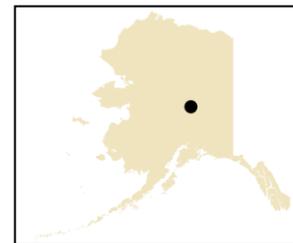


Nenana (nuh-NAN-uh)



People and Place

*Location*¹

Nenana is located in Interior Alaska, 55 road miles southwest of Fairbanks on the George Parks Highway. Nenana is located at mile 412 of the Alaska Railroad, on the south bank of the Tanana River, just east of the mouth of the Nenana River. It lies 304 road miles northeast of Anchorage. The City encompasses 6.0 square miles of land and 0.1 square miles of water. Nenana is in the Yukon-Koyukuk Census Area and the Nenana Recording District.

*Demographic Profile*²

In 2010, there were 378 inhabitants in Nenana, making it the 141st largest of 352 total Alaskan communities with recorded populations that year. Overall between 1990 and 2010, the population of Nenana decreased by 3.8%. According to Alaska Department of Labor estimates, between 2000 and 2009, the population of permanent residents decreased by 12.2%, with an average annual growth rate of -0.74%. In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders estimated that approximately 24 individuals were present in Nenana as seasonal or transient workers between March and October. They indicated that the yearly population peak in Nenana occurs between June and August each year, and that population fluctuations are slightly driven by employment in fishing sectors.

In 2010, a majority of Nenana residents identified themselves as White (56.1%), while 37.6% identified themselves as American Indian or Alaska Native, 0.3% as Asian, 0.3% as Black or African Americans, and 5.6% of residents identified with two or more races. In addition, 0.5% of Nenana residents identified themselves as Hispanic in 2010. Compared to 2000, residents identifying as American Indians and Alaska Natives made up 3.4% less of the population in 2010, while those identifying as White made up 5.4% more of the population. The change in population from 1990 to 2010 is provided in Table 1 below, and changes in racial and ethnic composition from 2000 to 2010 are shown in Figure 1.

In 2010, the average household size in Nenana was 2.21. Overall, this represents a slight decrease from the 1990 average of 2.8 persons per household, but an increase from 1.99 persons per household in 2000. The number of households in Nenana has increased over time, from 140 households in 1990 and 159 in 2000, to 171 occupied housing units in 2010. Of the 215 total housing units surveyed for the 2010 U.S. Decennial Census, 53% were owner-occupied, 26.5% were rented, and 20.5% were vacant or used only seasonally. From 1990 to 2010, no residents of Nenana lived in group quarters.

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

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

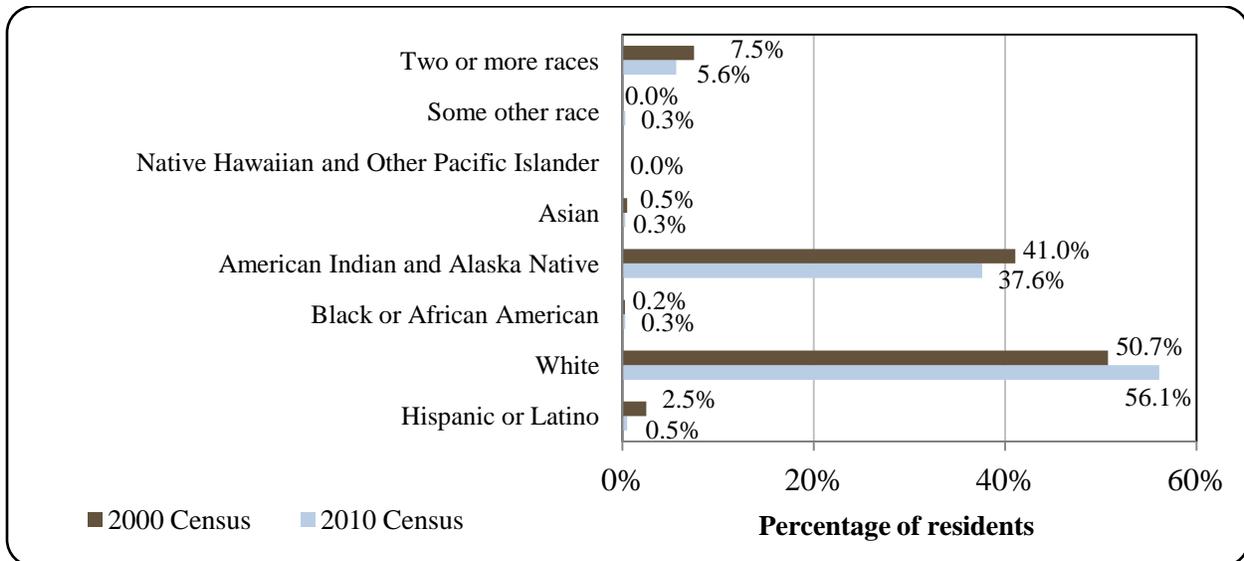
Table 1. Population in Nenana from 1990 to 2010 by Source.

Year	U.S. Decennial Census ¹	Alaska Dept. of Labor Estimate of Permanent Residents ²
1990	393	-
2000	402	-
2001	-	392
2002	-	401
2003	-	371
2004	-	370
2005	-	353
2006	-	355
2007	-	366
2008	-	354
2009	-	353
2010	378	-

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>.

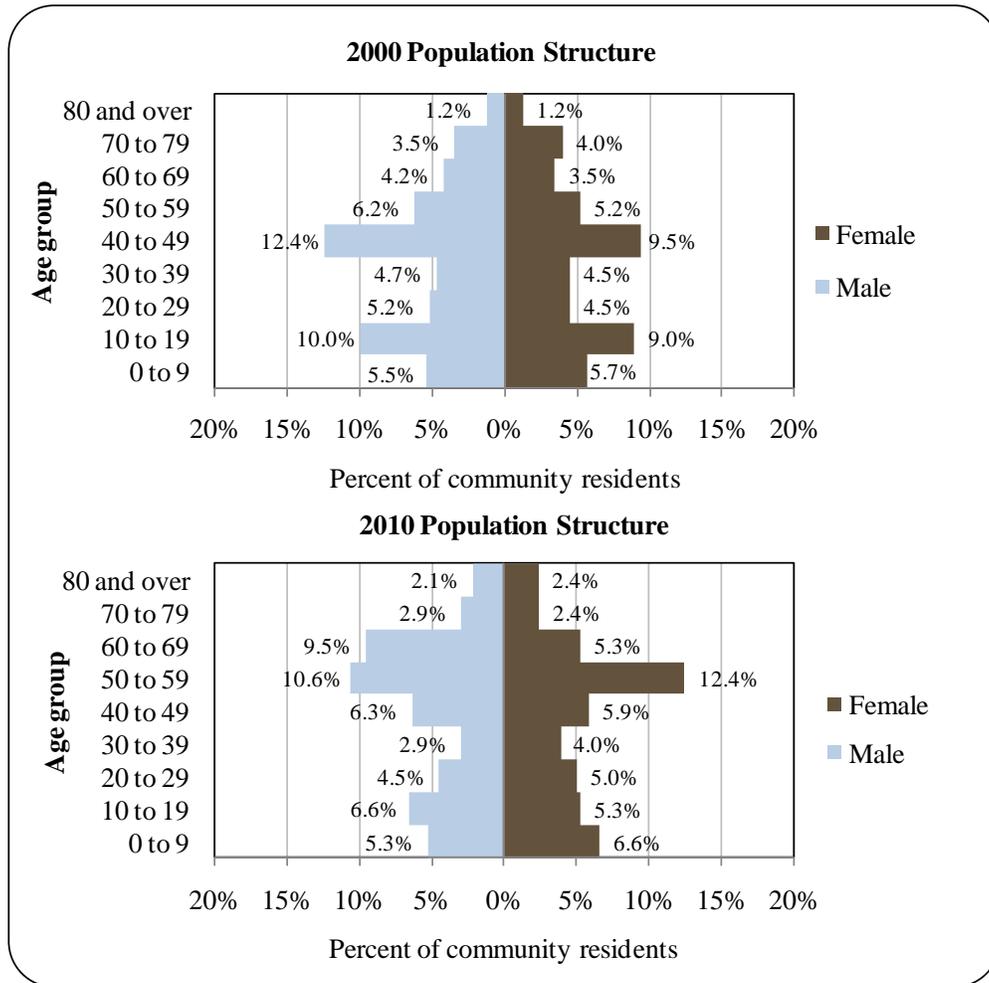
² Alaska Department of Labor. (2011). *Current population estimates for Alaskan Communities*. Retrieved April 15, 2011, from <http://labor.alaska.gov/research/pop/popest.htm>.

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



In 2010, the gender makeup of Nenana’s population (50.8% male and 49.2% female) was more gender balanced than the population of the State as a whole, which was 52% male and 48% female. That year, the median age of Nenana residents was 48 years, much older than the national average of 36.8 years and the median age for Alaska, 33.8 years. In 2010, 24.7% of Nenana’s population was age 60 or older. The overall population structure of Nenana in 2000 and 2010 is shown in Figure 2.

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



In terms of educational attainment, according to the 2006-2010 American Community Survey (ACS),³ 85.3% of Nenana residents aged 25 and over were estimated to hold a high school diploma or higher degree in 2010, compared to 90.7% of Alaskan residents overall. Also in 2010, 4.7% of the population was estimated to have less than a 9th grade education, compared to 3.5% of Alaskan residents overall; 10% were estimated to have a 9th to 12th grade education but no diploma, compared to 5.8% of Alaskan residents overall; 31.3% were estimated to have some college but no degree, compared to 28.3% of Alaskan residents overall; 6.9% were estimated to have an Associate’s degree, compared to 8% of Alaskan residents overall; 8.8% were estimated to have a Bachelor’s degree, compared to 17.4% of Alaskan residents overall; and 3.8% were estimated to have a graduate or professional degree, compared to 9.6% of Alaskan residents overall.

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.

*History, Traditional Knowledge, and Culture*⁴

Nenana is in the western-most portion of Tanana Athabascan territory. It was first known as Tortella, an interpretation of the word “Toghotthele,” which means “mountain that parallels the river.” The Nenana Valley of Central Alaska is the site of one of the earliest archaeological sites in North America, dating between about 11,000 and 12,000 years old.⁵ The site of the City of Nenana was historically used by Athabascan Indians for summer subsistence and mid-winter ceremonial activities.⁶ Interpretations of the name Nenana in the Athabascan language include, “easy place to camp,” or “camp between the rivers.”⁷ By the late 1800s, the Native people had established a small village with permanent dwellings there.⁸

Contact between Europeans and residents of the Tanana Valley began around 1850, following the establishment of a fort at Fort Yukon in 1847 by Russian fur traders. Another fort was established at “Nuklukayet,” at the confluence of the Yukon and Tanana Rivers, in 1860.⁹ The first non-Native explorers to enter the Tanana Valley were Allen, Harper, and Bates in 1875 and 1885. The discovery of gold in Fairbanks in 1902 brought intense activity to the region.¹⁰ The juncture of river and railroad transportation made Nenana a center for commerce in the region during the gold rush and railroad construction period.¹¹

Because of available transportation, Nenana became the headquarters for St. Mark’s Episcopal Mission,¹² which was built upriver in 1905, followed by a mission school in 1907.¹³ Native children from other communities, such as Minto, attended school in Nenana. A post office opened in 1908. By 1909, there were about 12,000 residents in the Fairbanks area, most drawn by gold mining activities.¹⁴ Settlement of a non-Native population in Nenana occurred with the construction of the Alaska Railroad between 1916 and 1923,¹⁵ doubling the town’s population.¹⁶ The community incorporated as a City in 1921. The railroad depot was completed in 1923, when President Warren Harding drove the golden spike at the north end of the 700-foot steel bridge over the Tanana River, which created a transportation link to Fairbanks and Seward.¹⁷

During the 1925 diphtheria epidemic in Nome, serum from Anchorage was transported to Nenana by train before being sent by dogsled to Nome. According to local records, 5,000

⁴ Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

⁵ Ibid.

⁶ Shinkwin, A. and M. Case (1984). *Modern Foragers: Wild Resource Use in Nenana Village, Alaska*. Technical Paper 91, *Alaska Department of Fish and Game, Division of Subsistence*. Retrieved January 9, 2012 from <http://www.subsistence.adfg.state.ak.us/TechPap/tp091.pdf>.

⁷ Lutes and Amundson Community Planners and Alaska State Housing Authority (1968). *Nenana – Comprehensive Planning Study*. Retrieved January 6, 2012 from <http://www.commerce.state.ak.us/dca/plans/Nenana-CP-1968.pdf>.

⁸ See footnote 6.

⁹ Ibid.

¹⁰ See footnote 4.

¹¹ See footnote 7.

¹² Ibid.

¹³ See footnote 6.

¹⁴ See footnote 4.

¹⁵ See footnote 6.

¹⁶ See footnote 4.

¹⁷ Ibid.

residents lived in Nenana during this time.¹⁸ A dramatic decline in population followed the completion of the railroad, primarily due to the departure of non-Natives, and also due to an influenza epidemic in 1920 in which one fourth of the Indian population perished.¹⁹ Completion of the railroad was also followed by an economic slump. The population in 1930 was recorded at 291.²⁰

Today, the City attracts independent travelers in search of fuel and supplies, the Alaska Railroad Museum, the Golden Railroad Spike Historic Park and Interpretive Center, the historical St. Mark's Episcopal Church, Iditarod dog kennels, and the Alfred Starr Museum & Cultural Center. The Nenana Ice Classic, a contest established in 1917 to guess when the ice will break in the Nenana River each year, is a statewide event.²¹

Natural Resources and Environment

Nenana has a cold, continental climate with an extreme temperature range. The average daily maximum during summer months is 65 to 70 °F; the daily minimum during winter is well below 0 °F. The highest temperature ever recorded was 98 °F, and the lowest was -69 °F. Average annual precipitation is 11.4 inches, with 48.9 inches of snowfall. Nenana is located on the Tanana River, which is ice-free from mid-May to mid-October.²² The Tanana River, meaning “river trail” in Athabaskan, is an important tributary of the Yukon River.²³ Runs of Chinook, chum, and coho salmon return to the Yukon and Tanana Rivers each year, spawning as far inland as the headwaters of the Yukon River in Canada.²⁴

Nenana is located one mile west of the border of a western segment of Tanana Valley State Forest, and four miles south of the border of the Minto Flats State Game Refuge. The Game Refuge is nestled among scattered segments of the State Forest, which totals 1.78 million acres and stretches along the Tanana River from near the Canadian border to Manley Hot Springs. Almost 90% of the State Forest is covered by hardwood and hardwood-spruce type forests, with high representation of paper birch, quaking aspen, balsam poplar, black and white spruce, and tamarac. Almost 7% of the forest is shrub land, covered primarily in willow.²⁵

The Minto Flats State Game Refuge encompasses 500,000 acres. It was established in 1988 for the protection and enhancement of fish and wildlife, and to guarantee hunting, fishing, and trapping opportunities. The landscape is a mosaic of ponds, oxbows, stream channels, and wetland and upland vegetation, providing habitat for waterfowl, big game, and furbearers, as well as anadromous and resident freshwater fish species. The area has traditionally been and

¹⁸ Ibid.

¹⁹ See footnote 6.

²⁰ See footnote 4.

²¹ Ibid.

²² Ibid.

²³ Encyclopedia Britannica Online (2012). Tanana River. *Encyclopedia Britannica*. Retrieved January 12, 2012 from <http://www.britannica.com/>.

²⁴ 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>.

²⁵ Alaska Dept. of Natural Resources, Division of Forestry (2001). *Introduction*. In: *Tanana Valley State Forest Management Plan: 2001 Update*. Retrieved January 12, 2012 from http://forestry.alaska.gov/management/tvsf_final_plan.htm.

remains an important area for harvesting fish, wildlife, and other resources for Athabascan Indians and others living in the Nenana area.²⁶

Natural hazard risks in the Nenana area include flooding, wildfire, earthquakes, snow and avalanche, severe weather, landslides and erosion. Shallow earthquakes in the area of Nenana would be considered ‘intraplate’ earthquakes, which can have a magnitude of up to 7 on the Richter scale. There have been three magnitude 7 earthquakes in the Fairbanks area in the past 90 years.²⁷ In late July, 2008, the Tanana River flooded, damaging residential septic, water systems and basements, washing out culverts, and temporarily shutting down Alaska Railroad train service.²⁸

Interior Alaska is dotted with mineral deposits. No mining projects are located directly in Nenana, but the greater Tanana-Fairbanks region has deposits of gold, copper, silver, tin, tungsten, and antimony.²⁹ To the south of Nenana, Usibelli Coal Mine, Inc. has been producing coal since the 1940s.³⁰

According to the Alaska Department of Environmental Conservation (DEC), one active environmental cleanup site was located in Nenana as of May 2012. In 1991, petroleum contamination was identified in the soil and groundwater near an underground storage tank (UST) system at A-Frame Services in Nenana. In 1993, the UST system was removed and soils were excavated and treated. Ongoing groundwater monitoring indicates that the contaminated plume is stable and decreasing in concentration. To date, contaminants have not been detected above Maximum Contaminant Levels in a drinking water well located at the facility.³¹

Current Economy³²

Over 40% of year-round jobs in Nenana are government-funded, including employment with the City, Tribe, Nenana School District, Yukon-Koyukuk School District, and Department of Transportation highway maintenance. As the center of rail-to-river barge transportation for Interior Alaska, Nenana has a strong seasonal private-sector economy. Crowley Marine is the major private employer in Nenana, providing supplies and fuel to over 40 villages along the Tanana and Yukon Rivers each summer. Subsistence foods, such as salmon, moose, caribou (by permit), bear, waterfowl, and berries play an important role. A number of Nenana residents are also involved in commercial salmon fisheries.^{33,34} Between 2000 and 2010, the percentage of

²⁶ Alaska Dept. of Fish and Game (2012). Minto Flats State Game Refuge. *Protected Areas website*. Retrieved January 12, 2012 from <http://www.adfg.alaska.gov/index.cfm?ADFG=mintoflats.main>.

²⁷ State of Alaska (2002). *Hazard Mitigation Plan*. Retrieved February 8, 2012 from <http://biotech.law.lsu.edu/blaw/DOD/manual/.%5CFull%20text%20documents%5CState%20Authorities%5CAla.%20SHMP.pdf>.

²⁸ State Emergency Coordinating Center (2008). *Situation Report – 2008 Tanana Basin Flooding*. Retrieved February 10, 2012 from http://fc.ak-prepared.com/dailysitrep/I00F90219/_OpenNdx.

²⁹ Szumigala, D.J., L.A. Harbo, and J.N. Adleman (2011). *Alaska's Mineral Industry 2010*. Alaska Dept. of Natural Resources and Alaska Dept. of Commerce, Community and Economic Development, Special Report 65.

³⁰ Usibelli Coal Mine, Inc. (n.d.). *UCM History*. Retrieved January 10, 2012 from http://www.usibelli.com/History_KD.asp.

³¹ Alaska Dept. of Environmental Conservation (n.d.). *List of Contaminated Sites*. Retrieved April 17, 2012 from <http://dec.alaska.gov/spar/csp/list.htm>.

³² Unless otherwise noted, all monetary data are reported in nominal values.

³³ Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

Nenana residents holding state Commercial Fisheries Entry Commission (CFEC) permits was equivalent to between 6% and 7% of the population per year, although a smaller percentage were actively fished each year (see *Commercial Fishing* section).

Based on household surveys conducted for the 2006-2010 ACS,³⁵ in 2010, the per capita income in Nenana was estimated to be \$25,479 and the median household income was estimated to be \$56,250. This represents an increase from the per capita and median household incomes reported in the year 2000 (\$17,334 and \$33,333, respectively). Income levels in 2010 remain slightly higher than 2000 levels even when inflation is taken into account by converting the 2000 values to 2010 dollars,³⁶ revealing a real 2000 per capita income of \$22,794 and real 2000 median household income of \$43,832. In 2010, Nenana ranked 101st of 307 Alaskan communities with per capita income data that year, and 96th in median household income, out of 305 Alaskan communities with household income data.

Nenana's small population size may have prevented the ACS from accurately portraying economic conditions.³⁷ An alternative estimate of per capita income is provided by economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). If total wages reported in the ALARI database for 2010 are divided by the 2010 population reported by the U.S. Census, the resulting per capita income estimate for Nenana in 2010 is \$17,455,³⁸ similar to the per capita income reported for the year 2000. This suggests that caution is warranted when citing an increase in per capita income in Nenana between 2000 and 2010, but provides additional evidence for income stability in the community during this period. It should be noted that both ACS and DOLWD data are based on wage earnings, and these income statistics do not take into account the value of subsistence within the local economy.

This evidence of income stability is reflected in the fact that Nenana did not meet the Denali Commission's primary criteria for a "distressed community" in 2010. However, Nenana did make a list of additional communities that meet the distressed classification when a plus/minus 3% formula is used.³⁹

Based on the 2006-2010 ACS, in 2010, a slightly lower percentage of Nenana residents were estimated to be in the civilian labor force (64.4%) than in the civilian labor force statewide (68.8%). In the same year, 20.9% of local residents were estimated to be living below the poverty line, compared to 9.5% of Alaskan residents overall, and the unemployment rate was estimated to be 15.2%, compared to a statewide unemployment rate of 5.9%. An additional estimate of unemployment is based on the ALARI database, which indicates that the

³⁴ 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/>.

³⁵ 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>.

³⁶ Inflation was calculated using the Anchorage Consumer Price Index for 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, <http://labor.alaska.gov/research/cpi/inflationcalc.htm>).

³⁷ 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.

³⁸ See footnotes 34 and 35.

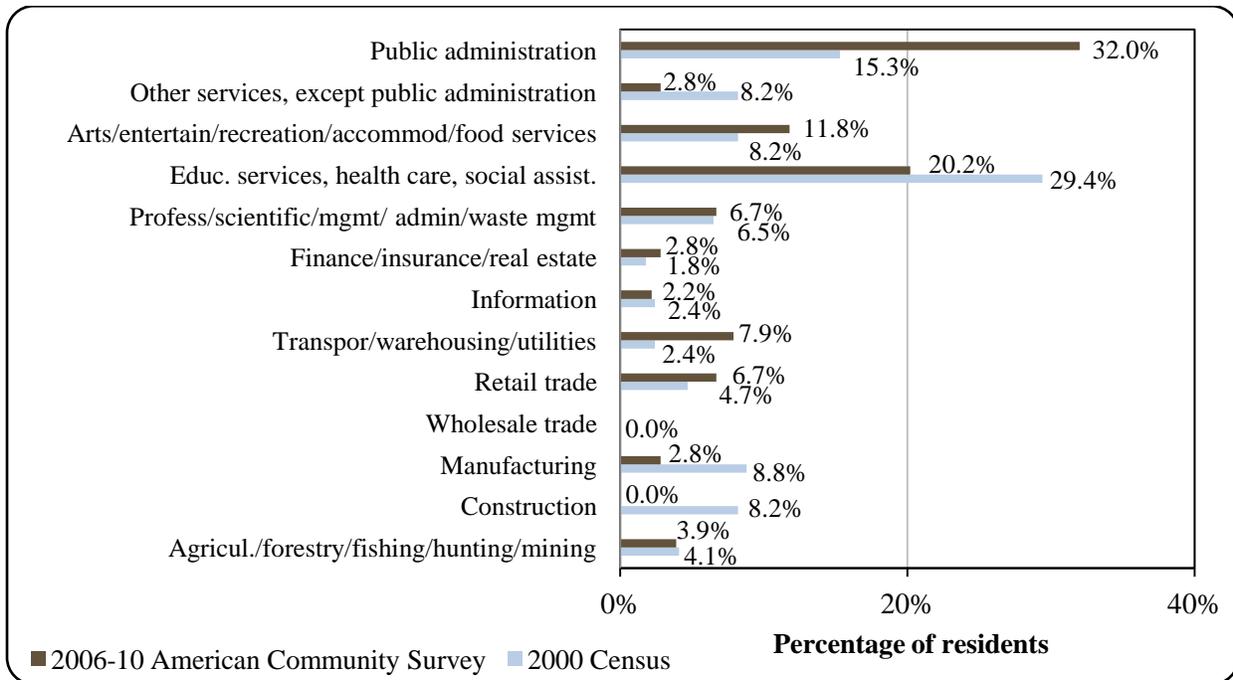
³⁹ Denali Commission. 2011. *Distressed Community Criteria 2011 Update*. Retrieved April 16, 2012 from www.denali.gov.

unemployment rate in 2010 was 19.9%, compared to a statewide unemployment rate estimate of 11.5%.⁴⁰

Also based on the 2006-2010 ACS, the greatest number of workers was estimated to be employed in the private and public sectors (47.8% and 46.6%, respectively). Of the remaining 5.6%, 1.7% were estimated to be self-employed and 3.9% to be unpaid family workers. Of the 178 people aged 16 and over that were employed in the civilian labor force, the majority was estimated to be working in the public administration (32%) and educational services, health care, and social assistance (20.2%). Only 3.9% of the civilian labor force was estimated to be working in agriculture, forestry, fishing, hunting, and mining in 2010. However, the number of individuals employed in farming, fishing, and forestry industries is probably underestimated in census statistics; fishermen may hold another job and characterize their employment accordingly. This information about employment by industry is presented in Figure 3, and employment is broken down by occupation in Figure 4.

An alternative estimate of employment is provided by economic data compiled in the ALARI database, which indicate that there were 224 employed residents in 2010, of which 25.4% were employed in local government, 21% in leisure and hospitality, 15.6% in trade, transportation, and utilities industries, 12.9% in educational and health services, 8.9% in construction, 4.5% in professional and businesses services, 4.5% in natural resources and mining, 4.5% in financial activities, 1.3% in state government, 0.4% in information, and 0.9% in other industries.⁴¹ As with income statistics, it should also be noted that ACS and DOLWD employment statistics do not reflect residents' activity in the subsistence economy.

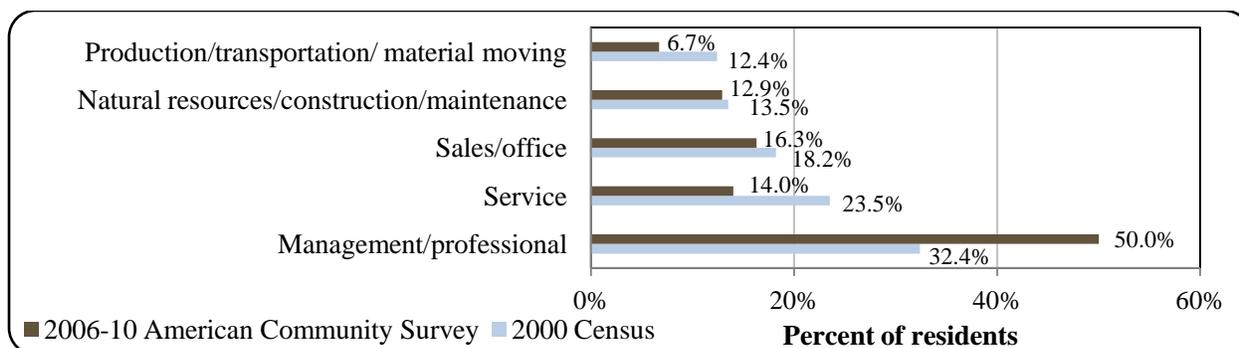
Figure 3. Local Employment by Industry in 2000-2010, Nenana.



⁴⁰ See footnote 34.

⁴¹ Ibid.

Figure 4. Local Employment by Occupation in 2000-2010, Nenana.



Governance

Nenana is a Home Rule City which was incorporated in 1921. It is not included in an organized borough. The City has a Strong Mayor form of government, with a seven-person city council including the mayor, a seven-person advisory school board, and four municipal employees. The City administers a 4% sales tax and a 12.0 mills property tax.⁴² Annual municipal revenue totals generally increased over the 2000-2010 period. In addition to sales and property tax revenues, locally-generated revenue sources in Nenana include building rentals and leases, traffic fines, and charges for local services and events. Outside revenue sources include a variety of revenue sharing programs and grants. Nenana received contributions from the State Revenue Sharing program each year from 2000 to 2004, ranging from \$27,540 to \$40,000 per year, and Community Revenue Sharing contributions of approximately \$120,000 per year in 2009 and 2010. Revenues were also received from the federal Payment in Lieu of Taxes program. It is also important to note that Nenana received an \$850,000 grant from the Denali Commission in 2007 for upgrades to the Nenana Tug and Barge Port.⁴³ Information about selected aspects of Nenana’s municipal revenue is presented in Table 2.

Nenana was included under the Alaska Native Claims Settlement Act (ANCSA), and is federally recognized as a Native village. The authorized traditional entity, recognized by the Bureau of Indian Affairs (BIA), is the Nenana Native Association. The Native village corporation is Toghoththele Corporation, which manages 138,240 acres of land. The regional Native corporation to which Nenana belongs is Doyon, Limited.⁴⁴

Nenana is also a member of the Tanana Chiefs Conference, a tribal 501(c)(3) non-profit organization headquartered in Fairbanks. It is a consortium of 42 villages of Interior Alaska that works to meet “the health and social service challenges for more than 10,000 Alaska Natives spread across a region of 235,000 square miles in Interior Alaska.” The non-profit provides health and tribal development services, as well as educational and employment services to individuals of member tribes.⁴⁵ The Tanana Chiefs Conference is one of the 12 regional Alaska

⁴² Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

⁴³ Denali Commission Project Database System (2008). *Nenana Tug and Barge Port Construction Project Detail*. Retrieved January 6, 2012 from <https://www.denali.gov/dcpdb/>.

⁴⁴ See footnote 42.

⁴⁵ Tanana Chiefs Conference (2007). *History*. Retrieved January 9, 2012 from <http://www.tananachiefs.org/>.

Native nonprofit organizations that were identified under ANCSA and charged with naming incorporators to create regional for-profit corporations. Today, these regional Native Associations receive federal funding to administer a broad range of services to villages in their regions.⁴⁶

The closest offices of the Alaska Department of Natural Resources, Alaska Department of Fish and Game (ADF&G), Alaska Department of Commerce, Community, and Economic Development, and U.S. Bureau of Citizenship and Immigration Services are located in Fairbanks, 55 miles northeast of Nenana by road. Anchorage hosts the nearest office of the National Marine Fisheries Service (NMFS).

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Nenana 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	\$493,165	\$104,312	\$27,540	n/a
2001	\$494,727	\$86,691	\$28,900	n/a
2002	\$709,024	\$126,684	\$28,000	n/a
2003	\$657,588	\$130,674	\$28,000	n/a
2004	\$716,589	\$141,277	\$40,000	n/a
2005	\$883,076	\$145,361	n/a	n/a
2006	\$794,367	\$129,687	n/a	n/a
2007	\$800,647	\$127,376	n/a	\$850,000
2008	\$926,309	\$190,889	n/a	n/a
2009	\$1,171,265	\$149,010	\$124,499	n/a
2010	\$1,017,707	\$149,078	\$120,436	n/a

¹ Alaska Dept. of Comm. 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 Dept. of Comm. and Econ. Dev. (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 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 Dept. of Comm. and Rural Affairs. (n.d.). *Community Funding Database*. Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm.

⁴⁶ U.S. Government Accountability Office (2005). *Alaska Native Villages: Report to Congressional Addressees and the Alaska Federation of Natives*. Retrieved February 7, 2012 from <http://www.gao.gov/new.items/d05719.pdf>.

Infrastructure

Connectivity and Transportation

Nenana is accessible by road, railroad, river, and air. The community is located on the George Parks Highway, the road connecting Wasilla and Fairbanks. The railroad provides daily freight service. The Nenana Municipal Airport offers a 4,600 feet long by 100 feet wide lighted asphalt runway and a gravel runway that doubles as a ski strip in the winter, which measures 2,520 feet by 60 feet. There is also a float pond with parking basins for float planes.⁴⁷ The airport receives air taxis and is open to transient and local general aviation. No scheduled commercial flights serve Nenana.⁴⁸ Fairbanks is located 55 miles away by road, and the price of a roundtrip ticket by plane from Fairbanks to Anchorage in early June of 2012 was \$247.⁴⁹ Daily buses to Fairbanks and Anchorage are available year-round.⁵⁰

The Nenana Port Authority operates the dry cargo loading and unloading facilities, dock, bulkhead, and warehouse. The Tanana River is shallow, with a maximum draft for loaded river barges of 4.5 feet. There is a public boat launch with a recreational area to provide access to the Nenana and Tanana rivers.⁵¹

Facilities

The City of Nenana operates a piped water and sewer system. Water is derived from a deep well, treated, and then distributed throughout the community via circulating loops. A piped gravity system collects sewage, which is treated at a secondary treatment plant. Most of the City is connected to the piped water and sewer system, which serves a total of 215 homes as well as the school. The remaining homes have individual wells and septic systems, and some use outhouses. Refuse is collected by a private firm and hauled to the Denali Borough regional landfill, located approximately 30 miles south along the George Parks Highway. A diesel powerhouse, operated by Golden Valley Electric Association, provides electricity to the City. Telephone and internet service is available in Nenana, but no cable company provides service locally.⁵²

Public safety services are provided by state troopers stationed in Nenana, and fire/rescue services are provided by the Nenana Volunteer Fire Department and Emergency Medical Services (EMS). Nenana is home to the Nenana District Court system. Other community facilities include a youth/recreation center, a community center, senior housing, a small exercise room, a museum (the Alfred Starr Nenana Cultural Center) and both a public and a school library.⁵³ According to a survey conducted by the AFSC in 2011, community leaders reported additional public services available in Nenana, including a food bank and publicly subsidized housing.

⁴⁷ Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

⁴⁸ Airport information retrieved January 9, 2012 from <http://www.airnav.com>.

⁴⁹ This price was calculated on November 21, 2011 using kayak.com.

⁵⁰ See footnote 47.

⁵¹ Ibid.

⁵² Ibid.

⁵³ Ibid.

With regard to fishing-related infrastructure, community leaders reported in the 2011 AFSC survey that 1,400 feet of dock space is available for permanent vessel moorage, and 800 feet of dock space is available for transient vessel moorage, with dock facilities served by both road access and water. They said the harbor is dredged and a jetty is in place, and that vessels up to 120 feet in length can use moorage at Nenana. Community leaders also indicated that haulout and dry dock services are available for vessels less than 60 tons, and that boat fuel, bait, and tackle are for sale in Nenana. According to the survey, Fairbanks is the primary destination for access to fisheries-related businesses and services not provided in Nenana.

Medical Services

Local health care is provided by the Nenana Clinic, which is owned by the Village Council non-profit and operated by the Tanana Chiefs Conference. The Nenana Clinic is a Community Health Aide Program (CHAP) site. Nenana also has a mental health clinic. Emergency Services have highway, river and airport access. Emergency service is provided by 911 Telephone Service volunteers and a health aide. Auxiliary health care is provided by the Nenana Volunteer Fire/EMS Department.⁵⁴ A number of hospitals are located 55 miles away in Fairbanks.

Educational Opportunities

The Nenana City School District operates one local school and a correspondence program. The Nenana City School and the CyberLynx Correspondence Program both serve preschool through 12th grade. As of 2011, the Nenana City School had 200 students and 18 teachers.⁵⁵ The CyberLynx Correspondence Program had 951 students and seven teachers that same year.⁵⁶ The Nenana Student Living Center, one of three statewide boarding facilities for high school students, provides housing to up to 88 students from around Alaska.⁵⁷

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Indigenous people living along the Yukon and Tanana Rivers have long harvested salmon for subsistence purposes. Salmon was used for personal subsistence as well as food for sled dogs. The first recorded commercial harvest of salmon in the Alaskan portion of the Yukon River took place in 1918, and early harvests were relatively large. Concerns about providing sufficient salmon resources for subsistence harvest led to limitations on commercial salmon fishing during several periods, including a complete commercial fishing closure between 1925 and 1931. In the 1980s, concerns about possible overharvest of Chinook runs led to reduced commercial fisheries in the late 1980s and 1990s along the Yukon. Poor returns in the late 1990s and early 2000s

⁵⁴ Ibid.

⁵⁵ Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

⁵⁶ See footnote 47.

⁵⁷ Nenana School District (2010). *Nenana Student Living Center*. Retrieved January 9, 2012 from <http://nenanalynx.org/nslc/>.

resulted in restrictive management of the commercial fishery and complete closure in 2001 to ensure subsistence resources.⁵⁸ Yukon River Chinook runs showed signs of improvement for several years following the 2001 commercial closure, but low returns required restricted commercial harvest in 2008 and complete closure of Chinook harvest in 2009. A fishery disaster was declared that year.⁵⁹ A fishery disaster was again declared for the 2012 season, when the commercial Chinook salmon fishery was closed and subsistence fishery was significantly restricted. ADF&G, the Alaska Board of Fisheries, and constituents are working together to develop a conservation plan that restricts Chinook harvest while allowing for greater harvest of more abundance species, including gear and other management restrictions.⁶⁰

Like Yukon Chinook salmon runs, chum salmon runs have seen poor returns since 1998. A relatively strong run in 2007 led to some effort to redevelop the Yukon chum fishery, but this process is challenged by the need to reduce incidental harvest of co-migrating Chinook salmon. Further, beginning in 2008, the fall chum salmon run has not been large enough to provide for commercial opportunity. From 2008 to 2010, management actions have been taken to delay commercial fishing to provide for escapement and subsistence use.⁶¹

In years when commercial salmon fishing is open, fishing is allowed along the entire 1,200 miles of the main stem of the Yukon River, as well as 225 miles of the Tanana River. There are 7 fishing districts, 10 sub-districts and 28 statistical areas. Nenana is located in the Upper Yukon Area of the Yukon salmon fishery, in Subdistrict 6B. Chinook, chum, and coho are the three species of salmon that have significant runs far into Interior Alaska and Canada. Fishing on the Upper Yukon takes place using drift gillnets and fish weirs.⁶²

According to a survey conducted by the AFSC in 2011, community leaders indicated that Nenana residents are involved in the fisheries management process in Alaska by sending a representative to participate in the Federal Subsistence Board or Federal Subsistence Regional Advisory Council process. Nenana is not eligible to participate in the Community Development Quota or the Community Quota Entity programs.

Processing Plants

ADF&G's 2010 Intent to Operate list did not list a registered processing plant in Nenana. One nearby processing facility was listed in Fairbanks.

⁵⁸ 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>.

⁵⁹ Upton, Harold F. 2010. *Commercial Fishery Disaster Assistance*. Congressional Research Service Report for Congress. Retrieved October 3, 2012 from <http://www.fas.org/sgp/crs/misc/RL34209.pdf>.

⁶⁰ Alaska Dept. of Fish and Game. 2012. *2012 Alaska Chinook Salmon Fishery Disaster – FAQ*. Retrieved October, 2012 from <http://www.adfg.alaska.gov/index.cfm?adfg=hottopics.federalChinookdisaster>.

⁶¹ Wolfe, R.J. and C. Scott. (2010). *Continuity and Change in Salmon Harvest Patterns, Yukon River Drainage, Alaska*. Final Report for Study 07-253, U.S. Fish and Wildlife Service.

⁶² See footnote 58.

Fisheries-Related Revenue

According to information provided in Nenana’s annual municipal budget between 2000 and 2010, a majority of fisheries-related revenue came from harbor usage fees, along with \$100 from a raw fish tax in both 2001 and 2002. Refer to Table 3 for details on selected aspects of fisheries-related revenue during this period.⁶³

Commercial Fishing

Between 2000 and 2010, Nenana residents participated in commercial fisheries as crew members, vessel owners, and state permit holders. In 2010, there were 23 Nenana residents holding a total of 26 Commercial Fisheries Entry Commission (CFEC) permits, all for salmon fisheries. Of these, only six were actively fished in 2010. A majority of these permits, including all six active permits, were for the upper Yukon River fish wheel fishery, with the remainder issued for the upper Yukon drift gillnet fishery. Until 2002, one Nenana resident also held a permit in the lower Yukon drift gillnet fishery. Salmon CFEC permit numbers were relatively stable between 2000 and 2010, declining from 29 total permits in 2000 to 25 in 2010. No permits were fished in 2000 or 2001, reflecting the closure of the Chinook fishery in 2001 (see *History and Evolution of Fisheries* section above.) The highest number of permits was fished in 2006, with nine active permits that year. Between 2000 and 2010, no Federal Fisheries Permits (FFP) or federal License Limitation Program permits (LLP) were held by Nenana residents, and no quota share accounts were held in federal catch share fisheries for halibut, sablefish, or crab. Information about permits held by Nenana residents is presented in Table 4, and information about federal quota is presented in Tables 6 through 8.

In 2010, one Nenana resident held a commercial crew license and no residents were the primary owner of a fishing vessel (Table 5). Between 2000 and 2010, the number of crew license holders fluctuated between zero in 2001-2002 and five in 2006. The number of Nenana residents that were primary owners of a fishing vessel fluctuated between zero and two during the 2000-2010 period. According to a survey conducted by the AFSC in 2011, community leaders indicated that the only vessels using Nenana as a base of operations during the fishing season were gillnet boats under 35 feet in length. In 2010, no fish buyers or processors were present in Nenana (Table 5) and no landings or ex-vessel revenue were recorded in the community (Table 9). Information about landings and ex-vessel revenue generated by vessels owned by Nenana residents is considered confidential between 2000 and 2009 due to the small number of participants. No vessels were primarily owned by Nenana residents in 2010 (Table 10).

⁶³ 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.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax ¹	n/a	\$100	\$100	n/a							
Shared Fisheries Business Tax ¹	3	49	n/a								
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	\$271,250	\$215,750	\$219,940	\$219,040	\$260,250	\$255,750	\$250,974	\$248,474	\$263,500	\$274,692	\$249,750
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	\$271,253	\$215,899	\$220,040	\$219,040	\$260,250	\$255,750	\$250,974	\$248,474	\$263,500	\$274,692	\$249,750
Total municipal revenue⁵	\$493,165	\$494,727	\$709,024	\$657,588	\$716,589	\$883,076	\$794,367	\$800,647	\$926,309	\$1.17M	\$1.02M

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

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

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

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

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

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

Table 4. Permits and Permit Holders by Species, Nenana: 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	-	-	-	-	-	-	-	-	-	-	-
	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	-	-	-	-	-	-	-	-	-	-	-
	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	-	-	-	-	-	-	-	-	-	-	-
	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	-	-	-	-	-	-	-	-	-	-	-
	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	-	-	-	-	-	-	-	-	-	-	-
	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	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Herring (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0

Table 4 cont'd. Permits and Permit Holders by Species, Nenana: 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	-	-	-	-	-	-	-	-	-	-	-
	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	-	-	-	-	-	-	-	-	-	-	-
	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	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) ²	Total permits	29	27	27	28	26	26	28	27	26	26	25
	Fished permits	0	0	4	6	7	5	9	9	6	2	6
	% of permits fished	0%	0%	15%	21%	27%	19%	32%	33%	23%	8%	24%
	Total permit holders	28	25	25	27	25	24	26	25	25	24	23
<i>Total CFEC Permits²</i>	<i>Permits</i>	29	27	27	28	26	26	28	27	26	26	25
	<i>Fished permits</i>	0	0	4	6	7	5	9	9	6	2	6
	<i>% of permits fished</i>	0%	0%	15%	21%	27%	19%	32%	33%	23%	8%	24%
	<i>Permit holders</i>	28	25	25	27	25	24	26	25	25	24	23

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 Nenana: 2000-2010.

Year	Crew Licenses 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 Nenana ²	Total Net Pounds Landed In Nenana ^{2,5}	Total Ex-Vessel Value Of Landings In Nenana ^{2,5}
2000	4	0	0	1	4	0	0	\$0
2001	0	0	0	2	4	0	0	\$0
2002	0	0	0	2	3	0	0	\$0
2003	1	0	0	2	3	0	0	\$0
2004	4	0	0	1	2	0	0	\$0
2005	2	0	0	1	0	0	0	\$0
2006	5	0	0	1	0	0	0	\$0
2007	4	0	0	2	1	0	0	\$0
2008	2	0	0	1	1	0	0	\$0
2009	2	0	0	1	1	0	0	\$0
2010	1	0	0	0	0	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 Nenana: 2000-2010.

Year	Number of Halibut Quota Share Account 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 Nenana: 2000-2010.

Year	Number of Sablefish Quota Share Account 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 Nenana: 2000-2010.

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

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

Table 9. Landed Pounds and Ex-vessel Revenue, by Species, in Nenana: 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 Nenana Residents: 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
Finfish	-	-	-	-	-	-	-	-	-	-	0
Halibut	-	-	-	-	-	-	-	-	-	-	0
Herring	-	-	-	-	-	-	-	-	-	-	0
Other Groundfish	-	-	-	-	-	-	-	-	-	-	0
Other Shellfish	-	-	-	-	-	-	-	-	-	-	0
Pacific Cod	-	-	-	-	-	-	-	-	-	-	0
Pollock	-	-	-	-	-	-	-	-	-	-	0
Sablefish	-	-	-	-	-	-	-	-	-	-	0
Salmon	-	-	-	-	-	-	-	-	-	-	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
Finfish	-	-	-	-	-	-	-	-	-	-	\$0
Halibut	-	-	-	-	-	-	-	-	-	-	\$0
Herring	-	-	-	-	-	-	-	-	-	-	\$0
Other Groundfish	-	-	-	-	-	-	-	-	-	-	\$0
Other Shellfish	-	-	-	-	-	-	-	-	-	-	\$0
Pacific Cod	-	-	-	-	-	-	-	-	-	-	\$0
Pollock	-	-	-	-	-	-	-	-	-	-	\$0
Sablefish	-	-	-	-	-	-	-	-	-	-	\$0
Salmon	-	-	-	-	-	-	-	-	-	-	\$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>

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

According to a survey conducted by the AFSC in 2011, community leaders indicated that sportfishing activity occurs near Nenana using private boats owned by both Alaska residents and non-Alaska residents, as well as charter boats. According to ADF&G, no active sport fish guide businesses were present in Nenana between 2000 and 2010. However, between one and eight licensed sport fish guides per year resided in Nenana from 2000 to 2006. Very few sport fish licenses were sold in Nenana (between 0 and 17 per year over the period), although Nenana residents purchased over 250 licenses each year, irrespective of point of sale. According to the 2011 AFSC survey, community leaders noted that bait and fishing tackle is available for purchase in Nenana. However, the fact that a majority of Nenana residents purchase sportfishing licenses elsewhere indicates that Nenana may not be the primary launching point for sportfishing in the area. Sport fishermen may purchase licenses and gear in nearby Fairbanks or other surrounding communities.

In the 2011 AFSC survey, community leaders indicated that the primary target of sportfishing activity in Nenana is salmon. The Alaska Statewide Harvest Survey,⁶⁴ conducted by ADF&G between 2000 and 2010, confirmed this and noted the following species as targeted by private anglers in Nenana: coho, sockeye, and Chinook salmon, rainbow trout, Dolly Varden char, whitefish, burbot, and Arctic grayling in fresh water, and coho and pink salmon, Pacific halibut, and rockfish in salt water. The Harvest Survey also noted harvest of razor and hardshell clams by residents of Nenana. No kept/release log book data were reported for fishing charter businesses out of Nenana between 2000 and 2010.⁶⁵

Nenana is located within Alaska Sport Fishing Survey Area U – Tanana River Drainage. This Survey Area does not include saltwater areas, reflected in the lack of saltwater angler days reported in Table 11. Freshwater fishing activity was very high in the region between 2000 and 2010. Alaska resident anglers fished significantly more angler days in the Tanana River drainage (71,461 - 110,256 angler days per year) than non-Alaska resident anglers (7,415 – 11,853 per year). This information about fishing trends in Nenana is presented in Table 11.

⁶⁴ 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).

⁶⁵ Alaska Department of Fish and Game (2011). *Alaska sport fish charter logbook database, 2000 – 2010*. ADF&G Division of Administrative Services. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

Table 11. Sport Fishing Trends, Nenana: 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 Nenana ²
2000	0	3	263	0
2001	0	8	268	0
2002	0	7	264	1
2003	0	7	267	0
2004	0	3	275	6
2005	0	1	275	12
2006	0	1	244	10
2007	0	0	258	16
2008	0	0	251	17
2009	0	0	256	8
2010	0	0	285	11

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	0	0	11,517	110,246
2001	0	0	10,744	80,391
2002	0	0	9,733	98,884
2003	0	0	7,502	92,432
2004	0	0	11,853	104,633
2005	0	0	11,335	82,063
2006	0	0	8,216	71,461
2007	0	0	9,327	91,629
2008	0	0	7,613	64,722
2009	0	0	7,415	85,082
2010	0	0	9,025	87,834

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

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

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

Subsistence Fishing

Subsistence harvest of salmon, along with moose, caribou, bear, waterfowl, and berries, play an important role in the culture and lifestyle of Nenana.⁶⁶ The Minto Flats State Game Preserve, located north of Nenana, is an important area for harvesting fish, wildlife, and other resources.⁶⁷ In a survey conducted by the AFSC in 2011, Nenana community leaders said that all five salmon species are important subsistence resources utilized by local residents.

Results of a 2004 subsistence survey conducted by ADF&G did not report information about the number of households participating in subsistence for salmon, halibut, marine mammals, or marine invertebrates in Nenana. The survey did find that 17% of Nenana households participated in non-salmon fish subsistence (not including halibut) in 2004 (Table 12). That year, a total of 4,732 pounds of non-salmon fish was harvested by Nenana residents, and no information was reported regarding total harvest of marine invertebrates (Table 13). Species of non-salmon fish harvested in by Nenana residents included Bering and least cisco, broad, humpback, and round whitefish, lake and rainbow trout, Dolly Varden char, blackfish, sheefish, burbot, Arctic grayling, herring, northern pike, and sucker. Of these species, grayling, pike, and broad whitefish were the most heavily utilized for subsistence purposes in 2004.⁶⁸

Information was also available between 2000 and 2010 regarding subsistence harvest of salmon. The number of Nenana households that were issued subsistence salmon permits varied from 45 to 66 per year between 2000 and 2008, and the number of permits returned each year varied from 32 and 59. On average, 8,560 chum and 5,858 coho salmon were harvested per year, along with 816 Chinook and 702 sockeye per year. No pink salmon were reported as harvested by Nenana residents between 2000 and 2008. This information about subsistence salmon harvest is presented in Table 13.

No information was reported by management agencies regarding participation by Nenana residents in the Subsistence Halibut Registration Certificate (SHARC) program (Table 14) or subsistence harvest of marine mammals between 2000 and 2010 (Table 15).

Additional Information

According to elders interviewed in Nenana in the 1980s, Nenana is a place where people and animals could talk to one another a long time ago. The site was used as a mid-winter ceremonial gathering place, in addition to a summer fish camp.⁶⁹

⁶⁶ Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

⁶⁷ Alaska Dept. of Fish and Game (2012). Minto Flats State Game Refuge. *Protected Areas website*. Retrieved January 12, 2012 from <http://www.adfg.alaska.gov/index.cfm?ADFG=mintoflats.main>.

⁶⁸ 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).

⁶⁹ Shinkwin, A. and M. Case (1984). Modern Foragers: Wild Resource Use in Nenana Village, Alaska. Technical Paper 91, *Alaska Department of Fish and Game, Division of Subsistence*. Retrieved January 9, 2012 from <http://www.subsistence.adfg.state.ak.us/TechPap/tp091.pdf>.

Table 12. Subsistence Participation by Household and Species, Nenana: 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	17%	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, Nenana: 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	52	50	597	823	1,828	n/a	210	n/a	n/a
2001	66	59	1,610	1,173	5,143	n/a	602	n/a	n/a
2002	59	53	707	2,169	4,499	n/a	671	n/a	n/a
2003	63	54	1,315	10,370	5,619	n/a	685	n/a	n/a
2004	49	32	608	8,280	8,906	n/a	648	n/a	4,732
2005	45	41	541	12,365	12,395	n/a	1,005	n/a	n/a
2006	53	49	720	10,918	7,065	n/a	986	n/a	n/a
2007	60	57	911	23,292	4,495	n/a	1,028	n/a	n/a
2008	56	53	331	7,646	2,775	n/a	482	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, Nenana: 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, Nenana: 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.