



FOREST INDUSTRY RESEARCH PROGRAM UNIVERSITY OF MONTANA

Timber Basket of the Interior west: Idaho's Forest Products Industry and Timber Harvest, 2019

The University of Montana's Bureau of Business and Economic Research (BBER), in conjunction with the Interior West Forest Inventory and Analysis (IW-FIA) Program of the US Forest Service, conducted a census of Idaho's timber processors operating during calendar year 2019. Through a written questionnaire, phone, or in-person interview, timber-processing and residue-utilizing facilities provided information about their calendar year 2019 operations, including:

- Plant location, production, capacity, and employment
- Volume of raw material received, by county and ownership
- Species of timber received and live/dead proportions
- Finished product volumes, types, sales value, and market locations
- Volume, uses, and sales of manufacturing residue

This research traces the flow of Idaho's 2019 timber harvest through the primary wood products industry and characterizes the structure, condition and economic impacts of Idaho's forest products industry sectors. Historical changes in the forest products industry, as well as trends in timber harvest, milling capacity and production, mill residuals and sales value of products and residues are presented. Employment and worker earnings in the state's primary and secondary forest products industries are also discussed. Periodic survey data collected from the forest products industry provides detailed information on Idaho's timber sources, wood utilization and the economic contributions of the industry to the state economy through time.

A comprehensive report is currently being prepared that will include selected tables along with historical information and current industry trends. This is the ninth analysis conducted for Idaho. All BBER reports on Idaho's forest products industry can be found at:

http://www.bber.umt.edu/FIR/S_ID.asp

As we continue to finalize the reports, 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.

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Idaho 2019 Wood Products Industry Highlights

- A total of 73 primary wood products facilities were identified as active in Idaho during 2019, 15 fewer than the previous mill census in 2015.
 - 24 sawmills
 - 16 residue related products facilities
 - 14 log home facilities
 - 13 post, pole, and log furniture producers
 - 5 cedar product manufacturers
 - 1 plywood / veneer plant
- Idaho's total timber harvest in 2019 was 1.04 billion board feet Scribner, 9 percent lower than in 2015.
- Timber harvested from non-industrial private timberlands continued to increase as a proportion of the total harvest from 12 percent in 2011 (131 MMBF) and 17 percent in 2015 (195 MMBF) to 20 percent in 2019 (205 MMBF). At 44 (455 MMBF) percent, industrial timberlands' proportion of total harvest declined from the 2015 high of 49 percent to just below the 2011 proportion (45 percent) of total harvest.
- Timber harvested from National Forests accounted for nearly 14 (144 MMBF) percent of the total harvest (144 MMBF), the highest percentage since 1995 (22 percent) and the largest volume since 1990 (700 MMBF). Timber harvested from all other public lands, primarily Idaho Department of Lands, declined 3 percentage points from 25 percent in 2015 to 23 percent of total harvest in 2019.
- Saw and veneer logs comprised over 91 percent of the total harvest. Clearwater, Bonner, Shoshone, and Kootenai counties were the largest contributors to the state's total harvest in 2019. Combined, these counties accounted for nearly 63 percent of total statewide harvest volume.

- Idaho sawmills recovered an average of 1.90 board feet lumber tally per board foot Scribner of input, the highest recovery on record and 3 percent higher than the previous mill census in 2015. Idaho's 24 active sawmills produced 1.8 billion board feet of lumber during 2019, nearly 5 percent more than in 2015.
- Idaho sawmills with annual production capacity over 50 million board feet (MMBF) lumber tally accounted for nearly 100 percent of Idaho's lumber production in 2019. Timber-processing capacity for these 14 mills averaged 153.4 MMBF per mill.
- Idaho's primary forest products industry shipped products valued at \$1.8 billion (fob the producing mill) in 2019. Lumber and plywood/veneer accounted for 49 percent of total sales.
- Idaho's primary wood products facilities generated over 1.433 million bone-dry units (1.720 million bone dry tons) of mill residuals during 2019 of which more than 99 percent was utilized.
- More than 12,700 workers were directly employed by Idaho's forest industry during 2019, with 9,350 in primary and secondary wood products and paper manufacturing, 2,200 in forestry and logging, and 1,100 in forestry support activities. Together, these workers earned about \$1.03 billion during 2019.

Figure 1– Percentage of Idaho timberland by ownership class in acres, standing volume and volume of harvest, 2019.

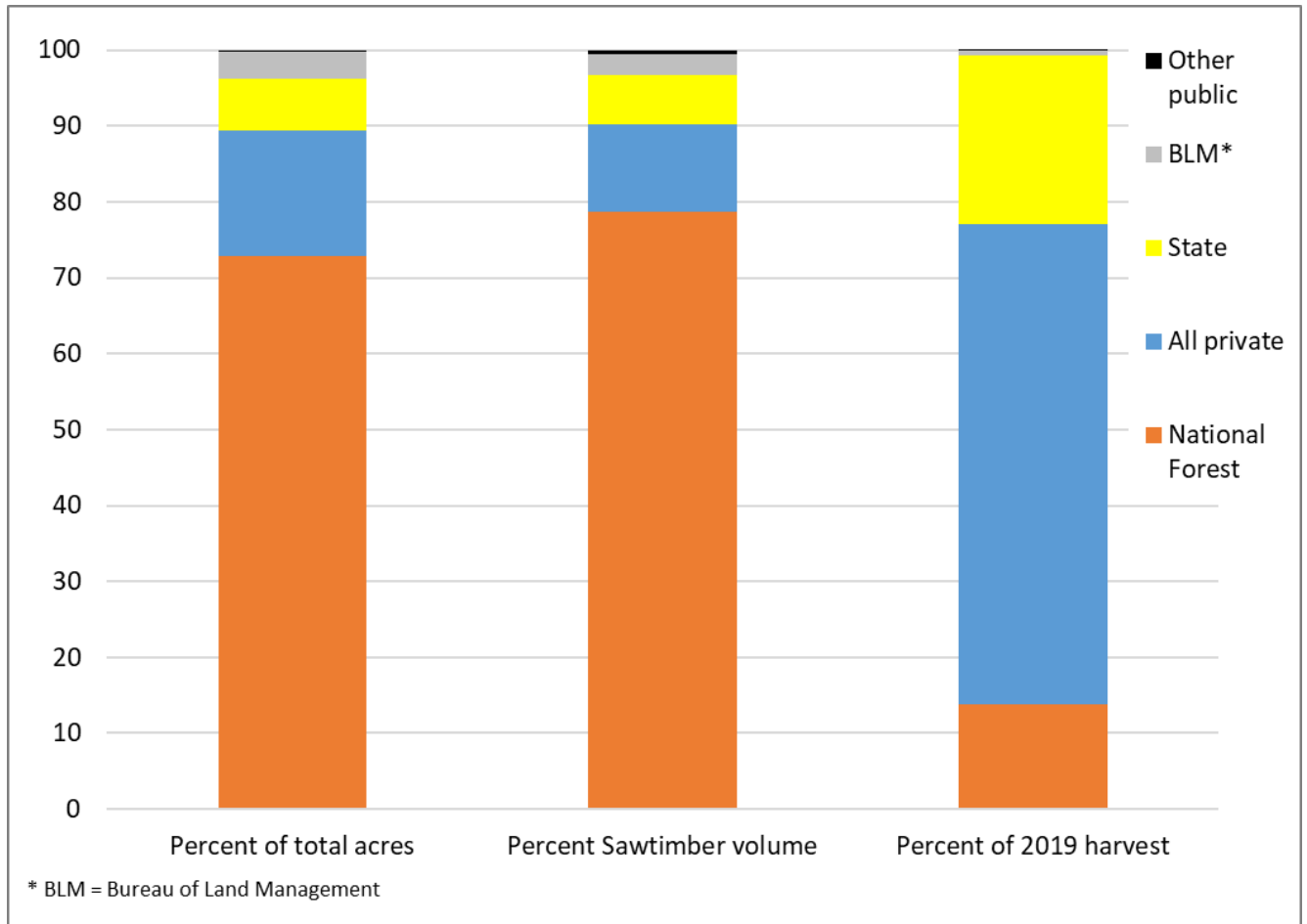


Figure 2 Location and type of mill, Idaho 2019

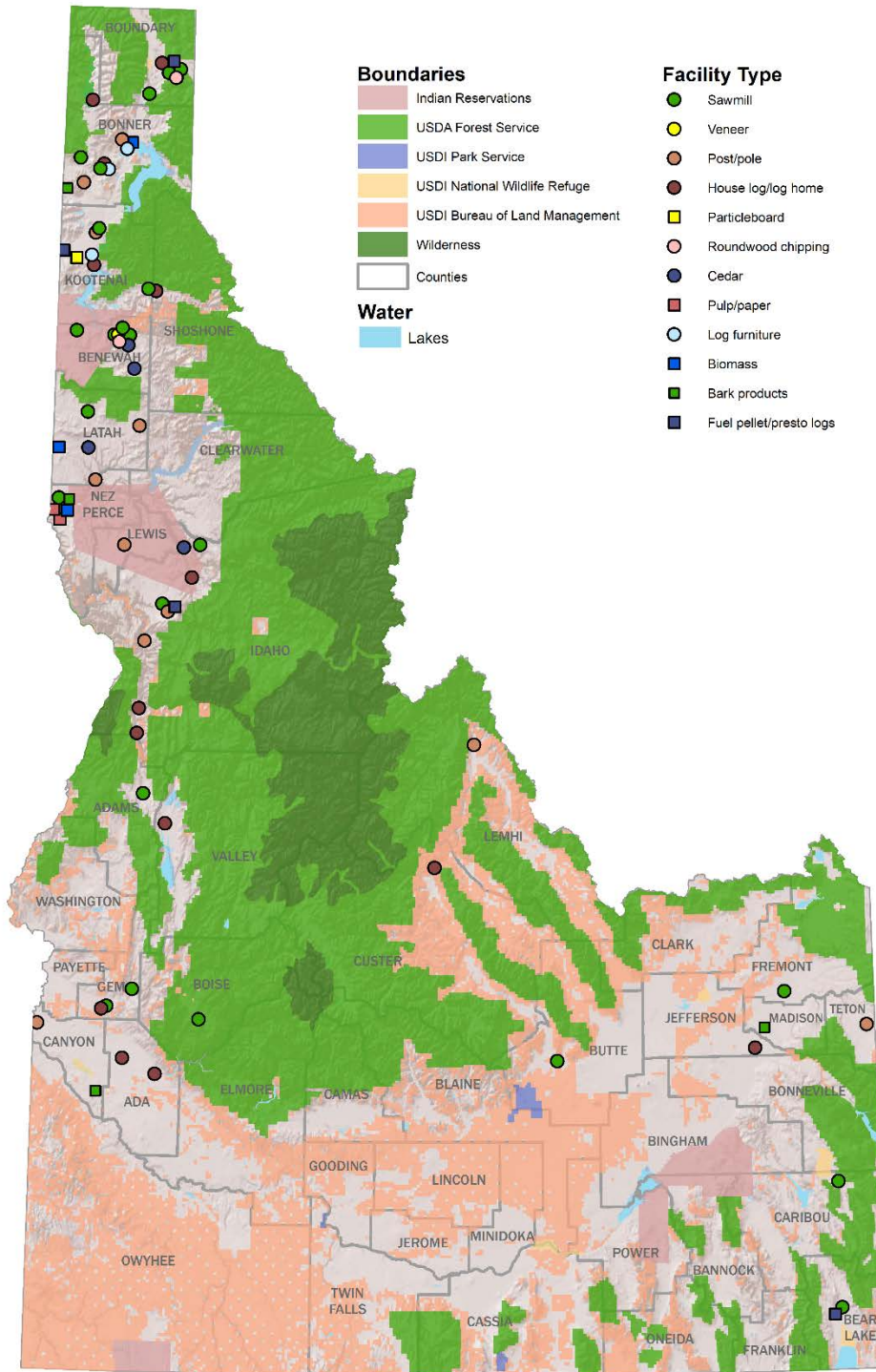
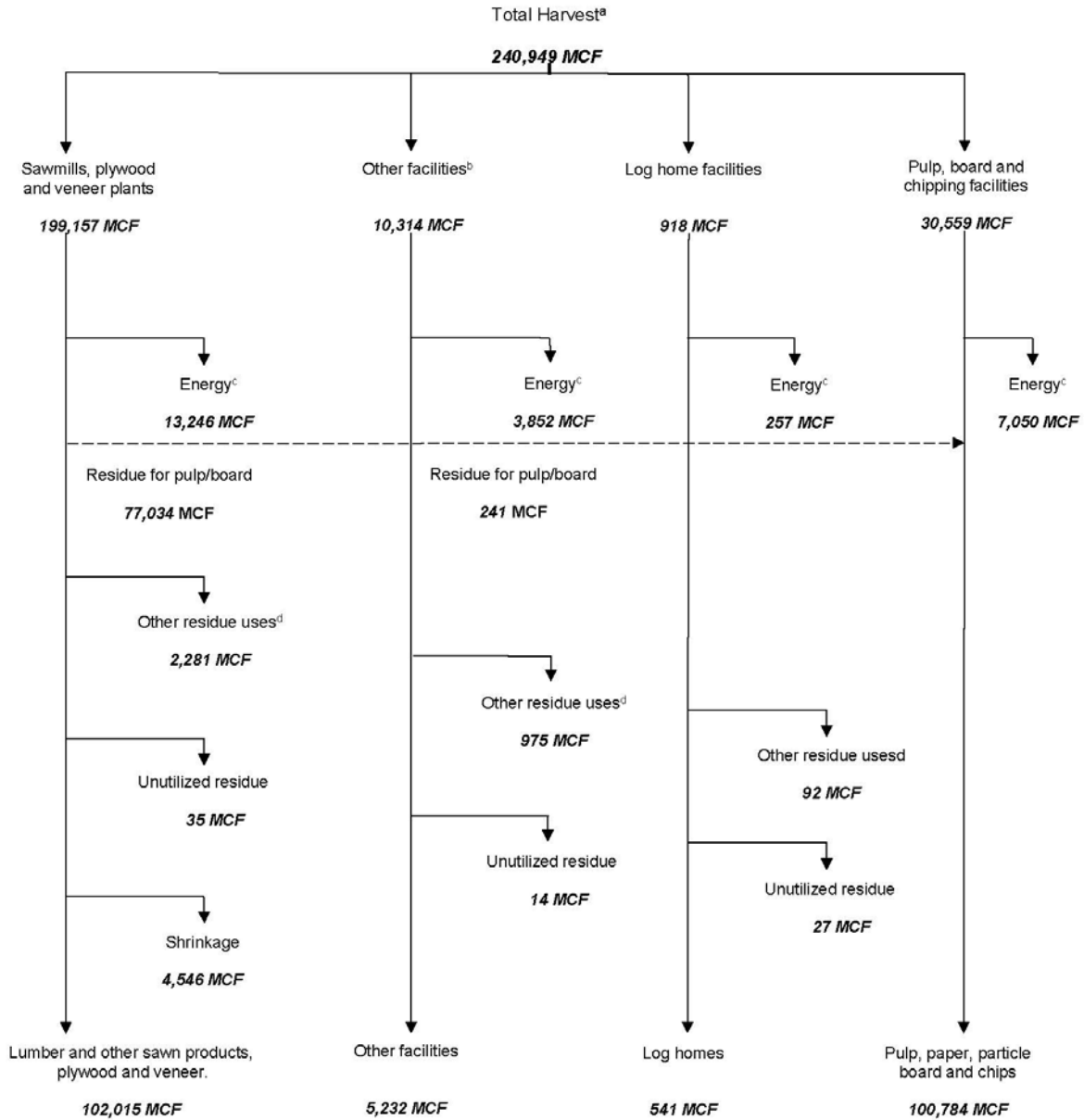
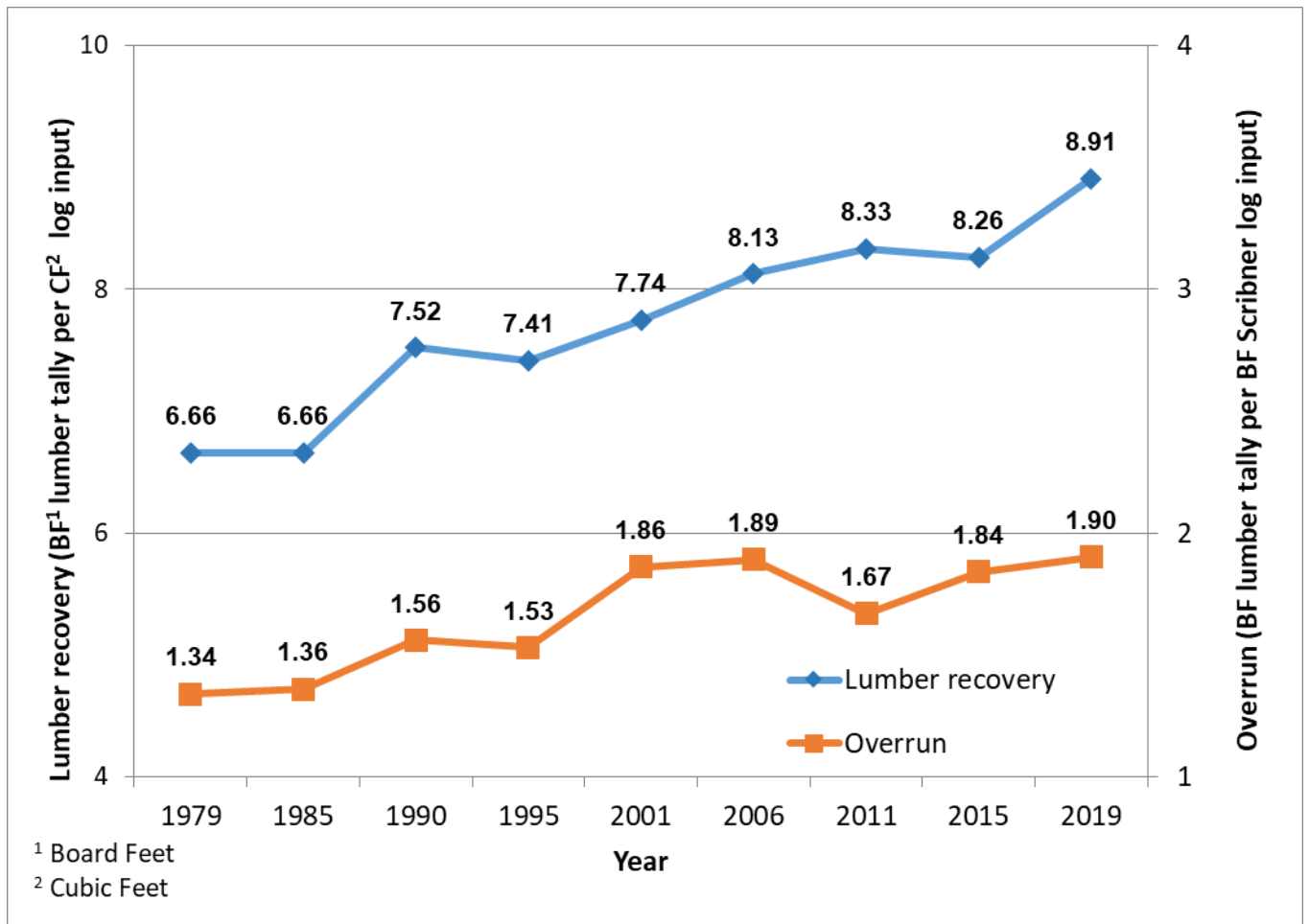


Figure 3 – Utilization of Idaho’s timber harvest, 2019.



^aHarvest volume does not include bark.
^bOther products include posts, small poles, utility poles, cedar products, and log furniture
^cEnergy includes residue used internally for energy and residue sold for hog fuel, wood pellets, and energy logs.
^dOther uses include landscape, mulch, and animal bedding.

Figure 4 – Lumber recovery and overrun, select years.



Summary tables

Table 1 – Idaho timber harvest (MMBF, Scribner) by county, selected years (sources: Keegan and others 1982, 1988, 1992, 1997; Morgan and others 2004; Brandt and others 2012; Simmons and others 2014; Simmons and others (in press)).

County	1979		1985		1990		1995		2001		2006		2011		2015		2019	
	MMBF Scribner	Percent of Total	MMBF Scribner	Percent of Total	MMBF Scribner	Percent of Total	MMBF Scribner	Percent of Total	MMBF Scribner	Percent of Total	MMBF Scribner	Percent of Total	MMBF Scribner	Percent of Total	MMBF Scribner	Percent of Total	MMBF Scribner	Percent of Total
North Idaho																		
Benewah	100	5.4	94	5.9	152	9.0	117	8.5	129	12.8	144	12.9	156	14.6	122	10.7	73	7.0
Bonner	142	7.7	175	11.0	197	11.6	139	10.1	124	12.3	93	8.3	98	9.2	150	13.2	160	15.4
Boundary	94	5.1	80	5.0	86	5.1	69	5.0	57	5.7	53	4.8	39	3.6	54	4.8	46	4.4
Clearwater	544	29.4	335	21.0	267	15.8	234	17.1	182	18.1	174	15.6	221	20.7	250	22.0	269	25.8
Idaho	190	10.3	156	9.8	174	10.3	113	8.2	65	6.5	65	5.8	88	8.2	88	7.8	85	8.1
Kootenai	65	3.5	80	5.0	152	9.0	114	8.3	81	8.0	100	8.9	70	6.6	95	8.3	100	9.7
Latah	57	3.1	89	5.6	84	5.0	96	7.0	70	7.0	125	11.2	130	12.2	87	7.7	65	6.2
Lewis	4	0.2	13	0.8	20	1.2	17	1.2	14	1.4	12	1.1	6	0.6	42	3.7	6	0.6
Nez Perce	8	0.4	12	0.8	17	1.0	8	0.6	4	0.4	10	0.9	8	0.8	29	2.6	7	0.6
Shoshone	206	11.1	217	13.6	183	10.8	194	14.2	172	17.1	200	17.8	137	12.9	131	11.5	126	12.1
North Idaho	1,410	76.2	1,254	78.7	1,332	78.7	1,100	80.3	899	89.3	976	87.1	953	89.4	1,047	92.2	936	89.9
South Idaho																		
Adams	52	2.8	66	4.1	87	5.1	28	2.0	25	2.5	30	2.7	24	2.2	32	2.9	30	2.9
Boise	84	4.5	67	4.2	127	7.5	93	6.8	20	2.0	25	2.2	28	2.6	17	1.5	26	2.5
Elmore	25	1.4	14	0.9	5	0.3	38	2.8	7	0.7	^a	^b	^a	^b	0	0	2	0.2
Valley	107	5.8	88	5.5	52	3.1	67	4.9	39	3.9	65	5.8	48	4.5	29	2.5	35	3.3
Washington	4	0.2	9	0.6	4	0.2	6	0.4	0	0.0	^a	^b	5	0.5	1	0.1	3	0.3
Other Counties	20	1.1	3	0.2	6	0.3	11	0.8	1	0.1	6	0.5	^a	^b	^a	^b	4	0.4
Southwest Idaho	292	15.8	247	15.5	281	16.6	242	17.7	91	9.0	126	11.3	104	9.8	80	7.0	100	9.6
Caribou	4	0.2	10	0.6	3	0.2	5	0.3	5	0.5	4	0.3	^a	^b	^a	^b	^a	^b
Clark	10	0.5	10	0.6	16	0.9	0	0.0	1	0.1	6	0.6	3	0.3	1	0.1	^a	^b
Fremont	76	4.1	43	2.7	20	1.2	2	0.1	3	0.3	1	0.1	3	0.3	1	0.1	^a	^b
Lemhi	34	1.8	11	0.7	16	0.9	6	0.4	1	0.1	1	0.1	^a	^b	^a	^b	3	0.3
Other Counties	24	1.3	19	1.2	24	1.4	15	1.1	7	0.7	7	0.6	3	0.3	6	0.5	2	0.2
Southeast Idaho	148	8.0	93	5.8	79	4.7	27	2.0	17	1.7	19	1.7	9	0.8	8	0.8	5	0.5
South Idaho	440	23.8	340	21.3	360	21.3	269	19.7	108	10.7	145	12.9	113	10.6	88	7.8	105	10.1
Idaho Total	1,850	100	1,594	100	1,692	100	1,370	100	1,007	100	1,121	100	1,066	100	1,136	100	1,041	100

Totals may not sum due to rounding.

^aLess than 0.5 MMBF.

^bLess than 0.05 percent.

Table 2 – Idaho timber harvest (MBF, Scribner) by ownership class, selected years (sources: Keegan and others 1982, 1988, 1992, 1997; Morgan and others 2004; Brandt and others 2012; Simmons and others 2014; Simmons and others (in press)).

Ownership class	1979	1985	1990	1995	2001	2006	2011	2015	2019
----- Thousand board feet, Scribner -----									
Private total	808,749	779,109	754,978	829,417	750,590	833,797	615,012	747,403	658,531
Industrial	455,721	467,474	364,178	467,518	443,029	485,590	484,176	552,835	454,851
Non-industrial private ^a	353,028	311,635	390,800	361,899	307,561	348,207	130,836	194,569	203,680
Public total	1,041,719	814,787	937,560	540,296	256,704	286,813	450,893	388,122	382,568
National Forest	866,455	631,003	700,715	301,277	77,863	78,613	102,937	99,013	144,180
Other public ^b	175,264	183,784	236,845	239,019	178,841	208,200	347,956	289,109	238,388
All owners^b	1,850,468	1,593,896	1,692,538	1,369,713	1,007,294	1,120,610	1,065,905	1,135,525	1,041,098
----- Percentage of annual harvest -----									
Private	43.7	48.9	44.6	60.6	74.5	74.4	57.7	65.8	63.3
Industrial	24.6	29.3	21.5	34.1	44.0	43.3	45.4	48.7	43.7
Non-industrial private ^a	19.1	19.6	23.1	26.4	30.5	31.1	12.3	17.1	19.6
Public	56.3	51.1	55.4	39.4	25.5	25.6	42.3	34.2	36.7
National Forest	46.8	39.6	41.4	22.0	7.7	7.0	9.7	8.7	13.8
Other public ^b	9.5	11.5	14.0	17.5	17.8	18.6	32.6	25.5	22.9
All owners	100	100	100	100	100	100	100	100	100

Totals may not sum due to rounding.

^aNon-industrial private includes Tribal harvest.^bOther public includes state, Bureau of Land Management, and other public ownerships.**Table 3** – Idaho timber harvest by ownership class and timber product, 2019.

Ownership class	Saw and veneer logs ^a	House logs	Other timber products ^b	All products
----- Thousand board feet, Scribner -----				
Private timberlands	606,366	1,944	50,220	658,531
Industrial	426,438	651	27,762	454,851
Non-industrial private ^c	179,928	1,293	22,458	203,680
Public timberlands	345,376	2,070	35,122	382,568
National Forest	131,077	1,850	11,254	144,180
State	207,148	220	23,868	231,237
Other ^d	7,151	0	0	7,151
All owners	951,742	4,014	85,342	1,041,098

Totals may not sum due to rounding.

^aSaw and veneer logs combined to prevent disclosure.^bOther timber products include logs used for pulpwood, posts and poles, cedar products, utility poles, furniture logs, and bioenergy.^cNon-industrial private includes Tribal.^dOther owners include Bureau of Land Management and other public.

Table 4 – Proportion of Idaho timber harvest by species, selected years (sources: Setzer 1970; Morgan and others 2004; Brandt and others 2012; Simmons and others 2014; Simmons and others (in press)).

Species	1969	1979	1985	1990	1995	2001	2006	2011	2015	2019
<i>Percentage of harvest (MBF, Scribner)</i>										
True firs	24	22	27	23	25	24	34	35	36	37
Douglas-fir	18	20	21	22	27	26	28	24	29	29
Western redcedar	7	11	10	11	9	10	13	12	9	8
Ponderosa pine	14	13	12	18	17	7	7	10	8	7
Western larch	6	6	6	6	6	10	5	6	6	5
Western hemlock	^a	1	3	3	4	12	4	7	5	5
Lodgepole pine	4	8	10	10	6	5	5	3	5	5
Spruce	^a	3	5	3	2	2	2	2	2	2
Western white pine	19	8	6	5	3	4	1	1	1	1
Other species ^a	8	9	1	0	2	0	1	0	—	—
All species	100	100	100	100	100	100	100	100	100	100

Totals may not sum due to rounding.

^aWestern hemlock and Englemann spruce were included in the other species in 1969.

— Less than 0.5 percent.

Table 5 – Idaho timber harvest by species and timber product, 2019.

Species	Saw and veneer logs ^a	House logs	Other timber products ^b	All products
<i>Thousand board feet, Scribner</i>				
True firs	361,715	65	25,821	387,601
Douglas-fir	277,869	459	23,136	301,463
Western redcedar	66,443	333	17,405	84,182
Ponderosa pine	72,340	354	1,420	74,114
Western hemlock	55,761		202	55,963
Western larch	53,056	273	1,432	54,761
Lodgepole pine	31,728	2,398	15,812	49,937
Spruce	24,687	118	96	24,901
Western white pine	8,090	14	18	8,121
Other species	54	—	—	54
All species	951,742	4,014	85,342	1,041,098

Totals may not sum due to rounding.

^aSaw and veneer logs combined to prevent disclosure.

^bOther timber products include logs used for pulpwood, posts and poles, cedar products utility poles,

— Less than 0.5 MBF or 0.05 percent.

Table 6– Log flow into and out of Idaho, 2019.

Timber products	Log flow into Idaho	Log flow out of Idaho	Net inflow (net outflow)
<i>Thousand board feet, Scribner</i>			
Saw and veneer logs	154,831	57,096	97,736
House logs	2,093	608	1,485
Other products ^a	1,754	1,937	(183)
All products	158,679	59,641	99,038

^aOther products include logs for pulpwood, posts and poles, cedar products, log furniture, and bioenergy.

Table 7 – Idaho timber flow by resource area, 2019.

Resource area	Geographic source of timber			Total Idaho-harvested timber	Out-of-state timber in	Total timber received in Idaho
	North Idaho	Southwest	Southeast			
Destination	<i>Million board feet, Scribner</i>					
North Idaho	875,553	38,666	680	914,899	153,810	1,068,709
Southwest	11,021	52,438	447	63,906	1,234	65,140
Southeast	441		2,211	2,652	3,635	6,287
Logs to other states	48,780	8,812	2,049	59,641	—	—
Total	935,796	99,916	5,386	1,041,098	158,679	1,140,136

— Less than 500 MBF (thousand board foot Scribner).

Table 8 – Active Idaho primary wood products facilities by county and product, 2019 (sources: Keegan and others 1997; Morgan and others 2004; Brandt and others 2012; Simmons and others 2014; Simmons and others (in press)).

County	Lumber	Veneer/ plywood	Post, poles, log furniture, and firewood	Log homes	Cedar products	Residue-related products ^a	All products
North							
Benewah	4	1	—	—	2	1	8
Bonner	3	—	5	2	—	1	11
Boundary	3	—	—	1	—	2	6
Clearwater	1	—	1	3	—	1	6
Idaho	2	—	2	—	—	3	7
Kootenai	1	—	2	—	1	1	5
Latah	—	—	1	—	1	—	2
Lewis	1	—	—	—	—	4	5
Nez Perce	—	—	—	1	—	—	1
Shoshone	1	—	—	—	—	—	1
North region subtotal	16	1	11	7	4	13	52
Southwest							
Ada	—	—	—	2	—	1	3
Adams	1	—	—	—	—	—	1
Boise	1	—	—	—	—	—	1
Canyon	—	—	1	—	—	—	1
Gem	2	—	—	1	—	—	3
Payette	—	—	—	—	—	—	—
Valley	—	—	—	2	—	—	2
Southwest region subtotal	4	0	1	5	0	1	11
Southeast							
Bear Lake	1	—	—	—	—	1	2
Butte	1	—	—	—	—	—	1
Caribou	1	—	—	—	—	—	1
Custer	—	—	—	1	—	—	1
Fremont	1	—	—	—	—	—	1
Jefferson	—	—	—	1	—	—	1
Lemhi	—	—	1	—	—	—	1
Lincoln	—	—	—	—	—	—	—
Madison	—	—	—	—	—	1	1
Teton	—	—	1	—	—	—	1
Southeast region subtotal	4	0	2	2	0	2	10
2019 state total	24	1	14	14	4	16	73
Past years							
2015 Total	28	2	18	15	7	18	88
2011 Total	27	2	17	16	8	18	88
2006 Total ^b	38	3	21	26	8	18	114
2001 Total	35	4	22	21	10	17	109
1995 Total	62	6	32	32	15	15	162
1990 Total	80	6	27	22	26	11	172
1985 Total	90	7	26	20	25	6	174
1979 Total	133	8	35	15	44	7	242

^aResidue-related products include particleboard, chips, pulp and paper products, bioenergy products, and decorative bark.

^bRevised.

Table 9 – Timber received by Idaho processors by ownership class and product, 2019

Ownership class	Saw and veneer logs ^a	House logs	Other products ^b	All products
----- Thousand board feet, Scribner -----				
Private	694,896	3,474	49,205	747,574
Industrial	482,443	717	27,033	510,193
Non-industrial private ^c	212,453	2,757	22,172	237,381
Public	353,595	1,679	35,684	390,957
National Forest	149,978	1,383	12,023	163,384
State	200,806	296	23,661	224,764
Other ^d	2,810			2,810
Canadian and unspecified^e	987	347	270	1,605
All owners	1,049,478	5,499	85,159	1,140,136

^aSaw and veneer logs combined to prevent disclosure.

^bOther timber products include logs used for pulpwood, posts and poles, cedar products, utility poles, furniture logs, and bioenergy.

^cNon-industrial private includes Tribal harvest.

^dOther owners include Bureau of Land Management, other public lands and unspecified in-state ownerships.

^eIncludes timber received from Canada and unspecified out-of-state sources.

— Less than 0.5 MBF.

Table 10 – Timber received by Idaho processors by species and product, 2019.

Species	Saw and veneer logs ^a	House logs	Other products ^b	All products
----- Thousand board feet, Scribner -----				
True firs	391,234	164	25,567	416,965
Douglas-fir	302,931	789	22,506	326,227
Western redcedar	77,415	149	17,367	94,932
Ponderosa pine	73,254	354	1,549	75,158
Western hemlock	65,853		248	66,101
Western larch	62,366	309	1,191	63,866
Lodgepole pine	37,581	3,492	16,712	57,784
Spruce	28,136	208		28,345
Western white pine	10,604	34	18	10,656
Other species ^c	103			103
All species	1,049,478	5,499	85,159	1,140,136

Totals may not sum due to rounding.

^aSaw and veneer logs combined to prevent disclosure.

^bOther timber products include logs used for pulpwood, posts and poles, cedar products, utility poles, furniture logs, and bioenergy.

^cOther species include: red alder, and other unknown species.

— Less than 0.5 MBF or 0.05 percent.

Table 11 — Active Idaho sawmills, lumber production capacity, lumber production, and capacity utilization by size class, 2019.

Production capacity size class	Annual capacity				Annual production			
	Number of mills	Capacity MBF ^a	Percentage of total capacity	Average mill capacity by size class	Production MBF ^a	Percentage of total production	Average mill production by size class	Percentage of capacity utilization
150+ MMBF ^b	6	1,371,120	63	228,520	1,220,623	68	203,437	89
50 to 150 MMBF	8	775,840	36	96,980	566,023	32	70,753	73
1 to 50 MMBF	5	12,200	1	2,440	8,831	—	1,766	72
Less than 1 MMBF	5	980	—	196	761	—	152	78
Total	24	2,160,140	100	90,006	1,796,238	100	74,843	83

^a MBF = Thousand board feet lumber tally.

^b MMBF = Million board feet lumber tally

— Less than 0.5 percent.

Table 12 — Production and disposition of wood residuals from Idaho primary wood products facilities, 2019.

Type of residue	Total utilized	Reconstituted products	Hogfuel and energy fuel	Other uses ^a	Unutilized	Total
<i>Sawmills Plywood/veneer</i>	----- Bone dry units ^b -----					
Coarse	691,670	627,757	63,913	—	372	692,042
Sawdust	219,605	164,605	54,424	576	11	219,616
Planer shavings	112,940	60,846	27,316	24,778	8	112,948
Bark	314,889	—	304,545	10,344	231	315,120
Total	1,339,104	853,208	450,198	35,698	622	1,339,726
<i>All other facilities</i>	89,494	—	74,341	15,153	3,632	93,126
Grand total	1,428,598	853,208	524,539	50,851	4,254	1,432,852

^a Other uses primarily include animal bedding and landscape material.

^b Bone dry unit (bdu) = 2,400 pounds of oven-dry wood.

— Less than 500 bdu.

Table 13 — Idaho sawmill residue factors, selected years (source: Keegan and others 1982, 1988, 1992, 1997; Morgan and others 2004; Brandt and others 2012; Simmons and others 2014, Simmons and others (in press)).

Type of residue	1985	1990	1995	2001	2006	2011	2015	2019
----- BDU per MBF lumber tally ^a -----								
Coarse	0.53	0.43	0.45	0.42	0.39	0.39	0.41	0.36
Sawdust	0.21	0.18	0.18	0.17	0.15	0.15	0.13	0.12
Planer shavings	0.20	0.15	0.15	0.13	0.09	0.08	0.09	0.06
Bark	0.19	0.18	0.18	0.20	0.20	0.24	0.17	0.15
Total	1.13	0.94	0.96	0.92	0.83	0.86	0.81	0.69

^a Bone dry unit (BDU = 2,400 lb of oven-dry wood) of residue generated for every 1,000 board feet of lumber manufactured.

Table 14 – Sales value of Idaho's primary wood products including mill residue and residue-related products, selected years (sources: Keegan and others 1982, 1988, 1992, 1997; Morgan and others 2004; Brandt and others 2012; Simmons and others 2014, Simmons and others (in press)).

Product	1979	1985	1990	1995	2001	2006	2011	2015	2019
	<i>Million 2019 dollars</i>								
Lumber, timbers, other sawn products	1,622	911	989	1,124	966	978	580	804	886
Residue-related products ^a	782	823	1,015	1,085	1,142	961	894	843	887
Plywood and veneer	275	172	191	271	98	^b	^b	^b	^b
Cedar products	42	17	26	22	43	42	60	75	^c
Posts, poles, and log furniture	53	27	48	41	31	41	44	49	34
House logs and log homes	25	7	19	33	36	47	9	10	10
All products	2,799	1,957	2,288	2,576	2,316	2,070	1,586	1,781	1,817

^aResidue-related products include particleboard, chips, pulp and paper products, bioenergy products, decorative bark, and mill residues.

^bPlywood and veneer sales included with lumber to prevent disclosure.

^cCedar products combined with post, poles, and log furniture in 2019 to prevent disclosure.

Table 15 – Destination and value of Idaho's 2019 primary wood products sales^a (Sources: Keegan and others 1982, 1988, 1992, 1997; Morgan and others 2004; Brandt and others 2012; Simmons and others 2014, Simmons and others (in press)).

Product	Idaho	Rocky Mountain	Far West	North-Central	Northeast	South	Other countries	Total
	<i>Sales value in thousand 2019 dollars</i>							
Lumber, timbers, other sawn products, plywood and veneer ^b	72,536	304,619	106,653	169,008	80,556	148,572	3,948	885,891
Posts, poles, cedar products, and log furniture	10,814	5,262	11,149	2,251	1,901	1,602	710	33,689
House logs and log homes	4,085	4,117	895	566	332	205	0	10,200
2019 All products total	87,435	313,998	118,697	171,825	82,789	150,379	4,658	929,781
2015 Total	187,344	240,445	132,156	199,997	51,866	117,597	8,585	937,991
2011 Total	70,552	153,022	130,912	178,216	49,927	90,248	19,252	692,131
2006 Total	147,879	293,984	227,783	250,521	72,003	80,102	13,457	1,085,729
2001 Total	167,246	269,270	282,580	231,090	118,919	87,007	18,109	1,174,222
1995 Total	287,968	329,567	266,332	330,042	141,773	121,193	14,365	1,491,239

^aDoes not include mill residue sales or sales by the residue-utilizing sector.

^bLumber, timbers, and other sawn products includes plywood and veneer sales value to prevent disclosure.

Table 16 – Average Annual Employment and Labor Income Contributions from Idaho's Forest Industry 2019.

Sector	Direct Employment	Indirect and Induced Employment	Total Employment Contribution ^a	Direct Labor Income	Indirect and Induced Labor Income	Total Labor Income Contribution ^a
	<i>-----thousand 2015 dollars-----</i>					
Primary Wood Products Mfg	3,784	12,957	16,741	\$ 368,417	\$ 990,305	\$ 1,358,722
Secondary Wood Products Mfg	3,707	5,605	9,312	\$ 263,772	\$ 342,244	\$ 606,016
Forestry and Logging	2,212	2,481	4,693	\$ 171,523	\$ 168,418	\$ 339,941
Forestry Support Activities	1,139	439	1,578	\$ 50,004	\$ 21,927	\$ 71,931
Paper Manufacturing	1,858	4,305	6,163	\$ 177,413	\$ 241,654	\$ 419,067
Total Forest Industry	12,700	^a	^a	\$ 1,031,129	^a	^a

^aIndirect 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.

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 yd³ or 96 ft³ 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.