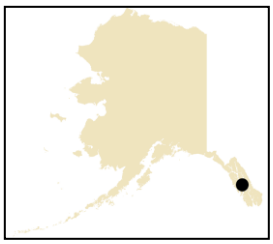
Kake *(CAKE)*



People and Place

Location [1]

Kake is located on the northwest coast of Kupreanof Island along Keku Strait, 38 air miles northwest of Petersburg and 95 air miles southwest of Juneau. As of the 2010 Decennial Census, Kake was located in the Petersburg Census Area. However, a majority of the Petersburg Census Area was included in the formation of the new City and Borough of Petersburg in January, 2013. Kake was not included within the area of the new Borough, and as of late 2013, Census Areas were still being redrawn. Kake is located in the Petersburg Recording District. The area encompasses 8.2 square miles of land and 6.0 square miles of water.

Demographic Profile [2]

In 2010, there were 557 residents in Kake, making it the 108th largest of 352 total Alaskan communities with populations recorded that year. Overall between 1990 and 2010, the population decreased by 20.4%. According to Alaska Department of Labor statistics, between 2000 and 2009, the average annual growth rate was -3.24%, reflecting a steady decline in population during the decade. In 2010, a majority of Kake residents identified themselves as American Indian and Alaska Native (69.1%), while 17.1% identified themselves as White, and 12.2% identified with two or more races. That year, 1.8% of residents also identified themselves as Hispanic. The change in population from 1990 to 2010 is provided in Table 1 below, and changes in racial and ethnic composition from 2000 to 2010 are shown in Figure 1.

In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders noted that yearly population fluctuations are mostly driven by employment in fishing sectors. They indicated that the population of Kake peaks during summer months (June through August), when 50 seasonal workers are present in town. In addition, community leaders reported that 30 local Kake residents also work in the shore-side processing plant.

The average household size in Kake decreased over the 1990-2010 period, from 3.10 persons per household in 1990 to 2.88 in 2000, and 2.62 in 2010. The number of occupied housing units initially increased from 220 in 1990 to 246 in 2000, and then decreased to 213 by 2010. Of the 290 total housing units surveyed for the 2010 U.S. Census, 51% were owner-occupied, 22% were rented, and 27% were vacant or used only seasonally. Between 1990 and 2010, the number of Kake residents living in group quarters varied between zero and nine.

[1] Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

[2] U.S. Census Bureau (n.d.). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2000 (SF1 100% and SF3 sample data) and 2010 (Demographic Profile SF) Decennial Census and the 2010 American Community Survey 5-year estimates. Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

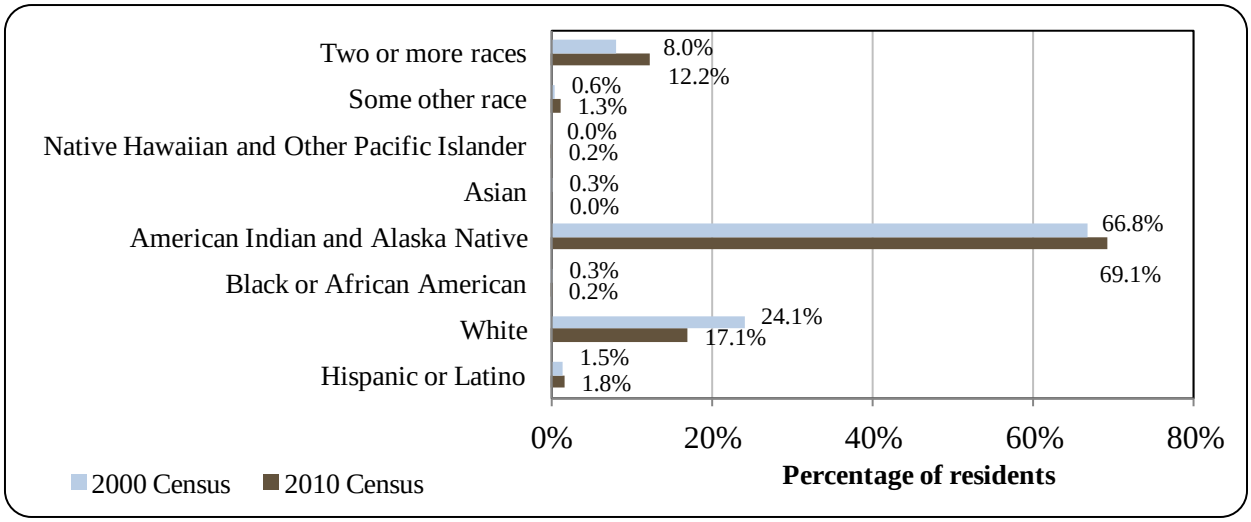
Table 1. Population in Kake from 1990 to 2010 by Source.

Year	U.S. Decennial Census[1]	Alaska Dept. of Labor Estimate of Permanent Residents[2]
1990	700	-
2000	710	-
2001	-	694
2002	-	698
2003	-	680
2004	-	659
2005	-	598
2006	-	536
2007	-	534
2008	-	519
2009	-	497
2010	557	-

[1] (1) U.S. Census Bureau (1990). *CP-1: General Population Characteristics of all places within Alaska*. Retrieved November 1, 2011 from http://www.census.gov/prod/www/abs/decennial/1990.html. (2) U.S. Census Bureau (n.d.). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2000 (SF1 100% and SF3 sample data) and 2010 (Demographic Profile SF) Decennial Census and the 2010 American Community Survey 5-year estimates. Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

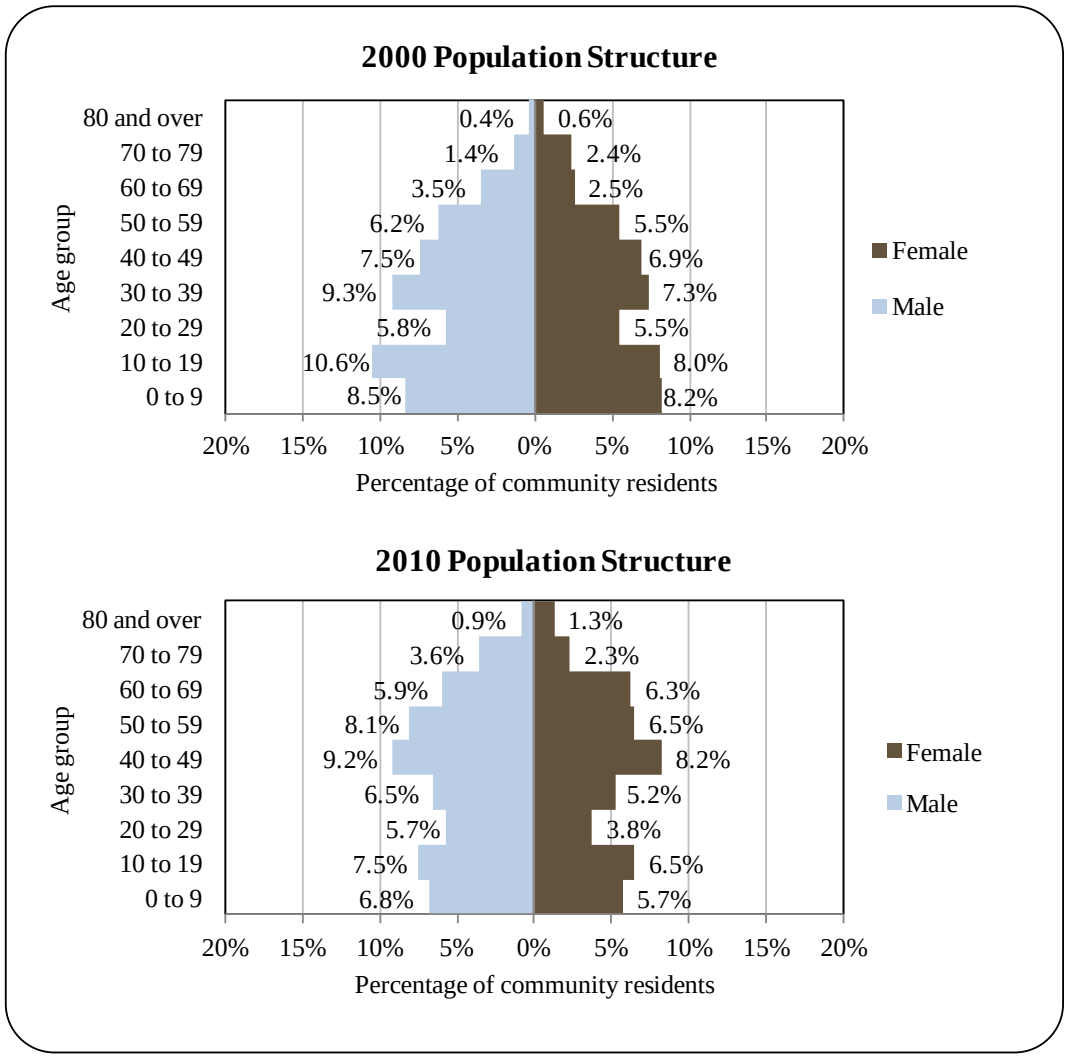
[2] Alaska Department of Labor. (2011). *Current population estimates for Alaskan Communities*. Retrieved April 15, 2011, from http://labor.alaska.gov/research/pop/popest.htm.

Figure 1. Racial and Ethnic Composition, Kake: 2000-2010 (U.S. Census).



In 2010, the gender makeup of Kake's population (54.2% male and 45.8% female) was more skewed toward males than the population of Alaska as a whole, which was 52% male and 48% female. The median age was estimated to be 41.6 years, higher than both the U.S. national average of 36.8 years and the median age for Alaska, 33.8 years. In 2010, 20.3% of the Kake population was age 60 or older. The overall population structure of Kake in 2000 and 2010 is shown in Figure 2.

Figure 2. Population Age Structure in Kake Based on the 2000 and 2010 U.S. Decennial Census.



In terms of educational attainment, the U.S. Census' 2006-2010 American Community Survey (ACS)[3] estimated that 87.2% of residents aged 25 and over held a high school diploma or higher degree in 2010, compared to an estimated 90.7% of Alaskan residents overall. Also in that year, 2.6% had less than a 9th grade education, compared to an estimated 3.5% of Alaskan residents overall; an estimated 10.2% had a 9th to 12th grade education but no diploma, compared to an estimated 5.8% of Alaskan residents overall; an estimated 23% had some college but no degree, compared to an estimated 28.3% of Alaskan residents overall; 10.2% held a Bachelor's degree, compared to an estimated 17.4% of Alaskan residents overall; and 9.5% held graduate or professional degrees, compared to an estimated 9.6% of Alaskan residents overall.

[3] While ACS estimates can provide a good snap shot estimate for larger populations, smaller populations can be misrepresented by ACS estimates if demographic information is not collected from a representative sample of the population. This is especially problematic for Alaskan communities with small populations that have a low probability of being adequately sampled.

History, Traditional Knowledge, and Culture

Historically, Tlingit people of the Kake (Keex) Kwaan[4] claimed 2,003,000 acres of territory, including the upper halves of Kuiu, Kupreanof, and Mitkof Island, the eastern shore of Baranof Island and the southern shore of Admiralty Island.[5] The Kake people controlled trade routes around Kuiu and Kupreanof islands and defended their territory against other tribal groups in the region.[6] In the 1800s, the Tlingits were known to travel by canoe as far south as Puget Sound for trading, seasonal work, and raiding missions.[7] Ventures into the region by early European explorers and traders resulted in occasional skirmishes between Native Tlingits and foreigners. Tensions between locals and outsiders had been escalating when, in 1869, a non-Native sentry at the settlement in Sitka shot and killed a Kake Native. In accordance with their traditional custom, the Kakes then killed two prospectors in retribution. In reprisal, the U.S. Navy sent the USS Saginaw to punish the Kakes by shelling several villages and destroying their homes, boats, and stored foods.[8] Following this onslaught, the inhabitants of multiple village sites consolidated at the current site of Kake. The U.S. government required further consolidation of the Kake villages in the 1880s in order to provide the people with services such as schools and clinics. According to the 1880 U.S. Census, prior to government consolidation at Kake, there were at least five Kake villages, including locations on Kupreanof and Kuiu Islands, on the mainland at Port Houghton, and on Admiralty Island at Seymore Canal, with a total combined population of 568.[9]

A government school and store were built in Kake in 1891. A Society of Friends mission was also established that year. A post office was built in 1904.[10] In 1912, the first cannery was built near Kake. After the Second World War, timber harvesting and processing became a major local industry.[11] In 1952, Kake became an 'Incorporated State Municipality,' building on the local tradition of city government begun in 1913 by a group of Kakes who established a city council under a territorial act.[12] Today, Kake remains a primarily Tlingit village with a fishing, logging, and subsistence lifestyle. Traditional customs are important to the Kakes. The world's largest totem pole was commissioned by Kake and carved by Chilkats in 1967 for the centennial celebration of the United States' purchase of Alaska. The 132-foot totem pole now stands on a bluff overlooking town. Sale of alcohol is restricted to the city-owned package store.[13]

[4] 'Keex' in Tlingit is pronounced similar to 'Kake' in English. 'Kwaan' is a Tlingit socio-geographical term meaning "inhabitants of," literally a contraction of the Tlingit verb "to dwell." It is most commonly used to refer to a geographic region consisting of those areas controlled by clans or house groups residing in a single winter village or several closely situated winter villages (Source: Thornton, Thomas. 1997. "Know Your Place: The Organization of Tlingit Geographic Knowledge." *Ethnology*, Vol. 36, No. 4, pp. 295-307.)
[5] Walter R. and Theodore H. Haas Goldschmidt. 1998. *Haa Aaní, Our Land: Tlingit and Haida Land Rights and Use*, ed. Thomas F. Thornton. Seattle, WA: University of Washington Press.
[6] Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.
[7] Rosita Worl, "History of Southeastern Alaska since 1867," in *Northwest Coast*, ed. Wayne Suttles, *Handbook of Northamerican Indians* (Washington D.C.: Smithsonian Institute Press, 1990). pg. 223.
[8] See footnote 6.
[9] Krause, Aurel. 1956. *The Tlingit Indians: Results of a Trip to the Northwest Coast of America and the Bering Straits.* Trans. Erna Gunther. University of Washington Press, Seattle, WA.
[10] See footnote 6.
[11] Ibid.
[12] Case, D., and D. Voluck. 2002. *Alaska Natives and American Laws.* 2nd Ed. Univ. of Alaska Press, Fairbanks.
[13] See footnote 6.

Natural Resources and Environment

Kake has a maritime climate characterized by cool summers and mild winters. It receives much less precipitation than is typical of Southeast Alaska, averaging 54 inches a year, with 44 inches of snow. Average summer temperatures range from 44 to 62 °F and winter temperatures average 26 to 43 °F. Temperature extremes have been recorded from -14 to 88 °F. Second-growth forest following timber harvest are found along road systems and shorelines. The old-growth forests in other areas of Kupreanof Island is composed of 80% western hemlock along with smaller percentages of Sitka spruce, mountain hemlock, Alaska yellow cedar, and western red cedar. Kupreanof Island hosts the northernmost stand of western red cedar on the west coast. Kupreanof Island also has several large areas of muskeg. The Island is characterized by relatively low elevation and rolling hills, with a few small mountain ranges.[14]

Kupreanof Island is home to Sitka black-tailed deer, moose, black bears, wolves, and a variety of small furbearers. A large number of birds reside or migrate through the area. Bats are present during summer months and may overwinter. Amphibians include the rough-skinned newt and western toad. Marine mammals known to inhabit in waters surrounding Kupreanof Island include Pacific white-sided dolphin, orca whale, harbor porpoise, Dall's porpoise, humpback whale, Steller sea lion, and harbor seal.[15] Common fish species in Southeast Alaska include Pacific halibut, all five species of Pacific salmon, herring, Pacific lamprey, lingcod, Atka mackerel, Walleye pollock, black and yelloweye rockfish, sablefish, salmon sharks, smelt, cutthroat trout, steelhead trout, and Dolly Varden.[16]

The City of Kake and Kake Tribal Corporation lands are within the boundary of the Tongass National Forest, and adjacent to Tongass National Forest lands. At 16.8 million acres, the Tongass is the largest National Forest in the U.S. Approximately 95% of Southeast Alaska is federal land, of which 80% is National Forest. It includes almost 11,000 miles of meandering island and mainland shorelines. It is managed to produce resource values, products and services in a way that also sustains the diversity and productivity of ecosystems, including viable populations of native and some non-native species and their habitats, sustainable fish and wildlife populations, recreational opportunities, hunting, trapping and game viewing opportunities, aquatic habitat quality, scenic quality, and subsistence opportunities for rural residents.[17] National Forest lands surrounding Kake on Kupreanof and Kuiu Islands are primarily designated for timber production, as well as Modified Landscape, Transportation and Utility System, Old-growth Habitat, Semi-remote Recreation, and Municipal Watershed land-use designations.[18,19] Two roadless areas are located in the vicinity of Kake, including the 99,526-acre North Kupreanof Roadless Area and 79,103-acre Rocky Pass Roadless Area.[20]

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[14] U.S. Forest Service. 2000. *Kupreanof Island Analysis*. Retrieved August 14, 2012 from http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsbdev2_037806.pdf.
[15] Tongass National Forest website. (n.d.). *Roadless Area Maps & Descriptions – North Kupreanof Roadless Area*. Retrieved April 13, 2012 from http://www.tongass-seis.net/roadless.html.
[16] Alaska Dept. of Fish and Game (n.d.). *Species: Fish*. Retrieved February 14, 2012 from http://www.adfg.alaska.gov/index.cfm?ADFG=animals.listfish.
[17] U.S. Forest Service. (2008). *Tongass National Forest: Land and Resource Management Plan*. Retrieved March 29, 2012 from http://tongass-fpadjust.net/Documents/2008_Forest_Plan.pdf.
[18] U.S. Forest Service. 2003. *Map of Current Land Use Designations*. Tongass National Forest Land Management Plan Revision, Final SEIS. Retrieved May 8, 2012 from http://www.tongass-seis.net/pdf/lud.pdf.
[19] See footnote 15.
[20] Tongass National Forest website. (n.d.). *Roadless Area Maps & Descriptions*. Retrieved April 13, 2012 from http://www.tongass-seis.net/roadless.html.

The status of roadless areas in the Tongass National Forest has been a controversial issue in recent years. The Roadless Area Conservation Rule (RACR) was instated in 2001, prohibiting road construction and timber harvesting in 58.5 million acres of roadless areas in the National Forest System. Lawsuits were filed following the RACR, and an exemption was granted for the Tongass National Forests in 2003. A coalition of Alaska Natives, recreation groups, and environmental groups filed a lawsuit in 2009 seeking to reinstate the rule, and on March 4, 2011, the Tongass Exemption was repealed. As of 2012, the RACR applies to roadless areas in the Tongass National Forest.[21]

Logging has been an important economic driver in the Kake area. Turn Mountain Timber – a joint venture between Whitestone Logging and Kake Tribal Corporation – employed residents in logging on tribal lands.[22] In addition to timber harvest on Native corporation lands, the U.S. Forest Service offers yearly timber sales on central and northern Kupreanof Island, and manages some areas of Kuiu Island for timber harvest as well.[23]

Protected areas near Kake include Admiralty Island National Monument which includes the Kootznoowoo Wilderness, several other Wilderness Areas, and Security Bay State Marine Park. Admiralty Island was declared a National Monument in 1978, and all but the northern end was designated as the Kootzoowoo Wilderness in 1980 under the Alaska National Interest Land Conservation Act (ANILCA). The area totals 952,255 acres.[24] Kootzoowoo is Tlingit for "Bear Fort" or "Fortress of the Bears," an apt name for an Island that hosts the greatest concentration of brown bears in the world – more than all the Lower 48 states combined.[25] A 26-mi canoe trail crosses through the Kootznoowoo Wilderness, including 9 miles of portages.[26]

Three other designated Wilderness Areas within the Tongass National Forest are located near Kake. These include the Petersburg Creek/Duncan Salt Chuck Wilderness Area (40,849 acres) in the central/eastern portion of Kupreanof Island, and two in the south-central portion of Kuiu Island, Kuiu Wilderness Area (60,518 acres) and Tebenkof Bay Wilderness Area adjacent to the north (66,182 acres).[27] These wilderness areas offer opportunities for hiking, camping, boating, recreational fishing, and wildlife viewing. In addition, Security Bay State Marine Park is located about 20 miles west of Kake on the north end of Kuiu Island. The Bay provides a safe anchorage for vessels.[28] State Marine Parks are intended to protect natural habitat, and do not restrict fishing activity.[29]

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[21] U.S. Forest Service. August 2011. *Status of Roadless Area Conservation Rule*. Retrieved September 11, 2012 from http://www.fs.fed.us/biology/resources/pubs/issuepapers/issuepaper_RoadlessRules-201108.pdf.
[22] NOAA Fisheries. 2006. *Environmental Assessment – Alaska Coastal Management Plan*. Retrieved August 17, 2012 from http://coastalmanagement.noaa.gov/assessments/docs/akea1.pdf.
[23] U.S. Forest Service. (2011). *Tongass National Forest: Forest Timber Sale Schedule and Integrated Service Timber Contract Plan – FSM 2431.21*. Retrieved July 13, 2012 from http://www.fs.usda.gov.
[24] Wilderness.net website. (n.d.). *Kootznoowoo Wilderness*. Retrieved August 17, 2012 from http://www.wilderness.net.
[25] U.S. Forest Service. (2011). *Admiralty Island National Monument*. Retrieved August 17, 2012 from http://www.fs.fed.us/r10/tongass/districts/admiralty/index.shtml.
[26] See footnote 24.
[27] Wilderness.net. (n.d.). *Tebenkof Bay Wilderness, Kuiu Wilderness, and Petersburg Creek/Duncan Salt Chuck Wilderness*. Retrieved April 19, 2012 from http://www.wilderness.net/index.cfm?fuse=NWPS&sec=AtoZ.
[28] Alaska Dept. of Natural Resources, Division of Parks and Outdoor Recreation. (2011). *Security Bay State Marine Park.* Retrieved August 17, 2012 from http://dnr.alaska.gov/parks/units/sitka.htm#security.
[29] Alaska Dept. of Fish and Game Marine Protected Area Task Force. 2002. *Marine Protected Areas in Alaska: Recommendations for a Public Process*. Regional Information Report 5J02-08. Retrieved April 13, 2012 from http://www.adfg.alaska.gov/static/lands/protectedareas/pdfs/5j02-08.pdf.

Like many other communities in Southeast Alaska, interest in gold mining brought many newcomers to Kake in the late 19th century. A unnamed barite mine operated from the 1960s into the 1970s southwest of Kake on Kupreanof Island, near Castle River. Current valid mining claims exist in the Castle River area. Information from the U.S. Bureau of Mines indicates the Duncan Canal/Zarembo Island mineral tract has a moderate to high mineral development potential for barite, zinc, lead, and silver. In addition, the U.S. Bureau of Land Management (BLM) lists the Tunehean Creek area (south of Kake, near the south end of Rocky Pass) as a potential area for mineral extraction for copper and molybdenum, although no known claims or patented claims exist. The BLM also notes potential for mineral extraction of sedimentary uranium in the area adjacent to the Cathedral Falls Creek corridor, just south of Kake near Hamilton Bay.[30]

Natural hazards in the Kake area include risk of severe weather, storm surge, flooding, shoreline erosion, sea level rise, subsidence, earthquake and tsunami, and avalanche and landslides. Isostatic rebound is taking place throughout Southeast Alaska due to recent retreat of glaciers. This can result in acceleration of erosion caused by rivers and streams, and may also cause streams to dry up if they rise above the water table. In addition, isostatic rebound may outweigh the effects of sea level rise in this area.[31]

According to the Alaska Department of Environmental Conservation, there are no notable active environmental cleanup sites located in Kake as of October, 2012.[32]

Current Economy[33]

Since long before the arrival of Europeans to the region, Kake's economy has been based on utilization of forest and fisheries resources and subsistence harvest activities. According to a survey conducted by the AFSC in 2011, community leaders indicated that the current economy is dependent on logging, fishing, ecotourism, and sport hunting and fishing. In addition to logging and fishing, subsistence harvest remains essential to the local way of life. In the survey, community leaders listed deer, halibut, salmon, and black seaweed as four of the most important subsistence resources. Shellfish, bear, waterfowl, and berries are also important food sources.[34]

Top employers in Kake include the City, the school district, and Kake Tribal Corporation.[35] With regard to commercial fisheries, in 2010, 79 Kake residents held state fishing permits, equivalent to 14% of the total local population, and 38 residents held commercial crew licenses. The non-profit Gunnuk Creek Hatchery has assisted in sustaining the salmon fishery, and provides some local employment. From 2000 to 2010, between zero and two shore-side processing facilities were in operation in Kake per year (see *Processing Plants* section).

[30] Tongass National Forest website. (n.d.). *Roadless Area Maps & Descriptions – North Kupreanof Roadless Area*. Retrieved April 13, 2012 from http://www.tongass-seis.net/roadless.html.
[31] Alaska Dept. of Natural Resources. 2005. *High Priority Coastal Hazards*. Retrieved April 19, 2012 from http://www.alaskacoast.state.ak.us/ACMPGrants/EGS_05/pdfs/CoastalHazards.pdf.
[32] Alaska Dept. of Environmental Conservation. 2012. *List of Contaminated Site Summaries By Region*. Retrieved October 18, 2012 from http://dec.alaska.gov/spar/csp/list.htm.
[33] Unless otherwise noted, all monetary data are reported in nominal values.
[34] Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.
[35] Ibid.

Based on household surveys conducted for the 2006-2010 ACS,[36] in 2010, the per capita income in Kake was estimated to be $22,844 and the median household income was estimated to be $39,625. This represents an increase from the per capita and median household incomes reported in the year 2000 ($17,411 and $39,643, respectively). However, if inflation is taken into account by converting the 2000 values to 2010 dollars,[37] per capita income is shown to have remained relatively stable (real per capita income in 2000 was $22,895), while median household income is shown to have decreased slightly, from a real median household income in 2000 was of $52,130. In 2010, Kake ranked 128th of 305 Alaskan communities with per capita income data, and 192nd in median household income, out of 299 Alaskan communities with household income data that year.

Kake's small population size may have prevented the ACS from accurately portraying economic conditions.[38] An alternative estimate of per capita income is provided by economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). If total wages reported in the ALARI database for 2010 are divided by the 2010 population reported by the U.S. Census, the resulting per capita income estimate for Kake in 2010 is $9,582.[39,40] This is lower than the 2006-2010 ACS estimate, suggesting that caution is warranted when citing per capita income stability in Kake from 2000 to 2010. It should be noted that both ACS and DOLWD data are based on wage earnings, and these income statistics do not take into account the value of subsistence within the local economy.

Kake did not meet the Denali Commission's primary criteria as a "distressed community" in 2010. However, Kake did make a list of additional communities that meet the distressed classification when a plus/minus 3% formula is used.[41]

Based on the 2006-2010 ACS, in 2010, a slightly lower percentage of Kake residents was estimated to be in the civilian labor force (63.8%) than in the civilian labor force statewide (68.8%). In the same year, 17.6% of local residents were estimated to be living below the poverty line, compared to 9.5% of Alaskan residents overall, and the unemployment rate was estimated to be 10.7%, twice the statewide unemployment rate of 5.9%. An additional estimate of unemployment is based on the ALARI database, which indicates a much higher rate of unemployment in 2010 of 54.7%, compared to a statewide unemployment rate estimate of 11.5%.[42]

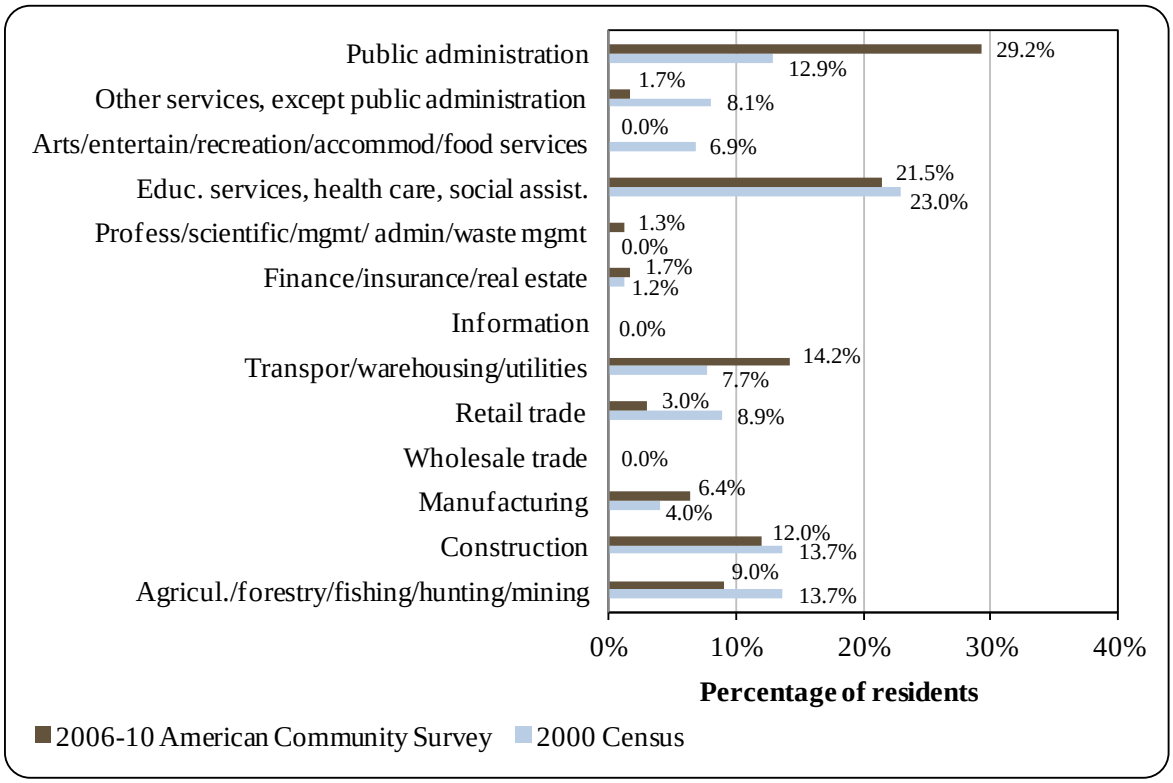
Also based on the 2006-2010 ACS, a majority of the Kake workforce (60.9%) was

[36] U.S. Census Bureau (n.d.). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2000 (SF1 100% and SF3 sample data) and 2010 (Demographic Profile SF) Decennial Census and the 2010 American Community Survey 5-year estimates. Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.
[37] Inflation was calculated using the Anchorage Consumer Price Index for 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, http://labor.alaska.gov/research/cpi/inflationcalc.htm).
[38] While ACS estimates can provide a good snap shot estimate for larger populations, smaller populations can be misrepresented by ACS estimates if demographic information is not collected from a representative sample of the population. This is especially problematic for Alaskan communities with small populations that have a low probability of being adequately sampled.
[39] Alaska Department of Labor and Workforce Development (n.d.). *Alaska Local and Regional Information Database.* Retrieved April 23, 2012 from http://live.laborstats.alaska.gov/alari/.
[40] See footnote 36.
[41] Denali Commission. (2011). *Distressed Community Criteria 2011 Update*. Retrieved April 16, 2012 from www.denali.gov.
[42] See footnote 39.

estimated to be employed in the public sector, with the remaining 39.1% in the private sector. Of the 233 people aged 16 and over that were estimated to be employed in the civilian labor force, the greatest numbers were estimated to be working public administration (29.2%), educational services, health care, and social assistance (21.5%), transportation, warehousing, and utilities (14.2%), construction (12%), and agriculture, forestry, fishing, hunting, and mining (9%). The number of individuals employed in farming, fishing, and forestry occupations and industries may be underestimated in census statistics as fishermen may hold another job and characterize their employment accordingly. This information about employment by industry is presented in Figure 3, and employment is broken down by occupation in Figure 4.

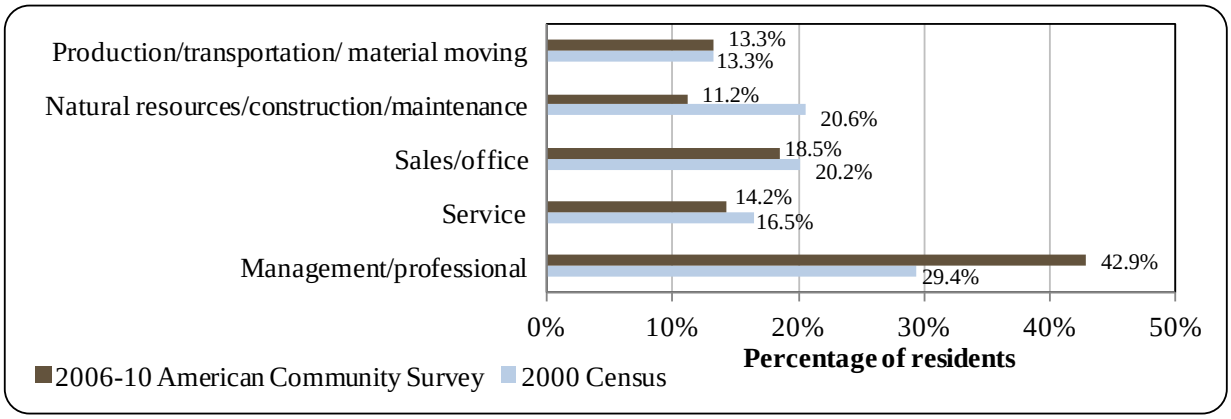
An alternative estimate of employment is provided by economic data compiled in the ALARI database, which indicate that there were 384 employed residents in 2010, of which 48% were employed in local government, 13% in trade, transportation, and utilities industries, 11% in educational and health services, 7.5% in natural resources and mining, 5.5% in professional and business services, 3.9% in construction, 2.8% in financial activities, 2% in manufacturing, 1.6% in leisure and hospitality, 0.8% in state government, 0.4% in unknown industries, and 3.5% in other industries.[43] As with income statistics, it should also be noted that ACS and DOLWD employment statistics do not reflect residents' activity in the subsistence economy.

Figure 3. Local Employment by Industry in 2000-2010, Kake (U.S. Census).



[43] Ibid.

Figure 4. Local Employment by Occupation in 2000-2010, Kake (U.S. Census).



Governance

Kake initially established a city council under a territorial act in 1913, and in 1952 formed an "Incorporated State Municipality."[44] Today, Kake is a 1st Class City, and is not located in an organized borough. The City has a manager, or "Strong Mayor," form of government, with a seven-person city council including the Mayor, a five-person advisory school board, and several municipal employees. The City administers a 5% sales tax.[45]

In addition to sales tax revenue, other locally-generated municipal revenue sources during the 2000-2010 period included building and equipment rentals, bingo and pull tab receipts, licenses and permits, rock and land sales, fees for city-operated services, and harbor and wharfage fees. Outside revenue sources included shared funds from various state and federal programs as well as grants. Shared funds from the State of Alaska included contributions from the State Revenue Sharing program (between $5,000 and $22,000 per year from 2000 to 2003) and the Community Revenue Sharing program ($120,000 per year in 2009 and 2010), as well as funds from the SAFE Communities program (for public safety, fire, utilities, etc.), fish tax refunds, and electric cooperative shared funds.

Kake also received state and federal grants in most years, a number of which were fisheries-related. These included $2.5 million from the U.S. Army Corps of Engineers in 2000 for harbor and breakwater construction, $229,945 from the Alaska Department of Transportation & Public Facilities (DOT&PF) in 2001 for breakwater construction and the seaplane float, $300,000 from the Alaska Department of Commerce, Community, and Economic Development (DCCED) in 2003 for public dock repair, an additional $300,000 in 2003 from a port facility/public docks grants, $200,000 in 2007 from the U.S. Economic Development Administration (EDA) for dock feasibility and design and $2 million in 2008 from the EDA for "dock for tourism, freight, and fisheries," $1 million from the Denali Commission in 2009 for multi-use dock construction, and $900,000 in 2009 from DOT&PF for dock and seaplane float deferred maintenance and transfer. Further information about selected aspects of Kake's municipal revenue is presented in Table 2.

[44] Case, D., and D. Voluck. 2002. *Alaska Natives and American Laws.* Second Edition. University of Alaska Press, Fairbanks.
[45] Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Kake from 2000 to 2010.

Year	Total Municipal Revenue[1]	Sales Tax Revenue[2]	State/Community Revenue Sharing[3,4]	Fisheries-Related Grants (State and Federal)[5]
2000	$1,243,224	$180,997	$5,781	$2,500,000
2001	$954,138	$164,809	$20,877	$229,945
2002	$1,074,965	$121,915	$20,892	n/a
2003	$1,064,680	$154,210	$21,398	$600,000
2004	$837,704	$193,579	n/a	$300,000
2005	$1,119,209	$131,725	n/a	$132,613
2006	$1,087,567	$157,285	n/a	$167,387
2007	$1,146,107	$221,319	n/a	$200,000
2008	$950,780	$175,437	n/a	$2,000,000
2009	$1,650,790	$175,605	$122,476	$1,900,000
2010	$2,406,778	$158,316	$120,925	n/a

[1] Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Financial Documents Delivery System*. Retrieved April 15, 2011from http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm.
[2] Alaska Dept. of Comm. and Econ. Dev. (n.d.). *Alaska Taxable (2000-2010)*. Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm.
[3] Alaska Dept. of Rev. (n.d.). *(2000-2009) Taxes and Fees Annual Report*. Retrieved April 15, 2011from https://www.tax.state.ak.us.
[4] The State Revenue Sharing program ceased in 2003 and was replaced by the Community Revenue Sharing program starting in 2009.
[5] Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Funding Database*. Retrieved April 15, 2011from http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm.

Kake was included under the Alaska Native Claims Settlement Act (ANCSA), and is federally recognized as a Native village. The authorized traditional entity, recognized by the Bureau of Indian Affairs, is the Organized Village of Kake. The local village Native corporation is Kake Tribal Corporation, which manages 23,040 acres of land. The regional Native corporation to which Kake belongs is the Sealaska Corporation.[46]

Kake is also a member of the Central Council of the Tlingit and Haida Indian Tribes of Alaska (Central Council), a tribal non-profit organization headquartered in Juneau. The Central Council was originally established to pursue Alaska Native land claims on behalf of the Tlingit and Haida people in an effort to retain a way of life strongly based on subsistence.[47] The Central Council is one of the 12 regional Alaska Native 501(c)(3) nonprofit organizations that were identified under ANCSA and charged with naming incorporators to create regional for-profit corporations. Today, these regional Native Associations receive federal funding to administer a broad range of services to villages in their regions.[48] The Central Council provides services to the Tlingit and Haida communities including employment and training, education, family, elderly, and other community services.[49]

[46] Ibid.
[47] Central Council. (n.d.) *Central Council: Tlingit and Haida Indian Tribes of Alaska Homepage*. Retrieved August 15, 2012 from http://www.ccthita.org/index.html.
[48] U.S. Government Accountability Office. 2005. *Alaska Native Villages: Report to Congressional Addressees and the Alaska Federation of Natives*. Retrieved February 7, 2012 from http://www.gao.gov/new.items/d05719.pdf.
[49] See footnote 47.

The closest offices of the Alaska Department of Fish and Game (ADF&G), the U.S. Forest Service, and an enforcement office of the National Marine Fisheries Service (NMFS) are located in Petersburg. Juneau hosts the Alaska Regional Office of the NMFS, as well as the AFSC Auke Bay laboratories. In addition, Juneau has the closest offices of the Alaska Department of Natural Resources (DNR) and DCCED. The nearest field office of the U.S. Bureau of Citizenship and Immigration Services is located in Ketchikan.

Infrastructure

Connectivity and Transportation

Kake can be reached by air and sea. There are scheduled float plane and air taxi flights from Juneau and Sitka. Kake has a state-owned 4,000 feet long by 100 feet wide lighted paved runway west of town and a seaplane base at the city dock. As of June 2012, roundtrip airfare from Anchorage to Juneau was $353.[50] Air Excursions LLC offers service between Juneau and Kake, with one daily flight during winter months and two daily flights during the summer season.[51] The cost of roundtrip travel between Juneau and Kake on Air Excusions in summer 2012 was $330 roundtrip. Each passenger on Air Excursions flights are allowed 70 pounds, and are charged 40 cents per additional pound.[52] Facilities also include a small boat harbor, boat launch, deep water dock, and state ferry terminal. Weekly state ferry and barge services are also available. As of 2012, the state ferry stopped in Kake once per week northbound and once per week southbound during the summer, with slightly expanded service during the winter season.[53] Barge service also serves Kake once per week.[54] There are about 120 miles of logging roads in the Kake area, but no connections to other communities on Kupreanof Island.[55]

Facilities

Water in Kake is pumped from a dam at Gunnuck Creek and is treated, stored in a tank, and piped throughout the City. The City also operates a piped sewer system and primary treatment plant. Almost all households are fully plumbed.[56] According to the 2011 AFSC survey, community leaders indicated that sewage treatment is currently limited to upland structures. In addition, they indicated that a city-funded restroom project was scheduled to begin in the spring of 2012. The City of Kake provides refuse collection, recycling, and hazardous waste disposal. The Inside Passage Electric Cooperative is a non-profit subdivision of the state and operates three diesel-fueled generators in Kake.[57] Studies are currently being conducted regarding the

[50] This price was calculated on November 21, 2011 using kayak.com.
[51] Air Excurions LLC. 2012. *Summer Timetable*. Retrieved August 15, 2012from http://www.airexcursions.com/schedules/AirExcursionsSummer_2012.pdf.
[52] Personal communication, Air Excursions reservations agent, August 15, 2012.
[53] Alaska Marine Highway System. 2012. *PDF Schedules*. Retrieved August 20, 2012 from http://www.dot.state.ak.us/amhs/schedule_pdf.shtml.
[54] Alaska Marine Lines. 2012. *Weekly Barge Service*. Retrieved August 20, 2012 from http://www.aml.lynden.com/shipaml/1w-southeast.html.
[55] Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.
[56] Ibid.
[57] Ibid.

feasibility of an electrical intertie project between Kake and Petersburg, where electricity is primarily sourced from hydroelectric power generation, including the Tyee Lake Hydro Facility near Ketchikan and the Crystal Lake Hydro Facility on Mitkof Island south of Petersburg. An electrical transmission line would be constructed to transmit hydroelectric electricity from Petersburg to the Inside Passage Electric Cooperative's electric system in Kake, reducing Kake's dependence on diesel electricity generation.[58]

Police services are provided by the City Police Department as well as a state trooper post in Petersburg. A State Magistrate is stationed locally. Fire and rescue services are provided by Kake Emergency Medical Services (EMS).[59] According to the 2011 AFSC survey, community leaders indicated that renovations to the police and fire departments were slated to begin in February, 2012. In addition, EMS services were scheduled for further development in 2012.

Additional community services and facilities include a Boys & Girls Club, community building, the Tlingit Haida Senior Center, one community and one school gymnasium, and a school library.[60] According to the 2011 AFSC survey, community leaders also indicated that a post office is present, telephone service is available, and broadband internet is now available on a limited basis. In addition, they noted that job placement services are available in Kake.

With regard to fisheries-related infrastructure, community leaders indicated in the 2011 AFSC survey that 1,280 feet of dock space (101 slips) is available for permanent vessel moorage in Kake, along with 914 feet of transient vessel moorage. A breakwater was completed in the last 10 years. Community leaders noted that improvements to the existing dock structure are ongoing. Current projects include construction of new dock space, pilings, and additional roads serving the dock. These improvements are planned to be completed by December 2012. Harbor dredging took place most recently in January 2012, and is planned again in December 2012. Community leaders indicated that any vessel with a draft less than 12 feet can be accommodated in the Kake harbor, including rescue vessels (i.e., Coast Guard), ferries, fuel barges, and HAZMAT vessels. They also reported that the dock is currently served by water, and upgrades are pending on electricity serving the dock, to be completed within the next 10 years. In addition, dry dock space, haul out facilities, and an Environmental Protection Agency-certified boat cleaning station are expected to be in place within the next 10 years.

In addition, community leaders indicated that fish processing plants and commercial cold storage facilities are located in the community, and that fishing gear for sport and light commercial activity are available for sale in town. Bait, tackle, ice, and boat fuel are also sold locally. When Kake residents are in need of fishing-related businesses and services not available locally, community leaders indicated that they travel to Petersburg, Juneau, or Sitka.

Medical Services

The Kake Health Center provides residents with basic medical services. Emergency Services have limited highway, marine, airport, floatplane, and helicopter access. Emergency service is provided by volunteers and a health aide.[61] The nearest hospital is located in Petersburg.

[58] Dhittle and Associates, Inc. (2009). *Kake - Petersburg Intertie Study Update. Draft Report*. Retrieved April 3, 2012 from http://www.seconference.org/pdf/KPI-Draft-050509.pdf.
[59] See footnote 55.
[60] Ibid.
[61] Ibid.

Educational Opportunities

Kake has one school offering preschool through 12th grade education. As of 2011, the total number of students attending Kake Elementary and High School was 86 students, with 11 teachers.[62]

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

The Tlingit people historically had fish camps in Kake and the surrounding area, and subsistence harvest of fisheries resources was a foundation of life in the region.[63] Halibut, salmon, cod, and herring were of particular importance to the Tlingit historically. Seal were also hunted for their hides, meat, and oil.[64] More details about historical subsistence practices are presented in the *Subsistence Fisheries* section below.

Commercial harvest of salmon began in Southeast Alaska in the late 1870s.[65] In the 1880s, a commercial fishery began for halibut in the inside waters of Southeast Alaska, with sablefish targeted as a secondary fishery.[66] The first cannery was built at Kake in 1912.[67] Kake fishers became involved in the industry as both independent and company fishermen. Some Kake residents also worked in the canneries, as well as on fish traps prior to the statewide ban of fish traps at the time of Alaska Statehood.[68] The tribal government eventually opened and operated the Kake cannery. Along with other tribally operated canneries at Angoon, Klawock, and Hydaburg, the Kake cannery struggled over the years to survive in the changing economic climate facing the salmon fishing industry.[69]

In the 1990s, the ANCSA village corporation, Kake Tribal, began investing in the fish processing industry, operating the community's cold storage facility and developing a fish smokery. Kake Tribal also invested in another Southeast Alaska community, Pelican, at the north and operated the cold storage plant there for several years. However, Kake Tribal Corporation has struggled with bankruptcy. Pelican Seafoods left the ownership of Kake Tribal Corporation

[62] Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.
[63] Brock, Mathew, Philippa Coiley-Kenner and the Sitka Tribe of Alaska. (2009). *A Compilation of Traditional Knowledge about the Fisheries of Southeast Alaska*. ADF&G Technical Paper No. 332. Retrieved March 30, 2012 from http://alaska.fws.gov/asm/pdf/fisheries/reports/04-652Final.pdf.
[64] De Laguna, Frederica. 1976. *Under Mount Saint Elias: The History and Culture of the Yakutat Tlingit, Vol. 7*. Smithsonian Contributions to Anthropology. Smithsonian Institution Press, Washington D.C.
[65] Clark, McGregor, Mecum, Krasnowski and Carroll. 2006. "The Commercial Salmon Fishery in Alaska." *Alaska Fisheries Research Bulletin* 12(1):1-146. Alaska Dept. of Fish and Game. Retrieved January 4, 2012 from http://www.adfg.alaska.gov/static/home/library/PDFs/afrb/clarv12n1.pdf.
[66] Woodby, Doug, Dave Carlile, Shareef Siddeek, Fritz Funk, John H. Clark, and Lee Hulbert. 2005. *Commercial Fisheries of Alaska.* Alaska Dept. of Fish and Game, Special Publication No. 05-09. Retrieved December 29, 2011 from http://www.adfg.alaska.gov/FedAidPDFs/sp05-09.pdf.
[67] Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.
[68] U.S. Dept. of the Interior. March 9, 1959. *General Use of Fish Traps Barred in Alaska Salmon Fishery*. Retrieved April 25, 2012 from http://www.fws.gov/news/historic/1959/19590309.pdf.
[69] Arnold, D. F. (1997). *"Putting Up Fish:" Environment, Work, and Culture in Tlingit Society, 1780s-1940s*. Ph.D. Dissertation, University of California, Los Angeles; Price, R. (1990). *The Great Father In Alaska: The Case of the Tlingit and Haida Salmon Fishery*. First Street Press, Douglas, Alaska.

in 2006[70] (see Pelican community profile for more information), and as of 2012, Kake Foods Cold Storage is not operational.

Between 2000 and 2010, Kake residents had the highest level of participation in commercial salmon fisheries, as well as relatively high participation in fisheries for halibut, groundfish, and crab. Specific crab fisheries in which Kake residents were involved included Dungeness and Tanner crab, and specific groundfish fisheries included Southeast demersal shelf rockfish. In addition, Kake residents were involved in fisheries for herring roe, sablefish, shrimp, and sea cucumber.

Today, Southeast Alaska salmon fisheries utilize purse seine, drift gillnet, troll, and set gillnet gear. The highest volume of salmon landings in the region are harvested by purse seine gear, although the species harvested are typically pink and chum, the salmon species with lowest ex-vessel value. Other salmon fisheries target the higher value species (i.e., sockeye, coho, and Chinook). Because of Southeast Alaska's proximity to British Columbia, as well as many trans-boundary rivers that cross from Canada into Alaskan waters, salmon management in the region is governed to a large degree by the Pacific Salmon Treaty. The Treaty was originally negotiated in 1985, and renegotiated in 1999 with increased emphasis on implementation of abundance-based management strategies.[71]

A state-managed sablefish fishery currently takes place in inside waters near Kake (Chatham and Clarence Straits). Pacific halibut fisheries in Southeast Alaska are managed by the International Pacific Halibut Commission (IPHC). Pacific cod and lingcod are also harvested in Southeast Alaska under state regulations, independent of federal fisheries for these species. Halibut and Pacific cod fisheries utilize longline gear, while the Southeast Alaska lingcod fishery uses dinglebar troll gear, a salmon power troll gear modified with a heavy metal bar to fish for groundfish. Management of the Southeast Alaska lingcod fishery includes a winter closure for all users (except longliners) to protect nest-guarding males. Demersal rockfish are caught as bycatch in the halibut longline and trawl fisheries. A small directed fishery for flatfish (other than halibut) has also taken place in Southeast inside waters in recent decades, but effort has declined since 1999. Crab fisheries in Southeast Alaska target red, golden and blue king crab, Tanner crab, and Dungeness crab. Dive fisheries for sea cucumber and sea urchin began to grow in Southeast Alaska in recent decades.[72]

Bait herring fisheries take place during the winter each year in Southeast Alaska, while roe is harvested in the spring. Bait and sac roe fisheries use purse seine and set gillnet gear, and roe is also harvested in spawn-on-kelp closed-pound fisheries.[73] A "closed-pound" is a single, floating, rectangular frame structure with suspended webbing that is used to enclose herring long enough for them to spawn on kelp included in the enclosure.[74]

Kake is located in Pacific Halibut Fishery Regulatory Area 2C and Federal Statistical and Reporting Area 659. The closest federal Sablefish Regulatory Area is "Southeast Outside." Kake is eligible to participate in the Community Quota Entity (CQE) program. The community body that is eligible to participate in the CQE is the City of Kake, but as of August 2012, no CQE had

[70] Forgey, Pat. September 16, 2009. "Pelican Seafoods foreclosure auction delayed." *Juneau Empire*. Retrieved March 19, 2012 from http://juneauempire.com/stories/091609/loc_493775668.shtml.
[71] See footnote 65.
[72] See footnote 66.
[73] Ibid.
[74] Alaska Dept. of Fish and Game. (2011). *2011 Southeast Alaska Herring Spawn-On-Kelp Pound Fishery Management Plan*. Regional Information Report No. 1J11-01. Retrieved April 2, 2012 from http://www.sf.ADFG.state.ak.us/FedAidpdfs/RIR.1J.2011.01.PDF.

been established in the community.[75] Kake is not eligible to participate in the Community Development Quota (CDQ) program.

In a survey conducted by the AFSC in 2011, community leaders indicated that current challenges for Kake's fishing economy include high costs of fuel, electricity, and labor, and shipping constraints for delivering fresh products to market. They noted that competing cold storages in the region have more direct access to the main barge lines. In addition, they noted that the lack of comprehensive boat repair services or access to parts adds the expense of traveling to other communities for repairs or having parts shipped in to Kake. When asked to comment about the effects of fisheries policies or management actions on Kake, community leaders mentioned depletion of local herring stocks in the 1980s and 1990s, and expressed the desire for a restoration strategy for that herring stock.

Community leaders also expressed that the move to Individual Fishing Quotas (IFQs) appears to have contributed to a sharp decline in permit holders in "rural Alaska." In contrast, they commented that the Subsistence Halibut Registration Certificate (SHARC) program has been a success for rural Alaska residents, including both Native Alaskans and non-Natives. In addition to providing subsistence access to halibut, the program is also a success by providing additional catch data to managers through harvest surveys. Data is obtained about both halibut catches and by-catch of other species such as rockfish and lingcod. When asked to comment on potential future policy or management action, Kake community leaders spoke about the large increase in sea otters in the area in recent years, and the associated drop in number of crab, shrimp, and clams. They reported that local Dungeness crab fishermen have been particularly hard hit by this shift, including commercial, subsistence, and sport fishermen. They expressed support for any efforts (legislation, regulations, etc.) that might allow culling of the sea otter population to help crab, shrimp, and clam stocks recover and continue to provide viable local fisheries.

Processing Plants

According to ADF&G's 2010 Intent to Operate list, one private fishing operation was registered as an operating shore-side processing facility that year. The same operation was registered from 2000 to 2003 and in 2008 and 2009. A variety of other private fishing operations were registered as processors on the Intent to Operate list in one or more years during the 2000-2010 period. In addition, Kake Foods Cold Storage, a subsidiary of Kake Tribal Corporation, was registered on the Intent to Operate list in 2002 and 2003. In addition to cold storage services, the facility operated a smokery and produced smoked and dried salmon and halibut.[76,77] In addition, Thunderbird Charter & Seafoods was registered on the Intent to Operate list in 2008. Thunderbird Charter & Seafoods produces Pacific oysters at several sites south of Kake in Rocky Pass.[78]

[75] NOAA Fisheries, Alaska Regional Office. 2012. *Name and Contact Information of Community Quota Entities*. Retrieved August 20, 2012 from http://www.fakr.noaa.gov/ram/daily/cqenamescontacts.pdf.
[76] Hoelting, Kristin. 2003. *Sustaining the Past, Honoring the Future: One Community's Quest for a Sustainable Livelihood.* Harvard College Honors Thesis, Cambridge, MA.
[77] NOAA Fisheries. 2006. *Environmental Assessment – Alaska Coastal Management Plan*. Retrieved August 17, 2012 from http://coastalmanagement.noaa.gov/assessments/docs/akea1.pdf.
[78] Pearl of Alaska website. (n.d.). Retrieved August 16, 2012 from http://www.pearlofalaska.com/.

Fisheries-Related Revenue

In 2010, known fisheries-related revenues for Kake totaled $38,528, including $9,000 from a raw fish tax, $15,553 from the Shared Fisheries Business Tax, and $14,975 in harbor usage and port/dock usage revenue. This information is presented in Table 3.[79]

According to a survey conducted by the AFSC in 2011, community leaders reported that revenues from fisheries-related taxes and fees support several public services, including harbor maintenance, police/enforcement/fire protection, water and wastewater systems, and general city administration.

Commercial Fishing

Between 2000 and 2010, Kake residents were involved in commercial fisheries as state permit holders, federal permit and quota share account holders, vessel owners, and crew license holders. The greatest number of Kake permit holders participated in salmon fisheries, and relatively high numbers of residents were involved in state and federal groundfish and halibut fisheries, as well as state crab fisheries. In addition, several Kake residents held state permits in herring, sablefish, shrimp, and sea cucumber fisheries during the 2000-2010 period, as well as quota share accounts in the federal sablefish fishery. According to the 2011 AFSC survey, community leaders reported that the spring/summer salmon trolling season runs from April through September, the winter salmon trolling season runs from October through February, the salmon purse seine fishery is underway from June through September, and halibut and sablefish longlining takes place from March through October.

The number of fish buyers in Kake declined from five to one over the decade. In 2010, Kake received few landings and was ranked 66th in landings and 65th in ex-vessel revenue out of 67 Alaskan ports that received landings in 2010. During earlier years in the decade, when a higher number of fish buyers were present in Kake, local landings and ex-vessel revenue reported were relatively high. In 2010, 38 commercial crew licenses were held and 34 vessels were primarily owned by Kake residents. Both of these numbers represent declines from 2000, when 73 crew licenses were held and 56 vessels were primarily owned by residents. Also in 2010, 31 vessels were listed as homeported in Kake, and 2 vessels delivered landings to local fish buyers. This information about the commercial fishing sector is presented in Table 5.

Although fisheries statistics presented in Table 5 show declining trends in commercial fishing activity in Kake, according to a survey conducted by the AFSC in 2011, community leaders reported that a lot more commercial fishing boats were present in Kake that year than five years earlier. Of those vessels that use Kake as a base for fishing operations, community leaders indicated that they most commonly utilize pot, longline, purse seine, and troll gear. They also reported fewer vessels in Kake under 35 feet in length, and no significant change in the number of larger vessels compared to 5 years earlier.

In 2010, 79 Kake residents held a total of 104 state Commercial Fisheries Entry Commission (CFEC) permits. Of these 104 permits, 76 were held for salmon fisheries, 14 were held for halibut, 4 were held for crab, 3 each were held in fisheries for herring and ‘other shellfish’, and 2 each were held in fisheries for sablefish and for groundfish. Additional information about CFEC permits is presented in Table 4, and further details regarding these

[79] A direct comparison between fisheries-related revenue and total municipal revenue cannot reliably be made as not all fisheries-related revenue sources are included in the municipal budget.

permits are included below.

Of 76 salmon CFEC permits held in 2010, 62 were statewide handtroll permits, 7 were statewide power gurdy troll permits, 6 were for the Southeast Alaska purse seine fishery, and 1 was a Southeast 'special harvest area' permit (hatchery). Overall, 18% of salmon permits held in Kake were actively fished in 2010. The number of salmon permit holders and the total salmon permits held decreased between 2000 and 2010, while the percentage actively fished remained relatively stable over the period.

Of 14 halibut CFEC permits, a majority (13) were held in the statewide longline fishery using vessels under 60 feet in length, while 1 was held for statewide hand troll. Overall, 86% of halibut permits were actively fished in 2010. Both the number of halibut permits held and the number of permit holders decreased slightly between 2000 and 2010, while the percentage of permits actively fished remained at or above 86% in all but one year during the period.

Of four crab CFEC permits held in 2010, a majority were for Dungeness crab fisheries (three held, one actively fished). In addition, one permits was held and actively fished for brown king / Tanner crab that year. The number of state crab permits held, the number of permit holders, and the percentage of total crab permits actively fished declined between 2000 and 2010. All four crab permits were associated with pot gear in 2000. In previous years during the decade (2000-2009, two Southeast Tanner crab permits were also held, including one permit that was associated with ring nets.

Of three total herring CFEC permits, two were held in Southeast Alaska spawn on kelp 'closed-pound' fisheries and one was held in the Prince William Sound spawn on kelp closed-pound fishery. None of these three permits were actively fished in 2010. The number of Kake residents holding herring permits remained very stable between 2000 and 2010, with three permits held in all years but 2009, when the number increased to six permit holders. In addition, 2009 was the only year during the 2000-2010 period that any herring permits were actively fished by Kake residents. That year, five total permits were held and three were actively fished in the Southern Southeast spawn on kelp fishery.

In most years during the 2000-2010 period, all 'other shellfish' CFEC permits were held in Southeast shrimp fisheries using pot gear. The number of shrimp permits held varied from two to three, and the number of permits actively fished ranged from zero to one during this period. In 2008 and 2010, one 'other shellfish' permit was also held in the Southeast sea cucumber fishery. In both years, the permit was actively fished.

One of the two sablefish CFEC permits held by Kake residents in 2010 was held in the Northern Southeast longline fishery and the other was held in the statewide longline fishery using only vessels under 60 feet in length. Both of these permits were actively fished that year. The number of sablefish permit holders varied from one to two and the total number of sablefish permits held varied from two to three during the 2000-2010 period. In all years during the period, 100% of sablefish permits held were actively fished.

Kake residents' involvement in state groundfish fisheries decreased over the decade, both in terms of permit holders and total permits held. In 2000, eight groundfish CFEC permits were held by six permit holders, declining to two permits held by two permit holders in 2010. The only year during the 2000-2010 period in which a state groundfish permit was actively fished by a Kake permit holder was 2000, when one of eight total permits was actively fished. During the 2000-2010 period, groundfish permits were primarily held in statewide and Gulf of Alaska fisheries for miscellaneous saltwater finfish. From 2000 to 2002, permits were also held in the statewide lingcod fishery, and from 2000 to 2005, permits were held in the Southeast demersal

rockfish fishery.

In addition to CFEC permits, Kake residents also held federal License Limitation Program (LLP) permits and Federal Fisheries Permits (FFP). Between 2000 and 2010, the number of Kake residents holding groundfish LLPs rose from five to six, and the total number of groundfish LLPs held rose from six to seven. Between two and four groundfish LLPs were actively fished during this period. However, no crab LLPs were held by Kake residents during the 2000-2010 period. From 2000 to 2008, the number of FFPs held by Kake residents varied between one and two. One FFP was actively fished each year from 2004 to 2006. No FFPs were held in 2009 or 2010. This information about federal permits is presented in Table 4.

Between 2000 and 2010, Kake residents held quota share accounts and quota shares in federal catch share fisheries for halibut and sablefish, while no Kake residents held quota shares in federal crab catch share fisheries from 2005 to 2010 (Table 8). The highest number of quota share accounts was held in the federal halibut catch share fishery, with 25 account holders in 2000, declining to 15 by 2010. Although the number of accounts declined substantially, the total quota shares held decreased only slightly, from 764,339 shared held in 2000 to 741,471 held in 2010. The overall halibut IFQ allotment for account holders in Kake initially increased to 20% higher than 2000 levels in 2005, before decreasing to 49% below 2000 levels by 2010. Information about halibut catch share participation is presented in Table 6. The number of sablefish quota share account holders grew from one in 2000 and 2001 to two from 2002 to 2009, and then declined again to one account holder in 2010. One account held 309, 797, and the second account brought the total quota shares held to 398,937. The overall sablefish IFQ allotment increased to 29% above 2000 levels by 2005, and then decreased to approximately 27% below 2000 levels by 2010. Information about federal sablefish catch share participation is presented in Table 7.

Although fish buyers purchased deliveries of a variety of species in Kake from 2000 to 2010, the only local landings and ex-vessel revenue information that can be reported is for salmon in 2000, 2003, and 2006. Landings and revenue in other fisheries and for other years of salmon deliveries is considered confidential due to the small number of participants. For the three years in which salmon landings can be reported, an average of 4,588,101 net pounds were landed in Kake per year, for an average ex-vessel revenue of $1,022, 836.

In addition to the landings delivered in Kake by fishermen from many communities, landings and ex-vessel revenue earned by Kake vessel owners is of note. Kake vessel owners made deliveries in many locations around Alaska between 2000 and 2010. Information is reported in some years regarding their landings in crab and ‘other groundfish’ fisheries, and for all years in halibut and salmon fisheries. Information about the additional years of landings in crab and groundfish fisheries is considered confidential due to the small number of participants. In addition, landings and ex-vessel revenue related to landings of other species is also considered confidential. Of the information that can be reported, the species with the greatest landings volume by Kake vessel owners was salmon, with an average of 1,588,906 net pounds landed for an average ex-vessel revenue of $409,880. The next greatest volumes of landings, averaged for those years in which data are reported, were crab (average of 78,759 net pounds per year, valued at an average of $122,031 in ex-vessel revenue per year) and halibut (average of 65,861 net pounds, valued at an average of $199,670 in ex-vessel revenue per year). In addition, for those years in which data can be reported, Kake vessel owners landed an average of 5,766 net pounds of ‘other groundfish’, valued on average at $3,555 in ex-vessel revenue. This information about landings and revenue generated by Kake vessel owners is presented in Table 10.

Table 3. Known Fisheries-Related Revenue (in U.S. Dollars) Received by the Community of Kake: 2000-2010.

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax[1]	$21,844	n/a	$106,354	$114,301	$47,000	$614	$614	n/a	n/a	$7,500	$9,000
Shared fisheries business tax[1]	$30,634	$60,485	$31,264	$114,286	$5,667	$41,439	$14,977	$7,947	$22,081	$9,132	$15,553
Fisheries resource landing tax[1]	n/a	n/a	n/a	$15	$18	$0	$18	$91	$55	$150	$99
Fuel transfer tax[2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Extraterritorial fish tax[2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bulk fuel transfers[1]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Boat hauls[2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Harbor usage[2,3]	$10,000[2]	$15,000[2]	$15,000[2]	$10,259[2]	$10,250[2]	$16,000[2]	$11,150[2]	$12,300[2]	$12,000[2]	$6,500[2]	$5,560[3]
Port/dock usage[3]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	$8,415[3]
Fishing gear storage on public land[3]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Marine fuel sales tax[3]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total fisheries-related revenue[4]	*$62,478*	*$75,485*	*$152,618*	*$238,860*	*$62,936*	*$58,053*	*$26,760*	*$20,339*	*$34,137*	*$23,281*	*$38,627*
Total municipal revenue[5]	*$1,243,224*	*$954,138*	*$1,074,965*	*$1,064,680*	*$837,704*	*$1,119,209*	*$1,087,567*	*$1,146,107*	*$950,780*	*$1,650,790*	*$2,406,778*

Note: n/a indicates that no data were reported for that year.

[1] Alaska Dept. of Comm. and Econ. Dev. (n.d.) *Alaska Taxable (2000-2010)*. Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm.

[2] Alaska Dept. of Comm. and Rural Affairs. (n.d.) *Financial Documents Delivery System*. Retrieved April 15, 2011 at http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm.

[3] Reported by community leaders in a survey conducted by the AFSC in 2011.

[4] Total fisheries related revenue represents a sum of all known revenue sources in the previous rows.

[5] Total municipal revenue represents the total revenue that the City reports each year in its financial statements. Alaska Dept. of Comm. and Rural Affairs. (n.d.) *Financial Documents Delivery System*. Retrieved April 15, 2011 at http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm.

Table 4. Permits and Permit Holders by Species, Kake: 2000-2010.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) [1]	Total permits	6	6	7	7	7	7	7	7	7	7	7
	Active permits	3	2	2	3	3	4	3	3	2	3	3
	% of permits fished	50%	33%	28%	42%	42%	57%	42%	42%	28%	42%	42%
	Total permit holders	5	5	6	6	6	6	6	6	6	6	6
Crab (LLP) [1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries Permits[1]	Total permits	1	2	2	1	1	1	1	1	1	0	0
	Fished permits	0	0	0	1	1	1	0	0	0	0	0
	% of permits fished	0%	0%	0%	100%	100%	100%	0%	0%	0%	0%	0%
	Total permit holders	1	1	1	1	1	1	1	1	1	0	0
Crab (CFEC) [2]	Total permits	9	11	9	9	10	8	9	5	5	6	4
	Fished permits	6	9	6	7	5	3	4	3	2	3	2
	% of permits fished	67%	82%	67%	78%	50%	38%	44%	60%	40%	50%	50%
	Total permit holders	7	8	7	7	9	6	7	4	3	4	3
Other shellfish (CFEC) [2]	Total permits	2	3	3	2	2	2	2	2	3	2	3
	Fished permits	1	1	1	0	1	1	1	1	2	1	2
	% of permits fished	50%	33%	33%	0%	50%	50%	50%	50%	66%	50%	66%
	Total permit holders	2	3	3	2	2	2	2	2	3	3	3
Halibut (CFEC) [2]	Total permits	19	20	16	15	17	15	14	13	14	14	14
	Fished permits	17	13	15	15	17	14	12	12	12	12	12
	% of permits fished	89%	65%	94%	100%	100%	93%	86%	92%	86%	86%	86%
	Total permit holders	19	20	16	15	17	15	14	13	14	14	13
Herring (CFEC) [2]	Total permits	3	3	3	3	3	3	3	3	3	5	3
	Fished permits	0	0	0	0	0	0	0	0	0	3	0
	% of permits fished	0%	0%	0%	0%	0%	0%	0%	0%	0%	60	0%
	Total permit holders	3	3	3	3	3	3	3	3	3	6	3

Table 4 cont'd. Permits and Permit Holders by Species, Kake: 2000-2010.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) [2]	Total permits	2	2	3	3	3	3	3	3	3	3	2
	Fished permits	2	2	3	3	3	3	3	3	3	3	2
	% of permits fished	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Total permit holders	1	1	2	2	2	2	2	2	2	2	1
Groundfish (CFEC) [2]	Total permits	8	8	9	7	6	5	2	1	3	1	2
	Fished permits	1	0	0	0	0	0	0	0	0	0	0
	% of permits fished	13%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	6	6	6	6	6	5	2	1	2	1	2
Other Finfish (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) [2]	Total permits	92	91	86	85	83	83	82	81	79	76	76
	Fished permits	21	20	20	15	17	19	21	17	18	13	14
	% of permits fished	23%	22%	23%	18%	20%	23%	26%	21%	23%	17%	18%
	Total permit holders	88	86	83	83	80	80	77	76	74	72	71
Total CFEC Permits[2]	*Permits*	*135*	*138*	*129*	*124*	*124*	*119*	*115*	*108*	*110*	*107*	*104*
	Fished permits	*48*	*45*	*45*	*40*	*43*	*40*	*41*	*36*	*37*	*35*	*32*
	% of permits fished	*36%*	*33%*	*35%*	*32%*	*35%*	*34%*	*36%*	*33%*	*34%*	*33%*	*31%*
	Permit holders	*91*	*91*	*89*	*89*	*87*	*85*	*82*	*81*	*81*	*81*	*79*

[1] National Marine Fisheries Service. 2011. Data on License Limitation Program, Alaska Federal Processor Permits (FPP), Federal Fisheries Permits (FFP), and Permit holders. NMFS Alaska Regional Office. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

[2] Alaska Commercial Fisheries Entry Commission. 2011. Alaska commercial fishing permits, permit holders, and vessel licenses, 2000 – 2010. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

Table 5. Characteristics of the Commercial Fishing Sector in Kake: 2000-2010.

Year	Crew License Holders[1]	Count Of All Fish Buyers[2]	Count Of Shore-Side Processing Facilities[3]	Vessels Primarily Owned by Residents[4]	Vessels Homeported[4]	Vessels Landing Catch in Kake[2]	Total Net Pounds Landed in Kake[2,5]	Total Ex-Vessel Value of Landings in Kake[2,5]
2000	73	5	1	56	52	19	3,670,714	$1,475,922
2001	60	4	1	54	51	15	841,972	$451,420
2002	56	4	1	53	48	63	5,070,295	$1,559,617
2003	74	5	1	51	46	74	9,290,144	$2,277,127
2004	49	1	0	53	46	9	-	-
2005	41	1	1	47	38	10	-	-
2006	40	4	1	49	38	47	1,538,611	$659,531
2007	43	1	0	47	40	7	-	-
2008	44	3	2	45	36	7	-	-
2009	33	1	2	42	39	3	-	-
2010	38	1	1	34	31	2	-	-

Note: Cells showing – indicate that the data are considered confidential.

[1] Alaska Department of Fish and Game. 2011. Alaska sport fish and crew license holders, 2000 – 2010. ADF&G Division of Administrative Services. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

[2] Alaska Department of Fish and Game, and Alaska Commercial Fisheries Entry Commission. 2011. Alaska fish ticket data. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

[3] Alaska Department of Fish and Game. (2011). *Data on Alaska fish processors*. ADF&G Division of Commercial Fisheries. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

[4] Alaska Commercial Fisheries Entry Commission. 2011. Alaska commercial fishing permits, permit holders, and vessel licenses, 2000 – 2010. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

[5] Totals only represent non-confidential data.

Table 6. Halibut Catch Share Program Participation by Residents of Kake: 2000-2010.

Year	Number of Halibut Quota Share Account Holders	Halibut Quota Shares Held	Halibut IFQ Allotment (Pounds)
2000	25	764,339	107,806
2001	22	721,339	106,204
2002	22	717,239	102,231
2003	20	712,445	101,547
2004	20	704,293	124,167
2005	19	704,293	129,254
2006	18	704,293	125,714
2007	19	712,445	101,808
2008	17	711,306	74,173
2009	18	711,306	59,960
2010	15	741,471	54,783

Source: National Marine Fisheries Service. 2011. Alaska Individual Fishing Quota (IFQ) permit data. NMFS Alaska Regional Office. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

Table 7. Sablefish Catch Share Program Participation by Residents of Kake: 2000-2010.

Year	Number of Sablefish Quota Share Account Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (Pounds)
2000	1	309,797	36,749
2001	1	398,937	44,753
2002	2	398,937	42,755
2003	2	398,937	47,353
2004	2	398,937	50,146
2005	2	398,937	47,485
2006	2	398,937	46,820
2007	2	398,937	44,825
2008	2	398,937	42,830
2009	2	309,797	28,364
2010	1	309,797	26,649

Source: National Marine Fisheries Service. 2011. Alaska Individual Fishing Quota (IFQ) permit data. NMFS Alaska Regional Office. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

Table 8. Bering Sea and Aleutian Island Crab Catch Share Program Participation by Residents of Kake: 2000-2010.

Year	Number of Crab Quota Share Account Holders	Crab Quota Shares Held	Crab IFQ Allotment (Pounds)
2005	0	0	0
2006	0	0	0
2007	0	0	0
2008	0	0	0
2009	0	0	0
2010	0	0	0

Source: National Marine Fisheries Service. 2011. Alaska Individual Fishing Quota (IFQ) permit data. NMFS Alaska Regional Office. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

Table 9. Landed Pounds and Ex-vessel Revenue, by Species, in Kake: 2000-2010.

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	0	0	0	0	-	-	0	-	-	-	-
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Other Groundfish	-	-	-	-	-	-	-	-	-	-	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	-	-	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	3,633,893	-	-	8,612,159	-	-	1,518,250	-	-	-	-
Total[2]	*3,633,893*	*0*	*0*	*8,612,159*	-	-	*1,518,250*	-	-	-	-
	Ex-vessel Value (Nominal U.S. Dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	$0	$0	$0	$0	-	-	$0	-	-	-	-
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Other Groundfish	-	-	-	-	-	-	-	-	-	-	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	-	-	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	$1,377,335	-	-	$1,110,917	-	-	$580,258	-	-	-	-
Total[2]	*$1,377,335*	*$0*	*$0*	*$1,110,917*	-	-	*$580,258*	-	-	-	-

Note: Cells showing – indicate that the data are considered confidential.

Source: Alaska Department of Fish and Game, and Alaska Commercial Fisheries Entry Commission. 2011. Alaska fish ticket data. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

1 Net pounds refers to the landed weight recorded in fish tickets.

2 Totals only represent non-confidential data.

Table 10. Landed Pounds and Ex-vessel Revenue, by Species, by Kake Residents: 2000-2010.

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	65,094	106,650	88,597	81,198	79,117	-	51,896	-	-	-	-
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	106,952	83,565	94,254	92,019	81,686	70,273	45,420	34,120	33,767	40,848	41,568
Herring	-	-	-	-	-	-	-	-	-	-	-
Other Groundfish	8,707	11,420	11,101	8,382	5,464	3,492	1,023	1,576	-	728	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	-	-	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	822,000	2,472,345	2,637,179	2,477,599	999,315	2,272,763	1,752,684	1,317,270	661,827	960,697	1,104,283
Total[2]	*1,002,753*	*2,673,980*	*2,831,131*	*2,659,198*	*1,165,582*	*2,346,528*	*1,851,023*	*1,352,966*	*695,594*	*1,002,273*	*1,145,851*
	Ex-vessel Value (Nominal U.S. Dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	$122,719	$191,402	$105,302	$117,958	$121,630	-	$73,174	-	-	-	-
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	$277,403	$180,462	$228,305	$271,139	$246,248	$215,496	$171,040	$149,055	$147,036	$120,318	$189,866
Herring	-	-	-	-	-	-	-	-	-	-	-
Other Groundfish	$7,250	$5,231	$7,245	$5,022	$3,356	$1,895	$800	$742	-	$450	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	-	-	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	$257,570	$525,391	$347,194	$306,447	$231,840	$453,857	$577,220	$394,755	$492,530	$399,866	$522,012
Total[2]	*$664,942*	*$902,486*	*$688,046*	*$700,566*	*$603,074*	*$671,248*	*$822,234*	*$544,552*	*$639,566*	*$520,634*	*$711,878*

Note: Cells showing – indicate that the data are considered confidential.

Source: Alaska Department of Fish and Game, and Alaska Commercial Fisheries Entry Commission. 2011. Alaska fish ticket data. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

1 Net pounds refers to the landed weight recorded in fish tickets.

[2] Totals only represent non-confidential data.

Recreational Fishing

Between 2000 and 2010, there was a declining trend in the number of active sport fish guide businesses and licensed sport fish guides residing in Kake. As of 2010, one licensed guide was present in Kake, but no sport fish guide businesses remained active. The number of sportfishing licenses sold in Kake varied between 222 and 404 per year during the 2000-2010 period. During these years, between 164 and 265 licenses per year were sold to Kake residents (including Kake and other points of sale). The fact that more licenses were sold per year in Kake than were sold to Kake residents suggests that sportfishing is a local tourism draw.

According to a survey conducted by the AFSC in 2011, community leaders indicated that private anglers in Kake target all five species of salmon, halibut, rockfish, crab, shrimp, clams, and herring. They also noted that sportfishing activity takes place using charter or party boats, private boats owned by both local and non-local residents, and through shore-based fishing by local residents. Community leaders also reported that more charter and party boats, as well as private pleasure boats in general, were present in Kake at the time of the survey than five years previously.

The Alaska Statewide Harvest Survey,[80] conducted by ADF&G between 2000 and 2010, noted harvesting of the following species by Kake sport fishermen. In freshwater, coho, Dolly Varden, cutthroat trout, and steelhead are harvested. In saltwater, all five salmon species, Dolly Varden, halibut, and rockfish are harvested. In addition, the survey noted recreational harvest of Dungeness and hardshell clams by Kake residents.

Kept/released statistics from charter logbook data reported by ADF&G[81] show that pelagic rockfish were caught in the highest numbers during fishing charter trips out of Kake, with an average of 374 kept and 117 released per year, for those years in which information was reported. Total rockfish numbers, including yelloweye and 'other' rockfish, came to an average of 455 kept and 153 released per year. Pacific halibut was the second most numerous charter catch, with an average of 272 halibut kept and 96 released per year, for those years in which information about halibut was reported. In addition, 70 pink, 66 coho, 29 chum, 12 Chinook, and 2 sockeye were kept on average per year, as well as 10 lingcod per year, for those years in which data are available.

Kake is located within Alaska Sport Fishing Survey Area C – including Kake, Petersburg, Wrangell, and Stikine. Information is available about both saltwater and freshwater sportfishing activity at this regional scale (Table 11). Between 2000 and 2010, there was much higher saltwater sportfishing activity than in freshwater in this region. On average, Alaska resident anglers fished more days in both freshwater and saltwater than non-Alaska resident anglers, although non-Alaska resident anglers fished more days in some years.

[80] Alaska Department of Fish and Game. (2011). *Alaska Sport Fishing Survey results, 2000 – 2010*. ADF&G Division of Sport Fish, Alaska Statewide Harvest Survey project. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. http://www.adfg.alaska.gov/sf/sportfishingsurvey/ (Accessed September 2011).

[81] Alaska Department of Fish and Game. (2011). *Alaska sport fish charter logbook database, 2000 – 2010*. ADF&G Division of Administrative Services. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

Table 11. Sport Fishing Trends, Kake: 2000-2010.

Year	Active Sport Fish Guide Businesses[1]	Sport Fish Guide Licenses[1]	Sport Fishing Licenses Sold to Residents[2]	Sport Fishing Licenses Sold in Kake[2]
2000	2	5	257	404
2001	5	7	264	355
2002	2	6	242	309
2003	1	4	265	345
2004	1	4	239	272
2005	2	4	219	298
2006	2	5	196	278
2007	1	4	193	263
2008	1	6	182	222
2009	1	2	164	244
2010	0	1	176	253

Year	Saltwater		Freshwater	
	Angler Days Fished – Non-Residents[3]	Angler Days Fished – Alaska Residents[3]	Angler Days Fished – Non-Residents[3]	Angler Days Fished – Alaska Residents[3]
2000	13,338	29,430	4,343	6,189
2001	19,144	12,469	4,831	5,255
2002	13,737	23,403	3,468	4,628
2003	12,401	13,077	3,380	7,584
2004	21,412	15,646	4,813	5,848
2005	17,196	15,351	3,835	3,465
2006	20,822	20,572	4,578	3,548
2007	19,957	19,407	4,176	3,226
2008	23,754	16,530	3,043	5,945
2009	19,188	26,448	2,564	6,071
2010	21,290	18,419	3,358	3,955

[1] Alaska Department of Fish and Game. 2011. Alaska sport fish guide licenses and businesses, 2000 – 2010. ADF&G Division of Administrative Services. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

[2] Alaska Department of Fish and Game. 2011. Alaska sport fish and crew license holders, 2000 – 2010. ADF&G Division of Administrative Services. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

[3] Alaska Department of Fish and Game. 2011. Alaska Sport Fishing Survey results, 2000 – 2010. ADF&G Division of Sport Fish, Alaska Statewide Harvest Survey project. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. http://www.adfg.alaska.gov/sf/sportfishingsurvey/ (Accessed September 2011).

Subsistence Fishing

Subsistence harvest of marine resources has always been foundational to the economy and way of life of the Kake people. Historically, fish traps, gaffs, and spears were used to catch salmon, one of the most important subsistence resources for the Tlingit people. Steelhead, herring, herring eggs, ooligans (eulachon), and Dolly Varden were also caught and eaten. The Tlingit also utilized marine mammals (e.g., seal), deepwater fish (e.g., halibut), marine invertebrates (e.g., 'gumboot' chitons), and sea plants (e.g., seaweed, beach asparagus and goose tongue). A system of property ownership was in place over harvesting places, including streams, halibut banks, berry patches, hunting areas, intertidal areas, and egg harvesting sites.[82,83] The Keex Kwaan originally claimed 2,003,000 acres of territory, including the upper halves of Kuiu, Kupreanof, and Mitkof Island, the eastern shore of Baranof Island and the southern shore of Admiralty Island.[84] Today, subsistence harvest remains an important part of the lifestyle and economy in Kake.[85]

According to a survey conducted by the AFSC in 2011, community leaders indicated that halibut, salmon, and black seaweed are three of the most important marine subsistence resources utilized by Kake residents. Between 2000 and 2010, no information was reported by ADF&G regarding the percentage of households using different marine resources, or per capita harvest of subsistence resources by Kake residents (Table 12). However, earlier information about household-level subsistence is available from a 1996 ADF&G study. The survey identified species of marine invertebrates, non-salmon fish (not including halibut), and marine mammals harvested by Kake households that year. The species of marine invertebrates harvested by the greatest percentage of Kake households in 1996 included black chitons (29% of households reported harvest), Dungeness crab (22%), Pacific littleneck clams (14%), and butter clams (10%). The species of non-salmon fish harvested by the greatest percentage of Kake households included Dolly Varden (22% of households harvested), red rockfish (11%), and herring (10%). In addition, Kake households harvested herring roe on hemlock branches as well as spawn on kelp fisheries. Species of marine mammal harvested by Kake residents in 1990 included harbor seal.[86] It is important to note than in many cases, the number of households reporting use of these subsistence resources was greater than the number involved in harvest, indicating the presence of sharing networks in Kake.

Data are also available regarding salmon and halibut permits issued between 2000 and 2010. The number of subsistence salmon permits issued per year to Kake households declined between 2000 and 2008, from 360 in the year 2000 and 383 in 2001, to 128 in 2008. Sockeye was the most heavily utilized salmon species during this period, averaging 3,169 harvested per

[82] Alaska Native Heritage Center. (2008). *Eyak, Tlingit, Haidi & Tsimshian: Who We Are*. Retrieved November 23, 2011 from www.alaskanative.net/en/main_nav/education/culture_alaska/eyak.
[83] Brock, Mathew, Philippa Coiley-Kenner and the Sitka Tribe of Alaska. (2009). *A Compilation of Traditional Knowledge about the Fisheries of Southeast Alaska*. ADF&G Technical Paper No. 332. Retrieved March 30, 2012 from http://alaska.fws.gov/asm/pdf/fisheries/reports/04-652Final.pdf.
[84] Walter R. and Theodore H. Haas Goldschmidt. 1998. *Haa Aaní, Our Land: Tlingit and Haida Land Rights and Use*, ed. Thomas F. Thornton. Seattle, WA: University of Washington Press.
[85] Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.
[86] Alaska Department of Fish and Game. (2011). *Community Subsistence Information System (CSIS).* ADF&G Division of Subsistence. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. http://www.adfg.alaska.gov/sb/CSIS/ (Accessed February 2011).

year. Fairly large numbers of chum and pink salmon were also reported harvested each year, and some Chinook and coho salmon were also harvested for subsistence purposes. This information about subsistence harvest of salmon is presented in Table 13. Between 2003 and 2010, the number of Kake residents that participated in the SHARC program varied between 110 and 179 per year, and the number of SHARC cards returned each year varied between 32 and 88. The greatest subsistence harvest of halibut was reported in 2004, when 34,916 pounds of halibut were harvested on 88 SHARC cards. Participation in the program appears to have declined over the decade. This information about the subsistence halibut fishery is presented in Table 14.

Information is also available regarding marine mammal harvest by residents of Kake between 2000 and 2010. According to data reported by the U.S. Fish and Wildlife Service and ADF&G, this harvest focused primarily on sea otter and harbor seal. No information was reported by management agencies regarding harvest of beluga whale, walrus, sea lion, or spotted seal between 2000 and 2010. Information about subsistence harvest of marine mammals by Kake residents is presented in Table 15.

Table 12. Subsistence Participation by Household and Species, Kake: 2000-2010.

Year	% Households Participating in Salmon Subsistence	% Households Participating in Halibut Subsistence	% Households Participating in Marine Mammal Subsistence	% Households Participating in Marine Invertebrate Subsistence	% Households Participating in Non-Salmon Fish Subsistence	Per Capita Subsistence Harvest (pounds)
2000	n/a	n/a	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a

Note: n/a indicates that no data were reported for that year.

Source: Alaska Department of Fish and Game. 2011. Community Subsistence Information System (CSIS). ADF&G Division of Subsistence. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. http://www.adfg.alaska.gov/sb/CSIS/ (Accessed February 2011).

Table 13. Subsistence Fishing Participation for Salmon, Marine Invertebrates, and Non-Salmon Fish, Kake: 2000-2010.

Year	Subsistence Salmon Permits Issued[1]	Salmon Permits Returned[1]	Chinook Salmon Harvested[1]	Chum Salmon Harvested[1]	Coho Salmon Harvested[1]	Pink Salmon Harvested[1]	Sockeye Salmon Harvested[1]	Lbs of Marine Inverts[2]	Lbs of Non-Salmon Fish[2]
2000	360	352	6	660	n/a	90	3,258	n/a	n/a
2001	383	367	16	176	42	150	4,252	n/a	n/a
2002	312	280	4	276	n/a	156	4,630	n/a	n/a
2003	350	330	10	802	164	200	6,210	n/a	n/a
2004	155	131	4	190	85	41	3,413	n/a	n/a
2005	142	135	12	45	5	225	1,712	n/a	n/a
2006	132	117	10	255	8	67	2,203	n/a	n/a
2007	146	53	50	55	55	85	1,600	n/a	n/a
2008	128	117	15	113	170	155	1,243	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Note: n/a indicates that no data were reported for that year.

[1] Fall, J.A., C. Brown, N. Braem, J.J. Simon, W.E. Simeone, D.L. Holen, L. Naves, L. Hutchinson-Scarborough, T. Lemons, and T.M. Krieg. 2011, revised. Alaska subsistence salmon fisheries 2008 annual report. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 359, Anchorage. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

[2] Alaska Department of Fish and Game. 2011. Community Subsistence Information System (CSIS). ADF&G Division of Subsistence. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. http://www.adfg.alaska.gov/sb/CSIS/ (Accessed February 2011).

Table 14. Subsistence Halibut Fishing Participation, Kake: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	175	73	22,233
2004	179	88	34,916
2005	163	58	19,085
2006	167	65	16,532
2007	177	59	11,016
2008	126	59	8,021
2009	127	54	11,407
2010	110	32	11,660

Note: n/a indicates that no data were reported for that year.

Source: Fall, J.A. and D. Koster. 2011. Subsistence harvests of Pacific halibut in Alaska, 2009. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 357, Anchorage. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

Table 15. Subsistence Harvests of Marine Mammal Resources, Kake: 2000-2010.

Year	# of Beluga Whales[1]	# of Sea Otters[2]	# of Walrus[2]	# of Polar Bears[2]	# of Steller Sea Lions[3]	# of Harbor Seals[3]	# of Spotted Seals[3]
2000	n/a	8	n/a	n/a	n/a	101	n/a
2001	n/a	6	n/a	n/a	n/a	85	n/a
2002	n/a	6	n/a	n/a	n/a	98	n/a
2003	n/a	12	n/a	n/a	n/a	52	n/a
2004	n/a	3	n/a	n/a	n/a	96	n/a
2005	n/a	7	n/a	n/a	n/a	47	n/a
2006	n/a	n/a	n/a	n/a	n/a	40	n/a
2007	n/a	1	n/a	n/a	n/a	24	n/a
2008	n/a	8	n/a	n/a	n/a	23	n/a
2009	n/a	2	n/a	n/a	n/a	n/a	n/a
2010	n/a	17	n/a	n/a	n/a	n/a	n/a

Note: n/a indicates that no data were reported for that year.

[1] Frost, K.J., and R.S. Suydam. 2010. Subsistence harvest of beluga or white whales (*Delphinapterus leucas*) in northern and western Alaska, 1987–2006. J. Cetacean Res. Manage. 11(3): 293–299. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

[2] U.S. Fish and Wildlife Service. 2011. Marking, Tagging and Reporting Program data bases for northern sea otter, Pacific walrus and polar bear. Office of Marine Mammals Management. Anchorage, Alaska. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

[3] Wolfe, R.J., Fall, J.A. and M. Riedel. 2009. The subsistence harvest of harbor seals and sea lions by Alaska Natives in 2008. Alaska Native Harbor Seal Commission and Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 347, Anchorage.