

Nelson Lagoon



People and Place

Location¹

Nelson Lagoon is situated on the northern coast of the Alaska Peninsula, on a narrow sand spit that separates the lagoon from the Bering Sea. The town is located 580 miles southwest of Anchorage. The community encompasses 135.3 square miles of land and 61.4 square miles of water. Nelson Lagoon is located in the Aleutian Islands Recording District and the Aleutians East Borough Census Area.

Demographic Profile²

In 2010, there were 52 inhabitants in Nelson Lagoon, making it the 293rd largest of 352 total Alaskan communities with recorded populations that year. Nelson Lagoon first appears in U.S. Decennial Census records in 1970. Overall between 1990 and 2010, the population of Nelson Lagoon decreased by 37.3%. According to Alaska Department of Labor estimates, between 2000 and 2009, the population of permanent residents decreased by 24.1%, with an average annual growth rate of -0.63%. In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that approximately 20 seasonal fishing crew are based out of Nelson Lagoon between June and September, with an annual population peak in July. They also indicated that population fluctuations are entirely driven by employment in fishing sectors.

In 2010, a majority of Nelson Lagoon residents identified themselves as American Indian and Alaska Native (75%), 21.2% identified themselves as White, 1.9% as Asian, and 1.9% identified with two or more races. That year, 1.9% of Nelson Lagoon residents also identified themselves as Hispanic. Compared to 2000, individuals identifying as American Indian and Alaska Native made up 3.3% less of the population in 2010, while those identifying as White made up 7.9% 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 Nelson Lagoon was 2.36, a slight decrease from 2.6 persons per household in 1990 and 2.68 persons per household in 2000. The number of households in Nelson Lagoon has also decreased over time, with 31 occupied households in 1990 and 2000, and 22 occupied housing units in 2010. Of the 32 total housing units surveyed for the 2010 U.S. Census, 46.9% were owner-occupied, 21.9% were rented, and 31.3% were

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>.

vacant or used only seasonally. From 1990 to 2010, no residents of Nelson Lagoon lived in group quarters.

In 2010, the gender makeup of Nelson Lagoon’s population (51.9% male and 48.1% female) was similar to the state population as a whole, which was 52% male and 48% female. The median age of Nelson Lagoon residents was 29.5 years, younger than the national average of 36.8 years and the median age for Alaska, 33.8 years. In 2010, 21.1% of Nelson Lagoon’s population was between 60 and 69 years of age, and no one was over 70. The overall population structure of Nelson Lagoon in 2000 and 2010 is shown in Figure 2.

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

Year	U.S. Decennial Census ¹	Alaska Dept. of Labor Estimate of Permanent Residents ²
1990	83	-
2000	83	-
2001	-	79
2002	-	70
2003	-	64
2004	-	78
2005	-	66
2006	-	68
2007	-	69
2008	-	65
2009	-	60
2010	52	-

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

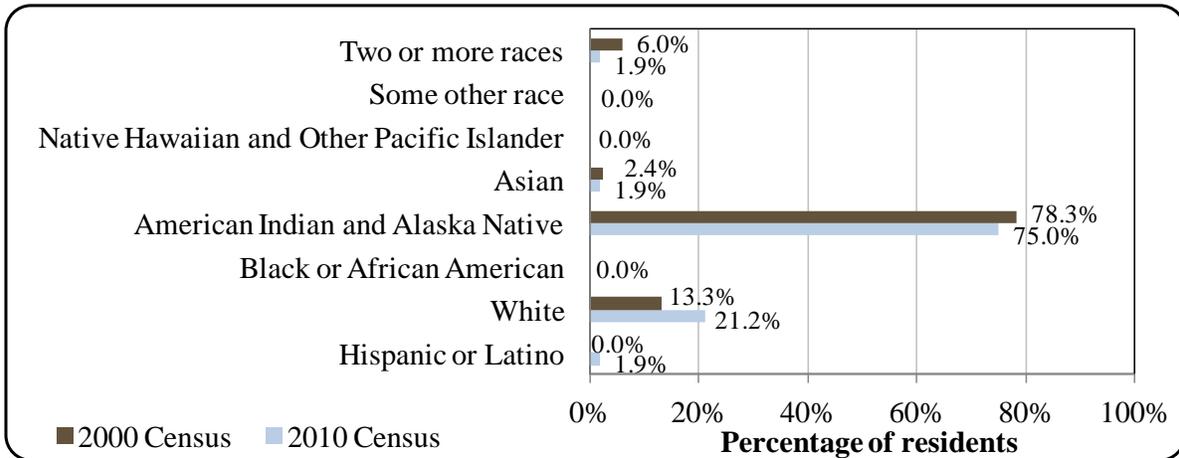
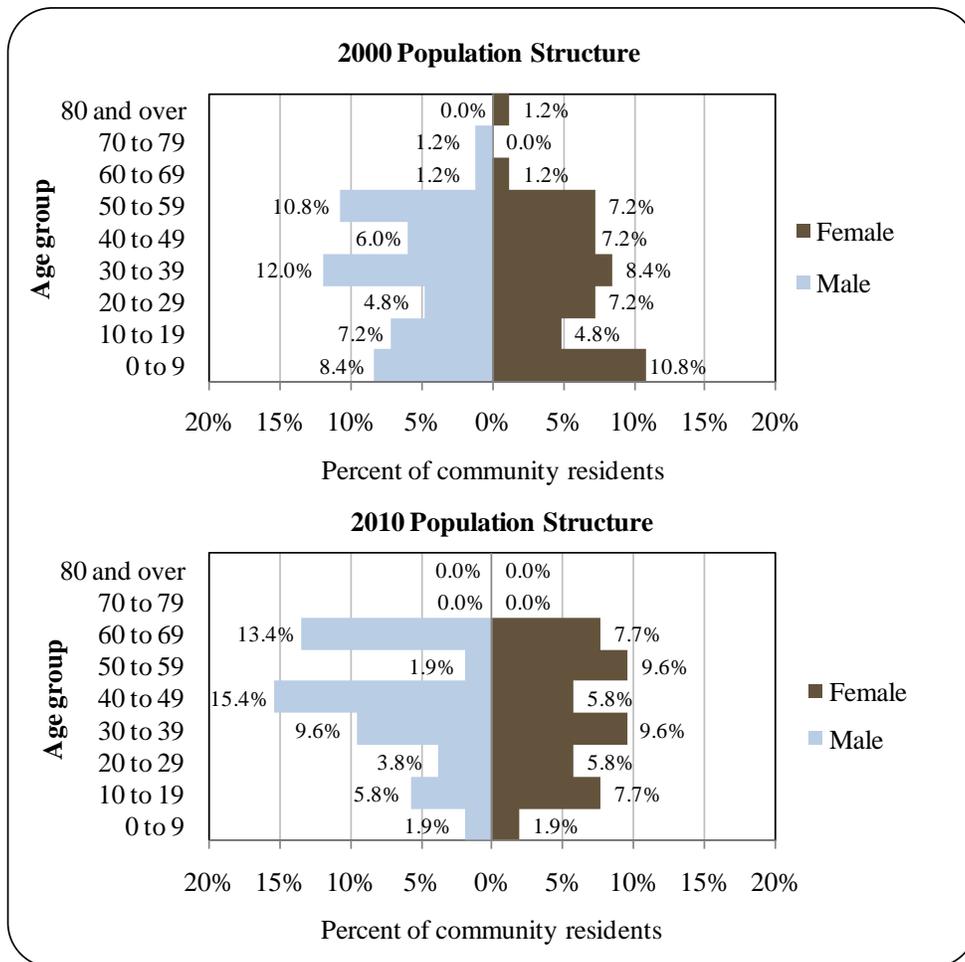


Figure 2. Population Age Structure in Nelson Lagoon Based on the 2000 and 2010 U.S. Decennial Census.



In terms of educational attainment, according to the 2006-2010 American Community Survey (ACS),³ 47.1% of Nelson Lagoon 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, 47.1% of the population was estimated to have less than a 9th grade education, compared to 3.5% of Alaskan residents overall; 5.9% were estimated to have a 9th to 12th grade education but no diploma, compared to 5.8% of Alaskan residents overall; 11.8% were estimated to have some college but no degree, compared to 28.3% of Alaskan residents overall; 5.9% were estimated to have an Associate's degree, compared to 8% of Alaskan residents overall; 0% were estimated to have a Bachelor's degree, compared to 17.4% of Alaskan residents overall; and 0% were estimated to have a graduate or professional degree, compared to 9.6% of Alaskan residents overall.

History, Traditional Knowledge, and Culture

Archaeological evidence suggests Unanga (Aleut) tribes have inhabited the Alaska Peninsula since the last ice age.⁴ Nelson Lagoon was historically used as a summer fish camp by the Aleut people. They were drawn to the site by the excellent resources of the lagoon and nearby Bear River.⁵ Subsistence harvest of marine mammals and salmon has historically been of primary importance for the Aleut, and today salmon, Pacific halibut, octopus, shellfish, seal, and sea lion are an important part of the subsistence diet along with some harvest of land mammals.⁶

The Lagoon was named in 1882 for Edward William Nelson of the U.S. Signal Corps, an explorer in the Yukon Delta region between 1877 and 1920. A salmon saltery operated from 1906 to 1917, which attracted Scandinavian fishermen, but there has been no cannery since. In 1965, a school was built, and the community began to be occupied year-round. The culture is focused on commercial fishing and subsistence activities. There is a strong community pride and loyalty among the residents, with a desire to maintain their lifestyle with slow, monitored growth and development that can be managed by the residents.⁷

Natural Resources and Environment

Nelson Lagoon lies in the maritime climate zone. Frequent and dramatic weather changes occur, with a constant prevailing wind of 20 to 25 mph. Temperatures average 25 to 50 °F, with a range from -15 to 75 °F. Annual snowfall averages 56 inches, with a total precipitation of 33 inches.⁸ Nelson Lagoon is located at the western tip of the Alaska Peninsula, on the northern

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.

⁴ WHPacific (2010). *Aleutians East Multi-Jurisdictional/Multi-Hazard Mitigation Plan*. Retrieved December 7, 2011 from: <http://www.aleutianseast.org/>.

⁵ 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.

⁶ Alaska Native Heritage Center (n.d) *The Unangax & Alutiiq (Supiaq) People - Who We Are*. Retrieved January 4, 2012 from http://www.alaskanative.net/en/main_nav/education/culture_alaska/unangax/.

⁷ See footnote 5.

⁸ Ibid.

coast bordering Bristol Bay. The northern and central portions of the Peninsula are generally flat and contain many lakes, while the southern portion is mountainous.⁹

Protected Areas in the vicinity of Nelson Lagoon include the Izembek National Wildlife Refuge (NWR) to the west, the Alaska Peninsula NWR and Alaska Maritime NWR to the south. The 417,533 acre Izembek NWR was established in 1960 as “a refuge, breeding ground, and management area for all forms of wildlife.” The NWR hosts the Pavlof and Shishaldin volcanoes and Izembek Lagoon. The Lagoon provides habitat for an extraordinary abundance and diversity of waterfowl and shorebirds, and was the first site in the United States to be designated a Wetland of International Importance by the Ramsar Convention in 1986, and in 2001 it was also designated a Globally Important Bird Area by the American Bird Conservancy. In addition to providing critical habitat for hundreds of thousands of migrating birds, the Izembek NWR is also home to resident seabirds; marine mammals including harbor seals, sea otters, Steller sea lions, gray, orca, and minke whales; and land mammals, including brown bear, caribou, wolves, red fox, river otter, mink, wolverine, and many small mammals. Salmon spawn in NWR streams.¹⁰

The Alaska Peninsula NWR and Alaska Maritime NWR were both established under the Alaska National Interest Land Conservation Act (ANILCA) of 1980. With a total area of 3.7 million acres, the Alaska Peninsula NWR extends as far west as False Pass and east beyond Chignik Bay, and includes a separate eastern unit south of Ugashik. It hosts a dramatic landscape of towering mountain peaks, including a number of active volcanoes, rolling tundra, and rugged coastlines. Salmon return to the rivers of the NWR, supporting brown bear populations. Other land mammals include wolverine, the 7,000-animal northern Alaska Peninsula caribou herd, wolves, and moose. It is of note that no black bears are found in the Alaska Peninsula NWR. Marine mammals along the coastline include sea otters, harbor seals, sea lions, and migrating whales. The Alaska Peninsula NWR also provides important habitat for migrating birds.¹¹

The Alaska Maritime NWR hosts a similar array of species in the Alaska Peninsula region. However, it contains a greater diversity overall, as it spans four time zones,¹² stretching from the Aleutian Islands to the Southeast Alaska Panhandle. It was created in part to promote a program of scientific research on marine ecosystems. The Alaska Maritime NWR “protects breeding habitat for seabirds, marine mammals, and other wildlife on more than 2,500 islands, spires, rocks, and coastal headlands.”¹³

At least eleven known minerals occur in the Nelson Lagoon area. Copper, gold, silver, lead, zinc, antimony, arsenic, and silver deposits have been identified. Ilmenite sands occur on the beaches near Nelson Lagoon. Reserves of oil and natural gas are also thought to be present on the outer continental shelf in the Bristol Bay Basin along the northern edge of the Aleutian Islands and Alaska Peninsula.¹⁴ However, given the importance of Bristol Bay fisheries to the

⁹ Alaska Department of Natural Resources (2005). *Bristol Bay Area Plan for State Lands*. Retrieved January 4, 2012 from <http://dnr.alaska.gov/mlw/planning/areaplans/bristol/index.htm>.

¹⁰ U.S. Fish and Wildlife Service (2011). *Izembek National Wildlife Refuge*. Retrieved January 4, 2012 from <http://izembek.fws.gov/>.

¹¹ U.S. Fish and Wildlife Service. (n.d.). *Alaska Peninsula National Wildlife Refuge*. Retrieved March 23, 2012 from <http://www.fws.gov/refuges/profiles/index.cfm?id=74512>.

¹² “Technically, the Alaska Maritime Refuge spans 4 time zones (Pacific, Yukon, Alaska, and Bering). In 1983 almost all the state was consolidated under Alaska Time (standard and daylight) - one hour behind Pacific Time of the West Coast. Only the central and western Aleutian Islands observe Hawaii-Aleutian Time, two hours behind Pacific Time.” Quote retrieved June 11, 2012 from <http://alaskamaritime.fws.gov/howbig.htm>.

¹³ USFWS (n.d.). *Alaska Maritime National Wildlife Refuge*. Retrieved January 4, 2012 from <http://alaskamaritime.fws.gov/>.

¹⁴ See footnote 9.

nation and the proximity of the Bristol Bay Basin to a number of protected areas, in March 2010, Secretary of the Interior Ken Salazar removed the area from oil and gas leasing for the 2007-2012 program.¹⁵ On March 31, 2010, President Obama withdrew the Bristol Bay area of the North Aleutian Basin from oil and gas leasing, whether for exploratory or production purposes, through 2017.¹⁶

Natural hazards with the potential to impact Nelson Lagoon include earthquakes, tsunamis, severe weather, erosion, and volcanoes. Erosion is of immediate concern in Nelson Lagoon. As a result of global climate change, winter pack ice has declined, leaving the community more vulnerable to the action of severe winter storms. The U.S. Army Corps of Engineers has estimated an annual average erosion rate of 5 feet per year in Nelson Lagoon as a result of wind and tidal surges. Impacts of erosion include exposure of the community's water transmission line, resulting either in breaking as a result of wave action or freezing due to winter temperatures.¹⁷

According to the Alaska Department of Environmental Conservation, there are no notable active environmental cleanup sites located in Nelson Lagoon as of May 2012.¹⁸

Current Economy¹⁹

Nelson Lagoon is situated in the middle of a rich and productive salmon fishing area.²⁰ In 2010, 23 residents held commercial fishing permits (Table 4), primarily for salmon set and drift gillnet fisheries in the Alaska Peninsula region. In 2000, the number of residents holding commercial fishing permits was equal to 32.5% of the total local population, and the number of commercial crew license holders was equal to 28%. These percentages increased by 2010, when the number of permit holders was equivalent to 44% of the population, and crew license holders were equal to 31%. Subsistence activities balance the seasonal nature of the commercial fishery. Some trapping occurs.²¹

Based on household surveys conducted for the 2006-2010 ACS,²² in 2010, the per capita income in Nelson Lagoon was estimated to be \$15,608 and the median household income was estimated to be \$32,500. This represents a substantial decrease from the per capita and median household incomes reported in the year 2000 (\$27,596 and \$43,750, respectively). The decrease

¹⁵ U.S. Dept. of the Interior, Minerals Management Service. March 2010. *Preliminary Revised Program Outer Continental Shelf Oil and Gas Leasing Program 2007-2012*. Retrieved January 6, 2012 from <http://www.boemre.gov/5-year/PDFs/PRP2007-2012.pdf>.

¹⁶ The White House, Office of the Press Secretary. March 31, 2010. *Memorandum for the Secretary of the Interior: Withdrawal of Certain Areas of the United States Continental Shelf from Leasing Disposition*. Retrieved January 6, 2012 from <http://www.doi.gov/whatwedo/energy/ocs/upload/2010alaska-mem-rel.pdf>.

¹⁷ WHPacific (2010). *Aleutians East Multi-Jurisdictional/Multi-Hazard Mitigation Plan*. Retrieved December 7, 2011 from: <http://www.aleutianseast.org/>.

¹⁸ Alaska Dept. of Environmental Conservation (n.d.). *List of Contaminated Sites*. Retrieved April 17, 2012 from <http://dec.alaska.gov/spar/csp/list.htm>.

¹⁹ Unless otherwise noted, all monetary data are reported in nominal values.

²⁰ 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.

²¹ Ibid.

²² 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>.

is even greater if inflation is taken into account by converting the 2000 values to 2010 dollars,²³ revealing a real per capita income in 2000 of \$36,288 and a real median household income of \$57,531. In 2010, Nelson Lagoon ranked 199th of 305 Alaskan communities with per capita income data, and 233rd in median household income, out of 299 Alaskan communities with household income data that year.

Although Nelson Lagoon's small population size may have prevented the ACS from accurately portraying economic conditions,²⁴ additional evidence for a decrease in 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 Nelson Lagoon in 2010 is \$13,511.^{25,26} However, despite this evidence for a decline in income between 2000 and 2010, Nelson Lagoon did not meet the Denali Commission's criteria as a "distressed community" in 2010. It should be noted that both ACS and DOLWD data are based on wage earnings, and these income statistics do not take into account the value of subsistence within the local economy.

Based on the 2006-2010 ACS, in 2010, a similar percentage of Nelson Lagoon residents were estimated to be in the civilian labor force (70%) as in the civilian labor force statewide (68.8%). In the same year, 44% 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 0%, compared to a statewide unemployment rate of 5.9%. An additional estimate of unemployment is based on the ALARI database, which indicates that the unemployment rate in Nelson Lagoon in 2010 was 3.9%, compared to a statewide unemployment rate estimate of 11.5%.²⁷

Also based on the 2006-2010 ACS, 50% of the Nelson Lagoon workforce was estimated to be employed in the public sector, and 50% in the private sector. Of the 14 people aged 16 and over that were estimated to be employed in the civilian labor force, a majority were estimated to work in educational services, health care, and social assistance industries (64.3%) and in service occupations (64.3%). None of the civilian labor force was estimated to be working in fishing-related industries or occupations 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. It is important to note that, compared to 2000, fewer industries and occupations appear to be represented in Nelson Lagoon in 2010. This could be due in part to a shift in methods employed by the U.S. Census Bureau to estimate employment statistics.²⁸

²³ 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>).

²⁴ 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.

²⁵ See footnote 22.

²⁶ 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/>.

²⁷ Ibid.

²⁸ See footnote 24.

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

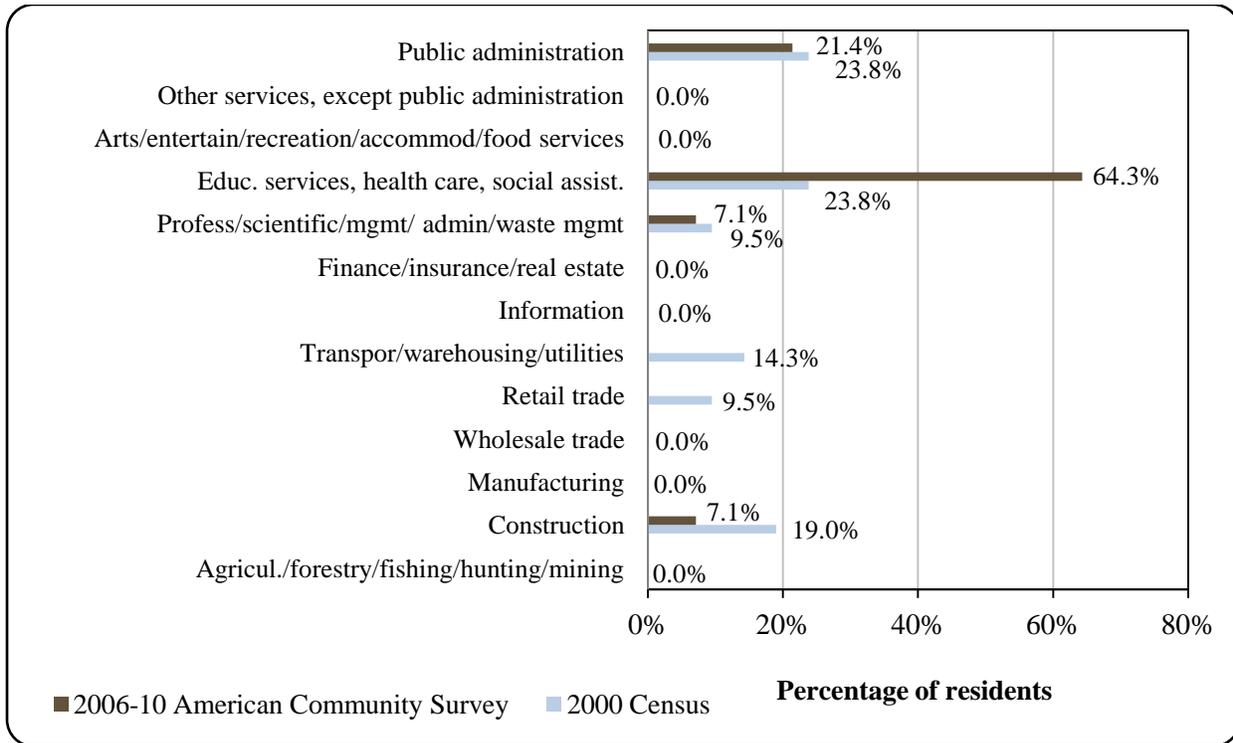
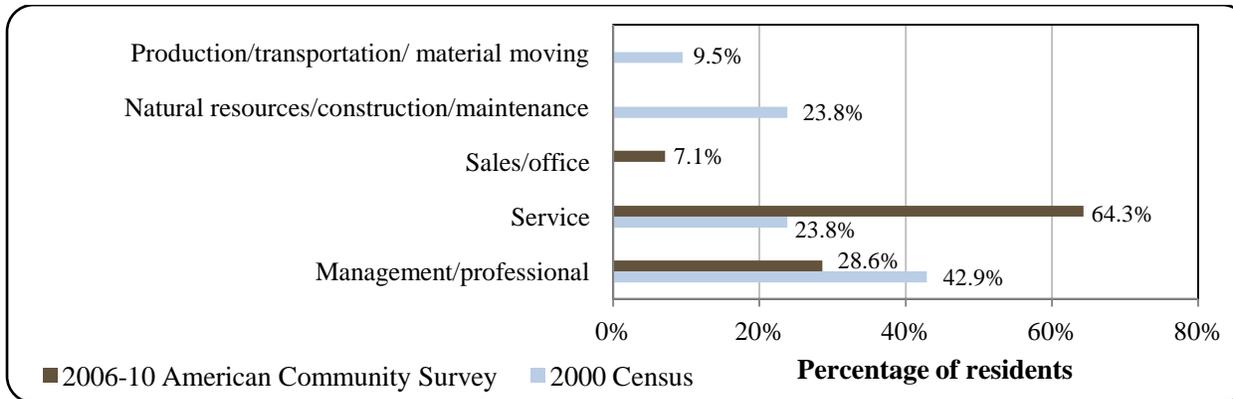


Figure 4. Local Employment by Occupation in 2000-2010, Nelson Lagoon (U.S. Census).



An alternative estimate of employment is provided by economic data compiled in the ALARI database, which indicate that there were 28 employed residents in Nelson Lagoon in 2010, of which 35.7% were employed in local government, 21.4 in education and health services, 14.3% in trade, transportation, and utilities, 14.3% in professional and business services, 7.1% in financial activities, 3.6% in information, and 3.6% in other industries.²⁹ As with income statistics, it should also be noted that ACS and DOLWD employment statistics do not reflect residents’ activity in the subsistence economy.

²⁹ See footnote 26.

Governance

Nelson Lagoon is an unincorporated town in the Aleutians East Borough. No municipal revenue was reported and no taxes were administered by the community. The Borough administers a 2% raw fish tax, but does not levy a sales or property tax in Nelson Lagoon.³⁰ In 2007 and 2008, Nelson Lagoon received Community Revenue Sharing contributions of \$40,000 and \$96,798, respectively. Also in 2007, Nelson Lagoon received a \$2,000,000 grant from the Economic Development Administration (EDA) for design and construction of a fish handling facility.^{31,32} For more information about the facility, see the *Processing Plants* and *Fisheries-Related Revenue* sections of this profile. Information about some of Nelson Lagoon’s revenue sources is presented in Table 2.

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

Year	Total Municipal Revenue ¹	Sales Tax Revenue ²	State/Community Revenue Sharing ^{3,4}	Fisheries-Related Grants (State and Federal) ⁵
2000	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2007	n/a	n/a	\$40,000	\$2,000,000
2008	n/a	n/a	\$96,798	n/a
2009	n/a	n/a	\$118,366	n/a
2010	n/a	n/a	\$118,191	n/a

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

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

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*. 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 Dept. of Comm. 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.

³⁰ Alaska Dept. of Comm. And Rural Affairs (n.d.). *Community Information Summaries*. Retrieved November 16, 2011 from http://www.dced.state.ak.us/dca/commdb/CF_COMDB.htm.

³¹ Alaska Dept. of Comm. 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.

³² Aleutian Pribilof Island Community Development Association (n.d.). *About APICDA*. Retrieved October 17, 2012 from http://www.apicda.com/nelson_lagoon.html.

Nelson Lagoon was included under the Alaska Native Claims Settlement Act (ANCSA), and is federally recognized as a Native village. The authorized traditional entity, recognized by the Bureau of Indian Affairs, is the Native Village of Nelson Lagoon. The Native village corporation is the Nelson Lagoon Corporation, which manages 77,188 acres of land.³³ Nelson Lagoon belongs to the Aleut Corporation, the regional Native corporation of the eastern Alaska Peninsula and Aleutian Islands.³⁴

Nelson Lagoon is also a member of the Aleutian Pribilof Islands Association (APIAI), one of the 12 regional Alaska Native 501(c)(3) nonprofit organizations that were identified under ANCSA and charged with naming incorporators to create regional for-profit corporations. Today, these regional Native Associations receive federal funding to administer a broad range of services to villages in their regions.³⁵ APIAI provides services including cultural heritage, health, education, social, psychological, employment, vocational training, environment, natural resources, and public safety services.³⁶

The closest regional offices of the Alaska Department of Fish and Game (ADF&G) are in Sand Point and Port Moller. The Port Moller office is seasonal, operating between May and September. The nearest offices of the National Marine Fisheries Service (NMFS) and Bureau of Citizenship and Immigration Services (BCIS) are located in Unalaska and Anchorage. The nearest office of the Alaska Department of Commerce, Community, and Economic Development (DCCED) is located in Dillingham, and Anchorage has the closest office of the Alaska Department of Natural Resources (DNR).

Infrastructure

Connectivity and Transportation

Nelson Lagoon is accessible only by air and sea. A state-owned 4,000 feet long by 75 feet wide gravel runway serves regularly-scheduled flights.³⁷ The price of a roundtrip ticket by plane from Nelson Lagoon to Anchorage in early June of 2012 was \$691.³⁸ Nelson Lagoon also has a dock. Some freight is landed at the Peter Pan Seafoods dock, 30 miles away at Port Moller.³⁹

Facilities

Water is derived from a lake about 10 miles from Nelson Lagoon and is treated. Water storage capacity is 600,000 gallons. All homes are connected to a piped water system operated by the Village Council. Individual septic systems enable households to have complete plumbing. A sewage lagoon is used for sewage treatment. The Village Council also operates a landfill, but no organized refuse collection services are available. A diesel powerhouse, operated by the

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.

³⁴ Aleut Corporation (2008). *Corporation*. Retrieved February 9, 2012 from <http://www.aleutcorp.com>.

³⁵ 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>.

³⁶ Aleutian Pribilof Islands Association (n.d.). *Homepage*. Retrieved January 3, 2012 from <http://www.apiai.com/>.

³⁷ See footnote 33.

³⁸ This price was calculated on November 21, 2011 using kayak.com.

³⁹ See footnote 33.

Nelson Lagoon Electric Cooperative, provides power to the town.⁴⁰ Public safety services are provided by a Village Public Safety Officer stationed in Nelson Lagoon.⁴¹ The nearest state trooper post is located in Cold Bay.⁴² Telephone and internet service is accessible in Nelson Lagoon, but no cable service provider is present. Community facilities include a washeteria operated by the Village Council, a community center and a school multipurpose room.⁴³

With regard to fishing-related infrastructure, Nelson Lagoon has a dock, harbormaster's office, and a warehouse.⁴⁴ In a survey conducted by the AFSC in 2011, community leaders reported that 150 feet of dock space is available for moorage of transient and public vessels up to 40 feet in length, but no space is available for permanent moorage. Additional infrastructure reported by community leaders includes a haulout facility for small boats (less than 60 tons) and a fish processing plant that is currently not operational (see the *Processing Plants* section of this profile). Community leaders also noted that residents travel to the communities of Port Moller, King Cove, and Sand Point to access fisheries-related businesses and services not available in Nelson Lagoon.

Medical Services

As of 2012, local health care is provided by the Nelson Lagoon Clinic, which is owned by the Village and operated by Eastern Aleut Tribes, Inc. The Nelson Lagoon Clinic is a Community Health Aide Program site. Emergency Services have coastal and air access. Emergency service is provided by volunteers and a health aide. Auxiliary health care is provided by Nelson Lagoon First Responders.⁴⁵ However, as of June 2012, the status of clinic operations was in question. Closure of the Nelson Lagoon School means that the health aide will move somewhere else where her child can attend school.⁴⁶ For more information, see the *Educational Opportunities* section. The nearest hospital to Nelson Lagoon is located in Dillingham.

Educational Opportunities

As of 2011, there was one school in the community, which offered preschool through 12th grade and had a total of seven students and one teacher. In 2012, the student body declined to six students. In late May 2012, a decision was made to close the school due to low enrollment.⁴⁷

⁴⁰ Ibid.

⁴¹ Dept. of Public Safety (n.d.). *Active VPSO's by Village, December 2011*. Retrieved December 12, 2011 from <http://www.dps.alaska.gov/>.

⁴² Alaska Dept. of Public Safety (2012). *Alaska State Trooper Detachments*. Retrieved June 1, 2012 from <http://www.dps.state.ak.us/ast/detachments.aspx>.

⁴³ See footnote 33.

⁴⁴ Ibid.

⁴⁵ Ibid.

⁴⁶ DeMarban, A. (2012). "Dwindling students means four more rural Alaska schools will close." *Alaska Dispatch*. Published June 5, 2012. Retrieved June 11, 2012 from <http://www.alaskadispatch.com/>.

⁴⁷ Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Subsistence harvest has been important to residents of the Nelson Lagoon area for thousands of years. Villages and fish camps were often located at mouths of streams for access to both fresh water and abundant salmon runs.⁴⁸ During Alaska's Russian period, salmon remained a subsistence resource, but soon after the purchase of Alaska by the United States, in 1867, commercial exploitation of salmon was initiated. The first salmon saltery was built in Alaska in 1868, and the first cannery was established in 1869.⁴⁹ In Nelson Lagoon, a salmon saltery operated from 1906 to 1917, which attracted Scandinavian fishermen, but no cannery has operated in the community since.⁵⁰

In addition to salmon, commercial fisheries that have played a role in Nelson Lagoon's history in recent years include groundfish, octopus, and herring fisheries. Major groundfish fisheries in the Alaska Peninsula region include a jig fishery for black rockfish out of Unalaska and a Pacific cod fishery in state waters (0-3 miles from the coast), in addition to a statewide lingcod fishery, and a sablefish fishery in state waters for non-federal sablefish quota share holders. Octopus is typically harvested only as bycatch in pot and trawl fisheries, but vessels working along the Alaska Peninsula can obtain a Commissioner's permit to specifically target octopus. Herring are harvested for bait in the vicinity of Unalaska when Togiak-spawning herring are in residence during the summer feeding period. On occasion, a herring sac roe fishery occurs near Port Moller when aerial surveys determine that a sufficient quantity of herring is present, and if processing capacity is available.⁵¹

Nelson Lagoon is located in Federal Statistical and Reporting Area 512 and the Bering Sea Sablefish Regulatory Area. The Village is located in a marine area closed to Pacific halibut harvest, but residents may be able to access nearby Pacific Halibut Fishery Regulatory Areas 4E to the north and east, 4A to the west, and 3B to the south. Nelson Lagoon is a member of the Aleutian Pribilof Island Community Development Association (APICDA), a Community Development Quota (CDQ) group that works to develop stable local economies in member communities through scholarships, vocational education activities, substance abuse programs, school grants, and infrastructure development, including matching funds for the construction of docks and harbors.⁵² Nelson Lagoon is not eligible to participate in the Community Quota Entity program. According to a survey conducted by the AFSC in 2011, community leaders reported that Nelson Lagoon is not directly involved in fisheries management processes in Alaska.

⁴⁸ Alaska Native Heritage Center (n.d) *The Unangax & Alutiiq (Supiaq) People - Who We Are*. Retrieved January 4, 2012 from http://www.alaskanative.net/en/main_nav/education/culture_alaska/unangax/.

⁴⁹ 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>.

⁵⁰ 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.

⁵¹ 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>.

⁵² Aleutian Pribilof Island Community Development Association (2008). *About APICDA*. Retrieved January 2, 2012 from http://www.apicda.com/about_apicda.html.

Processing Plants

According to ADF&G’s 2010 Intent to Operate list, no registered processing plants were located in Nelson Lagoon. In 2007, Nelson Lagoon received a \$2,000,000 grant from the Economic Development Administration (EDA) for design and construction of a fish handling facility.^{53,54} The regional CDQ entity, the APICDA, provided a matching grant for a total of \$4,000,000 toward the facility.⁵⁵ According to the 2011 AFSC survey, community leaders reported that the fish processing plant was present in Nelson Lagoon, but was not yet operational.

Local drift and set gillnetters have access to a processing facility in Port Moller, 30 miles east of Nelson Lagoon. Peter Pan Seafoods operates this remote processing (freezing) plant, which primarily processes sockeye salmon, as well as small amounts of Chinook, coho, and chum salmon. During the season, which runs from May through September, the Port Moller facility “supports a fleet of 105 drift gill netters and 30 set netters, both resident and non-resident fishermen.”⁵⁶ There are no year-round residents in Port Moller, but according to an AFSC survey of plant managers in 2011, during peak production (from June through August) the crew is made-up of 165 people. The Port Moller facility is self-sufficient and provides all housing and food for its workforce as well as its own electricity, water, and other supplies.⁵⁷

According to ADF&G’s Intent to Operate List, processing facilities are also located in nearby communities of False Pass, King Cove, and Sand Point. More information about these processing facilities can be found in the profiles for each of these communities.

Fisheries-Related Revenue

The only information about fishing-related revenue received by Nelson Lagoon between 2000 and 2010 came from the 2011 AFSC survey. Community leaders reported that, in 2010, the town received \$1,000 in revenue from public dock use fees (Table 3). In addition, community leaders noted that \$100,000 in funding or grants were received from the regional CDQ entity, the APICDA. In 2007, the APICDA also provided a matching grant to supplement \$2,000,000 in funding from the EDA, for a total of \$4,000,000 toward design and construction of a fish handling facility in Nelson Lagoon (see *Processing Plants* section of this profile.)⁵⁸ Information about selected sources of fisheries-related revenue received in Nelson Lagoon is presented in Table 3.

Commercial Fishing

Between 2000 and 2010, Nelson Lagoon residents participated in commercial fisheries as permit holders, crew members, and vessel owners. In 2010, there were 23 Nelson Lagoon

⁵³ Alaska Dept. of Comm. 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.

⁵⁴ Aleutian Pribilof Island Community Development Association (n.d.). *About APICDA*. Retrieved October 17, 2012 from http://www.apicda.com/nelson_lagoon.html.

⁵⁵ See footnotes 52 and 54.

⁵⁶ Peter Pan Seafoods. Inc. (2011). *Facilities*. Retrieved May 23, 2012 from <http://www.ppsf.com/facilities/index.aspx>.

⁵⁷ Ibid.

⁵⁸ See footnotes 52 and 54.

residents (equivalent to 44% of the local population) holding a total of 27 Commercial Fisheries Entry Commission (CFEC) permits. These included 26 salmon permits in Alaska Peninsula salmon set and drift gillnet fisheries, of which 89% were actively fished that year. The number of salmon permits and the percentage of permits actively fished remained relatively stable between 2000 and 2010. In 2010, one statewide mechanical jig ‘other groundfish’ permit was also held in Nelson Lagoon, but was not actively fished. Groundfish permit holdings increased from zero in 2000-2001 to three by 2004-2005, which included one lingcod mechanical jig permit, one ‘other groundfish’ mechanical jig permit, and one statewide ‘other groundfish’ pot gear permit. From 2005 to 2010, 0% of groundfish permits held by Nelson Lagoon residents were actively fished.

In years prior to 2010, Nelson Lagoon residents were also involved in CFEC fisheries for crab, ‘other shellfish’, and herring. One crab permit was held but not actively fished in 2000 in the Bering Sea Hair Crab pot gear fishery, and one active permit was held in 2005 in the Chignik Tanner Crab pot gear fishery. One ‘other shellfish’ permit was held in 2004 and 2005 in the statewide octopi/squid pot gear fishery. The permit was actively fished in 2004 but not in 2005. Several herring permits were also held by Nelson Lagoon residents between 2000 and 2002, but were not actively fished in any of these years. The permits were for the Alaska Peninsula herring roe gillnet fishery. Information about CFEC permit holdings is presented in Table 4.

Between 2000 and 2010, no Nelson Lagoon residents held Federal Fisheries Permits (FFP) or federal License Limitation Program permits (LLP) (Table 4). Likewise, no Nelson Lagoon residents held quota share accounts in the federal halibut, sablefish, or crab catch share fisheries between 2000 and 2010. Information about federal catch share participation is presented in Tables 6 through 8.

In 2010, a total of 16 Nelson Lagoon residents (equivalent to 31% of all residents) held commercial crew licenses, and 28 fishing vessels were primarily owned by Nelson Lagoon residents. The number of crew license holders varied between 16 and 23 over the 2000-2010 period, while the number of vessels owned by Nelson Lagoon residents remained stable, varying between 28 and 30. The number of vessels homeported in Nelson Lagoon was also very stable, varying between 43 and 46 over the period. Information about the commercial fishing sector in Nelson Lagoon is presented in Table 5. According to the 2011 AFSC survey, community leaders indicated that the vessels using Nelson Lagoon as a base of operations during the fishing season were primarily gillnet boats between 35 and 60 feet in length. They also noted that, compared to 5 years ago, there are currently more boats 35 feet and under and boats between 35 and 60 feet mooring in Nelson Lagoon. They indicated that the boats come to Nelson Lagoon from Port Moller when there is downtime in the fishery.

No landings or ex-vessel revenue were recorded in Nelson Lagoon (Tables 5 and 9), given the lack of fish buyers and shore-side processors in the community (Table 5). Information about landings and ex-vessel revenue generated by vessels owned by Nelson Lagoon residents is largely considered confidential between 2000 and 2010 due to the small number of participants, with the exception of salmon harvest data (Table 10). On average between 2000 and 2010, Nelson Lagoon vessel owners harvested 1,355,672 net pounds of salmon, with a low of 833,813 pounds in 2001 and a high of 2,058,330 pounds in 2004. The average ex-vessel value of the catch was \$812,702 per year, with a low value of \$408,497 in 2001 and a high value of \$1,253,872 in 2007, when 1,933,072 net pounds were landed. Note that the high value did not occur in the same year as the highest total landings. This may reflect variations in species composition of the harvest, differences in price from year to year, and possible differences in the location where vessel owners delivered their catches.

Table 3. Known Fisheries-Related Revenue (in U.S. Dollars) Received by the Community of Nelson Lagoon: 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	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	n/a										
Port/dock usage ^{2,3}	n/a	\$1,000									
Fishing gear storage on public land ³	n/a										
Marine fuel sales tax ³	n/a										
Total fisheries-related revenue⁴	<i>n/a</i>	<i>\$1,000</i>									
Total municipal revenue⁵	<i>n/a</i>										

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, Nelson Lagoon: 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	1	0	0	0	0	1	0	0	0	0	0
	Fished permits	0	0	0	0	0	1	0	0	0	0	0
	% of permits fished	0%	-	-	-	-	100%	-	-	-	-	-
	Total permit holders	1	0	0	0	0	1	0	0	0	0	0
Other shellfish (CFEC) ²	Total permits	0	0	0	0	1	1	0	0	0	0	0
	Fished permits	0	0	0	0	1	0	0	0	0	0	0
	% of permits fished	-	-	-	-	100%	0%	-	-	-	-	-
	Total permit holders	0	0	0	0	1	1	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	3	2	2	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%	-	-	-	-	-	-	-	-
	Total permit holders	3	2	2	0	0	0	0	0	0	0	0

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Groundfish (CFEC) ²	Total permits	0	0	1	1	3	3	2	2	2	1	1
	Fished permits	0	0	1	0	2	1	0	0	0	0	0
	% of permits fished	-	-	100%	0%	67%	33%	0%	0%	0%	0%	0%
	Total permit holders	0	0	1	1	2	3	2	2	2	1	1
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	27	28	27	26	27	27	27	27	27	27	26
	Fished permits	27	27	25	25	27	26	26	27	26	26	24
	% of permits fished	100%	96%	93%	96%	100%	96%	96%	100%	96%	96%	92%
	Total permit holders	27	26	26	26	25	24	24	24	26	24	23
<i>Total CFEC Permits²</i>	<i>Permits</i>	<i>31</i>	<i>30</i>	<i>30</i>	<i>27</i>	<i>31</i>	<i>32</i>	<i>29</i>	<i>29</i>	<i>29</i>	<i>28</i>	<i>27</i>
	<i>Fished permits</i>	<i>27</i>	<i>27</i>	<i>26</i>	<i>25</i>	<i>30</i>	<i>28</i>	<i>26</i>	<i>27</i>	<i>26</i>	<i>26</i>	<i>24</i>
	<i>% of permits fished</i>	<i>87%</i>	<i>90%</i>	<i>87%</i>	<i>93%</i>	<i>97%</i>	<i>88%</i>	<i>90%</i>	<i>93%</i>	<i>90%</i>	<i>93%</i>	<i>89%</i>
	<i>Permit holders</i>	<i>27</i>	<i>26</i>	<i>26</i>	<i>26</i>	<i>25</i>	<i>25</i>	<i>25</i>	<i>25</i>	<i>27</i>	<i>24</i>	<i>23</i>

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 Nelson Lagoon: 2000-2010.

Year	Crew License Holders ¹	Count Of All Fish Buyers ²	Count Of Shore-Side Processing Facilities ³	Vessels Primarily Owned By Residents ⁴	Vessels Homeported ⁴	Vessels Landing Catch In Nelson Lagoon ²	Total Net Pounds Landed In Nelson Lagoon ^{2,5}	Total Ex-Vessel Value Of Landings In Nelson Lagoon ^{2,5}
2000	23	0	0	29	46	0	0	\$0
2001	19	0	0	29	45	0	0	\$0
2002	16	0	0	29	44	0	0	\$0
2003	16	0	0	28	43	0	0	\$0
2004	17	0	0	30	45	0	0	\$0
2005	22	0	0	30	46	0	0	\$0
2006	23	0	0	29	46	0	0	\$0
2007	22	0	0	28	44	0	0	\$0
2008	18	0	0	30	45	0	0	\$0
2009	20	0	0	29	44	0	0	\$0
2010	16	0	0	28	44	0	0	\$0

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

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

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

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

⁵ Totals only represent non-confidential data.

Table 6. Halibut Catch Share Program Participation in Nelson Lagoon: 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 AFSC, Seattle. [URL not publicly available as some information is confidential.]

Table 7. Sablefish Catch Share Program Participation in Nelson Lagoon: 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 AFSC, 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 Nelson Lagoon: 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 AFSC, Seattle. [URL not publicly available as some information is confidential.]

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

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

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

¹ Net 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 Nelson Lagoon 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	-	-	-	-	-	-	-	-	-	-	-
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Other Groundfish	-	-	-	-	-	-	-	-	-	-	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	-	-	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	958,778	833,813	1,399,687	1,757,073	2,058,330	1,507,931	1,081,281	1,933,072	1,105,954	1,307,206	969,268
<i>Total²</i>	<i>958,778</i>	<i>833,813</i>	<i>1,399,687</i>	<i>1,757,073</i>	<i>2,058,330</i>	<i>1,507,931</i>	<i>1,081,281</i>	<i>1,933,072</i>	<i>1,105,954</i>	<i>1,307,206</i>	<i>969,268</i>
	<i>Ex-vessel Value (nominal U.S. dollars)</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	-	-	-	-	-	-	-	-	-	-	-
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Other Groundfish	-	-	-	-	-	-	-	-	-	-	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	-	-	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	\$754,188	\$408,497	\$664,434	\$871,431	\$1,055,163	\$806,593	\$610,351	\$1,253,872	\$812,428	\$980,192	\$722,574
<i>Total²</i>	<i>\$754,188</i>	<i>\$408,497</i>	<i>\$664,434</i>	<i>\$871,431</i>	<i>\$1,055,163</i>	<i>\$806,593</i>	<i>\$610,351</i>	<i>\$1,253,872</i>	<i>\$812,428</i>	<i>\$980,192</i>	<i>\$722,574</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

Between 2000 and 2010, no active sport fish guide businesses were present in Nelson Lagoon, although one licensed sport fish guide was registered in the community in 2007, 2009, and 2010. The number of sportfishing licenses held by residents of Nelson Lagoon varied between 3 and 9 between 2000 and 2010, and the number of licenses sold in the town varied between 1 and 11. According to a survey conducted by the AFSC in 2011, community leaders indicated that Chinook, coho, and sockeye salmon are the primary targets of sportfishing activity in Nelson Lagoon, and that the local CDQ group, the APICDA, provides some funding to support sportfishing by local residents and clients.

Nelson Lagoon is located within Alaska Sport Fishing Survey Area R – Alaska Peninsula/Aleutian Islands. Information is available about both saltwater and freshwater sportfishing activity at this regional scale. Between 2000 and 2010, sportfishing activity varied considerably. For saltwater sportfishing, non-Alaska resident angler days fished varied between 1,603 and 4,126 during this period, while Alaska resident angler days fished varied between 3,261 and 12,721 days. Alaska resident anglers fished consistently more saltwater days than non-Alaska resident anglers during this period. In contrast, non-Alaska resident anglers fished more angler days in freshwater in the Alaska Peninsula/Aleutian Islands region on average (18,462 per year on average) than Alaska resident anglers (15,290 per year on average). This information about the sportfishing sector in and near Nelson Lagoon is also displayed in Table 11.

The Alaska Statewide Harvest Survey,⁵⁹ conducted by ADF&G between 2000 and 2010, did not include information about species targeted by private anglers in Nelson Lagoon, and no kept/release log book data were reported for sportfishing charters out of Nelson Lagoon between 2000 and 2010.⁶⁰

Table 11. Sport Fishing Trends, Nelson Lagoon: 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 Nelson Lagoon ²
2000	0	0	9	8
2001	0	0	8	5
2002	0	0	6	5
2003	0	0	3	1
2004	0	0	3	11
2005	0	0	5	1
2006	0	0	4	8
2007	0	1	9	4
2008	0	0	5	2
2009	0	1	8	1
2010	0	1	3	2

⁵⁹ 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).

⁶⁰ 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 cont'd. Sport Fishing Trends, Nelson Lagoon: 2000-2010.

Year	Saltwater		Freshwater	
	Angler Days Fished – Non-residents ³	Angler Days Fished – Alaska Residents ³	Angler Days Fished – Non-residents ³	Angler Days Fished – Alaska Residents ³
2000	1,664	8,870	17,749	27,227
2001	1,760	3,939	16,840	14,350
2002	4,126	5,210	15,865	18,417
2003	1,603	4,333	16,557	11,878
2004	1,948	12,721	18,813	19,360
2005	3,585	5,129	14,130	12,038
2006	2,809	4,392	22,323	8,830
2007	2,588	9,356	20,371	15,870
2008	3,436	4,298	21,797	10,207
2009	3,488	3,815	18,996	16,020
2010	2,036	3,261	19,643	13,992

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

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

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

Subsistence Fishing

Nelson Lagoon residents combine subsistence harvest of a wide variety of marine resources with employment opportunities in commercial fishing.⁶¹ In a survey conducted by the AFSC in 2011, Nelson Lagoon community leaders said that salmon are the most important subsistence resources utilized by local residents.

No information is available from ADF&G regarding per capita subsistence harvest or the percentage of households utilizing various marine resources for subsistence purposes between 2000 and 2010 (Table 12). However, a survey of 1987 subsistence activity conducted by ADF&G provides species-level information about harvest of marine invertebrates, non-salmon fish (not including halibut) and marine mammals at the household level. That year, the following species of marine invertebrates were harvested: cockles (69% of households), king crab (39%), softshell clams (15%), butter clams (8%), chitons (Bidarkis gumboots) (8%), Pacific littleneck clams (8%), and razor clams (8%). Tanner crab were also harvested by an unreported percentage of households. Three species of non-salmon fish were reported as harvested by Nelson Lagoon households in 1987: Dolly Varden (harvested by 46% of households), flounder (8%), and cod

⁶¹ 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.

(unreported percentage of households harvesting). In addition, 8% of households were reported to harvest harbor seal that year.⁶²

Between 2000 and 2010, data are available regarding subsistence salmon permits. In 2000, nine Nelson Lagoon households were issued subsistence salmon permits, and the number declined to two permits issued in 2008. In almost all years, sockeye were the most heavily harvested of the salmon species, followed in number by coho. A small number of Chinook were also reported as harvested each year, as well as chum in the year 2001 only. No subsistence harvest of pink salmon was reported by Nelson Lagoon households between 2000 and 2008. ADF&G did not report information regarding subsistence harvest of marine invertebrates or non-salmon fish (not including halibut) between 2000 and 2010. Information about subsistence salmon permits and harvest of marine invertebrates and non-salmon fish is presented in Table 13.

Between 2005 and 2010, one Nelson Lagoon resident per year was issued a Subsistence Halibut Registration Certificates (SHARC). No information was reported about the number of SHARC cards returned or the total pounds of subsistence halibut harvested by Nelson Lagoon residents during these years. This information about the subsistence halibut fishery is presented in Table 14.

Between 2000 and 2010, limited information was reported about subsistence harvest of marine mammals by residents of Nelson Lagoon. According to data reported by the U.S. Fish and Wildlife Service, 1 walrus was harvested in 2001, 2 sea otters in 2003, and 13 sea otters in 2005. No information was available from management agencies regarding harvest of beluga whale, Steller sea lion, harbor seal, or spotted seal between 2000 and 2010. Information about subsistence harvest of marine mammals by Nelson Lagoon residents is presented in Table 15.

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

Year	% Households Participating in Salmon Subsistence	% Households Participating in Halibut Subsistence	% Households Participating in Marine Mammal Subsistence	% Households Participating in Marine Invertebrate Subsistence	% Households Participating in Non-Salmon Fish Subsistence	Per Capita Subsistence Harvest (pounds)
2000	n/a	n/a	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a	n/a	n/a
2003	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).

⁶² 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, Nelson Lagoon: 2000-2010.

Year	Subsistence Salmon Permits Issued ¹	Salmon Permits Returned ¹	Chinook Salmon Harvested ¹	Chum Salmon Harvested ¹	Coho Salmon Harvested ¹	Pink Salmon Harvested ¹	Sockeye Salmon Harvested ¹	Lbs of Marine Inverts ²	Lbs of Non-Salmon Fish ²
2000	9	8	8	n/a	136	n/a	430	n/a	n/a
2001	7	5	15	4	32	n/a	358	n/a	n/a
2002	4	3	7	n/a	95	n/a	187	n/a	n/a
2003	3	3	3	n/a	90	n/a	116	n/a	n/a
2004	4	4	7	n/a	140	n/a	105	n/a	n/a
2005	5	3	3	n/a	73	n/a	322	n/a	n/a
2006	3	3	5	n/a	52	n/a	149	n/a	n/a
2007	2	1	18	n/a	na	n/a	n/a	n/a	n/a
2008	2	2	9	n/a	n/a	n/a	12	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, Nelson Lagoon: 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	1	n/a	n/a
2006	1	n/a	n/a
2007	1	n/a	n/a
2008	1	n/a	n/a
2009	1	n/a	n/a
2010	1	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, Nelson Lagoon: 2000-2010.

Year	# of Beluga Whales ¹	# of Sea Otters ²	# of Walrus ²	# of Polar Bears ²	# of Steller Sea Lions ³	# of Harbor Seals ³	# of Spotted Seals ³
2000	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2001	n/a	n/a	1	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	2	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	13	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.