

Akhiok (AH-key-ock)

Includes Alitak Bay

People and Place



*Location*¹

Akhiok is located at the southern end of Kodiak Island in Alitak Bay. It lies 80 mi southwest of the City of Kodiak and 340 mi southwest of Anchorage. The area encompasses 7.9 sq mi of land and 2.5 sq mi of water. Akhiok was incorporated as a Second-class city in 1972 and is under the jurisdiction of the Kodiak Borough.

*Demographic Profile*²

In 2010, there were 71 residents, ranking Akhiok 278th of 352 Alaskan communities in terms of population size. Between 1990 and 2010, the population declined by 7.8%. Between 2000 and 2009, the population fell by 10.5% with an average annual growth rate of -1.9%, which was much lower than the statewide average of 0.75% and indicative of a rapid decline in those years. There is a notable difference between the 2009 Alaska Department of Labor and Workforce Development (DOLWD) and 2010 Census figures indicating a possible discrepancy between the two. In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported 80 permanent and no seasonal or transient residents living in Akhiok in 2010 (83 as of 2012). Because of housing shortages, the community is unable to accommodate temporary residents. Information regarding population trends can be found in Table 1.

Akhiok's population was mostly Alutiiq in 2010. In that year, 50.7% of residents identified themselves as American Indian or Alaska Native, compared to 86.2% in 2000. In addition, 38.0% of residents identified themselves as two or more races that year, compared to 7.5% in 2000; 8.5% identified themselves as White, compared to 2.5% in 2000; 1.4% identified themselves as Black or African American, compared to 0.0% in 2000; and 1.4% identified themselves as Asian, compared to 3.8% in 2000. In addition, 11.3% of residents identified themselves as Hispanic or Latino in 2010, compared to 1.3% in 2000. Information regarding race and ethnicity can be found in Figure 1.

In 2010, the average household size was 3.74, compared to 3.91 in 2000 and 4.0 in 1990. The total number of housing units that year was 27, compared to 77 in 1990 and 34 in 2000. Of the households surveyed in 2010, 41% were owner-occupied, compared to 68% in 2000; 30% were renter-occupied, compared to 6% in 2000; 22% were vacant, compared to 21% in 2000; and 7% were occupied seasonally, compared to 6% in 2000. In a survey conducted by NOAA's

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>.

AFSC in 2011, community leaders reported that there was no annual influx of seasonal workers in Akhiok due to housing shortages.

The gender distribution in 2010 was almost even, at 49.3% male and 50.7% female. This was slightly more even than both the statewide distribution (52.0% male, 48.0% female) and 2000 distribution (55.0% male, 45.0% female). The median age that year was 22.2 years, much younger than the statewide median of 32.7 and slightly younger than the 2000 median of 24.0 years.

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

Year	U.S. Decennial Census ¹	Alaska Dept. of Labor Estimate of Permanent Residents ²
1990	77	-
2000	80	-
2001	-	57
2002	-	49
2003	-	51
2004	-	57
2005	-	42
2006	-	41
2007	-	36
2008	-	48
2009	-	51
2010	71	-

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, Akhiok: 2000-2010 (U.S. Census).

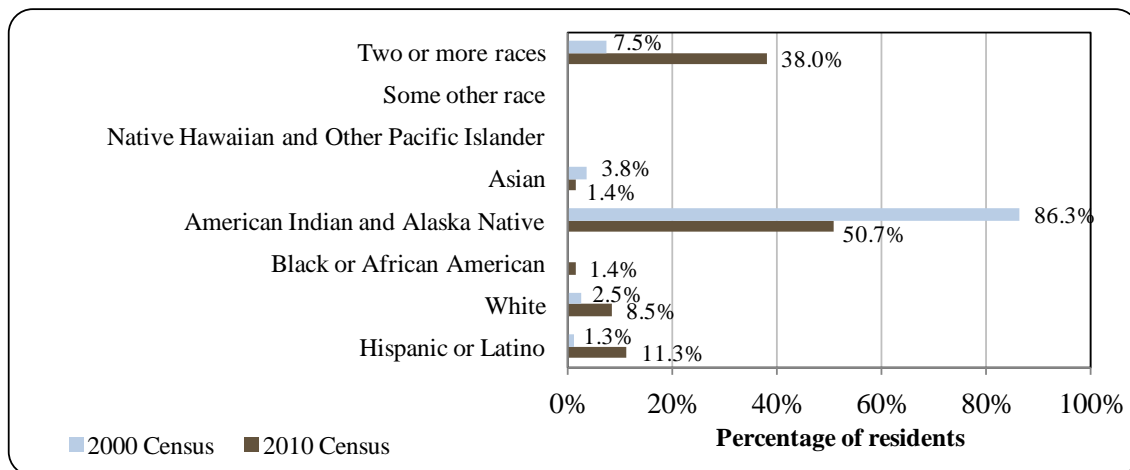
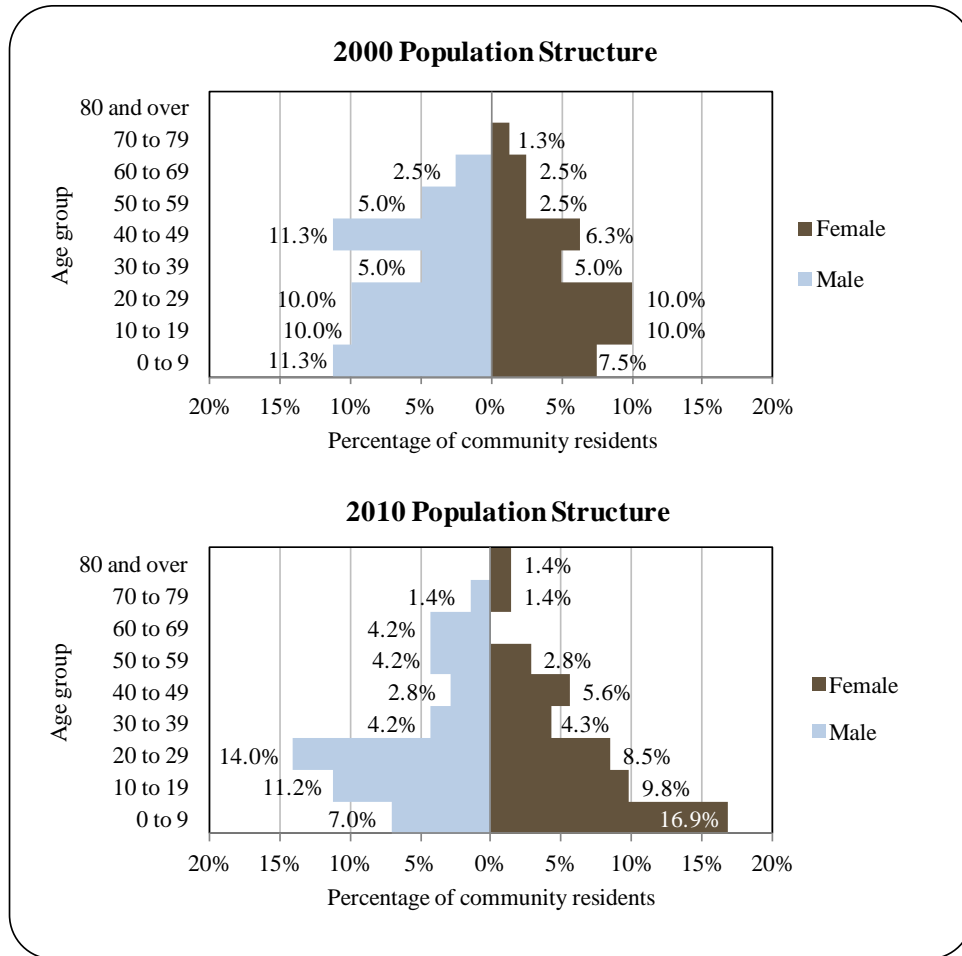


Figure 2. Population Age Structure in Akhiok Based on the 2000 and 2010 U.S. Decennial Census.



Compared to 2000, the population structure in 2010 was slightly more expansive. In that year, 44.9% of residents under the age of 20, compared to 33.8% in 2000; 8.4% were over the age of 59, compared to 4.4% in 2000; 23.9% were between the ages of 30 and 59, compared to 23.1% in 2000; and 22.5% were between the ages of 20 and 29, compared to 15.4% in 2000.

Gender distribution by age cohort was less even in 2010 than in 2000 with almost equal biases in both females and males among age ranges. In that year, the greatest absolute gender difference occurred in the 0 to 9 age (16.9% female, 7.0% male), followed by the 20 to 29 (14.0% male, 8.5% female) and 60 to 69 (4.2% male, 0% female) ranges. Of those three, the greatest relative gender difference occurred in the 60 to 69 range. Information regarding population structure can be found in Figure 2.

In terms of educational attainment, the U.S. Census' 2006-2010 American Community Survey (ACS)³ estimated that in 2010, 75.5% of residents aged 25 and older held a high school

³ 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.

diploma or higher degree, compared to an estimated 90.7% of Alaska residents overall. Also in that year, an estimated 10.3% had less than a ninth grade education, compared to an estimated 3.5% of Alaska residents overall; an estimated 13.8% had a ninth to twelfth grade education but no diploma, compared to an estimated 5.8% of Alaska residents overall; an estimated 25.9% had some college but no degree, compared to an estimated 28.3% of Alaska residents overall; an estimated 6.9% had an Associate's degree, compared to an estimated 8% of Alaska residents overall; and an estimated 22.4% had a Bachelor's degree, compared to an estimated 17.4% of Alaska residents overall. No residents were estimated to have a graduate or professional degree in 2010.

*History, Traditional Knowledge, and Culture*⁴

The original village of Akhiok was located near Humpy Cove, and served as a sea otter hunting settlement. The village, called Kashukugniut, was occupied by Russians during the early nineteenth century. The name "Akhiok" was reported in the 1880 census. In 1881, residents from the old village relocated to the present site at the south end of Kodiak Island at Alitak Bay. A post office was established in 1933 and remained open until 1945. The village was renamed Alitak during World War I by the post office to avoid confusion with a village near Bethel named Akiak. The name was later changed back to Akhiok. With the decline of the sea otter industry, the village became oriented toward fishing. Following the 1964 earthquake and tsunami, families from the village of Kaguyak were relocated in Akhiok.

The majority of Akhiok's residents are descendants from the Alutiiq people who originally occupied the Kodiak archipelago. Residents are proud of their heritage and traditions of respect towards their land and marine resources. Subsistence is an important part of the community's culture. Children are taught from an early age how to hunt, fish, dig for clams, pick berries, and gather wild edibles and medicinal plants.

Akhiok's community life revolves around its "Protection of the Theotokos" Orthodox Church. This strong faith has sustained the community through loss and hardship, demonstrated during Great Lent when the entire community gathers to celebrate the Easter season. The community's cemetery contains several historic landmarks. The community values the need to find ways to continue its Native language and culture so that young people grow up with a strong sense of identity. To this end, Akhiok initiated "Alutiiq Week" in 1991. Alutiiq Week is a week of workshops, celebration and community gatherings in the Akhiok School that focus on the continuance of Alutiiq culture. Alutiiq Week is now celebrated every year by other Kodiak Archipelago villages, and has become a cornerstone of teaching skills such as carving to young people.

The community hosts one property currently on the National Register of Historic Places (NRHP). Protection of the Theotokos Chapel, a Russian Orthodox church, was founded in 1926.⁵ Alutiiq petroglyphs are also found in the area.

⁴ Kodiak Island Borough. (2008). *Kodiak Island Borough Comprehensive Plan Update*. Retrieved March 8, 2012 from: <http://www.commerce.state.ak.us/dca/plans/KodiakIslandBorough-CP-2008.pdf>.

⁵ American Dreams Inc. (n.d.). *National Register of Historic Places*. Retrieved December 2, 2011 from: <http://www.nationalregisterofhistoricplaces.com/ak/Kodiak+Island/state.html>

Natural Resources and Environment

The climate of the Kodiak Islands is dominated by a strong marine influence. There is little or no freezing weather, moderate precipitation, and frequent cloud cover and fog. Severe storms are common from December through February. Annual precipitation is 35 inches. Temperatures remain within a narrow range, from 25 to 54 °F (-3 to 12 °C).⁶

Akhiok's landscape is characterized by narrow rocky beaches, moist tundra lowlands, and steep relief uplands. Dominant vegetation types include tall grasses, fireweed, horse-tail, yarrow, sedges, mosses, fern, lichens, dwarf birch, and alder stands.⁷

The Kodiak archipelago and waters that surround it are home to many species of terrestrial and aquatic life. The Kodiak National Wildlife Refuge occupies two-thirds of Kodiak Island and is home to terrestrial species such as brown bears, bats, tundra vole, short-tailed weasel, red fox, river otter, Sitka black-tail deer, beavers, red squirrels, snowshoe hare, arctic ground squirrel, Roosevelt elk, muskrat, and mountain goat. Marine mammals documented in the area include whales, harbor seals, fur seals, sea otters, and Steller sea lions.⁸ The adjacent waters provide some of the richest commercial fishing grounds in the world, home to stocks of Pacific salmon, halibut, flounder, cod, trout, grayling, crab, and shrimp.⁹

There are several mineral projects in the area as of 2011 including a tin claim around Halibut Bay to the north and a gold/silver claim around the city of Kodiak.¹⁰ In addition, there is a placer gold deposit located in the vicinity of Alitak and Tanner Head Island to the south.¹¹

Natural hazards in the area include coastal flooding, coastal erosion, earthquakes, tsunamis, volcanism, landslides, and sea-level rise. Coastal flooding and erosion is mainly attributed to storm surges. There are several faults that run through Kodiak Island, and earthquakes that are magnitude six or above are relatively frequent. Threats from Aleutian volcanoes include the possibility of acidic rain, ash clouds, landslides, tsunamis, and earthquakes.¹² According to the Alaska Department of Environmental Conservation, there were no local significant environmental remediation projects active in 2010.¹³

Current Economy¹⁴

Akhiok's economy is largely based around subsistence. Public sector employment and seasonal work provide cash flow in the community. Almost all of Akhiok's residents depend heavily on subsistence fishing and hunting. Salmon, crab, shrimp, clams, ducks, seal, deer, rabbit, and bear are utilized. In January 2003, each Akhiok shareholder received \$200,000 from

⁶ 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.

⁷ See footnote 4.

⁸ United States Fish and Wildlife Service (n.d.). *Kodiak National Wildlife Refuge*. Retrieved December 2, 2011 from: http://kodiak.fws.gov/wildlife_habitat.htm.

⁹ Ibid.

¹⁰ Alaska Department of Commerce. (n.d.) *Mineral Resources of Alaska Map*. Retrieved December 2, 2011 from: <http://commerce.alaska.gov/ded/dev/minerals/mining.htm>.

¹¹ See footnote 8.

¹² City of Akhiok. (1986). *Comprehensive Plan*. Retrieved December 2, 2011 from: <http://www.kodiakak.us/DocumentView.aspx?DID=85>.

¹³ Alaska Department of Environmental Conservation. (n.d.) *Contaminated Sites Program*. Retrieved June 5, 2012 from: <http://dec.alaska.gov/spar/csp/list.htm>.

¹⁴ Unless otherwise noted, all monetary data are reported in nominal values.

the sale of a \$36 million trust fund provided in the *Exxon Valdez* oil spill settlement.¹⁵ Top employers in 2010¹⁶ included the Kodiak Area Native Association, Kodiak Island Housing Authority, the City of Akhiok, Kodiak Island Borough School District, Ocean Beauty Seafoods, and Kishan Group.

According to the 2006-2010 ACS,¹⁷ the per capita income in Akhiok was estimated at \$12,614 and the median household income was estimated at \$23,182, compared to \$8,473 and \$33,438 in 2000, respectively.¹⁸ After accounting for inflation by converting 2000 values into 2010 dollars,¹⁹ the real per capita income (\$11,142) and real median household income (\$43,971) indicate that while individual earnings increased slightly, household earnings decreased somewhat dramatically. In 2010, Akhiok ranked 229th of 305 Alaskan communities from which per capita income was estimated, and 267th of 299 Alaskan communities from which median household income was estimated, indicating that it is one of the poorer communities in Alaska.

Akhiok's small population size may have prevented the ACS from accurately portraying economic conditions.²⁰ Another 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 a total of \$335,453 in wages in 2010.²¹ When divided by the 2010 population, the per capita income of \$4,725 indicates a significant decline in individual earnings compared to the real per capita income values reported by the U.S. Census in 2000.²² In addition, the community was recognized as "distressed" by the Denali Commission indicating that over 70% of residents aged 16 and older earned less than \$16,120 in 2010.²³ However, it should be noted that American Community Survey and DOLWD data are based on wage earnings and does not take into account the value of subsistence within the local economy.

According to 2006-2010 ACS estimates,²⁴ 62.9% of residents aged 16 and over were considered part of the civilian labor force. Between 2006 and 2010, the estimated unemployment rate was 4.8%, compared to an estimated 5.9% statewide; and an estimated 7.1% of the population was living below the poverty level, compared to an estimated 9.5% of residents statewide. Of those employed, an estimated 91.7% worked in the public sector while an estimated 8.3% worked in the private sector.

¹⁵ See footnote 6.

¹⁶ 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/>.

¹⁷ 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>.

¹⁸ 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.

¹⁹ 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>).

²⁰ See footnote 18.

²¹ ALARI estimates based on wages reported for unemployment insurance purposes. Estimates do not include self-employed or federally employed residents.

²² See footnote 16.

²³ Denali Commission. 2011. *Distressed Community Criteria 2011 Update*. Retrieved April 16, 2012 from: www.denali.gov.

²⁴ See footnote 18.

By industry, most (77.8%) employed residents were estimated to work in education services, health care, or social assistance sectors; followed by public administration sectors (8.3%); finance, insurance, and real estate sectors (8.3%); and transportation, warehousing, and utilities sectors (5.6%) (Figure 3). By occupation type, most (75.0%) employed residents were estimated to hold management or professional positions; followed by services positions (11.1%); natural resources, construction, or maintenance positions (8.3%); and sales or office positions (5.6%) (Figure 4).

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

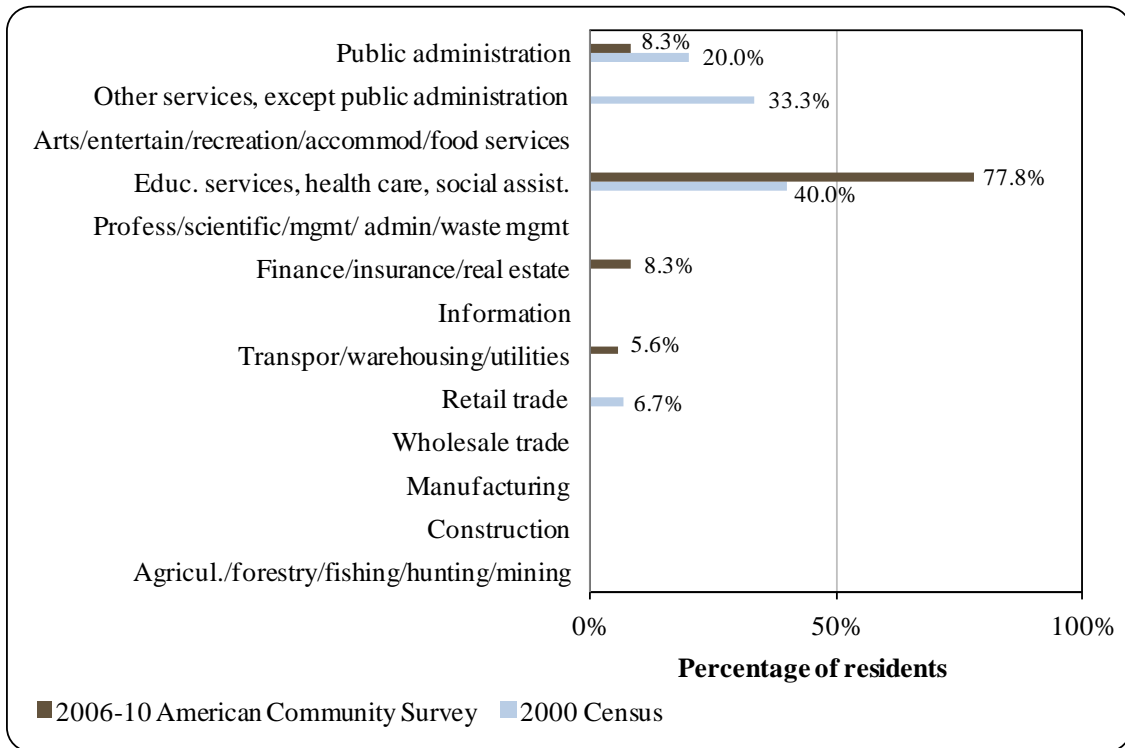
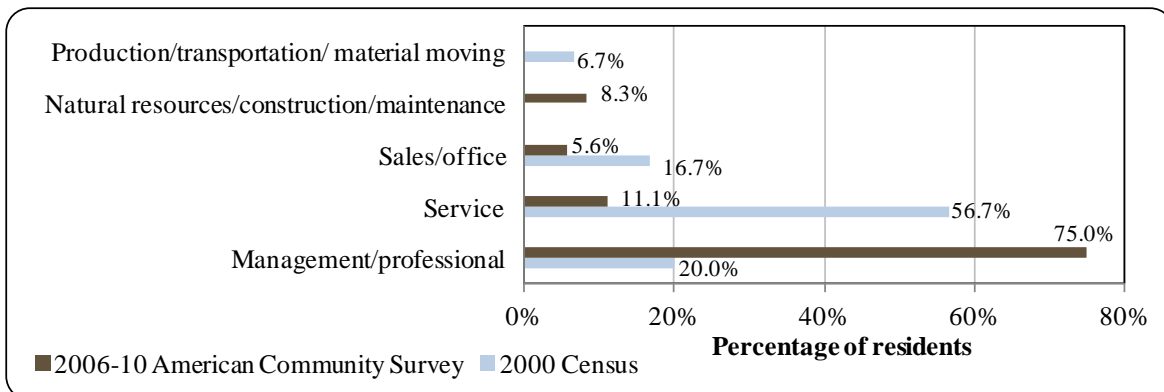


Figure 4. Local Employment by Occupation in 2000-2010, Akhiok (U.S. Census).



It should be noted that sampling techniques may not have captured the true scope of industry and occupational representation. This may account for the dramatic variation in industry sector employment and occupation type between 2000 and 2010. It should also be noted that income and poverty statistics are based on wage income and other money sources and are not reflective of the value of subsistence to the local economy. According to 2010 ALARI estimates, most (30.0%) employed residents were estimated to work in local government sectors; followed by education and health service sectors (26.7%) and financial service sectors (20.0%). No individuals characterized themselves as working in natural resource based industries that include fishing. However, given the data reported in the *Commercial Fishing* section below, the number of individuals employed in the farming, fishing, and forestry industries may be underestimated by census statistics as fishermen may hold another job and characterize their employment accordingly.

Governance

Akhiok is a Second-class city located within the Kodiak Island Borough. In addition, there is a U.S. Bureau of Indian Affairs (BIA) recognized Tribal government located in Akhiok. The Alaska Native Claims Settlement Act (ANCSA) chartered regional corporation representing Akhiok is Koniag Inc., and the local ANCSA chartered non-profit is the Kodiak Area Native Association. The ANCSA chartered village corporation is Akhiok-Kaguyak, Inc. The closest National Marine Fisheries Service (NMFS), Alaska Department of Fish and Game (ADF&G), and Bureau of Citizenship and Immigration Services are all located within the city of Kodiak, 80 mi northeast.

The City does not administer any taxes; however, the borough administers an annually adjusted property tax, resource severance tax, and 5% accommodations tax. The total municipal revenue for 2010 was \$215,913, compared to \$101,285 in 2000, representing a 64.8% increase in revenues after adjusting for inflation.²⁵ Akhiok collected revenue from both the Community Revenue Sharing and State Revenue Sharing programs between 2000 and 2010. Akhiok collected an average of \$21,316 annually between 2000 and 2004 from State Revenue Sharing and \$99,230 annually between 2009 and 2010 from Community Revenue Sharing. Additional revenue included \$19,000 collected in 2007 from fuel deliveries, and a \$14 million grant in 2008 for the construction of a sewer system and landfill (Table 2).

²⁵ Inflation calculated using Anchorage CPI from Alaska DOL: <http://labor.alaska.gov/research/cpi/cpi.htm>.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Akhiok 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	\$101,285	n/a	\$21,119	n/a
2001	\$119,374	n/a	\$20,337	n/a
2002	\$113,619	n/a	\$20,483	n/a
2003	\$114,517	n/a	\$20,643	n/a
2004	\$115,780	n/a	\$24,000	n/a
2005	\$195,256	n/a	-	n/a
2006	\$78,000	n/a	-	n/a
2007	\$140,535	n/a	-	n/a
2008	\$203,127	n/a	-	n/a
2009	\$204,199	n/a	\$98,449	n/a
2010	\$215,913	n/a	\$100,012	n/a

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

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 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, 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

Akhiok is accessible by water or air only. The State of Alaska maintains a 3,120-ft runway south of town. No crosswind runway or tower services exist and flights are often limited due to severe weather. There is also a floatplane harbor available.²⁶

Akhiok does not have a deep water dock or boat harbor and no regular barge service is available. One company transports cargo via landing craft as needed. Alitak cannery possesses full docking facilities and residents are able to obtain supplies at the cannery store when the facility is operating. Otherwise, freight is most often moved by small personal craft from off-shore freight vessels or by air.²⁷

According to survey conducted by the AFSC in 2011, community leaders reported that most travel throughout the area is done by private skiff. As of November 2011, the price for

²⁶ 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.

²⁷ Kodiak Island Borough. (2008). *Kodiak Island Borough Comprehensive Plan Update*. Retrieved March 8, 2012 from: <http://www.commerce.state.ak.us/dca/plans/KodiakIslandBorough-CP-2008.pdf>.

airfare in June 2012 was \$360 for roundtrip from Anchorage to the city of Kodiak.²⁸ Island Air provides charter flights from Kodiak to Akhiok. As of 2011, the rate was \$140 each way.²⁹

*Facilities*³⁰

Akhiok's water is derived from a small dam and reservoir. Water is treated, stored, and distributed through a city-owned piped gravity water and sewer system that serves each home in the community. Additional water capacity is needed, as current systems often do not provide adequate water during July and August, which forces residents to haul water from other sources. Improvements to filtration systems are needed as well. Wastewater is piped from buildings to several city-owned septic tanks. The city and Tribal council provide electricity service from a central diesel power plant, and fuel is stored in a new bulk storage facility located outside the community.

*Medical Services*³¹

Basic healthcare is provided by the Akhiok Health Clinic or Akhiok Village Response Team. The clinic is a Primary Health Care Facility. Acute, long-term, and specialized care can be found in the city of Kodiak.

*Educational Opportunities*³²

Akhiok has one school providing Kindergarten through 12th grade instruction. As of 2011, Akhiok School had 12 students enrolled and 2 teachers employed.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Prior to the arrival of Europeans, subsistence hunting and fishing was the basis of the economy for people living on Kodiak Island and surrounding areas. The Koniags historically migrated between permanent winter villages and temporary summer fish camps. Salmon was an important staple, and they also harvested other fish, intertidal resources and marine mammals, including whales, sea lions, seals, and sea otters. With the arrival of Russian colonists to Kodiak Island in the late 1700s, the Alutiiq people were forced to hunt for sea otters to fuel the trade of their valuable pelts.³³

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

²⁹ Island Air. (n.d.). Retrieved January 31, 2012 from: <http://www.kodiakislandair.com/>.

³⁰ See footnote 27.

³¹ See footnote 26.

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

³³ Mason, R. 1995. The Alutiiq Ethnographic Bibliography. Project sponsored by the Kodiak Area Native Association. Retrieved November 30, 2011 from <http://ankn.uaf.edu>.

The ADF&G manages the Kodiak salmon and herring fisheries in waters surrounding the Kodiak archipelago.³⁴ The salmon fishery is divided into seven fishing districts (Afognak District, Northeast Kodiak District, Eastside Kodiak District, Alitak Bay District, Southwest Kodiak District, Northwest Kodiak District, and Mainland Districts). Gear types in use currently include purse seine, set gillnets and beach seine.³⁵ Kodiak herring fisheries include a roe fishery (using both purse seine and gillnet gear) and a food/bait fishery. Herring sac roe fisheries take place in the spring when individual spawning biomasses are aggregated. In contrast, food/bait fisheries take place in the summer, fall, and winter when herring from several stocks may be mixed together. A Kodiak food/bait herring fishery has historically taken place in Shelikof Strait, but has been closed in recent years because the Kamishak Bay spawning biomass (Cook Inlet) has been below threshold since 1998. The Alaska Board of Fish (BOF) closes food/bait fisheries if any of the individual spawning populations is below threshold.³⁶

Groundfish and crab fisheries that occur within 3 nmi off the coast or in inland waters are under the jurisdiction of the State of Alaska, and fisheries that take place beyond 3 nmi in the U.S. Exclusive Economic Zone (EEZ) are under federal jurisdiction. In the Gulf of Alaska (GOA), federally-managed groundfish fisheries target Pacific cod, walleye pollock, pelagic shelf rockfish, sablefish, and flatfish. Parallel fisheries for Pacific cod and walleye pollock also take place in state waters surrounding Kodiak Island. Parallel fisheries occur at the same time as the federal fisheries. The Total Allowable Catch (TAC) set by NMFS in each fishery applies to both federal and parallel harvest. In addition to federally-managed groundfish fisheries, beginning in 1997, a ‘state-waters fishery’ for Pacific cod was initiated in the Kodiak area. Management plans for state-waters fisheries are approved by the BOF, and guideline harvest limits (GHL) are set by the ADF&G. Typically, state-waters fisheries are opened once federal and parallel fisheries close. In addition, the ADF&G manages lingcod fisheries in both state and EEZ waters off Alaska, and beginning in 1998, management of black rockfish and blue rockfish in the GOA was transferred from NMFS to ADF&G.³⁷

Kodiak Island is one historical center of the red king crab fishery, and Tanner crab are also distributed through the GOA. ADF&G manages red king and Tanner crab stocks in the GOA. Snow crab are distributed throughout the eastern and northern Bering Sea, and are not found in the immediate Kodiak area.^{38,39} The Kodiak red king crab fishery has been closed in recent years due to low abundance. Parts of the Kodiak district have been open for Tanner crab harvest in recent years. Kodiak area Tanner crab harvest is managed using eight separate

³⁴ Alaska Dept. of Fish and Game. 2012. *Kodiak Management Area*. Retrieved June 25, 2012 from <http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareakodiak.main>.

³⁵ 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>.

³⁶ Alaska Dept. of Fish and Game. 2012. *Commercial Herring Fisheries*. Retrieved June 25, 2012 from <http://www.adfg.alaska.gov/index.cfm?adfg=CommercialByFisheryHerring.main>.

³⁷ 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>.

³⁸ Alaska Dept. of Fish and Game. 2012. *Red King Crab Species Profile*. Retrieved June 20, 2012 from <http://www.adfg.alaska.gov/index.cfm?adfg=redkingcrab.main>.

³⁹ Alaska Dept. of Fish and Game. 2012. *Tanner Crab Species Profile*. Retrieved June 25, 2012 from <http://www.adfg.alaska.gov/index.cfm?adfg=tannercrab.management>.

management areas, each with its own GHL.⁴⁰ Pacific halibut fisheries are managed under the International Pacific Halibut Commission.

Although Akhiok was originally founded as a sea-otter hunting community, the decline of the industry prompted its economy to migrate towards subsistence and commercial fishing. Today, salmon is the mainstay of commercial fishing in the community while subsistence activities involve range of marine mammals, fish, and aquatic invertebrates.

In a survey conducted by the AFSC in 2011, community leaders reported that the community is not tied to commercial fisheries economically, nor does it advocate for itself in the management process. However, Akhiok is eligible for participation in the Community Quota Entity (CQE) program and is represented by the Akhiok Halibut & Sablefish Commission. 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 and apportionment 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 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 behalf.

The community is located in Federal Reporting Area 620, International Pacific Halibut Commission Regulatory Area 3B, and the Central Gulf of Alaska (GOA) Sablefish Regulatory District.

Processing Plants

In a survey conducted by the AFSC in 2011, community leaders reported that Akhiok's economy is not dependant on the commercial fishing industry nor are there any fisheries support businesses in town. According to the 2010 Alaska Department of Fish and Game's Intent to Operate list, Akhiok does not have a registered processing plant. However, there is a seafood processor located in nearby Alitak.

The Alitak processing facility, owned and operated by Ocean Beauty Seafoods, was built in 1917. Due to its remote location on the south end of Kodiak Island the facility is only accessible by boat or float plane. The facility opens in early April to process herring roe. During this time the plant also processes deliveries of black cod, halibut, Pacific cod and idiot fish (rockfish) from long line boats. Starting in early June the plant begins the salmon season. Between June and mid-September the Alitak facility processes sockeye, chum, pink and coho salmon. The Alitak facility is completely self-sufficient, providing its own electricity and water system. It supplies work-related clothing such as gloves, aprons, rubber boots and rain gear to its fish processing employees.⁴¹

⁴⁰ See footnote 37.

⁴¹ Ocean Beauty Seafoods. (n.d.). Retrieved from: <http://www.oceanbeauty.com/about/alitak.htm>

Fisheries-Related Revenue

Overall, in 2010, the city of Akhiok received a reported \$332,699 in fisheries-related taxes and fees, most of which came from Fisheries Resource Landings taxes. Since 2000, reported fisheries-related revenues steadily increased by an inflation adjusted⁴² \$314,807, although these figures are likely tied to Alitak Bay which is not recognized as a Census Designated Place (CDP). In addition, in several cases reported fisheries-related revenue exceeded reported municipal revenue which further complicates Alitak Bay's distinction as a separate community. Information regarding fisheries-related revenue trends can be found in Table 3.

It should be noted that 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.

Commercial Fishing

In a survey conducted by the AFSC in 2011, community leaders reported that Akhiok does not possess harbor infrastructure or commercial fishery support services. In addition, they reported that the community itself is not dependent on fisheries. However, commercial vessels between 35 and 60 feet do use the community as a base of operation during the fishing season. It is likely that when reporting, community leaders made a distinction between Akhiok and neighboring Alitak Bay, where a processor is located and landings are made. However, for the purpose of this profile Alitak Bay is considered part of Akhiok.

In 2010, 7 residents, or 9.9% of the population, held 8 permits issued by the Commercial Fishery Entry Commission (CFEC). In 2000, 10 residents held 8 CFEC permits. In both 2000 and 2010, salmon permits made up 88% of the CFEC permits issued. In addition, one Federal Fisheries Permit (FFP) and one License Limitation Program (LLP) permit for groundfish were held, although neither was actively fished. No residents held halibut, sablefish, or crab quota between 2010 and when the programs began.

Residents held 8 commercial crew licenses in 2010, compared to 12 in 2000. In addition, residents held majority ownership of four vessels that year, compared to two in 2000. Overall, every CFEC permit issued in 2010 was actively fished, compared to 88% in 2000. Fisheries prosecuted by residents of Akhiok that year included Kodiak gillnet and purse seine herring roe, and Kodiak purse seine and set gillnet salmon.⁴³

Akhiok (Alitak Bay) ranked 39th of 67 communities who reported landings in terms of total pounds landed that year and 33rd in terms of total ex-vessel value of landings. All information regarding total net poundage and total ex-vessel value of landings in Akhiok (Alitak Bay) between 2000 and 2010 are considered confidential. In addition, all information regarding total poundage and ex-vessel value of landings by residents of Akhiok between 2000 and 2010 are also considered confidential. Information regarding commercial fishing trends can be found in Tables 4 through 10.

⁴² Inflation calculated using Anchorage CPI for 2010 from Alaska DOL: <http://labor.alaska.gov/research/cpi/cpi.htm>

⁴³ 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.]

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax ¹	n/a	\$13,892	\$13,892	\$10,978	\$11,000	\$8,500	n/a	\$15,531	\$13,500	\$15,000	\$15,000
Shared Fisheries Business Tax ¹	\$13,836	\$10,756	\$14,242	\$10,737	\$8,655	\$11,617	\$13,633	\$15,517	\$13,749	\$16,323	\$18,908
Fisheries Resource Landing Tax ¹	n/a	n/a	n/a	\$108,081	\$77,584	\$155,078	\$125,016	\$179,193	\$170,205	\$259,551	\$298,791
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
Total fisheries-related revenue⁴	\$13,836	\$24,648	\$28,134	\$129,797	\$97,239	\$175,196	\$138,649	\$210,241	\$197,455	\$290,874	\$332,699
Total municipal revenue⁵	\$101,285	\$119,374	\$113,619	\$114,517	\$115,780	\$195,256	\$78,000	\$140,535	\$203,127	\$204,199	\$215,913

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 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.

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Table 4 -- Cont. Permits and Permit Holders by Species: 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	1	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	0%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	1	0	0	0	0	0	0	0	0	0	0
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	7	6	6	7	8	5	5	5	5	7	7
	Fished permits	7	6	1	7	8	5	4	4	5	6	7
	% of permits fished	100%	100%	17%	100%	100%	100%	80%	80%	100%	86%	100%
	Total permit holders	9	7	7	8	8	5	5	6	6	6	6
<i>Total CFEC Permits²</i>	<i>Permits</i>	8	6	6	8	9	6	6	6	6	8	8
	<i>Fished permits</i>	7	6	1	7	8	5	4	4	5	6	8
	<i>% of permits fished</i>	88%	100%	17%	88%	89%	83%	67%	67%	83%	75%	100%
	<i>Permit holders</i>	10	7	7	9	9	6	6	7	7	7	7

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

¹National Marine Fisheries Service. 2011. Data on Limited Liability Permits, 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.]

²Alaska 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 Akhiok: 2000-2010.

Year	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 Akhiok ²	Total Net Pounds Landed In Akhiok ^{2,5}	Total Ex-Vessel Value Of Landings In Akhiok ^{2,5}
2000	12	2	0	2	10	77	--	--
2001	9	1	0	3	9	43	--	--
2002	9	2	0	3	9	43	--	--
2003	8	1	1	4	7	16	--	--
2004	7	2	1	5	9	7	--	--
2005	5	2	1	4	8	14	--	--
2006	7	3	2	4	7	29	--	--
2007	2	2	2	4	6	42	--	--
2008	6	1	1	4	6	41	--	--
2009	7	1	1	4	6	28	--	--
2010	8	1	1	4	6	43	--	--

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 Akhiok: 2000-2010.

Year	Number of Halibut Quota Share Holders	Halibut Quota Shares Held	Halibut IFQ Allotment (pounds)
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 7. Sablefish Catch Share Program Participation by Residents of Akhiok: 2000-2010.

Year	Number of Sablefish Quota Share Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (pounds)
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 by Residents of Akhiok: 2000-2010.

Year	Number of Crab Quota Share 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.]

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Table 9. Landed Pounds and Ex-vessel Revenue, by Species, in Akhiok: 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	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
<i>Total²</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	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
<i>Total²</i>	--	--	--	--	--	--	--	--	--	--	--

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 Akhiok Residents: 2000-2010.

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

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

Sportfishing on Kodiak Island can be divided into private anglers who use boats and those who use the Island's road system to access sportfishing destinations. There are 75 mi of paved and hard-packed gravel roads that cross 10 significant streams and provide access to 18 stocked lakes. Road system anglers can find salmon, Dolly Varden, rainbow trout, and steelhead in freshwaters. Remote areas on Kodiak, categorized as any areas outside the road system, provide opportunities for salmon, Dolly Varden, and fall-run steelhead trout. Remote Area salmon being to return in early June, and fishing grounds are typically accessed by charter boat or seaplane.⁴⁴

Troll-fishing Kodiak's marine waters for Chinook and coho salmon is a popular activity on the island. Chiniak bay provides year-round habitat for Chinook. The Karluk River south of

⁴⁴ Alaska Dept. of Fish and Game. (2012). *Kodiak*. Division of Sport Fish. Retrieved August 14, 2012 from: <http://www.adfg.alaska.gov/static-sf/Region2/pdfpubs/kodiak.pdf>.

Larsen Bay provides one of Kodiak's only native freshwater Chinook fisheries. Normally, the Karluk River annually averages an in-river run of 8,000 Chinook; however, recent runs have been in decline.

Sockeye salmon are plentiful in many drainages on Kodiak and tend to spawn along lakeshores and tributary systems. Generally, sockeye salmon arrive in early June and run through the end of July. The Kodiak road system provides access to sockeye salmon on the Buskin, Pasagshak, and Saltery rivers on eastern Kodiak Island. Pink salmon are found in abundance throughout the coastal and freshwater drainage systems around Kodiak Island. Pink salmon can be caught along ocean beaches and near stream mouths between middle to late July with runs peaking around mid-August. Coho salmon are typically targeted in offshore marine areas using charter or private vessels. The troll recreational fishery peaks the third week of August and is typically over by mid-September. Large runs of coho salmon occur late in the year in the Karluk River, with lagoon fishing starting in early September and peaking by the end of the month. The Karluk River also maintains the largest population of steelhead trout on the island, averaging 8,000 fish annually. Middle to late October is the best time to fish for steelhead, although mid-April and early May are also good times. Dolly Varden are found at lake outlets and near the mouths of freshwater systems feeding on out-migrating pink salmon fry. Then in mid-July through October, Dolly's migrate back into freshwaters to spawn and winter. Halibut are abundant around Kodiak Island, and sportfishing is excellent from late April through early September. In a typical year, sport anglers catch over 25,000 halibut in Kodiak waters. More than 30 species of rockfish are found in Kodiak marine waters. Common species caught include dark, dusky, and yellow-eye rockfish. The estimated rockfish catch is around 25,000 fish annually. Lingcod are also found in the area, and the typical annual catch averages around 2,500 fish.⁴⁵

Although sportfishing around Kodiak Island is immensely popular among both Alaska resident and non-Alaska resident private anglers, accessibility and infrastructure limit large-scale tourism-based sportfishing within Akhiok. In 2010, only one registered sport fish guide business was active in the community. South Kodiak Adventures provides lodging, fishing, hunting, and wildlife viewing services.⁴⁶ In 2010, 14 sportfishing licenses were sold to residents, compared to 16 in 2000. No sportfishing licenses were sold within the community between 2000 and 2010.

Akhiok is located within the Kodiak Island ADF&G Harvest Survey Area, which includes all Alaskan waters and drainages of the Kodiak and Afognak Island groups. In 2010, angler days fished totaled 40,377 for saltwater and 41,082 for freshwater fisheries, compared to 55,576 and 65,831 in 2000, respectively. In that year non-Alaska residents accounted for 49.6% of saltwater angler days fished, compared to 30.2% in 2000; indicating a proportional decline in resident angler days fished. The same trend was seen in freshwater angler days fished with non-Alaska residents accounting for 45.9% in 2010, compared to 28.3% in 2000.

According to ADF&G Harvest Survey data, local anglers using private boats target Chinook, coho, sockeye, and pink salmon, Dolly Varden char, halibut, and Dungeness crab. Other species targeted include chum salmon, rainbow and steelhead trout, and Tanner crab.⁴⁷ There is no kept/released charter log data available for Akhiok.

⁴⁵ Ibid.

⁴⁶ South Kodiak Adventures. (n.d). Retrieved January 31, 2012 from: <http://www.kodiakadventures.com/>

⁴⁷ Ibid.

Table 11. Sport Fishing Trends, Akhiok: 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 Akhiok ²
2000	0	0	16	0
2001	0	1	14	0
2002	0	1	22	0
2003	0	2	20	0
2004	0	2	22	0
2005	1	3	9	0
2006	0	0	14	0
2007	0	0	16	0
2008	0	0	9	0
2009	0	1	11	0
2010	0	1	14	0

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	16,767	38,809	18,524	47,307
2001	14,761	24,604	18,299	19,757
2002	18,356	19,737	15,018	35,113
2003	17,715	23,726	13,362	34,034
2004	18,896	22,787	21,331	31,124
2005	21,269	33,917	23,789	36,753
2006	23,511	21,991	23,483	26,239
2007	21,668	31,554	26,916	31,072
2008	20,275	31,944	24,944	24,876
2009	20,813	26,520	10,859	21,283
2010	20,012	20,365	18,871	22,211

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

Many residents of Akhiok supplement their income and diets with subsistence resources. According to a survey conducted by the AFSC in 2011, community leaders reported that halibut, salmon, and clams were the three most important subsistence resources to the community. In a 2003 ADF&G survey of subsistence participation by household, 88% were participating in salmon subsistence activities, 100% were participating in halibut subsistence activities, 21% were participating in marine mammals subsistence activities, 77% were participating in marine invertebrates subsistence activities, and 26% were participating in non-salmon fish subsistence activities. Estimated pounds per capita harvested that year for those species was 157.22. Another similar survey conducted by ADF&G in 2004 found 92% of households participating in salmon subsistence activities and 46% participating in non-salmon fish subsistence activities.

Of the species reported by ADF&G in Table 13, residents reported harvesting sockeye salmon the most often, followed by pink and coho. In 2008, residents reported harvesting 90 salmon on 3 permits, compared to 105 salmon on 2 permits in 2000. In 2010, 6 residents held 10 Subsistence Halibut Registration Certificates (SHARC), compared to 15 in 2003. In that year, an estimated 320 lbs of halibut was harvested using 8 SHARC, compared to an estimated 1,846 lbs harvested on 14 SHARC in 2003. Subsistence halibut harvests peaked in 2005 with an estimated 3,587 lbs harvested on 16 SHARC. Residents living in Akhiok have seen dramatic declines in subsistence halibut harvests. Between 2007 and 2012, the community reported significant declines in number of halibut over 20 lbs, compared to regular harvests of fish ranging from 80 to 100 lbs during the 1990s. There have also been observations in skin abnormalities (including the apparent “shearing” of skin from the underside of the fish) in halibut harvests. Overall there is concern within the community over implications of commercial trawl fisheries on subsistence resources.⁴⁸ In terms of marine mammal harvests, an ADF&G survey estimated that 15 sea lions and 78 harbor seals were harvested between 2000 and 2008 (Table 15). Further information regarding subsistence trends can be found in Tables 12 through 15.

Additional Information

In a survey conducted by the AFSC in 2011, community leaders reported that commercial fishing has “dwindled down to almost non-existent” and that the community’s economy is currently not dependent on natural resources. Commercial vessel traffic to the community has remained unchanged over the last 5 years, although there has been an increase in recreational and pleasure vessels in the harbor.

⁴⁸ Personal correspondence (recorded November 13, 2012).

Table 12. Subsistence Participation by Household and Species, Akhiok: 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	88%	100%	21%	77%	26%	157.22
2004	92%	n/a	n/a	n/a	46%	123.3
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, Akhiok: 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	n/a	2	4	n/a	6	n/a	95	n/a	n/a
2001	n/a	6	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	1	12	n/a	n/a	n/a	n/a	20	n/a	n/a
2003	n/a	7	n/a	n/a	n/a	n/a	n/a	766	151
2004	8	8	n/a	n/a	n/a	11	102	n/a	70
2005	5	5	n/a	n/a	4	8	95	n/a	n/a
2006	n/a	n/a	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	n/a	n/a
2008	4	3	n/a	n/a	4	4	82	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, Akhiok: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	15	14	1,846
2004	19	11	1,691
2005	22	16	3,587
2006	23	15	3,563
2007	22	10	924
2008	14	7	823
2009	10	8	1,123
2010	6	1	320

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, Akhiok: 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	3	18	n/a
2001	n/a	n/a	n/a	n/a	1	7	n/a
2002	n/a	n/a	n/a	n/a	n/a	6	n/a
2003	n/a	n/a	n/a	n/a	3	5	n/a
2004	n/a	n/a	n/a	n/a	1	4	n/a
2005	n/a	n/a	n/a	n/a	n/a	7	n/a
2006	n/a	n/a	n/a	n/a	2	14	n/a
2007	n/a	n/a	n/a	n/a	3	7	n/a
2008	n/a	n/a	n/a	n/a	2	10	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.