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# Estimating Sawmill Processing Capacity for Tongass Timber: 2007 and 2008 Update

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## Abstract

In spring and summer of 2008 and 2009, sawmill production capacity and utilization information was collected from major wood manufacturers in southeast Alaska. The estimated mill capacity in southeast Alaska for calendar year 2007 was 292,350 thousand board feet (mbf) (log scale), and for calendar year 2008 was 282,350 mbf (log scale). Mill production in calendar year 2007 was estimated at 31,717 mbf (log scale), and for calendar year 2008 was 23,666 mbf (log scale). Wood products manufacturing employment in southeast Alaska dropped from 133 in 2007 to 94 in 2008 as two large and one small operation became idle.

Keywords: Alaska sawmills, mill capacity, timber usage.

## Introduction

Two federal acts have sought to ensure a timber supply specifically from the Tongass National Forest. The Alaska National Interest Lands Conservation Act (ANILCA 1980) in section 705 (a) provided funds to maintain a constant supply of timber from the Tongass at a rate of 4,500 million board feet (mmbf) per decade. A decade later, section 101 of the Tongass Timber Reform Act (TTRA 1990) amended ANILCA by deleting section 705 and inserting a new section 705 (a):

Subject to appropriations, other applicable law, and the requirements of the National Forest Management Act of 1976 (Public Law 94-588), ... the Secretary shall, to the extent consistent with providing for the multiple use and sustained yield of all renewable forest resources, seek to provide a supply of timber from the Tongass National Forest which (1) meets the annual market demand for timber from such forest and (2) meets the market demand from such forest for each planning cycle.

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Morse (2000) developed procedures, as directed by the 1997 Tongass Land and Resource Management Plan (USDA FS 1997: 37) “to ensure that annual timber sale offerings are consistent with market demand.” The Morse methodology is based on an inventory adjustment process where uncut volume under contract is considered inventory, timber sales are considered additions to inventory, and harvest is considered a deletion from inventory. Morse’s methodology specifically relies on estimates of installed and operable mill capacity, industry rate of capacity utilization, share of raw material provided by the Tongass, and other parameters. Sawmills in southeast Alaska have been assessed each year since 2000 (with the exception of 2001) to provide information for the annual demand calculations. Three previous capacity reports (Brackely and Crone 2009, Brackley et al. 2006a, Kilborn et al. 2004) have summarized these southeast Alaska wood manufacturer assessments from 2000 to 2006. This report presents results from mill assessments for 2007 and 2008.

In this annual assessment of sawmills in southeast Alaska, mill capacity is defined as the amount of net saw-log volume (Scribner log scale) that could be processed by the mill, as currently configured, during a standard 250-day, two-shifts-per-day, annual operating schedule. This estimate of maximum capacity is not limited by the availability of employment, raw material, or markets. The estimate of capacity is for primary manufacture from net saw-log volume (i.e., used to manufacture lumber, cants, veneer, music bolts, etc.). Chips from utility logs, products from wood residue, or secondary manufacture from logs already accounted for are not considered primary manufacture from saw logs.

The forest products industry in southeast Alaska has undergone considerable changes in the past decade. The capacity reports have become an important source of information for scientists in assessing future demand for Tongass timber.

## **Background**

Originally, the 20 largest and most active sawmills in the region were included in the wood manufacturing assessment, which began in 2001 (for calendar year 2000). These 20 mills represented the majority (an estimated 80 percent) of total capacity of all wood products manufacturing in southeast Alaska at the time. In 2007, the 20 original mills became 22 with the partial subdivision of one mill. Of those 22 mills, 11 were active in 2008, 4 were idle, and 7 had been decommissioned or were no longer in production (i.e., “uninstalled”). There have been no new large mill installations since 2000. A new manufacturer will be added to the assessment when equipment is installed, an inventory of logs is onsite, and product is produced.



In spring and summer of 2008, and again in 2009, information for the previous calendar year was collected directly from producers. Sampling was conducted onsite in most cases with the remainder conducted via telephone interviews. Respondents were asked to supply information relative to any equipment purchases or modifications that would affect sawmill capacity, and the volume of logs that were processed during the respective calendar years. Estimated wood manufacturing capacity, mill production, and wood manufacturing employment in southeast Alaska have declined steadily since the initial survey for 2000 (table 1).

The last of the long-term sale volume from the Tongass National Forest was harvested in 2000. Data from 2002 through 2008 are characterized by independent sales to locally owned sawmills from Forest Service lands, in addition to volume from state and private timber sales. Although capacity utilization has averaged about 9 percent since 2002, employment and total capacity has declined considerably. In 2007, the U.S. Forest Service Alaska Region began appraising small-diameter Sitka spruce (*Picea sitchensis* (Bong.) Carr.) and western hemlock (*Tsuga heterophylla* (Raf.) Sarg.) for shipment to the Lower 48 States, but the effects are difficult to assess (table 1). Log shipments to both domestic and foreign destinations were less in both 2007 and 2008 than they were in 2005, when there was no limited interstate shipment policy.

**Estimated wood manufacturing capacity, mill production, and wood manufacturing employment in southeast Alaska have declined steadily since the initial survey for 2000.**

**Table 1—Comparison of southeast Alaska mill assessment results, calendar year 2000 through 2008<sup>a</sup>**

Calendar year	Estimated installed mill capacity	Estimated mill production	Volume not included in mill production			Total volume not included in mill production	Percentage mill utilization	Employees
			Manufactured products <sup>b</sup>	Log exports <sup>c</sup>				
			Domestic	Foreign				
----- Thousand board feet (Scribner log scale) -----						Percent	Number	
2000	501,850	87,117	46,079	6,787	28,094	80,960	17.4	321
2002	453,850	39,702	9,164	115	2,540	11,819	8.8	160
2003	369,850	32,005	763	400	3,893	5,055	8.7	155
2004	370,350	31,027	509	1,412	9,748	11,669	8.4	148
2005	359,850	34,695	0	3,937	15,547	19,485	9.6	136
2006	354,350	32,141	7,620	2,517	1,836	11,973	9.1	123
2007	292,350	31,717	4,015	214	3,410	7,639	10.9	133 <sup>d</sup>
2008	282,350	23,666	2,882	1,390	4,449	8,721	8.4	94

<sup>a</sup> Information for 2001 is not available.

<sup>b</sup> Primarily chips manufactured from utility logs (produced from logs that do not go through the sawmill).

<sup>c</sup> Annual calendar year log exports from the Tongass National Forest to domestic and foreign destinations.

<sup>d</sup> Includes 35 positions reported at the reopened Ketchikan Renaissance Group veneer mill, which was open for a few months in 2007, and inactive again in 2008. These positions lasted about 4 months so were prorated to 10 full-time equivalents.

Information collected in 2008, as in other years, was as follows:

- Mill name
- Owner's name(s)
- Mill location
- Mill description
- Estimated mill capacity
- Estimated mill production
- Mill employment
- Sources of logs processed by the mill
- Products produced
- Market information (where sold)

## Results and Discussion

A summary of basic sawmill information for 2008, including mill name, location, description, and number of employees is presented in table 2 for both active and inactive sawmills. Mill employment is the number of full-time equivalent personnel employed during the year, both salaried and non-salaried. Mill employment dropped from 133 in 2007 to 94 in 2008 as the Ketchikan Renaissance Group veneer mill, Silver Bay, Inc., and part of the breakup of Northern Star Cedar all became idle in 2008. Although the Ketchikan Renaissance Group veneer mill equipment was auctioned off in October 2009, it is included in this list because it was installed and still capable of operation in 2008.

Table 3 lists those mills from the original assessment that are no longer in operation and are considered uninstalled as of 2008. Sawmills are classified as uninstalled when they are idle and deteriorate to the point that they cannot be repaired and operated with a reasonable investment of time and funding, or when they are dismantled.

Mill capacity and production for mills active in 2007 or in 2008 are listed in table 4.

Each year, the U.S. Department of Agriculture, Forest Service, Alaska Region estimates logging and sawmill employment related to the Tongass National Forest timber program in ANILCA (1980) 706(a) Timber Supply and Demand reports. Through 2001, the reports assumed all sawmill and pulp mill employment was dependent upon timber supplied from the Tongass National Forest. Beginning in 2002, this assumption no longer held. Data from Kilborn et al. (2004), Brackley et al. (2006a), Brackley and Crone (2009), and this research note showed that federal timber supplied 73 percent of the wood sawn in southeast Alaska mills in 2002,

Table 2—Basic sawmill information for southeast Alaska, calendar year 2008

Mill name	Location	Description	Number of employees
Active sawmills:			
D&L Woodworks	Hoonah	Portable band-saw mill and portable circle-saw mill	2
Icy Straits Lumber and Milling Co.	Hoonah	Conventional carriage, circle-saw headrig, edger, bull edger, trim saw, log debarker and merchandiser, resaw, dry kiln, planer, moulder	15
Pacific Log and Lumber	Ketchikan	Conventional carriage mills (2) with circle-saw headrigs, horizontal band resaw, edger, trim saw, log debarker and merchandiser, dry kiln, planing mill, 60-ft bandmill added in 2006	20
Porter Lumber Co.	Thorne Bay	Portable circle-saw mill, gang resaw, trim saw, planer, dry kiln	2
St. Nick Forest Products (formerly W.R. Jones and Son Lumber Co.)	Craig	Portable circle-saw mill, dry kiln, planer/moulder	3
The Mill	Petersburg	Portable circle-saw mills (4)	1
Thorne Bay Enterprises (part of Northern Star Cedar breakup)	Thorne Bay	Portable circle-saw mill, trim saw	1
Thorne Bay Wood Products	Thorne Bay	Portable circle-saw mill, trim saw, dry kiln, planer/moulder	4
Thuja Plicata Lumber	Thorne Bay	Portable circle-saw mill, carriage mill, shake/shingle mill	2
Viking Lumber Co.	Craig	Conventional carriage, band-saw headrig, linebar, gang resaws, edgers, trim saw, log debarker and merchandiser, small-log line with end-dogging circular-saw scragg	43
Western Gold Cedar Products (part of Northern Star Cedar breakup)	Thorne Bay	Shake and shingle mills	1
Idle sawmills:			
Ketchikan Renaissance Group (formerly Gateway Forest Products)	Ketchikan	Rotary veneer mill, log debarker, and merchandiser	0
Northern Star Cedar (partially subdivided)	Thorne Bay	Portable sawmill, trim saws	0
Silver Bay, Inc.	Wrangell	Conventional carriages, band-saw headrigs, linebar resaw edgers, trim saw, planer mill, log debarker, and merchandiser	0
Southeast Alaska Wood Products	Petersburg	Portable circle-saw mills (2), trim saw, dry kiln, moulder	0



Table 3—Sawmills uninstalled as of 2008 in southeast Alaska included in original survey in 2000

Mill name	Location	Description
Alaska Fibre	Petersburg	Portable circle-saw mill, horizontal band resaw, edger
Annette Island Sawmill (Ketchikan Pulp Co. Hemlock Mill)	Metlakatla	Conventional carriage, single-cut band-saw headrig, linebar resaw, gang edger/resaw, trim saw, log debarker, and merchandiser
Chilkoot Lumber Co.	Haines	Conventional carriage, 8-ft band headrig, 6-ft and 7-ft band resaws, debarker, chipper, edger
Gateway Forest Products (lumber)	Ketchikan	Twin band mill with end-dogging carriage, resaws, edgers, trim saw, log debarker, and merchandiser
Herring Bay Lumber	Ketchikan	Conventional carriage, circle-saw headrig, resaw edger, trim saw
Kasaan Mountain Lumber and Log	Kasaan	Conventional carriage, circle-saw headrig, circle-saw linebar resaw, edger, log debarker
Metlakatla Forest Products	Metlakatla	Conventional carriage, circle-saw headrig with top saw, horizontal resaw, edger, log debarker, and merchandiser

Table 4—Estimated sawmill capacity and production for southeast Alaska, calendar years 2007 and 2008

Mill name	Estimated mill capacity		Estimated mill production		Estimated utilization of installed capacity	
	2007	2008	2007	2008	2007	2008
	<i>Thousand board feet (Scribner log scale)</i>				<i>Percent</i>	
D&L Woodworks	1,750	1,750	75	75	4.3	4.3
Icy Straits Lumber and Milling Co.	22,500	22,500	1,500	1,110	6.7	4.9
Ketchikan Renaissance Group veneer mill	30,000	30,000	474	0	1.6	0
Northern Star Cedar	5,000	5,000	22	0	0.4	0
Pacific Log and Lumber	39,600	39,600	5,044	3,476	12.7	8.8
Porter Lumber Co.	12,500	2,500	500	150	4	6
Silver Bay, Inc.	65,000	65,000	3,789	0	5.8	0
St. Nick Forest Products <sup>a</sup>	1,000	1,000	100	500	10	50
The Mill	8,500	8,500	40	15	0.5	0.2
Thorne Bay Enterprises	3,000	3,000	25	40	0.8	1.3
Thorne Bay Wood Products	5,000	5,000	600	700	12	14
Thuja Plicata Lumber	7,500	7,500	250	300	3.3	4
Viking Lumber Co.	80,000	80,000	19,000	17,000	23.8	21.2
Western Gold Cedar Products	6,500	6,500	300	300	4.6	4.6
Total	287,850	277,850	31,719	23,666	11	8.5

<sup>a</sup> Formerly W.R. Jones and Son Lumber Co.



59 percent in 2003, 64 percent in 2004, 65 percent in 2005, 62 percent in 2006, 53 percent in 2007, and 75 percent in 2008. These proportions have fluctuated as timber supply from the Tongass has declined, and the independent sawmills in the region have turned to other land ownerships for timber. In 2007 and 2008, no mills in the study reported getting timber from Native Corporation lands or from federal lands other than the Tongass. Sources of logs processed in the region's wood manufacturing facilities are shown in table 5.

An average stand in southeast Alaska has about 10 percent Alaska yellow-cedar (*Chamaecyparis nootkatensis* (D. Don) Spach), 6 percent western redcedar (*Thuja plicata* Donn ex D. Don), 57 percent western hemlock, and about 27 percent Sitka spruce saw logs (derived from van Hess 2003: table 13). Table 6 shows the breakdown of mill production by species for 2007 and 2008. The proportions of production by species are about what one would expect, given the breakdown of species by grade in an average stand in southeast Alaska and the rules governing timber sales on national forest land. Timber from state lands can often be exported, and there are no restrictions on exports from private lands. The U.S. Forest Service in Alaska appraises Alaska yellow-cedar with foreign market pricing structures, under the assumption that it will be exported to foreign markets, as allowed under section 318 of the Consolidated Appropriations Resolution, 2003 (Public Law 108-7), although not all of it is exported from federal timber sales. As can be calculated from table 6, about 2 percent of wood sawn in 2007 and 2008 was Alaska yellow-cedar. Purchasers often sell this species as unprocessed whole logs to overseas markets. However, even if a given species or diameter is appraised for out-of-state shipment, the purchaser can still process the wood in local sawmills if they choose. The proportion of mill production that was western redcedar in 2007 was about 17 percent, and in 2008 about 20 percent. Individual timber sales will not necessarily have the same proportions of species as an average stand. Purchasers can apply for an export permit after a timber sale is sold for species appraised for local manufacture, but they generally have to pay an extra fee (due in part to the difference between appraised price and actual sale price). The percentages of western hemlock and Sitka spruce in stands are roughly reflected in the proportions of these species processed by sawmills in southeast Alaska in 2007 and 2008.

In 2008, one sawmill reported 2,882 thousand board feet (mbf) of manufactured product not included in mill production. This category includes products from logs that do not go through the sawmill, such as chips, firewood, poles, and so on. In this case, the volume consisted mostly of chips made from utility logs. The

Table 5—Estimated sources of logs processed (source of logs included in estimated mill production) by southeast Alaska sawmills, calendar years 2007 and 2008

Mill name	National forest		State of Alaska <sup>a</sup>		Private (non-Native)		Imported		Total	
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
<i>Thousand board feet (Scribner log scale)</i>										
D&L Woodworks	75	75	0	0	0	0	0	0	75	75
Icy Straits Lumber and Milling Co.	300	100	1,200	1,010	0	0	0	0	1,500	1,110
Ketchikan Renaissance Group veneer mill	0	0	0	0	257	0	216	0	474	0
Northern Star Cedar	8	0	0	0	14	0	0	0	22	0
Pacific Log and Lumber	1,261	3,476	3,782	0	0	0	0	0	5,044	3,476
Porter Lumber Co.	500	150	0	0	0	0	0	0	500	150
Silver Bay, Inc.	0	0	3,789 <sup>b</sup>	0	0	0	0	0	3,789	0
St. Nick Forest Products <sup>c</sup>	0	500	100	0	0	0	0	0	100	500
The Mill	36	15	2	0	2	0	0	0	40	15
Thorne Bay Enterprises	0	20	5	20	20	0	0	0	25	40
Thorne Bay Wood Products	60	210	420	490	120	0	0	0	600	700
Thuja Plicata Lumber	250	150	0	150	0	0	0	0	250	300
Viking Lumber Co.	14,250	12,750	4,750	4,250	0	0	0	0	19,000	17,000
Western Gold Cedar Products	105	195	90	105	105	0	0	0	300	300
<b>Total</b>	<b>16,845</b>	<b>17,641</b>	<b>14,138</b>	<b>6,025</b>	<b>518</b>	<b>0</b>	<b>216</b>	<b>0</b>	<b>31,719</b>	<b>23,666</b>

<sup>a</sup> Alaska Department of Natural Resources, Division of Forestry, unless noted otherwise.<sup>b</sup> Ninety-nine percent of this volume came from Alaska Mental Health Trust Lands.<sup>c</sup> Formerly W.R. Jones and Son Lumber Co.

volume consisted of 288 mbf of Sitka spruce, 2,520 mbf of western hemlock, and 74 mbf of western redcedar. Almost all of this volume was shipped to Washington (99.7 percent). The remainder was small local sales of firewood.

As Brackley and Crone (2009) noted, information on the production of shop lumber began to be collected in 2005. Information on the production of dimension lumber, cants, and “other” products is also gathered. Evans (2000) defined shop lumber as lumber that is further processed into products such as door and window parts. In general, shop lumber is worth more than dimension lumber (Brackley and Crone 2009). In the past 4 years, 25 to 30 percent of lumber produced in southeast Alaska has been shop lumber. Dimension lumber is used for framing, joists, planks, and so on. Dimension lumber was 37 percent of production in 2007 and 47 percent in 2008 (table 7). Cants and flitches are large slabs of wood that vary in dimension, and are meant to be cut into other products. In 2007 and 2008, about 30 percent of sawn production was in the form of cants, flitches, railroad ties, and large timbers. The “other” category in table 7 is primarily cedar shakes, shingles, and bolts, although it can also include music wood and other miscellaneous products.

In the past, lumber from Alaska was often shipped to foreign markets. However, shipments of finished products milled in southeast Alaska to domestic markets have become significant compared to prior decades, when virtually all production was shipped overseas. Table 8 summarizes data gathered from sawmill operators in southeast Alaska from the mill assessments that began in 2000 (Brackley and Crone 2009, Brackley et al. 2006a, Kilborn et al. 2004). Information about where manufactured products from southeast Alaska are sold and how those end-markets shift is important in estimating long-term derived demand for those products. Morse (2000) listed domestic market sales of lumber products from southeast Alaska as a monitoring issue. Morse (2000) stated that when domestic sales became significant, that shift suggested the need for a revised long-term derived demand assessment. Owing in part to the increase in sales to domestic markets brought to light through the mill surveys, Brackley et al. (2006b) recalculated long-term derived demand for Tongass timber previously estimated by Brooks and Haynes in 1997 (Brooks and Haynes 1997).

Detailed information about the destination of wood products manufactured in southeast Alaska in 2007 and 2008 is presented in table 9.

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**Shipments of finished products milled in southeast Alaska to domestic markets have become significant compared to prior decades, when virtually all production was shipped overseas.**

Table 6—Estimated southeast Alaska sawmill production by species, calendar years 2007 and 2008

Mill name	Estimated mill production		Sitka spruce <sup>a</sup>		Western hemlock <sup>b</sup>		Western redcedar <sup>c</sup>		Alaska yellow-cedar <sup>d</sup>	
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
<i>Thousand board feet (Scribner log scale)</i>										
D&L Woodworks	75	75	40	30	15	15	0	0	20	30
Icy Straits Lumber and Milling Co.	1,500	1,110	300	200	500	250	600	600	100	60
Ketchikan Renaissance Group veneer mill	474	0	47	0	426	0	0	0	0	0
Northern Star Cedar	22	0	1	0	12	0	8	0	1	0
Pacific Log and Lumber	5,044	3,476	853	481	2,662	2,699	1,418	280	111	15
Porter Lumber Co.	500	150	350	8	100	135	40	8	10	0
Silver Bay, Inc.	3,789	0	771	0	2,309	0	446	0	263	0
St. Nick Forest Products <sup>e</sup>	100	500	10	75	10	125	80	200	0	100
The Mill	40	15	15	5	20	10	0	0	5	0
Thorne Bay Enterprises	25	40	20	20	0	0	5	20	0	0
Thorne Bay Wood Products	600	700	200	140	200	420	150	140	50	0
Thuja Plicata Lumber	250	300	0	30	0	0	225	260	25	10
Viking Lumber Co.	19,000	17,000	5,846	6,000	10,961	7,750	2,193	3,000	0	250
Western Gold Cedar Products	300	300	0	0	0	0	300	300	0	0
Total	31,719	23,666	8,453	6,989	17,215	11,404	5,465	4,808	585	465

<sup>a</sup> Sitka spruce (*Picea sitchensis* (Bong.) Carr.).

<sup>b</sup> Western hemlock (*Tsuga heterophylla* (Raf.) Sarg.).

<sup>c</sup> Western redcedar (*Thuja plicata* Donn. ex D. Don).

<sup>d</sup> Alaska yellow-cedar (*Chamaecyparis nootkatensis* (D. Don) Spach).

<sup>e</sup> Formerly W.R. Jones and Son Lumber Co.







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Table 7—Estimated southeast Alaska sawmill production by product, calendar years 2007 and 2008

Mill name	Estimated mill production		Dimension lumber		Shop lumber		Cants		Other <sup>a</sup>	
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
<i>Thousand board feet (Scribner log scale)</i>										
D&L Woodworks	75	75	75	72	0	0	0	3	0	0
Icy Straits Lumber and Milling Co.	1,500	1,110	1,190	500	0	300	310	310	0	0
Ketchikan Renaissance Group veneer mill	474	0	0	0	0	0	0	0	474	0
Northern Star Cedar	22	0	22	0	0	0	0	0	0	0
Pacific Log and Lumber	5,044	3,476	644	1,768	1,833	1,693	2,538	15	30	0
Porter Lumber Co.	500	150	250	50	0	100	250	0	0	0
Silver Bay, Inc.	3,789	0	405	0	130	0	3,253	0	0	0
St. Nick Forest Products <sup>b</sup>	100	500	100	198	0	302	0	0	0	0
The Mill	40	15	0	8	0	0	40	7	0	0
Thorne Bay Enterprises	25	40	25	40	0	0	0	0	0	0
Thorne Bay Wood Products	600	700	540	700	60	0	0	0	0	0
Thuja Plicata Lumber	250	300	104	170	0	0	146	130	0	0
Viking Lumber Co.	19,000	17,000	8,399	7,500	6,947	3,500	3,654	6,000	0	0
Western Gold Cedar Products	300	300	0	0	0	0	0	0	300	300
<b>Total</b>	<b>31,719</b>	<b>23,666</b>	<b>11,754</b>	<b>11,078</b>	<b>8,969</b>	<b>5,895</b>	<b>10,191</b>	<b>6,465</b>	<b>804</b>	<b>300</b>

<sup>a</sup> Other forest products includes primarily cedar shakes, shingles, and bolts.

<sup>b</sup> Formerly W.R. Jones and Son Lumber Co.

Table 8—Reported destination of products manufactured by southeast Alaska sawmills, calendar years 2000 to 2008<sup>a</sup>

Destination	2000	2002	2003	2004	2005	2006	2007	2008
	<i>Thousand board feet (Scribner log scale), (percentage of total)</i>							
Alaska	8,135 (9)	1,842 (5)	1,758 (5)	1,468 (5)	2,342 (7)	3,408 (11)	3,600 (11)	2,295 (10)
Other U.S. States	54,287 (62)	30,847 (78)	24,591 (77)	19,553 (63)	26,177 (75)	23,250 (72)	22,113 (70)	15,663 (66)
Canada	3,774 (4)	480 (1)	382 (1)	5,951 (19)	724 (2)	296 (1)	708 (2)	0 (0)
Other foreign exports	20,920 (24)	6,532 (16)	5,274 (16)	4,056 (13)	5,423 (16)	5,186 (16)	5,296 (17)	5,707 (24)
Total	87,116 (99) <sup>b</sup>	39,701 (100)	32,005 (99)	31,027 (100)	34,665 (100)	32,141 (100)	31,717 (100)	23,666 (100)

<sup>a</sup> Data for 2001 are not available.<sup>b</sup> Some totals do not add up to 100 percent because of rounding.

Table 9—Estimated destination of products manufactured from logs processed by southeast Alaska sawmills in calendar years 2007 and 2008

Mill name	Other U.S.												
	Alaska		States		Canada		Pacific Rim		Europe		Total		
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	
	<i>Thousand board feet (Scribner log scale)</i>												
D&L Woodworks	75	75	0	0	0	0	0	0	0	0	0	75	75
Icy Straits Lumber and Milling Co.	900	666	600	444	0	0	0	0	0	0	0	1,500	1,110
Ketchikan Renaissance Group veneer mill	0	0	118	0	355	0	0	0	0	0	0	473	0
Northern Star Cedar	22	0	0	0	0	0	0	0	0	0	0	22	0
Pacific Log and Lumber	1,362	104	2,421	2,989	353	0	857	139	243	50	243	5,044	3,476
Porter Lumber Co.	500	150	0	0	0	0	0	0	0	0	0	500	150
Silver Bay, Inc.	0	0	3,789	0	0	0	0	0	0	0	0	3,789	0
St. Nick Forest Products <sup>a</sup>	90	450	10	50	0	0	0	0	0	0	0	100	500
The Mill	40	15	0	0	0	0	0	0	0	0	0	40	15
Thorne Bay Enterprises	5	40	20	0	0	0	0	0	0	0	0	25	40
Thorne Bay Wood Products	594	665	6	35	0	0	0	0	0	0	0	600	700
Thuja Plicata Lumber	13	100	237	200	0	0	0	0	0	0	0	250	300
Viking Lumber Co.	0	0	14,611	11,675	0	0	4,389	5,325	0	0	0	19,000	17,000
Western Gold Cedar Products	0	30	300	270	0	0	0	0	0	0	0	300	300
<b>Total</b>	<b>3,601</b>	<b>2,295</b>	<b>22,112</b>	<b>15,663</b>	<b>708</b>	<b>0</b>	<b>5,246</b>	<b>5,464</b>	<b>243</b>	<b>50</b>	<b>243</b>	<b>31,718</b>	<b>23,666</b>

<sup>a</sup> Formerly W.R. Jones and Son Lumber Co.

## Conclusion

The mill capacity findings in this study reflect recent national trends. According to Balter (2009), the ongoing recession is leading to a major reconfiguration in the forest products sector in the United States. Nationwide, overcapacity in lumber and panel manufacturing has led to mill closures. In the short run, depleted cash reserves and restricted access to capital will limit new investment. Balter (2009) projects that a slow housing recovery is widely anticipated. He sees emerging markets for timber in wood-biomass energy applications, such as pellets, electrical generation, biofuels, and carbon markets. Alaska wood products markets are closely tied to North America and the Pacific Rim, and are deeply affected by tight credit and low profit margin issues. However, development of wood-biomass energy could open up new markets for small and lower quality wood. In addition, when wood products markets improve, remaining wood manufacturing facilities will be well situated to take advantage of rebounding demand for lumber.

## Metric Equivalents

When you know:	Multiply by:	To find:
Board feet, log scale	0.0045	Cubic meters, logs

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