

Timber Supply and Demand: 2009

Alaska National Interest Lands Conservation Act
Section 706(a) Report to Congress
USDA Forest Service, Alaska Region

June 10 2011

Report Number 25

Preface

This is the 25th report prepared in accordance with Section 706(a) of the Alaska National Interest Lands Conservation Act (ANILCA), which directs the Secretary of Agriculture to monitor and report on timber supply and demand in Southeast Alaska. The report provides a summary of timber sale activity in the region and a review of the primary factors affecting timber markets in 2009. This report was prepared by Susan J. Alexander, PhD, Regional Economist for the Alaska Region.

Director of Ecosystem Planning
USDA Forest Service, Alaska Regional Office
P.O. Box 21628
Juneau, AK 99802

Summary

The annual volume of timber sold on the Tongass National Forest in the years from 2005 to 2009 ranged from 5.4 to 85 million board feet (MMBF). The volume sold in 2009 was 22.7 MMBF, including “opted” volume, volume the purchaser can choose to harvest and pay for if market conditions are suitable. Harvested volumes in the same time period ranged from 18.7 to 49.6 MMBF; in 2009 28.4 MMBF were harvested from the Tongass National Forest. Private suppliers in Southeast Alaska, comprised of the native corporations, harvested 51.8 MMBF in 2008, a slight decrease from the 53.2 MMBF harvested in 2008. Harvests in Southeast Alaska from State of Alaska lands (DNR, University, and Mental Health lands) were 13.5 MMBF in 2009, an increase from the 11.9 MMBF cut in 2008. Wood product employment (logging and sawmilling) in the region fell to approximately 216 full-time positions in 2009, in a continuing pattern of declining forest products employment in southeast Alaska. Tongass National Forest-related employment in logging and sawmilling was 87 in 2009, a 28 percent decrease from the 122 jobs in logging and manufacturing in 2008 associated with timber harvest on the Tongass.

Markets for Southeast Alaskan manufactured wood products appear to have shifted to domestic destinations, but the final destination for manufactured products can be difficult to track using trade data. Sawmills in southeast Alaska reported lumber sales to US markets (59 percent) and to the Pacific Rim (40 percent) in 2009. The proportions in 2008 were 76 percent to US markets and 23 percent to the Pacific Rim. Producers will sell products into markets based on price. Alaskan wood products markets are closely tied to North American and Pacific Rim markets, and are being impacted by the global recession, tight credit markets, and a sharp and continuing downturn nationwide in housing starts.

1. Introduction

Section 706(a) of the Alaska National Interest Lands Conservation Act (ANILCA) (Public Law 96-487, December 2, 1980) directs the Secretary of Agriculture to monitor and report on timber supply and demand in Southeast Alaska. Accordingly, this report describes the status of the timber market in Southeast Alaska during the 2009 federal fiscal year (October 1 - September 30). Many of the statistics presented in this report, however, are based on calendar years. In the appendix tables, data are labeled as to whether they represent fiscal years or calendar years.

The report is divided into three main sections, the first providing a general overview of conditions within the region’s timber economy, the second treating timber supply from federal lands and the third addressing demand for this timber. The general overview looks at current developments in the timber sector with particular emphasis on timber employment. The supply section focuses upon the ability of the Tongass National Forest to supply adequate volumes for local processors, with the timber sale program receiving the bulk of the attention. The demand section considers the various factors outside of the Tongass National Forest that help determine the willingness of local buyers to purchase

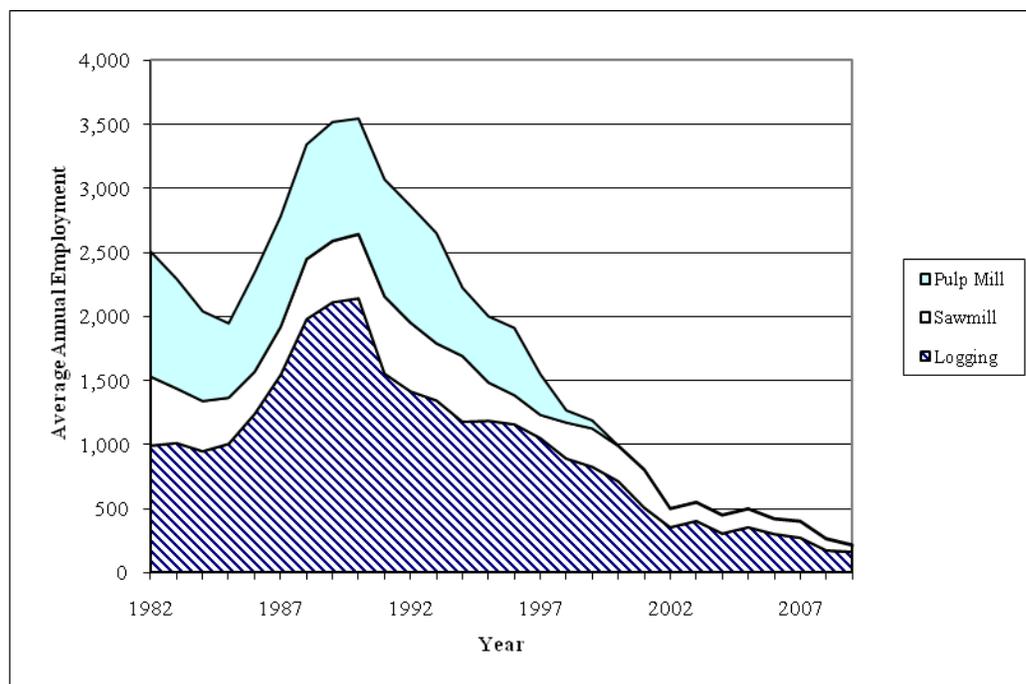
Tongass National Forest timber. These factors include Asian and domestic U.S. markets, current processing capacity in Southeast Alaska, and other suppliers of timber in the region. Supporting data for the analysis is presented in the various tables included in the appendix.

2. Overview of the Region's Timber Economy

Robinson (2010) reports that Alaska's 21 years of job growth ended in 2009. Although Alaska grew through the last two national recessions, in 1990-1991 and 2001, the current recession has been especially severe. The economy of Alaska has lost less ground than other states due to a large and thriving oil industry, and federal government spending. The national construction industry has been hit hard by issues in mortgage and banking industries. Trends in construction directly impact demand for wood products. According to the World Economic Outlook (April 2009; IMF), this is the most severe and synchronized global recession in the past 50 years. The impacts are particularly severe for any industry tied to housing.

Southeast Alaska's economic well-being is closely tied to resource-dependent industries, including fishing, forestry, and mining, and tourism. Employment in southeast Alaska is projected for further declines from 2008 and 2009 due to the fragile national economy and a decline in cruise ship visitation (Wilkinson 2010). Employment in the timber industry fell by 49 jobs, from 265 in 2008 to 216 in 2009 (Figure 1 and Appendix table A-2). U.S. Forest Service job losses in the region accounted for nearly all of the federal employment losses in the past five years (Wilkinson 2010).

Figure 1. Southeast Alaska Wood Products Employment, 1982-2009.



Total timber sector employment has dropped from about 500 to 216 in Southeast Alaska in the wood products industry (logging, pulp and paper, and sawmilling) from 2002 to 2009 (see Figure 1, and Table A-2 in appendix). The last of the long-term lease timber sale volume was harvested in 2000. In 2002, the remaining independent sawmills obtained a quarter of their stumpage from non-Federal sources, signaling a shift from the past, when it could be safely assumed that virtually all wood sawn in Southeast came from Federal lands. Tongass National Forest-related employment in logging and sawmilling (there is no employment in pulp and paper any longer in Southeast Alaska) has declined from 173 in 2002 to 87 in 2009, a drop of 50 percent (see Table A-2 in the appendix for how the Tongass National Forest - related employment numbers were calculated). At the same time, non-Tongass employment dropped from 339 to 129, a decline of 62 percent. Several factors contribute to the difference in employment decline between manufacturing and logging. Logging employment is generated from all ownerships, including state sales, Native corporation harvests, and Forest Service timber sales. Sawmilling employment has historically been primarily the result of Forest Service timber sales, with a small contribution from state timber harvest. As the total volume of harvest regionally has declined, state timber sales have become a larger proportion of harvested volume (see appendix table A-6), and contribute proportionally more to both logging and sawmilling employment. In 2008 and 2009, however, harvest from state lands dropped precipitously. Alaska Native harvests have continued to contribute to logging employment, although harvested volume from Native lands in southeast Alaska is also in decline.

Until recently, southeast Alaska has produced most of the timber harvested in Alaska. Halbrook et al. (2009) conducted a statewide assessment of the timber industry in Alaska, and found that in 2005, the southeast region supplied 74 percent of Alaska's total timber harvest. Most harvest in Alaska in 2005 (60.7 percent) came from Native and private lands. State and other public lands supplied 21.7 percent, and the remaining 17.5 percent came from national forests. In contrast, most mill supply came from national forests (53 percent), followed by state and other public lands (38 percent), and then by private and Native lands (8 percent). Timber harvest in southwest Alaska has recently been increasing. In the past three years, timber harvests from private Native Corporation lands in southwest Alaska have ranged from 30 to 40 MMBF per year.

The wood products industry in Southeast Alaska, and in fact the entire state, consists of individual- and family-owned sawmills, and independent logging businesses. Sales of Southeast Alaska manufactured products to domestic markets, including Alaska, have comprised about 79 percent of all sales from 2002 through 2009, on average. However, poor domestic markets for wood products prompted a shift in 2009. Sawmills in southeast Alaska reported selling about 60 percent of their lumber in US markets and 40 percent to Pacific Rim countries in 2009. The wood products industry in Southeast Alaska has changed considerably since the end of the long-term sales program, and seemed to stabilize somewhat between 2002 and 2006. However, the industry has been declining further since 2007, as measured by employment (appendix table A-2) and total

regional timber harvest (appendix table A-6). The industry is vulnerable both to supply and demand issues.

Wood used in sawmills in Southeast Alaska comes from the Tongass National Forest, State lands, and some private lands. Data from Kilborn et al. (2004), Brackley et al. (2006b), Brackley and Crone (2009), Alexander and Parrent (2010), and Parrent (2010) show that the Tongass National Forest contributed an average of about 63 percent of wood sawn in Southeast Alaska from 2002 to 2009 (see footnote 3, appendix table A-2). State of Alaska lands, including lands managed by the Department of Natural Resources, Mental Health Trust, and University of Alaska, have become an important source of logs processed by local sawmills in Southeast. The Trust Office is a state agency but Trust lands are regulated more like private land ownerships, in terms of forest practices and access. State lands comprise a relatively small percentage of Southeast Alaska forest lands, and state lands cannot indefinitely supply such a high proportion of the needs of remaining Southeast Alaska sawmills. Harvest on state lands in Southeast Alaska has fallen from 44.6 MMBF in 2006 to 13.5 in 2009. This could be a serious problem for the local industry if the Forest Service is unable to offer sufficient economic timber sales to meet estimates of demand. A small amount of sawlogs and chips are imported into Alaska ports from other countries (primarily Canada) (appendix table A-6). Sawlog imports bumped up to about 7.8 MMBF in 2006 and 2007 as the Ketchikan Renaissance Group veneer mill became active, but dropped to back to none by 2009. The veneer mill was inactive in 2008 and uninstalled by 2009.

While supply and demand are treated separately in the following sections, it is important to remember that the interaction of these two forces is what is important. Both supply and demand present challenges for the region's timber sector as it is currently configured.

3. Supply

The supply of timber from the Tongass National Forest is determined by two main factors. The first is the volume of timber offered for sale by the Forest Service. This is estimated annually, using procedures that were developed by the Alaska Region of the Forest Service with the aim of adjusting volume offered to meet projected demand (Morse 2000). Long-term demand estimates were re-calculated by the US Forest Service Pacific Northwest Research Station in 2006 (Brackley et al. 2006a; Brackley and Haynes 2008). The basic procedure of calculating needed annual offerings as outlined by Morse (2000) did not change, but was modified by Alexander (2008) to fit the most recent estimates of long-term demand. The second factor affecting timber supply is the cost of harvesting and delivering wood to its respective intermediate markets: mills in the case of locally processed material, and ports in the case of log exports.

This section of the report describes the Tongass National Forest timber sale program as it stood at the end of FY 2009. While timber harvests from sources other than the Forest Service help determine regional log supply, their impact on the FS sale program is, if anything, on the demand side. This is because these other sources may act as substitutes

for federal timber. Accordingly, private and Alaska state harvests will be discussed in the next section on timber demand.

3.1 The Timber Sale Preparation Process

The Forest Service timber sale process involves a number of stages (or “gates”). The first stage (Gate 1) involves the completion of a “Position Statement,” which provides a brief analysis of the project area with the intent of determining the feasibility of the potential timber sale. Gate 2 entails gathering public comment and conducting environmental analysis in accordance with the National Environmental Policy Act (NEPA). The remaining gates involve, respectively, plan implementation and field layout (Gate 3), sale appraisal and advertising the sale (Gate 4), bid opening (Gate 5), and sale award (Gate 6).

The NEPA process entailed in Gate 2 often comprises the bulk of work devoted by the Forest Service to any given sale. This work formally begins with public scoping, describing the Forest Service’s proposed action and intent to conduct an environmental analysis. This stage concludes with the publication of an Environmental Assessment or (in the case of projects with potentially significant effects) an Environmental Impact Statement, and ultimately a Decision Notice or a Record of Decision in which the Forest Service authorizes the sale and documents the conditions for implementing it. Tongass timber sale NEPA decisions are frequently subject to administrative appeals and litigation. Having cleared these requirements, timber sales can then progress through the remaining four gates.

The volume cleared by the NEPA decision is often broken up into separate sales, which may or may not be prepared and offered in the same fiscal year as that in which the decision was made. During the period covered by this report, volume was officially reported as being offered at the time of advertisement. In 2005, as directed by Public Law No. 108-108 (Sec. 318, HR 2691; 2004), the Alaska Region began using a residual value approach in sale appraisals. Using forest cruise data, current market prices for products, mill processing information, and estimates of harvest, transportation, and processing costs, the Forest Service determines the value at which the sale will be advertised. Further details on appraisal methods in the Alaska Region can be viewed at http://www.fs.fed.us/r10/ro/policy-reports/for_mgmt/, under “Timber Valuation”. Private firms are invited to bid at or above the advertised rate. Sales are then awarded to the high bidder subject to certain additional considerations designed to ensure the bidder’s ability to comply with the conditions laid out in the sale contract.

For various reasons, within any given year, a portion of the timber volume planned for sale may not be sold. In some instances, sales or portions of sales that are planned are not offered. In other instances, a sale is offered and does not receive a valid bid. If there is no indication of competition from other purchasers, those sales may be available to purchasers at their original advertised rates and conditions for up to one year without additional advertisement. The Forest Service may repackage the sale to enhance its economic attractiveness.

After a sale has been awarded, the purchaser usually has around three to five years in which to harvest the sale volume. The sum total of volume yet to be harvested is termed “volume under contract,” and this constitutes a pool of timber from which contract holders may draw depending on market conditions and their business plans. Details on volume under contract as of the end of FY 2008 are in Appendix Table A-10.

To evaluate the status of the timber flow, Morse (2000) established that it is important to assess the ratio of contract volume to harvest. This ratio can indicate how many years of supply (volume under contract) mills have compared to what they are sawing (i.e., harvest). During the 1981-1995 time period, historical ratios of volume under contract to harvest for the independent sale program (in other words, not including volume in the long-term contracts associated with the pulp mills in Ketchikan and Sitka) ranged from 1.0 to 3.4 with an average of 1.8 (Morse 2000). The ratio of contract volume to harvest peaked in 2002 at 6.8, but dropped closer to the three-year supply objective in 2003. In 2004 and 2005 the ratio dropped to 1.7, and increased to 2.6 in 2006. In 2007, the ratio rose to 6.1, reflecting poor wood market conditions in 2007. The ratio dropped back to 3.5 in 2008 and 3.0 in 2009, as volume under contract fell and harvest increased.

Table 1. Available Timber Volumes and Harvest (Fiscal Years, MMBF).

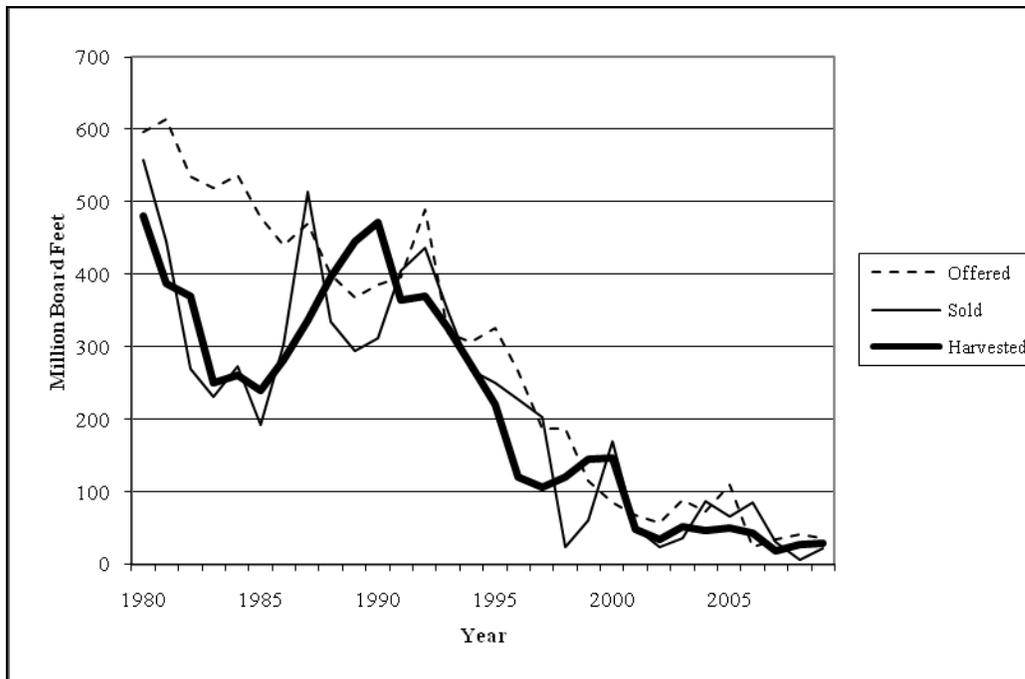
	2002	2003	2004	2005	2006	2007	2008	2009
Volume Under Contract ¹	230	193	78	83	111	114	97	84
Harvest	34	51	46	50	43	18.7	28	28
Contract Volume / Harvest ratio	6.8	3.8	1.7	1.7	2.6	6.1	3.5	3.0

1. Volume in 2002 does not include volume under injunction. Volumes in 2004 and 2005 do not include cancelled sales. See appendix tables A-3 and A-10.

The ratio of volume under contract to harvest is only one indication of whether there is sufficient timber volume under contract to ensure industry viability. There can be increasing contract volume to harvest ratios while there are declining contract volumes. Some volume under contract in 2002 and 2003 was in sales cancelled in 2004 and 2005. Timber flow volumes have recently not only dropped below the desired objective of a three year supply of harvestable timber under current harvest rates, but also would be completely inadequate for allowable harvest rates outlined in the 2008 Tongass Land Management Plan (TLMP). The allowable sale quantity (ASQ) is partitioned into two non-interchangeable components (NICs). About 238 MMBF would be available for harvest under most market conditions (NIC I), as this volume is located on the most operable, accessible ground. The maximum ASQ is 267 MMBF, of which about 29 MMBF is in areas that are difficult to harvest or are isolated (NIC II) (USDA 2008).

Figure 2 illustrates trends in timber offered, sold, and harvested since 1980.

Figure 2. Volumes of timber offered, sold and harvested from the Tongass National Forest, 1980-2008 (Fiscal Years, MMBF).



In 2008, sawmills in southeast Alaska were operating at about 8 percent of estimated capacity (Alexander and Parrent 2010). Capacity utilization dropped to 5.4 percent in 2009 (Parrent 2010). By comparison, sawmills in Idaho, Oregon, California, and Montana generally utilize more than 80 percent of their capacity, unless there is a severe economic downturn (Brandt 2006, Keegan et al. 2001, Morgan et al 2004a, Morgan et al. 2004b). Sawmills in the western US are currently running at about 55 percent of capacity (Dietz 2010). The capacity utilization rate of the last remaining medium-sized sawmill in southeast Alaska in 2009 was estimated at about 15 percent (Parrent 2010). At such low utilization rates it is extremely difficult for sawmill owners to cover their fixed costs, much less make a profit.

4. Demand

Economists commonly define “demand” as the different amounts of a product buyers are willing to purchase at different prices. As such, demand cannot be characterized as a single number but should be viewed as a series of price-quantity relationships. The same is true for “supply,” and it is the combination of these two forces (supply and demand) that determine both the quantity and price of goods produced and consumed in the market place.

Softwood lumber exports from Alaska (Appendix Table A-7) dropped sharply in 2008 and 2009. Mills report that they shipped lumber to foreign markets, but lumber shipped

from other ports (e.g. Seattle) as recorded through the Harmonized Trade data cannot be traced back to its origin. Wood chip exports from the Anchorage customs district fluctuated widely from 2004 to 2009 (Appendix Table A-8). In 2007 and 2008, wood chip exports from the Alaska customs district fell to almost zero. Log exports from the Alaska customs district constitute the vast majority of wood product exports value (Appendix Table A-9). As has been true for several years, the top three markets in order of significance for log exports were Japan, Korea, and China. While Japanese and Korean Alaskan log imports have been declining, log exports to China have been steadily climbing as China consumes an ever-increasing proportion of Alaska whole log exports.

Exports of whole logs from Tongass National Forest timber sales occur because of several factors. The 2007 decision to appraise sales for limited log shipments allows small diameter Sitka spruce and western hemlock to be shipped out of state. Alaska yellow-cedar is appraised 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). 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 to do so. The purchaser might be required to pay additional fees if they ship whole logs to markets other than what the timber sale was appraised for. However, a purchaser can apply for an export permit after a timber sale is sold, under certain conditions. Volumes of log exports from the Tongass National Forest (Appendix Tables A-4 and A-5) have been too small to make specific inferences from one year to the next; in 2008, log exports from the Tongass to foreign ports constituted about two percent of all softwood log exports from the Alaska customs district (Appendix table A-7). Most logs shipped from the Tongass to markets outside Alaska have gone to Asian markets, with some going to domestic markets. Canada was not a destination for logs from the Tongass from 2003 through 2006, or in 2008 or 2009, but in 2007 more logs were shipped to Canada from the Tongass than were shipped to domestic markets in the Lower 48. These shifts in the destination of wood products from Alaska illustrate that sellers are going to maximize profits by selling logs or lumber wherever they get the best price.

According to Brackley et al. (2009, p. 7), “much of the growth in US softwood lumber consumption since the early 1990s was a result of a prolonged increase in residential construction”. US construction demand spurred increased imports of lumber from Canada, a resurgence of softwood lumber production in the Pacific Northwest, and shifts in the types of lumber produced as markets shifted and suppliers jockeyed for market share. In the past, lumber from Alaska was often shipped into foreign markets. However, shipments of finished products milled in Southeast Alaska to domestic markets have become more significant, as can be seen in Table 2. Table 2 summarizes data gathered from sawmill operators in Southeast Alaska in log scale.

Table 2. Destination of Products Manufactured by Southeast Alaska Sawmills (MBF log scale).

	<i>Alaska</i>	<i>Other US states</i>	<i>Canada</i>	<i>Other foreign exports</i>	<i>Total</i>
2000 ^a	8,135	54,287	3,774	20,920	87,116
Percent of total	9	62	4	24	
2002	1,842	30,847	480	6,532	39,701
Percent of total	5	78	1	16	
2003	1,758	24,591	382	5,274	32,005
Percent of total	5	77	1	16	
2004	1,468	19,553	5,951	4,056	31,027
Percent of total	5	63	19	13	
2005	2,342	26,177	724	5,423	34,665
Percent of total	7	75	2	16	
2006	3,408	23,250	296	5,186	32,141
Percent of total	11	72	1	16	
2007	3,600	22,113	708	5,296	31,717
Percent of total	11	70	2	17	
2008	2,295	15,663	0	5,707	23,666
Percent of total	10	66	0	24	
2009	1,410	6,606	0	5,416	13,422
Percent of total	10	49	0	40	

a. Data for 2001 is not available.

The conversion from log scale to lumber tally in Southeast Alaska at present is roughly 30 percent; i.e., lumber tally will be 1.3 times greater (approximately) than log scale. Appendix Table A-7 summarizes lumber export data from the Anchorage customs district in MBF lumber tally. There are several reasons the data in Appendix Table A-7 is different from the data in Table 2, although they are both about sawn product exports from Alaska. One is that Table 2 is estimates by Southeast Alaska mill owners of how much material went to various markets. Some of this material may have been shipped from ports in other states. Appendix Table A-7 summarizes data from all Alaska foreign exports as reported in the International Trade Commission Harmonized Trade Code (ITC HTS) data. In addition, Table 2 and Appendix Table A-7 are in different scales (lumber tally versus log scale).

Table 3 compares the data in Table 2 and Appendix Table A-7 with the same scale (lumber tally). One would expect the foreign exports of sawn material from all of Alaska as reported by the Alaska Customs District to be equal to or greater than the amount reported by sawmills in Southeast Alaska if all products were shipped directly to their destination from Alaska producers. As can be seen in Table 3, export data from the Alaska customs district for at least the past ten years has represented only about 15 percent, on average, of foreign exports of sawn products reported by Southeast Alaska mill owners alone. It is likely that mills in other regions of Alaska also export sawn

products. This discrepancy could reflect where products were routed before being shipped out of the U.S. It is possible that Southeast Alaska sawn product exports are being shipped from the Seattle customs district, an issue called transshipments (products are shipped to other domestic ports and then re-routed to foreign destinations). This illustrates some of the difficulty in getting accurate data regarding wood product production and trade in Alaska.

Table 3. Sawn wood products exports from Alaska, different reporting sources, lumber tally (conversion of log scale mill reports to lumber tally using a factor of 1.3).

<i>Year</i>	<i>SE sawmills reported foreign exports, MBF</i>	<i>ITC HTS data on exports from the Alaska customs District, MBF</i>
2000	32,102	3,609
2002	9,116	85
2003	7,353	1,217
2004	13,009	1,825
2005	7,991	2,669
2006	7,127	2,166
2007	7,806	1,761
2008	7,419	118
2009	7,041	176

The volume of timber sold from the Tongass National Forest in the past five years ranged from a low of 5.4 MMBF in 2008 to a high of 85 MMBF in 2006 (Appendix Table A-3). In the same time period, the timber offered for sale ranged from 24 MMBF in 2006 to 110 MMBF in 2005. Harvested volumes ranged from 18.7 MMBF in 2007 to 50 MMBF in 2005. Harvested volume in 2007 reflects poor wood products markets in 2007 due to national home mortgage problems and their impacts on housing markets. Although harvested volume in 2008 and 2009 picked back up to 28 MMBF from the low of 18.7 in 2007, the small sold volume of 5.4 MMBF in 2008 reflected the continued global economic uncertainty and worsening wood products markets. Sold volume in 2009 rose to 23 MMBF, but as of 2009 this includes “opted”, and “contract” volumes. Opted is optional volume the purchaser can choose to harvest and pay for if market conditions are suitable. Local purchasers are wary about the risk of accumulating inventory in the uncertain markets facing all wood products industries in western North America. Sale design, purchaser preferences, uncertain global wood products markets, and a tight credit market in 2008 and 2009 all influenced the willingness and ability of Southeast Alaska wood purchasers to buy Forest Service timber sales.

Profitability for Tongass National Forest Timber can be affected by the combination of valuable materials versus logging costs in a given timber sale, market options for lower grade material coming off the Forest, and prices for Southeast Alaskan premium species and grades. Although contracts now allow the option of leaving utility logs in the woods, current market conditions still challenge profitability. Brackley et al. (2009) report that

the combined costs of logging, manufacturing, and transportation of stumpage in Alaska are roughly \$149 per thousand board feet higher than in the Pacific Northwest, on average. These higher costs make it more difficult for Alaskan producers to compete in lower value commodity markets. During the current recession, wood manufacturers nationwide have been experiencing problems with tight margins, meaning the cost of producing wood products is only slightly less than or even greater than revenue. If this situation continues too long in any given manufacturing facility, they will go out of business. Details of prescriptions, bid prices, and species mixes for Tongass National Forest timber sales in 2009 are presented in Appendix Table A-1. Appendix table A-1 lists sales sold in FY 2009 that were also offered in the same fiscal year; the total volume for the sales was 8.7 MMBF. The total volume of timber sold in FY 2008, as noted in appendix table A-3, was 22.7 MMBF. Some of the 22.7 MMBF sold was offered in the previous fiscal year.

A final consideration in relation to regional demand for Tongass National Forest timber is the supply of timber from other producers in Southeast Alaska. Both the Native Corporations and the State of Alaska also produce timber. Since the early 1980s, the Native Corporations have harvested over half of the total log volume produced in the region. In 2000, owing primarily to sales on Mental Health Trust and University of Alaska lands, the State emerged as a major producer, outstripping Forest Service production in 2001, 2002, 2006, and 2007. Harvest from state lands in southeast Alaska dropped sharply in 2008 and 2009 (see Appendix Table A-6). Native Corporation harvests have declined from a high of 434 MMBF in 1990 to a range of 50 to 106 MMBF in each of the last six years—a level close to earlier predictions of the long-term supply potential of Native Corporation lands (Knapp 1992). In 2007, Sealaska Timber Corporation announced that their projected harvest levels will be declining in the near future; volume harvested from Native Corporations lands in southeast Alaska dropped by almost half from 2005 to 2007. Harvests in 2008 and 2009 were about the same as 2007.

According to Alaska State forestry specialists, Native Corporation, Mental Health Trust, and University timber, can be, and frequently is, exported in raw log form. Like federal timber, timber sold by the Alaska Department of Natural Resources (DNR) must be processed locally unless there is no local market. Native Corporation and trust sales don't compete with National Forest timber in the local processing market. DNR sales may compete locally, but ultimately the volume available from the relatively small State timber base is far less than the volume from federal lands in Southeast Alaska. Although private and trust sales may compete with National Forest log exports (of yellow cedar, for example), the total market share of Alaska wood in the export market is too small for any one owner to influence demand for wood from other sources in Southeast Alaska (Brackley et al. 2006a). Small volumes of sawtimber and sometimes chips are imported to Alaska from other countries (appendix table A-6), but foreign imports are generally not utilized by Southeast Alaska sawmills.

Conclusion

According to Balter (2009), a major reconfiguration is occurring in the forest products sector in the US. Nationwide, over-capacity in lumber and panel manufacturing points to

an extended period of tight margins. Sawmills have been closing nationwide, and mill closures will probably continue. In the short run, depleted cash reserves and restricted access to capital will limit new investment. Balter (2009) and Glass(2009) find that a slow housing recovery is widely anticipated. Glass (2009) says that it remains to be seen if the recovery will happen from the supply side first, through a decrease in unsold existing housing inventory, some kind of standardization and consolidation in the home building industry, and sawmill capacity adjustment. Demand side relief will occur through a residential construction recovery. Pent-up demand for housing could make for a steep housing recovery when it finally arrives. Balter (2009) sees emerging markets for timber in wood-biomass energy applications, such as pellets, electrical generation, and bio-fuels, and carbon markets. However, in Oregon, the largest timber producer in the country, timber harvest in 2009 was the lowest it has been since the middle of the Great Depression, and industry projections indicate 2010 will be more of the same (Dietz 2010). Alaskan wood products markets are closely tied to North America and the Pacific Rim, and are deeply affected by tight credit and low cost margin issues.

References Cited

- Alexander, Susan J. 2008. Tongass National Forest timber sale procedures: using updated information about market demand to schedule timber offerings. January 2008. Available at: http://www.fs.fed.us/r10/ro/policy-reports/for_mgmt/.
- Alexander, Susan J.; Parrent, Daniel J. 2010. Estimating sawmill processing capacity for Tongass timber: 2007 and 2008 update. Res. Note PNW-RN-565. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 15 p. Available at: <http://www.fs.fed.us/pnw/publications/>
- Balter, Keith. 2009. Recession and the forest products sector: learning to live with reduced expectations. May 5 2009 presentation at the 2009 Western Forest Economist meeting in Welches, OR. Available at: <http://www.masonbruce.com/wfe/> (accessed July 2010)
- Brackley, Allen M.; Rojas, Thomas D.; Haynes, Richard W. 2006a. Timber products output and timber harvests in Alaska: projections for 2005-25. Gen. Tech. Rep. PNW-GTR-677. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 33 p. Available at: <http://www.fs.fed.us/pnw/publications/>
- Brackley, Allen M.; Parrent, Daniel J.; Rojas, Thomas D. 2006b. Estimating sawmill processing capacity for Tongass timber: 2003 and 2004 update. Res. Note PNW-RN-553. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 15 p. Available at: <http://www.fs.fed.us/pnw/publications/>
- Brackley, A.M.; Haynes, R.W. 2008. Timber products output and timber harvests in Alaska: an addendum. Res. Note PNW-RN-559. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 41 p. Available at: <http://www.fs.fed.us/pnw/publications/>
- Brackley, Allen M.; Crone, Lisa K. 2009. Estimating sawmill processing capacity for Tongass timber: 2005 and 2006 update. Res. Note PNW-RN-561. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 15 p. Available at: <http://www.fs.fed.us/pnw/publications/>
- Brackley, Allen M.; Haynes, Richard W.; Alexander, Susan J. 2009. Timber harvests in Alaska: 1910-2006. Res. Note PNW-RN-560. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 24 p. Available at: <http://www.fs.fed.us/pnw/publications/>
- Brandt, Jason P.; Morgan, Todd A.; Dillon, Thale; Lettman, Gary J.; Keegan, Charles E.; Azuma, David L. 2006. Oregon's forest products industry and timber harvest, 2003.

Gen. Tech. Rep. PNW-GTR-681. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 53 p.
Available at: <http://www.fs.fed.us/pnw/publications/>

Dietz, Diane. 2010. A Bitter Harvest for Wood Products: to an industry hardened by three decades of hard knocks, this is still a body blow. The Register Guard, Eugene OR. August 22 2010. Available at:
<http://www.registerguard.com/csp/cms/sites/web/news/cityregion/25178789-57/billion-lumber-depression-timber-mill.csp>

Glass, Bruce. 2009. What could recovery look like? May 5 2009 presentation at the 2009 Western Forest Economist meeting in Welches, OR.
Available at: <http://www.masonbruce.com/wfe/> (accessed July 2010)

Halbrook, Jeff M.; Morgan, Todd A.; Brandt, Jason P.; Keegan, Charles E. III; Dillon, Thale; Barret, Tarra M. 2009. Alaska's timber harvest and forest products industry, 2005. Gen. Tech. Rep. PNW-GTR-787. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 53 p.

International Monetary Fund. 2009. World Economic Outlook, April 2009: Crisis and Recovery. Washington DC. 220 p.
Available at: <http://www.imf.org/external/pubs/ft/weo/2009/01/index.htm> (accessed July 2010).

Keegan, Charles E. III; Gebert, Krista M.; Chase, Alfred L.; Morgan, Todd A.; Bodmer, Steven E.; Van Hooser, Dwane D. 2001. Montana's forest products industry: a descriptive analysis 1969-2000. University of Montana, Missoula MT. 67 p.

Kilborn, Kenneth A.; Parrent, Daniel J.; Housley, Robert D. 2004. Estimating sawmill processing capacity for Tongass timber. Res. Note PNW-RN-545. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 12 p.
Available at: <http://www.fs.fed.us/pnw/publications/>

Knapp, Gunner. 1992. Native Timber Harvests in Southeast Alaska. Gen. Tech. Rep. PNW-GTR-284. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station.
Available at: <http://www.fs.fed.us/pnw/publications/>

Morgan, Todd A.; Keegan, Charles E. III; Spoelma, Timothy P.; Dillon, Thale; Hearst, A. Lorin; Wagner, Francis G.; DeBlander, Larry T. 2004a. Idaho's forest products industry: a descriptive analysis. Resour. Bull. RMRS-RB-4. Fort Collins CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 31 p.
Available at: http://www.fs.fed.us/rm/publications/titles/rmrs_resource_bulletins.html

Morgan, Todd A.; Keegan, Charles E. III; Dillon, Thale; Chase, Alfred L.; Fried, Jeremy S.; Weber, Marc N. 2004b. California's forest products industry: a descriptive analysis.

Gen. Tech. Rep. PNW-GTR-615. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 55 p.
Available at <http://www.fs.fed.us/pnw/publications/>

Morse, Kathleen S. 2000. Responding to the market demand for Tongass timber. Management Bulletin R10-MB-413. Juneau, AK: U.S. Department of Agriculture, Forest Service, Alaska Region.
Available at: http://www.fs.fed.us/r10/ro/policy-reports/for_mgmt/.

Parrent, Daniel J. 2010. Tongass sawmill capacity and production report for CY 2009. Final report, August 2010. Prepared for USDA Forest Service, Alaska Region, Forest Management, Juneau AK. On file with: Alaska Region Forest Management Director, Juneau AK.

Robinson, Dan. 2010. The end of a streak. Alaska Economic Trends 30(1): 4-8.
Available at: <http://almis.labor.state.ak.us/>

U.S. Department of Agriculture, Forest Service. 2008. Tongass Land and Resource Management Plan, Final Environmental Impact Statement, Plan amendment, Record of Decision. Management Bull. R10-MB 603a. Juneau, AK: U.S. Department of Agriculture, Forest Service, Alaska Region. 72 p.
Available at: http://tongass-fpadjust.net/FPA_ROD.htm

U.S. Department of Commerce. 2010. <http://dataweb.usitc.gov/> (last accessed August 2010). U.S. Department of Commerce, International Trade Commission.

Warren, Debra D. 2010. Production, prices, employment, and trade in Northwest forest industries, all quarters 2009. Resour. Bull. PNW-RB-259. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 157 p.
Available at <http://www.fs.fed.us/pnw/publications/>

Wilkinson, Joy. 2010. After a rough 2009, expect smaller losses in 2010. Alaska Economic Trends 30(1): 17-20.
Available at: <http://almis.labor.state.ak.us/>

Statistical Appendix 2009

List of Tables:

Table A-1. Tongass National Forest Timber Sales Newly Offered and Sold in FY 2009.

Table A-2. Employment in the Wood Products Industry in Southeast Alaska, 1988-2009.

Table A-3. Volume of National Forest Timber Offered, Sold, and Harvested in the Alaska Region, FY 2005-2009.

Table A-4. Tongass National Forest Log Export Permits Issued in CY 2009 (MBF).

Table A-5. Tongass National Forest Log Exports CY 2005-2009 (MBF).

Table A-6. Timber Harvest and Imports for Southeast and South-Central Alaska, 1993-2009.

Table A-7. Exports of Softwood Logs and Lumber from Alaska (Anchorage Customs District), CY 1994-2009.

Table A-8. Woodchip Exports from U.S. West Coast, CY 1999-2009.

Table A-9. Value of Exports from Alaska (Anchorage Customs District) by Product and Country, CY 2000-2009.

Table A-10. Tongass National Forest Volume Under Contract, FY 2009.

Table A-1. Tongass National Forest Timber Sales Newly Offered and Sold in FY 2009¹

Sale Name ²	Type Prescription		Bid Information		
	Clear Cut (% Vol.)	Partial Cut (% Vol.)	Advertised Rate (\$/MBF)	High Bid (\$/MBF)	Bidders (No.)
6282 Stringer Deck	100	0	51.49	52.50	1
Catfal	0	100	10.85	16.50	1
Clear Water	0	100	10.68	14.04	1
Goatmans Deck	100	0	37.67	76.92	4
Juneau Access Settlement #1	100	0	50.27	50.27	1
Kake Microsale #1	0	100	32.62	32.62	1
Marx Creek Salvage	100	0	39.69	40.88	1
Microsale #148	0	100	51.31	52.00	1
Microsale #150	0	100	61.51	63.82	1
Microsale #151	0	100	55.11	55.11	1
Orion North reoffer	100	0	32.44	32.44	1
Sumner	0	100	8.22	8.75	1
Trap Mountain	0	100	6.95	8.22	1
Weighted Average	93	7	38.16	38.49	1

Table A-1 continued

Sale Name	S. Spruce Hemlock AK Yellow W. Red SS/Hem					Total Sale MBF
	Sawlog (% Vol.)	Sawlog (% Vol.)	Cedar (% Vol.)	Cedar (% Vol.)	Utility (% Vol.)	
6282 Stringer Deck	100	0	0	0	0	9
Catfal	89	1	0	0	10	279
Clear Water	87	3	0	0	11	76
Goatmans Deck	69	31	0	0	0	13
Juneau Access Settlement #1	45	40	0	0	15	3,601
Kake Microsale #1	0	0	75	0	25	8
Marx Creek Salvage	75	13	0	0	13	16
Microsale #148	10	0	0	90	0	10
Microsale #150	96	0	4	0	0	27
Microsale #151	100	0	0	0	0	6
Orion North reoffer	18	35	6	31	11	4,360
Sumner	32	36	15	3	14	72
Trap Mountain	50	37	0	0	14	101
Weighted Average	33	35	5	16	12	8,709

Source: USDA Forest Service, Alaska Region. Data on file with: Regional Economist, Ecosystems Planning, USDA Forest Service, PO Box 21628, Juneau, AK 99802-1628.

1. “Newly offered and sold” includes re-offered sales with substantial changes (referred to as “for credit”); otherwise does not include re-offered or re-sold sales.
2. Data includes all sales regardless of size.

Table A-2. Employment in the Wood Products Industry in Southeast Alaska, 1988-2009.

Year¹	Tongass Logging²	Tongass Sawmill	Pulp Mill	Tongass- Related Employment³	Other sawmill	Other Logging	Total Industry Employment
1988	1,010	468	892	2,370	-	971	3,341
1989	1,166	478	925	2,569	-	947	3,516
1990	1,123	500	899	2,522	-	1,021	3,543
1991	872	604	911	2,387	-	682	3,069
1992	788	538	910	2,236	-	627	2,863
1993	754	447	859	2,060	-	590	2,650
1994	621	515	533	1,669	-	556	2,225
1995	702	301	516	1,519	-	483	2,002
1996	804	230	524	1,558	-	353	1,911
1997	823	184	318	1,325	-	226	1,551
1998	579	284	96	959	-	310	1,269
1999	305	303	63	671	-	519	1,190
2000	340	280	2	623	-	371	994
2001	109	300 ⁴	2	409	-	391	800
2002	63	110	-	173	40	299	512
2003	108	91	-	199	64	298	561
2004	82	95	-	177	53	220	450
2005	88	96	-	184	52	263	499
2006	81	77	-	158	46	217	421
2007	44	70	-	114	63	225	402
2008	52	70	-	122	24	118	265
2009	48	39	-	87	19	110	216

Source: Alaska Department of Labor, Kilborn et al. (2004), Brackley et al. (2006b), Brackley and Crone (2009), Alexander and Parrent (2010), and Parrent (2010). Data on file with: Regional Economist, Ecosystems Planning, USDA Forest Service, PO Box 21628, Juneau, AK 99802-1628

1. 2000 and after reported in calendar years. Prior to 2000, federal fiscal years were used.
2. Tongass National Forest logging estimated based on the ratio of Tongass timber harvest to total timber harvest in Southeast Alaska.

3. Through 2001, assumes all sawmill and pulp mill employment is dependent upon Tongass National Forest timber supply. Beginning in 2002, this assumption no longer held. Data from Kilborn et al. (2004), Brackley et al. (2006b), Brackley and Crone (2009), Alexander and Parrent (2010), and Parrent (2010) show that Federal timber supplied 73% of the wood sawn in Southeast Alaska mills in 2002, 59% in 2003, 64% in 2004, 65% in 2005, 62% in 2006, 53% in 2007, 75% in 2008, and 66% in 2009. Tongass National Forest sawmill employment from 2002 through 2009 is estimated based on sawmill employment numbers and the ratio of sources of wood (Federal versus the total) reported by Kilborn et al. (2004), Brackley et al. (2006b), Brackley and Crone (2009), Alexander and Parrent (2010), and Parrent (2010).
4. Beginning in 2001, employment estimates are being published under a new classification system. The Standard Industrial Classification (SIC) system has been replaced by the North American Industrial (NAI) Classification system. “Sawmill” in this table is reported by the Alaska Department of Labor as “wood manufacturing” which in the NAI system includes sawmills, wood preservation, veneer, plywood, engineered wood, and other wood products. In southeast Alaska, this category is assumed to represent only sawmill employment. Beginning in 2001, sawmill employment figures are adjusted based on regional mill studies, which take into account self employed mill owners.

Table A-3. Volume of National Forest Timber Offered, Sold, and Harvested in the Alaska Region, FY 2005-2009 (MMBF).¹

<u>Offered – Million Board Feet (MMBF)</u>			
Fiscal Year	Tongass NF	Chugach NF	Total
2005	110.4	0.0*	110.4
2006	23.7	0.0*	23.7
2007	34.0	0.6	34.6
2008	42.0	0.0	42.0
2009	36.0	0.3	36.3
5 yr. Average	49.2	0.2	49.4
<u>Sold/Released – Million Board Feet (MMBF)</u>			
Fiscal Year	Tongass NF	Chugach NF	Total
2005	65.1	0.1	65.2
2006	85.0	0.0*	85.0
2007	30.4	0.6	31.0
2008	5.4	0.0*	5.4
2009	22.7 ²	0.3	23.0
5 yr. Average	41.7	0.2	41.9
<u>Harvested – Million Board Feet (MMBF)</u>			
Fiscal Year	Tongass NF	Chugach NF	Total
2005	49.6	0.1	49.7
2006	43.2	0.0*	43.2
2007	18.7	0.2	18.9
2008	28.0	0.3	28.3
2009	28.4	0.0*	28.4
5 yr. Average	33.6	0.1	33.7

Source: USDA Forest Service, Alaska Region. Data on file with: Regional Economist, Ecosystems Planning, USDA Forest Service, PO Box 21628, Juneau, AK 99802-1628.

1. Volumes do not include re-offered sales, re-sold sales, or credit volumes.
 2. Sold volumes beginning in 2009 include “opted” and “contract” volume. “Opted” is optional volume the purchaser can choose to harvest and pay for if market conditions are suitable.
- * Trace amount of harvest

Table A-4. Tongass National Forest Log Export Permits Active in CY 2009 (MBF)

Sale	Purchaser	Permit					Total
		Number	SS ¹	Hem.	AYC	WRC	MBF
Buckdance Madder	Pacific Log and Lumber	2008-11	564	2,538	76	441	3,620
Drumlin Reoffer	R&R Conner	2009-6	6	9	0	0	15
Finger Point	Viking Lumber Co.	2008-6	62	8	0	0	70
Lindenberg	Viking Lumber Co.	2008-7	136	77	0	0	213
Luck Lac II	Viking Lumber Co.	2005-17	0	0	163	0	163
Luck Lac II	Viking Lumber Co.	2008-8	59	320	0	0	379
Scratchings	Viking Lumber Co.	2009-2	0	0	275	0	275
Scratchings	Viking Lumber Co.	2008-9	1,014	2,679	0	0	3,694
Skipping Cow	Alcan	2006-9	538	1,545	307	0	2,390
Skipping Cow	Alcan	2008-17	0	0	1	0	1
Shady	SE Alaska Wood	2008-16	225	175	0	0	400
Tuxecan	Viking Lumber Co.	2008-10	346	780	0	0	1,126
Upper Carroll II	Pacific Log and Lumber	2008-13	505	549	0	0	1,054
Total			3,454	8,681	823	441	13,400

Source: USDA Forest Service, Alaska Region. Data on file with: Regional Economist, Ecosystems Planning, USDA Forest Service, PO Box 21628, Juneau, AK 99802-1628.

1. SS = Sitka spruce (*Picea sitchensis*); Hem. = western hemlock (*Tsuga heterophylla*); AYC = Alaska yellow-cedar (*Chamaecyparis nootkatensis*); WRC = western red cedar (*Thuja plicata*).

Table A-5. Tongass National Forest Log Exports CY 2005-2009 (MBF)

Year	Destination	SS¹	Hem.	AYC	WRC	Other	Total
CY 2005	Canada	0	0	0	0	0	0
	Lower 48	0	0	49	3,888	0	3,937
	Pacific Rim	11,712	1,925	1,909	0.3	0	15,547
	Total	11,712	1,925	1,958	3,889	0	19,485
CY 2006	Canada	0	0	0	0	0	0
	Lower 48	0	0	37	2,480	0	2,517
	Pacific Rim	448	129	421	837	0	1,836
	Total	448	129	458	3,317	0	4,353
CY 2007	Canada	85	0	0	184	130	400
	Lower 48	0	0	3.7	210	0	214
	Pacific Rim	166	81	2,717	47	0	3,010
	Total	252	81	2,720	441	130	3,624
CY 2008	Canada	0	0	0	0	0	0
	Lower 48	40	4	254	1,091	0	1,390
	Pacific Rim	1,155	1,659	1,636	0	0	4,449
	Total	1,195	1,663	1,890	1,091	0	5,839
CY 2009	Canada	0	0	0	0	0	0
	Lower 48	0	0	1	278	0	279
	Pacific Rim	3,454	8,681	822	163	0	13,121
	Total	3,454	8,681	823	441	0	13,400
5 Yr. Avg.	Canada	17	0	0	37	26	80
	Lower 48	8	1	69	1,589	0	1,667
	Pacific Rim	3,387	2,495	1,501	209	0	7,592
	Total	3,412	2,496	1,570	1,836	26	9,340

Source: USDA Forest Service, Alaska Region. Data on file with: Regional Economist, Ecosystems Planning, USDA Forest Service, PO Box 21628, Juneau, AK 99802-1628.

1. SS = Sitka spruce (*Picea sitchensis*); Hem. = western hemlock (*Tsuga heterophylla*); AYC = Alaska yellow-cedar (*Chamaecyparis nootkatensis*); WRC = western red cedar (*Thuja plicata*).

Table A-6. Timber Harvest and Imports for Southeast and Southcentral Alaska, 1993-2009¹

		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
Southeast Alaska (MMBF)																			
Tongass N. F.	Sawlogs	268.3	221.8	181.3	97.4	94.4	107.6	132.8	133.7	39.8	30.0	44.1	40.9	43.3	39.4	14.8	24.0	25.3	
	Utility Logs	56.7	54.0	39.8	22.8	12.2	12.2	12.9	13.0	7.9	3.8	6.7	5.4	6.2	3.7	3.9	4.0	3.1	
State of Alaska ²	Sawlogs	5.0	18.1	3.6	4.5	5.2	5.6	7.3	47.8	48.0	48.0	32.7	21.9	40.7	43.6	38.8	10.3	11.8	
	Utility Logs	0.0	2.7	2.2	2.5	0.3	1.9	0.1	12.1	5.2	9.3	2.1	2.3	2.2	1.0	5.8	1.6	1.7	
BIA	Sawlogs and Utility	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Alaska Native Corporations ³	Sawlogs	328.2	275.0	233.9	292.4	335.9	157.6	193.6	114.6	106.5	93.6	98.1	92.0	99.3	67.1	46.9	45.5	46.9	
	Utility Logs	82.2	12.3	81.1	37.7	47.6	59.0	45.4	46.0	13.3	8.1	7.6	6.9	4.6	4.1	3.1	6.8	4.9	
Southeast Alaska Total	Sawlogs	601.5	514.9	418.8	394.3	435.5	270.8	333.7	296.2	194.3	171.6	174.9	154.8	183.3	150.1	100.5	79.8	84.0	
	Utility Logs	138.9	69.0	123.1	63.0	60.1	73.1	58.4	71.1	26.3	21.2	15.4	14.6	13.2	8.8	12.8	12.4	9.7	
	Total	740.4	583.9	541.9	457.3	495.6	343.9	392.1	367.2	220.6	192.8	190.3	169.4	196.5	158.9	113.3	92.2	93.7	
Southcentral Alaska (MMBF)																			
Chugach N. F.	Sawlogs	1.7	0.0	1.1	1.3	0.8	0.8	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Utility Logs	0.0	6.5	0.8	2.0	1.4	0.7	0.3	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.2	0.3	0.1	
State of Alaska ²	Sawlogs	0.0	0.0	2.6	8.1	8.6	5.0	5.4	0.0	2.1	0.4	0.8	1.3	2.8	0.1	0.0	0.0	0.5	
	Utility Logs	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.8	0.0	0	14.1	2.7	0.5	0.6	0.0	0.0	1.7	
BIA	Sawlogs and Utility	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Alaska Native Corporations ³	Sawlogs and Utility	127.2	186.0	230.1	207.6	237.1	172.2	139.9	56.3	71.3	83.0	32.2	21.3	16.3	3.1	0.1	0.1	0.8	
Southcentral Alaska Total	Sawlogs and Utility	128.9	192.5	234.3	219.0	247.9	178.8	145.7	58.3	73.8	84.9	47.1	25.3	19.6	3.8	0.3	0.4	3.1	
Alaskan Imports (MMBF) ⁴																			
	Logs and timber	1.9	4.4	11.1	3.9	0.0	0.0	0.0	0.1	3.2	1.7	0.1	2.6	1.7	7.7	7.8	1.1	0.0	
	Pulpwood	18.1	22.9	126.8	53.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Chips, sawdust	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.2	

Source: USDA Forest Service, Alaska Region. Data on file with: Regional Economist, Ecosystems Planning, USDA Forest Service, PO Box 21628, Juneau, AK 99802-1628.

1. National Forest and Bureau of Indian Affairs harvests reported for fiscal years. All other ownerships reported in calendar years.
2. Harvests from Alaska Mental Health Trust and University of Alaska lands omitted prior to 2000. The Mental Health Trust Land Office is a state office, but the lands are regulated more like private lands, such as the application of forest practice regulations, and public access.

3. Estimated by telephone survey. Metric tons converted to log scale at a ratio of 2.7 tons per MBF.
4. Compiled from trade statistics available from the U.S. Department of Commerce. Metric tons converted to log scale at a ratio of 2.7 tons per MBF. The chips and sawdust category includes pellets and wood chip briquettes.

Table A-7. Exports of Softwood Logs and Lumber from Alaska (Anchorage Customs District), CY 1994-2009.

Softwood Logs (MBF Scribner, \$/MBF)								
	All Species		Hemlock		Redcedar		Spruce	
	Volume	Average Value	Volume	Average Value	Volume	Average Value	Volume	Average Value
1994	525,404	739.45	200,129	579.34	39,563	647.25	240,323	811.57
1995	561,550	695.12	250,659	539.02	40,685	652.43	228,615	779.98
1996	530,147	705.98	223,519	537.02	22,632	678.28	257,254	817.34
1997	541,667	642.25	202,517	480.10	37,305	806.85	259,601	733.15
1998	325,386	473.55	72,186	443.51	15,232	791.62	133,334	626.71
1999	427,970	455.70	125,779	408.47	17,687	684.56	172,435	552.20
2000	436,178	426.35	127,861	403.79	22,246	766.73	148,906	541.69
2001	320,615	424.03	108,563	355.95	11,389	694.51	119,288	547.01
2002	286,976	409.70	79,406	398.67	10,820	726.22	153,548	434.34
2003	305,588	456.62	85,094	438.80	12,936	763.28	190,003	430.18
2004	175,281	552.35	50,637	490.39	7,785	804.57	104,118	576.07
2005	216,021	561.74	52,048	495.90	9,962	778.22	141,508	557.69
2006	254,053	423.30	57,967	491.19	6,299	750.70	177,427	379.20
2007	206,456	394.43	30,547	543.05	8,442	940.23	151,925	332.09
2008	203,617	383.42	30,979	540.21	8,980	815.33	144,096	339.90
2009	204,866	412.82	44,181	490.94	4,593	721.14	147,659	364.23

Softwood Lumber (MBF lumber tally, \$/MBF)

	Total		Western hemlock		Sitka Spruce		Cedar		Other Softwoods	
	Volume	Average Value	Volume	Average Value	Volume	Average Value	Volume	Average Value	Volume	Average Value
		Volume		Value		Volume		Value		Volume
1994	111,836	561.28	68,839	468.11	42,679	713.84	0	--	318	254.72
1995	50,379	775.01	28,367	608.59	20,352	1,010.91	1,407	817.34	253	221.34
1996	26,854	715.05	14,831	557.28	11,934	914.09	20	688.30	69	204.08
1997	32,764	599.48	18,524	499.05	13,093	759.35	84	100.11	1,063	420.12
1998	9,048	460.22	4,447	386.06	3,874	540.98	261	392.86	466	534.46
1999	14,674	735.78	1,492	371.20	8,624	682.96	0	--	4,558	955.05
2000	3,609	901.62	0	--	3,254	854.45	278	1235.94	77	1691.68
2001	3,292	208.21	0	--	3,247	200.58	0	--	44	770.89
2002 ¹	85	49.56	0	--	0	--	0	--	85	49.56
2003	1,217	1,023.87	0	--	1,217	1,023.87	0	--	0	--
2004	1,825	1,087.76	0	--	1,825	1,087.76	0	--	0	--
2005	2,669	561.78	0	--	2,669	561.78	0	--	0	--
2006	2,166	1,005.35	0	--	2,166	1,005.35	0	--	0	--
2007	1,761	1,222.79	0	--	1,761	1,222.79	0	--	0	--
2008	118	732.33	0	--	0	--	0	--	118	732.33
2009	176	898.40	0	--	3	1,442.26	0	--	53	529.97

Source: Warren 2010.

1. Inconsistencies may result in 2002, 2008 and 2009 due to low export volumes reported.

Table A-8. Woodchip Exports from U.S. West Coast customs districts, CY 1999-2009

Wood Chips (In short tons, on a dry-weight basis; value in dollars per short ton)								
	Seattle		Columbia-Snake		San Francisco		Anchorage	
	Volume	Average Value	Volume	Average Value	Volume	Average Value	Volume	Average Value
1999	753,147	60.51	1,024,223	82.64	285,740	90.57	131,699	41.75
2000	461,874	78.54	992,062	94.01	237,781	87.11	178,461	41.03
2001	353,074	86.00	856,164	96.58	166,558	90.59	154,880	61.28
2002	262,395	71.10	893,185	84.31	109,049	75.50	98,535	68.85
2003	252,050	82.58	760,965	82.39	63,037	69.10	109,621	49.66
2004	330,760	62.28	744,356	75.89	34,122	69.25	48,848	50.43
2005	421,042	61.44	918,475	83.71	26,470	76.78	113,922	62.82
2006	198,292	47.57	841,646	92.67	3,684	52.72	6,442	44.58
2007	410,625	48.48	863,947	119.43	4,553	39.08	20 ¹	214.43
2008	329,719	51.08	1,120,344	97.35	8,124	46.52	25	156.75
2009	160,849	58.16	1,013,598	55.78	8,971	40.43	6,539	43.55

1. HTC 4401.30.0000, "sawdust and wood waste and scrap" is the only chip product shipped from the Anchorage CD in 2007. It went to Canada; the original data are 18,289 kg at a total value of \$4,323. In 2008, 25 tons of wood chips were exported to Vietnam from Alaska.

Source: U.S. Department of Commerce 2010, at <http://dataweb.usitc.gov/> (accessed August 2010) and Warren 2010. The valuation definition used in the export statistics is the value at the seaport or border port of exportation. It is based on the selling price (or cost if not sold) and includes inland freight, insurance, and other charges to the port of exportation. Seattle Customs District includes all ports in the State of Washington, except Longview and Vancouver. Columbia-Snake Customs District includes all Oregon ports and Longview and Vancouver, Washington. San Francisco Customs District includes all coastal and inland ports in the State of California from Monterey north. The Anchorage Customs District is the State of Alaska.

Table A-9. Value of Exports from Alaska (Anchorage Customs District) by Product and Country, CY 2000-2009, in \$1,000 US (unadjusted).

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<u>Logs</u>										
Canada	19,501	12,385	10,694	9,537	1,097	502	833	1,861	2,630	1,678
China	2,582	6,069	3,664	2,484	2,544	7,120	7,748	13,703	19,064	39,907
Japan	118,120	83,316	62,552	75,090	50,964	57,933	37,134	36,803	28,982	22,538
Korea	35,817	30,594	35,033	48,636	37,177	51,136	57,395	27,013	23,711	18,175
Taiwan	8,137	3,584	4,618	2,646	2,936	4,659	2,414	2,895	2,340	2,494
Other	1,865	0	1,028	1,189	0	0	2,015	51	1,975	4
Total	186,021	135,948	117,589	139,582	94,520	121,351	107,539	82,327	78,701	84,796
<u>Sawnwood</u>										
Canada	544	0	0	0	0	0	0	0	0	0
Japan	2,714	651	64	1,488	2,123	3,322	2,817	2,149	10	0
Other	0	0	4	33	0	27	23	4	76	158
Total	3,259	651	69	1,521	2,123	3,349	2,839	2,153	86	158
<u>Chips and Sawdust</u>										
Canada	6,142	3,954	1,915	909	1,097	1,136	287	4	0	0
Japan	1,930	5,615	4,974	4,661	1,537	2,442	3	0	0	0
Other	9,404	1,388	0	0	12	3,734	0	0	4	24
Total	17,475	10,958	6,889	5,570	2,645	7,312	290	4	4	24
<u>Other Wood Products</u>										
Canada	5	10	166	51	54	71	3	13	3	0
Hong Kong	175	226	389	341	351	206	237	112	82	350
Japan	432	929	574	1,932	762	269	600	598	487	427
Korea	807	304	131	1,403	623	28	335	188	102	50
Taiwan	23	179	98	140	125	35	126	20	71	153
Other	154	174	801	1,315	651	258	541	297	668	505
Total	1,595	1,822	2,159	5,182	2,566	867	1,841	1,230	1,413	1,485
<u>Grand Total</u>										
Canada	26,192	16,349	12,775	10,496	2,050	1,709	1,123	1,879	2,633	1,678
China	2,582	6,106	4,230	3,279	2,810	7,277	8,038	13,855	19,456	40,209
Hong Kong	175	340	393	1,527	363	211	237	112	82	355
Japan	123,195	90,568	68,164	83,171	55,387	63,966	40,554	39,551	29,469	22,965
Korea	36,623	30,949	35,164	50,039	37,800	54,894	57,730	27,201	23,812	18,225
Taiwan	8,944	3,763	4,716	2,786	3,061	4,694	2,546	2,915	2,414	2,647
Other	11,423	1,561	1,264	556	384	128	2,282	195	2,255	226
Total	209,134	149,636	126,705	151,854	101,855	132,879	112,510	85,714	80,121	86,305

Source: U.S. Department of Commerce 2010 (<http://dataweb.usitc.gov/>, accessed August 2010), and Warren 2010.

Sums do not match due to round-off error and omission of minor categories.

Table A-10. Tongass National Forest current contracts and remaining volume under contract as of September 30, 2009; summary by purchaser¹

Purchaser Name	Original Volume Estimate (MBF)	Volume Cut (MBF)	Remaining Volume (MBF)
Alcan Forest Products LLP	18,641	5156	13,485
Brent Cole	78	46	32
Coeur Alaska, Inc	2,077	814	1,264
Commercial Firewood	24	0	24
CSL Farm and Supply	470	28	442
Custom Cut LLC	503	5	498
DOT/PF State of Alaska	3,601	0	3,601
D&L Woodworks	233	62	172
Ernie Eads	1,141	310	831
Four Dam Pool Power Agency	1,902	1,902	0
Gordon Chew	173	0	173
H&L Salvage Inc	1,510	495	1,015
Icy Straits Lumber and Mill	9,771	120	9,652
James Harrison	695	217	478
Jerod Cook	151	71	81
Keith Dahl	1,393	494	899
Larry Trumble	6	2	4
Last Chance Enterprises	101	39	62
Michael Allen	4,963	3,247	1,716
Michael Johnson	79	0	79
Norsemen Wood	4,518	753	3,765
Pacific Log and Lumber Ltd	51,566	25,799	25,796
Porter Lumber	140	0	140
R&R Conner Inc	1,106	9	1,097
Richard Blauvelt	49	49	0
Scott Hill Skyline Logging	493	0	493
SE Alaska Wood Products	429	0	429
Sharp Lumber	1,355	114	1,241
Steve Little	160	0	160
TM Construction, Inc	131	0	131
Viking Lumber Co.	102,649	87,295	15,354
Vincent S. Schafer	90	16	74
William Kaufman	24	18	6
William Thomason	1,263	39	1,224
Total	211,569	127,123	84,446

1. All volumes rounded to nearest MBF. "Volume Cut" represents total volume cut from all open contracts held by the purchaser, regardless of the year any individual contract was awarded. "Volume Cut" can potentially include harvested volume over several years time for any given purchaser.