

Akiak (ACK-ee-ack)



People and Place

*Location*¹

Akiak is located on the west bank of the Kuskokwim River, 42 mi northeast of Bethel and 378 mi west of Anchorage, on the Yukon-Kuskokwim Delta. The area encompasses 2.0 sq mi of land and 1.1 sqmi of water. Akiak was incorporated in 1970 as a Second-class city, is located in the Bethel Census Area, and is not under the jurisdiction of a borough.

*Demographic Profile*²

In 2010, there were 346 residents, ranking it 150th of 352 Alaskan communities in terms of population size. Between 1990 and 2010, the population grew by 21.4%. Between 2000 and 2009, the population grew by 12.0% with an average annual growth rate of -0.21%, which was less than the statewide average of 0.75% and reflective of the population peak in 2005. Information regarding population trends can be found in Table 1.

Akiak's population was predominately Yup'ik Eskimo in 2010. In that year, 92.8% of residents identified themselves as American Indian or Alaska Native, compared to 92.9% in 2000; 5.2% identified themselves as White, compared to 4.9% in 2000; and 20% identified themselves as two or more races, compared to 2.3% in 2000. In addition, 0.3% of residents identified themselves as Hispanic or Latino, compared to 0.6% in 2000 (Figure 1).

In 2010, the average household size was 3.84, compared to 4.20 in 1990 and 5.24 in 2000. In that year, there were a total of 98 housing units, compared to 80 in 1990 and 76 in 2000. Of the households surveyed in 2010, 70% were owner-occupied, compared to 63% in 2000; 21% were renter-occupied, compared to 28% in 2000; 7% were vacant, compared to 9% in 2000; and 1% was occupied seasonally, compared to 0% in 2000. There were no reports of residents living in group quarters between 1990 and 2010.

In 2010, the gender composition of Akiak was almost even at 51.2% female and 48.8% male. This was somewhat female biased compared to both the distribution statewide (52.0% male, 48.0% female) and in 2000 (55.0% male, 45.0% female). The median age in 2010 was 25.8 years, which was younger statewide median of 33.8 years and older than the 2000 median of 21.3 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>.

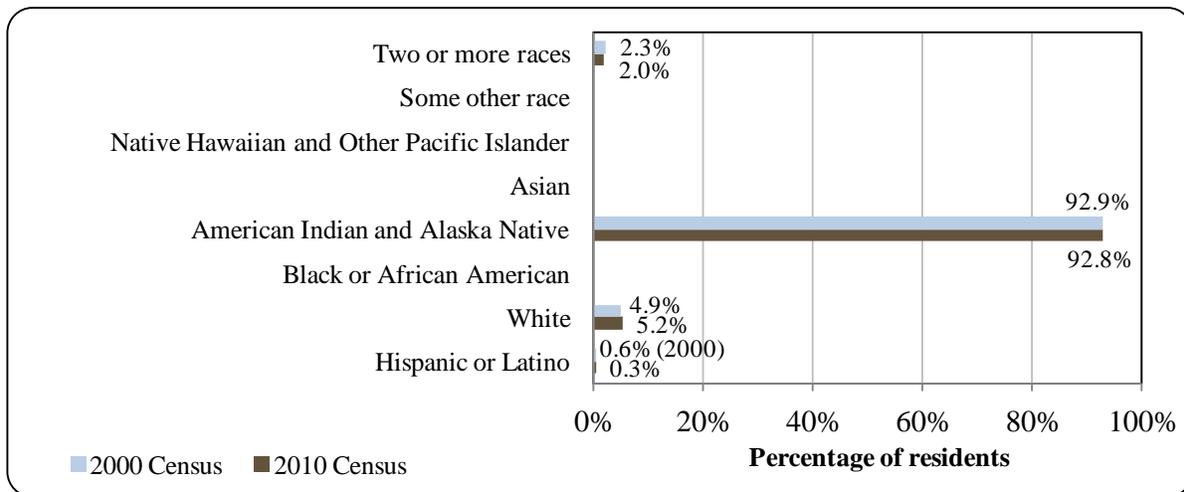
Table 1. Population in Akiak from 1990 to 2010 by Source.

Year	U.S. Decennial Census ¹	Alaska Dept. of Labor Estimate of Permanent Residents ²
1990	285	-
2000	309	-
2001	-	301
2002	-	345
2003	-	346
2004	-	369
2005	-	379
2006	-	365
2007	-	350
2008	-	341
2009	-	346
2010	346	-

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>.

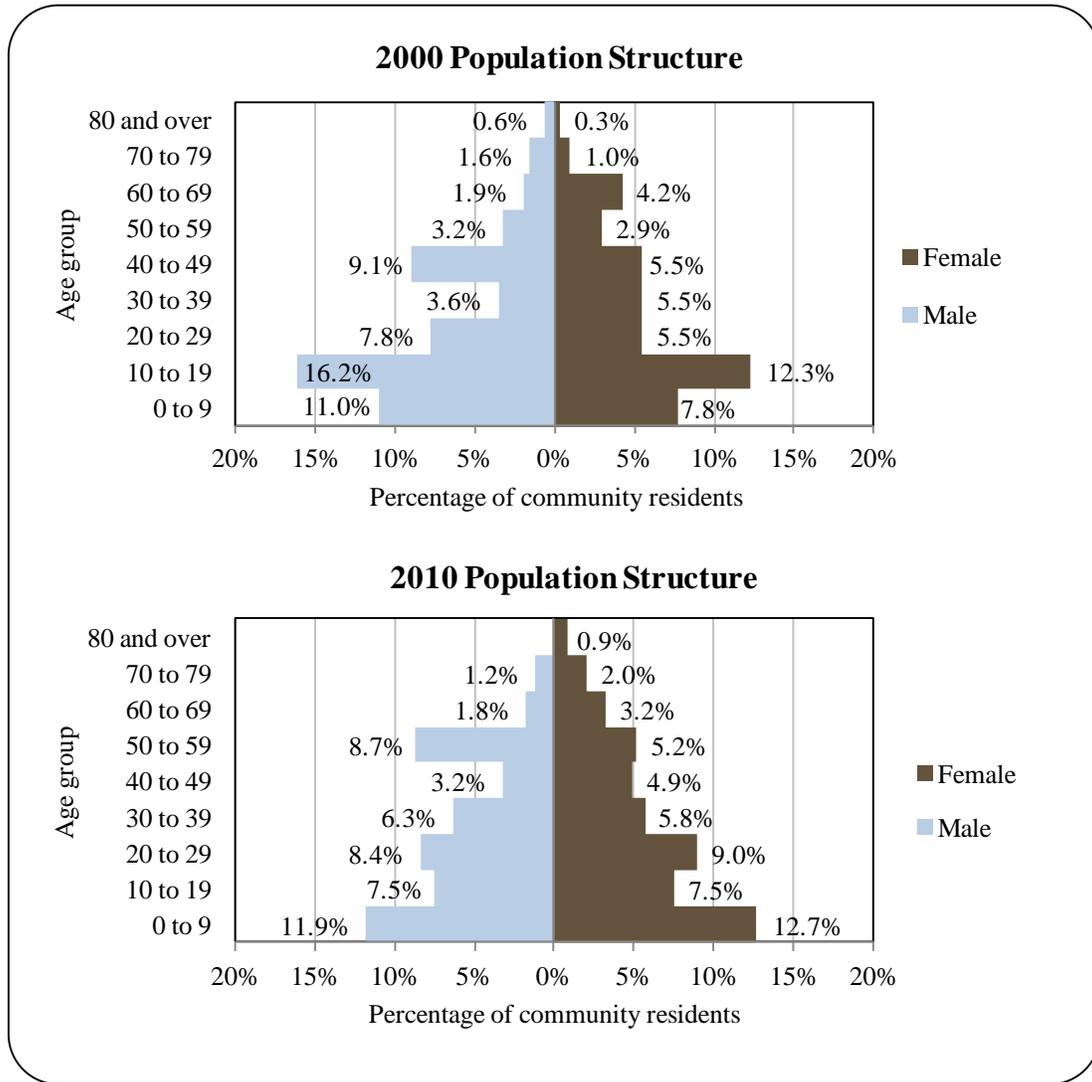
² Alaska Department of Labor. (2011). *Current population estimates for Alaskan Communities*. Retrieved April 15, 2011, from <http://labor.alaska.gov/research/pop/popest.htm>.

Figure 1. Racial and Ethnic Composition, Akiak: 2000-2010.



Compared to 2000, the population in 2010 was somewhat less expansive. In addition, age transitions were, for the most part, consistent with a stable population; meaning that most cohorts maintained their overall structure as they aged. However, there was some attrition in younger cohorts. In 2010, 39.6% of residents were under the age of 20, compared to 47.3% in 2000; 9.1% were over the age of 59, compared to 9.6% in 2000; 34.1% were between the ages of 30 and 49, compared to 29.8% in 2000; and 17.4% were between the ages of 20 and 29, compared to 13.3% in 2000.

Figure 2. Population Age Structure in Akiak in 2000 and 2010.



Gender distribution by age cohort was more even in 2010 than in 2000, with slight female biases among most age ranges. In that year, the greatest absolute gender difference occurred in the 50 to 59 range (8.7% male, 5.2% female), followed by the 40 to 49 (4.9% female, 3.2% male) and 60 to 69 (3.2% female, 1.8% male) ranges. Of those three, the greatest relative gender difference occurred in the 60 to 69 range. Information regarding Akiak’s 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 90.8% of residents aged 25 and older held a high school diploma or higher degree, compared to an estimated 90.7% of Alaska residents overall. Also in that year,

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.

an estimated 5.9% of residents had less than a ninth grade education, compared to an estimated 3.5% of Alaska residents overall; an estimated 3.3% had a ninth to twelfth grade education but no diploma, compared to an estimated 5.8% of Alaska residents overall; an estimated 36.6% had some college but no degree, compared to an estimated 28.3% of Alaska residents overall; and an estimated 3.9% had a Bachelor's degree, compared to an estimated 17.4% of Alaska residents overall. No residents were estimated to hold an Associate, graduate, or professional degree in 2010.

*History, Traditional Knowledge, and Culture*⁴

In 1880, Akiak (then known as *Ackiagmute*) had a population of 175. The name Akiak means "the other side", since the place was a crossing to the Yukon River basin during the winter for area Eskimos. Like many villages in the Yukon-Kuskokwim (Y-K) Delta region, Akiak and the region surrounding was historically part of a network of seasonal Yup'ik and Athabaskan subsistence camps.⁵ With the introduction of European missionaries and Russian fur traders in the late eighteenth and early nineteenth centuries, several outbreaks of smallpox took a heavy toll on the area. Combined with the establishment of Bethel in 1885, permanent villages began to take root. After World War II, the population of Bethel swelled from 400 in 1940, to over 1,200 by 1960.⁶ During that time, Bethel saw a large amount of in-migration from surrounding villages as the area became an economic and cultural hub for the Y-K Delta. The sale and importation of alcohol is prohibited in Akiak.

Natural Resources and Environment

Akiak's temperature ranges from 42 to 62°F (6 to 17 °C) in the summer, and -2 to 19°F (-19 to -7°C) in the winter. Average precipitation is 16 inches and annual snowfall averages at 50 inches. Ice seasonality on the Kuskokwim River is typically characterized by annual river freeze-up in October and break-up in May.⁷

The lower Y-K Delta encompassing Akiak is an area of low elevation and shallow relief. The terrain is mostly made up of flat and low rolling plains crossed with low gradient streams, tributaries, sloughs, floodplains, wetlands, and shallow lakes. Most of the lower Y-K Delta was ice-free during the last major glacial period. Sediments in the area are loamy or sandy textured fluvial and alluvial deposits. Soils are poorly drained and typically overlay a layer of permafrost.⁸

Akiak is located on Calista Corporation land encompassed by the Yukon Delta National Wildlife Refuge (YDNWR), which provides spawning, rearing, feeding, and wintering habitat

⁴ 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.

⁵ Alaska Department of Transportation and Public Facilities. (2002). *Yukon-Kuskokwim Delta Transportation Plan*. Retrieved November 22, 2011 from http://www.dot.state.ak.us/stwdplng/areaplans/pub/YKDelta_Plan_final.pdf.

⁶ Ibid.

⁷ See footnote 4.

⁸ Lower Kuskokwim Economic Development Council. (2006). *Comprehensive Economic Development Strategy & Area Plan*. Retrieved February 1, 2012 from: <http://www.commerce.state.ak.us/dca/plans/Bethel%20Region-SAP-2006.pdf>.

for a range of terrestrial and aquatic wildlife.⁹ Terrestrial wildlife of economic and cultural importance include waterfowl and gamebirds, moose, wolf, wolverine, bear, mink, beaver, muskrat, otter, fox, beaver, muskrat, muskox, and small furbearers.¹⁰ Aquatic resources include all five species of Pacific salmon, whitefish, burbot, northern pike, blackfish, smelt, lamprey, char, grayling, trout, sculpin, stickleback, and longnose sucker.¹¹

Regional mineral resources include zinc, gold, silver, lead, antimony, tungsten, tin, copper, nickel, mercury, and platinum.¹² Upriver from Akiak, Calista Corporation is undertaking several mineral and oil and gas projects near Red Devil. Downriver, Platinum and Goodnews Bay are sites for additional mineral projects.¹³

There are several natural hazards affecting the Y-K Delta region.¹⁴ These hazards include flooding, river bank erosion and destabilization, brush fire, and soil destabilization due to permafrost melt. Spring flooding is a major factor contributing to natural hazards in the area. As melt-off and ice jamming occurs during spring break-up, flooding and erosion occur and climate change is thought to be a continuing factor in the seasonality and severity of flooding in the region. In addition, variation in the active permafrost layer caused by climate change and urban development further compound impacts from flood events.¹⁵

While there are no reported Environmental Protection Agency (EPA) established superfund sites in Akiak, there is currently an evaluation being undertaken regarding the extent of heavy metal contaminants originating from the abandoned Red Devil mine upriver. As of April 2011, the site was not on the EPA's National Priority List.¹⁶ According to the Alaska Department of Environmental Conservation, there were no significant environmental remediation sites active in Akiak as of 2010.¹⁷

Current Economy¹⁸

The majority of the year-round employment in Akiak is with the city, school, or other public services. Commercial fishing and Bureau of Land Management (BLM) firefighting also provide seasonal income. The community is interested in developing a fish processing plant and tourism. Subsistence activities are an important economic supplement to the community.¹⁹ Top

⁹ U.S. Fish and Wildlife Service. (n.d.). *Yukon Delta National Wildlife Refuge*. Retrieved November 22, 2011 from: <http://www.fws.gov/refuges/profiles/recEdMore.cfm?ID=74540>.

¹⁰ Bethel Coastal District et al.(2006). *Bethel Coastal Management Plan*. Retrieved November 22, 2011 from: http://www.alaskacoast.state.ak.us/District_Pages/NW_Region/Bethel/.

¹¹ Ibid.

¹² Alaska Dept. of Trans. and Pub. Facilities. (2002). *Yukon-Kuskokwim Delta Transportation Plan*. Retrieved November 22, 2011 from http://www.dot.state.ak.us/stwdplng/areaplans/pub/YKDelta_Plan_final.pdf.

¹³ Calista Corporation. (n.d.). Retrieved November 22, 2011 from: <http://www.calistacorp.com>.

¹⁴ Bethel Coastal District et al.(2006). *Bethel Coastal Management Plan*. Retrieved November 22, 2011 from: http://www.alaskacoast.state.ak.us/District_Pages/NW_Region/Bethel/.

¹⁵ See footnote 8.

¹⁶ U.S. Environmental Protection Agency. (2011). *Superfund Site Information*. Retrieved November 22, 2011 from: <http://cfpub.epa.gov/supercpad/cursites/srchrslt.cfm?Start=1&sortby=npl>.

¹⁷ Alaska Department of Environmental Conservation. (n.d.). *Contaminated Sites Program*. Retrieved June 7, 2012 from: <http://dec.alaska.gov/spar/csp/list.htm#Western>.

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

¹⁹ See footnote 4

employers in 2010²⁰ included the Akiak Native Community, Yupiit School District, City of Akiak, Kokarmuit Corporation, Rural AK Community Action Program, ACVP Housing Authority, Early Childhood Leadership Team Inc., Stephan Ivan & Sons Store, Yukon Kuskokwim Health Corp. 90, and Bering Pacific Construction LLC.

In 2010,²¹ the estimated per capita income in Akiak was \$13,400 and the estimated median household income was \$35,833, compared to \$8,326 and \$26,250 in 2000, respectively. After accounting for inflation by converting the 2000 values to 2010 dollars,²² the real per capita income (\$10,949) and real median household income (\$34,518) indicate an overall increase in individual and household earnings. In 2010, Akiak ranked 222nd of 305 communities from which per capita income was estimated, and 211th of 299 communities from which median household income was estimated.

It should be noted that Akiak's small population size may have prevented the ACS from accurately portraying economic conditions.²³ 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 \$2.50 million in total wages in 2010.²⁴ When matched with the population in 2010, the per capita income of \$7,230 indicates an overall decrease in per capita income compared to values reported by the U.S. Census in 2000.²⁵ In addition, Akiak was recognized as "distressed" by the Denali Commission indicating that over 70% of residents aged 16 and older earned less than \$16,120 in 2010.²⁶ 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,²⁷ 71.1% of residents aged 16 and over were part of the civilian labor force in 2010. Unemployment was estimated at 17.0%, compared to an estimated 5.9% statewide; and an estimated 21.9% of residents were living below the poverty level, compared to an estimated 9.5% of Alaska residents overall. Of those employed in the civilian labor force, an estimated 57.1% worked in the public sector while an estimated 42.9% worked in the private sector.

By industry, most (34.3%) were estimated to work in education, health care, and social assistance sectors, followed by public administration sectors (21.9%), and construction sectors (12.4%). By occupation type, most (28.6%) employed residents were estimated to hold natural resource, construction, or maintenance positions; followed by sales or office positions (23.8%);

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. American Community Survey, 2006-2010 estimates.

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.

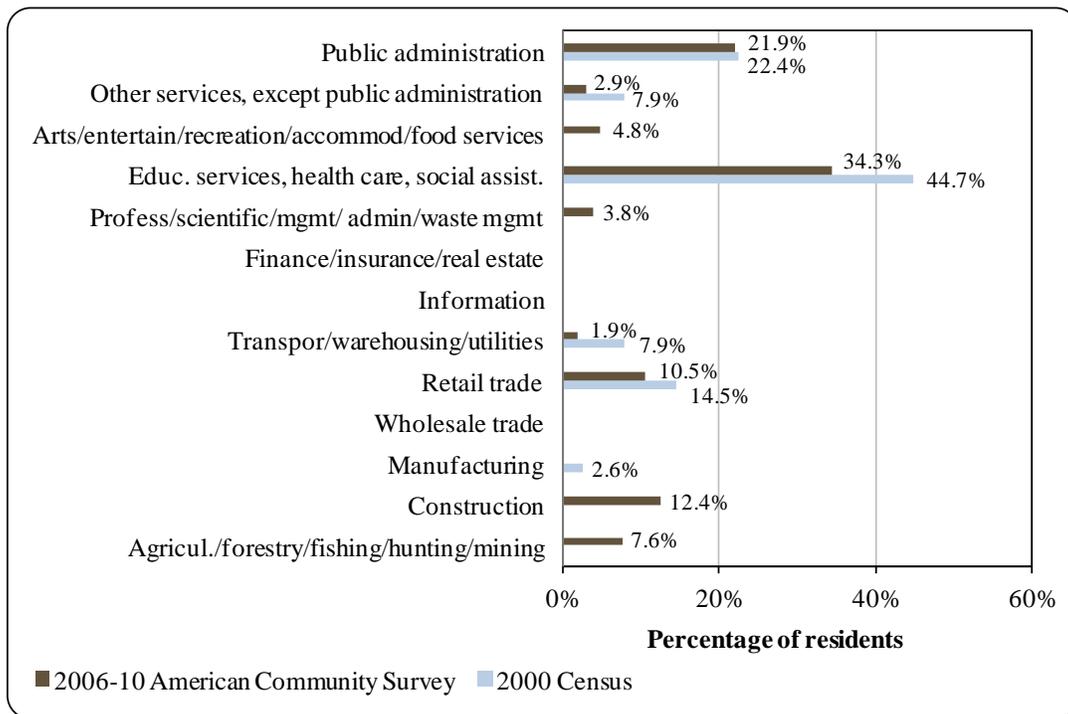
²⁵ Alaska Department of Labor and Workforce Development (n.d.). Alaska Local and Regional Information Database. Retrieved April 23, 2012 from <http://live.laborstats.alaska.gov/alari/>.

²⁶ Denali Commission. 2011. Distressed Community Criteria 2011 Update. Retrieved April 16, 2012 from: www.denali.gov.

²⁷ See footnote 23.

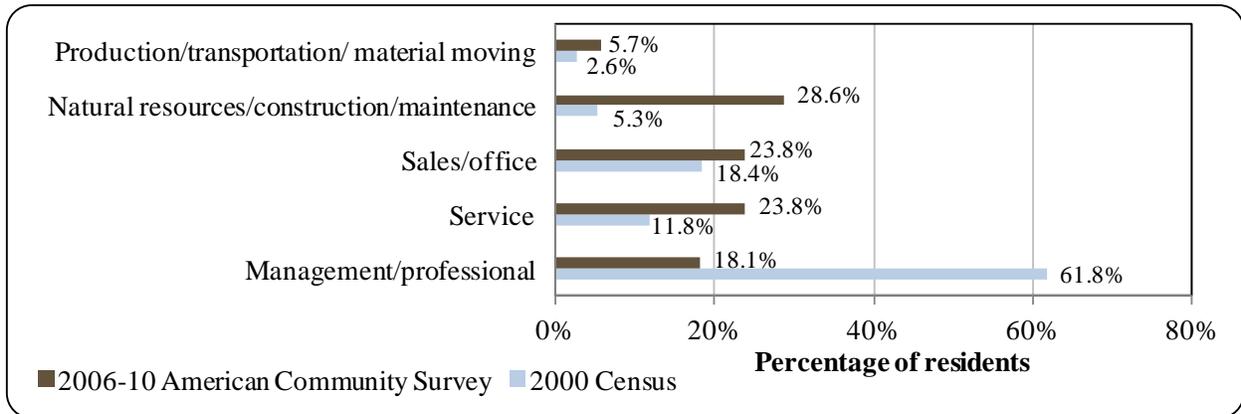
service positions (23.8%); management or professional positions (18.1%); and production, transportation, or material moving positions (5.7%). Between 2000 and 2010, there were significant increases in relative employment in construction, agriculture, forestry, fishing, and mining sectors; while there were significant declines in education service, health care, social assistance, transportation, warehousing, and utilities sectors. In addition, there were significant increases in the proportion of natural resource, construction, maintenance, and service positions; while there were significant declines in the proportion of management or professional positions. According to 2010 ALARI estimates, most (70.4%) of those employed work in local government sectors; followed by trade, transportation, or utilities sectors (12.1%) and education and health service sectors (6.5%). In that year there was an estimated 199 residents employed.²⁸ Information regarding employment trends can be found in Figures 3 and 4.

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



²⁸ See footnote 24.

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



Governance

The Second-class city of Akiak has a mayoral form of government. There is a U.S. Bureau of Indian Affairs (BIA) recognized Tribal government and Alaska Native Claims Settlement Act (ANCSA) chartered Native village corporation (Kokarmuit Corporation). The regional ANCSA Native corporation representing Akiak is the Calista Corporation.

As of 2010, the community administered a 2% sales tax. Total municipal revenue in 2010 was \$792,064, compared to \$313,183 in 2000; an increase of 95.6% after accounting for inflation.²⁹ Municipal revenues peaked in 2008 at \$813,998. Most local revenues came from utility rents and gaming. Between 2000 and 2003, the average annual revenue collected from the State Revenue Sharing program was \$26,734. Between 2009 and 2010, the average annual revenue collected from the Community Revenue Sharing program was \$113,716. No fisheries-related grants were reported between 2000 and 2010. Information regarding municipal finances can be found in Table 2.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Akiak Municipal Government 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)
2000	\$313,183	n/a	\$26,943	n/a
2001	\$378,912	n/a	\$26,943	n/a
2002	\$248,586	n/a	\$26,943	n/a
2003	\$246,630	n/a	\$26,108	n/a
2004	\$240,985	n/a	-	n/a
2005	\$559,186	n/a	-	n/a
2006	\$537,012	n/a	-	n/a
2007	\$557,608	n/a	-	n/a
2008	\$813,998	n/a	-	n/a
2009	\$796,968	n/a	\$114,037	n/a
2010	\$792,064	n/a	\$113,396	n/a

Note: n/a indicates that no data were reported for that year. Cells showing – indicate that the data are considered confidential.

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

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

³ Alaska Department of Revenue (n.d.). *(2000-2009) Taxes and Fees Annual Report*. Accessed at www.tax.state.ak.us. Data retrieved April 15, 2011.

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 at http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm. Data retrieved April 15, 2011.

²⁹ Inflation calculated using Anchorage CPI for 2010 from Alaska DOL: <http://labor.alaska.gov/research/cpi/cpi.htm>

The closest Alaska Department of Fish and Game (ADF&G) office is located in Dillingham, 114 mi south. The closest National Marine Fisheries Service (NMFS) field office is located in Bethel, 42 mi to the southwest. The closest Bureau of Citizenship and Immigration Services (BCIS) office is located in Anchorage, 378 mi east.

Infrastructure

*Connectivity and Transportation*³⁰

Transportation throughout the Y-K delta is very seasonal. Akiak has a state-owned airport with a gravel runway in good condition; it measures 3,196 ft long by 75 ft wide, at an elevation of 30 ft. The strip provides chartered or private air access year-round. Several air carriers offer passenger flight service.³¹ In June 2012, roundtrip airfare between Anchorage and Bethel was \$364 as of November 22, 2011.³² Chartered air service between Bethel and Akiak is available by appointment through ERA Aviation, Ryan Air, and Yute Air. This airport can be used all year, depending on conditions. Otherwise, skiplanes, snowmachines, and dogsleds are used to access surrounding communities in the winter; and skiff, floatplane, ATVs, and hovercraft in the summer. Bethel provides full jet service to Anchorage year-round as well as limited drivable ice-roads in the winter. Road networks are severely limited due to the Y-K Delta's landscape, especially in the summer.

*Facilities*³³

The local school and clinic are connected directly to the water plant. Individual wells, septic systems, and plumbing were installed in 14 homes in 1997. Otherwise, sewage is disposed of using septic tanks, outhouses, or privies. There is currently a piped water and gravity sewer system under construction that will provide service to 67 homes. Most residents are dependent upon the “washeteria” for laundry and bathing. Public safety services are provided by local Village Public Safety Office, Akiak police, and Bethel police. Fire and rescue services are provided by Akiak volunteer fire department. Additional public facilities include two youth centers, a community hall, city hall, school gym, and community library. Communications services include local and long distance telephone, local and cable television, local radio, and internet.

*Medical Services*³⁴

The Edith Kawagley Memorial Clinic provides local and regional health services. The clinic is part of the Community Health Aides/Practitioners (CHAP) program. It is considered a

³⁰ Alaska Department of Transportation and Public Facilities. (2002). *Yukon-Kuskokwim Delta Transportation Plan*. Retrieved November 22, 2011 from http://www.dot.state.ak.us/stwdplng/areaplans/pub/YKDelta_Plan_final.pdf.

³¹ 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.

³² Airfare was calculated using lowest fare. Source: <http://www.travelocity.com> (retrieved November 22, 2011).

³³ See footnote 31.

³⁴ Ibid.

primary health care facility and has air and river access. Acute and long-term care is provided in Bethel.

*Educational Opportunities*³⁵

There is one school located in Akiak, providing a preschool through 12th grade education. As of 2011, there were a total of 114 students enrolled and 12 teachers employed.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Akiak has a long subsistence fishing tradition dating back to pre-European contact. Historically, the Yup'ik of the Y-K Delta region relied on many species of anadromous and freshwater fish.

Fisheries participation in the lower Kuskokwim Delta dates back thousands of years to the original Central Yup'ik occupants. Commercial harvest of salmon first took place in the Kuskokwim area in 1913, although in the early years it was a quasi-commercial fishery with limited distribution. During those years, local salmon were cured and salted and by 1920, the largest commercial season to-date took place on the Kuskokwim, with five operators processing approximately 35,000 Chinook salmon that year. In 1922, there were four salteries operating near the mouth of the Kuskokwim, processing Chinook and sockeye salmon. The Kuskokwim area was closed to all fishing for export from 1926 through 1929 due to adverse impacts to subsistence fisheries. In 1930, regulations were modified to allow commercial fishing in part of Kuskokwim Bay. A floating cannery operated for that year, and by 1932, three companies engaged in commercial fishing. Catch was dried and sold as food for sled dogs during the 1930s when dog teams were the primary means of hauling freight to villages in Western Alaska. Information on commercial fishing during the late 1930s through the 1950s is limited. However in 1952, poor salmon runs prompted the closure of the Kuskokwim River and Bay. Management was finally shifted to the State of Alaska in 1960, and commercial fishing resumed.³⁶

At the time of statehood in 1959, commercial fishing districts were defined along the Kuskokwim River. In the 1960s and 1970s commercial salmon fisheries in the Kuskokwim were still considered experimental, and management efforts focused on increasing commercial use while ensuring continued supply for subsistence use. Harvest levels continued to increase until the mid-1990s, at which time fishing effort, harvest levels and salmon prices decreased. Current management is focused on sustainability of salmon runs, ensuring subsistence needs are met, and with a precautionary approach, providing opportunity for commercial harvest of available surpluses.³⁷ Harvest levels continued to increase until the mid-1990s, at which time fishing effort, harvest levels and salmon prices decreased.

³⁵ Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

³⁶ Pennoyer, S.; Middleton, K. R.; & Morris, M. E. (1968). *Arctic-Yukon-Kuskokwim Area Salmon Fishing History*. Retrieved April 11, 2012 from: <http://www.sf.ADFG.state.ak.us/fedaidpdfs/afrbIL.070.pdf>.

³⁷ Clark, McGregor, Mecum, Krasnowski and Carroll. 2006. "Kuskokwim Commercial Salmon Fishery." In *The Commercial Salmon Fishery in Alaska*. Alaska Dept. of Fish and Game, Pgs. 105-146. Retrieved December 28, 2011 from http://www.adfg.alaska.gov/static/home/library/PDFs/afrb/clarv12n1_p4.pdf.

Commercial catch of herring for bait began in Alaska around 1900, and herring sac roe fisheries developed in the late 1970s. Along the Yukon/Kuskokwim coast there are six commercial gillnet sac roe districts: Security Cove, Goodnews Bay, Cape Avinof, Nelson Island, Nunivak Island and Cape Romanzof. Harvests in these areas have been declining in recent years, in part due to lack of processing capacity in the region.³⁸

On the lower Kuskokwim, subsistence sockeye, chum, and chinook harvesting typically begins by June 1st, and is concluded by mid-July. Coho and pink salmon are harvested in August and September. Fishing effort is based either from a fish camp or from a home village. Drift gill nets, fish wheels, and rods and reels are used for harvesting. Soon after river ice breaks up in May, smelt move into the lower Kuskokwim area. Residents use fine-meshed nets to catch smelt, and thread them through willow sticks before drying and smoking them. Whitefish, sheefish, Arctic grayling, and northern pike are harvested year-round. Blackfish and burbot are harvested during fall and winter months. Dolly Varden are typically harvested from June through December; while trout are typically harvested in the early spring and summer, and again in the late summer and early fall. Spotted seal, bearded seal, ringed seal, and walrus are harvested in the late spring.^{39,40}

In more recent years, commercial and subsistence fishing have become an important part of the local economy and culture. While the community lacks the infrastructure needed for commercial landings, many residents possess commercial fishing licenses. Harvests by Akiak residents are landed in other communities within the region possessing harbor and processing facilities. Recently, residents have expressed interest in developing Akiak's fishery infrastructure in the future.⁴¹

Processing Plants

According to the 2010 ADF&G Intent to Operate list, Akiak does not have a registered processing plant. Kuskokwim Seafoods, in Bethel, is the closest processor to the community. The facility processes chinook, sockeye, chum, and coho salmon. Other processors in the area include Coastal Villages Seafoods, which operates facilities in Quinhagak, Kipnuk, and Tununak. Those facilities process salmon, herring, and halibut.⁴²

Fisheries-Related Revenue

In 2010, the only reported revenue from fisheries-related taxes and fees came from a Shared Fisheries Business Tax; totaling \$98 (Table 3).

³⁸ 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>.

³⁹ Coffing, M. 1991. *Kwethluk Subsistence: Contemporary Land Use Patterns, Wild Resource Harvest and Use, and the Subsistence Economy of the Lower Kuskokwim River*. Retrieved July 12, 2012 from: <http://www.subsistence.ADFG.state.ak.us/TechPap/tp157.pdf>

⁴⁰ Andrews, E.; and Coffing, M. (1986). *Kuskokwim River Subsistence Chinook Fisheries: An Overview*. Retrieved July 12, 2012 from: <http://www.nativeknowledge.org/db/files/tp146.htm>.

⁴¹ Ibid.

⁴² Alaska Seafood Marketing Institute. 2011. Directory of Alaska Seafood Suppliers. Retrieved December 12, 2011 from <http://www.alaskaseafood.org/industry/suppliers/index.cfm>.

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 2010, 26 residents, or 7.5% of the population, held 25 commercial fishing permits issued by the Commercial Fisheries Entry Commission (CFEC). In 2000, 30 residents held 28 CFEC permits. Of the CFEC permits issued in 2010, 92% were for salmon, compared to 93% in 2000; and 8% were for herring, compared to 7% in 2000. Between 2000 and 2010, no residents held Federal Fisheries Permits (FFP) or License Limitation Program (LLP) permits for groundfish and crab fisheries. In addition, no residents held halibut, sablefish, or crab quota share between 2010 and when the programs began.

Residents held 15 commercial crew licenses in 2010, compared to 27 in 2000. In addition, residents held majority ownership of 2 vessels, compared to 5 in 2000. Of the CFEC permits issued in 2010, 56% were actively fished, compared to 89% in 2000. This varied by fishery from 61% of salmon to 0% of herring permits actively fished. Fisheries prosecuted by Akiak residents in 2010 included Bristol Bay drift gill net salmon and Kuskokwim gill net salmon.⁴³

No landings were reported in the community between 2000 and 2010 and landings made by residents during those years are considered confidential. Information regarding commercial fishing trends can be found in Tables 4 through 10.

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.]

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax ¹	n/a										
Shared fisheries business tax ¹	\$629	\$501	\$96	\$124	\$102	\$251	\$295	\$157	\$113	\$93	\$98
Fisheries resource landing tax ¹	n/a										
Fuel transfer tax ²	n/a										
Extraterritorial fish tax ²	n/a										
Bulk fuel transfers ¹	n/a										
Boat hauls ²	n/a										
Harbor usage ²	n/a										
Port/dock usage ²	n/a										
Fishing gear storage on public land ³	n/a										
Marine fuel sales tax ³	n/a										
Total fisheries-related revenue⁴	\$629	\$501	\$96	\$124	\$102	\$251	\$295	\$157	\$113	\$93	\$98
Total municipal revenue⁵	\$313,183	\$378,912	\$248,586	\$246,630	\$240,985	\$559,186	\$537,012	\$557,608	\$813,998	\$796,968	\$792,064

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.

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (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	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
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	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries Permits ¹	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	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (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	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other shellfish (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	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (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	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Herring (CFEC) ²	Total permits	2	3	3	3	3	2	2	2	2	2	2
	Fished permits	1	1	0	0	0	0	0	0	0	0	0
	% of permits fished	50%	33%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	2	3	3	3	3	2	2	2	2	2	2

Table 4 cont'd. Permits and Permit Holders by Species, Akiak: 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	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Groundfish (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	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	0	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	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) ²	Total permits	26	27	27	27	26	26	24	24	24	24	23
	Fished permits	24	19	16	13	18	17	12	17	14	5	14
	% of permits fished	92%	70%	59%	48%	69%	65%	50%	71%	58%	21%	61%
	Total permit holders	28	28	28	27	29	28	24	24	24	25	24
<i>Total CFEC Permits²</i>	<i>Permits</i>	28	30	30	30	29	28	26	26	26	26	25
	<i>Fished permits</i>	25	20	16	13	18	17	12	17	14	5	14
	<i>% of permits fished</i>	89%	67%	53%	43%	62%	61%	46%	65%	54%	19%	56%
	<i>Permit holders</i>	30	30	30	29	31	30	26	26	26	27	26

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 Akiak: 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 Akiak	Total Net Pounds Landed In Akiak ^{2,5}	Total Ex-Vessel Value Of Landings In Akiak ^{2,5}
2000	27	0	0	5	4	0	0	\$0
2001	4	0	0	7	5	0	0	\$0
2002	17	0	0	6	4	0	0	\$0
2003	13	0	0	6	4	0	0	\$0
2004	13	0	0	5	4	0	0	\$0
2005	19	0	0	2	2	0	0	\$0
2006	15	0	0	2	1	0	0	\$0
2007	19	0	0	3	2	0	0	\$0
2008	3	0	0	3	2	0	0	\$0
2009	7	0	0	1	0	0	0	\$0
2010	15	0	0	2	1	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 by Residents of Akiak: 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 Akiak: 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 Akiak: 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.]

Table 9. Landed Pounds and Ex-Vessel Revenue, by Species, in Akiak: 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 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 Akiak 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>	--	--	--	--	--	--	--	--	--	--	--

Note: Cells showing “--” indicate that the data are considered confidential.

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

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

² Totals only represent non-confidential data.

Recreational Fishing

Like other communities in the Y-K Delta, Akiak's proximity to Bethel attracts many private anglers to the area. However, the community's lack of accommodations and recreational fishing services limit visitations by non-Alaska resident anglers. Because of this, most sportfishing in the area by non-Alaska residents is likely based in Bethel. In 2010, residents held 62 sportfishing licenses, compared to 18 in 2000. Also in that year, 56 sportfishing licenses were sold in the community, compared to none in 2000. There were no registered sport fish guide or charter businesses operating in the community between 2000 and 2010.

Akiachak is located in the Kuskokwim River and Bay ADF&G Harvest Survey Area which includes all drainages flowing into Kuskokwim Bay as well as saltwater from Cape Newenham north to Naskonat Peninsula. The majority of sportfishing targets freshwater fisheries and in 2010, resident and non-Alaska resident angler days fished totaled 19,455, compared to 19,990 in 2000. In that year, non-residents accounted for 72% of total angler days fished, compared to 67% in 2000. The Kuskokwim River's popularity among non-residents and the fact that most local residents typically engage in subsistence fishing likely contributed to the high ratio of non-Alaska resident to resident anglers between 2000 and 2010. According to ADF&G Harvest Survey data, local private anglers target chinook and coho salmon, rainbow trout, and Dolly Varden char. Trends regarding recreational fishing trends can be found in Table 11.

Subsistence Fishing

Subsistence has always been an important part of Akiak's economy and culture. The Bethel Census area is federally recognized as rural, thus subsistence practices are permitted on federal lands and waters. Of the species documented by ADF&G in Table 13, residents reported harvesting chinook salmon the most, followed by sockeye, chum, and coho. In 2008, residents reported harvesting 14,390 salmon, accounting for approximately 1.4% of all reported salmon harvests that year statewide and representing a notable increase from 6,099 salmon in 2000. Between 2000 and 2008, reported sockeye harvests increased 303.7%, reported coho harvests increased 355.9%, reported chum harvests increased 46.5%; and reported chinook harvests increased 113.4%. No residents held Subsistence Halibut Registration Certificates (SHARC) between 2009 and when NMFS began issuing them. In addition, ADF&G data on household subsistence use and marine mammal harvests are unavailable. Information regarding subsistence trends can be found in Tables 12 through 15.

Table 11. Sport Fishing Trends, Akiak: 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 Akiak ²
2000	0	0	18	0
2001	0	0	9	0
2002	0	0	39	0
2003	0	0	43	0
2004	0	0	20	0
2005	0	0	41	31
2006	0	0	53	49
2007	0	0	48	33
2008	0	0	17	2
2009	0	0	65	50
2010	0	0	62	56

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	27	13	13,388	6,602
2001	n/a	n/a	16,437	4,236
2002	n/a	n/a	14,583	6,062
2003	28	63	16,923	7,355
2004	n/a	15	16,239	9,152
2005	19	18	13,725	5,685
2006	n/a	n/a	14,773	7,616
2007	n/a	n/a	13,390	7,816
2008	n/a	108	17,582	8,172
2009	n/a	n/a	12,625	5,166
2010	n/a	n/a	14,033	5,422

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).

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

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

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

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

Table 13. Subsistence Fishing Participation for Salmon, Marine Invertebrates, and Non-Salmon Fish, Akiak: 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	59	47	2,190	2,456	483	n/a	970	n/a	n/a
2001	65	56	3,369	2,093	564	n/a	1,916	n/a	n/a
2002	71	55	3,340	2,527	1,113	n/a	1,195	n/a	n/a
2003	73	51	3,896	2,715	1,135	n/a	1,698	n/a	n/a
2004	72	51	3,653	3,211	1,236	n/a	1,162	n/a	n/a
2005	77	54	3,420	3,193	1,673	n/a	1,681	n/a	n/a
2006	82	40	3,407	2,417	348	n/a	1,658	n/a	n/a
2007	79	48	3,463	3,435	1,089	16	3,107	n/a	n/a
2008	77	25	4,674	3,598	2,202	n/a	3,916	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, Akiak: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	n/a	n/a	n/a
2004	n/a	n/a	n/a
2005	n/a	n/a	n/a
2006	n/a	n/a	n/a
2007	n/a	n/a	n/a
2008	n/a	n/a	n/a
2009	n/a	n/a	n/a
2010	n/a	n/a	n/a

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, Akiak: 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	n/a	n/a
2001	n/a	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	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	n/a	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.