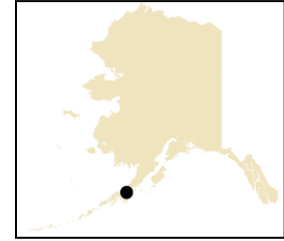


Ivanof Bay (EYE-van-off)



People and Place

*Location*¹

The community of Ivanof Bay is situated on the Pacific side of the Alaska Peninsula, nestled inside Ivanof Bay, the water-body after which it was named. It is 500 miles southwest of Anchorage and 250 miles southeast of Dillingham. The community is located in the Lake and Peninsula Borough and the Aleutian Islands Recording District.

*Demographic Profile*²

According to the 2010 Decennial Census, there were 7 inhabitants in Ivanof Bay, making it the 344th largest of 352 total Alaskan communities with populations recorded that year. According to Alaska Department of Labor and Workforce Development (DOLWD) estimates, there were zero residents in Ivanof Bay from 2006 to 2009, down from 22 residents in 2000 (Table 1). The average annual growth rate between 2000 and 2009 was -13.42%, reflecting the 100% decline in population over the period. Ivanof Bay first appeared in U.S. Census records in 1960 with 15 individuals and appears to have reached a population peak of 48 in 1970. In 2000, 4.5% of Ivanof Bay residents identified themselves as White, and the remaining 95.5% identified as American Indian and Alaska Native. By 2010, 100% of residents identified as American Indian and Alaska Native, and no White residents appeared to be present in the community (Figure 1).

The decline in population since 1990 is reflected in housing statistics. In 1990, there were nine occupied housing units in Ivanof Bay, with an average of 3.8 persons per household. In 2000, the number of households remained stable at 9, but the average household size declined to 2.44. By 2010, there were only two occupied housing units in Ivanof Bay, with an average of 3.5 persons per household. Of the 12 total housing units surveyed for the 2010 U.S. Decennial Census, two (16.7%) were owner-occupied, and the remaining 83% were vacant due to seasonal use. From 1990 to 2010, no Ivanof Bay residents were recorded as living in group quarters.

In 2010, the gender makeup of Ivanof Bay's population was 57.1% male and 42.9% female, which was more heavily weighted toward males than the population of the State as a whole (52% male, 48% female). That year, the median age was estimated to be 57.3 years, higher than both the U.S. national average of 36.8 years and the median age for Alaska, 33.8 years. In 2010, four of the seven residents recorded in Ivanof Bay were between the ages of 50 and 69, and three were between 0 and 29 years of age. Compared to 2000, a higher percentage of Ivanof Bay residents were over the age of 50 in 2010 (Figure 2).

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 Ivanof Bay from 1990 to 2010 by Source.

Year	U.S. Decennial Census ¹	Alaska Dept. of Labor Estimate of Permanent Residents ²
1990	35	-
2000	22	-
2001	-	13
2002	-	3
2003	-	3
2004	-	5
2005	-	2
2006	-	0
2007	-	0
2008	-	0
2009	-	0
2010	7	-

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, Ivanof Bay: 2000-2010 (U.S. Census).

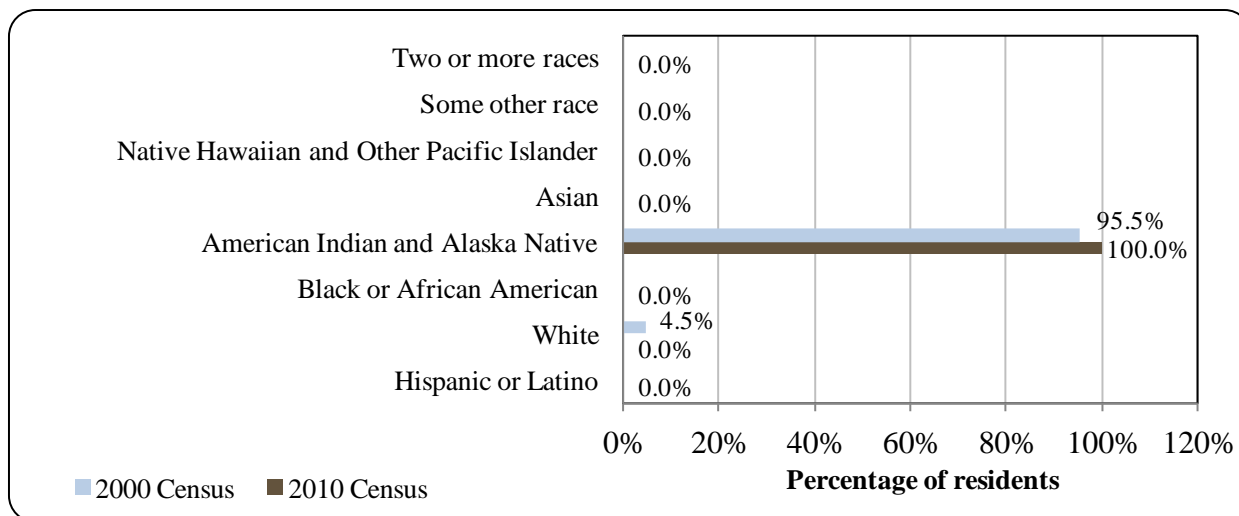
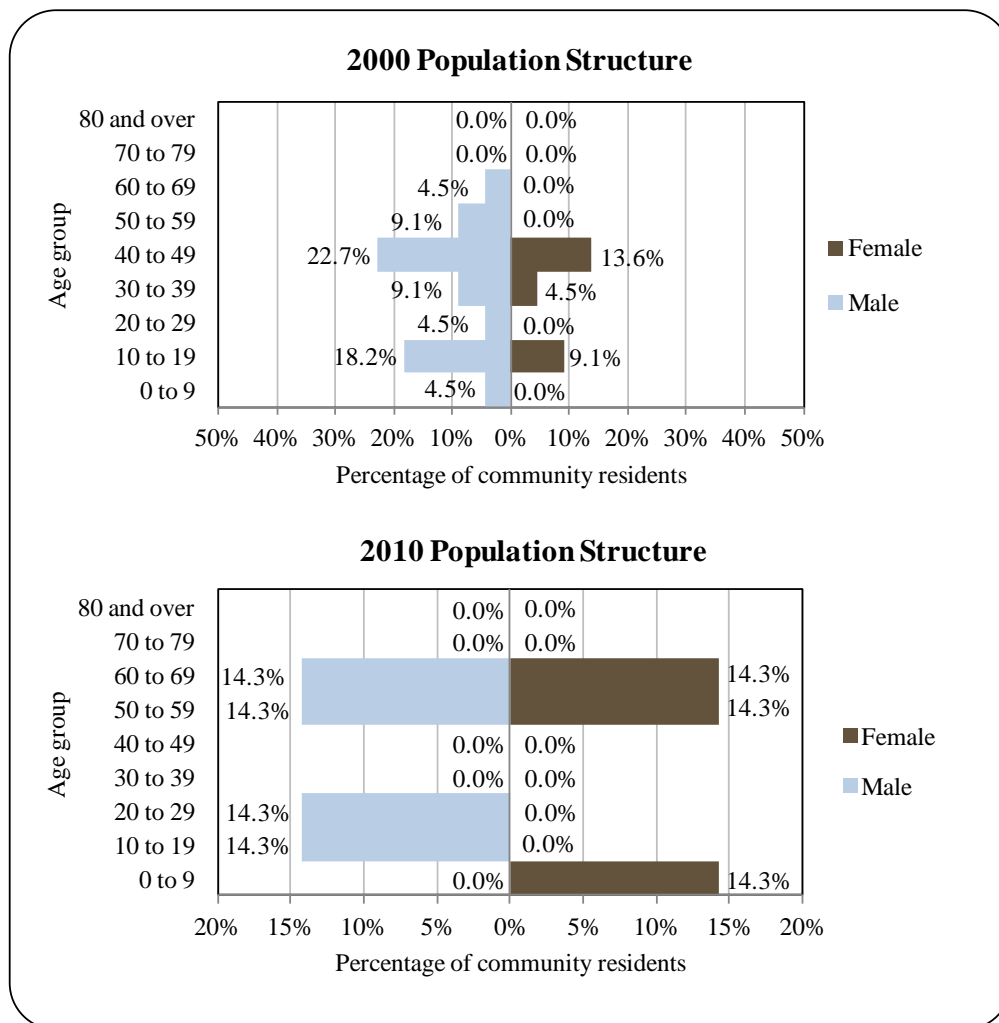


Figure 2. Population Age Structure in Ivanof Bay Based on the 2000 and 2010 U.S. Decennial Census.



The U.S. Census’ 2006-2010 American Community Survey (ACS) did not provide any information regarding educational attainment in Ivanof Bay in 2010. Although the U.S. Decennial Census recorded seven individuals as permanent residents in Ivanof Bay in 2010, the ACS estimated a population of zero.³ Given the small population of Ivanof Bay in 2010, it is useful to look back at education statistics in the year 2000 as well, when the population was slightly higher. In 2000, Census sample data for ‘Selected Social Characteristics’ estimated that there were 22 individuals aged 25 or older residing in Ivanof Bay in 2000, 5 of which had less than a 9th grade education, 3 which had between a 9th and 12th grade education, 7 holding high school diplomas, and 7 which held high school diplomas and had attended some college without receiving a degree. It is important to note that, as in the case of 2006-2010 ACS data, the small

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.

population of permanent residents in Ivanof Bay in the 2000 Decennial Census (22 total residents recorded) was not accurately represented by Census sample data (which estimated 30 total residents, including 22 residents aged 25 and older).

History, Traditional Knowledge, and Culture

Archaeological evidence suggests that Aleut (Unanga and Alutiiq) peoples have occupied the Alaska Peninsula for approximately 9,000 years.^{4,5} Subsistence harvest of marine mammals and salmon has historically been of primary importance for the Aleut, and today salmon, Pacific halibut, octopus, shellfish, seal, and sea lion are an important part of the subsistence diet, along with some harvest of land mammals.⁶

Ivanof Bay received its name in 1880, when Lieutenant Dall of the U.S. Coastal and Geodetic Survey mapped the area. Ivanof Bay was briefly a place of refuge for Alutiiq people driven away from their villages by the eruption of Mt. Katmai in 1912. Captain Perry, in command of the ship, “Manning,” transported surviving villagers from Douglas and Katmai to Ivanof Bay. Later, they were moved to a new village site to the east that was named Perryville.⁷

The construction of a cannery at Ivanof Bay in 1930 led to a more permanent population there. The cannery operated until the 1950s. Ivanof Bay first showed up in Census records in 1960 with a population of 15.⁸ The size of the community grew considerably after six households (approximately 40 individuals) relocated to Ivanof Bay from Perryville in 1965.⁹ Reasons for the move included a search of better water sources and hunting grounds, as well as the opportunity to pursue a peaceful lifestyle with religious freedom. All of the families that relocated to Ivanof Bay were members of the Slavic Gospel Mission.¹⁰

Today, Ivanof Bay remains a traditional Alutiiq community. Residents practice a subsistence lifestyle. Important subsistence resources in Ivanof Bay include salmon, trout, crab, clams, moose, caribou, bear, porcupine, and seals. Many residents leave Ivanof Bay in the summer to live and fish near the community of Chignik to the northeast.¹¹

Natural Resources and Environment

Ivanof Bay’s maritime climate is characterized by cool summers, warm winters, and rainy weather. Average summer temperatures range from 39 to 60 °F; winter temperatures average 21 to 50 °F. Low clouds, rain squalls, fog, and snow showers frequently limit visibility.

⁴ LaRoche + Associates. March 2011. *Lake and Peninsula Borough Coastal Management Plan, Revised Public Hearing Draft*. Retrieved January 17, 2012 from http://alaskacoast.state.ak.us/District/DistrictPlans_Final/LakeandPen/revised_phd/vol1_rphd.pdf.

⁵ WHPacific. 2010. *Aleutians East Multi-Jurisdictional/Multi-Hazard Mitigation Plan*. Retrieved December 7, 2011 from: <http://www.aleutianseast.org/>.

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

⁷ 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 Ibid.

⁹ Morris, Judith Marek. 1987. *Fish and Wildlife Uses in Six Alaska Peninsula Communities: Egegik, Chignik, Chignik Lagoon, Chignik Lake, Perryville, and Ivanof Bay*. Alaska Dept. of Fish and Game, Technical Paper No. 151. Retrieved October 18, 2012 from <http://www.arlis.org/docs/vol1/A/20700109.pdf>.

¹⁰ See footnotes 7 and 9.

¹¹ See footnote 7.

Average annual precipitation is 127 inches, with 58 inches of snow.¹² Local topography is steep, rugged, and mountainous, with headlands that jut into the ocean. Mt. Veniaminof, a 7,075 feet high active volcano located 20 miles inland from Ivanof Bay, provides an impressive backdrop.¹³

Ivanof Bay is located within the boundaries of the Alaska Peninsula National Wildlife Refuge (NWR), which extends as far west as False Pass and east beyond Chignik Bay, and includes a separate unit south of Ugashik. Between the two units of the Alaska Peninsula NWR lies Aniakchak National Monument and Preserve, and, extending along the southern coast of the Peninsula, the Alaska Maritime NWR, which stretches from the Aleutian Islands to the Southeast Alaska Panhandle. All three protected areas were formed under the Alaska National Interest Land Conservation Act (ANILCA) of 1980.¹⁴

The 3.7 million acre Alaska Peninsula NWR hosts a dramatic landscape of towering mountain peaks, including a number of active volcanoes, rolling tundra, and rugged coastlines. Salmon return to the rivers of the Alaska Peninsula NWR, supporting brown bear populations. Other land mammals include wolverine, the 7,000-animal Northern Alaska Peninsula caribou herd, wolves, and moose. It is of note that no black bears are found in the Alaska Peninsula NWR. Marine mammals living along the coastline include sea otters, harbor seals, sea lions, and migrating whales. The Alaska Peninsula NWR also provides important habitat for migrating birds.¹⁵

The Alaska Maritime NWR hosts a similar array of species in the Alaska Peninsula region. However, it contains a greater diversity overall, as it stretches from the tip of the Aleutian Islands to the Southeast Alaska Panhandle, and includes St. Matthew Island in the Bering Sea, Hagemeister Island in northern Bristol Bay, and two units bordering 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.”¹⁶

Aniakchak National Monument and Preserve was established to recognize the unique geological significance of a six-mile wide, 2,500 feet deep caldera formed by a massive eruption that took place 3,500 years ago. The explosion caused the loss of approximately 3,000 feet of the upper mountain. The Aniakchak volcano was last active in 1931, when a small explosion pockmarked the caldera floor.¹⁷ This National Monument calls attention to the highly active tectonic zone in which Ivanof Bay is located. The Alaska Peninsula and Aleutian Island chain form part of the Pacific “Ring of Fire,” one of the most active earthquake areas in the world.¹⁸ Some of these earthquakes are associated with explosive volcanic eruptions.¹⁹

¹² Ibid.

¹³ Alaska Department of Natural Resources. April 2005. *Bristol Bay Area Plan for State Lands*. Retrieved January 4, 2012 from <http://dnr.alaska.gov/mlw/planning/areaplans/bristol/index.htm>.

¹⁴ U.S. Fish and Wildlife Service. (n.d.). *Alaska Peninsula National Wildlife Refuge*. Retrieved March 23, 2012 from <http://www.fws.gov/refuges/profiles/index.cfm?id=74512>.

¹⁵ Ibid.

¹⁶ USFWS (n.d.). *Alaska Maritime National Wildlife Refuge*. Retrieved January 4, 2012 from <http://alaskamaritime.fws.gov/>.

¹⁷ National Park Service. 2011. *Aniakchak National Monument & Preserve*. Retrieved March 23, 2012 from <http://www.nps.gov/ania/>.

¹⁸ Sykes, Lynn R., Jerome B. Kisslinger, Leigh House, John N. Davies and Klaus H. Jacob. 1980. “Rupture Zones and Repeat Times of Great Earthquakes along the Alaska-Aleutian Arc, 1784-1980.” *Science* 19 December 1980, Vol. 210 no. 4476 pp. 1343-1345.

¹⁹ U.S. Geological Survey. 1998. “Can Another Great Volcanic Eruption Happen in Alaska?” Retrieved December 5, 2011 from <http://volcanoes.usgs.gov/about/publications/factsheets.php>.

The region of the Alaska Peninsula in which Ivanof Bay is located has at least 49 identified occurrences of base and precious metal deposits, as well as the Chignik and Herendeen Bay coalfields. Estimates of coal resources range from 200 million to 3 billion short tons. Reserves of oil and natural gas are thought to be present on the outer continental shelf (OCS) in the Bristol Bay Basin along the northern edge of the Aleutian Islands and Alaska Peninsula.²⁰ However, given the importance of Bristol Bay fisheries to the nation and the proximity of the Bristol Bay Basin to a number of protected areas, in March 2010, Secretary of the Interior Ken Salazar removed the area from oil and gas leasing for the 2007-2012 program.²¹ On March 31, 2010, President Obama withdrew the Bristol Bay area of the North Aleutian Basin from oil and gas leasing, for both exploratory or production purposes, through 2017.²² The Proposed OCS Oil & Gas Leasing Program for 2012-2017 does not include any lease sales adjacent to National Monument or NWR boundaries along the Alaska Peninsula. The Alaska Peninsula Unit of the Alaska Maritime NWR has been identified as an area of special concern, in which a large oil spill could have negative impacts on coastal habitats and fauna, and could affect subsistence use, commercial or recreational fisheries, and tourism.²³

A hazard analysis conducted for communities in the Lake and Peninsula Borough determined that the Ivanof Bay area is at high risk of tsunami, volcanic activity, and severe weather, and at medium risk of earthquake and wildfire.²⁴

According to the Alaska Department of Environmental Conservation, there are no notable active environmental cleanup sites located in Ivanof Bay as of October, 2012.²⁵

Current Economy²⁶

Ivanof Bay residents are involved in commercial fisheries, and also depend on subsistence hunting and fishing. Many residents trap during winter months.²⁷ Although the U.S. Decennial Census reported seven permanent residents in 2010, including five that were age 16 or older; household surveys conducted for the 2006-2010 ACS did not collect any economic data from these residents. The civilian labor force was estimated to be zero and no earnings or employment statistics were reported for Ivanof Bay in 2010.^{28,29} In addition, no information is

²⁰ See footnote 13.

²¹ Minerals Management Service. March 2010. *Preliminary Revised Program Outer Continental Shelf Oil and Gas Leasing Program 2007-2012*. Retrieved January 6, 2012 from <http://www.boemre.gov/5-year/PDFs/PRP2007-2012.pdf>.

²² The White House, Office of the Press Secretary. March 31, 2010. *Memorandum for the Secretary of the Interior: Withdrawal of Certain Areas of the United States Continental Shelf from Leasing Disposition*. Retrieved January 6, 2012 from <http://www.doi.gov/whatwedo/energy/ocs/upload/2010alaska-mem-rel.pdf>.

²³ Minerals Management Service. November, 2011. *Proposed Outer Continental Shelf Oil and Gas Leasing Program 2012-2017*. Retrieved February 2, 2012 from http://www.boem.gov/uploadedFiles/Proposed_OCS_Oil_Gas_Lease_Program_2012-2017.pdf.

²⁴ Lake and Peninsula Borough. February 2009. *Multi-Hazard Mitigation Plan*. Retrieved January 17, 2012 from http://commerce.alaska.gov/dca/planning/nfip/Hazard_Mitigation_Plans/Lake_Pen_Boro_MJ_HMP.pdf.

²⁵ Alaska Dept. of Environmental Conservation. 2012. *List of Contaminated Site Summaries By Region*. Retrieved October 18, 2012 from <http://dec.alaska.gov/spar/csp/list.htm>.

²⁶ Unless otherwise noted, all monetary data are reported in nominal values.

²⁷ 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.

²⁸ 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

available from DOLWD's Alaska Local and Regional Information (ALARI) database maintained regarding employment or earnings in Ivanof Bay in 2010.³⁰

Income and employment information was reported for Ivanof Bay in the 2000 Census. In 2000, the per capita income in Ivanof Bay was reported to be \$21,983 and the median household income was \$91,977. Taking inflation into account by converting the 2000 values to 2010 dollars,³¹ the real per capita income in 2000 is shown to have been \$28,907, and the real median household income in 2000 was \$120,949. Hobart Bay ranked 72nd of 344 Alaskan communities with per capita income data in 2000, and 3rd in median household income, out of 341 Alaskan communities with household income data that year. In 2000, no Ivanof Bay residents were below the poverty level, compared to 9.4% of Alaskan residents overall, and the local unemployment rate was 0%, compared to a statewide rate of 6.1%.

Sample data from the 2000 U.S. Census estimated that there were 16 residents aged 16 and older in Ivanof Bay, all of which were employed in the civilian labor force that year. Of these, 15 were estimated to be employed in public sector, and 1 in the private sector. The industry in which a majority of Ivanof Bay residents were estimated to be employed was public administration (10 residents, 62.5% of the civilian labor force), while 3 residents (18.8%) were employed in educational, health, and social service industries, and 3 (18.8%) were employed in 'other services' (not including public administration) (Figure 3). The top three occupations were service (5 residents employed; 31.3% of the civilian labor force), sales and office work (5 residents; 31.3%), and construction, extraction, and maintenance (5 residents; 31.3%). In addition, one Ivanof Bay resident was estimated to be employed in a management, professional, or other related occupation (Figure 4). As in the case of 2006-2010 ACS estimates,³² sample data from the 2000 U.S. Census may not provide an entirely accurate representation of communities with very small populations, as reflected by the conflicting numbers between the total population in Hobart Bay (22) and the number of residents estimated to be age 25 or older in the 2000 Census economic sample data (25).

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.

²⁹ 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>.

³⁰ Alaska Dept. of Labor and Workforce Dev. (n.d.). *Alaska Local and Regional Information*. Retrieved May 22, 2012 from: <http://live.laborstats.alaska.gov/alari/>.

³¹ Inflation was calculated using the Anchorage Consumer Price Index for 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, <http://labor.alaska.gov/research/cpi/inflationcalc.htm>).

³² See footnote 28.

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

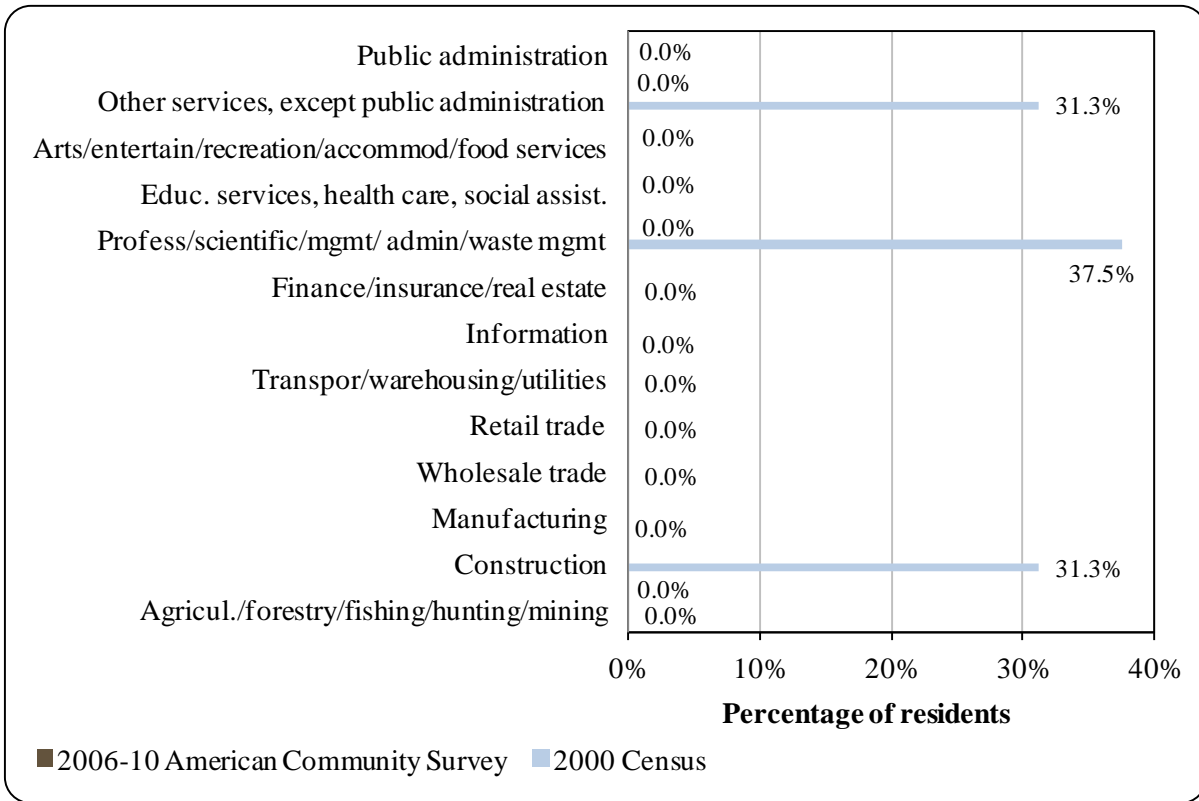
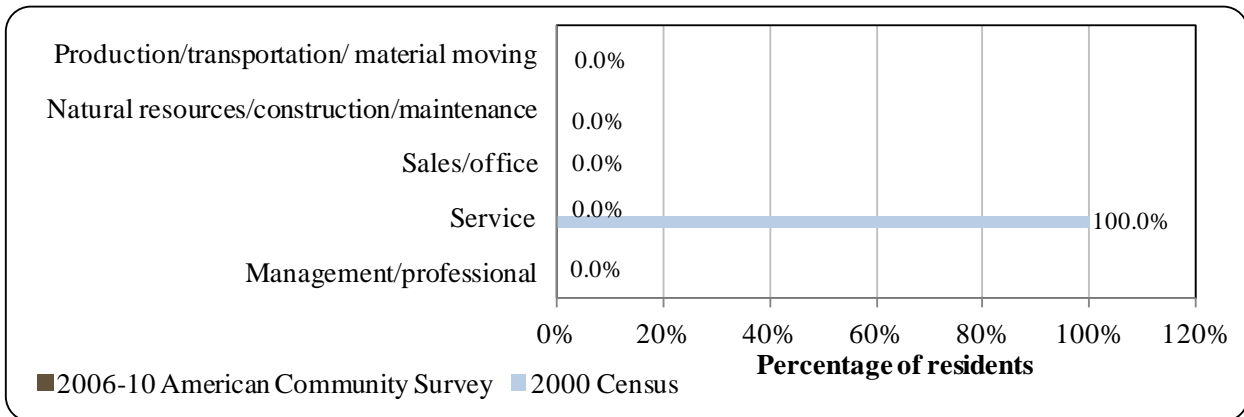


Figure 4. Local Employment by Occupation in 2000-2010, Ivanof Bay (U.S. Census).



Governance

Ivanof Bay is an unincorporated community under the jurisdiction of the Lake and Peninsula Borough. Given that Ivanof Bay does not have a municipal government, no information is reported regarding municipal revenue sources (Table 2). No sales or property tax is collected in Ivanof Bay, but the Borough does administer a 2% fish tax, a 6% Bed Tax, a \$3 per person/day guide tax, and a \$1 per person/day lodge guide tax.³³

Table 2. Selected Municipal, State or Federal Revenue Streams for the Community of Ivanof 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	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	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.

Ivanof 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 Ivanof Bay Village.³⁴ The Village Council is responsible for providing basic services in the community, and is likely to continue to be the local provider of services unless the community incorporates as a city in the future.³⁵ The Native village

³³ Alaska Dept. of Comm. And Rural Affairs. (n.d.). *Community Information Summaries*. Retrieved November 16, 2011 from http://www.dced.state.ak.us/dca/commdb/CF_COMDB.htm.

³⁴ 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.

³⁵ LaRoche and Associates. March 2011. *Lake and Peninsula Borough Coastal Management Plan, Revised Public Hearing Draft*. Retrieved January 17, 2012 from http://alaskacoast.state.ak.us/District/DistrictPlans_Final/LakeandPen/revised_phd/vol1_rphd.pdf.

corporation is Bay View, Inc., which manages 81,502 acres of land. The regional Native corporation to which Ivanof Bay belongs is the Bristol Bay Native Corporation (BBNC).³⁶

Ivanof Bay is also a member of the Bristol Bay Native Association (BBNA), a regional non-profit organization headquartered in Dillingham that provides social, economic, cultural, and educational opportunities and initiatives for the benefit of the tribes and the Native people of Bristol Bay.³⁷ The BBNA is one of the 12 regional Alaska Native 501(c)(3) non-profit 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.³⁸

The closest regional office of the Alaska Department of Fish and Game (ADF&G) is located in Sand Point. Kodiak has the nearest National Marine Fisheries Service (NMFS) office, including a NOAA Fisheries Sustainable Fisheries Division and Enforcement Office, as well as the nearest office of the Alaska Department of Natural Resources (DNR). The nearest Alaska Department of Commerce, Community, and Economic Development (DCCED) office is in Dillingham, and the closest offices of the U.S. Bureau of Citizenship and Immigration Services are located in Unalaska and Kodiak. However, the Anchorage offices of these agencies may be more accessible to people from the Alaska Peninsula region.

Infrastructure

Connectivity and Transportation

Ivanof Bay is accessible via air or water, and there is no overland connection. A private 1,500 gravel airstrip, owned by Bay View, Inc., is present in the community, and float planes can land on Ivanof Bay.³⁹ There are no scheduled commercial flights to Ivanof Bay; the community is only accessible by charter flights.⁴⁰ The nearest port with barge service is Chignik Bay. No public dock or harbor is available in Ivanof Bay. Local residents use ATVs and skiffs as primary modes of transportation.⁴¹

Ivanof Bay and other communities on the Alaska Peninsula are currently very isolated. The Southwest Alaska Transportation Plan published in November 2002 prioritized development of a transportation corridor along the Alaska Peninsula. The desired corridor would link the communities of Egegik, Pilot Point, Ugashik, and Port Heiden via an overland route to Chignik on the south coast, from which fuel and supplies could be disbursed to these communities. The corridor would also extend west from Chignik to the communities of Perryville and Ivanof Bay, and east to Naknek.⁴²

³⁶ See footnote 34.

³⁷ Bristol Bay Native Association. (n.d.). *Homepage*. Retrieved November 16, 2011 from www.bbna.com.

³⁸ 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>.

³⁹ See footnote 34.

⁴⁰ Lake and Peninsula Borough. (n.d.). *Borough Communities*. Retrieved October 17, 2012 from http://www.lakeandpen.com/index.asp?Type=B_BASIC&SEC=%7BAFCFD48C-BDE5-47FF-BD61-FB50625F46CE%7D.

⁴¹ See footnote 34.

⁴² Parsons Brinkerhoff. 2002. *Southwest Alaska Transportation Plan Final Edition*. Prepared for the Alaska Department of Transportation and Public Facilities. Retrieved April 4, 2012 from <http://www.dot.state.ak.us/stwdplng/areaplans/pub/SWplanfinalnov02.pdf>.

Facilities

Water in Ivanof Bay is sourced from a community well and a nearby stream and is stored in a 20,000-gallon tank. No water treatment system is in place. The school building has its own well. All other facilities and homes are connected to the Village Council-operated piped water system. No piped sewage system is available, and residents use individual septic tanks, outhouses, or “honeybuckets”. Sewage is hauled by individuals to a sludge disposal site. A landfill is operated by the Village Council, but no refuse collection services are provided; individuals haul their own garbage to the landfill. The Ivanof Bay Village Council operates the electric utility. Electricity is generated using a diesel powerhouse. There is no local police service in Ivanof Bay.⁴³ The nearest state trooper posts are located in King Salmon and Kodiak.⁴⁴ Local fire and rescue services are provided by the Ivanof Bay Fire House and the Ivanof Bay First Responders. Other community facilities include the Council Building. Telephone service is available in Ivanof Bay, and internet is available at the school building only. No cable service providers offer service locally.⁴⁵

With regard to fisheries-related infrastructure, community leaders reported in the 2011 AFSC survey that no public dock or harbor facilities are present in Ivanof Bay.⁴⁶

Medical Services

Medical services are provided in Ivanof Bay at the Ivanof Bay Clinic. The clinic is owned by the Village Council and operated by the Bristol Bay Area Health Corporation. It is a Community Health Aid Program site. Emergency Services have coastal, floatplane, and air access. Local emergency service is provided by a health aide, and alternative health care is available from the Ivanof Bay First Responders.⁴⁷

Educational Opportunities

There are currently no schools in Ivanof Bay, which is located in the Lake and Peninsula Borough School District.⁴⁸ The Ivanof Bay School last operated during the 1999-2000 school year. It was closed in 2000 due to insufficient student enrollment numbers.⁴⁹

⁴³ 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.

⁴⁴ Alaska Dept. of Public Safety. 2012. *Alaska State Trooper Detachments*. Retrieved June 1, 2012 from <http://www.dps.state.ak.us/ast/detachments.aspx>.

⁴⁵ See footnote 43.

⁴⁶ Ibid.

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Subsistence harvest has been important to residents of the Ivanof Bay area for thousands of years. Villages and fish camps were often located at mouths of streams for access to both fresh water and abundant salmon runs.⁵⁰ During Alaska's Russian period, salmon remained a subsistence resource, but soon after the purchase of Alaska by the United States in 1867, commercial exploitation of salmon was initiated.⁵¹ Herring was one of the earliest commercial fisheries, along with salmon, during the period when the product was salted for storing and shipment to be used for human consumption. Commercial harvest of herring for bait began around 1900, and herring sac roe fisheries developed in the late 1970s.⁵² Halibut and groundfish fisheries began to develop in the Alaska Peninsula region by the 1920s with the development of diesel engines, which allowed fishing vessels to undertake longer trips.^{53,54}

Salmon harvest at Chignik Lagoon is a mainstay of the Alaska Peninsula economy, and Ivanof Bay fishermen and their families often relocate to Chignik during the salmon season.^{55,56} The Chignik salmon harvesting area extends along the south side of the Alaska Peninsula between Kilokak Rocks and Kupreanof Point. In the early years of this salmon fishery, pile traps were the primary harvest method, and historical harvest activity was focused in Chignik Lagoon and Chignik Bay. Fish traps were the primary harvest method until 1954. Starting in 1955, only purse seine gear has been permitted in the Chignik salmon fishery. Sockeye salmon makes up the greatest percentage of salmon catch in the Chignik area. Between 1980 and 2004, Chignik salmon harvests made up only 1.81% of total commercial salmon harvest in Alaska. However, based on average market value in 2004, as determined from permit sales, the most valuable limited entry permit types in Alaska were purse seine permits in the Chignik area.⁵⁷ As of 2010, there were 91 total limited entry permits in the Chignik salmon fishery, a reduction from 99 in the year 2000.⁵⁸

In the early 2000s, a group of permit holders in the Chignik salmon fishery proposed a new fisheries management strategy, and in 2002 the Alaska Board of Fisheries passed

⁵⁰ Alaska Native Heritage Center. (n.d.) *The Unangax & Alutiiq (Supiaq) People - Who We Are*. Retrieved January 4, 2012 from http://www.alaskanative.net/en/main_nav/education/culture_alaska/unangax/.

⁵¹ 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>.

⁵² Woodby, D., D. Carlile, S. Siddeek, F. Funk, J.H. Clark, and L. 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 See footnote 51.

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

⁵⁵ See footnote 43.

⁵⁶ LaRoche + Associates. March 2011. *Lake and Peninsula Borough Coastal Management Plan, Revised Public Hearing Draft*. Retrieved January 17, 2012 from http://alaskacoast.state.ak.us/District/DistrictPlans_Final/LakeandPen/revised_phd/vol1_rphd.pdf.

⁵⁷ See footnote 51.

⁵⁸ Alaska Dept. of Fish and Game (n.d.). *CFEC Public Lookup Database*. Retrieved March 22, 2012 from <http://www.cfec.state.ak.us/plook/>.

regulations allowing for a portion of salmon harvest to be allocated to a cooperative. The Chignik Salmon Cooperative (Co-op) formed that year. Of approximately 100 limited entry permit holders in the Chignik salmon fishery in 2002, more than three-quarters joined the Co-op between 2002 and 2005. Approximately 20 of the Co-op member fishermen were hired to fish the Co-op's allocation annually, and all Co-op members were paid equal shares of the Co-op's profits. The Co-op was opposed by a minority of permit holders. It was eventually ended in 2006, after the Alaska Supreme Court ruled that it violated a state law requiring permit holders to operate their own vessels.⁵⁹

In addition to salmon, in some years during the 2000-2010 period, Ivanof Bay residents were active in commercial fisheries for miscellaneous saltwater finfish, halibut, and herring. Groundfish fisheries target a variety of species, including pollock, Pacific cod, sablefish, Atka mackerel, lingcod, and various rockfish and flatfish species. Herring are harvested for bait in the vicinity of Unalaska when Togiak-spawning herring are in residence during the summer feeding period. On occasion, a herring sac roe fishery occurs near Port Moller when aerial surveys determine that a sufficient quantity of herring is present, and if processing capacity is available.⁶⁰ In addition, commercial herring sac roe harvests occur in Kujulik Bay, Castle Bay, and Chignik Bay (east of Ivanof Bay), and herring sac roe (food/bait) harvest occurs in Stepovak Bay (west of Ivanof Bay).⁶¹

Ivanof Bay is located in Federal Statistical and Reporting Area 620, Pacific Halibut Fishery Regulatory Area 3B, and the Western Gulf of Alaska Sablefish Regulatory Area. The community is eligible for the Community Quota Entity (CQE) program, but as of October, 2012 had not created a CQE non-profit organization.⁶² Ivanof Bay is not eligible to participate in the Community Development Quota program.

Processing Plants

ADF&G's 2010 Intent to Operate list does not list a registered processing plant in Ivanof Bay. However, the 2010 Intent to Operate list shows that active processing facilities are located in nearby communities of Chignik and Sand Point. More information about these processing facilities can be found in the profiles for each of these communities.

Fisheries-Related Revenue

No information was reported regarding fisheries-related revenue sources in Ivanof Bay between 2000 and 2010 (Table 3).

⁵⁹ Knapp, Gunnar. 2008. "The Chignik Salmon Cooperative." In *Case studies in fisheries self-governance*. Eds. R. Townsend, R. Shotton, and H. Uchida. FAO Fisheries Technical Paper 504.

⁶⁰ See footnote 52.

⁶¹ Alaska Department of Natural Resources. April 2005. *Bristol Bay Area Plan for State Lands*. Retrieved January 4, 2012 from <http://dnr.alaska.gov/mlw/planning/areaplans/bristol/index.htm>.

⁶² NOAA Fisheries. 2012. *Name and Contact Information of Community Quota Entities*. Retrieved October 18, 2012 from <http://alaskafisheries.noaa.gov/ram/daily/cqenamescontacts.pdf>.

Commercial Fishing

In some years between 2000 and 2010, Ivanof Bay residents participated in commercial fisheries as permit and quota share account holders, crew members, and vessel owners. In 2000, two Ivanof Bay residents held a total of six Commercial Fisheries Entry Commission (CFEC) permits, while five CFEC permits were held by two permit holds in 2001, and three were held by one permit holder in 2005 (Table 4). Commercial crew licenses were held by several residents from 2000-2002, and a small number of fishing vessels were primarily owned by Ivanof Bay residents in 2000, 2001, and 2005. At least one vessel was listed as homeported in Ivanof Bay in all years during the 2000-2010 period. No fish buyers or shore-side processors were present in the community, and no vessels delivered landings during this period (Table 5).

One halibut CFEC permits was held in 2000, 2001, and 2005. In the first 2 years, the permit was associated with longline gear using vessels 60 feet in length or over, while the 2005 permit was for use on a vessel under 60 feet in length. All salmon permits held in Ivanof Bay during the 2000-2010 period were for the Chignik purse seine fishery, and all miscellaneous finfish permits were associated with mechanical jig gear and were valid for statewide use. The herring permit held in 2000 was for the Bristol Bay roe herring fishery. Between 2000 and 2010, no Ivanof Bay residents held federal License Limitation Permit (LLP) or Federal Fisheries Permits (FFP) Information about LLPs and FFPs held by Perryville residents is also presented in Table 4.

In 2000, one quota share account was held by an Ivanof Bay resident in the federal halibut catch share fishery. That year, a total of 14,638 halibut quota shares were held, and the annual halibut individual fishing quota (IFQ) allotment was 4,081 pounds. No residents held quota share accounts in the federal sablefish or crab catch share fisheries between 2000 and 2010. Further information about federal catch share participation is presented in Tables 6 through 8.

No landings or ex-vessel revenue were recorded in Ivanof Bay (Table 9), given the lack of fish buyers in the community (Table 5). Information about landings and ex-vessel revenue generated by vessels owned by Ivanof Bay residents is considered confidential due to the small number of participants (Table 10).

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Shared Fisheries Business Tax ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
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 revenue⁴</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
<i>Total municipal revenue⁵</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>

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

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

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

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

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

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

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Table 4. Permits and Permit Holders by Species, Ivanof 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	1	1	0	0	0	1	0	0	0	0	0
	Fished permits	1	0	0	0	0	1	0	0	0	0	0
	% of permits fished	100%	0%	-	-	-	100%	-	-	-	-	-
	Total permit holders	1	1	0	0	0	1	0	0	0	0	0
Herring (CFEC) ²	Total permits	1	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	0%	-	-	-	-	-	-	-	-	-	-
	Total permit holders	1	0	0	0	0	0	0	0	0	0	0

Table 4 cont'd. Permits and Permit Holders by Species, Ivanof 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	2	2	0	0	0	1	0	0	0	0	0
	Fished permits	1	1	0	0	0	0	0	0	0	0	0
	% of permits fished	50%	50%	-	-	-	%	-	-	-	-	-
	Total permit holders	2	2	0	0	0	1	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	2	2	0	0	0	1	0	0	0	0	0
	Fished permits	2	2	0	0	0	1	0	0	0	0	0
	% of permits fished	100%	100%	-	-	-	100%	-	-	-	-	-
	Total permit holders	2	2	0	0	0	1	0	0	0	0	0
<i>Total CFEC Permits²</i>	<i>Permits</i>	<i>6</i>	<i>5</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>3</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
	<i>Fished permits</i>	<i>4</i>	<i>3</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>2</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
	<i>% of permits fished</i>	<i>67%</i>	<i>60%</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>67%</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>
	<i>Permit holders</i>	<i>2</i>	<i>2</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

¹National 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.]

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

Table 5. Characteristics of the Commercial Fishing Sector in Ivanof 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 Ivanof Bay ²	Total Net Pounds Landed in Ivanof Bay ^{2,5}	Total Ex-Vessel Value of Landings in Ivanof Bay ^{2,5}
2000	9	0	0	4	3	0	0	\$0
2001	3	0	0	4	3	0	0	\$0
2002	2	0	0	0	3	0	0	\$0
2003	0	0	0	0	3	0	0	\$0
2004	0	0	0	0	3	0	0	\$0
2005	0	0	0	2	2	0	0	\$0
2006	0	0	0	0	1	0	0	\$0
2007	0	0	0	0	2	0	0	\$0
2008	0	0	0	0	1	0	0	\$0
2009	0	0	0	0	1	0	0	\$0
2010	0	0	0	0	1	0	0	\$0

Note: Cells showing – indicate that the data are considered confidential.

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 Ivanof Bay: 2000-2010.

Year	Number of Halibut Quota Share Account Holders	Halibut Quota Shares Held	Halibut IFQ Allotment (Pounds)
2000	1	14,638	4,081
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 Ivanof 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 Ivanof 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 Ivanof Bay: 2000-2010.

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

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

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

² Totals only represent non-confidential data.

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

	<i>Total Net Pounds¹</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	-	-	0	0	0	-	0	0	0	0	0
Finfish	-	-	0	0	0	-	0	0	0	0	0
Halibut	-	-	0	0	0	-	0	0	0	0	0
Herring	-	-	0	0	0	-	0	0	0	0	0
Other Groundfish	-	-	0	0	0	-	0	0	0	0	0
Other Shellfish	-	-	0	0	0	-	0	0	0	0	0
Pacific Cod	-	-	0	0	0	-	0	0	0	0	0
Pollock	-	-	0	0	0	-	0	0	0	0	0
Sablefish	-	-	0	0	0	-	0	0	0	0	0
Salmon	-	-	0	0	0	-	0	0	0	0	0
<i>Total²</i>	-	-	0	0	0	-	0	0	0	0	0
	<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
Finfish	-	-	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0	\$0
Halibut	-	-	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0	\$0
Herring	-	-	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0	\$0
Other Groundfish	-	-	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0	\$0
Other Shellfish	-	-	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0	\$0
Pacific Cod	-	-	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0	\$0
Pollock	-	-	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0	\$0
Sablefish	-	-	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0	\$0
Salmon	-	-	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0	\$0
<i>Total²</i>	-	-	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0	\$0

Note: Cells showing – indicate that the data are considered confidential.

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

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

² Totals only represent non-confidential data.

Recreational Fishing

Very little sportfishing activity took place in Ivanof Bay between 2000 and 2010. No active sportfish guide businesses or licensed sport fish guides were present in the community, and no sportfishing licenses were sold locally. In some years, a small number of Ivanof Bay residents purchased sportfishing licenses in another community. No licenses were issued in 2010 (see Table 11). The Alaska Statewide Harvest Survey,⁶³ conducted by ADF&G between 2000 and 2010, did not provide information about species targeted by private anglers in Ivanof Bay. However, the survey did not sport harvest of Chinook salmon in freshwater and pink salmon in saltwater in nearby Perryville. Given the lack of sportfishing businesses, no kept/released log book data were reported for fishing charters out of Ivanof Bay between 2000 and 2010.⁶⁴

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

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

Year	Active Sport Fish Guide Businesses ¹	Sport Fish Guide Licenses ¹	Sport Fishing Licenses Sold to Residents ²	Sport Fishing Licenses Sold in Ivanof Bay ²
2000	0	0	3	0
2001	0	0	2	0
2002	0	0	1	0
2003	0	0	0	0
2004	0	0	0	0
2005	0	0	0	0
2006	0	0	0	0
2007	0	0	0	0
2008	0	0	1	0
2009	0	0	0	0
2010	0	0	0	0

⁶³ Alaska Department of Fish and Game. 2011. Alaska Sport Fishing Survey results, 2000 – 2010. ADF&G Division of Sport Fish, Alaska Statewide Harvest Survey project. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. <http://www.adfg.alaska.gov/sf/sportfishingsurvey/> (Accessed September 2011).

⁶⁴ Alaska Department of Fish and Game. 2011. Alaska sport fish charter logbook database, 2000 – 2010. ADF&G Division of Administrative Services. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

Table 11, cont'd. Sport Fishing Trends, Ivanof 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	1,664	8,870	17,749	27,227
2001	1,760	3,939	16,840	14,350
2002	4,126	5,210	15,865	18,417
2003	1,603	4,333	16,557	11,878
2004	1,948	12,721	18,813	19,360
2005	3,585	5,129	14,130	12,038
2006	2,809	4,392	22,323	8,830
2007	2,588	9,356	20,371	15,870
2008	3,436	4,298	21,797	10,207
2009	3,488	3,815	18,996	16,020
2010	2,036	3,261	19,643	13,992

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

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

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

Subsistence Fishing

Subsistence harvest remains fundamental to the Ivanof Bay economy and way of life. Residents of Ivanof Bay and other communities on the Pacific side of the Alaska Peninsula rely on subsistence food sources such as salmon, trout, marine fish, crab, clams, waterfowl, seal, moose, caribou, bear, porcupine, and berries.^{65,66}

No information is available from ADF&G regarding per capita subsistence harvest or the percentage of Ivanof Bay households utilizing various marine resources for subsistence purposes between 2000 and 2010 (Table 12). However, a survey of 1989 subsistence activity conducted by ADF&G provides information about harvest of marine invertebrates, non-salmon fish (not including halibut), and marine mammals at the household level. That year, the following species of marine invertebrates were harvested: cockles (100% of households reported harvest), sea urchin (100%), black chitons (86%), Dungeness crab (71%), pinkneck clams (71%), red chitons (71%), butter clams (57%), king crab (43%), razor clams (43%), octopus (29%), mussels (14%),

⁶⁵ LaRoche + Associates. March 2011. *Lake and Peninsula Borough Coastal Management Plan, Revised Public Hearing Draft*. Retrieved January 17, 2012 from http://alaskacoast.state.ak.us/District/DistrictPlans_Final/LakeandPen/revised_phd/vol1_rphd.pdf.

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

and Pacific littleneck clams (14%). Species of non-salmon fish (not including halibut) that were reported as harvested by Ivanof Bay households in 1989 included Dolly Varden (harvest reported by 71% of households), Pacific cod (57%), eulachon (hooligan candlefish) (43%), rainbow trout (29%), grayling (14%), herring (14%), and flounder (14%). Also in 1989, 43% of households were estimated to harvest harbor seal and 14% harvested Steller sea lion. In many cases, the number of households that reported using these subsistence resources was higher than the number of households involved in harvest, indicating the importance of sharing within the community.⁶⁷

Some data are available regarding subsistence harvest of salmon and marine mammals by Ivanof Bay residents during the 2000-2010 period. In 2000, subsistence salmon permits were issued to 15 Ivanof Bay households. This number declined to five in 2001 and one in 2002, and very little information was reported regarding subsistence permits later in the decade. Coho was the most heavily harvested salmon species in these years, followed by sockeye, pink, and chum salmon. This information about subsistence harvest of salmon is presented in Table 13. With respect to subsistence harvest of marine mammals, Ivanof Bay harvest appears to have focused primarily on harbor seal and Steller sea lion. According to data reported in ADF&G's CSIS, between three and seven harbor seal were harvested each year (for those years in which data were available), and one Steller sea lion was harvested each year in 2001 and 2002. No information was reported by management agencies regarding harvest of beluga whale, sea otter, walrus, or spotted seal between 2000 and 2010. Information about subsistence harvest of marine mammals by Ivanof Bay residents is presented in Table 15.

No information was reported about total harvest of marine invertebrates or non-salmon fish between 2000 and 2010 (Table 13), and no data were available regarding participation in the Subsistence Halibut Registration Certificates program (Table 14).

⁶⁷ 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 12. Subsistence Participation by Household and Species, Ivanof Bay: 2000-2010.

Year	% Households Participating in Salmon Subsistence	% Households Participating in Halibut Subsistence	% Households Participating in Terrestrial 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, Ivanof 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	15	12	3	181	583	288	439	n/a	n/a
2001	5	5	2	41	295	35	105	n/a	n/a
2002	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	1	1	n/a	n/a	35	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a	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, Ivanof Bay: 2003-2010.

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

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

Source: Fall, J.A. and D. Koster. 2011. Subsistence harvests of Pacific halibut in Alaska, 2009. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 357, Anchorage. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

Table 15. Subsistence Harvests of Marine Mammal Resources, Ivanof 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	n/a	n/a	n/a	n/a	n/a	3	n/a
2001	n/a	n/a	n/a	n/a	1	7	n/a
2002	n/a	n/a	n/a	n/a	1	7	n/a
2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	3	n/a
2007	n/a	n/a	n/a	n/a	n/a	3	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	3	n/a
2010	n/a	n/a	n/a	n/a	1	7	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.