FOREST INDUSTRY RESEARCH PROGRAM
UNIVERSITY OF MONTANA

Oregon forest products Industry and timber harvest, 2022: Highlights and summary data tables

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The University of Montana's Bureau of Business and Economic Research (BBER) in conjunction with the Pacific Northwest Research Station, Forest Inventory and Analysis (PNW-FIA) Program of the US Forest Service, and the Oregon Department of Forestry (ODF), conducted a census of Oregon's timber processors operating during calendar year 2022. In addition, the Oregon Forest & Industries Council, and the Wood Innovation Center at Oregon State University cooperated with this research. The BBER has been studying the region's forest products industry since 1998. Oregon's timber harvest and industry 2022 represents BBER's fifth such study in the state of Oregon since 2003.

Through a written questionnaire, phone, or in-person interview, timber-processing and residue-utilizing facilities provided information about their calendar year 2022 operations, including:

- Plant production, capacity, and employment.
- Volume and size of raw material received, by county and ownership.
- Species mix and proportion of standing dead timber received (if applicable).
- Finished product volumes, types (including energy), sales value, and market locations.
- Utilization and marketing of manufacturing residue.

Because this study is based on a census, rather than statistical sample of firms, there is no statistical error associated with the estimates presented. Possibilities of reporting and measurement error exist, but are minimized by checking each facility's data for internal consistency and cross-checking summarized

data against other public and private information. Summary data tables and figures are reviewed by wood products researchers, state and federal agency personnel, and members of the state's forest products industry to garner high-level reviews.

Some firms chose not to participate or did not provide complete data. Data for facilities that did not respond were estimated using previous years' surveys, data from similar facilities, and other information. For the 2022 Oregon census, data were received for 55 of the 133 active, in-state facilities, accounting for about 41 percent of facilities operating during the census year. While some estimation was required, responding firms accounted for 51 percent of the timber volume processed in Oregon during 2022.

The resulting facility-level information was then compiled and summarized as presented here. A glossary is also included to provide additional context and clarity for terminology used in the data tables and subsequent reporting. As we continue to finalize the report, we would like to provide this "core" information to our data users and other interested individuals. We encourage you to contact us if you have any additional questions about the data. **However, firm-level data are confidential and will not be released.** All BBER reports on Oregon's forest products industry can be found at: http://www.bber.umt.edu/FIR/S_OR.asp

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Report Highlights

- A total of 133 primary forest products facilities operated in Oregon during 2022 compared to 166 in 2017. These included:
    - 69 sawmills
    - 14 plywood/veneer facilities
    - 12 pulp/paper and board plants
    - 12 roundwood chipping facilities
    - 5 post, pole, piling, and utility pole plants
    - 5 log home and log furniture producers
    - 3 export log concentrating or exporting yards
    - 13 other facilities including biomass, wood pellet, charcoal briquette, artisan wood products, landscape bark/mulch, and animal bedding producers

- Oregon's timber harvest was 3.7 billion board feet (BBF) Scribner in 2022, representing a 5 percent decrease compared to 2017. Approximately 91 percent (3.4 BBF Scribner) of the timber harvest came from counties west of the Cascade Mountain Range. About 78 percent of Oregon's 2022 timber harvest came from private lands, 9 percent from federal lands, 6 percent from Oregon Department of Forestry lands, and the remaining harvest from other public ownerships.

- About 92 percent of the timber harvested in Oregon was processed in-state with nearly 8 percent (291 million board feet (MMBF)) exported out-of-state or internationally to countries in the Pacific Rim. Approximately 86 MMBF was imported from neighboring states into Oregon, making Oregon a net exporter of 205 MMBF in 2022.

- Sawmills received 2.5 BBF (71 percent) of the timber processed in Oregon during 2022. Plywood/veneer plants received 759 MMBF (21 percent). These two sectors accounted for nearly 92 percent of timber received by mills in Oregon during 2022. Almost 6 percent of the volume received was chipped, primarily for pulp/paper and board products, and the remaining timber was used for "other products."

- Oregon sawmills produced and sold 5.4 BBF of lumber in 2022 with a sales value over $4.3 billion compared to 5.2 BBF of lumber in 2017 with a sales value of $2.7 billion (constant 2022 dollars). These mills produced an average of 2.16 board-feet lumber tally for every board foot Scribner of log input processed, the highest overrun for any census year.

- The capacity of Oregon's sawmills to process timber declined by 8.1 percent, from 3.7 BBF Scribner in 2017 to 3.4 BBF in 2022. Sawmill capacity utilization increased from 66.0 percent in 2017 to 73.1 percent in 2022.

- Sales values in 2022 for primary wood products (including export logs) were $10.3 billion, an increase from $8.4 billion in 2017 (constant 2022 dollars). Lumber sales were 42.4 percent of the total in 2022, which was a 62.0 percent increase from 2017. Sales of pulp/paper and board were the second largest portion (31.3 percent) of total sales, up by 16.4 percent of sales value in 2017.

- Oregon's primary facilities produced 5.1 million bone-dry units (6.1 million bone dry tons) of residuals in 2022, with a little more than 1 percent unutilized. Pulp/paper and board plants received 71.7 percent of all mill residuals. Most of the remaining residuals were used as fuel. Sales of mill residuals in 2022 totaled $241 million.

- About 43,000 workers were employed in Oregon's forest industry during 2022, 0.3 percent less than in 2017. Total worker's earnings increased by 14.2 percent to approximately $3.7 billion in 2022.

Figure 1 presents the active Oregon primary forest product facilities and timber harvest in 2022. Figure 2 traces the flow of Oregon's 2022 timber harvest by sector, with all facility inputs and outputs (i.e., products and mill residue) reported in thousand cubic feet (MCF). The following conversion factors, converting Scribner board foot volumes to cubic feet, were developed from log size specifications as well as product and residue recovery information provided by processors of Oregon's 2022 timber harvest:

- 3.97 board feet per cubic foot for sawlogs
- 4.87 board feet per cubic foot for veneer logs
- 2.17 board feet per cubic foot for chipped logs
- 4.88 board feet per cubic foot for export logs
- 5.23 board feet per cubic foot for utility poles and pilings.
- 3.06 board feet per cubic foot for other timber products

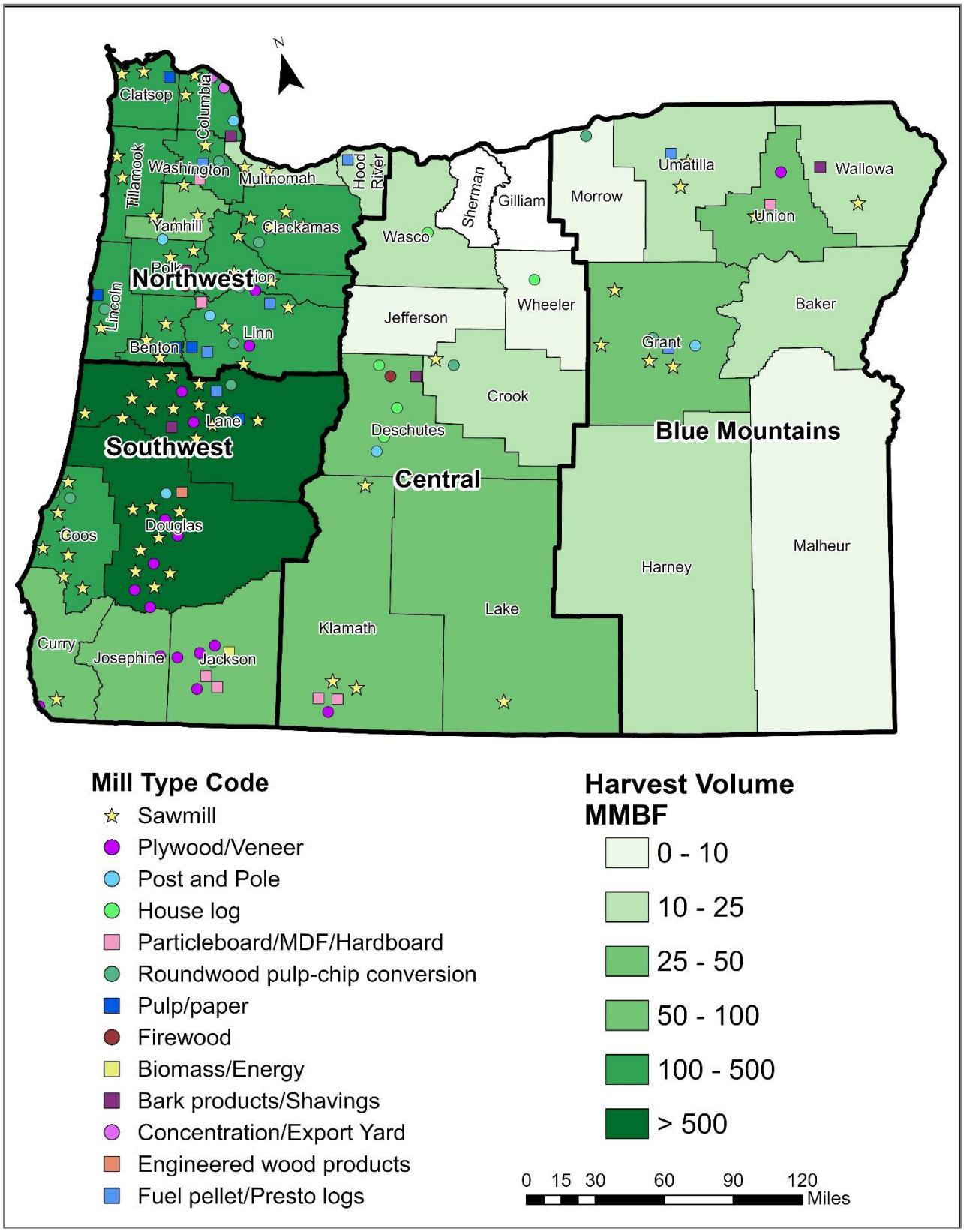
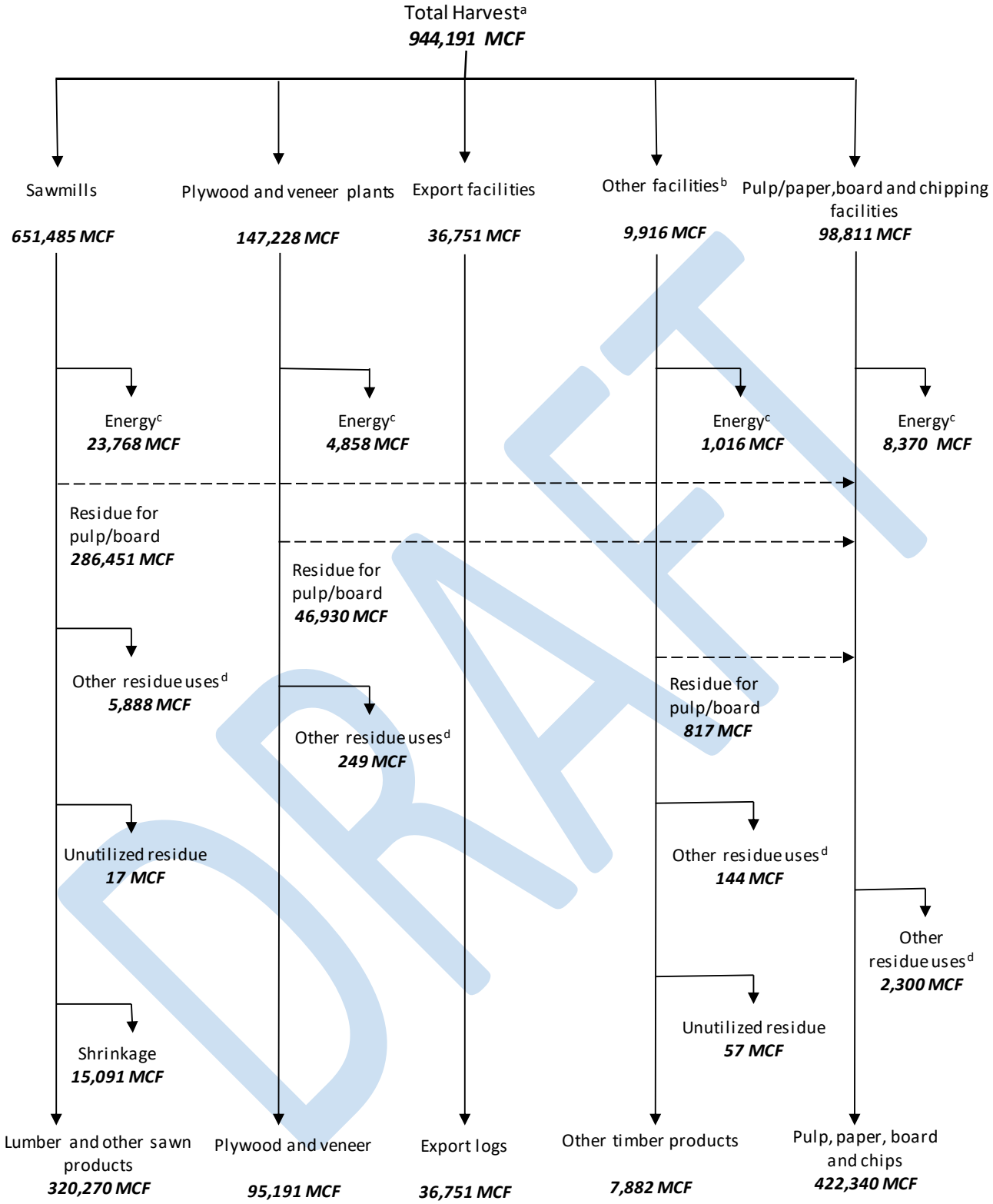


Figure 1 – Active Oregon primary forest products facilities and timber harvest, 2022.



[a] Harvest volume does not include bark.
[b] Other facilities include producers of posts, poles, utility poles, log homes, log furniture, energy, energy products, other products.
[c] Energy includes residue used internally for energy or sold for hog fuel, wood pellets, or compressed fuel logs.
[d] Other uses include landscape, mulch, and animal bedding

Figure 2 – Oregon's timber harvest and products flow, 2022. MCF = thousand cubic feet.

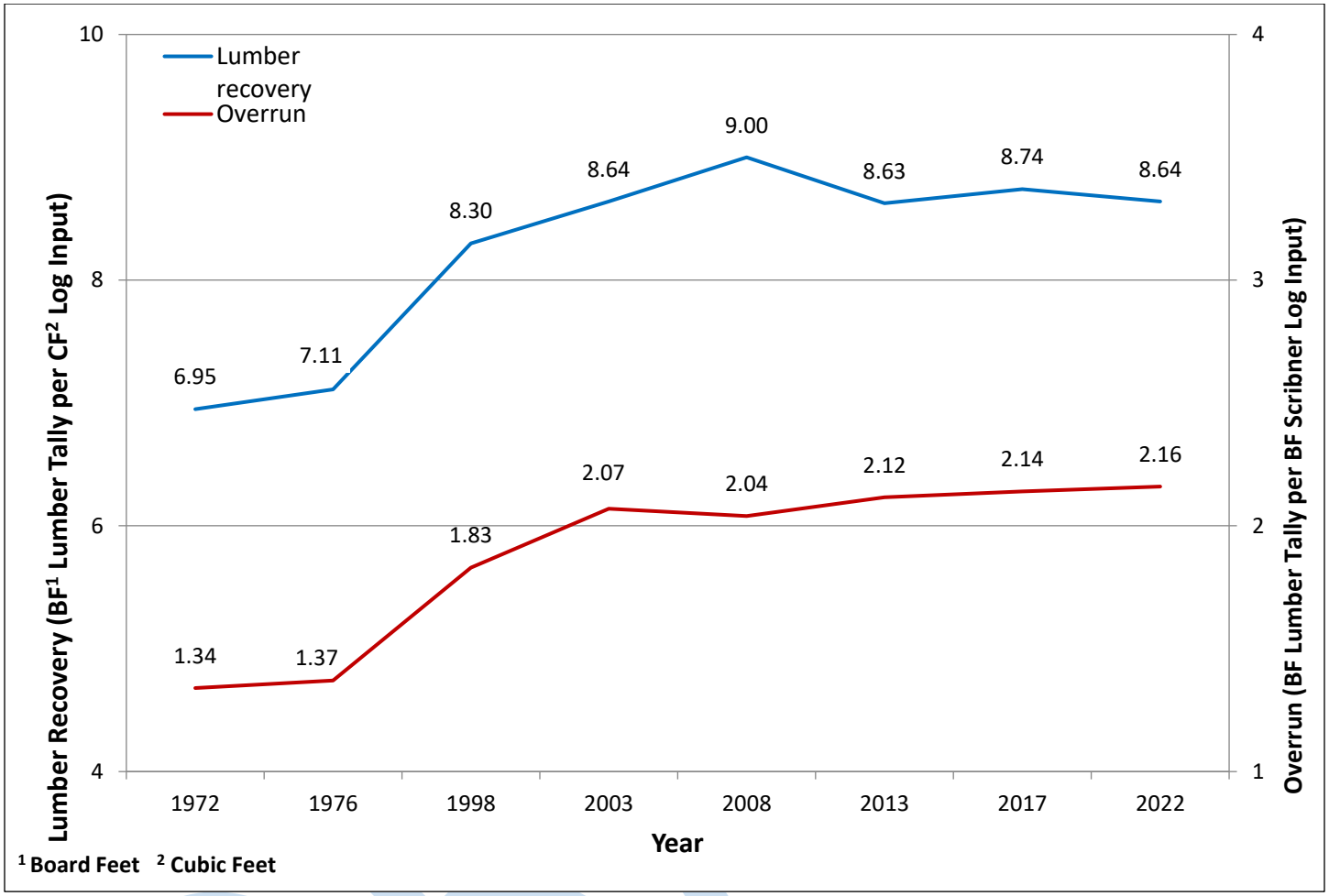


Figure 13 – Oregon lumber recovery and overrun, various years. Source: Brandt et al. 2006; Gale et al. 2012; Howard and Hiserote 1978; Howard 1984; Howard and Ward 1991, 1988; Schuldt and Howard 1974; Simmons et al. 2016; Ward 1995, 1997; Ward et al 2000, Manock et al 1970; Schuldt and Howard 1974; Ward 1995, 1997; Ward et al 2000.

Summary data tables

Table 1 – Oregon timberland[a] by ownership class, 2021.

Ownership class	Thousand Acres[b]	Percentage of timberland
National Forest	11,140.0	46.7
Private[c]	9,235.0	38.7
Bureau of Land Management	2,361.0	9.9
State	948.0	4.0
Other public	165.0	0.7
All owners	23,849.0	100

[a] Forest land that is producing or capable of producing >20 cubic feet per acre per year of wood at culmination of mean annual increment (MAI). Timberland excludes reserved forest lands (USDA FS 2006).

[b] Acres: thousands of acres (23,849 = 23.8 million ac.).

[c] Includes Corporate and non-corporate timberlands. Corporate: An ownership class of private forest lands owned by a company, corporation, legal partnership, investment firm, bank, timberland investment management organization (TIMO), or real-estate investment trust (REIT). Non-corporate: Private forest land owned by nongovernmental conservation or natural resource organizations; unincorporated partnerships, associations, or clubs; individuals or families; or Native Americans (USDA FS 2006).

Source: USDA Forest Service, Forest Inventory and Analysis Program. 2024. Forest Inventory EVALIDator web-application Version 2.1.2. St. Paul, MN: U.S. Department of Agriculture, Forest Service, Northern Research Station. https://apps.fs.usda.gov/fiadb-api/evalidator. (13 December 2024).

Table 2 – Oregon timber harvest and standing volume by ownership, 2021 and 2022.

Ownership	Harvest (2022)		Standing (2021)[a]	
	Volume	Percentage of total	Volume	Percentage of total
	MMBF[b]	*Percent*	*MMBF*[b]	*Percent*
Private[c]	2,922.2	78.1	83,239.0	20.1
National forest	334.3	8.9	230,586.1	55.7
State	213.4	5.7	22,420.3	5.4
Bureau of Land Management	225.2	6.0	75,941.1	18.3
Other public	45.9	1.2	1,907.0	0.5
Total	3,741.1	100	414,093.5	100

[a] Oregon live tree standing volume on timberland in 2021 as estimated by FIA. Represents sawlog portion of growing-stock trees with diameter at breast height ≥ 9 inches on non-reserved timberland.

[b] MMBF = million board feet Scribner.

[c] Includes Corporate and non-corporate timberlands. Corporate: An ownership class of private forest lands owned by a company, corporation, legal partnership, investment firm, bank, timberland investment management organization (TIMO), or real-estate investment trust (REIT). Non-corporate: Private forest land owned by nongovernmental conservation or natural resource organizations; unincorporated partnerships, associations, or clubs; individuals or families; or Native Americans (USDA FS 2006).

Source: Source: USDA Forest Service, Forest Inventory and Analysis Program. 2024. Forest Inventory EVALIDator web-application Version 2.1.2. St. Paul, MN: U.S. Department of Agriculture, Forest Service, Northern Research Station. https://apps.fs.usda.gov/fiadb-api/evalidator. (13 December 2024).

Table 3 – Oregon timber harvest and standing volume by species, 2021 and 2022.

Species	Harvest (2022)		Standing (2021)[a]	
	Volume	Percentage of total	Volume	Percentage of total
	MMBF[b]	*Percent*	*MMBF*[b]	*Percent*
Douglas-fir	2,755.7	73.7	245,329.4	59.2
Hemlock	320.4	8.6	29,676.4	7.2
True firs	263.6	7.0	40,632.5	9.8
Pines	226.7	6.1	52,794.4	12.7
Spruce	49.6	1.3	8,017.1	1.9
Cedar	34.1	0.9	9,731.1	2.3
Other softwoods	16.5	0.4	9,062.0	2.2
All softwoods	3,665.2	98.0	395,242.9	95.4
All hardwoods[c]	74.6	2.0	18,850.7	4.6
All Species	3,739.9	100	414,093.6	100

[a]Oregon live tree standing volume on timberland in 2021 as estimated by FIA. Represents sawlog portion of growing-stock trees with diameter at breast height ≥ 9 inches on non-reserved timberland.

[b]MMBF = million board feet Scribner.

[c]All hardwoods include Red Alder, Cottonwood/Poplar, Bigleaf maple, Tanoak, Pacific madrone and others.

Source: USDA Forest Service, Forest Inventory and Analysis Program. 2024. Forest Inventory EVALIDator web-application Version 2.1.2. St. Paul, MN: U.S. Department of Agriculture, Forest Service, Northern Research Station. https://apps.fs.usda.gov/fiadb-api/evalidator. (13 December 2024).

Table 4 – Oregon timber harvest by species and ownership, 2022

Species	Private[a]	National forest	State	Bureau of Land Management	Other public	Total
	Million board feet, Scribner					
Douglas fir	2,179.3	194.5	151.8	192.7	37.4	2,755.7
Western hemlock	267.5	9.5	27.6	13.8	2.0	320.4
True firs	198.5	27.3	22.6	12.5	2.6	263.6
Pines	120.5	96.9	3.3	4.5	1.5	226.7
Spruce	44.7	0.9	2.1	1.0	0.9	49.6
Cedar	32.3	0.8	0.3	0.4	0.2	34.1
All other[d]	79.4	4.6	5.7	—	1.2	90.9
All species	2,922.2	334.3	213.4	225.0	45.9	3,740.9

[a] Includes Corporate and non-corporate timberlands. Corporate: An ownership class of private forest lands owned by a company, corporation, legal partnership, investment firm, bank, timberland investment management organization (TIMO), or real-estate investment trust (REIT). Non-corporate: Private Forest land owned by nongovernmental conservation or natural resource organizations; unincorporated partnerships, associations, or clubs; individuals or families; or Native Americans (USDA FS 2006).

[b] Includes miscellaneous softwoods and all hardwoods.

— Value less than 50 MBF (thousand board feet) Scribner.

Table 5 – Oregon timber harvest by product type, 2022

Product	Volume	Percentage of total
	Million board feet, Scribner	*Percent*
Sawlog[a]	2,768.0	74.0
Plywood/veneer	704.4	18.8
Pulp/chipped logs[b]	216.4	5.8
Other timber products[c]	52.3	1.4
Total	3,741.1	100

[a] Sawlogs include export logs

[b] Chipped logs are primarily roundwood pulpwood and also include industrial fuelwood.

[c] Other timber products includes posts, small poles, pilings, utility poles, log homes, firewood, bark products, shavings, non-pulp chips, and log furniture.

Table 6 – Proportion of Oregon timber harvest by product in various years

Product	1972	1982	1992	2003	2008	2017	2017	2022
	Percentage of consumption							
Sawlogs[b]	58.9	57.2	67.3	72.8	76.7	75.3	72.8	74.0
Veneer	35.0	34.2	24.7	21.3	17.1	14.8	17.1	18.8
Pulp/chipped logs	[c]	[c]	[c]	4.4	5.4	9.0	9.0	5.8
Other timber products[bd]	6.1	8.6	8.0	1.5	0.8	0.9	1.1	1.4
All products	100	100	100	100	100	100	100	100

[a] Displayed as harvest for specified years, as receipts for other years.

[b] Log export included in Other timber products for 1972, 1982, 1992, and in sawlogs for 2003, 2008, 2017, and 2017.

[c] Pulp and board included in Other for specified years.

[d] Other timber products include firewood, log furniture, log homes, post, pole, piling, and utility poles.

Sources: Brandt et al. 2006; Gale et al. 2012; Howard 1984; Manock et al 1970; Schuldt and Howard 1974; Simmons et al 2016, 2021; Ward 1995.

Table 7 – Oregon timber harvest by ownership class and product type, 2022

Ownership class	Sawlogs[a]	Veneer logs	Chipped logs[b]	Other timber products[c]	All products
	Million board feet, Scribner				
Private[d]	2,198.9	495.1	183.8	44.5	2,922.2
National Forest	233.9	73.1	19.7	7.6	334.3
State	163.7	46.7	3.0	7.6	213.4
Bureau of Land Management	155.1	69.9	0.0	0.2	225.2
Other public	16.4	19.6	9.9	0.0	45.9
All owners	2,768.0	704.4	216.4	52.3	3,741.1

[a] Export logs are included in sawlogs.
[b] Chipped logs are primarily roundwood pulpwood and also include industrial fuelwood.
[c] Other timber products include logs for posts, small poles, pilings, utility poles, log homes, firewood, bark products, shavings, non-pulp chips, and log furniture.
[d] Includes Corporate and non-corporate timberlands. Corporate: An ownership class of private forest lands owned by a company, corporation, legal partnership, investment firm, bank, timberland investment management organization (TIMO), or real-estate investment trust (REIT). Non-corporate: Private forest land owned by nongovernmental conservation or natural resource organizations; unincorporated partnerships, associations, or clubs; individuals or families; or Native Americans (USDA FS 2006).

Table 8 – Oregon timber harvest by species and product type, 2022

Species	Sawlogs[a]	Veneer logs	Chipped logs[b]	Other timber products[c]	All products
	Million board feet, Scribner				
Douglas fir	2,039.5	571.4	112.7	32.1	2,755.7
Western hemlock	277.1	7.5	35.8	0.0	320.4
True firs	185.0	72.0	5.8	0.8	263.6
Pines	174.5	31.8	14.2	6.2	226.7
Spruce	31.1	9.8	8.6	0.1	49.6
Cedar	20.0	0.0	4.0	10.1	34.1
All other[d]	40.9	11.9	35.4	2.9	91.1
All species	2,768.0	704.4	216.4	52.3	3,741.1

[a] Export logs are included in sawlogs.
[b] Chipped logs are primarily roundwood pulpwood and also include industrial fuelwood.
[c] Other timber products include logs for composite panels, posts, small poles, pilings, utility poles, log homes, firewood, bark products, shavings, non-pulp chips, and log furniture.
[d] Includes miscellaneous softwoods and all hardwoods.

Table 9 – Oregon timber harvest and standing volume by resource area, 2021 and 2022.

Resource area	Harvest (2022)		Standing volume (2021) (d.b.h. ≥9 inches)[a]	
	MMBF[b]	*Percent*	*MMBF*[b]	*Percent*
Northwest	1,724.1	46.1	112,167.3	27.1
Southwest	1,673.5	44.7	208,887.6	50.4
Central	198.1	5.3	50,769.9	12.3
Blue Mountains	145.5	3.9	42,278.8	10.2
State total	3,741.1	100	414,093.6	100

[a]Oregon live tree standing volume on timberland in 2021 as estimated by FIA. Represents sawlog portion of growing-stock trees with diameter at breast height ≥ 9 inches on non-reserved timberland.

[b]MMBF = million board feet Scribner.

Source: USDA Forest Service, Forest Inventory and Analysis Program. 2024. Forest Inventory EVALIDator web-application Version 2.1.2. St. Paul, MN: U.S. Department of Agriculture, Forest Service, Northern Research Station. https://apps.fs.usda.gov/fiadb-api/evalidator. (13 December 2024).

Table 10 – Oregon timber harvest by resource area and county, 2022

Resource area	Harvest volume	Percentage of total
	MMBF[a]	*Percent*[b]
Northwest		
Benton	119.7	3.2
Clackamas	188.1	5.0
Clatsop	165.3	4.4
Columbia	159.3	4.3
Hood River	22.8	0.6
Lincoln	179.4	4.8
Linn	248.9	6.7
Marion	108.5	2.9
Multnomah	13.1	0.3
Polk	135.8	3.6
Tillamook	179.5	4.8
Washington	120.5	3.2
Yamhill	83.3	2.2
Total Northwest	1,724.1	46.1
Southwest		
Coos	242.7	6.5
Curry	87.7	2.3
Douglas	679.6	18.2
Jackson	81.0	2.2
Josephine	36.3	1.0
Lane	546.2	14.6
Total Southwest	1,673.5	44.7
Central		
Crook	10.3	0.3
Deschutes	35.2	0.9
Gilliam	0	0
Jefferson	1.5	—
Klamath	92.4	2.5
Lake	30.2	0.8
Sherman	0	0
Wasco	24.7	0.7
Wheeler	3.7	0.1
Total Central	198.1	5.3
Blue Mountains		
Baker	17	0.5
Grant	27	0.7
Harney	13	0.3
Malheur	1	—
Morrow	4	0.1
Umatilla	21	0.6
Union	51	1.4
Wallowa	13	0.3
Total Blue Mountains	145	3.9
State total	3,741	100

[a] MMBF = Million board feet Scribner.

[b] Columns may not sum to 100 due to rounding.

— Value less than .05 percent.

Table 11 – Volume Received by timber processors in Oregon (excluding log exporters) by state of origin in various years

State of origin	1985	1988	1992	1994	1998	2003	2008	2017	2017	2022
Oregon	7,755.6	8,201.2	3,673.8	3,203.1	3,752.2	3,904.6	3,200.4	3,553.2	3,448.5	3,450.0
Washington	224.0	271.9	182.9	289.2	515.2	261.0	221.8	83.4	38.5	48.9
California	280.5	308.3	155.0	203.4	150.9	67.4	47.4	71.5	32.0	26.1
Idaho	11.4	15.7	17.1	46.6	17.6	57.8	41.9	48.9	20.3	9.5
Other[a]	0.0	1.4	4.2	32.8	63.8	8.4	10.0	2.0	1.1	1.1
Total	8,271.6	8,798.4	4,033.0	3,775.1	4,499.8	4,299.3	3,521.5	3,758.9	3,540.5	3,535.6

[a] Other contains log flows from states and countries not listed.
Sources: Brandt et al. 2006; Gale et al. 2012; Howard and Ward 1991, 1988; Simmons et al 2016, 2021; Ward 1995; Ward 1997; Ward et al 2000.

Table 12 – Oregon timber flow by resource area, 2022

	Geographic source of timber						
Resource area[a]	**Northwest**	**Southwest**	**Central**	**Blue Mountains**	**Oregon Timber to Oregon**	**Out-of-state timber in[b]**	**Total timber received in Oregon**
Destination:	*Million board feet, Scribner*						
Northwest	1,169.1	102.0	8.6	13.3	1,293.1	43.2	1,336.3
Southwest	355.6	1,417.9	75.1	0.0	1,848.6	21.9	1,870.5
Central	0.1	25.8	110.3	3.7	139.8	10.5	150.3
Blue Mountains	32.9	24.1	3.2	108.3	168.5	9.9	178.4
California, Idaho, Washington & exported logs	166.4	103.6	0.8	20.2	**3,450.0**	**85.6**	**3,535.6**
Oregon timber harvest by resource area	1,724.1	1,673.5	198.1	145.5	**Total Oregon timber harvest**	**3,741.1**	

[a] See table 10 for counties in each resource area.

[b] Imports from California, Idaho, Montana, Washington and international sources were combined to avoid disclosure.

Table 13 – Log flow in and out of Oregon, 2022

Timber Products	Log flow into Oregon	Log flow exported (international)	Log flow out of Oregon (domestic)	Net in (net out)
	Million board feet, Scribner			
Saw and veneer logs	81.6	179.3	99.9	(197.6)
Other timber products[a]	4.0	0.0	11.9	(7.9)
All products	85.6	179.3	111.8	(205.5)

[a] Other timber products include logs for chipping, posts, small poles, pilings, utility poles, log homes, firewood, and log furniture.

Table 14 – Destination and sales value of exported Oregon primary wood products, 2022

Primary Wood Product	Pacific Rim	Canada	Other Countries[a]	Total
	Millions of 2022 Dollars			
Export Logs[b]	239.2	0.0	0.0	239.2
Pulp/Paper, board[d], and other products[c]	79.4	2.0	84.4	165.7
Lumber	19.4	29.7	9.1	58.2
Plywood and veneer	0.0	16.9	0.0	16.9
Total	337.9	48.6	93.5	480.0

[a] Other countries includes Europe and Mexico.

[b] Includes Oregon export logs delivered to Washington.

[c] Pulp and board includes pulp, paper, and reconstituted board products.

[d] Other primary wood products include bark, chipped logs, log furniture, house logs, posts, small poles, pilings, utility poles, wood pellets, and other energy products.

Table 15 – Oregon international log exports by species, 2022

Species	Volume Exported	Percent of export volume
	MBF [a]	*Percent*
Western Hemlock	76,801	43%
Douglas-Fir	65,092	36%
Sitka Spruce	22,885	13%
White Fir	10,472	6%
Ponderosa pine	4,022	2%
Totals	179,272	100%

[a] MBF = Thousand board feet Scribner.

Table 16 – Timber received by Oregon processors (excluding log exporters) by ownership class and mill type, 2022

Ownership class	Sawmills	Plywood Veneer	Chipping facilities[a]	Other timber products[b]	All products
	Million board feet, Scribner				
Private[c]	1,976.0	538.7	180.0	35.0	2,729.8
National forest	229.9	77.7	19.3	1.3	328.2
State	149.1	53.5	1.8	3.3	207.7
Bureau of Land Management	155.1	69.5	0.0	0.2	224.7
Other[d]	15.7	19.6	9.9	0.0	45.2
All owners	2,525.7	759.0	211.0	39.9	3,535.6

[a] Chipping facilities chip pulpwood primarily for pulp and board but also for industrial fuelwood.

[b] Other timber products facilities include cedar products, posts, small poles, pilings, utility poles, log homes, bark, shavings, non-pulp chips, and log furniture.

[c] Includes Corporate and non-corporate timberlands. Corporate: An ownership class of private forest lands owned by a company, corporation, legal partnership, investment firm, bank, timberland investment management organization (TIMO), or real-estate investment trust (REIT). Non-corporate: Private forest land owned by nongovernmental conservation or natural resource organizations; unincorporated partnerships, associations, or clubs; individuals or families; or Native Americans (USDA FS 2006).

[d] Includes other public ownerships and unidentified out-of-state ownerships.

Table 17 – Active Oregon primary forest products facilities by sector, select years

Year	Lumber	Veneer and plywood	Pulp and board	Cedar products	Export	Posts, pole, pilings, and utility poles	Chipping	Log homes	Log furniture	Other facilities[a]	Total facilities
2022	69	14[b]	12		3	5	12	5		13	133
2017	75	25	15	[c]	6	8	14	7	1	15	166
2013	90	26	19	[c]	4	9	11	12	3	14	188
2008	122	30	22	[c]	3	14	12	22	4	17	246
2003	126	33	23	[c]	2	12	9	25	6	9	245
1998	93	43	29	7	[d]	8	20	[e]	[e]	[e]	200
1994	106	34	31	10	10	10	[e]	[e]	[e]	[e]	201
1992	115	64	30	16	13	15	[e]	[e]	[e]	[e]	253
1988	165	87	33	24	33	18	[e]	[e]	[e]	[e]	360
1985	173	89	35	26	35	7	[e]	[e]	[e]	[e]	365
1982	161	101	36	34	32	8	[e]	[e]	[e]	[e]	372
1976	243	132	40	46	28	9	[e]	[e]	[e]	[e]	498
1972	262	133	40	43	38	10	[e]	[e]	[e]	[e]	526

[a] Other facilities include biomass/energy, bark products, and fuel pellets/fire logs.

[b] Does not include plywood layup only facilities.

[c] Less than 3 cedar facilities have operated in Oregon since 2003. Their data have been combined with lumber to prevent disclosure.

[d] All the mills did not participate in the specified survey years.

[e] Posts, small poles, pilings, chipping, log homes, and log furniture facilities not included in the specified years.

Sources: Brandt et al. 2006; Gale et al. 2012; Howard 1984; Howard and Hiserote 1978; Howard and Ward 1988, 1991; Manock et al 1970; Schuldt and Howard 1974; Simmons et al. 2016, 2021; Ward 1995, 1997; Ward et al 2000.

Table 18 – Active Oregon primary forest products manufacturing facilities by resource area, county, and product, 2022

Resource area / county	Lumber	Veneer and plywood	Pulp and board	Cedar products [a]	Export facilities	Posts, pole, pilings, and utility poles	Chipping	Log homes	Log furniture	Other facilities [b]	Total
Northwest											
Benton	2	—	—	—	—	—	—	—	—	—	2
Clackamas	4	—	—	—	—	—	1	—	—	—	5
Clatsop	1	—	—	—	—	—	1	—	—	—	2
Columbia	2	—	1		2	1	—	—	—	1	7
Hood River	1	—	—	—	—	—	—	—	—	1	2
Lincoln	1	—	1	—	—	—	1	—	—	—	3
Linn	4	2	3	—	—	1	2	—	—	2	14
Marion	1	—	—	—	—	—	—	—	—	—	1
Multnomah	1	—	—	—	—	—	—	—	—	—	1
Polk	2									2	4
Tillamook	3	—	—	—	—	—	—	—	—	—	3
Washington	2	—	1	—	—	—	1	—	—	—	4
Yamhill	3	1	—	—	—	1	1	—	—	—	6
Northwest total	27	3	6	[a]	2	3	7	0	0	6	54
Southwest											
Coos	7	1	—	—	1	—	2	—	—	—	11
Curry	1	1	—	—	—	—	—	—	—	—	2
Douglas	8	4				1					13
Jackson	—	2	2	—	—	—	—	1	—	1	6
Josephine											
Lane	14	1	1	—	—	—	1	—	—	2	19
Southwest total	30	9	3	0	1	1	3	1	0	3	51
Central											
Crook	—	—	—	—	—	—	—	—	—	—	—
Deschutes	—	—	—	—	—	1		2		2	5
Gilliam	—	—	—	—	—	—	—	—	—	—	—
Jefferson	—										
Klamath	3	1	2	—	—	—	—	—	—	—	6
Lake	1	—	—	—	—	—	—	—	—	—	1
Sherman		—	—	—	—	—	—	—	—	—	
Wasco	—	—	—	—	—	—	—	1	—	—	1
Wheeler	—	—	—	—	—	—	—	1	—	—	1
Central total	4	1	2	0	0	1	0	4	—	2	14
Blue Mountains											
Baker	—	—	—	—	—	—	—	—	—	—	0
Grant	4	—	—	—	—	—	1	—	—	—	5
Harney	—	—	—	—	—	—		—	—	—	0
Malheur	—	—	—	—	—	—	—	—	—	—	0
Morrow	—	—	—	—	—	—	1	—	—	—	1
Umatilla	2	—	—	—	—	—	—	—	—	1	3
Union	1	1	1	—	—	—	—	—	—	—	3
Wallowa	1			—	—	—	—	—	—	1	2
Blue Mountains total	8	1	1	0	0	0	2	0	0	2	14
2022 state total	69	14	12		3	5	12	5		13	133

[a] Less than 3 cedar facilities have operated in Oregon since 2008. Their data have been combined with lumber to prevent disclosure.
[b] Other facilities include biomass/energy, bark products, and fuel pellets/fire logs.

Table 19 – Oregon timber-processing capacity and use, 2022 (excludes log exporters)

Facility type	Timber processed	Timber-processing capacity	Capacity used
	------ Million board feet, Scribner ------		*Percentage*
Sawmills	2,517.6	3,443.1	73.1
Plywood and veneer	720.5	941.9	76.5
Chipping	206.5	604.2	34.2
Other facilities [a]	41.0	85.2	48.2
All facilities	3,485.6	5,074.4	68.7

[a] Other facilities includes firewood, log furniture, log homes, posts, small poles, and pilings/utility poles.

Table 20 – Percentage of log volume[a] processed by sawmills by small-end diameter, select years

Small-end diameter	2003	2008	2017	2017	2022
< 7 inches	14	12	16	21	20
7 -10 inches	32	26	31	31	41
10 - 24 inches	49	48	50	43	32
> 24 inches	5	14	3	4	7
<10 inches[b]	**46**	**38**	**47**	**52**	**61**
≥10 inches	**54**	**62**	**53**	**48**	**39**

[a] Volume=MBF Scribner

[b] Bold values indicate total percentage per size group

Source: Brandt et al. 2006; Gale et al. 2012; Simmons et al. 2016, 2021.

Table 21 – Active Oregon sawmills, lumber production capacity, and capacity utilization by size class, 2022

	Annual capacity				Annual production			
Production capacity class	**Number of mills**	**Capacity**	**Percentage of total capacity**	**Average capacity by mill class**	**Production**	**Percentage of total production**	**Average production by mill class**	**Capacity utilization**
Annual Capacity		*MMBF[a]*	*Percent*	*MMBF[a]*	*MMBF[a]*	*Percent*	*MMBF[a]*	*Percent*
Over 100 MMBF annual capacity	25	5,999.9	82.7	240.0	4,524.7	83.1	181.0	75.4
Over 50 to 100 MMBF annual capacity	12	832.5	11.5	69.4	622.4	11.4	51.9	74.8
Over 10 to 50 MMBF annual capacity	12	393.9	5.4	32.8	276.7	5.1	23.1	70.2
10 MMBF or less annual capacity	20	25.9	—	1.3	18.1	—	0.9	70.1
Total	69	7,252.2	100	105.1	5,441.9	100	78.9	75.0

[a] MMBF = Million board feet lumber tally.

— = less than 1 percent.

Table 22 – Number of Oregon plywood and veneer mills, select years 1968-2022

Year	Veneer only	Veneer & layup	Layup only	All
2022	5	4	5[a]	14
2017	6	7	12	25
2017	4	9	13	26
2008	9	9	12	30
2003	11	13	9	33
1998	15	14	13	42
1994	[b]	[b]	[b]	26
1992	16	13	11	40
1988	33	33	21	87
1985	36	32	21	89
1982	45	37	19	101
1976	52	52	28	132

[a] Does not include firms that produce plywood but do not have veneer production.

[b] For 1994 plywood and veneer mills not separated

Sources: Brandt et al. 2006; Gale et al. 2012; Howard 1984; Howard and Hiserote 1978; Howard and Ward 1991, 1988; Manock et al 1970; Schuldt and Howard 1974; Simmons et al. 2016, 2021; Ward 1995, 1997; Ward et al 2000.

Table 23 – Production and disposition of wood residuals from Oregon primary wood processing facilities, 2022

Type of residuals	Total utilized	Pulp and board	Fuel	Other uses[a]	Unutilized	Total
Sawmills, Plywood/Veneer	*Thousand bone dry units[b]*					
Coarse[c]	2,537.2	2,397.5	107.2	32.6	0.0	2,537.2
Sawdust	887.8	736.1	128.9	22.8	0.1	887.9
Planer shavings	368.5	268.9	92.7	6.9	0.1	368.6
Bark	947.4	—	877.1	70.2	1.7	949.1
Total	4,741.0	3,402.5	1,205.9	132.6	1.9	4,742.8
All other facilities						
Total	377.2	89.5	204.5	83.2	1.7	378.9
All residuals	5,118.2	3,492.0	1,410.4	215.8	3.5	5,121.7

[a] Other uses primarily include animal bedding and landscape material.

[b] Bone dry unit = 2,400 pounds of oven-dry wood.

[c] Peeler cores are included in coarse residuals.

Table 24 – Oregon sawmill residual factors, various years

Type of residuals	1976	1998	2003	2008	2013	2017	2022
	BDU[a] per thousand board feet lumber tally						
Coarse	0.45	0.40	0.37	0.36	0.37	0.36	0.37
Sawdust	0.22	0.14	0.13	0.11	0.13	0.13	0.16
Planer shavings	0.17	0.09	0.08	0.08	0.08	0.07	0.06
Bark	0.20	0.19	0.17	0.16	0.17	0.16	0.14
All residuals	1.04	0.82	0.75	0.71	0.75	0.73	0.73

[a]BDU = Bone dry unit = 2,400 pounds of oven-dry wood.

Sources: Brandt et al. 2006; Gale et al 2012; Howard and Hiserote 1978; Howard 1984; Howard and Ward 1991, 1988; Manock et al 1970; Schuldt and Howard 1974; Simmons et al. 2016, 2021; Ward 1995, 1997; Ward et al 2000.

Table 25 – Product sales value of Oregon primary wood product sectors, select years

Sector	2008	2013	2017	2022
	Millions of of 2022 dollars			
Pulp/Paper and board facilities[a]	4,118.9	3,259.3	2,781.8	3,238.0
Sawmills	1,883.1	2,756.7	2,707.5	4,386.0
Plywood and veneer plants	1,488.1	1,922.8	2,248.8	2,074.6
Other Sectors[b]	176.2	350.4	399.9	462.9
Chipping facilities[c]	73.3	126.1	135.1	91.6
Posts, pole, pilings, utility pole and Log furniture plants[c]	70.3	73.8	81.7	82.1
Log homes plants	10.3	5.2	6.0	4.4
Total	7,820.1	8,494.3	8,360.7	10,339.6

[a] Pulp and board includes pulp, paper, and reconstituted board products.

[b] Other sectors includes bark products, biomass/energy, export logs, and fuel pellet/fire logs.

[c] 2008 sales value adjusted to reflect facilities not reported previously.

Sources: Brandt et al. 2006; Gale et al 2012; Howard and Hiserote 1978; Howard 1984; Howard and Ward 1991, 1988; Manock et al 1970; Schuldt and Howard 1974; Simmons et al. 2016, 2021; Ward 1995, 1997; Ward et al 2000.

Table 26 – Destination and sales value of Oregon primary wood products and mill residuals, 2022

Product	Oregon	Far West[a]	Rockies[b]	North Central[c]	Four Corners	Northeast[d]	South[e]	Pacific Rim	Canada	Other Countries[f]	Total
	Millions of 2022 dollars										
Pulp/Paper and board[g]	642.7	2,203.5	101.3	70.5	1.1	2.6	50.6	79.4	2.0	84.4	3,238.0
Lumber	1,161.1	1,932.7	535.7	210.4	0.0	239.8	248.2	19.4	29.7	9.1	4,386.0
Plywood and veneer	964.1	468.2	160.0	133.9	0.0	151.0	180.4	0.0	16.9	0.0	2,074.6
Other primary wood products[h]	229.0	150.3	13.1	2.1	0.0	0.0	0.0	246.5	0.0	0.0	641.0
Total primary product	2,996.8	4,754.6	810.1	416.8	1.1	393.5	479.3	345.3	48.6	93.5	10,339.6
Mill residuals[i]	241.4	0.4									241.8
Total sales value 2022	3,238.2	4,755.1	810.1	416.8	1.1	393.5	479.3	345.3	48.6	93.5	10,581.5
Percent total 2022	30.6	44.9	7.7	3.9	—	3.7	4.5	3.3	0.5	0.9	100
Percent total 2017	31.6	43.2	8.7	4.5	0.0	2.8	3.4	4.4	0.7	0.6	100
Total sales value in 2017 (2022 dollars)	2,799.4	3,829.2	767.0	395.4	0.0	251.6	303.1	393.9	61.1	56.8	8,857.4

[a] Far West includes Alaska, California, Hawaii, and Washington.

[b] Rockies includes Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming.

[c] North Central includes Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

[d] Northeast includes Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

[e] South includes Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

[f] Other countries include Europe and Mexico.

[g] Pulp and board includes pulp, paper, and reconstituted board products.

[h] Other primary wood products include bark, chipped logs, export logs, log furniture, house logs, posts, small poles, pilings, utility poles, wood pellets, and other energy products.

[i] Mill residuals in Far West include all out-of-state mill residuals sales.

— Value less than 0.05 percent.

Table 27 — Private-sector employment and labor income contributions from Oregon's forest products industry, 2022.

Sector	Direct employment	Indirect and induced employment	Total employment contribution[a]	Direct labor income	Indirect and induced labor income	Total income contribution
	----------full- and part-time workers----------			*----------thousand 2022 dollars----------*		
Forestry and logging	**7,589**	**10,124**	**17,713**	**$ 532,258**	**$ 539,710**	**$ 1,071,968**
Forestry support activities	**6,977**	**2,039**	**9,016**	**$ 431,697**	**$ 184,291**	**$ 615,988**
Wood product manufacturing[b]	**24,360**	**71,119**	**95,479**	**$ 2,281,087**	**$ 5,001,283**	**$ 7,282,370**
Primary wood product mfg	*14,278*	*55,458*	*69,736*	*$ 1,595,760*	*$ 5,058,878*	*$ 6,654,638*
Secondary wood product mfg[c]	*10,082*	*17,135*	*27,217*	*$ 685,327*	*$ 1,032,103*	*$ 1,717,430*
Pulp and paper manufacturing	**4,116**	**10,751**	**14,867**	**$ 417,417**	**$ 775,644**	**$ 1,193,061**
Total forest industry	**43,042**	**[a]**	**[a]**	**$ 3,662,459**	**[a]**	**[a]**

Source: USDC BEA 2022a; USDC BEA 2022b; USDC BEA 2024; USDC CB 2022; USDL BLS 2022.

[a]Indirect and induced employment and labor income should not be summed for multiple sectors due to some employment and income showing up as both direct contributions to their sector and indirect contributions to other sectors.

[b]The sum of primary and secondary wood products manufacturing indirect and induced contributions does not equal total wood products manufacturing. See footnote "a."

Glossary

Bioenergy wood – Refers to wood used for firewood, fuel for the production of industrial heat and steam, as well as for products like wood pellets, charcoal, or liquid fuels.

Board foot – A unit of measure applied to lumber that is 1-ft long, 1-ft wide and 1-in thick (or its equivalent) and also associated with roundwood as to its potential yield of such products.

Bone dry unit (BDU) – The amount of wood residue that weights 2,400 lbs. (1,088 kg) at 0 percent moisture content. One BDU equals approximately 9.49 yd^3 or 96 ft^3 of solid wood.

Cubic foot – A unit of true volume that measures 1 ft. by 1 ft. by 1 ft. (30.48 by 30.48 by 30.48 cm).

House log – Roundwood timber used to construct log homes. Products manufactured from house logs can be sawn, scribed by hand, notched or milled by lathe to meet customer construction needs. House log timber is often dead prior to harvesting.

Lumber tally – The volume of sawn products, usually expressed in board feet.

MBF – thousand board feet

Production capacity – The potential volume of output a facility can produce on a shift or annual basis, assuming firm market demand for products, sufficient supply of raw materials, and ordinary downtime for maintenance.

Recovery – The volume of output from a facility per unit of input, a measure of mill efficiency.

Residue – The wood-fiber or bark by-product remaining after timber processing of a primary product like lumber, plywood, posts and poles, house logs, etc. Three types of residue are generally generated:

Coarse – chips, edgings, slabs, trim, and log ends
Fine – sawdust and planer shavings
Bark.

Sawlog – A log that meets minimum regional standards of diameter, length, and defect, intended for sawing.

Scribner – A diagram log scale rule originating in the 1840s, designed to estimate the net yield of lumber from a log. It assumes 1-in (2.54 cm) boards and 0.25 in (0.64 cm) kerf, and is based on diameter at the small end of the log.

Timber-processing capacity – The volume of timber reported in MBF Scribner that could be processed, given sufficient supplies of raw material and firm market demand for products. Timber-processing capacity is estimated for each facility and gauges the volume of timber that could be used annually if the facility operated at its self-reported production capacity. A facility's timber-processing capacity is calculated by dividing its production capacity by its product recovery.