

Elim (EE-lim)



People and Place

*Location*¹

Elim is located on the northwest shore of Norton Bay on the Seward Peninsula, 96 mi east of Nome and 460 mi northwest of Anchorage. The area encompasses 2.4 sq mi of land. Elim was incorporated as a Second-class city in 1970, is located in the Nome Census Area, and is not under the jurisdiction of borough.

*Demographic Profile*²

In 2010, there were 330 residents, ranking Elim 153rd of 352 Alaskan communities in terms of population size. Between 1990 and 2010, the population grew by 25%. Between 2000 and 2009, the population declined by 7.99% with an average annual growth rate of -1.48%, which was less than the statewide average of 0.75% and indicative of a steadily declining population in those years. In a survey conducted by NOAA's Alaska Fishery Science Center (AFSC) in 2011, community leaders reported that there were 340 permanent and 10 transient residents living in Elim in 2010. On average, Elim has seasonal workers living in the community from June through October. The population usually reaches its peak in July when residents return to Elim for subsistence fishing. Information regarding population trends can be found in Table 1.

The racial composition of Elim is predominately Inupiat Eskimo. Overall, the racial and ethnic composition of Elim has remained relatively unchanged between 2000 and 2010. In 2010, 89.7% of residents identified themselves as American Indian or Alaska Native, compared 92.7% in 2000. Also in that year, 7.3% of residents identified themselves are White, compared to 5.1% in 2000; 0.3% identified themselves as Asian; and 2.7% identified themselves as two or more races, compared to 2.2% in 2000. Hispanic or Latino residents made up 0.3% of the population in 2010. Information regarding race and ethnicity in Elim can be found in Figure 1.

In 2010, the average household size was 3.71, compared to 3.6 in 1990 and 3.73 in 2000. In that year, there were a total of 105 housing units, compared to 81 in 1990 and 106 in 2000. Of the households surveyed in 2010, 45% were owner-occupied, compared to 46% in 2000; 40% were renter-occupied, compared to 33% in 2000; 15% were vacant, compared to 14% in 2000; and 0% were occupied seasonally, compared to 7% in 2000. Since 1990, there have been no reports of residents living in group quarters.

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

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

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

Year	U.S. Decennial Census ¹	Alaska Department of Labor Estimate of Permanent Residents ²
1990	264	-
2000	313	-
2001	-	317
2002	-	340
2003	-	342
2004	-	319
2005	-	303
2006	-	294
2007	-	309
2008	-	280
2009	-	288
2010	330	-

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>.

The gender distribution in Elim was somewhat skewed in 2010 at 55.2% male and 44.8% female, which was less even than the statewide distribution (52% male, 48% female) and more even than the distribution in 2000 (56.9% male, 43.1% female). The median age that year was 23.8 years, which was much younger than the statewide median of 33.8 years and similar to the 2000 median of 23.6 years.

When compared to 2000, the population structure in 2010 was somewhat similar. In that year, 43.1% of residents were under the age of 20, compared to 44.8% in 2000; 6.6% were over the age the age of 59, compared to 8.5% in 2000; 31.1% were between the ages of 30 and 59, compared to 33.1% in 2000; and 19.1% were between the ages of 20 and 29, compared to 13.4% in 2000. The increase in the proportion of residents aged 20 to 29 may be indicative of increased youth retention in the community; however, more information would be needed to make that determination.

Overall, gender distribution by age cohort was more even in 2010 than in 2000. In that year, the greatest absolute gender difference occurred in the 40 to 49 age range (5.4% male, 2.4% female), followed by the 0 to 9 (14.6% male, 12.2% female) and 10 to 19 (9% male, 7.3% female) age ranges. Of those three, the greatest relative gender difference occurred in the 40 to 49 age range. Information regarding Elim’s population structure can be found in Figure 2.

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

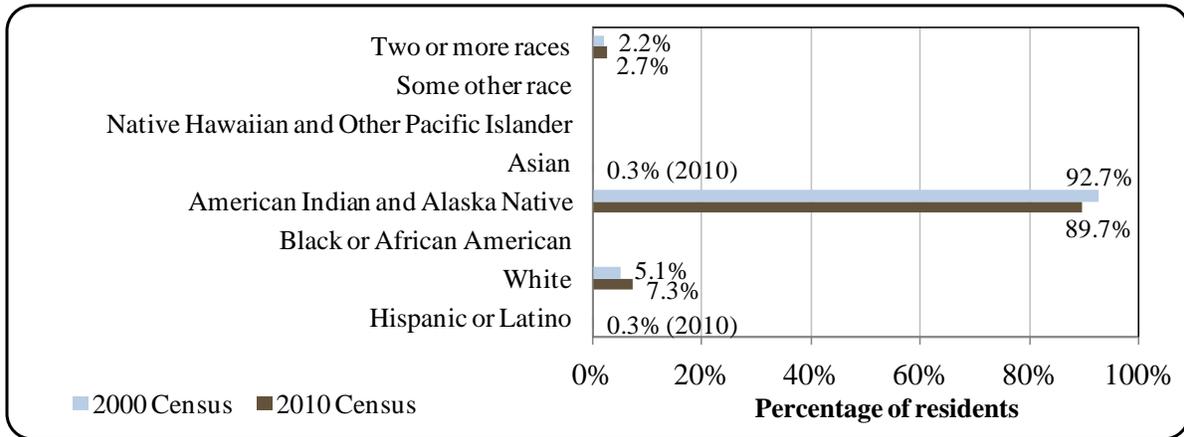
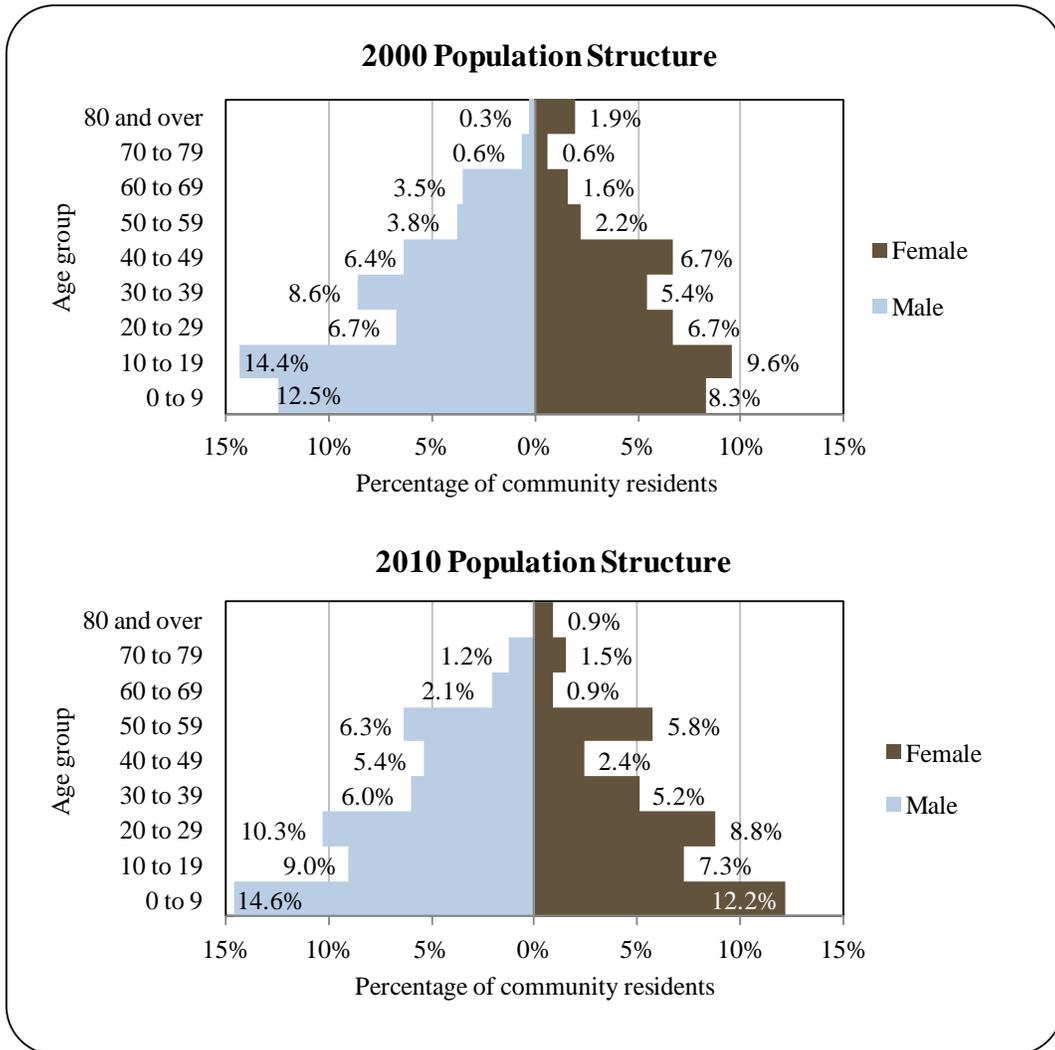


Figure 2. Population Age Structure in Elim Based on the 2000 and 2010 U.S. Decennial Census.



In terms of educational attainment, the U.S. Census' 2006-2010 American Community Survey (ACS)³ estimated that 89.1% of residents aged 25 and older held a high school diploma or higher degree in 2010, compared to an estimated 90.7% of Alaska residents overall. Also in that year, and estimated 2.4% of residents had less than a 9th grade education, compared to an estimated 3.5% of Alaska residents overall; an estimated 8.5% of a 9th to 12th grade education but no diploma, compared to an estimated 5.8% of Alaska residents overall; an estimated 38.8% had some college but no degree, compared to an estimated 28.3% of Alaska residents overall; an estimated 2.4% held an Associate's degree, compared to an estimated 8% of Alaska residents overall; and an estimated 8.5% held a Bachelor's degree, compared to an estimated 17.4% of Alaska residents overall. No residents were estimated to hold a graduate or professional degree.

*History, Traditional Knowledge, and Culture*⁴

This settlement was formerly the Malemiut Inupiat Eskimo village of Nuviakchak. The Native culture was well-developed and well-adapted to the environment. Each tribe possessed a well-defined subsistence harvest territory. The area became a federal reindeer reserve in 1911. In 1914, Rev. L.E. Ost founded a Covenant mission and school, called Elim Mission Roadhouse. The city was incorporated in 1970. When the Alaska Native Claims Settlement Act (ANCSA) was passed in 1971, Elim decided not to participate and instead opted for title to the 298,000 acres of land in the former Elim Reserve. The Iditarod Sled Dog Race passes through Elim each year.

Natural Resources and Environment

Elim has a subarctic climate with maritime influences. Norton Sound is ice-free generally between mid-June and mid-November. Summers are cool and moist; winters are cold and dry. Summer temperatures average between 46 to 62 °F (8 to 17 °C); winter temperatures average -8 to 8 °F (-22 to -6 °C). Annual precipitation averages 19 inches, with about 80 inches of snow.⁵

The terrain around Elim is a mix of coastal lowlands to more mountainous regions. The Seward Peninsula itself consists of an extensive upland area with interior basins, and coastal lowlands. The interior regions are drained through narrow canyons which cut through the uplands, transitioning across lowlands to the ocean. Soils across the more mountainous areas are characterized by thick colluvial and glacial deposits, gravel, and partially weathered bedrock in the uplands; and finer-grained valley sediments and organic materials in the valleys. Lowland tundra is covered by poorly drained peat deposits. Lowland and upland areas are underlain by a moderately thick to thin layer of permafrost. Vegetation includes mostly tall shrubs with spruce/shrub woodland areas to the north.⁶

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

⁵ Ibid.

⁶ U.S. Bureau of Land Management. (2007). *Kobuk-Seward Peninsula Proposed Resource Management Plan and Final Environmental Impact Statement*. Retrieved April 2, 2012 from: http://www.blm.gov/ak/st/en/prog/planning/ksp/ksp_documents/ksp_prmp_feis.html.

Freshwater streams and lakes on the Seward Peninsula provide habitat for all five species of Pacific salmon, Dolly Varden, Arctic char, sheefish, round and humpback whitefish, Bering and least cisco, northern pike, Arctic grayling, stickleback, sculpin, sucker, and blackfish. Muskoxen were introduced to the Seward Peninsula in 1970. In 2005, the population was estimated at 2,397 animals. Moose are an important subsistence resource and are widely distributed throughout the Seward Peninsula, favoring areas which contain willow and birch shrubs. The Western Arctic Caribou Herd winters in the Nulato Hills, southeast of Elim. As of 2009, the herd's population was estimated at 348,000.⁷ Brown bears are widely distributed throughout the Seward Peninsula while black bears are found in forested areas. Gray wolves are found throughout the area wherever adequate numbers of prey species are found. These include moose, caribou, voles, lemmings, ground squirrels, snowshoe hares, beavers, and occasionally birds and fish. Furbearers include beaver, red fox, Arctic fox, lynx, marten, mink, muskrat, otter, coyote, wolverine, and wolf. Migratory birds occupy a wide variety of habitats throughout the Seward Peninsula.

Sparse forest cover makes much of the Seward Peninsula unsuitable for large-scale timber harvests. Southern Seward Peninsula is characterized by forested landscape; however, timber harvests remain small-scale. Forested areas on Elim Native Corporation (ENC) lands have been heavily impacted by spruce bark beetles. In 2004, the Alaska Department of Natural Resources (ADNR) Division of Forestry reported that 81,389 acres of ENC forested lands had been infested.

According to a 1995 assessment, the Norton Sound basin contains 2,707.8 billion cubic feet of potential undiscovered natural gas.⁸ Beyond several exploration and test wells, there have been no oil or gas developments within the Norton Sound basin.⁹ The Eagle Creek area, northwest of Elim, has historically been a placer gold mining site. Although inactive, the site may still be productive on a small scale.¹⁰ Coal developments include McCarthy's Marsh Coal District to the northwest and Boulder Creek and Death Valley Coal Districts to the northeast.¹¹

Environmental hazards affecting Elim include storm surges, coastal flooding and erosion. Most erosion occurs along the coast to an estimated 50 ft above the high water line. The lower areas of Elim Creek are subject to surge flooding as well. It is estimated that several structures will need to be relocated within the next 20 yr as a result of erosion. Mitigation measures in place include elevating structures and installing rip rap.¹²

According to the Alaska Department of Environmental Conservation (DEC), there are no notable environmental cleanup sites present in Elim.¹³

⁷ Western Arctic Caribou Herd Working Group. (n.d). *Homepage*. Retrieved April 2, 2012 from: <http://westernarcticcaribou.org>.

⁸ U.S. Department of the Interior. (2005). *Engineering and Economic Analysis of Natural Gas Production in the Norton Basin*. Retrieved April 2, 2012 from: http://www.alaska.boemre.gov/re/Natural_gas_Norton.pdf.

⁹ U.S. Bureau of Ocean Energy Management, Regulation and Enforcement. (n.d.). Retrieved April 2, 2012 from: <http://alaska.boemre.gov/>.

¹⁰ U.S. Geological Survey. (n.d.). Retrieved April 2, 2012 from: http://ardf.wr.usgs.gov/ardf_data/Solomon.pdf.

¹¹ See footnote 6.

¹² Alaska Department of Community and Regional Affairs. (n.d.). Retrieved April 2, 2012 from: <http://www.commerce.state.ak.us/dca/planning/ACCIMP/Elim.html>.

¹³ Alaska Department of Environmental Conservation. (n.d.). Retrieved April 16, 2012 from: <http://dec.alaska.gov/spar/csp/list.htm>.

Current Economy¹⁴

Elim's cash economy is limited and based mostly on commercial fishing and local public services. The sale or importation of alcohol is banned in the village. Many residents leave the community during months when wage employment is limited, and return in late summer or early fall for the beginning of the subsistence season.¹⁵ The village wants to develop a fish processing plant. Residents rely on fish, seal, walrus, beluga whale, reindeer, moose, and home gardens for food.¹⁶ Top employers¹⁷ in 2010 included: Bering Strait School District, City of Elim, Norton Sound Economic Development Corporation, Elim IRA Council, Kawerak Inc., Elim Native Store, Norton Sound Health Corporation, Bering Straits Development Corporation, ENC, and Hageland Aviation Services, Inc.

In 2010,¹⁸ the estimated per capita income was \$12,549 and the estimated median household income was \$45,833, compared to \$10,300 and \$40,179 in 2000, respectively. However, after accounting for inflation by converting 2000 values into 2010 dollars,¹⁹ the real per capita income (\$13,544) and real median household income (\$52,835) indicate a decline in both individual and household earnings. In 2010, Elim ranked 231st of 305 Alaskan communities from which per capita income was estimated, and 160th of 299 Alaskan communities from which median household income was estimated.

Elim's small population size may have prevented the American Community Survey from accurately portraying economic conditions.²⁰ A potentially more accurate understanding of per capita income is obtained through economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). According to the ALARI database, residents earned \$2.27 million in total wages in 2010.²¹ When matched with the population in 2010, the per capita income equals \$6,870, which was less than the 2010 ACS estimate and suggests that caution should be used when comparing 2010 ACS and 2000 Decennial Census figures.²² In addition, the community was recognized as "distressed" by the Denali Commission indicating that over 70% of residents aged 16 and older earned less than \$16,120 in 2010.²³ However, it should be noted that American Community Survey and DOLWD data are based on wage earnings and do not take into account the value of subsistence within the local economy.

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

¹⁵ Kawerak, Inc. (2008). *Local Economic Development Plan for Elim 2005-2010*. Retrieved April 2, 2012 from: <http://www.commerce.state.ak.us/dca/plans/Elim-EDP-2008.pdf>.

¹⁶ Alaska Department of Community and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

¹⁷ Alaska Department of Labor (n.d.). *Alaska Local and Regional Information Network*. Retrieved January 20, 2012 from: <http://live.laborstats.alaska.gov/alari/>.

¹⁸ U.S. Census Bureau (n.d.). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2010 American Community Survey 5-year estimates. Retrieved November 1, 2011 from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.

¹⁹ Inflation was calculated using the Anchorage Consumer Price Index for 2000 and 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, <http://labor.alaska.gov/research/cpi/inflationcalc.htm>).

²⁰ See footnote 3.

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

²² See footnote 17.

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

According to 2006-2010 ACS estimates,²⁴ 62.9% of residents aged 16 and over were part of the civilian labor force in 2010. In that year, unemployment was estimated at 19.1%, compared to an estimated 5.9% statewide; and an estimated 27% of residents lived below the poverty line, compared to an estimated 9.5% of Alaska residents overall. Of those employed, an estimated 42.4% worked in the private sector and an estimated 57.6% worked in the public sector.

By industry, most (65.9%) employed residents were estimated to work in education services, health care, and social assistance sectors in 2010; followed by transportation, warehousing and utilities sectors (12.9%); retail trade sectors (8.2%); public administration sectors (7.1%); other service sectors (3.5%); and information sectors (2.4%) (Figure 3). By occupation type, 48.2% of those employed were estimated to hold management or professional positions; 27.1% were estimated to hold sales or office positions; 21.2% were estimated to hold service positions; and 3.5% were estimated to hold production, transportation, or material moving positions (Figure 4). Notable changes in employment by industry included proportional declines in public administration sectors; and increases in education services, health care, social assistance, transportation, warehousing, and retail trade sectors. Notable changes in occupation types included proportional declines in natural resource, construction, and maintenance positions; and proportional increases in sales and office positions. Between 2000 and 2010 there were no records of residents working in fishing sectors. However, the fishing industry is often characterized by seasonal or transient employment, and ACS and census sampling techniques may not have captured residents working within those sectors. According to 2010 ALARI estimates, most (56.9%) worked in local government sectors; followed by trade, transportation, and utilities sectors (16.0%); and education and health service sectors (14.6%).

No individuals characterized themselves as working in natural resource based occupations or industries that include fishing. However, given the data reported in the *Commercial Fishing* section below, the number of individuals employed in the farming, fishing, and forestry industries may be underestimated by census statistics as fishermen may hold another job and characterize their employment accordingly.

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.

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

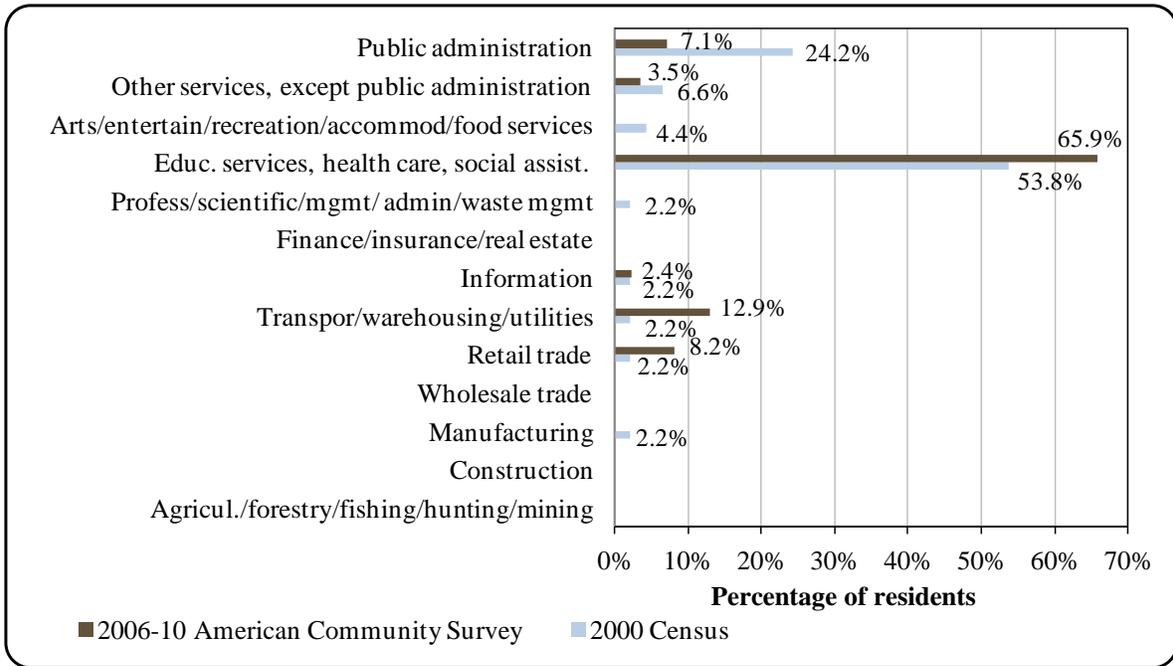
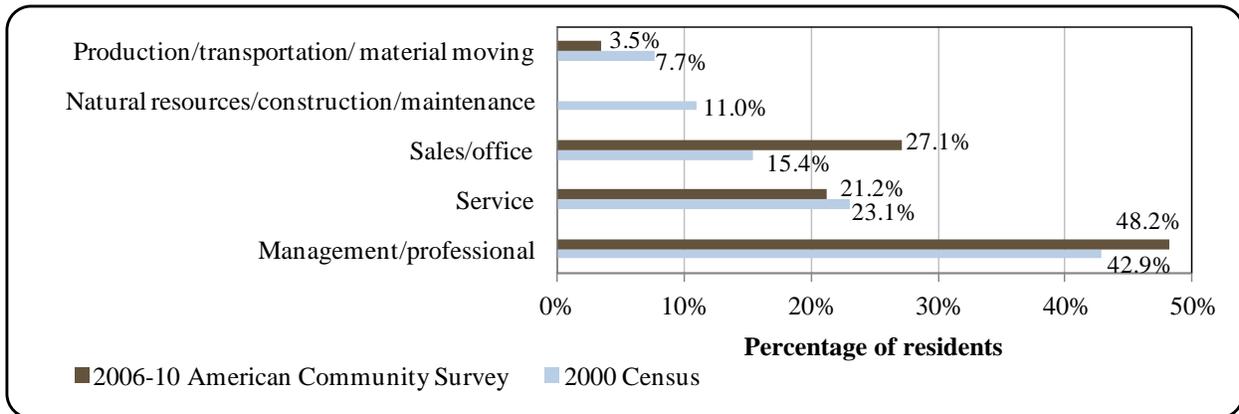


Figure 4. Local Employment by Occupation in 2000-2010, Elim (U.S. Census).



Governance

Elim is a Second-class city with a mayoral form of government. There is a U.S. Bureau of Indian Affairs recognized Native village council, and the ENC is the local ANCSA village corporation. Bering Straits Native Corporation is the regional ANCSA corporation and the regional Native non-profit corporation is Kawerak, Inc. The closest Alaska Department of Fish and Game (ADF&G) office is located in Unalakleet, 70 mi southeast. The closest U.S. Bureau of Citizenship and Immigration Services office is located in Nome, 96 mi west. The closest National Marine Fisheries Service (NMFS) office is located in Anchorage, 460 mi southeast.

In 2010, Elim administered a 3% sales tax. When adjusted for inflation,²⁵ total municipal revenues declined by 38.6% between 2000 and 2010 from \$785,518, to \$623,496. Revenues peaked in 2001 at \$1.79 million, thanks in large part to substation capital project grants. In 2010, most locally generated revenues were collected from utility rents, followed by sales taxes and Alaska Village Electric Cooperative reimbursements. Outside revenues were generated from Community Revenue Sharing, Community Development Quota (CDQ) entity grants, and payments in lieu of taxes.

In 2010, sales tax accounted for 10.7% of total revenues, compared to 4.3% in 2000. Also in that year, Elim received \$112,901 in state allocated Community Revenue Sharing, which accounted for 18.1% of the total municipal budget for that year. This represented a proportional decrease from 2000, when \$29,396 in State Revenue Sharing accounted for 3.9% of the total municipal budget. Fisheries-related grants received between 2000 and 2010 included: \$246,000 from the Norton Sound Economic Development Corporation (NSEDCC) for school renovations and community benefit, \$100,000 for a dock and breakwater project, \$400,000 for a fish passage culvert, and \$516,000 for a port feasibility and design project. Information regarding municipal finances can be found in Table 2.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Elim 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	\$785,518	\$33,426	\$29,396	\$500,000
2001	\$1,789,217	\$31,506	\$28,355	n/a
2002	\$896,793	\$37,099	\$28,437	n/a
2003	\$637,962	\$37,073	\$28,563	n/a
2004	\$554,194	\$29,031	-	n/a
2005	\$408,846	\$34,636	-	n/a
2006	\$728,342	\$28,738	-	n/a
2007	\$539,516	\$34,022	-	n/a
2008	\$537,816	\$44,512	-	n/a
2009	\$581,702	\$58,303	\$111,151	\$123,000
2010	\$623,496	\$66,557	\$112,901	\$132,800

¹ Alaska Department of Community and Rural Affairs. (n.d.). *Financial Documents Delivery System*. Retrieved April 15, 2011 from

http://www.commerce.state.ak.us/dkra/commfin/CF_FinRec.cfm.

² Alaska Department of Community and Economic Development (n.d.). *Alaska Taxable (2000-2010)*. Retrieved April 15, 2011 from

http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm.

³ Alaska Department of Revenue (n.d.). *(2000-2009) Taxes and Fees Annual Report*. Retrieved April 15, 2011 from <https://www.tax.state.ak.us>.

⁴ The State Revenue Sharing program ceased in 2003 and was replaced by the Community Revenue Sharing program starting in 2009.

⁵ Alaska Department of Community and Rural Affairs. (n.d.). *Community Funding Database*.

Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm.

²⁵ Inflation calculated using the 2010 Anchorage CPI from Alaska DOL: <http://labor.alaska.gov/research/cpi/cpi.htm>.

Infrastructure

*Connectivity and Transportation*²⁶

Elim is best reached by air and sea. It offers a 3,401-ft long by 60-ft wide gravel runway. ENC also owns a private 3,000-ft by 60-ft airstrip at Moses Point. Transportation services include Baker Aviation, Bering Air, Cape Smythe Air Service, Olson Air, Arctic Transportation Service, Hageland, Village Air, and Grant Aviation. Roundtrip airfare between Anchorage and Elim in June 2012 was \$722.²⁷ There is no dock in the village, so supplies must be lightered to shore by a company operating from Nome. Plans are underway to develop a harbor and dock; an access road is under construction. A cargo ship brings freight annually from Nome.

*Facilities*²⁸

Water is derived from a new well and is treated. Water and sewer systems built in 1974 have provided residents with piped water and sewer, indoor water heaters and plumbing, and in-home washers and dryers; however, the system needs repair and replacement. Waste flows to a sewage treatment plant with ocean outfall. The landfill is permitted. Public safety is provided by the Kawerak Village Public Safety Officer Program (VPSO), and local state troopers. Fire and rescue services are provided by the Elim Volunteer Fire/Search and Rescue. Electricity is provided by diesel generator. Communication services include local and long distance telephone, cable television, and internet. Additional facilities include a public library, school, clinic, community center, and youth center.

In a survey conducted by the AFSC in 2011, community leaders reported that a barge landing area, new dock space, broadband internet access, water treatment, and geothermal energy projects were all under development as of 2010. Fisheries-related businesses and services located within the community include boat repair (welding), commercial and recreational fishing vessel moorage, ice sales, and air taxi. Residents go to Nome and Unalakleet for services not available locally. Additional public services include a food bank and publicly-subsidized housing.

*Medical Services*²⁹

The Yukuniaraq Yunqcarvik Clinic provides basic health care and is a Community Health Aid Program (CHAP) site. Emergency services are also provided by a health aide. The nearest hospital is located in Nome.

²⁶ Alaska Department of Community and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

²⁷ Airfare was calculated using lowest fare from www.travelocity.com. (Retrieved November 22, 2011).

²⁸ Kawerak, Inc. (2008). *Local Economic Development Plan for Elim 2005-2010*. Retrieved April 2, 2012 from: <http://www.commerce.state.ak.us/dca/plans/Elim-EDP-2008.pdf>.

²⁹ See footnote 26.

*Educational Opportunities*³⁰

Aniquiin School provides preschool through 12th grade instruction. As of 2012, there were 107 students enrolled and 10 teachers employed.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Archeological evidence dating back 2,000 years indicates that fishing has long been a part of life in Norton Sound. The largest pre-contact settlements were located on the Western Seward Peninsula, where marine mammals were the primary subsistence resource. The rest of the region's population existed in small, often seasonal settlements along the coast. In the 1800s, large-scale fur trading by Russians began, and by the mid-nineteenth century, commercial whalers had come to the region. Increased competition for walrus, caribou, and other species by outsiders may have increased the importance of salmon to area residents. In the late 1890s, gold was discovered on the Seward Peninsula, bringing thousands of new immigrants to the region. During the gold rush peak between 1900 and 1930, Nome's population grew to 30,000. The community of Council, which had not existed previously, grew to a population of 10,000. After the gold rush, the population greatly declined and people took over a life of fishing.³¹ Commercial fishing in Norton Sound began in earnest with the passing of the Magnuson-Stevens Act in 1977, and was initially designed as an exploratory fishery by the Alaska Board of Fisheries.³² Today, salmon, herring, and red king crab are popular fisheries targeted by residents of Elim.

Salmon stocks experienced a progressive collapse starting in the mid 1960s in the Nome subdistrict and progressing through the Seward Peninsula through the late 1990s.³³ By 2010, Chinook and sockeye salmon populations remained low while coho runs to northern Norton Sound were below average. However, chum salmon runs that year were above average thanks to a strong 2006 brood year.

Commercial fishing of herring by domestic fishermen dates back to 1916 when a fall food fishery began in Golovin Bay. By 1981, the herring fleet in Norton Sound was harvesting approximately 20% of the observed biomass with over 300 fishermen participating in the fishery.³⁴ The observed herring biomass within the Norton Sound District was 53,786 tons in 2011.³⁵

³⁰ Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

³¹ Adkison, M.; Brannian, L. K.; Holder, R. R.; Link, M.; & Mundy, P. R. (2003). *Research and Restoration Plan for Norton Sound Salmon*. Retrieved April 3, 2012 from: <http://69.93.224.39/~aykssi/wp-content/uploads/NS-RR-Plan-rev.pdf>.

³² Powell, G. C.; Peterson, R.; & Schwarz, L. (1982). *The Red King Crab (Paralithodes camtschatica) In Norton Sound, Alaska: History of Biological Research and Resource Utilization Through 1982*. Retrieved April 3, 2012 from: <http://www.sf.adfg.state.ak.us/fedaidpdfs/afrbIL.222.pdf>.

³³ Tremaine, R. & Dunmall, K. (2004). *Norton Sound Fisheries Enhancement Summit*. Final Report. Retrieved April 3, 2012 from: <http://www.kawerak.org/servicedivisions/nrd/fish/forms/2004/Summit%20summary%20FINAL.pdf>.

³⁴ Lean, C. (1989). *The Development of the Norton Sound Herring Fishery, 1979-1988*. Retrieved April 3, 2012 from: <http://www.sf.adfg.state.ak.us/FedAidPDFs/RIR.3N.1989.04.pdf>.

³⁵ Alaska Department of Fish and Game. (2012). *2012 Arctic-Yukon-Kuskokwim Herring Outlook*. Retrieved April 3, 2012 from: http://www.adfg.alaska.gov/static/fishing/PDFs/commercial/2012_ayk_herring_outlook.pdf.

In 1976, red king crab (legal) biomass within the Norton Sound was approximately 1.7 million crabs. By 1982, that number had fallen to roughly 0.8 million crabs. In 1999, the estimated crab population reached a near historical high of 1.6 million, which fell again to approximately 0.8 million in 2002. In 2008, the legal population was estimated at 1.5 million. Total open access red king crab harvest for the Norton Sound District in 2008 was 364,235 lb. Total Community Development Quota (CDQ) red king crab harvest that year was 30,900 lb.³⁶

Norton Sound has the northernmost fisheries for both Pacific herring and red king crab. Although the Norton Sound herring spawning biomass has been relatively stable in recent times, the market for herring roe has declined due to decreasing consumption in Japan. Processor interest in the Norton Sound sac roe fishery has declined more than in other areas of the State, largely due to the timing of the fishery, which takes place later than sac roe fisheries elsewhere in the state and conflicts with the opening of the first salmon fisheries of the season. In addition, ice floes are often present in Norton Sound during the herring season.³⁷ In contrast, the Norton Sound red king crab stock has shown an increasing trend since a population low in the 1990s, and today provides small summer and winter fisheries. NMFS and ADF&G jointly manage Bering Sea king crab stocks.³⁸ Elim king crab fishermen hold both state-issued king crab permits, as well as permits in the CDQ king crab fishery. The CDQ program “allocates a percentage of all Bering Sea and Aleutian Island quotas for groundfish, prohibited species, halibut, and crab to eligible communities.”³⁹

In 1959 and 1960 an experimental salmon fishery was established in the Norton Sound area. State officials encouraged seafood processors to explore and develop fisheries in the region in hopes of providing economic benefits to local communities. In 1961, commercial harvesters began targeting Chinook and coho salmon in the Unalakleet and Shaktoolik areas. Back then, catch was cleaned and shipped to Anchorage for further processing. A single freezer ship processed pink and chum salmon in the area during 1961. By 1962, two floating processors were in operation, and commercial salmon fishing extended into Norton Bay, Moses Point, and Golovin Bay. Peak canning operations occurred in 1963. Commercial Chinook harvests peaked in the 1980s when the 10-year annual average harvest was about 8,000 fish. Commercial harvests of sockeye salmon have always been minor. Coho salmon harvests averaged about 40,000 annually during the 1980s. By the 1990s, that number increased to approximately 55,000 fish, but decreased by half by 2000. Pink salmon harvests are sporadic, and fluctuate by year. In 1994, almost one million pink salmon were commercially harvested while in more recent years, harvests have dropped to zero. Commercial harvests of chum salmon averaged 150,000 fish annually during the 1970s and 1980s. Stricter escapement goals reduced that number in the 1990s.⁴⁰

Elim is eligible for participation in the CDQ program and is represented by the NSEDC. In a survey conducted by the AFSC in 2011, community leaders reported that Elim is eligible participates in the fisheries management process in Alaska through a representative that sits on

³⁶ Menard, J.; Soong, J.; & Kent, S. (2010). *2008 Annual Management Report Norton Sound, Port Clarence, and Kotzebue*. Retrieved April 3, 2012 from: <http://www.adfg.alaska.gov/FedAidPDFs/FMR10-49.pdf>.

³⁷ Ibid.

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

³⁹ NOAA Fisheries. (n.d.). *Community Development Quota (CDQ) Program*. Retrieved June 20, 2012 from <http://www.fakr.noaa.gov/cdq/default.htm>.

⁴⁰ Clark, J. H. et al. (2006). *The Commercial Salmon Fishery in Alaska*. Retrieved July 10, 2012 from: <http://www.adfg.alaska.gov/static/home/library/PDFs/afrb/clarv12n1.pdf>.

the NSEDC board. Elim is located in Federal Reporting Area 514, International Pacific Halibut Committee Regulatory Area 4E, and the Bering Sea Sablefish Regulatory District.

Processing Plants

According to ADF&G's 2010 Intent to Operate list, Elim does not have a registered processing plant. There are shore-based seafood processors located in Nome and Unalakleet. In 2011, Icicle Seafoods operated a processor barge in the Norton Sound area during herring season.⁴¹ In 2008, many Norton Sound crab fishermen delivered catch to buyers in Nome, Anchorage, or Dutch Harbor/Unalaska. Some sold their catch dockside as catcher-sellers.⁴²

Fisheries-Related Revenue

Between 2000 and 2010, Elim collected very little in fisheries-related taxes or fees. In 2010, \$78 was collected in Shared Fisheries Business Taxes, compared to \$60 in 2000. Fisheries related revenue peaked in 2006 at \$211. Other fisheries-related revenue collected by Elim between 2000 and 2010 came from raw fish taxes. In a survey conducted by the AFSC in 2011, community leaders reported that public services are not funded by fisheries-related taxes or fees. Information regarding fisheries-related revenue trends can be found in Table 3.

It should be noted that a direct comparison between fisheries-related revenue and total municipal revenue cannot reliably be made as not all fisheries-related revenue sources are included in the municipal budget.

Commercial Fishing

In a survey conducted by the AFSC in 2011, community leaders reported a substantial increase in the number of commercial fishing vessels and moderate increase in the number of vessels under 35 ft long in the community between 2005 and 2010. Residents held 21 commercial crew licenses in 2010, compared to 28 in 2000. Also in that year, residents held majority ownership of 6 vessels, compared to 15 in 2000.

In 2010, 34 residents, or 10.3% of the population, held 46 permits issued by the Commercial Fisheries Entry Commission (CFEC). In 2000, 44 residents held 51 CFEC permits. Of the CFEC permits issued in 2010, 48% were actively fished, compared to 51% in 2000. This varied by fishery from 100% of crab permits, to 55% of salmon and 18% of herring permits. Fisheries prosecuted by Elim residents in 2010 included Norton Sound pot king crab, Norton Sound gillnet herring roe and food/bait, and Norton Sound gillnet salmon.⁴³ Of the CFEC permits issued in 2010, 72% were for salmon, compared to 76% in 2000; 24% were for herring, compared to 22% in 2000; and 4% were for crab, compared to 2% in 2000.

⁴¹ Norton Sound Economic Development Corporation. (n.d). *Norton Sound commercial herring fishery a go for 2011*. Retrieved April 3, 2012 from:

<http://www.nsedc.com/pdf/Norton%20Sound%20Herring%20Fishery%20to%20Open.pdf>.

⁴² See footnote 36.

⁴³ Alaska Commercial Fisheries Entry Commission. (2011). Alaska commercial fishing permits, permit holders, and vessel licenses, 2000 – 2010. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

Between 2000 and 2010, no residents held Federal Fisheries Permits (FFP) or License Limitation Program (LLP) permits groundfish or crab. In addition, no residents held halibut, sablefish, or crab quota share between 2010 and when the programs began.

Between 2000 and 2010, no landings were reported in Elim. However, landings were reported by residents of Elim during that time. All landings made by residents between 2000 and 2010 are considered confidential, with the exception of herring landings in 2005, 2001, and 2000. In 2005, 308,327 lb of herring valued at \$26,208 ex-vessel were landed by residents, compared to 585,496 lb valued at \$52,695 in 2000. Information regarding commercial fishing trends can be found in Tables 4 through 10.

NOAA-TM-AFSC-259 – Volume 12
Community Profiles for North Pacific Fisheries – Alaska: Elim

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax ¹	n/a	\$60	n/a	n/a	n/a	n/a	n/a	n/a	\$86	\$67	n/a
Shared Fisheries Business Tax ¹	\$60	\$124	\$179	n/a	\$72	\$181	\$211	\$161	\$86	\$65	\$78
Fisheries Resource Landing Tax ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Fuel transfer tax ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Extraterritorial fish tax ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bulk fuel transfers ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Boat hauls ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Harbor usage ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Port/dock usage ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Fishing gear storage on public land ³	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Marine fuel sales tax ³	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<i>Total fisheries-related revenue</i> ⁴	\$60	\$184	\$179	n/a	\$72	\$181	\$211	\$161	\$172	\$132	\$78
<i>Total municipal revenue</i> ⁵	\$785,518	\$1.79 M	\$896,793	\$637,962	\$554,194	\$408,846	\$728,342	\$539,516	\$537,816	\$581,702	\$623,496

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

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

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

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

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

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

NOAA-TM-AFSC-259 – Volume 12
Community Profiles for North Pacific Fisheries – Alaska: Elim

Table 4. Permits and Permit Holders by Species, Elim: 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	n/a										
	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	n/a										
	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	n/a										
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (CFEC) ²	Total permits	1	4	3	2	3	3	2	1	0	1	2
	Fished permits	0	2	2	1	3	2	0	1	0	1	2
	% of permits fished	0%	50%	67%	50%	100%	67%	0%	100%	n/a	100%	100%
	Total permit holders	1	3	3	2	2	2	2	1	0	1	2
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	n/a										
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) ²	Total permits	0	1	0	1	1	0	0	1	0	0	0
	Fished permits	0	0	0	1	1	0	0	1	0	0	0
	% of permits fished	n/a	0%	n/a	100%	100%	n/a	n/a	100%	n/a	n/a	n/a
	Total permit holders	0	1	0	1	1	0	0	1	0	0	0
Herring (CFEC) ²	Total permits	11	12	12	11	10	10	10	10	10	11	11
	Fished permits	10	7	2	2	0	5	2	0	2	0	2
	% of permits fished	91%	58%	17%	18%	0%	50%	20%	0%	20%	0%	18%
	Total permit holders	11	12	12	11	10	10	10	10	10	11	11

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Groundfish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other Finfish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) ²	Total permits	39	39	39	37	36	36	36	35	33	32	33
	Fished permits	16	5	0	0	0	0	4	11	13	14	18
	% of permits fished	41%	13%	0%	0%	0%	0%	11%	31%	39%	44%	55%
	Total permit holders	41	40	40	37	36	37	36	35	34	33	33
<i>Total CFEC Permits²</i>	<i>Permits</i>	<i>51</i>	<i>56</i>	<i>54</i>	<i>51</i>	<i>50</i>	<i>49</i>	<i>48</i>	<i>47</i>	<i>43</i>	<i>44</i>	<i>46</i>
	<i>Fished permits</i>	<i>26</i>	<i>14</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>7</i>	<i>6</i>	<i>13</i>	<i>15</i>	<i>15</i>	<i>22</i>
	<i>% of permits fished</i>	<i>51%</i>	<i>25%</i>	<i>7%</i>	<i>8%</i>	<i>8%</i>	<i>14%</i>	<i>13%</i>	<i>28%</i>	<i>35%</i>	<i>34%</i>	<i>48%</i>
	<i>Permit holders</i>	<i>44</i>	<i>43</i>	<i>43</i>	<i>40</i>	<i>38</i>	<i>40</i>	<i>38</i>	<i>37</i>	<i>35</i>	<i>34</i>	<i>34</i>

¹ National Marine Fisheries Service. (2011). Data on License Limitation Program, Alaska Federal Processor Permits (FPP), Federal Fisheries Permits (FFP), and Permit holders. NMFS Alaska Regional Office. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

² Alaska Commercial Fisheries Entry Commission. (2011). Alaska commercial fishing permits, permit holders, and vessel licenses, 2000 – 2010. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

Table 5. Characteristics of the Commercial Fishing Sector in Elim: 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 Elim ²	Total Net Pounds Landed In Elim ^{2,5}	Total Ex-Vessel Value Of Landings In Elim ^{2,5}
2000	28	0	0	15	10	0	0	\$0
2001	14	0	0	9	5	0	0	\$0
2002	5	0	0	9	5	0	0	\$0
2003	0	0	0	8	4	0	0	\$0
2004	3	0	0	3	2	0	0	\$0
2005	16	0	0	7	5	0	0	\$0
2006	9	0	0	6	5	0	0	\$0
2007	13	0	0	6	4	0	0	\$0
2008	16	0	0	6	4	0	0	\$0
2009	5	0	0	5	4	0	0	\$0
2010	21	0	0	6	5	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 Elim: 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 Elim: 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 Elim: 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 Elim: 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 lb 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 Elim 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	585,496	156,157	--	--	--	308,327	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
<i>Total²</i>	<i>585,496</i>	<i>156,157</i>	--	--	--	<i>308,327</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	\$52,695	\$12,961	--	--	--	\$26,208	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
<i>Total²</i>	<i>\$52,695</i>	<i>\$12,961</i>	--	--	--	<i>\$26,208</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 lb refers to the landed weight recorded in fish tickets.

² Totals only represent non-confidential data.

Recreational Fishing

Because of Elim’s remote location, recreational fishing by non-local residents is limited in the community. In most instances subsistence fishing is preferred by local residents. In 2010, 9 sport fishing licenses were sold to residents, compared to 14 in 2000. Sport fishing licenses sales to residents peaked in 2004 at 26 licenses. Between 2000 and 2010, no sport fish guide businesses were located in the community during this period.

Elim is located in the Seward Peninsula-Norton Sound ADF&G Sport Fishing Survey Area which includes all waters north of the Yukon River drainage and south of the Selawik River Drainage. In 2010, there were 77 total saltwater angler days fished in the region, compared to 2,859 in 2000. In that year, non-Alaska residents accounted for 55.8% of saltwater angler days fished in the region, compared to 6.9% in 2000. Although annual Alaska resident saltwater angler days fished varied between 2000 and 2010, there was a significant decline in 2010 compared to previous years. Also in 2010, there was a total of 10,533 freshwater angler days fished, compared to 15,584 in 2000. Of that total, non-Alaska residents accounted for 41.1%, compared to 24.3% in 2000. According to ADF&G Harvest Survey data,⁴⁴ resident private anglers target Chinook, coho, pink, and chum salmon, Dolly Varden, Pacific halibut, and Pacific cod. In a survey conducted by the AFSC in 2011, community leaders reported that private anglers also target crab. Kept/released data for charter operations is unavailable for Elim. Information regarding recreational fishing trends can be found in Table 11.

Table 11. Sport Fishing Trends, Elim: 2000-2010.

Year	Active Sport Fish Guide Businesses¹	Sport Fish Guide Licenses¹	Sport Fishing Licenses Sold to Residents²	Sport Fishing Licenses Sold in Elim²
2000	0	0	14	0
2001	0	0	13	0
2002	0	0	24	0
2003	0	0	7	0
2004	0	0	26	0
2005	0	0	23	0
2006	0	0	18	0
2007	0	0	15	0
2008	0	0	21	0
2009	0	0	15	6
2010	0	0	9	0

⁴⁴ Alaska Department of Fish and Game. (2011). Alaska Sportfishing Survey results, 2000 – 2010. ADF&G Division of Sport Fish, Alaska Statewide Harvest Survey project. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. <http://www.adfg.alaska.gov/sf/sportfishingsurvey/> (Accessed September 2011).

Table 11 cont'd. Sport Fishing Trends, Elim: 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	196	2,663	3,789	11,795
2001	64	988	2,087	7,816
2002	94	1,650	4,321	12,260
2003	30	1,530	3,632	7,211
2004	204	497	4,183	8,439
2005	56	1,940	8,307	6,764
2006	90	1,400	3,547	12,535
2007	49	530	3,688	12,400
2008	n/a	655	3,761	17,579
2009	133	897	4,198	11,995
2010	43	34	4,334	6,199

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/sport_fishingsurvey/ (Accessed September 2011).

Subsistence Fishing

Subsistence fishing is an important part of Elim’s culture and economy. Historically, the Norton Sound area supported an extensive trade network which connected communities of the area with each other as well as the Chukchi region of Siberia. Prior to the late nineteenth century, furs and marine mammal products (oil, hides, meat, bones, and ivory) were traded with Siberia for reindeer hides.

Wage employment is limited in the community, and local and regional reciprocal networks are used to meet individual and community needs. In a survey conducted 2004, residents were found to be using or trading chum, coho, Chinook, and pink salmon, Pacific cod, caribou, walrus, beluga whale, bowhead whale, shellfish, hardshell clams, king crab, and non-salmon fish. Trade and barter networks were found to extend to multiple communities including Point Hope, Kotzebue, Nome, Gambell, Savoonga, Wasilla, and Anchorage.⁴⁵

⁴⁵ Magdanz, J. S. et al. (2007). *Customary Trade and Barter in Fish in the Seward Peninsula Area, Alaska*. Retrieved July 3, 2012 from: <http://www.subsistence.adfg.state.ak.us/TechPap/tp328.pdf>.

Subsistence data are limited for 2000 through 2010. No information is available regarding subsistence participation at the household level. Halibut harvests remained undocumented for Elim between 1984 and 2009.⁴⁶ Between 2000 and 2008, between 84 and 56 salmon permits were issued for household harvests in Elim. (Table 13). Pink salmon are harvested most, followed by coho, chum, Chinook, and sockeye salmon. In 2008, residents reported harvesting 11,012 salmon, compared to 9,842 in 2000. Reported salmon harvests peaked in 2002 at 12,176 fish

Walrus and beluga whale are significant subsistence resources in Elim. Between 2000 and 2009, 122 beluga whales and 30 walrus were reported as harvested. Data regarding subsistence harvests of marine invertebrates, non-salmon fish, halibut, sea lion, and seal are unavailable. Information regarding subsistence trends can be found in Tables 12 through 15.

Additional Information

In a survey conducted by the AFSC in 2011, community leaders reported that current challenges facing Elim’s fishing economy include high fuel prices and unpredictable salmon returns. When questioned on fisheries policies or management actions effects on Elim, community leaders reported concerns that salmon bycatch rules might be impacting salmon runs. In addition, there was concern over negative regional impacts caused by vessels intercepting salmon runs in the Aleutian Area M fishery. Finally, leaders expressed strong opposition to bottom trawling. Overall, the community would like to see salmon bycatch reduced and the closure of the Northern Bering Sea Trawl Area. In addition, the Kwiniuk River counting tower has been a benefit to the community.

Table 12. Subsistence Participation by Household and Species, Elim: 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.

⁴⁶ National Marine Fisheries Service. (2003). *Environmental Assessment of a Regulatory Amendment to Define a Halibut Subsistence Fishery Category in Convention Waters*. Retrieved July 3, 2012 from: <http://www.fakr.noaa.gov/analyses/subsistence/halibut0403.pdf>.

NOAA-TM-AFSC-259 – Volume 12
Community Profiles for North Pacific Fisheries – Alaska: Elim

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, Elim: 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	Lb of Marine Inverts ²	Lb of Non-Salmon Fish ²
2000	84	80	272	1,316	1,517	6,691	46	n/a	n/a
2001	80	69	427	898	1,352	1,390	70	n/a	n/a
2002	82	76	565	1,451	1,801	8,345	14	n/a	n/a
2003	82	72	661	1,687	1,143	2,524	68	n/a	n/a
2004	58	58	410	663	704	7,207	n/a	n/a	n/a
2005	66	66	285	586	1,044	3,826	9	n/a	n/a
2006	65	59	205	572	945	3,715	9	n/a	n/a
2007	59	59	260	2,307	2,271	1,735	n/a	n/a	n/a
2008	56	56	269	1,284	1,804	7,655	n/a	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, Elim: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lb 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, Elim: 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	30	n/a	1	n/a	n/a	n/a	n/a
2001	20	n/a	1	n/a	n/a	n/a	n/a
2002	13	n/a	n/a	n/a	n/a	n/a	n/a
2003	9	n/a	2	n/a	n/a	n/a	n/a
2004	22	n/a	8	n/a	n/a	n/a	n/a
2005	17	n/a	n/a	n/a	n/a	n/a	n/a
2006	11	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	11	n/a	n/a	n/a	n/a
2008	n/a	n/a	4	n/a	n/a	n/a	n/a
2009	n/a	n/a	3	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.