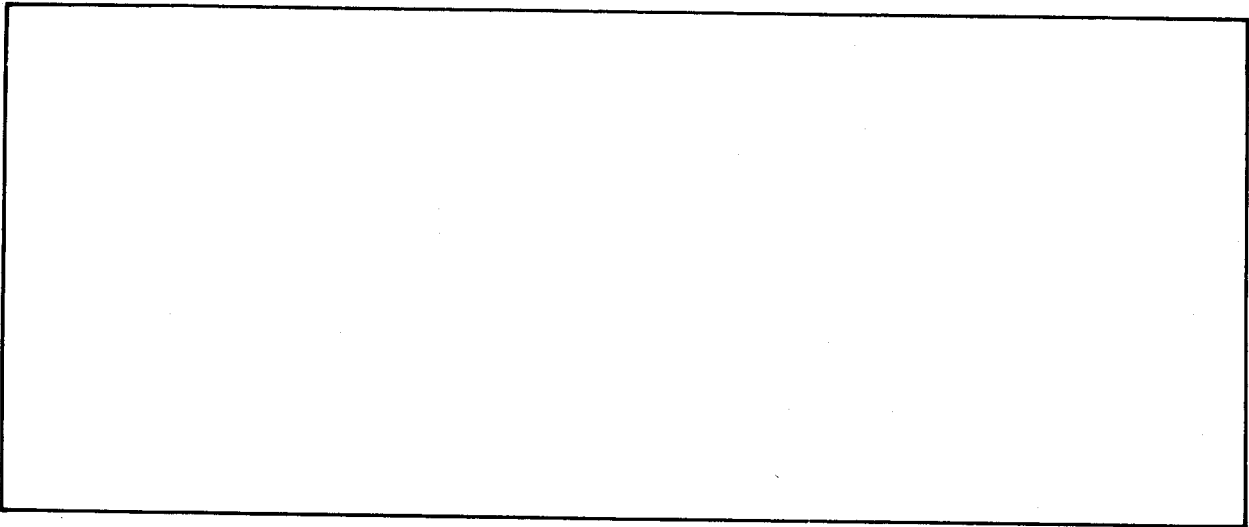
WASHINGTON PULP AND BOARD MILLS

Table 53 Residue and off-site roundwood chip consumption by state or province of origin and area (Tons, dry weight)

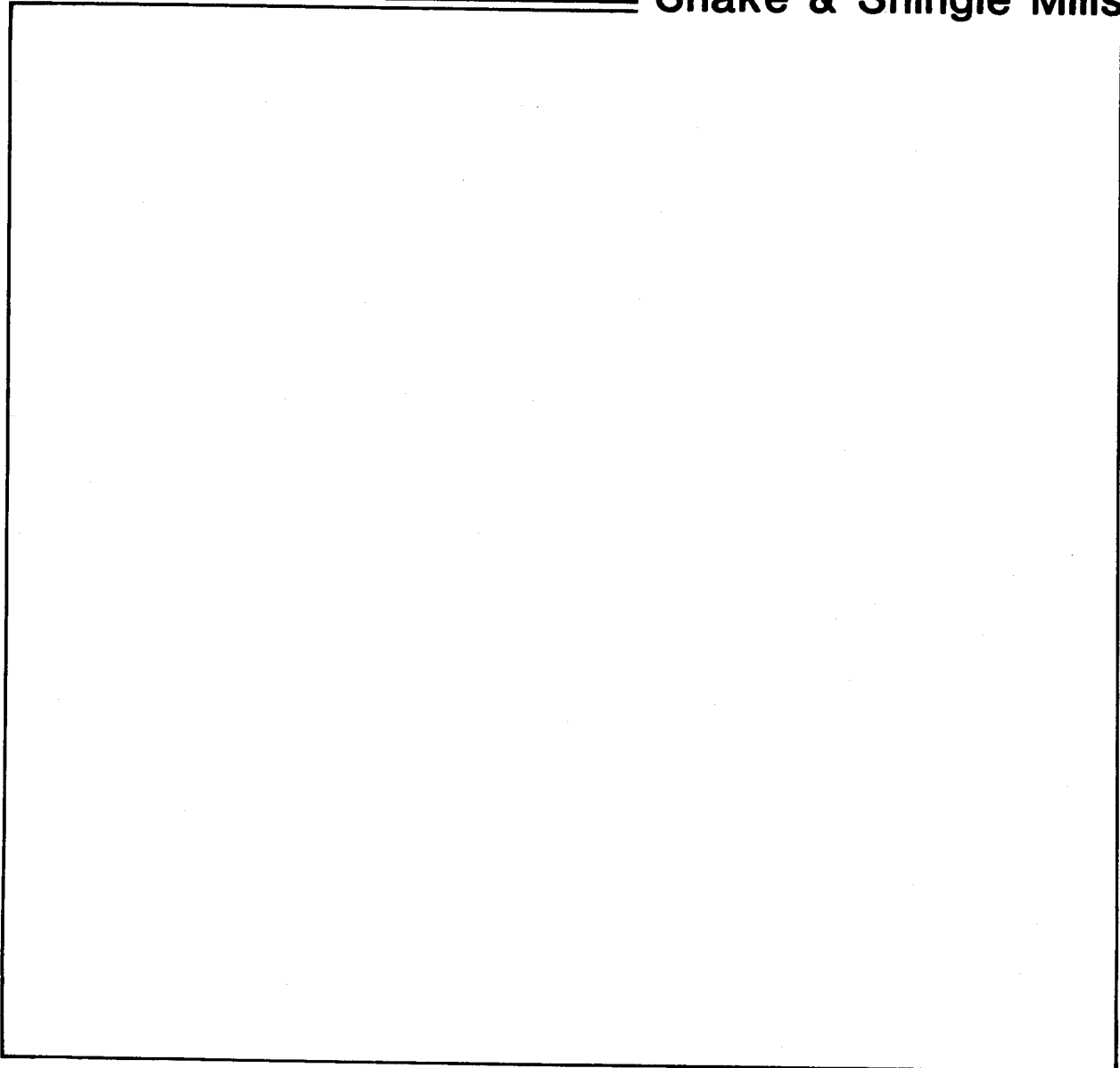
Economic area and type of material	Total volume	Washington	Oregon	Idaho	British Columbia	Other
Puget Sound						
Chip residue ¹	1,117,443	--	--	--	--	--
Chip roundwood	421,444	387,520	--	19,772	--	14,152
Sawdust and shavings	--	--	--	--	--	--
Total	1,538,887	387,520	--	19,772	--	14,152
Olympic Peninsula						
Chip residue ¹	449,679	--	--	--	--	--
Chip roundwood	371,785	278,079	--	--	93,706	--
Sawdust and shavings	25,860	8,534	--	--	17,326	--
Total	847,324	286,613	--	--	111,032	--
Lower Columbia/ Inland Empire²						
Chip residue ¹	2,209,864	--	--	--	--	--
Chip roundwood	613,228	311,069	266,245	35,914	--	--
Sawdust and shavings	297,338	214,423	79,605	3,310	--	--
Total	3,120,430	525,492	345,850	39,224	--	--
Total, State						
Chip residue ¹	3,776,986	--	--	--	--	--
Chip roundwood	1,406,457	976,668	266,245	55,686	93,706	14,152
Sawdust and shavings	323,198	222,957	79,605	3,310	17,326	--
Total	5,506,641	1,199,625	345,850	58,996	111,032	14,152

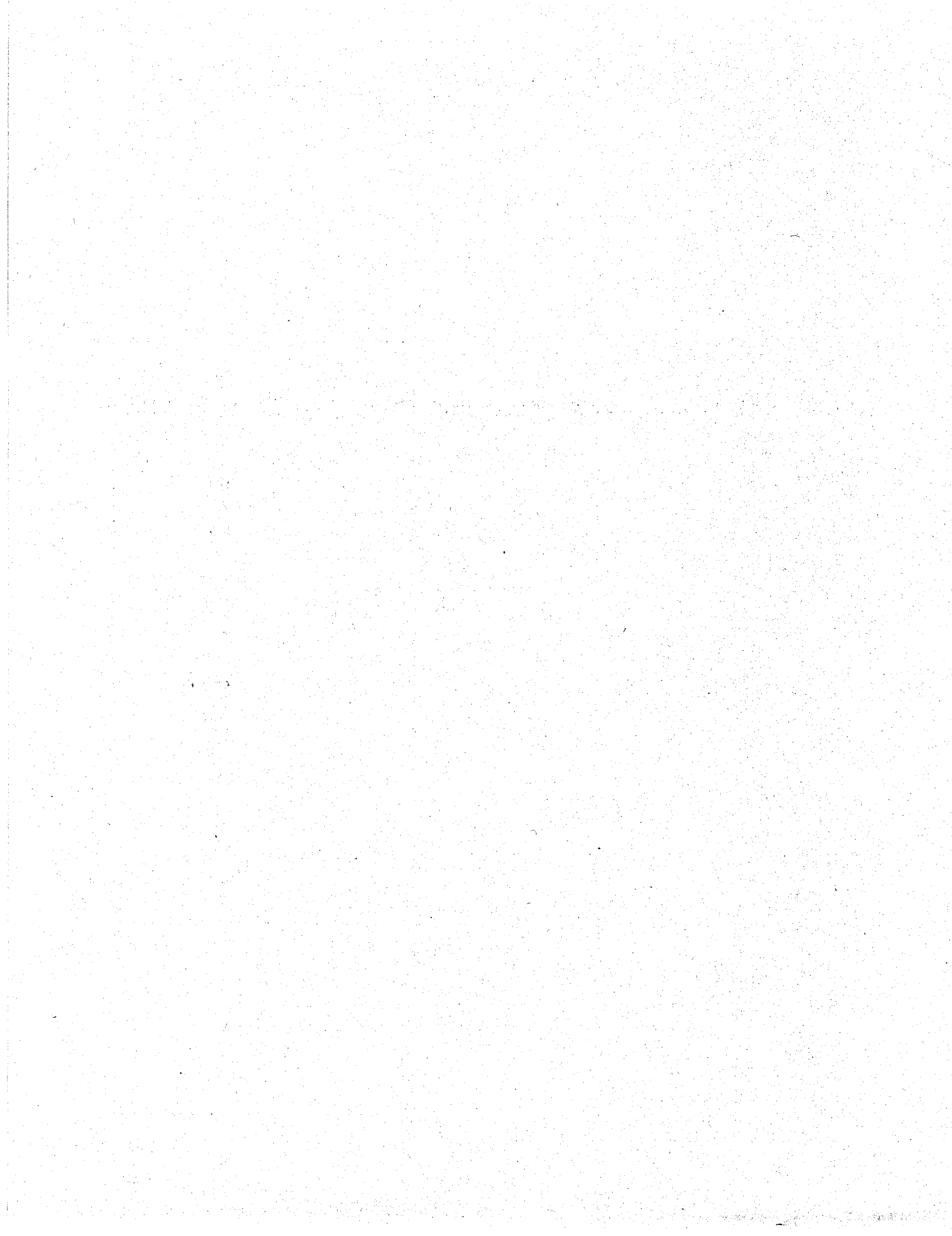
¹State or province of origin for residue chips is not available

²Combined to avoid disclosure



Shake & Shingle Mills





WASHINGTON SHAKE AND SHINGLE MILLS, 1982

Table 54 Number of shake and shingle mills and their operating characteristics by county

Economic area and county	Number of mills	Total single shift capacity ¹ (Squares)			Average number operating days/year
		Shake	Shingle	Other	
Puget Sound					
King	4	221	40	--	107
Pierce	4	61	15	39	48
Skagit	21	1,723	358	35	121
Snohomish	14	657	472	1	171
Whatcom	4	152	34	16	182
Total	47	2,814	919	91	134
Olympic Peninsula					
Clallam	40	2,724	988	151	156
Grays Harbor	62	4,247	1,250	496	154
Jefferson	3	80	--	60	168
Lewis	15	333	45	14	139
Mason/Thurston ²	3	75	--	40	187
Pacific	5	394	95	--	84
Total	128	7,853	2,378	761	151
Lower Columbia					
Clark/Wahkiakum ²	5	101	29	14	135
Cowlitz	10	940	265	13	152
Total	15	1,041	294	27	146
Central Washington/ Inland Empire²					
Chelan/Pend Oreille/ Stevens ²	5	98	13	21	68
Total	5	98	13	21	68
Total, State	195	11,806	3,604	900	144

¹8-hour shift capacity

²Combined to avoid disclosure

WASHINGTON SHAKE AND SHINGLE MILLS, 1982

Table 55 Number of shake and shingle mills with selected equipment by area and county

Economic area and county	Chipper	Barker	Burner
Puget Sound			
King	--	--	1
Pierce	--	--	1
Skagit	1	--	12
Snohomish	3	--	4
Whatcom	--	--	1
Total	4	--	19
Olympic Peninsula			
Clallam	2	--	19
Grays Harbor	7	--	27
Jefferson	--	--	1
Lewis	1	--	2
Mason/Thurston ¹	--	--	--
Pacific	1	--	1
Total	11	--	50
Lower Columbia			
Clark/Wahkiakum ¹	2	--	--
Cowlitz	1	--	--
Total	3	--	--
Central Washington/ Inland Empire¹			
Chelan/Pend Oreille Stevens ¹	1	--	--
Total	1	--	--
Total, State	19	--	69

¹Combined to avoid disclosure

WASHINGTON SHAKE AND SHINGLE MILLS, 1982

Table 56 Number of shake and shingle mills by tenure of present ownership and years of site occupancy

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	16	15	--	1	--	--
3-5	33	2	29	1	--	--
6-10	61	5	8	48	--	--
11-20	51	2	4	8	37	--
21+	34	1	4	5	6	18
Total	195	25	45	63	44	18

WASHINGTON SHAKE AND SHINGLE MILLS, 1982

Table 57 Type of wood consumed, by area and county
(Thousand board feet, Scribner log rule)

Economic area and county	All types	Sound logs	Utility logs	Other
Puget Sound				
King	1,282	1,133	149	--
Pierce	217	93	--	124
Skagit	14,644	13,261	130	1,253
Snohomish	10,978	5,827	3,693	1,458
Whatcom	1,099	428	191	480
Total	28,220	20,742	4,163	3,315
Olympic Peninsula				
Clallam	24,243	16,940	1,416	5,887
Grays Harbor	45,679	31,838	1,975	11,866
Jefferson	449	100	--	349
Lewis	1,477	578	92	807
Mason/Thurston ¹	495	388	--	107
Pacific	2,148	1,708	--	440
Total	74,491	51,552	3,483	19,456
Lower Columbia				
Clark/Wahkiakum ¹	976	162	555	259
Cowlitz	15,489	14,875	271	343
Total	16,465	15,037	826	602
Central Washington/ Inland Empire¹				
Chelan/Pend Oreille/ Stevens ¹	507	270	--	237
Total	507	270	--	237
Total, State	119,683	87,601	8,472	23,610

¹Combined to avoid disclosure

WASHINGTON SHAKE AND SHINGLE MILLS, 1982

**Table 58 Ownership origin of logs consumed, by area and county
(Thousand board feet, Scribner log rule)**

Economic area and county	All Owners	State	National Forest	Bureau of Land Management	Forest Industry			Farmer and miscellaneous private
					Other Public	Own wood supply	Other wood supply	
Puget Sound								
King	1,282	100	15	--	--	--	1,167	--
Pierce	93	--	40	--	--	--	53	--
Skagit	13,391	269	3,855	--	--	--	6,064	3,203
Snohomish	9,520	1,825	4,740	--	--	--	1,128	1,827
Whatcom	619	170	122	--	--	--	302	25
Total	24,905	2,364	8,772	--	--	--	8,714	5,055
Olympic Peninsula								
Clallam	18,356	4,045	1,405	--	455	3,896	8,347	208
Grays Harbor	33,813	719	2,431	43	1,694	139	27,199	1,588
Jefferson,	100	--	--	--	--	--	--	100
Lewis	670	75	166	--	--	--	425	4
Mason/Thurston ¹	388	--	213	--	--	--	175	--
Pacific	1,708	--	--	--	--	--	1,708	--
Total	55,035	4,839	4,215	43	2,149	4,035	37,854	1,900
Lower Columbia								
Clark/Wahkiakum ¹	717	--	--	--	--	--	717	--
Cowlitz	15,146	277	77	--	--	6,132	8,441	219
Total	15,863	277	77	--	--	6,132	9,158	219
Central Washington/ Inland Empire¹								
Chelan/Pepp Oreille/ Stevens ¹	270	--	260	--	--	--	--	10
Total	270	--	260	--	--	--	--	10
Total, State	96,073	7,480	13,324	43	2,149	10,167	55,726	7,184

¹Combined to avoid disclosure

WASHINGTON SHAKE AND SHINGLE MILLS, 1982

Table 59 Production and disposition of wood and bark residues, by area and county (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	1,443	307	1,136	966	189	777	477	118	359
Pierce	134	104	30	107	77	30	27	27	--
Skagit	16,131	7,926	8,205	11,064	5,477	5,587	5,067	2,449	2,618
Snohomish	11,021	9,607	1,414	8,183	7,277	906	2,838	2,330	508
Whatcom	976	176	800	780	125	655	196	51	145
Total	29,705	18,120	11,585	21,100	13,145	7,955	8,605	4,975	3,630
Olympic Peninsula									
Clallam	29,652	8,650	21,002	21,966	7,005	14,961	7,686	1,645	6,041
Grays Harbor	42,682	25,476	17,206	31,248	18,060	13,188	11,434	7,416	4,018
Jefferson	368	43	325	335	43	292	33	--	33
Lewis	1,238	522	716	987	428	559	251	94	157
Mason/Thurston ²	502	238	264	346	162	184	156	76	80
Pacific	1,392	1,139	253	1,017	875	142	375	264	111
Total	75,834	36,068	39,766	55,899	26,573	29,326	19,935	9,495	10,440
Lower Columbia									
Clark/Wahkiakum ²	1,072	1,057	15	773	758	15	299	299	--
Cowlitz	18,343	18,343	--	12,592	12,592	--	5,751	5,751	--
Total	19,415	19,400	15	13,365	13,350	15	6,050	6,050	--
Central Washington									
Inland Empire ²									
Chelan/Pend Oreille/ Stevens ²	287	202	85	222	137	85	65	65	--
Total	287	202	85	222	137	85	65	65	--
Total, State	125,241	73,790	51,451	90,586	53,205	37,381	34,655	20,585	14,070

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

²Combined to avoid disclosure

WASHINGTON SHAKE AND SHINGLE MILLS, 1982

**Table 60 Production and disposition of wood residues, by area and county
(Tons, dry weight)**

Economic area and county	All types						Course 1						Fine ²					
	Total	Total Used ³	Pulp and board	Fuel	Other	Unused	Total	Total Used ³	Pulp and board	Fuel	Other	Unused	Total	Total used ³	Pulp and board	Fuel	Other	Unused
Puget Sound																		
King	966	189	--	90	99	777	374	92	--	44	48	282	592	97	--	46	51	495
Pierce	107	77	--	34	43	30	52	44	--	34	10	6	55	33	--	--	33	22
Skagit	11,064	5,477	--	4,611	866	5,587	4,348	1,821	--	1,574	247	2,527	6,716	3,656	--	3,037	619	3,060
Snohomish	8,183	7,277	412	6,368	497	906	2,694	2,266	412	1,794	60	428	5,489	5,011	--	4,574	437	178
Whatcom	780	125	--	--	125	655	255	61	--	--	61	194	525	64	--	--	64	461
Total	21,100	13,145	412	11,103	1,630	7,955	7,723	4,284	412	3,446	426	3,439	13,377	8,961	--	7,657	1,204	4,516
Olympic Peninsula																		
Clallam	21,966	7,005	2,236	4,070	699	14,961	7,929	3,434	1,994	1,107	343	4,495	14,037	3,571	252	2,963	356	10,466
Grays Harbor	31,248	18,060	1,806	14,385	1,869	13,188	12,275	6,701	882	5,032	787	5,574	18,973	11,359	924	9,353	1,082	7,614
Jefferson	335	43	--	--	43	292	164	21	--	--	21	143	171	22	--	--	22	149
Lewis	987	428	--	69	359	559	460	263	--	69	194	197	527	165	--	--	165	382
Mason/Thurston ⁴	346	162	--	63	99	184	169	61	--	7	54	108	177	101	--	56	45	76
Pacific	1,017	875	168	--	707	142	435	435	127	--	308	--	582	440	41	--	399	142
Total	55,899	26,573	4,210	18,587	3,776	29,326	21,432	10,915	2,993	6,215	1,707	10,517	34,467	15,658	1,217	12,372	2,069	18,809
Lower Columbia																		
Clark/Mahkikum ⁴	773	758	--	443	315	15	322	322	--	201	121	--	451	436	--	242	194	15
Cowlitz	12,592	12,592	3,086	9,445	61	--	4,600	4,600	748	3,856	16	--	7,992	7,992	2,338	5,609	45	--
Total	13,365	13,350	3,086	9,888	376	15	4,922	4,922	748	4,037	137	--	8,443	8,428	2,338	5,851	239	15
Central Washington/ Inland Empire¹																		
Chelan/Pegd Oreille/ Stevens	222	137	--	2	135	85	103	61	--	2	59	42	119	76	--	--	76	43
Total	222	137	--	2	135	85	103	61	--	2	59	42	119	76	--	--	76	43
Total, State	90,586	53,205	7,708	39,580	5,917	37,381	34,180	20,182	4,153	13,700	2,329	13,998	56,406	33,023	3,555	25,880	3,588	23,383

¹End block trim, spalts
²Spints and sawdust
³Used residues were not necessarily consumed in the economic area in which they were produced
⁴Combined to avoid disclosure

WASHINGTON SHAKE AND SHINGLE MILLS, 1982

Table 61 Production and disposition of bark residues, by area and county (Tons, dry weight)

Economic area and county	Bark					
	Total	Total used ¹	Pulp and board	Fuel	Other	Unused
Puget Sound						
King	477	118	--	56	62	359
Pierce	27	27	--	16	11	--
Skagit	5,067	2,449	--	2,003	446	2,618
Snohomish	2,838	2,330	--	2,291	39	508
Whatcom	196	51	--	--	51	145
Total	8,605	4,975	--	4,366	609	3,630
Olympic Peninsula						
Clallam	7,686	1,645	115	1,398	132	6,041
Grays Harbor	11,434	7,416	840	6,202	374	4,018
Jefferson	33	--	--	--	--	33
Lewis	251	94	--	66	28	157
Mason/Thurston ²	156	76	--	--	76	80
Pacific	375	264	50	--	214	111
Total	19,935	9,495	1,005	7,666	824	10,440
Lower Columbia						
Clark/Wahkiakum ²	299	299	--	246	53	--
Cowlitz	5,751	5,751	952	4,788	11	--
Total	6,050	6,050	952	5,034	64	--
Central Washington and Inland Empire²						
Chelan/Pend Oreille/Stevens ²	65	65	--	--	65	--
Total	65	65	--	--	65	--
Total, State	34,655	20,585	1,957	17,066	1,562	14,070

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

²Combined to avoid disclosure

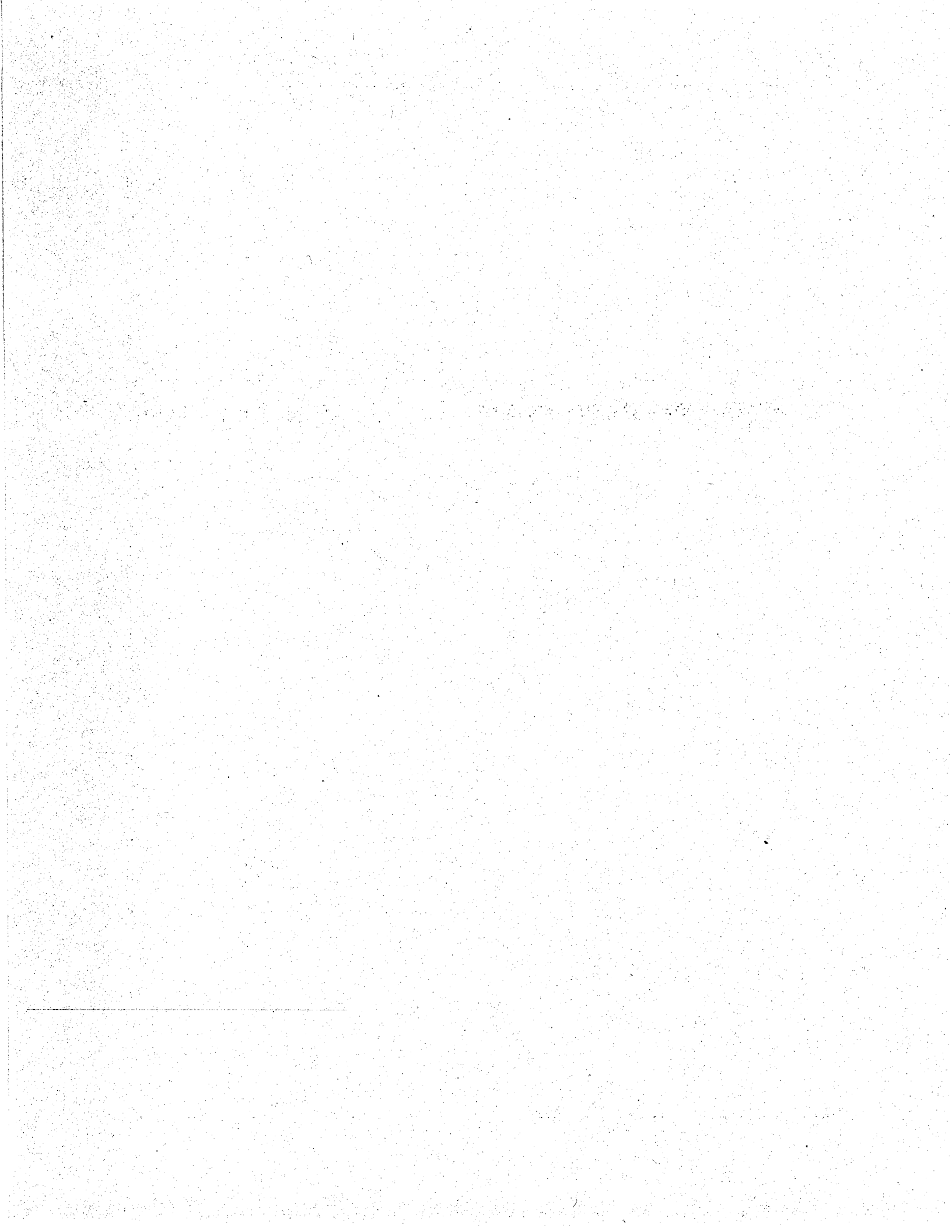
WASHINGTON SHAKE AND SHINGLE MILLS, 1982

Table 62 Mill production by product type, area and county

Economic area and county	Shakes	Shingles	Other ¹
	- - - - - Squares - - - - -		
Puget Sound			
King	13,219	3,839	--
Pierce	1,512	41,714	850
Skagit	154,604	--	1,324
Snohomish	70,973	51,414	46
Whatcom	5,945	4,973	675
Total	246,253	101,940	2,895
Olympic Peninsula			
Clallam	248,751	110,569	1,038
Grays Harbor	396,311	118,059	43,476
Jefferson	5,539	--	1,920
Lewis	19,167	896	839
Mason/Thurston ²	5,368	--	2,331
Pacific	17,219	2,489	--
Total	692,355	232,013	49,604
Lower Columbia			
Clark/Wahkiakum ²	12,320	2,200	111
Cowlitz	147,460	61,220	375
Total	159,780	63,420	486
Central Washington and Inland Empire²			
Chelan/Pend Oreille/ Stevens ²	4,055	225	368
Total	4,055	225	368
Total, State	1,102,443	397,598	53,353

¹ Other includes such products as hip and ridge shakes, wedges etc.

² Combined to avoid disclosure



WASHINGTON POLE, POST AND PILING MILLS, 1982

Table 63 Number of pole, post and piling mills and their operating characteristics by area

Economic area	Number of mills	Yearly installed capacity, thousand board feet, Scribner log rule		Average number of operating days in 1982	
		Peeling	Treatment	Peeling	Treatment
Puget Sound	5	13,140	10,134	175 (5)	214 (4)
Olympic Peninsula/ Lower Columbia ²	5	29,571	22,575	111 (5)	302 (2)
Inland Empire	3	10,931	9,673	140 (3)	105 (3)
Total, State	13	53,692	42,382	142 (13)	209 (9)

¹Number of mills is noted by figures in parentheses

²Combined to avoid disclosure

Table 64 Number of post, post and piling mills by tenure of present ownership and years of site occupancy

Years of site occupancy	Tenure of present mill ownership years					
	Total	0-2	3-5	6-10	11-20	21+
Pole, post, and piling						
3-5	--	--	--	--	--	--
6-10	--	--	--	--	--	--
11-20	6	--	--	1	5	--
21+	7	--	--	2	1	4
Total	13	--	--	3	6	4

WASHINGTON POLE, POST AND PILING MILLS, 1982

Table 65 Number of pole, post and piling mills with selected equipment, by area and county

Economic area and county	Number of mills	Chipper	Barker	Burner
Puget Sound				
Kitsap	1	--	1	--
Pierce	1	--	1	--
Snohomish	2	--	2	--
Whatcom	1	--	1	--
Total	5	--	5	--
Olympic Peninsula				
Mason	1	--	1	--
Thurston	1	--	1	--
Total	2	--	2	--
Lower Columbia				
Clark	1	--	1	1
Cowlitz	2	--	2	--
Total	3	--	3	1
Inland Empire				
Stevens	3	--	3	--
Total	3	--	3	--
Total, State	13	--	13	1

WASHINGTON POLE, POST AND PILING MILLS, 1982

Table 66 Log consumption by timber age, area and county
(Thousand board feet, Scribner log rule)

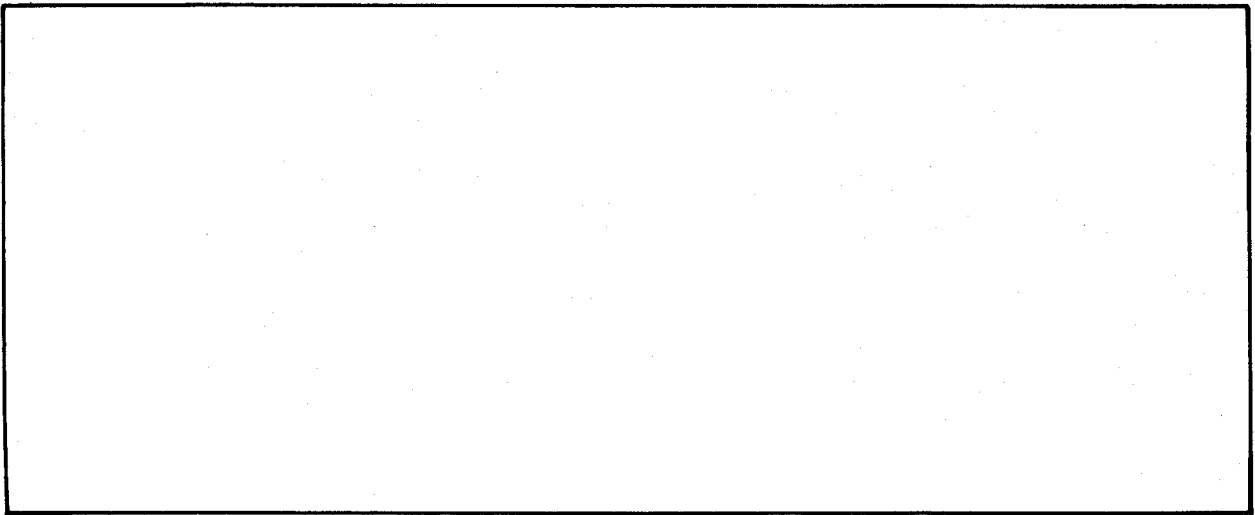
Economic area and county	All age groups	Old growth (100 + years)	Young growth (less than 100 years)
Puget Sound Kitsap/Pierce/ Snohomish/Whatcom ¹	6,872	57	6,815
Total	6,872	57	6,815
Olympic Peninsula/ Lower Columbia Clark/Cowlitz/Mason/ Thurston ¹	7,570	459	7,111
Total	7,570	459	7,111
Inland Empire Stevens	2,583	2,299	284
Total	2,583	2,299	284
Total	17,025	2,815	14,210

¹Combined to avoid disclosure

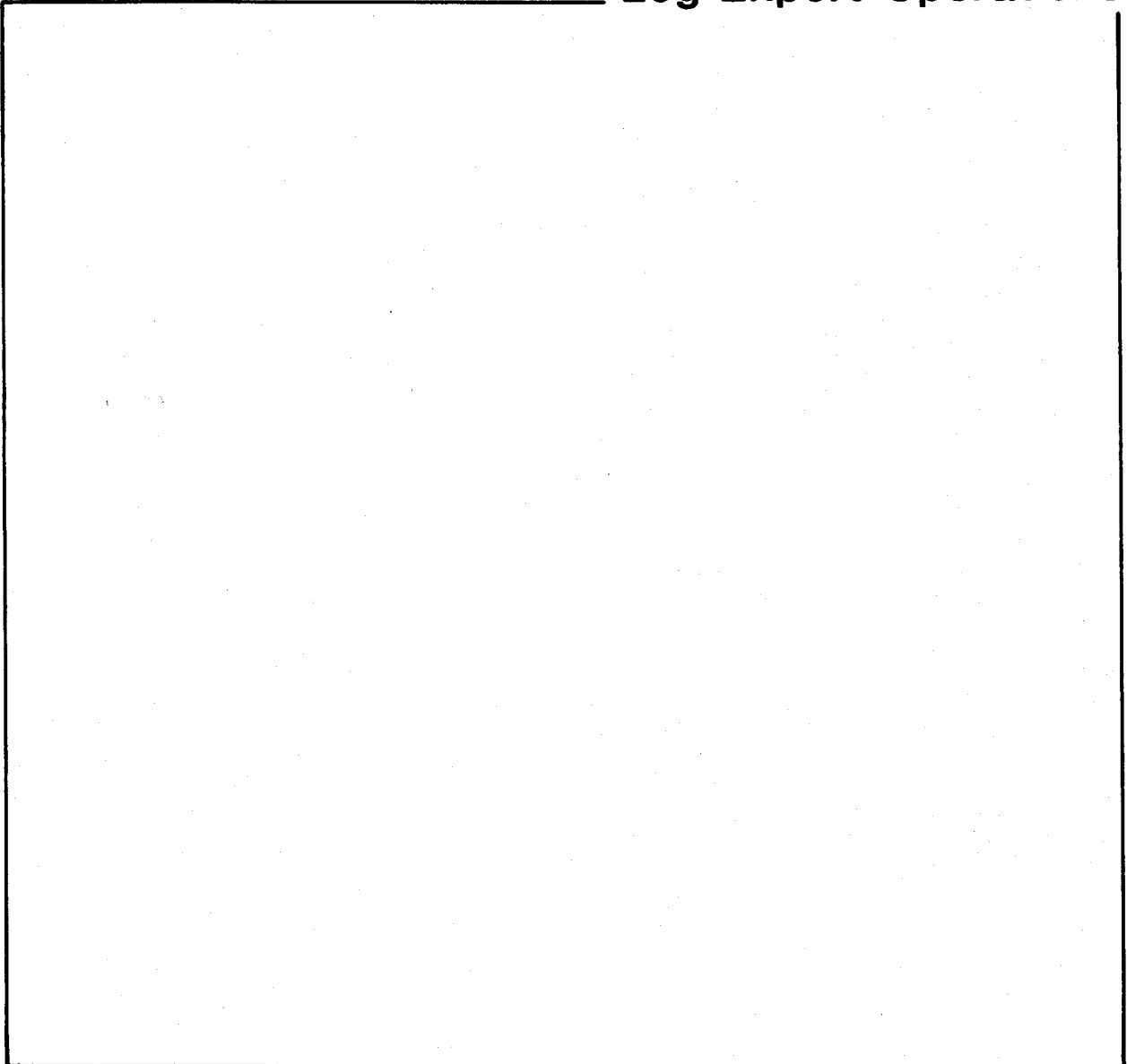
WASHINGTON POLE, POST AND PILING MILLS, 1982**Table 67 Mill production, by product type and area
(Thousand board feet, Scribner log rule)**

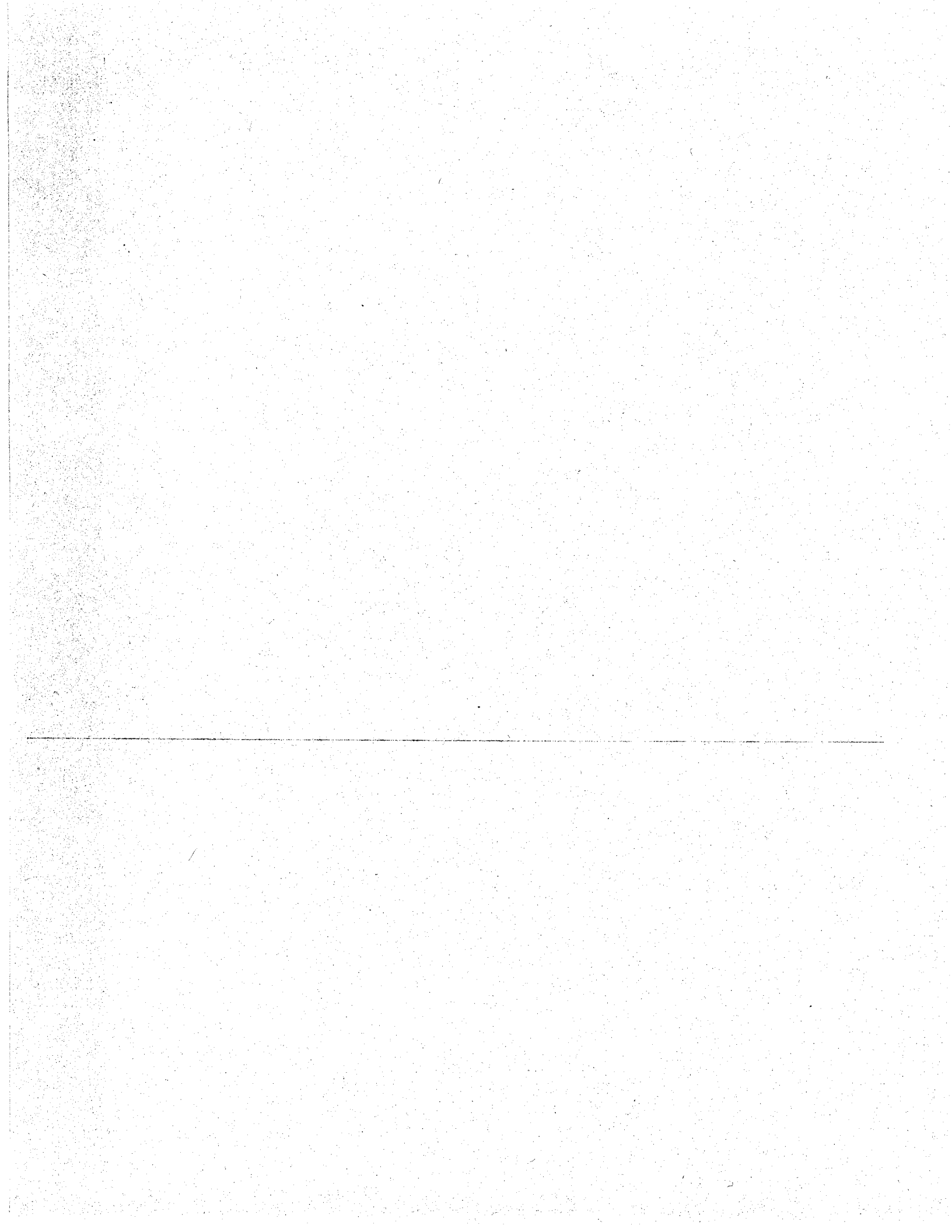
Economic Area	Shipments		
	Treated	Untreated	Total
Puget Sound	3,532	6,698	10,230
Olympic Peninsula/ Lower Columbia ¹	5,179	6,125	11,304
Inland Empire	2,496	--	2,496
Total, State	11,207	12,823	24,030

¹Combined to avoid disclosure



Log Export Operations





WASHINGTON LOG EXPORT OPERATIONS, 1982

Table 68 Number of export operations and type of logs exported by county

Port of Export		Number of Operations	Volume of Wood Exported		
Economic area and Port	County		Sound logs	Utilities logs	Total
(Thousand board feet, Scribner log scale)					
Puget Sound Anacortes/ Bellingham/ Everett ¹ Tacoma	Skagit/ Whatcom ¹ / Snohomish	36	443,837	5,486	449,323
	Pierce	23	454,354	1,070	455,424
	Total	59	898,191	6,556	904,747
Olympic Peninsula Grays Harbor Olympia Port Angeles	Grays Harbor	23	419,345	2,108	421,453
	Thurston	4	66,985	--	66,985
	Clallam	12	118,445	804	119,249
Total	39	604,775	2,912	607,687	
Lower Columbia Longview/Vancouver ¹	Clark/Cowlitz	26	621,660	255	621,915
Total	26	621,660	255	621,915	
Total, State	124	2,124,626	9,723	2,134,349	

¹Combined to avoid disclosure

Table 69 Number of export operations by years of port use

Years of Port use	All operations
0-2	16
3-5	23
6-10	36
11-20	38
21+	11
Total	124

WASHINGTON LOG EXPORT OPERATIONS, 1982

**Table 70 Log flows to ports, by area and county
(Thousand board feet, Scribner log rule)**

Economic area and county of origin	Port and County of Export						Total
	Anacortes/ Bellingham/ Everett 1,2	Grays Harbor 3	Longview/ Vancouver 4	Olympia 5	Port Angeles 6	Tacoma 7	
Puget Sound							
Island	406	--	--	--	--	--	406
King	11,534	2,168	630	406	--	122,399	137,137
Kitsap	216	400	560	--	--	8,752	9,928
Pierce	3,288	905	576	51,494	--	78,114	134,377
Skagit	115,240	12,817	4,013	580	--	2,230	134,880
Snohomish	158,608	--	--	--	--	4,672	163,280
Whatcom	38,086	--	--	--	--	628	38,714
Total	327,378	16,290	5,779	52,480	--	216,795	618,722
Olympic Peninsula							
Clallam	12,783	8,545	2,675	--	102,481	180	126,664
Grays Harbor	6,139	267,164	2,675	2,094	752	3,681	282,505
Jefferson	10,344	83,727	4,012	--	15,593	1,300	114,976
Lewis	1,816	4,117	83,532	7,646	--	156,590	253,701
Mason	6,898	1,456	--	2,080	--	14,892	25,326
Pacific	--	37,808	--	--	--	--	37,808
Thurston	280	890	5,439	978	--	26,412	33,999
Total	38,260	403,707	98,333	12,798	118,826	203,055	874,979
Lower Columbia							
Clark	--	--	12,155	--	--	3,060	15,215
Cowlitz	--	--	352,063	569	--	3,475	356,107
Klickitat	--	--	548	--	--	--	548
Skamania	5,125	--	38,894	--	--	--	44,019
Wahkiakum	--	--	69,468	--	--	--	69,468
Total	5,125	--	473,128	569	--	6,535	485,357
Central Washington							
Chelan	19,876	--	--	1,138	--	1,067	22,081
Kittitas	14,351	1,205	--	--	--	27,403	42,959
Lincoln	--	--	--	--	--	--	--
Okanogan	--	--	--	--	--	--	--
Total	34,227	1,205	--	1,138	--	28,470	65,040
Inland Empire							
Ferry	--	--	--	--	--	--	--
Pend Oreille	--	--	--	--	--	--	--
Spokane	--	--	--	--	--	--	--
Stevens	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--
Total, State	404,990	421,202	577,240	66,985	118,826	454,855	2,044,098
Outside Washington	44,333	251	44,675	--	423	569	90,251
Total	449,323	421,453	621,915	66,985	119,249	455,424	2,134,349

1 Combined to avoid disclosure
2 Skagit, Whatcom and Snohomish Counties
3 Grays Harbor County
4 Clark and Cowlitz Counties

5 Thurston County
6 Clallam County
7 Pierce County

WASHINGTON LOG EXPORT OPERATIONS, 1982

**Table 71 Log consumption by species, area and county
(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										
Pierce	455,424	327,046	112,372	9,610	3,862	--	88	918	1,528	--
Skagit/Snghomish/Whatcom ¹	449,323	218,599	187,799	8,107	4,104	135	487	21,217	6,179	2,696
Total	904,747	545,645	300,171	17,717	7,966	135	575	22,135	7,707	2,696
Olympic Peninsula										
Clallam	119,249	16,103	84,365	5,400	7,018	--	--	6,316	47	--
Grays Harbor	421,453	112,829	277,742	7,000	10,555	427	251	8,806	3,165	678
Thurston	66,985	48,454	16,791	--	--	--	--	1,160	--	580
Total	607,687	177,386	378,898	12,400	17,573	427	251	16,282	3,212	1,258
Lower Columbia										
Cowlitz/Clark ¹	621,915	464,841	133,807	2,320	3,007	133	--	7,366	9,854	587
Total	621,915	464,841	133,807	2,320	3,007	133	--	7,366	9,854	587
Total, State	2,134,349	1,187,872	812,876	32,437	28,546	695	826	45,783	20,773	4,541

¹ Combined to avoid disclosure

Export
**Table 72 Ownership origin of logs consumed, by area and county
(Thousand board feet, Scribner log rule)**

Economic area and county	All owners	State	National Forest	Bureau of Land Management	Other public	Forest Industry		
						Own wood supply	Other wood supply	Farmer and miscellaneous private
Puget Sound								
Pierce	455,424	29,009	205	--	947	36,224	344,087	44,952
Skagit/Snghomish/Whatcom ¹	449,323	92,805	21,133	--	3,073	2,705	294,699	34,908
Total	904,747	121,814	21,338	--	4,020	38,929	638,786	79,860
Olympic Peninsula								
Clallam	119,249	21,965	--	--	--	--	80,548	16,736
Grays Harbor	421,453	84,892	--	--	1,912	8,545	308,557	17,547
Thurston	66,985	2,354	--	--	81	--	64,127	423
Total	607,687	109,211	--	--	1,993	8,545	453,232	34,706
Lower Columbia								
Clark/Cowlitz ¹	621,915	64,355	--	--	--	2,910	509,233	45,417
Total	621,915	64,355	--	--	--	2,910	509,233	45,417
Total, State	2,134,349	295,380	21,338	--	6,013	50,384	1,601,251	159,983

¹ Combined to avoid disclosure