

Chignik Lagoon (CHIG-nick)



People and Place

*Location*¹

Chignik Lagoon is located on the south shore of the Alaska Peninsula, 450 mi southwest of Anchorage. It lies 180 mi south of King Salmon, 8.5 mi west of Chignik, and 16 mi east of Chignik Lake. Chignik Lagoon is unincorporated and is located in the Lake and Peninsula Borough.

*Demographic Profile*²

In 2010, there were 78 residents, ranking Chignik Lagoon 268th of 352 Alaskan communities in terms of population size. Between 1990 and 2010, the population grew by 47.2%. However, between 2000 and 2009 the population declined by 29.1% with an average annual growth rate of -2.0%; much lower than the statewide average of 0.75% and reflective of a steady decline in population since its peak in 2001. Information regarding population trends can be found in Table 1.

Chignik Lagoon is predominately a Koniag community.³ In 2010, 62.8% of residents identified themselves as American Indian or Alaska Native, compared to 81.6% in 2000; 20.5% identified themselves as White, compared to 11.7%; 1.3% identified themselves as Asian, compared to 0.0% in 2000; 11.5% identified themselves as two or more races, compared to 5.8% in 2000; and 3.8% identified themselves as some other race, compared to 0.0% in 2000. In addition, 3.8% of residents identified themselves as Hispanic or Latino, compared to 0.0% in 2000. Further information regarding racial and ethnic trends in Chignik Lagoon can be found in Figure 1.

In 2010, the average household size was 2.69, compared to 3.1 in 1990 and 3.12 in 2000. In that same year, the total number of housing units was 66, compared to 83 in 1990 and 68 in 2000. Of the households surveyed in 2010, 32% were owner-occupied, compared to 38% in 2000; 12% were renter-occupied, compared to 10% in 2000; 15% were vacant, compared to 13% in 2000; and 41% were occupied seasonally, compared to 38% in 2000. There were no reports of residents living in group quarters between 1990 and 2010.

Gender distribution in 2010 was relatively even at 51.3% male and 48.7% female. This was similar to the statewide distribution (52.1% male, 47.9% female) and more even than the distribution in 2000 (57.3% male, 42.7% female). The median age that year was 36.0 years, which was somewhat higher than the statewide median of 32.7 years and markedly higher than the 2000 median of 26.3 years.

¹ Alaska Department of Community 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>.

³ See footnote 1.

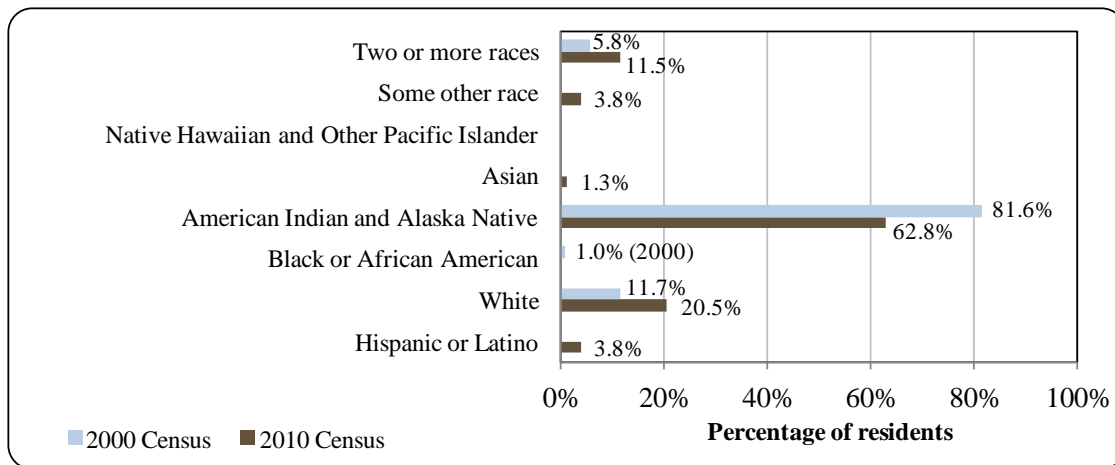
Table 1. Population in Chignik Lagoon from 1990 to 2010 by Source.

Year	U.S. Decennial Census ¹	Alaska Department of Labor Estimate of Permanent Residents ²
1990	53	-
2000	103	-
2001	-	104
2002	-	88
2003	-	92
2004	-	82
2005	-	86
2006	-	71
2007	-	67
2008	-	71
2009	-	73
2010	78	-

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, Chignik Lagoon: 2000-2010 (U.S. Census).

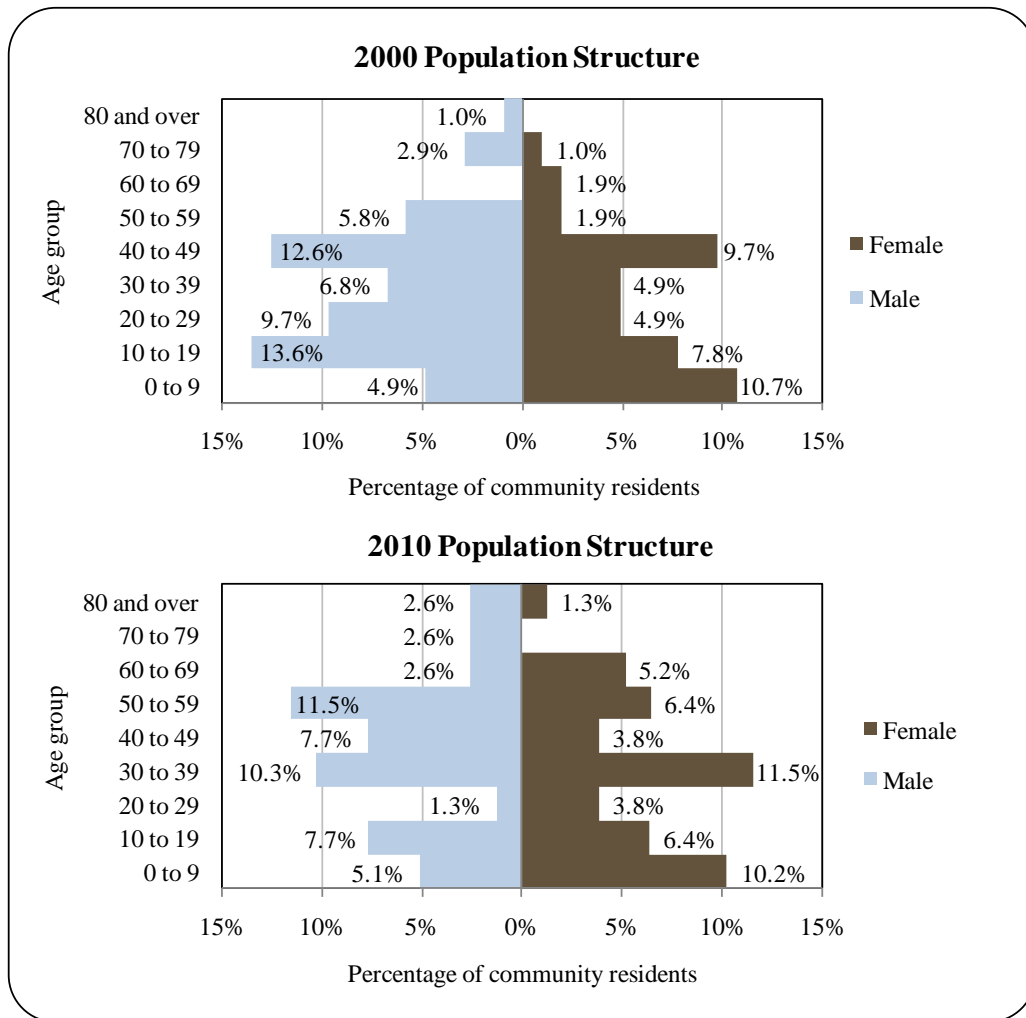


The population structure was irregular in both 2000 and 2010 making it difficult to discern a trend. In 2010, 29.4% of residents were under the age of 20, compared to 37% in 2000; 14.3% over the age of 59, compared to 6.8% in 2000; 51.2% were between the age 30 and 59, compared to 41.7% in 2000; and 5.1% were between the ages of 20 and 29, compared to 14.6% in 2000. Gender distribution by age cohort was more even in 2010 than in 2000. In that year, the greatest absolute gender difference occurred within 50 to 59 range (11.5% male, 6.4% female), followed by the 0 to 9 (10.2% female, 5.1% male) and 40 to 49 (7.7% male, 3.8% female)

ranges. Of those three, the greatest relative gender difference occurred within the 40 to 49 range. Information regarding trends in Chignik Lagoon’s population structure can be found in Figure 2.

In terms of educational attainment, the U.S. Census’ 2006-10 American Community Survey (ACS)⁴ estimated that 82.0% of residents aged 25 years and older held a high school diploma or higher degree in 2010, compared to an estimated 90.7% of Alaskan residents overall. Also in that year, an estimated 18.0% had between a ninth and twelfth grade education but no diploma, compared to an estimated 5.8% of Alaskan residents overall; an estimated 22.0% had some college but no degree, compared to an estimated 28.3% of Alaskan residents overall; an estimated 14.0% had a Bachelor’s degree, compared to an estimated 17.4% of Alaska residents overall; and an estimated 6.0% had a graduate or professional degree, compared to an estimated 9.6% of Alaska residents overall.

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



⁴ While American Community Survey (ACS) estimates can provide a good snapshot 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

Archaeological evidence suggests that Aleut (Unanga and Alutiiq) peoples have occupied the Alaska Peninsula for approximately 9,000 years.^{5,6} In the past, the Chignik region was at the contact boundary between Aleut and Yup'ik language groups. Archaeological investigations around Chignik Lake, Chignik River, and Chignik Lagoon suggest occupation dating back approximately 2,000 years. During the late 1700s and early 1800s, Russian traders began exploring the Aleutian Islands and Alaska Peninsula. The decline of the fur trade was followed by the growth of salmon processing within the region, and by 1889 three canneries had been established in Chignik Lagoon.⁷ These were the Chignik Bay Company cannery, the Shumagin Packing Company, and the Chignik Bay Packing Company.⁸

Chignik Lagoon took its name from its location and proximity to Chignik, which means “big wind” in Aleut. The area was originally occupied by Kanaigmuit Eskimos, who primarily subsisted on otter, sea lion, porpoise, and whale. During the fur boom between 1767 and 1783, the sea otter population was decimated. This, in addition to disease and conflict, reduced the Native population to less than half its original size. After Alaska was purchased from Russia, Chignik salmon grew in popularity, and many migrants moved into the region. Today, Chignik Lagoon exists as a village dependant on fishing Pacific cod, halibut, and salmon. Although a cannery no longer exists in the community, residents are heavily involved in both commercial and subsistence fishing.⁹

Natural Resources and Environment

The community experiences a maritime climate, characterized by cool summers and warm, wet winters. Thick cloud cover and heavy winds are prevalent during winter months. Summer temperatures range from 39 to 60 °F (4 to 16 °C). Winter temperatures range from 21 to 36 °F (-6 to 2 °C). Precipitation averages 127 inches annually, with an average annual snowfall of 58 inches.¹⁰

Chignik Lagoon is located in the Alaska Peninsula National Wildlife Refuge (APNWR). The refuge was created in 1980 as a product of the Alaska National Interest Lands Conservation

⁵ LaRoche and Associates (2011). *Lake and Peninsula Borough Coastal Management Plan, Revised Public Hearing Draft*. Retrieved January 17, 2012 from:

http://alaskacoast.state.ak.us/District/DistrictPlans_Final/LakeandPen/revised_phd/vol1_rphd.pdf.

⁶ WHPacific (2010). *Aleutians East Multi-Jurisdictional/Multi-Hazard Mitigation Plan*. Retrieved December 7, 2011 from: <http://www.aleutianseast.org/>.

⁷ Mobley, C. M. (2004). *Chignik's Norquest Cannery: A Cultural Resource Inventory and Evaluation, Chignik, Alaska Peninsula, Alaska*. Retrieved January 10, 2013 from:

http://polarconsult.net/ChignikBay/env/mobley_combined.pdf.

⁸ Hutchinson-Scarborough, L., and J. A. Fall. (1996). *An Overview of Subsistence Salmon and Other Subsistence Fisheries of the Chignik Management Area, Alaska Peninsula, Southwest Alaska*. Alaska Dep. of Fish and Game. Tech. Paper No. 230. Retrieved January 10, 2013 from:

<http://www.subsistence.adfg.state.ak.us/download/TPS/tp230.pdf>.

⁹ Native Village of Chignik Lagoon (n.d.). *Chignik Lagoon*. Retrieved January 26, 2012 from:

<http://chigniklagoon.net/index.html>.

¹⁰ Alaska Department of Community and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/comddb/CF_BLOCK.htm.

Act, and occupies 3.7 million acres of the Alaska Peninsula.¹¹ The geology and topography of the area is characterized by high relief mountainous slopes mantled with deposits of volcanic ash and cinders. Brown and tan sandstone conglomerates dominate the landscape. Soils are relatively shallow and unproductive on the slopes, and primarily consist of well-drained ashy loams overlying sandy and cindery ash. Level areas consist of deeper, poorly drained organics with a thin layer of ash. Poorly drained depressions within mountainous slopes can contain muskeg environments. Land within the community consists mostly of marshy wetlands, pebble rock, and sand. Vegetation is typical of western/Aleutian Alaska. Due to soil and climatic conditions, natural growing trees are rare and most vegetation consists of low shrubs, grasses, and dwarf alders and willow. Brackish marsh vegetation populates the low lying areas and wetlands. Wildflowers including dandelion, fireweed, iris, rose, lupine. Horsetail are also found throughout the area, as well as an abundance of wild berries.¹²

The APNWR provides habitat for many migratory and marine birds including mallards, shovel nose, canvas backs, pintails, common merganser, bufflehead, and gulls. Terrestrial wildlife includes brown bear, moose, caribou, wolf, wolverine, fox, river otter, and beaver. Fish found in the area include all five species of Pacific salmon, Arctic grayling, Dolly Varden, rainbow and lake trout, northern pike, and burbot. Marine mammals include Steller sea lions, harbor seals, sea otters, and migratory whales.¹³ Natural resources in the area include a copper and molybdenum deposit located at Bee Creek to the northeast, as well as coal deposits scattered throughout the region.¹⁴

Natural hazards in the area are similar to those on a regional level and include coastal flooding and erosion, storm surges, earthquakes, volcano eruptions, and tsunamis. There have been several historic earthquake and flooding events, and the community itself lies west of the active volcano, Mt. Veniaminof.¹⁵ An active stratovolcano, eruption events were observed six times between 2002 and 2008.¹⁶

According to the Alaska Department of Environmental Conservation (DEC), there were no significant environmental remediation sites active in the community in 2010.¹⁷

Current Economy¹⁸

Fishing is an economic mainstay in Chignik Lagoon, and the area serves as a regional fishing center. The economy is dependent on the success of the salmon fleet. The primary year-round employers are the village council, electric plant, and school. Subsistence activities contribute to food sources, and harvests include salmon, other fish, crab, clams, caribou, moose,

¹¹ U.S. Fish and Wildlife Service. (n.d.). *Alaska Peninsula National Wildlife Refuge*. Retrieved January 24, 2012 from: <http://alaskapeninsula.fws.gov/wildlife.htm>.

¹² Chignik Bay Tribal Council (2006). *Chignik Bay Community Plan*. Retrieved January 24, 2012 from: <http://www.commerce.state.ak.us/dca/plans/ChignikBay-CP-2006.pdf>.

¹³ See footnote 11.

¹⁴ Alaska Department of Economic Development. (n.d.). *Mineral Resources in Alaska*. Retrieved January 24, 2012 from: <http://commerce.alaska.gov/ded/dev/minerals/mining.htm>.

¹⁵ See footnote 12.

¹⁶ Alaska Volcano Observatory (n.d.). *Veniaminof Reported Activity*. Retrieved January 9, 2013 from: <http://www.avo.alaska.edu/volcanoes/volcact.php?volcname=Veniaminof>.

¹⁷ Alaska Department of Environmental Conservation. (n.d.). *Contaminated Sites Program*. Retrieved June 22, 2012 from: <http://dec.alaska.gov/spar/csp/list.htm>.

¹⁸ Unless otherwise noted, all monetary data are reported in nominal values.

ducks, and berries.¹⁹ Top employers²⁰ in 2010 included the Lake and Peninsula School District, Chignik Lagoon Village Council, Twin Peaks Construction, Native Village of Chignik Lagoon, Bristol Bay Native Association, and Bristol Bay Area Health Corporation.

In 2010,²¹ the estimated per capita income in Chignik Lagoon was \$37,231 and the estimated median household income was \$130,250, compared to \$28,941 and \$92,297 in 2000, respectively. After accounting for inflation by converting 2000 values to 2010 dollars,²² the real per capita income (\$38,057) and real median household income (\$121,369) indicate that while individual earnings have stayed the same, household earnings increased. In 2010, Chignik Lagoon ranked 20th of 305 Alaskan communities from which per capita income was estimated, and 3rd of 299 Alaskan communities from which median household income was estimated; making Chignik Lagoon one of the wealthiest communities in Alaska in terms of household earnings.

Chignik Lagoon's small population size may have prevented the ACS from accurately portraying economic conditions.²³ Another way of understanding of per capita income is obtained through economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). According to the ALARI database, residents earned \$657,455 in total wages in 2010.²⁴ When matched with the population in 2010, the per capita income equals \$8,429; which is significantly lower than ACS estimates. This suggests that caution should be used when comparing 2010 ACS estimates with the 2000 Census.²⁵ However, it should be noted that the ACS estimated that 17.5% of employed residents were self-employed. If this is accurate, then ALARI estimates may be inaccurate based on the fact that self-employed residents were not considered.

According to 2006-10 ACS estimates,²⁶ 62.5% of the population aged 16 years and over were part of the civilian labor force in 2010. In that year, unemployment was estimated at 0.0%, compared to an estimated 5.9% statewide; and no residents were estimated to be living below the poverty line, compared to an estimated 9.5% of Alaska residents overall. Again, these estimates may be inaccurate depending on sample error. ALARI estimated a 2010 unemployment rate of 3.4% based on unemployment claimants.

Of those employed in 2010, an estimated 67.5% worked in the public sector, an estimated 17.5% were self-employed, and an estimated 15.0% worked in the private sector. By industry,

¹⁹ Alaska Department of Community and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/comddb/CF_BLOCK.htm.

²⁰ 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/>.

²¹ U.S. Census Bureau (n.d.). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2010 American Community Survey 5-year estimates. Retrieved November 1, 2011 from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.

²² Inflation was calculated using the Anchorage Consumer Price Index for 2000 and 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, <http://labor.alaska.gov/research/cpi/inflationcalc.htm>).

²³ While American Community Survey (ACS) estimates can provide a good snapshot 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.

²⁴ ALARI estimates based on wages reported for unemployment insurance purposes. Estimates do not include self-employed or federally employed residents.

²⁵ See footnote 23.

²⁶ See footnote 21.

most (32.5%) employed residents were estimated to have worked in the education, health care, and social assistance sectors in 2010; followed by agriculture, forestry, fishing, hunting, and mining sectors (22.5%); public administration sectors (22.5%); transportation, warehousing, and utilities sectors (12.5%); and construction sectors (10.0%) (Figure 3). By occupation type, most (50.0%) employed residents were estimated to hold management or professional positions; followed by natural resources, construction, or maintenance positions (42.5%); service positions (5.0%); and production, transportation, or material moving positions (2.5%) (Figure 4).

Local employment by industry and by occupation shifted dramatically between 2000 and 2010, most likely because of Chignik Lagoon’s variable population or because of ACS sampling error. Notable changes were seen in both the public administration and construction sectors, including notable increases in both management and professional occupations.

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

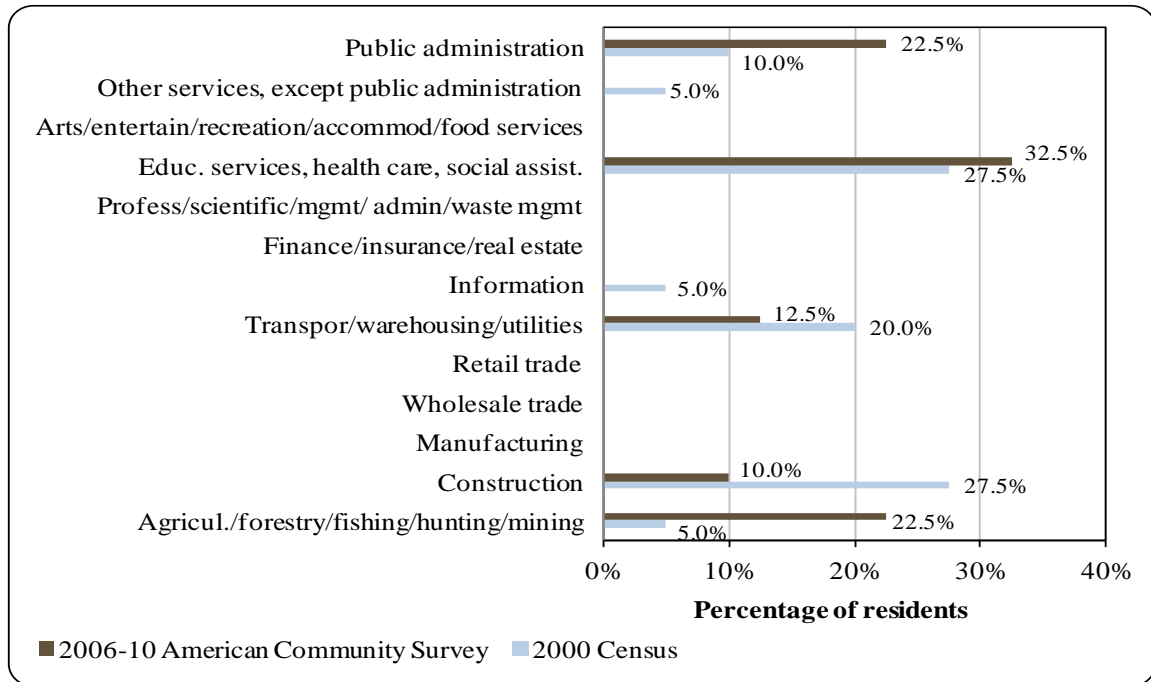
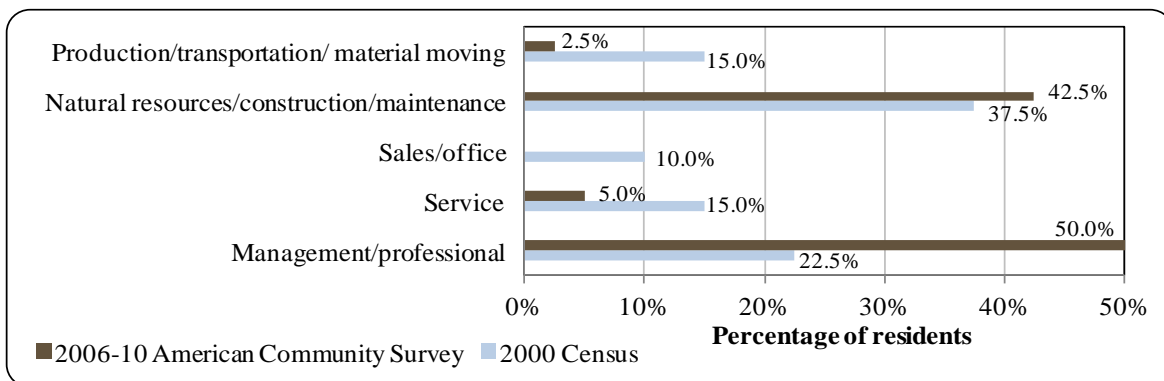


Figure 4. Local Employment by Occupation in 2000-2010, Chignik Lagoon (U.S. Census).



Governance

Chignik Lagoon is unincorporated and unable to administer taxes. However, it is under the jurisdiction of the Lake and Peninsula borough, which administers a 2% Raw Fish tax, 6% accommodations tax, \$3.00 Guide tax, and \$1.00 Lodge Guide tax. There is a U.S. Bureau of Indian Affairs (BIA) recognized Tribal government (Native Village of Chignik Lagoon) and Alaska Native Claims Settlement Act (ANCSA) chartered Native village corporation (Chignik Lagoon Native Corporation). The regional ANCSA Native corporation representing Chignik Lagoon is the Bristol Bay Native Corporation. The closest Alaska Department of Fish and Game (ADF&G) office is located in Chignik, although that office is only open seasonally. The closest permanent ADF&G office is located in Sand Point, 100 mi to the southwest. The closest National Marine Fisheries Service (NMFS) and U.S. Bureau of Citizenship and Immigration Services (BCIS) offices are located in Kodiak, 257 mi to the northeast. Information regarding community finances can be found in Table 2.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Chignik Lagoon 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	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a

¹ Alaska Department of Community and Rural Affairs. (n.d.). *Financial Documents Delivery System*. Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm.

² Alaska Department of Community and Economic Development. (n.d.). *Alaska Taxable (2000-2010)*. Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm.

³ Alaska Department of Revenue. (n.d.). *(2000-2009) Taxes and Fees Annual Report*. Retrieved April 15, 2011 from <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 Department of Community and Rural Affairs. (n.d.). *Community Funding Database*. Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm.

Infrastructure

*Connectivity and Transportation*²⁷

Chignik Lagoon is primarily accessible by air and sea. There are no roads connecting it to other villages. There is a strong regional interest in constructing roads between Chignik, Chignik Lagoon, Chignik Lake, and the landfill. A state-maintained 1,810-ft by 60-ft wide gravel airstrip, public domain small boat harbor, and seaplane base are all located in the community. Regular and charter flights are available from King Salmon. A cargo ship brings supplies annually, and goods are lightered to shore. Boat haulouts are available. ATVs and skiffs are the primary means of local transportation. Price for roundtrip airfare between Chignik and Anchorage in June 2012 was \$960.²⁸

*Facilities*²⁹

Chignik Lagoon draws its water from surface sources. The piped water system serves most homes; a few households have individual wells. Nearly all residences have complete plumbing, using individual septic tanks. An incinerator is available at the landfill. As of 2012 there was a hydroelectric project underway at Packer's Creek outside of town. Public safety services are provided by state troopers based in King Salmon. Fire and rescue services are provided by the Chignik Lagoon First Responder Group. Additional public facilities include a youth center and subsistence building, community center, school gym, and school library. Communications services include local and long distance telephone, local television, internet, and local radio.³⁰

*Medical Services*³¹

The Chignik Lagoon Clinic, which provides basic health care, is a Community Health Aid Program site. Emergency care, trauma care, behavioral health care, dental care, diagnostic images, and pharmacy services are provided in Chignik.

*Educational Opportunities*³²

Chignik Lagoon School offers preschool through twelfth grade instruction. As of 2011 there were 18 students enrolled and 3 teachers employed.

²⁷ Alaska Department of Community and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

²⁸ Airfare was calculated using lowest fare. Source: <http://www.travelocity.com> (retrieved November 22, 2011).

²⁹ See footnote 27.

³⁰ Native Village of Chignik Lagoon (n.d.). *Chignik Lagoon*. Retrieved January 26, 2012 from: <http://chigniklagoon.net/index.html>.

³¹ See footnote 27.

³² Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

The Chignik Management Area (CMA) is located on south side of the Alaska Peninsula and is the site of one of the earliest salmon fisheries in Alaska. By 1878, two canneries were processing the region's abundant sockeye salmon resource from Chignik Lagoon, one more began operation in Anchorage Bay by Chignik in 1896, and by 1910 the Columbia River Packers Association had built a cannery at Indian River (on Anchorage Bay). Canneries continued to proliferate throughout the region between 1890 and 1910, with additional canneries established near Ivanof Bay, and in Anchorage Bay. By 1911, the Columbia River Packing Company (later renamed Columbia Ward Fisheries) began operations on the north side of Chignik Lagoon, and operated there until 1990. By 1992, Aleutian Dragon Fisheries, and Chignik Pride Fisheries operated the only two remaining processing plants in the area, and both were located in Chignik Bay. Canneries primarily focused on all five species of Pacific salmon and Pacific cod; while also processing smaller quantities of octopus, sablefish, red snapper, pollock, and herring. Chignik canneries began processing shrimp in the 1970s, king crab in the early 1980s. and Tanner crab by 1987.³³

All five species of Pacific salmon are harvested commercially within the CMA, of which sockeye salmon are primarily targeted. In 2010, Chinook harvests within CMA totaled 10,380 fish, sockeye harvests totaled 1.38 million fish, coho harvests totaled 159,198 fish, pink harvests totaled 489,781 fish, and chum harvests totaled 581,329 fish. Total ex-vessel value of the CMA salmon harvest in 2010 was approximately \$14.34 million.³⁴ Ex-vessel value for Chignik salmon peaked in 1987 and 1988 at more than \$25 million, and decreased steadily to a low of approximately \$5 million between 2002 and 2006.³⁵

Managed by emergency order, herring harvests typically occur from April 15 through June 30 for the sac roe season, and from August 15 through February 28 for the food and bait season. However, no commercial herring harvest occurred in 2010 due to low industry interest. The last commercial herring harvest occurred in 1996.³⁶

Groundfish species targeted for both state and federal fisheries include Pacific cod, sablefish, lingcod, black rockfish, dark rockfish, and walleye pollock. In 2010, Pacific cod and walleye pollock comprised the largest volume of groundfish harvested in state fisheries within the Chignik area. Pacific cod are managed as a single Gulf of Alaska (GOA) stock, with the state managing parallel fisheries within state waters. In 2010, the total Acceptable Biological Catch for GOA pacific cod was 174.38 million lbs. In that year, 59.16 million lbs of Pacific cod was

³³ Hutchinson-Scarborough, L., and J. A. Fall. (1996). *An Overview of Subsistence Salmon and Other Subsistence Fisheries of the Chignik Management Area, Alaska Peninsula, Southwest Alaska*. Alaska Dep. of Fish and Game. Tech. Paper No. 230. Retrieved January 10, 2013 from: <http://www.subsistence.adfg.state.ak.us/download/TPS/tp230.pdf>.

³⁴ Anderson, T. J., and N. W. Nichols. (2010). *Chignik Management Area Salmon and Herring Annual Management Report, 2010*. Alaska Dep. of Fish and Game. Fishery Management Report No. 10-48. Retrieved January 10, 2013 from: <http://www.adfg.alaska.gov/FedAidPDFs/FMR10-48.pdf>.

³⁵ Knapp, G. (2007). *The Chignik Salmon Cooperative: A Case Study of Allocation to a Voluntary Self-Governance Organization*. University of Alaska, Anchorage. Retrieved January 9, 2013 from: http://www.iser.uaa.alaska.edu/people/knapp/personal/pubs/Knapp_Chignik_Salmon_Coop--Case_Study_of_Allocation_to_a_Voluntary_Self_Governance_Organization.pdf.

³⁶ See footnote 34.

taken from the western GOA, of which 56% was harvested from state waters. In the Chignik Area, pot gear vessels were allocated 8.51 million lbs, while jig gear vessels were allocated 946,040 lbs. The total Pacific cod harvest that year was 9.15 million lbs taken by 16 vessels, valued at \$2.19 million ex-vessel. In 2010, Black rockfish harvests in the Chignik Area were capped at 100,000 lbs. Only one vessel participated in the fishery that year. Skates are typically harvested incidentally while fishing for other targeted species, and fall under the assemblage of “other species” which include sharks, sculpins, squid, and octopi. Growing Asian markets for skates have increased interest in the species, which at times can be more valuable than other targeted species. Because of overfishing concerns, NMFS placed skates in bycatch status in 2006, while ADF&G discontinued directed harvests in state waters. State directed sablefish fisheries existed within Kodiak and Chignik areas in 2002, but have since been restricted to bycatch harvests. In 2010, sablefish bycatch harvests in state waters around Kodiak, Chignik, and the South Peninsula Eastern Districted totaled 17,924 lbs. Lingcod harvests are also strictly managed within the Kodiak and Chignik areas. Again, most lingcod is harvested as bycatch, and retention typically remains below 100,000 lbs annually within the western GOA. During 2008, lingcod harvests spiked to 521,257 lbs due to increased retention by trawl vessels. Lingcod harvests declined to 97,281 lbs in 2009 and 67,429 lbs in 2010. Walleye pollock harvests totaled 101.6 million lbs in the central GOA, and 57.1 million lbs in the western GOA. In the western GOA, 58% of the total pollock harvest occurred within state waters.³⁷

Historically, commercial red king crab, Tanner crab, grooved Tanner crab, Dungeness crab, Pandalid shrimp, red sea cucumber, and giant Pacific octopus harvests have occurred along the Alaska Peninsula. Most shellfish stocks are depressed, and commercial fisheries for red king crab and shrimp have not occurred since 1982. The Chignik Tanner crab fishery began in 1968, when 21,100 lbs were harvested and peaked in 1975 when 11 million lbs were harvested. Commercial fishing was closed in 1990 to allow depressed stocks to recover, and reopened during the 2004 and 2005 seasons. No Tanner crab fisheries occurred within the Chignik District between 2006 and 2010. Dungeness crab is harvested within the Chignik District although participation in the fishery is low with less than three vessels reporting landings in 2010. Shrimp fishing within the Chignik District began in 1968, and harvests peaked in 1976 at 27 million lbs. Stocks crashed shortly after, and by 1981 only 71,000 lbs were harvested. Since then, all inshore waters within the Chignik District have remained closed. While commercial fishing is permitted in some areas within the Chignik area, there was no fishing effort for shrimp within the Chignik District in 2010. Commercial sea cucumber harvests began in the Kodiak and Chignik districts in 1991 following an increase in market demand. Limits for eviscerated product was set at 25,000 lbs for the Chignik District in 2010 and fishing effort was limited. Demand for octopus increased during the 1990s, and are harvested alongside targeted species. In 2010, incidental harvests totaled 270,067 lbs from both state and federal waters.³⁸

Chignik Lagoon has a history of being a fishing community, with many commercial fishermen using it as a seasonal base of operations. Even after the closure of the local seafood processor, the community remained a commercial fishing hub for the region, largely because of

³⁷ Stichert, M. A., K. Phillips, and P. Converse. (2011). *Annual Management Report fo Groundfish Fisheries in the Kodiak, Chignik, and South Alaska Peninsula Management Areas, 2010*. Alaska Dep. of Fish and Game. Fishery Management Report No. 11-44. Retrieved January 10, 2013 from: <http://www.adfg.alaska.gov/FedAidPDFs/FMR11-44.pdf>.

³⁸ Sagalkin, N. and K. Spalinger. (2011). *Annual Management Report for Shellfish Fisheries in the Kodiak, Chignik, and Alaska Peninsula Areas, 2010*. Alaska Dep. of Fish and Game. Fishery Management Report No. 11-43. Retrieved January 10, 2013 from: <http://www.adfg.alaska.gov/FedAidPDFs/FMR11-43.pdf>.

the acclaimed Chignik salmon fishery. In 2002, the Alaska Board of Fisheries implemented an experimental program that allocated a percentage of the Chignik sockeye salmon harvest to a harvesting cooperative, while creating a separate, “independent” fishery for non-cooperative vessels. The Chignik Salmon Cooperative originally grew from anger over ex-vessel prices offered by processing plants. In 1991, this anger led to local seiners striking. Following the strike, the Chignik Seiners Association continued discussions over the formation of a cooperative as a way to increase overall profitability and lower overhead costs within the Chignik sockeye salmon fishery.³⁹ Fishing cooperatives had been formed previously in other fisheries as a method of voluntary self-management to complement existing limited entry systems. It was believed that cooperatives would increase local access to markets, operating efficiency, and overall profitability.⁴⁰ In the case of the Chignik cooperative, members would be selected as harvesters, tenders, or inactive members. Profits would then be split equally between members. Between 2002 and 2005, over three-quarters of salmon permit holders living in Chignik became members of the Chignik Salmon Cooperative. Following the formation of the Cooperative, relations with local seafood processors became strained. With control over almost 70% of the salmon harvest, the Cooperative gained greater influence within the market than independent fishermen had previously held. Two salmon processing plants owned by Trident Seafoods and Norquest Seafoods operated in nearby Chignik Bay. Trident Seafoods and the Cooperative were unable to come to a purchasing agreement, and Trident decided close its plant in 2004. Despite being regarded as largely successful by most permit holders, the Chignik Salmon Cooperative ended in 2006 after the Alaska Supreme Court determined it broke Alaska Limited Entry law.⁴¹

Chignik Lagoon is eligible to participate in the Community Quota Entity (CQE) program, and established a CQE non-profit called the Chignik Lagoon Fishing Coalition at the recommendation of the Chignik Lagoon Village Council. The impetus for the CQE program followed the implementation of the halibut and sablefish Individual Fishing Quota (IFQ) program in 1995. The IFQ program restructured fixed gear halibut and sablefish fisheries into a catch share program which issued transferable quota shares that allocated a portion of the annual Total Allowable Catch to eligible vessels and processors. Although the IFQ program resulted in many benefits to fishermen, processors, and support businesses, and unintended consequence was that many quota holders in smaller Alaskan communities either transferred quota outside the community or moved out themselves. In addition, as quota became increasingly valuable, entry into halibut or sablefish fisheries became difficult. In many cases, it was more profitable for small-scale operators to sell or lease their quota rather than fish it due to low profit margins and high quota value. These factors lead to decreased participation in communities traditionally dependent on the halibut or sablefish fisheries. To address this issue, the North Pacific Fishery Management Council implemented the CQE program in 2005. Under the program, eligible communities could form a non-profit corporation to purchase and manage quota share on their

³⁹ Knapp, G. (2007). *The Chignik Salmon Cooperative: A Case Study of Allocation to a Voluntary Self-Governance Organization*. University of Alaska, Anchorage. Retrieved January 9, 2013 from: http://www.iser.uaa.alaska.edu/people/knapp/personal/pubs/Knapp_Chignik_Salmon_Coop--Case_Study_of_Allocation_to_a_Voluntary_Self_Governance_Organization.pdf.

⁴⁰ Deacon, R. T., D. P. Parker, and C. Costello. (2008). *The Efficiency Gains from Coordinating Effort in a Fishery: Evidence from the Chignik Salmon Cooperative*. University of California, Santa Barbara. Retrieved January 9, 2013 from: http://econ.ucsd.edu/CEE/papers/Chignik%20II%2012_4.pdf

⁴¹ See footnote 39.

behalf.⁴² As of Fall 2013, the Chignik Lagoon Fishing Coalitoin had not yet purchased commercial halibut IFQ or halibut charter permits. However, the non-profit had acquired four non-trawl groundfish License Limitation Program permits for lease to eligible community members.⁴³

Chignik Lagoon is located in Federal Reporting Area 620, International Pacific Halibut Commission Regulatory Area 3B, and the GOA Sablefish Regulatory District.

Processing Plants

According to ADF&G's 2010 Intent to Operate list, Chignik Lagoon does not have a registered processing plant. The closest seafood processor is located in Chignik.

Fisheries-Related Revenue

No fisheries-related revenue was reported on a community level between 2000 and 2010. Taxes and fees are collected on a borough level. Information regarding fisheries-related revenue can be found in Table 3.

Commercial Fishing

In 2010, 24 residents, or 30.8% of the population, held a total of 44 permits issued by the Commercial Fisheries Entry Commission (CFEC). In 2000, 29 residents held 71 CFEC permits. Of those issued in 2010, 48% were for salmon, compared to 46% in 2000; 25% were for groundfish, compared to 42% in 2000; 9% were for herring, compared to 14% in 2000; 9% were for halibut, compared to 7% in 2000; and 9% were for crab, compared to 1% in 2000. Six residents held License Limitation Program (LLP) groundfish permits and two residents held Federal Fisheries Permits (FFP) (Table 4). Residents held 387,433 shares of halibut quota on 5 accounts in 2010, compared to 428,943 shares on 6 accounts in 2000. No residents held sablefish or crab quota between 2010 and when the programs began (Tables 6 to 8).

Residents held 41 commercial crew licenses in 2010, compared to 53 in 2000 (Table 5). In addition, residents held majority ownership of 41 vessels that year, compared to 49 in 2000. Of the CFEC permits held in 2010, 57% were actively fished, compared to 52% in 2000. This varied by fishery from 81% of salmon permits, to 75% of halibut, 36% of groundfish, 25% of crab, and 0% of herring permits. Herring permits were actively fished until 2006. Also in 2010, 66% of LLP groundfish permits were fished, as were 50% of FFPs (Table 4). Fisheries prosecuted in 2010 by Chignik Lagoon residents included: Chignik pot Dungeness crab and purse seine salmon; statewide longline halibut; statewide pot miscellaneous saltwater finfish; and GOA pot miscellaneous saltwater finfish.

No landings were reported in the community between 2000 and 2010; however, landings were reported by residents in those years (Tables 9 and 10). In 2010, 4.65 million lbs of salmon valued at \$3.76 million ex-vessel was landed, compared to 3.71 million lbs valued at \$3.03

⁴² North Pacific Fishery Management Council (2010). *Review of the Community Quota Entity (CQE) Program under the Halibut/Sablefish IFQ Program*. Retrieved October 23, 2012 from: <http://www.fakr.noaa.gov/npfmc/PDFdocuments/halibut/CQEREport210.pdf>.

⁴³ NOAA Fisheries. (2013). *Community Quota and License Programs and Community Quota Entities*. Retrieved October 30, 2013 from <http://alaskafisheries.noaa.gov/ram/cqp.htm>.

million ex-vessel in 2000; a decrease of \$0.31 per pound ex-vessel after accounting for inflation⁴⁴ and without considering the species composition of landings. Pacific cod landings that year totaled 4.63 million lbs valued at \$1.19 million ex-vessel, compared to 1.10 million lbs valued at \$340,136 ex-vessel; representing a decrease of \$0.17 per pound after accounting for inflation.⁴⁵ Other landings made in 2010 are considered confidential. Halibut landings in 2007 totaled 94,153 lbs valued at \$401,341 ex-vessel, compared to 117,741 lbs valued at \$303,414 in 2000; representing an increase of \$1.11 per pound ex-vessel after accounting for inflation.⁴⁶

⁴⁴ Inflation calculated using Producer Price Index for unprocessed and packaged fish, Bureau of Labor Statistics, <http://www.bls.gov/ppi/#data>.

⁴⁵ Ibid.

⁴⁶ Ibid.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Shared Fisheries Business Tax ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Fisheries Resource Landing Tax ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Port/dock usage ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
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
<i>Total fisheries-related revenue⁴</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
<i>Total municipal revenue⁵</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>

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

¹ Alaska Department of Community and Economic Development (n.d.) *Alaska Taxable (2000-2010)*. Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm.

² Alaska Department of Community 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 municipal budget. Alaska Department of Community 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.

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) ¹	Total permits	5	6	6	6	5	5	5	5	6	6	6
	Active permits	3	4	3	4	4	4	4	4	5	5	4
	% of permits fished	60%	66%	50%	66%	80%	80%	80%	80%	83%	83%	66%
	Total permit holders	5	6	6	6	5	5	5	5	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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries Permits ¹	Total permits	1	1	1	1	2	2	1	1	2	2	2
	Fished permits	0	0	0	1	1	2	1	1	2	2	1
	% of permits fished	0%	0%	0%	100%	50%	100%	100%	100%	100%	100%	50%
	Total permit holders	1	1	1	1	2	2	1	1	2	2	2
Crab (CFEC) ²	Total permits	1	2	4	1	1	12	11	4	4	3	4
	Fished permits	1	2	2	1	1	7	3	1	1	0	1
	% of permits fished	100%	100%	50%	100%	100%	58%	27%	25%	25%	0%	25%
	Total permit holders	1	1	1	1	1	10	9	3	3	3	3
Other shellfish (CFEC) ²	Total permits	2	2	1	1	1	1	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	0%	0%	0%	0%	0%	0%	n/a	n/a	n/a	n/a	n/a
	Total permit holders	2	2	1	1	1	1	0	0	0	0	0
Halibut (CFEC) ²	Total permits	5	5	6	5	6	6	6	6	6	6	4
	Fished permits	5	4	5	5	6	6	5	6	5	4	3
	% of permits fished	100%	80%	83%	100%	100%	100%	83%	100%	83%	67%	75%
	Total permit holders	5	5	6	5	6	6	6	6	6	6	4
Herring (CFEC) ²	Total permits	10	6	5	4	8	7	5	5	3	3	4
	Fished permits	1	1	0	0	1	1	1	0	0	0	0
	% of permits fished	10%	17%	0%	0%	13%	14%	20%	0%	0%	0%	0%
	Total permit holders	7	5	4	3	3	3	2	2	1	1	2

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Groundfish (CFEC) ²	Total permits	30	28	22	23	32	29	18	17	15	15	11
	Fished permits	8	18	6	12	14	9	7	7	8	9	4
	% of permits fished	27%	64%	27%	52%	44%	31%	39%	41%	53%	60%	36%
	Total permit holders	19	19	17	16	22	19	15	14	13	14	10
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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) ²	Total permits	23	25	24	24	24	26	23	22	23	24	21
	Fished permits	22	24	16	15	13	22	16	17	18	19	17
	% of permits fished	96%	96%	67%	63%	54%	85%	70%	77%	78%	79%	81%
	Total permit holders	22	25	25	22	24	24	21	20	23	25	23
<i>Total CFEC Permits²</i>	<i>Permits</i>	<i>71</i>	<i>68</i>	<i>62</i>	<i>58</i>	<i>72</i>	<i>81</i>	<i>63</i>	<i>54</i>	<i>51</i>	<i>51</i>	<i>44</i>
	<i>Fished permits</i>	<i>37</i>	<i>49</i>	<i>29</i>	<i>33</i>	<i>35</i>	<i>45</i>	<i>32</i>	<i>31</i>	<i>32</i>	<i>32</i>	<i>25</i>
	<i>% of permits fished</i>	<i>52%</i>	<i>72%</i>	<i>47%</i>	<i>57%</i>	<i>49%</i>	<i>56%</i>	<i>51%</i>	<i>57%</i>	<i>63%</i>	<i>63%</i>	<i>57%</i>
	<i>Permit holders</i>	<i>29</i>	<i>31</i>	<i>30</i>	<i>26</i>	<i>33</i>	<i>33</i>	<i>27</i>	<i>24</i>	<i>24</i>	<i>27</i>	<i>24</i>

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 Chignik Lagoon: 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 Chignik Lagoon ²	Total Net Lbs Landed In Chignik Lagoon ^{2,5}	Total Ex-Vessel Value Of Landings In Chignik Lagoon ^{2,5}
2000	53	0	0	49	42	0	0	\$0
2001	66	0	0	54	41	0	0	\$0
2002	52	0	0	51	38	0	0	\$0
2003	53	0	0	51	35	0	0	\$0
2004	29	0	0	54	38	0	0	\$0
2005	38	0	0	42	34	0	0	\$0
2006	35	0	0	40	34	0	0	\$0
2007	40	0	0	40	32	0	0	\$0
2008	39	0	0	43	35	0	0	\$0
2009	25	0	0	44	32	0	0	\$0
2010	41	0	0	41	33	0	0	\$0

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 in Chignik Lagoon: 2000-2010.

Year	Number of Halibut Quota Share account holders	Halibut Quota Shares held	Halibut IFQ allotment (lbs)
2000	6	428,943	118,561
2001	6	428,943	130,449
2002	6	428,943	135,181
2003	6	428,943	134,450
2004	6	392,851	112,189
2005	6	392,851	94,604
2006	6	392,851	78,258
2007	6	392,851	66,660
2008	6	392,851	78,597
2009	6	392,851	78,519
2010	5	387,433	70,738

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 in Chignik Lagoon: 2000-2010.

Year	Number Of Sablefish Quota Share Account Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (Lbs)
2000	0	0	0
2001	0	0	0
2002	0	0	0
2003	0	0	0
2004	0	0	0
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 8. Bering Sea and Aleutian Island Crab Catch Share Program Participation in Chignik Lagoon: 2000-2010.

Year	Number Of Crab Quota Share Account Holders	Crab Quota Shares Held	Crab IFQ Allotment (Lbs)
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 Chignik Lagoon: 2000-2010.

	<i>Total Net Pounds¹</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	0	0	0	0	0	0	0	0	0	0	0
Finfish	0	0	0	0	0	0	0	0	0	0	0
Halibut	0	0	0	0	0	0	0	0	0	0	0
Herring	0	0	0	0	0	0	0	0	0	0	0
Other Groundfish	0	0	0	0	0	0	0	0	0	0	0
Other Shellfish	0	0	0	0	0	0	0	0	0	0	0
Pacific Cod	0	0	0	0	0	0	0	0	0	0	0
Pollock	0	0	0	0	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0	0	0	0	0
Salmon	0	0	0	0	0	0	0	0	0	0	0
<i>Total²</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
	<i>Ex-vessel Value (nominal U.S. dollars)</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Finfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Halibut	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Herring	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Groundfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Shellfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pacific Cod	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pollock	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sablefish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Salmon	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Total²</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>

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 lbs refers to the landed weight recorded in fish tickets.

² Totals only represent non-confidential data.

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Table 10. Landed Pounds and Ex-Vessel Revenue, By Species, by Chignik Lagoon Residents: 2000-2010.

	<i>Total Net Pounds¹</i>										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	--	--	--	--	--	155,804	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	117,741	125,784	--	143,088	132,099	108,299	92,959	94,153	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	11,279	2,630	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	1,098,592	1,644,330	3,314,695	2,501,486	3,341,116	2,871,138	2,391,714	3,758,015	3,927,712	3,491,723	4,633,248
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	3,710,293	4,435,588	2,301,163	2,661,475	1,574,900	2,536,652	2,636,534	5,930,246	6,307,771	6,537,079	4,649,445
<i>Total²</i>	<i>4,926,626</i>	<i>6,205,702</i>	<i>5,615,858</i>	<i>5,317,328</i>	<i>5,050,745</i>	<i>5,671,893</i>	<i>5,121,207</i>	<i>9,782,414</i>	<i>10,235,483</i>	<i>10,028,802</i>	<i>9,282,693</i>
	<i>Ex-vessel Value (nominal U.S. dollars)</i>										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	--	--	--	--	--	\$244,977	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	\$303,414	\$242,512	--	\$396,534	\$380,693	\$310,905	\$342,496	\$401,341	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	\$4,755	\$583	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	\$340,136	\$415,390	\$703,288	\$672,325	\$795,125	\$741,575	\$875,374	\$1,740,608	\$2,244,109	\$886,419	\$1,187,620
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	\$3,034,196	\$2,465,420	\$1,493,648	\$1,630,399	\$1,469,211	\$2,144,728	\$1,752,060	\$2,321,916	\$3,339,523	\$4,126,809	\$3,763,243
<i>Total²</i>	<i>\$3,677,745</i>	<i>\$3,123,322</i>	<i>\$2,196,936</i>	<i>\$2,704,013</i>	<i>\$2,645,612</i>	<i>\$3,442,185</i>	<i>\$2,969,930</i>	<i>\$4,463,866</i>	<i>\$5,583,632</i>	<i>\$5,013,228</i>	<i>\$4,950,863</i>

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 lbs refers to the landed weight recorded in fish tickets.

² Totals only represent non-confidential data.

Recreational Fishing

Recreational fishing is limited due to Chignik Lagoon’s remote location. However, in 2010 there was one sportfishing guide business registered in the community and three residents held sport fish guide licenses. In total, 44 sportfishing licenses were sold in the community in 2010, compared to 10 in 2000. In addition, 18 sportfishing licenses were sold to residents, compared to none in 2000.

Chignik Lagoon is located within the Alaska Peninsula and Aleutian Islands ADF&G Harvest Survey Area which includes all Alaskan waters, including drainages, between Cape Douglas and the community of Naknek. In 2010, angler days fished totaled 5,297 for saltwater fisheries and 33,635 for freshwater fisheries. In that year, non-Alaskan residents accounted for 38.4% of saltwater and 58.4% of freshwater angler days fished, compared to 15.8% and 39.5% in 2000, respectively. According to ADF&G Harvest Survey data, private anglers in Chignik Lagoon target king and sockeye salmon, halibut, rockfish, Pacific cod, Dungeness and Tanner crab, hardshell clams, and other shellfish. There is no kept/released charter information available for Chignik Lagoon. Information regarding sportfishing trends can be found in Table 11.

Table 11. Sport Fishing trends, Chignik Lagoon: 2000-2010.

Year	Active Sport Fish Guide Businesses¹	Sport Fish Guide Licenses¹	Sport Fishing Licenses Sold to Residents²	Sport Fishing Licenses Sold in Chignik Lagoon²
2000	1	1	10	0
2001	1	1	33	0
2002	1	1	25	0
2003	2	3	33	7
2004	2	3	36	7
2005	1	1	36	21
2006	2	1	18	30
2007	2	1	20	29
2008	1	0	14	9
2009	1	0	17	41
2010	1	3	18	44

Table 11 cont'd. Sport Fishing trends, Chignik Lagoon: 2000-2010.

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	1,664	8,870	17,749	27,227
2001	1,760	3,939	16,840	14,350
2002	4,126	5,210	15,865	18,417
2003	1,603	4,333	16,557	11,878
2004	1,948	12,721	18,813	19,360
2005	3,585	5,129	14,130	12,038
2006	2,809	4,392	22,323	8,830
2007	2,588	9,356	20,371	15,870
2008	3,436	4,298	21,797	10,207
2009	3,488	3,815	18,996	16,020
2010	2,036	3,261	19,643	13,992

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 is an important part of life in Chignik Lagoon as many year-round residents rely on subsistence and personal use fisheries to supplement their incomes when employment is scarce. In addition, as with many rural communities in Alaska, subsistence activities are a source of social and cultural cohesion, reinforcing lifestyles and traditions important to village life. During the 1980s and 1990s, residents harvested salmon primarily using purse seines, beach seine, and gill nets. Fish were also set aside from commercial harvests for home use and some salmon were harvested using rod and reel under sportfishing regulations.⁴⁷

In a 2003 ADF&G survey,⁴⁸ 90% of surveyed households were to participating in subsistence salmon fisheries, 94% were participating in subsistence halibut fisheries, 71% were participating in subsistence marine invertebrate fisheries, and 25% were participating in

⁴⁷ Hutchinson-Scarborough, L., and J. A. Fall. (1996). *An Overview of Subsistence Salmon and Other Subsistence Fisheries of the Chignik Management Area, Alaska Peninsula, Southwest Alaska*. Alaska Dep. of Fish and Game. Tech. Paper No. 230. Retrieved January 10, 2013 from: <http://www.subsistence.adfg.state.ak.us/download/TPS/tp230.pdf>.

⁴⁸ 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).

subsistence non-salmon fish fisheries. In 2003, it was estimated that 304.5 lbs of marine resources were harvested per person for subsistence. According to the ADF&G *Community Subsistence Information System*,⁴⁹ Chignik Lagoon residents have used or harvested chitons, butter clams, Dungeness crab, octopus, littleneck clams, razor clams, sea urchin, Tanner crab, harbor seal, king crab, Steller sea lion, black rockfish, Dolly Varden char, eulachon, herring, longcod, Pacific cod, rainbow trout, red rockfish, skates, steelhead, and sole.

Salmon, halibut and marine mammals have been harvested by residents recently (Tables 12-15). Of the salmon species harvested by residents, sockeye salmon were harvested most, followed by coho and Chinook salmon. In 2008, residents reported harvesting 2,466 salmon, compared to 2,659 in 2000. The number of sockeye salmon reported harvested peaked in 2004 at 3,577 fish, which was the same year total reported salmon harvests peaked. In 2010, 13 residents held Subsistence Halibut Registration Certificates (SHARC), compared to 34 in 2003. In that year, an estimated 770 lbs of halibut was harvested on 9 SHARC, compared to an estimated 2,921 lbs on 28 SHARC in 2003. Estimated halibut harvests peaked in 2006 at 6,694 lbs harvested on 28 SHARC. Marine mammal harvest information is limited; however, an estimated 14 sea otters were harvested between 2000 and 2010. In addition, an estimated 3 Steller sea lions were harvested between 2000 and 2008.

Table 12. Subsistence Participation by Household and Species, Chignik Lagoon: 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	90%	94%	n/a	71%	25%	304.52
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).

⁴⁹ Ibid.

Table 13. Subsistence Fishing Participation for Salmon, Marine Invertebrates, and Non-Salmon Fish, Chignik Lagoon: 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	26	22	88	n/a	8	n/a	2,563	n/a	n/a
2001	38	37	87	n/a	240	33	2,843	n/a	n/a
2002	31	22	32	n/a	68	n/a	2,396	n/a	n/a
2003	35	28	126	n/a	35	17	3,459	2,051	856
2004	31	16	16	23	78	50	3,577	n/a	n/a
2005	26	24	157	14	114	27	1,896	n/a	n/a
2006	30	22	130	7	74	13	2,850	n/a	n/a
2007	30	11	16	3	95	n/a	3,327	n/a	n/a
2008	19	16	n/a	n/a	65	n/a	2,401	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, Chignik Lagoon: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	34	28	2,921
2004	45	34	4,434
2005	42	30	4,686
2006	42	28	6,694
2007	39	22	4,269
2008	18	12	1,859
2009	13	9	2,233
2010	13	3	770

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, Chignik Lagoon: 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	n/a	n/a	n/a	n/a	1	n/a
2001	n/a	n/a	n/a	n/a	n/a	1	n/a
2002	n/a	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	n/a
2004	n/a	n/a	n/a	n/a	n/a	1	n/a
2005	n/a	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	n/a
2007	n/a	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	n/a
2009	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

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.