

Scammon Bay (SKAMM-in)



People and Place

*Location*¹

Scammon Bay is on the south bank of the Kun River, one mi inland from the Bering Sea. It lies to the north of the 2,300-ft Askinuk Mountains in the Yukon-Kuskokwim Delta. Scammon Bay is located in the Bethel Recording District and the Wade Hampton Census Area, and is not part of an organized borough. The city boundaries encompass 0.6 square miles of land and no water area.

*Demographic Profile*²

In 2010, there were 474 residents in Scammon Bay, making it the 123rd largest of 352 total Alaskan communities with recorded populations that year. Overall between 1990 and 2010, the population increased by 38.2%. The average annual growth rate between 2000 and 2009 was 1.4%, indicating slow steady growth. It should be noted that the Alaska Department of Labor Estimate of Permanent Residents shows a slightly higher population than that indicated by the U.S. Census, but the population of Scammon Bay increased between 1990 and 2010 by both estimates. The change in population between 1990 and 2010 is shown in Table 1.

A large majority of residents of Scammon Bay in 2010 identified themselves as American Indian or Alaska Native (99.4%), with only small portions of the population identifying themselves as White (0.4%) or two or more races (0.2%). Between 2000 and 2010, the percentage of the population identifying themselves as American Indian or Alaska Native increased by 3.3%, with corresponding decreases in the percentage of the population identifying themselves as White, Hispanic or Latino, Black or African American, Native Hawaiian or Other Pacific Islander, some other race, and two or more races. The change in racial and ethnic composition in Scammon Bay from 2000 to 2010 is detailed in Figure 1.

In 2010, the average household size in Scammon Bay was 4.94, an increase from 4.0 in 1990 and 4.84 in 2000. There has also been an overall increase in the number of households between 1990 and 2010, with 85 households in 1990, 96 in 2000, and 94 in 2010. Of those households surveyed in 2010, 66 were estimated to be owner-occupied and 16 were vacant, with 28 households being rented. None of the population of Scammon Bay was estimated to be living in group quarters in 2010.

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

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

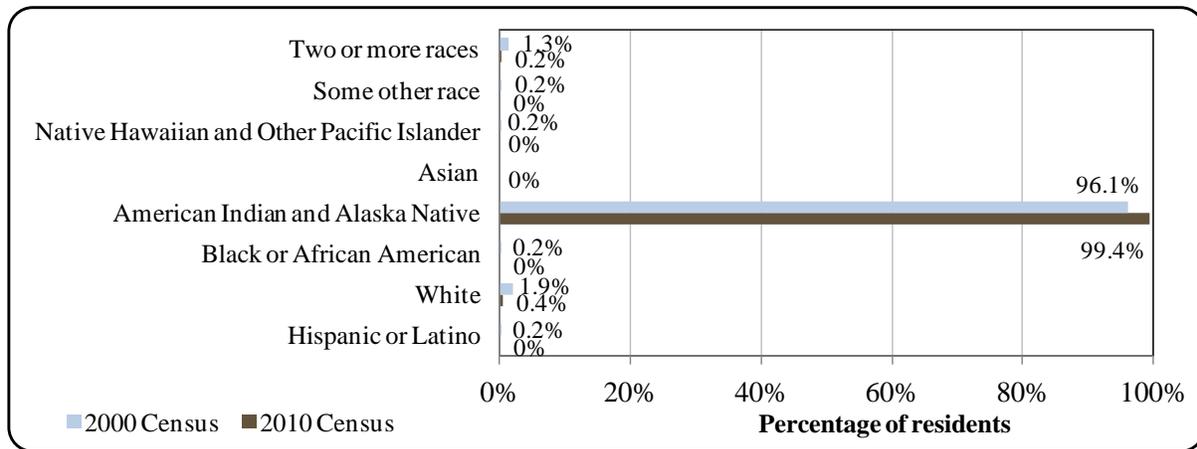
Table 1. Population in Scammon Bay from 1990 to 2010 by Source.

Year	U.S. Decennial Census ¹	Alaska Dept. of Labor Estimate of Permanent Residents ²
1990	343	-
2000	465	-
2001	-	474
2002	-	492
2003	-	467
2004	-	488
2005	-	508
2006	-	520
2007	-	516
2008	-	533
2009	-	528
2010	474	-

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>.

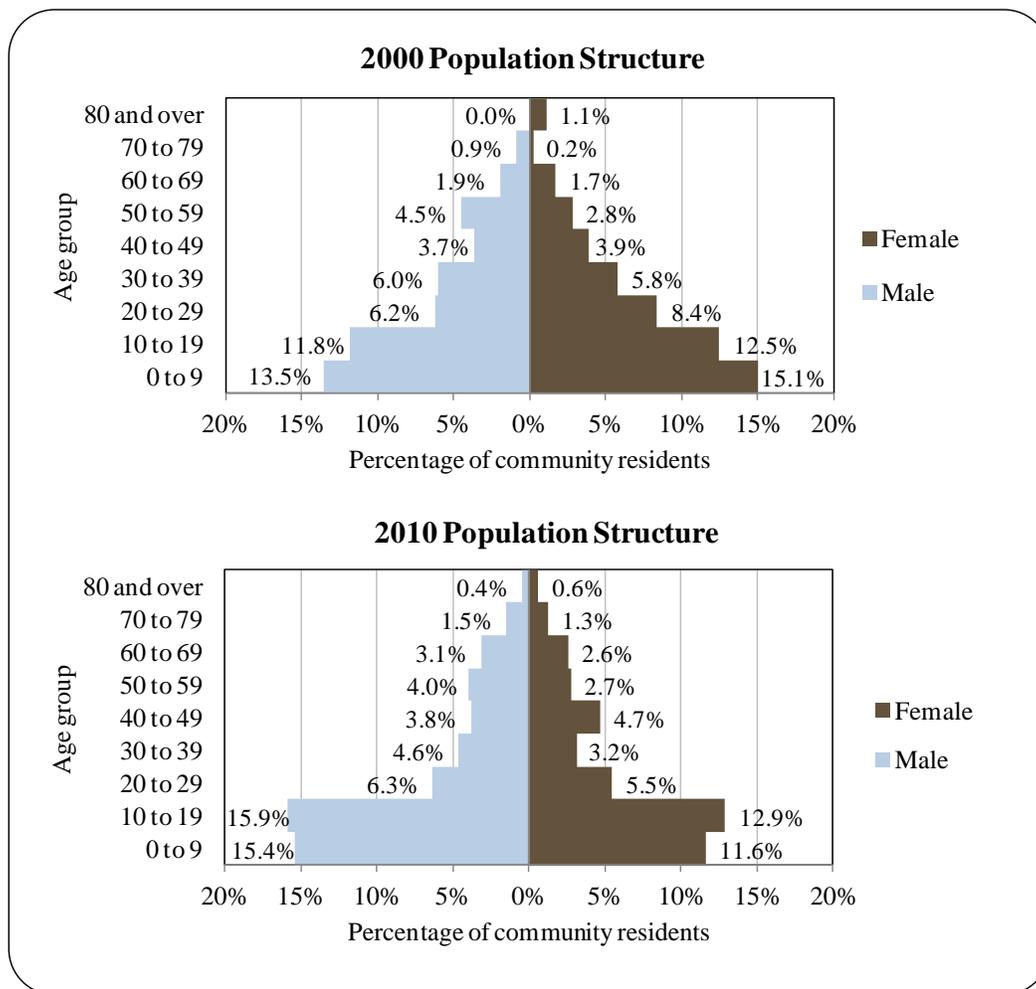
Figure 1. Racial and Ethnic Composition, Scammon Bay: 2000-2010 (U.S. Census).



In 2010, the gender makeup of Scammon Bay was 55% male and 45% female, slightly more skewed than the Alaska state gender makeup (52% male, 48% female). The median age in Scammon Bay was 17.6 years, much lower than the U.S. national average of 36.8 years and the median age for Alaska, 33.8 years. The greatest percentage of residents fell within the age category 0-19 years old, with the next largest percentage for the age category 20-39 years old. Relatively few people were 60 or older. The population age structure in Scammon Bay in 2000 and 2010 is shown in Figure 2.

In terms of educational attainment, according to the 2006-2010 American Community Survey (ACS),³ 66.7% of residents aged 25 and over were estimated to hold a high school diploma or higher degree, compared to 90.7% of Alaskan residents overall. Also in 2010, 17.5% of Scammon Bay residents had less than a ninth grade education, compared to 3.5% of Alaskan residents overall; 15.8% had a ninth to 12th grade education but no diploma, compared to 5.8% of Alaskan residents overall; 37.2% had a high school diploma or equivalent, compared to 28.5% of Alaskan residents overall; 17.5% had some college but no degree, compared to 27.8% of Alaskan residents overall; 2.2% held an Associate’s degree, compared to 7.9% of Alaskan residents overall; 6.6% held a Bachelor’s degree, compared to 17.1% of Alaskan residents overall; and 3.3% held a graduate or professional degree, compared to 9.5% of Alaskan residents overall.

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



³ While American Community Survey (ACS) estimates can provide a good snapshot estimate for larger populations, smaller populations can be misrepresented by ACS estimates if demographic information is not collected from a representative sample of the population. This is especially problematic for Alaskan communities with small populations that have a low probability of being adequately sampled.

History, Traditional Knowledge, and Culture

Yup'ik Eskimo people were historically very mobile, following the migration and seasonal availability of subsistence resources.⁴ The settlement of Scammon Bay was known in Eskimo as “Marayaarmiut,” which means ‘people of the little mudflats’. Other names for the site included Kutmiut, Mawagmiut, Mariakmiut, and Mariak.⁵ The ancestors of the Scammon Bay Yup'ik were the Asquinurmiut, who inhabited a number of villages north and west of the current village site.⁶ The nearby bay was named after Capt. Charles Scammon, who served as the marine chief of the Western Union Telegraph Expedition from 1856 to 1867. The name came into use when the Scammon Bay Post Office was established in 1951. The city government was incorporated in 1967.⁷

Ancestors of Scammon Bay residents were involved in the centuries-long Bow and Arrow War Days, involving conflict between Yup'ik people living along the Bering Sea coast south of the Yukon River and riverine Yup'ik people living along the Yukon. Scammon Bay is located in the region known as ‘the Triangle’, which also includes the villages of Chevak and Hooper Bay and smaller villages that no longer exist today. People within the Triangle often banded together during raids to the north and came to each others’ aid when under attack. The Bow and Arrow War Days continued up until the arrival of Russian explorers in the 1840s.⁸

Fishing and other subsistence activities remain important to both the culture and economy in Scammon Bay. Most residents travel 50 miles to the north to the Black River each summer for fish camp. The sale, importation, and possession of alcohol are banned in the village.⁹

Natural Resources and Environment

The community of Scammon Bay is located approximately one mi up the Kun River from Scammon Bay, which empties into the Bering Sea.¹⁰ Scammon Bay is somewhat sheltered from the Bering Sea by a group of low sandy barrier islands known as the Sand Islands.¹¹ The community is within the Yukon-Kuskokwim Delta, an alluvial flood plain characterized by numerous lakes and slough channels interwoven through the tundra wetland complex. Vegetation is primarily subarctic tundra underlain by permafrost. The Askinuk Mountains rise from these marshy lowlands to over 2,200 of elevation just south of the community.¹² The area’s climate is

⁴ Alaska Native Heritage Center. (n.d) *Yup'ik & Cup'ik - Who We Are website*. Retrieved December 8, 2011 from http://www.alaskanative.net/en/main_nav/education/culture_alaska/yupik/.

⁵ Alaska OCS Socioeconomic Studies Program. (1982). *Navarin Basin Sociocultural Systems Analysis*. Prepared by A. Fienup-Riordan for the Bureau of Land Management Outer Continental Shelf Office. Retrieved March 11, 2013 from http://www.boem.gov/BOEM-Newsroom/Library/Publications/1982/82_TR70.aspx.

⁶ Funk, Caroline. 2010. “The Bow and Arrow War Days on the Yukon-Kuskokwim Delta of Alaska.” *Ethnohistory* 57(4).

⁷ 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.

⁸ See footnote 6.

⁹ Ibid.

¹⁰ See footnote 7.

¹¹ U.S. Fish and Wildlife Service. (1988). *Alaska Maritime National Wildlife Refuge : summary : final comprehensive conservation plan, wilderness review, and environmental impact statement*. Retrieved March 12, 2013 from <http://catalog.hathitrust.org/Record/001536756>.

¹² U.S. Fish and Wildlife Service. 2011. *Yukon Delta National Wildlife Refuge*. Retrieved December 8, 2011 from <http://yukondelta.fws.gov/>.

maritime, with temperatures ranging between -25 and 79 °F (-31.7 to 26.1 °C). Annual precipitation averages 14 inches, with 65 inches of snowfall. Severe easterly winds during the fall and winter limit accessibility. The Bering Sea is ice-free from mid-June through October.¹³ In winter, the ice can extend out to sea as far as 500 miles, although sea ice coverage has been declining in recent decades with warming temperatures in the Bering Sea.¹⁴

The community of Scammon Bay is located within the Yukon Delta National Wildlife Refuge (NWR). The NWR was established “to conserve fish and wildlife populations and habitats in their natural diversity, including, but not limited to shorebirds, seabirds, tundra swans, emperor, white-fronted and Cackling Geese, black brant and other migratory birds, salmon, muskoxen, and marine mammals; to fulfill treaty obligations; to provide the opportunity for continued subsistence uses; and to ensure water quality and necessary water quantity.” NWR lands are open to sport and subsistence hunting and fishing.¹⁵

Another protected area in the region is the Bering Sea Unit of the Alaska Maritime NWR. The unit includes the previously mentioned Sand Islands, a group of low barrier islands that protect the mouth of Scammon Bay. The islands are used by migrating shorebirds and offer nesting habitat for Arctic terns, mew gulls, and glaucous gulls, as well as haul out sites for harbor seals.¹⁶ Overall, the Bering Sea Unit of the Alaska Maritime NWR includes more than 300 islands, islets, rocks, and capes as well as headlands and capes on the mainland.¹⁷ In addition to the Bering Sea, the Alaska Maritime NWR includes units in the Aleutian Islands, the Southeast Alaska Panhandle, Bristol Bay, and the Chukchi Sea. 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.”¹⁸

In a 2002 state hazard assessment, natural hazards identified as having potential to occur in the Wade Hampton Census Area include flood, wildfire, earthquake, volcanic activity, severe weather, and erosion. No information about the probability of these different events was reported.¹⁹ Climate models project that the Bering Sea region will experience increased storm activity and coastal erosion as temperatures warm.²⁰ Scammon Bay has suffered from flooding and coastal erosion in the past, and the Division of Homeland Security and Emergency

¹³ See footnote 7.

¹⁴ Pippins, K.A. (2012). *Alaska Maritime National Wildlife Refuge Wilderness: A Report on Wilderness Character Monitoring*. U.S. Fish and Wildlife Service. Retrieved March 12, 2013 from <http://www.wilderness.net/index.cfm?fuse=toolboxes&sec=WC#>

¹⁵ U.S. Fish and Wildlife Service. (2011). *Yukon Delta National Wildlife Refuge website*. Retrieved December 8, 2011 from <http://yukondelta.fws.gov/>.

¹⁶ U.S. Fish and Wildlife Service. (1988). *Alaska Maritime National Wildlife Refuge : summary : final comprehensive conservation plan, wilderness review, and environmental impact statement*. Retrieved March 12, 2013 from <http://catalog.hathitrust.org/Record/001536756>.

¹⁷ See footnote 14.

¹⁸ U.S. Fish and Wildlife Service (n.d.). *Alaska Maritime National Wildlife Refuge*. Retrieved January 4, 2012 from <http://alaskamaritime.fws.gov/>.

¹⁹ State of Alaska (2002). *Hazard Mitigation Plan*. Retrieved February 8, 2012 from <http://biotech.law.lsu.edu/blaw/DOD/manual/.%5CFull%20text%20documents%5CState%20Authorities%5CAla.%20SHMP.pdf>.

²⁰ See footnote 14.

Management has identified Scammon Bay a community in need of assistance due to weather or climate hazards posing a threat to safety or life as well as existing public infrastructure.²¹

According to the Alaska Department of Environmental Conservation, there is an active environmental cleanup site approximately 15 miles west of Scammon Bay at the Cape Romanzof Long Range Radar Site owned by the U.S. Air Force. A landfill at the radar site has been determined to be contaminated with Polychlorinated Biphenyls (PCBs). In order to protect human health in the area, the Air Force has proposed to remove soil and sediment contaminated at levels greater than 1 milligram per kilogram. The comment period on this proposal was set to close in August, 2012.²²

Current Economy²³

Employment in Scammon Bay centers on commercial fishing, and subsistence activities provide an important food source. Important subsistence resources include fish, beluga whale, walrus, seal, birds, and berries.²⁴ In 2010, top local employers included the Lower Yukon School District, local government offices, the regional Community Development Quota (CDQ) group (Coastal Villages Region Fund (CVRF)) and subsidiary seafood company (Coastal Villages Seafoods, Inc), the Native village corporation (Asikinuk Corporation), and non-profit organizations providing health, housing, and other local services.²⁵ In addition, firefighting for the Bureau of Land Management, construction, and handicrafts provide seasonal income.²⁶

According to the 2006-2010 ACS,²⁷ the per capita income in Scammon Bay in 2010 was estimated to be \$9,999, and the median household income in 2010 was estimated to be \$43,750, compared to \$7,719 and \$25,625 in 2000, respectively. However, after accounting for inflation by converting the 2000 values to 2010 dollars,²⁸ the real per capita income (\$10,150) and the real median household income (\$33,697) in 2000 indicate a slight decrease in median per capita income between 2000 and 2010 and a substantial increase in median household income between 2000 and 2010. However, Scammon Bay's small population size may have prevented the ACS from accurately portraying economic conditions.²⁹ A potentially more accurate understanding of per capita income is obtained through economic data compiled by the Alaska Local and Regional

²¹ Immediate Action Workgroup. (2009). *Recommendations to the Governor's Subcabinet on Climate Change*. Black, B. and P. Opheen, eds. Retrieved March 11, 2013 from <http://www.dggs.alaska.gov/webpubs/dggs/mp/text/mp147p.pdf>.

²² Alaska Dept. of Environmental Conservation (n.d.). *List of Contaminated Sites by Region*. Retrieved March 5, 2013 from <http://dec.alaska.gov/spar/csp/list.htm>.

²³ Unless otherwise noted, all monetary data are reported in nominal values.

²⁴ 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.

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

²⁶ See footnote 24.

²⁷ 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>.

²⁸ Inflation was calculated using the Anchorage Consumer Price Index for 2010 (retrieved October 18, 2011 from the Alaska Department of Labor, <http://labor.alaska.gov/research/cpi/inflationcalc.htm>).

²⁹ 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.

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. Decennial Census, the resulting per capita income estimate for Scammon Bay in 2010 is \$5,860, providing support for an overall decrease in per capita income from 2000 to 2010.³⁰ This is supported by the fact that 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 2010.³¹ However, it should be noted that ACS and DOLWD data are based on wage earnings and do not take into account the value of subsistence within the local economy.

In 2010, Scammon Bay ranked 274th of 305 Alaskan communities with per capita income that year, and 168th of 299 Alaskan communities with household income data. Based on the ACS, in the same year, 53.1% of the population age 16 and over was estimated to be in the civilian labor force, compared to the statewide rate of 68.8%. The local unemployment rate was 18.5%, compared to the statewide unemployment rate of 5.9%. Approximately 33% of local residents were living below the poverty line in 2010, compared to 9.6% of Alaskans overall. It should be noted that income and poverty statistics are based on wage income and other money sources; the relatively low income figures and high poverty rates reported for Scammon Bay are not reflective of the value of subsistence to the local economy. In addition, these unemployment and poverty statistics are likely inaccurate given the small population of Scammon Bay. A more accurate estimate is based on the ALARI database, which indicates that the unemployment rate in 2010 was 20.5%.

Based on the 2006-2010 ACS, the greatest number of workers in Scammon Bay in 2010 was estimated to be employed in the public sector (60.5%), along with 39.5% in the private sector. Out of 119 people age 16 and over estimated to be in the civilian labor force in Scammon Bay in 2010, the greatest number were estimated to work in education services, health care, and social assistance (56.3%), retail trade (21.8%), and public administration (6.7%). Compared to 2000, a slightly greater percentage of the workforce was estimated to be employed in education, health care and social assistance, construction, and retail trade industries, with a comparable reduction in other industries. When viewing employment in terms of occupation, the most common job types were management/professional (47.9% of the labor force), and sales and office occupations (25.2%). The distribution of employment by occupation remained relatively stable in Scammon Bay between 2000 and 2010, although there was a notable decrease in sales/office occupations and a slight increase in management/professional occupations. In 2010, no Scammon Bay residents reported themselves as working in natural resource industries or occupations that would include commercial fishing. However, given the data reported in the *Commercial Fishing* section below, the number of individuals employed in fishing may be underestimated in census statistics, as fishermen may hold another job and characterize their employment accordingly. Information about employment by industry is presented in Figure 3, and employment is broken down by occupation in Figure 4.

³⁰ See footnotes 25 and 27.

³¹ Denali Commission. (2011). *Distressed Community Criteria 2011 Update*. Retrieved April 16, 2012 from www.denali.gov.

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

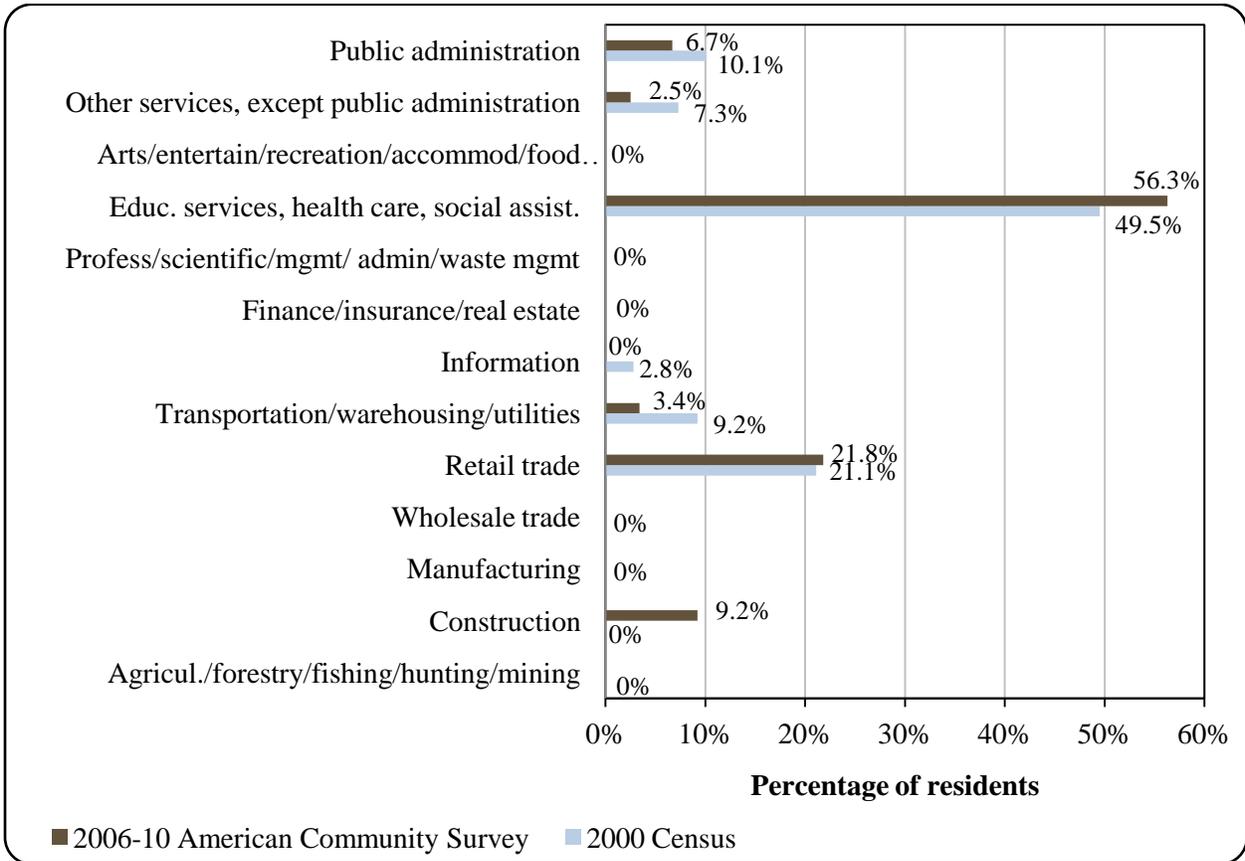
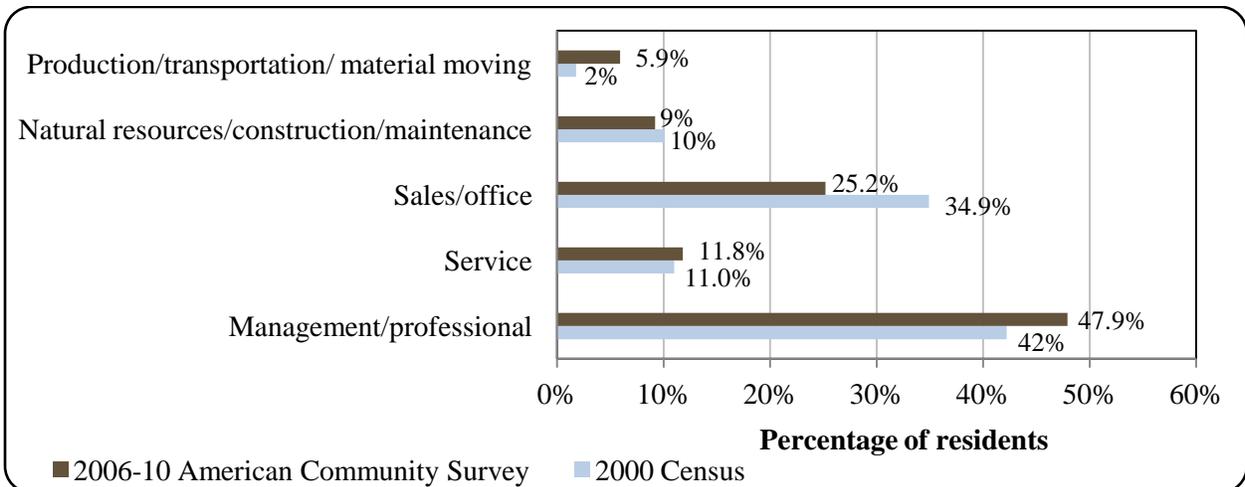


Figure 4. Local Employment by Occupation in 2000-2010, Scammon Bay (U.S. Census).



Governance

Scammon Bay is a 2nd Class City governed by a mayor and a city council and is not located within an organized borough. Between 2000 and 2010, the total municipal revenue received by Scammon Bay increased, though there was some variation between years during this period. As of 2010, Scammon Bay administered a 2% sales tax.³² In addition to sales tax revenues, other locally-generated income sources in Scammon Bay during the decade included enterprise revenues from water and sewer utilities, an electric utility maintenance contract, building and land leases, equipment rentals, bingo, pull tab, and concession receipts, and fees for snow removal and boat hauls. Outside revenue sources included state and federal shared funds and grants in some years. Sources of shared revenue from the State of Alaska included the State Revenue Sharing program from 2000 to 2003 (over \$25,000 per year), the Community Revenue Sharing program in 2009 and 2010 (over \$120,000 each year), along with funds in some years from a state fuel grant, a state telephone / electric co-op tax refund, and the SAFE Communities program (public safety, utilities, infrastructure projects, etc.). Federal revenue sharing was received in some years from the Payment in Lieu of Taxes program. State grants were received for projects such as “waste heat” (from the Renewable Energy Grant Program), sewage lines and manhole replacement, and a suicide prevention program. Total municipal revenue in 2008 was higher than average due to particularly high amount of state grants, totaling over \$250,000 that year. No fisheries-related grants were reported received over the decade (Table 2).

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Scammon Bay 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	\$241,287	\$28,202	\$27,196	n/a
2001	\$256,523	\$23,491	\$26,180	n/a
2002	\$243,103	\$18,941	\$26,050	n/a
2003	\$236,924	\$24,805	\$26,459	n/a
2004	\$214,721	\$17,579	n/a	n/a
2005	\$128,426	\$26,030	n/a	n/a
2006	\$230,822	\$30,034	n/a	n/a
2007	\$276,649	\$27,104	n/a	n/a
2008	\$619,424	\$24,208	n/a	n/a
2009	\$393,313	\$30,349	\$123,191	n/a
2010	\$233,637	\$21,005	\$122,480	n/a

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

² Alaska Dept. of Comm. and Econ. Dev. (n.d.). *Alaska Taxable (2000-2010)*. Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm.

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

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

⁵ Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Funding Database*. Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm.

³² 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.

Scammon Bay was included under the Alaska Native Claims Settlement Act (ANCSA), and is federally recognized as a Native village. The authorized traditional entity, recognized by the Bureau of Indian Affairs (BIA), is the Native Village of Scammon Bay. The Native village corporation is the Askinuk Corporation, which manages 92,160 acres of land. The regional Native corporation to which Scammon Bay belongs is the Calista Corporation.³³

The Village of Scammon Bay is also a member of the Association of Village Council Presidents (AVCP), a Tribal 501(c)(3) non-profit organization headquartered in Bethel that serves communities in the Yukon-Kuskokwim Delta. At the request of villages, AVCP provides social services, human development and culturally relevant programming to “promote Tribal self-determination and self-governance and to work to protect Tribal culture and traditions.”³⁴ The AVCP is 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 AVCP is made up of 56 villages and 45 village corporations.³⁶

The nearest offices of the Alaska Department of Fish and Game (ADF&G) and the Department of Commerce, Community, and Economic Development are located in Bethel. The nearest office of the Alaska Department of Natural Resources is located in McGrath, and the nearest offices of the National Marine Fisheries Service (NMFS), Bureau of Citizenship and Immigration Services, and U.S. Immigration and Customs Enforcement are located in Anchorage.

Infrastructure

Connectivity and Transportation

Scammon Bay is accessible by air and water. A state-owned 3,000 ft long by 75 ft wide gravel airstrip and city-owned seaplane base on the Kun River serve air traffic. Barges bring in bulk supplies each summer. Winter trails exist to Hooper Bay (32 miles) and Chevak (25 miles). Snowmobiles and skiffs are the primary means of local transportation.³⁷ Roundtrip airfare to Anchorage in June 2012 was \$820.³⁸

³³ Ibid.

³⁴ Association of Village Council Presidents. (n.d.). *Homepage*. Retrieved December 6, 2011 from www.avcp.org.

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 Calista Corporation. (2011). *Our Communities: The Villages of the Calista Region*. Retrieved February 6, 2012 from <http://www.calistacorp.com/shareholders/communities>.

³⁷ See footnote 32.

³⁸ Airfare was obtained on the travel website <http://www.travelocity.com> for a round-trip ticket for travel from June 1 to June 8, 2012. Retrieved on December 1, 2011.

Facilities

Water in Scammon Bay is sourced from a small stream south of the city using an infiltration gallery system.³⁹ Water is treated and stored in a 100,000-gallon tank. Nearly all homes and the school are fully plumbed and connected to the piped water and sewer system. Only a few residents use honeybuckets,⁴⁰ typically due to frozen pipe damage. There is no washeteria in the community.⁴¹ An unpermitted landfill is available. Electricity is provided by an Alaska Village Electric Cooperative (AVEC) diesel powerhouse.⁴² AVEC is currently engaged in conceptual design and a feasibility study to develop a wind turbine in Scammon Bay to supplement diesel power generation. As of early 2012, grant agreement was in place and a site for the turbine had been identified.⁴³ Law enforcement services are provided by the city, a Village Public Safety Officer (VPSO), and state troopers in Bethel. Fire and rescue is provided by the VPSO and a city volunteer fire department. Additional community facilities and services include a community hall, bingo, and both public and school libraries.⁴⁴

*Medical Services*⁴⁵

Medical care is provided by the Scammon Bay Clinic, which is owned by the city and operated by the Yukon Kuskokwim Health Corporation. The clinic is a Community Health Aid Program site. Emergency services have coastal floatplane and air access and are provided by a health aide. The nearest hospital is located in Bethel.

*Educational Opportunities*⁴⁶

The Scammon Bay School provides instruction for students from pre-school through 12th grade. In 2011, the school had 212 students and 16 teachers.

³⁹ Infiltration galleries are a type of well constructed near rivers or ponds to collect infiltrated surface waters. Since the water infiltrates through a layer of soil/sand, it is significantly free from suspended impurities including microorganisms usually present in surface water. (Definition retrieved February 22, 2012 from http://phys4.harvard.edu/~wilson/arsenic/conferences/Feroze_Ahmed/Sec_3.htm.)

⁴⁰ A “honeybucket” is an indoor bucket used as a toilet in houses without plumbing.

⁴¹ “Washeteria” is another word for laundromat. In Alaska, washeterias often include shower facilities.

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

⁴³ Alaska Energy Authority. (2012). Alaska Renewable Energy Fund Status Report. Retrieved March 12, 2013 from http://www.akenergyauthority.org/re-fund-5/4_Program_Update/StatusReport2012.pdf.

⁴⁴ See footnote 42.

⁴⁵ Ibid.

⁴⁶ 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

Yup'ik Eskimo people were historically very mobile, following the migration and seasonal availability of subsistence resources.⁴⁷ Traditional subsistence fishing activities continue to be a primary source of food for Scammon Bay residents, in combination with employment in commercial fishing and government services.^{48,49} Between 2000 and 2010, Scammon Bay residents were most heavily engaged in commercial fisheries for salmon, herring, and halibut.

The City of Scammon Bay is located in the Yukon-Kuskokwim Delta where the Kun River empties into Scammon Bay and the Bering Sea. The marine area bordering Scammon Bay is included in Federal Statistical and Reporting Area 514, Pacific Halibut Fishery Regulatory Area 4E, and the Bering Sea Sablefish Regulatory Area. Scammon Bay is also included in the Coastal District (District 7) of the Yukon commercial salmon fishery.

The Yukon River commercial salmon fishery is divided into 7 districts, 10 sub-districts, and 28 statistical areas. The Coastal District is open to subsistence fishing only. Between 2000 and 2010, all commercial salmon permits held by Scammon Bay residents were held in the Lower Yukon salmon gillnet fishery. The first recorded commercial harvest of salmon in the Alaskan portion of the Yukon River took place in 1918, and early harvests were relatively large. Concerns about providing sufficient salmon resources for subsistence harvest led to limitations on commercial salmon fishing during several periods, including a complete commercial fishing closure between 1925 and 1931. In the 1980s, concerns about possible overharvest of Chinook runs led to reduced commercial fisheries in the late 1980s and 1990s along the Yukon. Poor returns in the late 1990s and early 2000s resulted in restrictive management of the commercial fishery and complete closure in 2001 to ensure subsistence resources.⁵⁰ Chinook runs have continued to have unexpectedly low returns in recent years, resulting in a need for cooperative efforts between managers, fishermen, tribal council representatives, and other stakeholders to ensure that adequate numbers of fish reach spawning grounds in the event that low returns continue in future years.⁵¹

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

⁴⁷ Alaska Native Heritage Center. (n.d) *Yup'ik & Cup'ik - Who We Are*. Retrieved December 8, 2011 from http://www.alaskanative.net/en/main_nav/education/culture_alaska/yupik/.

⁴⁸ 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/>.

⁴⁹ See footnote 42.

⁵⁰ 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>.

⁵¹ Alaska Dept. of Fish and Game. 2012. *2012 Yukon Area Subsistence, Personal Use, and Commercial Salmon Fisheries Outlook and Management Strategies*. Retrieved June 20, 2012 from <http://www.adfg.alaska.gov/FedAidpdfs/RIR.3A.2012.04.pdf>.

years, in part due to lack of processing capacity in the region.⁵² Pacific herring are present in coastal waters near Scammon Bay during May and June, typically appearing immediately following ice break-up. Herring and spawn-on-kelp herring roe are also harvested for subsistence purposes by Scammon Bay residents.⁵³

Commercial exploitation of halibut first extended into the Bering Sea region in 1928 after development of diesel engines, which allowed fishing vessels to undertake longer trips.⁵⁴ Today, Pacific halibut fisheries are managed under the International Pacific Halibut Commission. In 1995, management of the Pacific halibut and sablefish fisheries shifted from limited entry to a catch share program. The program includes allocation of the annual Total Allowable Catch (TAC) of halibut and sablefish via Individual Fishing Quota (IFQ). In the Bering Sea – Aleutian Islands (BSAI) region, quota shares are also allocated to six Community Development Quota (CDQ) non-profit organizations representing 65 communities in Western Alaska.⁵⁵ The CDQ non-profit representing the Native Village of Saint Michael is the Coastal Villages Region Fund (CVRF), which that promotes employment opportunities for residents of member villages as well as participation in the Bering Sea crab and groundfish fisheries.⁵⁶ In 2010, CVRF received an allocation of 348,000 pounds of CDQ halibut quota, 66% of which was allocated for harvest within Area 4E, and 34% in Area 4D.⁵⁷ Total BSAI sablefish CDQ allocations in 2009 and 2011 were 1.3 million lbs in each year. No sablefish CDQ report was available from NOAA for the 2010 season.⁵⁸ Managers of CDQ organizations authorize individual fishermen and fishing vessels to harvest a certain portion of the CDQ allocations.⁵⁹ Scammon Bay is not eligible to participate in the Community Quota Entity program.

Processing Plants

According to the ADF&G's 2010 Intent to Operate list, Scammon Bay did not have a registered processing plant. The nearest processing plant was located in Bethel.

⁵² 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>.

⁵³ Ceñaliulriit Coastal Resource Service Area. (2008). *Coastal Management Plan: Final Plan Amendment*. Retrieved February 9, 2012 from http://www.alaskacoast.state.ak.us/District/DistrictPlans_Final/Cenaliulriit/plan/plan-4-08.pdf.

⁵⁴ Thompson, William F. and Norman L. Freeman. 1930. *History of the Pacific Halibut Fishery*. Report of the International Fisheries Commission. Number 5. Retrieved June 1, 2012 from <http://ww.iphc.int/publications/scirep/Report0005.pdf>.

⁵⁵ Fina, Mark. 2011. Evolution of Catch Share Management: Lessons from Catch Share Management in the North Pacific. *Fisheries*, Vol. 36(4). Retrieved September 12, 2012 from http://www.fakr.noaa.gov/npfmc/PDFdocuments/catch_shares/Fina_CatchShare_411.pdf.

⁵⁶ Coastal Villages Region Fund (n.d.). *Homepage*. Retrieved December 12, 2011 from <http://www.coastalvillages.org/>.

⁵⁷ NOAA National Marine Fisheries Service. 2010. *Memorandum: 2010 Community Development Quota (CDQ) Halibut Allocations*. Retrieved January 8, 2013 from <http://www.fakr.noaa.gov/ram/10ifqcdqtac.pdf>.

⁵⁸ NOAA National Marine Fisheries Service. (n.d.). *IFQ Halibut/Sablefish Reports and CDQ Halibut Program Reports*. Retrieved February 22, 2013 from <http://www.fakr.noaa.gov/ram/ifqreports.htm>.

⁵⁹ International Pacific Halibut Commission. 2012. *Pacific Halibut Fishery Regulations 2012*. Retrieved October 16, 2012 from <http://www.iphc.int/publications/regs/2012iphcregs.pdf>.

Fisheries-Related Revenue

Between 2000 and 2010, the only source of fisheries-related revenue received by Scammon Bay was the Shared Fisheries Business Tax. The total amount was less than \$100 per year (Table 3).⁶⁰

Commercial Fishing

In 2010, 47 residents of Scammon Bay held commercial fishing permits, a number that remained relatively stable between 2000 and 2010. While the number of permit holders has remained steady, the number of permits held decreased during the same period. Of the 54 permits held in 2010, 34 of those were salmon Commercial Fisheries Entry Commission (CFEC) permits. For salmon CFEC permits, the number of permits held, the number of permit holders, and the percentage of permits reported as fished all decreased between 2000 and 2010. All the salmon CFEC permits issued in 2010 were for the Lower Yukon gill net fishery. While 20 permit holders held 19 herring CFEC permits for the Cape Romanzof gill net fishery in 2010, numbers which also remained stable between 2000 and 2010, none of those permits were actively fished between 2007 and 2010. As mentioned in the *History and Evolution of Fisheries* section above, harvests in Yukon-Kuskokwim herring fisheries have declined in recent years, in part due to lack of processing capacity.⁶¹ One permit holder held a halibut CFEC permit for the statewide hand troll fishery in 2010, but between 2000 and 2010, the only years in which halibut CFEC permits were actively fished were 2008 and 2009. Overall, the percentage of all CFEC permits reported as fished decreased between 2000 and 2010 (Table 4).

In 2010, there were 16 crew license holders residing in Scammon Bay, a number that has been variable between 2000 and 2010. There were no fish buyers or shore-side processing facilities in Scammon Bay between 2000 and 2010. There were 13 vessels owned primarily by residents in 2010 and 16 vessels homeported in Scammon Bay in 2010. Both of these numbers represented declines from 2000 levels, when 25 vessels were primarily owned by residents and 34 vessels were homeported in the community. Between 2000 and 2010, there were no vessels landing catch in the community, so there were no landings or ex-vessel value of landings to report during this period (Tables 5 and 9). When looking at landings and ex-vessel revenue generated by Scammon Bay vessel owners, including all delivery locations, data are considered confidential for most species in most years. The exceptions to this were herring between 2000 and 2006 (overall decrease in landings and value), halibut in 2008, and salmon in 2005-2007 (landings and value were variable during these years) (Table 10).

Between 2000 and 2010, no Scammon Bay residents held quota share accounts, quota shares, or individual fishing quota (IFQ) allotments in federal catch share fisheries for halibut or sablefish (Table 6 and Table 7). In addition, no residents held accounts, shares, or IFQ allotments in federal crab catch share fisheries between 2005 and 2010 (Table 8).

⁶⁰ 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.

⁶¹ See footnote 52.

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Table 3. Known Fisheries-Related Revenue (in U.S. Dollars) Received by the Community of Scammon Bay: 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	\$58	n/a	\$94	n/a	n/a	n/a	\$66	\$69	\$82	\$88
Fisheries Resource Landing Tax ¹	n/a										
Fuel transfer tax ²	n/a										
Extraterritorial fish tax ²	n/a										
Bulk fuel transfers ¹	n/a										
Boat hauls ²	n/a										
Harbor usage ²	n/a										
Port/dock usage ²	n/a										
Fishing gear storage on public land ³	n/a										
Marine fuel sales tax ³	n/a										
<i>Total fisheries-related revenue⁴</i>	<i>n/a</i>	<i>\$58</i>	<i>n/a</i>	<i>\$94</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>\$66</i>	<i>\$69</i>	<i>\$82</i>	<i>\$88</i>
<i>Total municipal revenue⁵</i>	<i>\$241,287</i>	<i>\$256,523</i>	<i>\$243,103</i>	<i>\$236,924</i>	<i>\$214,721</i>	<i>\$128,426</i>	<i>\$230,822</i>	<i>\$276,649</i>	<i>\$619,424</i>	<i>\$393,313</i>	<i>\$233,637</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.

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) ¹	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (LLP) ¹	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries Permits ¹	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other shellfish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) ²	Total permits	0	0	5	14	11	8	4	3	12	4	1
	Fished permits	0	0	0	0	0	0	0	0	4	1	0
	% of permits fished	-	-	-	-	-	-	-	-	33%	25%	-
	Total permit holders	0	0	5	10	9	7	4	3	12	4	1
Herring (CFEC) ²	Total permits	21	21	21	19	20	21	20	20	20	19	19
	Fished permits	14	7	7	6	10	6	5	0	0	0	0
	% of permits fished	67%	33%	33%	32%	50%	29%	25%	-	-	-	-
	Total permit holders	24	21	22	20	20	21	20	20	20	19	20

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Table 4 Cont. Permits and Permit Holders by Species, Scammon Bay: 2000-2010.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Groundfish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other Finfish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) ²	Total permits	41	40	41	40	41	39	39	39	37	35	34
	Fished permits	27	0	27	27	31	27	28	27	12	0	17
	% of permits fished	66%	-	66%	68%	76%	69%	72%	69%	32%	-	50%
	Total permit holders	43	40	42	41	42	40	42	39	40	36	36
<i>Total CFEC Permits²</i>	<i>Permits</i>	<i>62</i>	<i>61</i>	<i>67</i>	<i>73</i>	<i>72</i>	<i>68</i>	<i>63</i>	<i>62</i>	<i>69</i>	<i>58</i>	<i>54</i>
	<i>Fished permits</i>	<i>41</i>	<i>7</i>	<i>34</i>	<i>33</i>	<i>41</i>	<i>33</i>	<i>33</i>	<i>27</i>	<i>16</i>	<i>1</i>	<i>17</i>
	<i>% of permits fished</i>	<i>66%</i>	<i>11%</i>	<i>51%</i>	<i>45%</i>	<i>57%</i>	<i>49%</i>	<i>52%</i>	<i>44%</i>	<i>23%</i>	<i>2%</i>	<i>31%</i>
	<i>Permit holders</i>	<i>53</i>	<i>49</i>	<i>53</i>	<i>52</i>	<i>52</i>	<i>50</i>	<i>52</i>	<i>48</i>	<i>55</i>	<i>48</i>	<i>47</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 Scammon Bay: 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 Scammon Bay ²	Total Net Pounds Landed In Scammon Bay ^{2,5}	Total Ex-Vessel Value Of Landings In Scammon Bay ^{2,5}
2000	25	0	0	35	34	0	0	\$0
2001	5	0	0	23	23	0	0	\$0
2002	22	0	0	29	29	0	0	\$0
2003	9	0	0	33	34	0	0	\$0
2004	17	0	0	34	35	0	0	\$0
2005	15	0	0	27	26	0	0	\$0
2006	43	0	0	21	21	0	0	\$0
2007	41	0	0	19	20	0	0	\$0
2008	14	0	0	24	25	0	0	\$0
2009	4	0	0	14	16	0	0	\$0
2010	16	0	0	13	16	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 Scammon Bay: 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 Scammon Bay: 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 Scammon Bay: 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 Scammon Bay: 2000-2010.

	<i>Total Net Lbs¹</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 lbs refers to the landed weight recorded in fish tickets.

² Totals only represent non-confidential data.

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Table 10. Landed Pounds and Ex-vessel Revenue, by Species, by Scammon Bay Residents: 2000-2010.

	<i>Total Net Lbs¹</i>										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	1,193	--	--
Herring	337,808	132,956	56,534	111,841	46,892	153,159	156,899	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	5,661	13,806	8,679	--	--	--
<i>Total²</i>	<i>337,808</i>	<i>132,956</i>	<i>56,534</i>	<i>111,841</i>	<i>46,892</i>	<i>158,820</i>	<i>170,705</i>	<i>8,679</i>	<i>1,193</i>	--	--
	<i>Ex-vessel Value (nominal U.S. dollars)</i>										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	\$5,250	--	--
Herring	\$24,295	\$4,848	\$2,712	\$6,039	\$8,487	\$7,964	\$8,002	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	\$12,473	\$33,127	\$14,173	--	--	--
<i>Total²</i>	<i>\$24,295</i>	<i>\$4,848</i>	<i>\$2,712</i>	<i>\$6,039</i>	<i>\$8,487</i>	<i>\$20,437</i>	<i>\$41,129</i>	<i>\$14,173</i>	<i>\$5,250</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 lbs refers to the landed weight recorded in fish tickets.

² Totals only represent non-confidential data.

Recreational Fishing

Between 2000 and 2010, there were no active sport fish guide businesses or licensed sport fish guides present in Scammon Bay. However, some sport fishing activity did take place in the community. The number of sport fishing licenses sold to Scammon Bay residents (irrespective of the location of the point of sale) varied between 14 and 78 per year. A small number of sport fishing licenses were sold in Scammon Bay in some years during the period.

Scammon Bay is located within Alaska Sport Fishing Survey Area V – Kuskokwim River and Bay Drainages. Information is available about both saltwater and freshwater sport fishing activity at this regional scale. Between 2000 and 2010, saltwater sport fishing activity was minimal, with between zero and 28 non-Alaska resident angler days fished per year, and between zero and 108 Alaska resident angler days fished per year. A majority of sport fishing activity occurred in freshwater, with non-Alaska resident anglers fishing consistently more angler days (12,624 – 17,582 angler days per year) than Alaska resident anglers (5,166 – 9,152 angler days per year). This information about the sport fishing sector in and near Scammon Bay is displayed in Table 11.

Table 11. Sport Fishing Trends, Scammon Bay: 2000-2010.

Year	Active Sport Fish Guide Businesses¹	Sport Fish Guide Licenses¹	Sport Fishing Licenses Sold to Residents²	Sport Fishing Licenses Sold in Scammon Bay²
2000	0	0	48	41
2001	0	0	39	12
2002	0	0	22	26
2003	0	0	14	0
2004	0	0	50	0
2005	0	0	54	0
2006	0	0	27	18
2007	0	0	61	0
2008	0	0	71	0
2009	0	0	38	0
2010	0	0	78	0

Table 11, Cont. Sport Fishing Trends, Scammon Bay: 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	27	13	13,388	6,602
2001	0	0	16,437	4,236
2002	0	0	14,583	6,062
2003	28	63	16,923	7,355
2004	0	15	16,239	9,152
2005	19	18	13,725	5,685
2006	0	0	14,773	7,616
2007	0	0	13,390	7,816
2008	0	108	17,582	8,172
2009	0	0	12,625	5,166
2010	0	0	14,033	5,422

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

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

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

Subsistence Fishing

Subsistence harvests are an important part of Scammon Bay’s culture and economy. Common species utilized by Scammon Bay residents for subsistence purposes include fish, beluga whale, walrus, seal, birds, and berries. Most residents travel 50 miles to the north to the Black River each summer for fish camp.⁶² Lower Yukon communities such as Scammon Bay typically focus subsistence hunting and fishing activities on salmon, several non-salmon fish species, bearded, ringed, and spotted seal, beluga whale, walrus, and tundra and riverine furbearers. In spring, Scammon Bay residents harvest herring and spawn-on-kelp roe and hunt waterfowl.⁶³

Data were not available from ADF&G during the 2000-2010 period regarding the percentage of Scammon Bay households participating in subsistence for selected species, or per capita subsistence harvest (Table 12). However, information was reported by management agencies regarding subsistence harvests of salmon, halibut, and several marine mammal species.

⁶² 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.

⁶³ Ceñaliulriit Coastal Resource Service Area. (2008). *Coastal Management Plan: Final Plan Amendment*. Retrieved February 9, 2012 from http://www.alaskacoast.state.ak.us/District/DistrictPlans_Final/Cenaliulriit/plan/plan-4-08.pdf.

The number of subsistence salmon permits issued to Scammon Bay households decreased slightly over the decade, from 89 in 2000 to 74 in 2007. The number of salmon reported harvested was variable from year to year between 2000 and 2010, with the greatest volume of chum, pink, and Chinook salmon harvested per year on average during the 2000-2010 period. Some coho harvest was also reported, while no sockeye harvest was reported in any year during the period. This information is presented in Table 13. No data were available regarding total harvest of marine invertebrates or non-salmon fish (not including halibut) during the 2000-2010 period (Table 13).

Following 2003, when seven Subsistence Halibut Registration Certificate (SHARC) cards issued to Scammon Bay residents, the total decreased sharply, falling to one SHARC card issued each year in 2008 and 2009. The last year in which any SHARC cards were reported as returned was 2005. That year, Scammon Bay residents reported harvesting 269 lbs of halibut through this program. No data were reported regarding Scammon Bay residents' participation in the SHARC program in 2010 (Table 14).

Data on subsistence harvest of marine mammals in Scammon Bay are sparse, but do show that beluga whales and walrus have historically been harvested for subsistence use (Table 15).

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

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

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

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

Table 13. Subsistence Fishing Participation for Salmon, Marine Invertebrates, and Non-Salmon Fish, Scammon Bay: 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	89	24	449	3,886	4	96	n/a	n/a	n/a
2001	85	22	732	1,518	63	362	n/a	n/a	n/a
2002	82	25	840	5,256	123	417	n/a	n/a	n/a
2003	81	32	1,128	3,781	48	997	n/a	n/a	n/a
2004	82	31	1,008	5,139	54	2,508	n/a	n/a	n/a
2005	78	30	691	4,655	279	1,645	n/a	n/a	n/a
2006	78	30	507	4,744	160	1,381	n/a	n/a	n/a
2007	74	31	768	4,057	84	1,435	n/a	n/a	n/a
2008	80	33	1,104	6,170	50	2,766	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, Scammon Bay: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	7	4	181
2004	7	4	105
2005	7	3	269
2006	2	n/a	n/a
2007	2	n/a	n/a
2008	1	n/a	n/a
2009	1	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, Scammon Bay: 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	12	n/a	n/a	n/a	n/a	n/a	n/a
2001	12	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	11	n/a	n/a	n/a	n/a	n/a	n/a
2004	11	n/a	n/a	n/a	n/a	n/a	n/a
2005	6	n/a	n/a	n/a	n/a	n/a	n/a
2006	7	n/a	n/a	n/a	n/a	n/a	n/a
2007	10	n/a	1	n/a	n/a	n/a	n/a
2008	7	n/a	n/a	n/a	n/a	n/a	n/a
2009	9	n/a	n/a	n/a	n/a	n/a	n/a
2010	5	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.